SEW EURODRIVE

Manual



AC Motors

Inverter Assignments and Characteristic Curves

DRL, CMP, CFM Motors with MOVIDRIVE® and MOVIAXIS®

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1 Introduction

1.1 Contents of this publication

This manual is an addition to the "AC Motors" and "Synchronous Servomotors" price catalogs/catalogs.

The manual comprises the following information:

- Motor/inverter assignment **DRL-MOVIDRIVE®**
- Dynamic and thermal limit characteristic curves DRL-MOVIDRIVE®
- Motor/inverter assignment **DRL-MOVIAXIS®**; **PWM = 8 kHz**; V_{DCL} = 565 V and V_{DCL} = 750 V
- Dynamic and thermal limit characteristic curves DRL-MOVIAXIS®; PWM = 8 kHz; V_{DCL} = 565 V and V_{DCL} = 750 V
- Motor/inverter assignment **DRL-MOVIAXIS®**; **PWM = 4 kHz**; V_{DCL} = 565 V and V_{DCL} = 750 V
- Dynamic and thermal limit characteristic curves DRL-MOVIAXIS®; PWM = 4 kHz; V_{DCL} = 565 V and V_{DCL} = 750 V
- Motor/inverter assignment **CMP-MOVIDRIVE®**
- Motor/inverter assignment **CMP-MOVIAXIS®**
- Dynamic and thermal limit characteristic curves CMP to MOVIDRIVE® and MOVIAXIS®
- Motor/inverter assignment **CFM-MOVIDRIVE®**
- Motor/inverter assignment **CFM-MOVIAXIS®**
- Dynamic and thermal limit characteristic curves CFM-MOVIAXIS®

Additional documentation

The following price catalogs/catalogs are available from SEW-EURODRIVE in addition to this manual

- AC motors
- Synchronous servomotors

Please note that the complete range of technical documentation is available on our homepage:

www.sew-eurodrive.com

1.2 Copyright

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2 DRL Motors – Technical Data

2.1 Key to the data tables

The following table lists the short symbols used in the "Technical Data" tables.

n_N	Rated speed
M_N	Rated torque
I_N	Rated current
J_{Mot}	Mass moment of inertia of the motor
M_{pk} Dyn1	Maximum limit torque (dynamics package 1)
M_{pk} Dyn2	Maximum limit torque (dynamics package 2)
m	Weight of the motor
BE..	Brake used
m_B	Mass of the brakemotor
J_{MOT_BE}	Mass moment of inertia of the brakemotor
M_B Dyn1	Braking torque (dynamics package 1)
M_B Dyn2	Braking torque (dynamics package 2)

2.2 DRL asynchronous servomotors – technical data

System voltage: 400 V

n_N	Motor type	M_N [Nm]	I_N [A]	M_{pk} Dyn1 [Nm]	M_{pk} Dyn2 [Nm]	m [kg]	J_{Mot} [10^{-4} kgm^2]
1200	**DRL71S4**	2.7	1.18	5	8.5	8.6	4.9
	DRL71M4	4	1.6	7	14	10	7.1
	DRL80M4	9.5	2.9	14	30	15.2	21.5
	DRL90L4	15	4.8	25	46	22.5	43.5
	DRL100L4	26	8.5	40	85	30	68
	DRL132S4	42	12.6	80	150	45.5	190
	DRL132MC4	56	17.6	130	200	65	340
	DRL160M4	85	25.5	165	280	93	450
	DRL160MC4	90	28	185	320	95	590
	DRL180M4	135	38	250	430	143	1110
	DRL180L4	165	47	320	520	154	1300
	DRL180LC4	175	52	420	600	163	1680
	DRL225S4	250	72	520	770	295	2930
	DRL225MC4	290	89	770	1100	330	4330
1700	**DRL71S4**	2.7	1.63	5	8.5	8.6	4.9
	DRL71M4	4	2.2	7	14	10	7.1
	DRL80M4	9.5	4	14	30	15.2	21.5
	DRL90L4	15	6.6	25	46	22.5	43.5
	DRL100L4	26	11.4	40	85	30	68
	DRL132S4	42	17.8	80	150	45.5	190
	DRL132MC4	56	24.9	130	200	65	340
	DRL160M4	85	35	165	280	93	450
	DRL160MC4	90	36	185	320	95	590
	DRL180M4	135	52	250	430	143	1110
	DRL180L4	165	63	320	520	154	1300
	DRL180LC4	175	72	420	600	163	1680
	DRL225S4	245	97	520	770	295	2930
	DRL225MC4	280	130	770	1100	330	4330
2100	**DRL71S4**	2.6	2	5	8.5	8.6	4.9
	DRL71M4	3.8	2.7	7	14	10	7.1
	DRL80M4	9.5	5	14	30	15.2	21.5
	DRL90L4	15	8.4	25	46	22.5	43.5
	DRL100L4	25	14	40	85	30	68
	DRL132S4	41	21.4	80	150	45.5	190
	DRL132MC4	52	28.8	130	200	65	340
	DRL160M4	85	44	165	280	93	450
	DRL160MC4	88	48	185	320	95	590
	DRL180M4	130	64	250	430	143	1110
	DRL180L4	160	78	320	520	154	1300
	DRL180LC4	170	87	420	600	163	1680
	DRL225S4	235	119	520	770	295	2930
	DRL225MC4	265	142	770	1100	330	4330

Table continued on page 8 .



n_N	Motor type	M_N [Nm]	I_N [A]	BE..	M_B Dyn1 [Nm]	M_B Dyn2 [Nm]	m_B [kg][1)]	J_{Mot_BE} [10^{-4} kgm^2]
1200	**DRL71S4**	2.7	1.18	BE05	5	5	11	6,2
	DRL71M4	4	1.6	BE1	7	10	12,6	8,4
	DRL80M4	9.5	2.9	BE2	14	20	18,9	26
	DRL90L4	15	4.8	BE5	20	40	28,5	49,5
	DRL100L4	26	8.5	BE5	40	55	36	74
	DRL132S4	42	12.6	BE11	80	110	60	200
	DRL132MC4	56	17.6	BE11	110	110	79	355
	DRL160M4	85	25.5	BE20	150	200	120	500
	DRL160MC4	90	28	BE20	150	200	122	640
	DRL180M4	135	38	BE30	200	300	183	1250
	DRL180L4	165	47	BE30	300	300	194	1440
	DRL180LC4	175	52	BE32	400	400	210	1910
	DRL225S4	250	72	BE32	500	500	350	3160
	DRL225MC4	290	89	BE32	600	600	385	4560
1700	**DRL71S4**	2.7	1.63	BE05	5	5	11	6,2
	DRL71M4	4	2.2	BE1	7	10	12,6	8,4
	DRL80M4	9.5	4	BE2	14	20	18,9	26
	DRL90L4	15	6.6	BE5	20	40	28,5	49,5
	DRL100L4	26	11.4	BE5	40	55	36	74
	DRL132S4	42	17.8	BE11	80	110	60	200
	DRL132MC4	56	24.9	BE11	110	110	79	355
	DRL160M4	85	35	BE20	150	200	120	500
	DRL160MC4	90	36	BE20	150	200	122	640
	DRL180M4	135	52	BE30	200	300	183	1250
	DRL180L4	165	63	BE30	300	300	194	1440
	DRL180LC4	175	72	BE32	400	400	210	1910
	DRL225S4	245	97	BE32	500	500	350	3160
	DRL225MC4	280	130	BE32	600	600	385	4560
2100	**DRL71S4**	2.6	2	BE05	5	5	11	6,2
	DRL71M4	3.8	2.7	BE1	7	10	12,6	8,4
	DRL80M4	9.5	5	BE2	14	20	18,9	26
	DRL90L4	15	8.4	BE5	20	40	28,5	49,5
	DRL100L4	25	14	BE5	40	55	36	74
	DRL132S4	41	21.4	BE11	80	110	60	200
	DRL132MC4	52	28.8	BE11	110	110	79	355
	DRL160M4	85	44	BE20	150	200	120	500
	DRL160MC4	88	48	BE20	150	200	122	640
	DRL180M4	130	64	BE30	200	300	183	1250
	DRL180L4	160	78	BE30	300	300	194	1440
	DRL180LC4	170	87	BE32	400	400	210	1910
	DRL225S4	235	119	BE32	500	500	350	3160
	DRL225MC4	265	142	BE32	600	600	385	4560

Table continued on page 9 .

1) Applies to foot-mounted motor with brake (DRL...BE../FI..)



n_N	Motor type	M_N [Nm]	I_N [A]	M_{pk} Dyn1 [Nm]	M_{pk} Dyn2 [Nm]	m [kg]	J_{Mot} [10^{-4} kgm^2]
3000	**DRL71S4**	2.5	2.68	5	8.5	8.6	4.9
	DRL71M4	3.6	3.55	7	14	10	7.1
	DRL80M4	8.8	6.5	14	30	15.2	21.5
	DRL90L4	14	11	25	46	22.5	43.5
	DRL100L4	21	16.6	40	85	30	68
	DRL132S4	35	25.5	80	150	45.5	190
	DRL132MC4	42	34.8	130	200	65	340
	DRL160M4	79	57	165	280	93	450
	DRL160MC4	83	59	185	320	95	590
	DRL180M4	105	73	250	430	143	1110
	DRL180L4	130	90	320	520	154	1300
	DRL180LC4	140	105	420	600	163	1680
	DRL225S4	195	139	520	770	295	2930
	DRL225MC4	220	188	770	1100	330	4330



n_N	Motor type	M_N [Nm]	I_N [A]	BE..	M_B Dyn1 [Nm]	M_B Dyn2 [Nm]	m_B [kg]1)	J_{Mot_BE} [10^{-4} kgm^2]
3000	**DRL71S4**	2.5	2.68	BE05	5	5	11	6,2
	DRL71M4	3.6	3.55	BE1	7	10	12,6	8,4
	DRL80M4	8.8	6.5	BE2	14	20	18,9	26
	DRL90L4	14	11	BE5	20	40	28,5	49,5
	DRL100L4	21	16.6	BE5	40	55	36	74
	DRL132S4	35	25.5	BE11	80	110	60	200
	DRL132MC4	42	34.8	BE11	110	110	79	355
	DRL160M4	79	57	BE20	150	200	120	500
	DRL160MC4	83	59	BE20	150	200	122	640
	DRL180M4	105	73	BE30	200	300	183	1250
	DRL180L4	130	90	BE30	300	300	194	1440
	DRL180LC4	140	105	BE32	400	400	210	1910
	DRL225S4	195	139	BE32	500	500	350	3160
	DRL225MC4	220	188	BE32	600	600	385	4560

1) Applies to foot-mounted motor with brake (DRL...BE../FI..)

3 Combinations, Characteristic Curves: DRL Motors – MOVIDRIVE®

3.1 Combination overview: DRL motors with MOVIDRIVE®

1. Rated speed n_N = 1200 1/min, dynamics package 1

Assignment of MOVIDRIVE® MDX61B0005-5A3 ... MDX61B0110-503 (size 0 - 2):

Motor			MOVIDRIVE® MDX61B...-5_3 (AC 400/500 V units) in CFC operating modes (P700)										
			0005	0008	0011	0014	0015	0022	0030	0040	0055	0075	0110
DRL71S4	M_{max}	Nm	5				5						
	n_{base}	1/min	834				843						
DRL71M4	M_{max}	Nm	7				7						
	n_{base}	1/min	849				849						
DRL80M4	M_{max}	Nm	14	14	14		14						
	n_{base}	1/min	890	966	984		984						
DRL90L4	M_{max}	Nm				25	19.7	25	25				
	n_{base}	1/min				978	996	990	1037				
DRL100L4	M_{max}	Nm						25.7	33.1	40			
	n_{base}	1/min						1166	1084	1043			
DRL132S4	M_{max}	Nm								48.2	64.8	80	80
	n_{base}	1/min								1049	966	903	908
DRL132MC4	M_{max}	Nm										80.9	125
	n_{base}	1/min										1059	947
DRL160M4	M_{max}	Nm											123
	n_{base}	1/min											1032
DRL160MC4	M_{max}	Nm											119
	n_{base}	1/min											1085

Assignment of MOVIDRIVE® MDX61B0150-503 ... MDX61B1320-503 (size 3 - 6):

Motor			MOVIDRIVE® MDX61B...-5_3 (AC 400/500 V units) in CFC operating modes (P700)									
			0150	0220	0300	0370	0450	0550	0750	0900	1100	1320
DRL132MC4	M_{max}	Nm	130									
	n_{base}	1/min	996									
DRL160M4	M_{max}	Nm	165	165								
	n_{base}	1/min	931	940								
DRL160MC4	M_{max}	Nm	164	185	185							
	n_{base}	1/min	1006	1032	1032							
DRL180M4	M_{max}	Nm	174	250	250							
	n_{base}	1/min	1069	999	1065							
DRL180L4	M_{max}	Nm	171	255	320	320						
	n_{base}	1/min	1089	1022	999	1062						
DRL180LC4	M_{max}	Nm		243	324	397	420					
	n_{base}	1/min		1065	1009	952	979					
DRL225S4	M_{max}	Nm			319	393	484	520				
	n_{base}	1/min			1110	1069	1110	1025				
DRL225MC4	M_{max}	Nm					466	558	700	770		
	n_{base}	1/min					1031	996	937	937		



2. Rated speed n_N = 1200 1/min, dynamics package 2

Assignment of MOVIDRIVE® MDX61B0005-5A3 ... MDX61B0110-503 (size 0 - 2):

Motor			MOVIDRIVE® MDX61B...-5_3 (AC 400/500 V units) in CFC operating modes (P700)										
			0005	0008	0011	0014	0015	0022	0030	0040	0055	0075	0110
DRL71S4	M_{max}	Nm	8.5				8.5						
	n_{base}	1/min	457				457						
DRL71M4	M_{max}	Nm	11.6	14			14						
	n_{base}	1/min	521	369			369						
DRL80M4	M_{max}	Nm	14	17.1	22.4	29.2	21.7	30					
	n_{base}	1/min	890	808	668	498	691	480					
DRL90L4	M_{max}	Nm				27.4	19.7	28.4	36.8	46			
	n_{base}	1/min				896	996	884	773	650			
DRL100L4	M_{max}	Nm						25.3	33.1	45.7	60.5	77.8	
	n_{base}	1/min						1166	1084	949	785	609	
DRL132S4	M_{max}	Nm								48.2	64.8	83.8	126
	n_{base}	1/min								1049	966	874	664
DRL132MC4	M_{max}	Nm										80.9	125
	n_{base}	1/min										1059	947
DRL160M4	M_{max}	Nm											123
	n_{base}	1/min											1032
DRL160MC4	M_{max}	Nm											119
	n_{base}	1/min											1085

Assignment of MOVIDRIVE® MDX61B0150-503 ... MDX61B1320-503 (size 3 - 6):

Motor			MOVIDRIVE® MDX61B...-5_3 (AC 400/500 V units) in CFC operating modes (P700)									
			0150	0220	0300	0370	0450	0550	0750	0900	1100	1320
DRL132S4	M_{max}	Nm	150									
	n_{base}	1/min	561									
DRL132MC4	M_{max}	Nm	169	200								
	n_{base}	1/min	835	752								
DRL160M4	M_{max}	Nm	167	241	280							
	n_{base}	1/min	922	747	663							
DRL160MC4	M_{max}	Nm	164	240	314	320						
	n_{base}	1/min	1006	870	742	733						
DRL180M4	M_{max}	Nm	174	255	335	409	430					
	n_{base}	1/min	1069	979	886	800	777					
DRL180L4	M_{max}	Nm	171	255	337	413	505	520				
	n_{base}	1/min	1089	1022	952	886	806	793				
DRL180LC4	M_{max}	Nm		243	324	397	488	578	600			
	n_{base}	1/min		1065	1009	952	879	810	793			
DRL225S4	M_{max}	Nm			319	393	484	574	713	770		
	n_{base}	1/min			1110	1069	1010	955	864	829		
DRL225MC4	M_{max}	Nm					466	558	700	922	1089	1100
	n_{base}	1/min					1031	996	937	843	776	773



3. Rated speed n_N = 1700 1/min, dynamics package 1

Assignment of MOVIDRIVE® MDX61B0005-5A3 ... MDX61B0110-503 (size 0 - 2):

Motor			MOVIDRIVE® MDX61B...-5_3 (AC 400/500 V units) in CFC operating modes (P700)										
			0005	0008	0011	0014	0015	0022	0030	0040	0055	0075	0110
DRL71S4	M_{max}	Nm	5				5						
	n_{base}	1/min	1347				1347						
DRL71M4	M_{max}	Nm	7				7						
	n_{base}	1/min	1347				1347						
DRL80M4	M_{max}	Nm			14	14	14	14					
	n_{base}	1/min			1441	1564	1412	1564					
DRL90L4	M_{max}	Nm						19.8	25	25			
	n_{base}	1/min						1429	1400	1564			
DRL100L4	M_{max}	Nm							23.3	32.8	40	40	
	n_{base}	1/min							1669	1558	1517	1529	
DRL132S4	M_{max}	Nm									44.6	58.4	80
	n_{base}	1/min									1547	1464	1362
DRL132MC4	M_{max}	Nm											86.2
	n_{base}	1/min											1528
DRL160M4	M_{max}	Nm											87.3
	n_{base}	1/min											1573

Assignment of MOVIDRIVE® MDX61B0150-503 ... MDX61B1320-503 (size 3 - 6):

Motor			MOVIDRIVE® MDX61B...-5_3 (AC 400/500 V units) in CFC operating modes (P700)									
			0150	0220	0300	0370	0450	0550	0750	0900	1100	1320
DRL132S4	M_{max}	Nm										
	n_{base}	1/min										
DRL132MC4	M_{max}	Nm	117	130								
	n_{base}	1/min	1425	1484								
DRL160M4	M_{max}	Nm	119	165								
	n_{base}	1/min	1476	1353								
DRL160MC4	M_{max}	Nm	124	184	185							
	n_{base}	1/min	1406	1278	1362							
DRL180M4	M_{max}	Nm		181	240	250	250					
	n_{base}	1/min		1500	1421	1517	1530					
DRL180L4	M_{max}	Nm		181	243	299	320	320				
	n_{base}	1/min		1497	1441	1381	1464	1507				
DRL180LC4	M_{max}	Nm			224	278	344	409	420			
	n_{base}	1/min			1534	1487	1427	1361	1441			
DRL225S4	M_{max}	Nm				279	346	412	515	520		
	n_{base}	1/min				1576	1529	1476	1391	1467		
DRL225MC4	M_{max}	Nm							453	606	719	770
	n_{base}	1/min							1576	1494	1429	1447

4. Rated speed n_N = 1700 1/min, dynamics package 1

Assignment of MOVIDRIVE® MDX61B0005-5A3 ... MDX61B0110-503 (size 0 - 2):

Motor			MOVIDRIVE® MDX61B...-5_3 (AC 400/500 V units) in CFC operating modes (P700)										
			0005	0008	0011	0014	0015	0022	0030	0040	0055	0075	0110
DRL71S4	M_{max}	Nm	7.6	8.5			8.5						
	n_{base}	1/min	960	949			849						
DRL71M4	M_{max}	Nm	8.2	10	14	14	13	14					
	n_{base}	1/min	1195	1043	732	849	914	849					
DRL80M4	M_{max}	Nm			20.9	20.3	15.4	21.6	27.8	30			
	n_{base}	1/min			1136	1242	1294	1119	943	955			
DRL90L4	M_{max}	Nm						19.8	26.2	36.9	46		
	n_{base}	1/min						1429	1335	1236	1037		
DRL100L4	M_{max}	Nm							23.3	33.3	43.8	56.5	85
	n_{base}	1/min							1669	1564	1412	1248	896
DRL132S4	M_{max}	Nm									44.6	58.4	89.2
	n_{base}	1/min									1547	1464	1269
DRL132MC4	M_{max}	Nm											86.2
	n_{base}	1/min											1528
DRL160M4	M_{max}	Nm											87.3
	n_{base}	1/min											1573

Assignment of MOVIDRIVE® MDX61B0150-503 ... MDX61B1600-503 (size 3 - 7):

Motor			MOVIDRIVE® MDX61B...-5_3 (AC 400/500 V units) in CFC operating modes (P700)										
			0150	0220	0300	0370	0450	0550	0750	0900	1100	1320	1600
DRL132S4	M_{max}	Nm	119.4	150									
	n_{base}	1/min	1079	903									
DRL132MC4	M_{max}	Nm	117	171	200								
	n_{base}	1/min	1425	1240	1147								
DRL160M4	M_{max}	Nm	119	174	227	278	280						
	n_{base}	1/min	1476	1305	1138	993	988						
DRL160MC4	M_{max}	Nm	124	184	243	297	320						
	n_{base}	1/min	1406	1278	1151	1037	988						
DRL180M4	M_{max}	Nm		181	240	294	360	425	430				
	n_{base}	1/min		1500	1421	1341	1241	1145	1138				
DRL180L4	M_{max}	Nm		181	243	299	368	436	520				
	n_{base}	1/min		1497	1441	1381	1308	1231	1138				
DRL180LC4	M_{max}	Nm			224	278	344	409	509	600			
	n_{base}	1/min			1534	1487	1427	1361	1258	1165			
DRL225S4	M_{max}	Nm				279	346	412	515	678	770		
	n_{base}	1/min				1576	1529	1576	1391	1253	1177		
DRL225MC4	M_{max}	Nm							453	606	719	904	1089
	n_{base}	1/min							1576	1494	1429	1318	1210

5. Rated speed n_N = 2100 1/min, dynamics package 1

Assignment of MOVIDRIVE® MDX61B0005-5A3 ... MDX61B0110-503 (size 0 - 2):

Motor			MOVIDRIVE® MDX61B...-5_3 (AC 400/500 V units) in CFC operating modes (P700)										
			0005	0008	0011	0014	0015	0022	0030	0040	0055	0075	0110
DRL71S4	M_{max}	Nm	5				5						
	n_{base}	1/min	1804				1804						
DRL71M4	M_{max}	Nm		7	7		7						
	n_{base}	1/min		1763	1787		1787						
DRL80M4	M_{max}	Nm				14	11.9	14	14				
	n_{base}	1/min				1939	1816	1968	2109				
DRL90L4	M_{max}	Nm							19.9	25	25		
	n_{base}	1/min							1863	1933	2121		
DRL100L4	M_{max}	Nm								25.2	34.2	40	40
	n_{base}	1/min								2127	2003	1998	2044
DRL132S4	M_{max}	Nm										46.8	72.2
	n_{base}	1/min										1909	1728

Assignment of MOVIDRIVE® MDX61B0150-503 ... MDX61B1600-503 (size 3 - 7):

Motor			MOVIDRIVE® MDX61B...-5_3 (AC 400/500 V units) in CFC operating modes (P700)										
			0150	0220	0300	0370	0450	0550	0750	0900	1100	1320	1600
DRL132S4	M_{max}	Nm	80										
	n_{base}	1/min	1713										
DRL132MC4	M_{max}	Nm	94.8	130	130								
	n_{base}	1/min	1855	1787	1850								
DRL160M4	M_{max}	Nm	93.4	137	165								
	n_{base}	1/min	1968	1810	1735								
DRL160MC4	M_{max}	Nm		134	178	185							
	n_{base}	1/min		1898	1775	1885							
DRL180M4	M_{max}	Nm		142	190	233	250	250					
	n_{base}	1/min		1955	1885	1816	1915	1985					
DRL180L4	M_{max}	Nm			187	232	287	320	320				
	n_{base}	1/min			1912	1866	1799	1829	1955				
DRL180LC4	M_{max}	Nm					274	327	409	420			
	n_{base}	1/min					1862	1806	1706	1812			
DRL225S4	M_{max}	Nm						322	405	520	520		
	n_{base}	1/min						1960	1883	1795	1872		
DRL225MC4	M_{max}	Nm								519	618	770	770
	n_{base}	1/min								1790	1725	1637	1681

6. Rated speed n_N = 2100 1/min, dynamics package 2

Assignment of MOVIDRIVE® MDX61B0005-5A3 ... MDX61B0110-503 (size 0 - 2):

Motor			MOVIDRIVE® MDX61B...-5_3 (AC 400/500 V units) in CFC operating modes (P700)										
			0005	0008	0011	0014	0015	0022	0030	0040	0055	0075	0110
DRL71S4	M_{max}	Nm	6	7.2	8.5		8.5						
	n_{base}	1/min	1582	1388	1207		1207						
DRL71M4	M_{max}	Nm		7.9	10.3	13.5	10	13.9	14				
	n_{base}	1/min		1611	1377	1089	1406	1054	1048				
DRL80M4	M_{max}	Nm				16.4	11.9	17	21.9	30			
	n_{base}	1/min				1681	1816	1664	1505	1253			
DRL90L4	M_{max}	Nm							19.9	28.3	38	46	
	n_{base}	1/min							1863	1728	1558	1435	
DRL100L4	M_{max}	Nm								25.2	34.2	44.4	67.2
	n_{base}	1/min								2127	2003	1851	1494
DRL132S4	M_{max}	Nm										46.8	72.2
	n_{base}	1/min										1909	1728

Assignment of MOVIDRIVE® MDX61B0150-503 ... MDX61B2000-503 (size 3 - 7):

Motor			MOVIDRIVE® MDX61B...-5_3 (AC 400/500 V units) in CFC operating modes (P700)											
			0150	0220	0300	0370	0450	0550	0750	0900	1100	1320	1600	2000
DRL100L4	M_{max}	Nm	85											
	n_{base}	1/min	1242											
DRL132S4	M_{max}	Nm	97	140	150									
	n_{base}	1/min	1538	1235	1171									
DRL132MC4	M_{max}	Nm	94.8	139	183	200								
	n_{base}	1/min	1855	1684	1508	1440								
DRL160M4	M_{max}	Nm	93.4	137	180	221	270	280						
	n_{base}	1/min	1968	1810	1643	1494	1322	1287						
DRL160MC4	M_{max}	Nm		134	178	219	268	317	320					
	n_{base}	1/min		1898	1775	1661	1524	1393	1388					
DRL180M4	M_{max}	Nm		142	190	233	286	339	421	430				
	n_{base}	1/min		1955	1885	1816	1723	1627	1480	1464				
DRL180L4	M_{max}	Nm			187	232	287	341	425	520				
	n_{base}	1/min			1912	1866	1799	1729	1620	1490				
DRL180LC4	M_{max}	Nm					274	327	409	539	600			
	n_{base}	1/min					1862	1806	1710	1550	1474			
DRL225S4	M_{max}	Nm						322	405	535	633	770		
	n_{base}	1/min						1960	1883	1752	1652	1511		
DRL225MC4	M_{max}	Nm								519	618	780	940	1100
	n_{base}	1/min								1790	1725	1617	1508	1403



7. Rated speed n_N = 3000 1/min, dynamics package 1

Assignment of MOVIDRIVE® MDX61B0005-5A3 ... MDX61B0110-503 (size 0 - 2):

Motor			MOVIDRIVE® MDX61B...-5_3 (AC 400/500 V units) in CFC operating modes (P700)										
			0005	0008	0011	0014	0015	0022	0030	0040	0055	0075	0110
DRL71S4	M_{max}	Nm		5	5		5						
	n_{base}	1/min		2554	2654		2654						
DRL71M4	M_{max}	Nm			7	7	7	7					
	n_{base}	1/min			2519	2630	2478	2630					
DRL80M4	M_{max}	Nm						11.8	14	14			
	n_{base}	1/min						2595	2424	3140			
DRL90L4	M_{max}	Nm								19.8	25	25	
	n_{base}	1/min								2619	2677	3035	
DRL100L4	M_{max}	Nm									24.1	31.8	40
	n_{base}	1/min									2988	2859	2912
DRL132S4	M_{max}	Nm											50
	n_{base}	1/min											2710

Assignment of MOVIDRIVE® MDX61B0150-503 ... MDX61B2500-503 (size 3 - 7):

Motor			MOVIDRIVE® MDX61B...-5_3 (AC 400/500 V units) in CFC operating modes (P700)												
			0150	0220	0300	0370	0450	0550	0750	0900	1100	1320	1600	2000	2500
DRL100L4	M_{max}	Nm	40												
	n_{base}	1/min	2912												
DRL132S4	M_{max}	Nm	68	80											
	n_{base}	1/min	2543	2558											
DRL132MC4	M_{max}	Nm		96.4	128	130									
	n_{base}	1/min		2666	2504	2595									
DRL160M4	M_{max}	Nm		97.6	129	159	165								
	n_{base}	1/min		2733	2584	2439	2447								
DRL160MC4	M_{max}	Nm			136	168	185	185	185						
	n_{base}	1/min			2456	2351	2425	2460	2513						
DRL180M4	M_{max}	Nm				165	204	242	250	250					
	n_{base}	1/min				2689	2613	2530	2755	2812					
DRL180L4	M_{max}	Nm					205	246	308	320					
	n_{base}	1/min					2609	2553	2457	2722					
DRL180LC4	M_{max}	Nm						227	287	381	420	420			
	n_{base}	1/min						2702	2619	2477	2506	2593			
DRL225S4	M_{max}	Nm							287	383	455	520	520		
	n_{base}	1/min							2753	2639	2548	2543	2610		
DRL225MC4	M_{max}	Nm										508	618	770	770
	n_{base}	1/min										2718	2619	2510	2630



8. Rated speed n_N = 3000 1/min, dynamics package 2

Assignment of MOVIDRIVE® MDX61B0005-5A3 ... MDX61B0110-503 (size 0 - 2):

Motor			MOVIDRIVE® MDX61B...-5_3 (AC 400/500 V units) in CFC operating modes (P700)										
			0005	0008	0011	0014	0015	0022	0030	0040	0055	0075	0110
DRL71S4	M_{max}	Nm		5.1	6.7	8.5	6.5	8.5					
	n_{base}	1/min		2502	2185	1869	2232	1869					
DRL71M4	M_{max}	Nm			7.3	9.6	7	9.9	12.7	14			
	n_{base}	1/min			2443	2162	2478	2127	1798	1664			
DRL80M4	M_{max}	Nm						11.8	15.5	21.6	28.7	30	
	n_{base}	1/min						2595	2472	2250	1986	1933	
DRL90L4	M_{max}	Nm								19.8	27.1	35.5	46
	n_{base}	1/min								2619	2478	2314	2121
DRL100L4	M_{max}	Nm									24.1	31.8	48.8
	n_{base}	1/min									2988	2859	2537
DRL132S4	M_{max}	Nm											50
	n_{base}	1/min											2710

Assignment of MOVIDRIVE® MDX61B0150-503 ... MDX61B2500-503 (size 3 - 7):

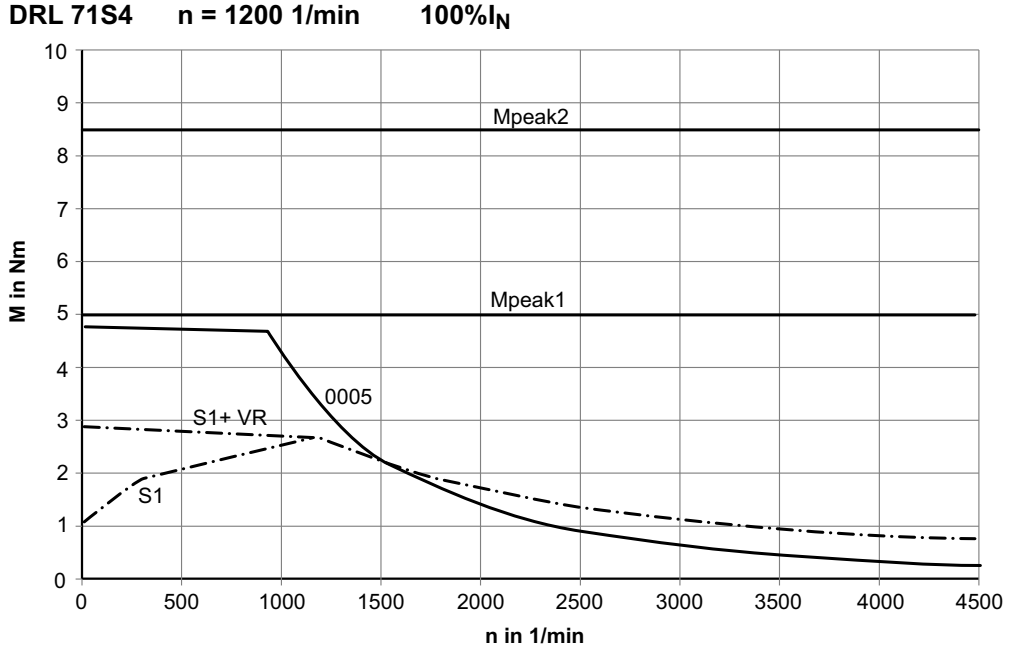
Motor			MOVIDRIVE® MDX61B...-5_3 (AC 400/500 V units) in CFC operating modes (P700)												
			0150	0220	0300	0370	0450	0550	0750	0900	1100	1320	1600	2000	2500
DRL100L4	M_{max}	Nm	65.5	85											
	n_{base}	1/min	2209	1851											
DRL132S4	M_{max}	Nm	68	98.9	129	150									
	n_{base}	1/min	2543	2236	1943	1762									
DRL132MC4	M_{max}	Nm		96.4	128	157	192	200							
	n_{base}	1/min		2666	2504	2348	2163	2119							
DRL160M4	M_{max}	Nm		97.6	129	159	194	230	280						
	n_{base}	1/min		2733	2584	1439	2254	2078	1850						
DRL160MC4	M_{max}	Nm			136	168	207	245	305	320					
	n_{base}	1/min			2456	2351	2214	2078	1872	1828					
DRL180M4	M_{max}	Nm				165	204	242	302	398	430				
	n_{base}	1/min				2689	2613	2530	2393	2168	2091				
DRL180L4	M_{max}	Nm					205	246	308	407	481	520			
	n_{base}	1/min					2609	2553	2457	2287	2158	2091			
DRL180LC4	M_{max}	Nm						227	287	381	451	567	600		
	n_{base}	1/min						2702	2619	2477	2364	2174	2118		
DRL225S4	M_{max}	Nm							287	383	455	574	691	770	
	n_{base}	1/min							2753	2639	2548	2387	2223	2115	
DRL225MC4	M_{max}	Nm										508	618	791	985
	n_{base}	1/min										2718	2619	2452	2261

3.2 Limit characteristic curves: DRL – MOVIDRIVE®

Key to the dynamic and thermal limit characteristic curves

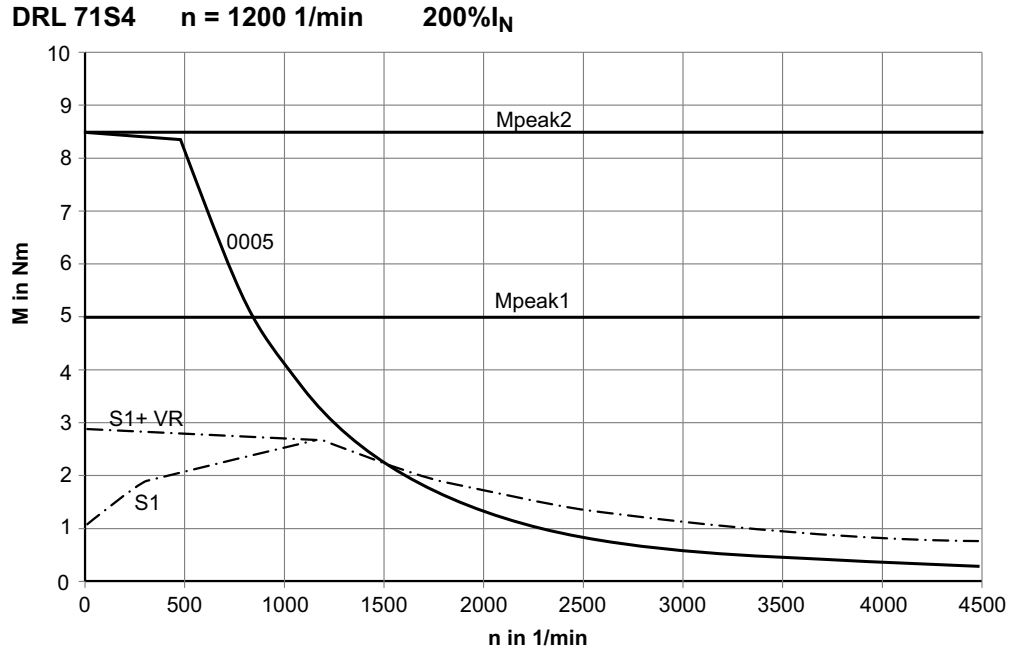
S1	S1 characteristic curve (thermal limit characteristic curve)
S1+VR	S1 characteristic curve with forced cooling fan (thermal limit characteristic curve)
M_{peak1}	Maximum limit torque of dynamics package 1
M_{peak2}	Maximum limit torque of dynamics package 2
0005	0.5 kW inverter output
0008	0.75 kW inverter output
0011	1.1 kW inverter output
0014	1.4 kW inverter output
0015	1.5 kW inverter output
0022	2.2 kW inverter output
0030	3 kW inverter output
0040	4 kW inverter output
0055	5.5 kW inverter output
0075	7.5 kW inverter output
0110	11 kW inverter output
0150	15 kW inverter output
0220	22 kW inverter output
0300	30 kW inverter output
0370	37 kW inverter output
0450	45 kW inverter output
0550	55 kW inverter output
0750	75 kW inverter output
0900	90 kW inverter output
1100	110 kW inverter output
1320	132 kW inverter output
1600	160 kW inverter output
2000	200 kW inverter output
2500	250 kW inverter output

DRL71S4, n_N = 1200 1/min, 100% I_N



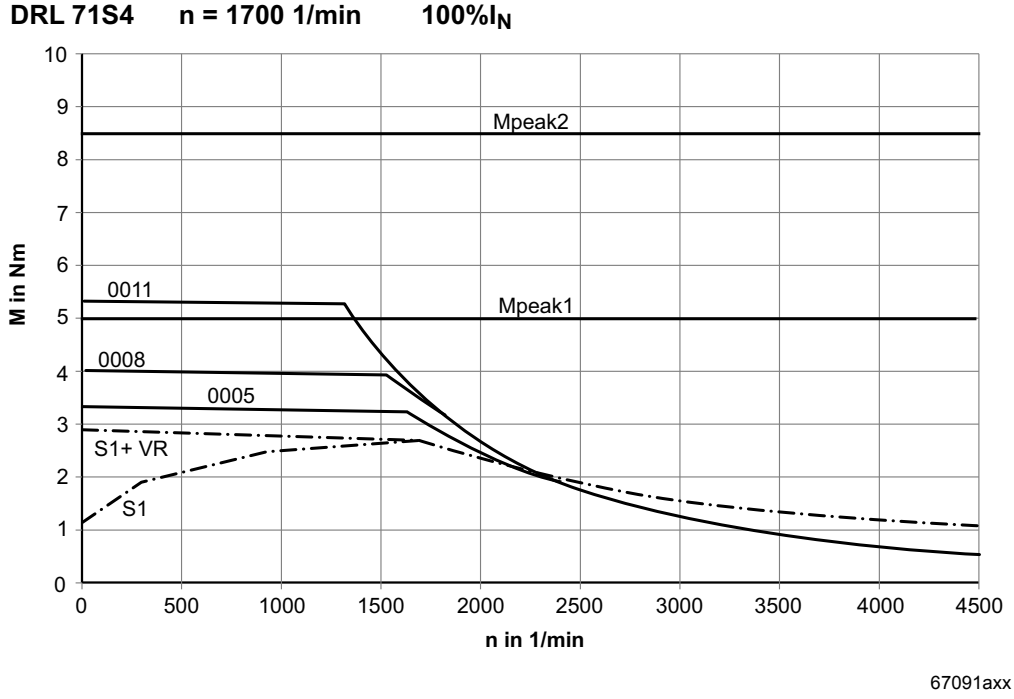
67089axx

DRL71S4, n_N = 1200 1/min, 200% I_N



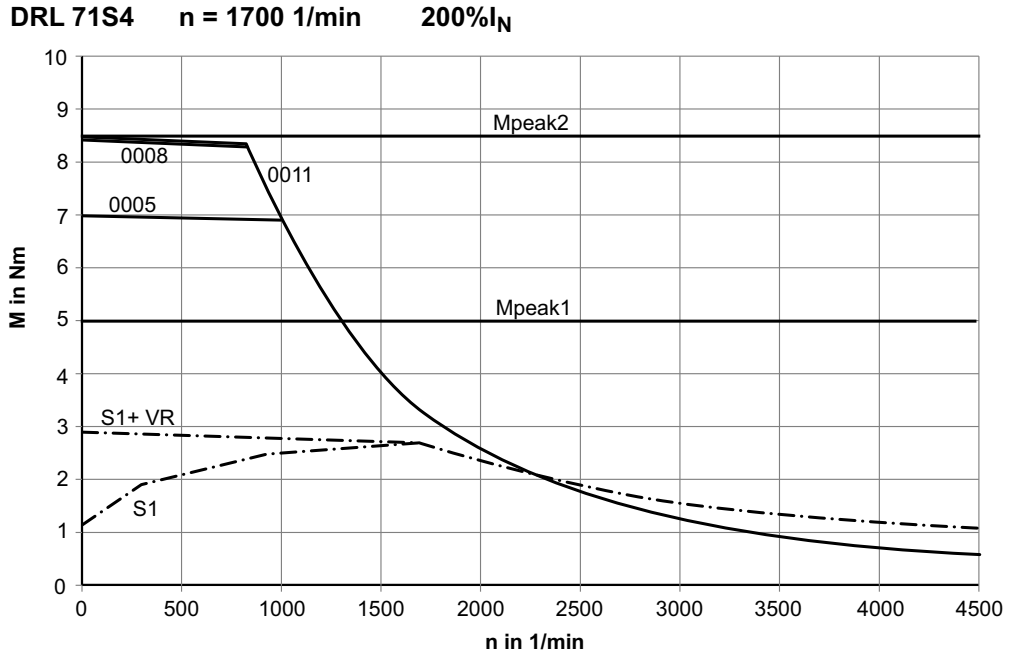
67090axx

DRL71S4, n_N = 1700 1/min, 100% I_N



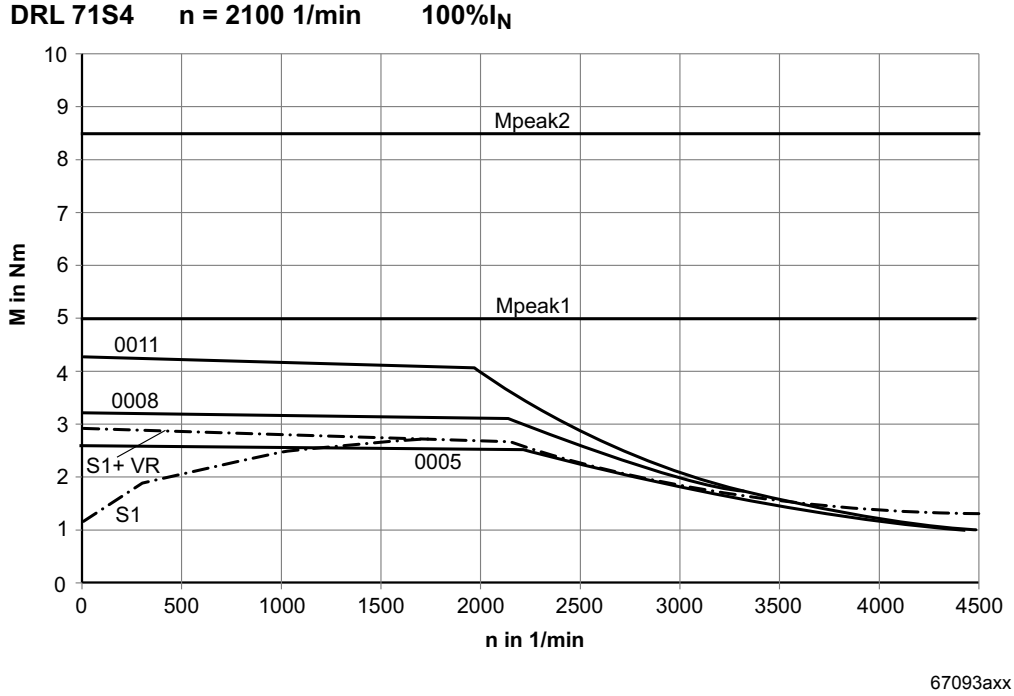
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DRL71S4, n_N = 1700 1/min, 200% I_N



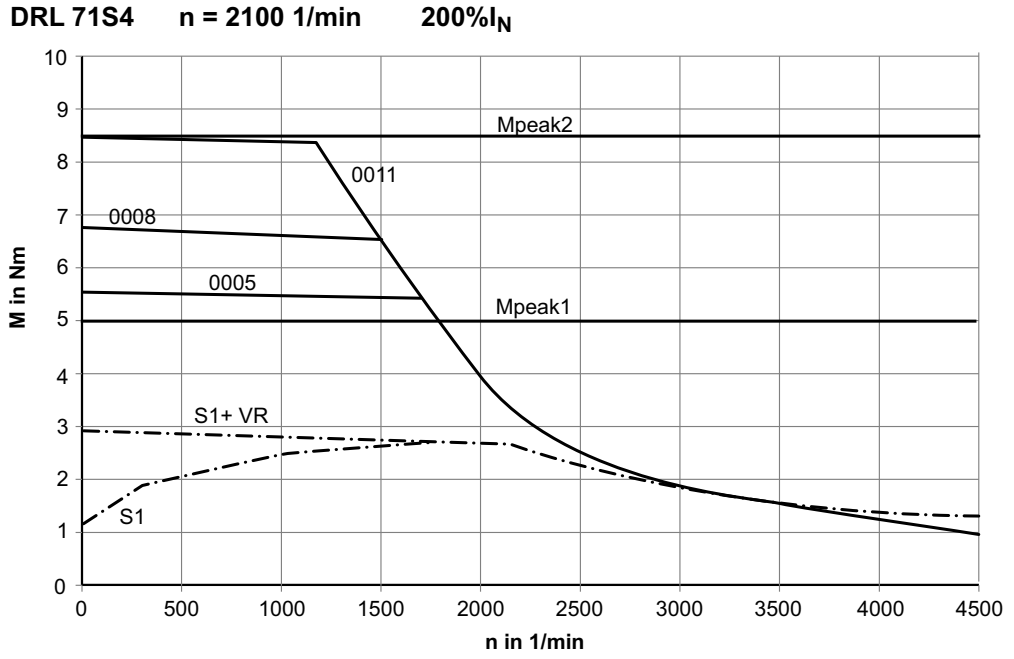
67092axx

DRL71S4, n_N = 2100 1/min, 100% I_N



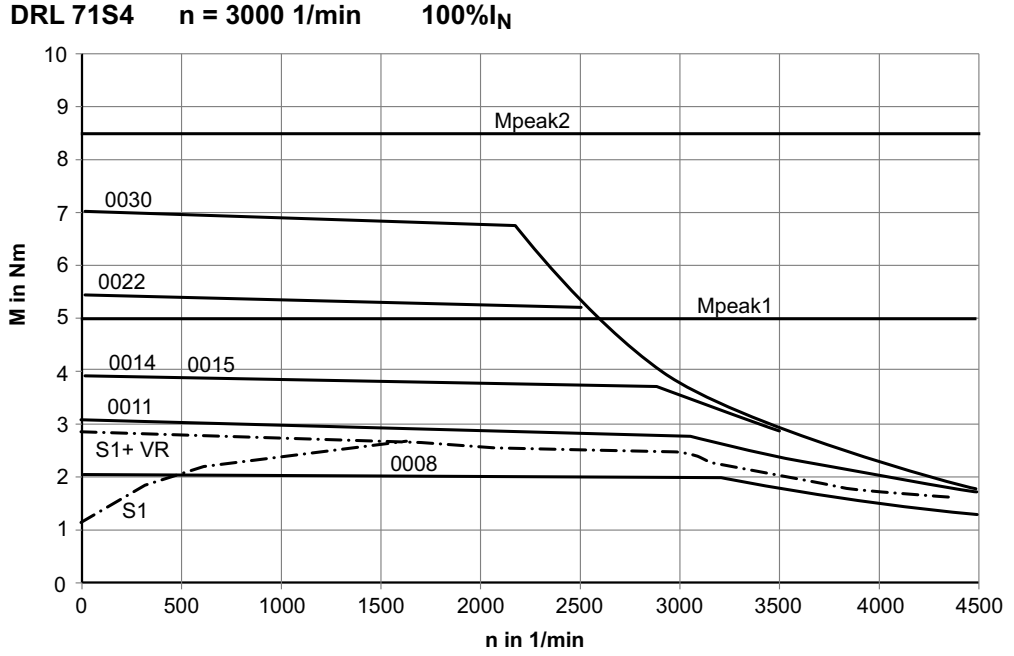
67093axx

DRL71S4, n_N = 2100 1/min, 200% I_N



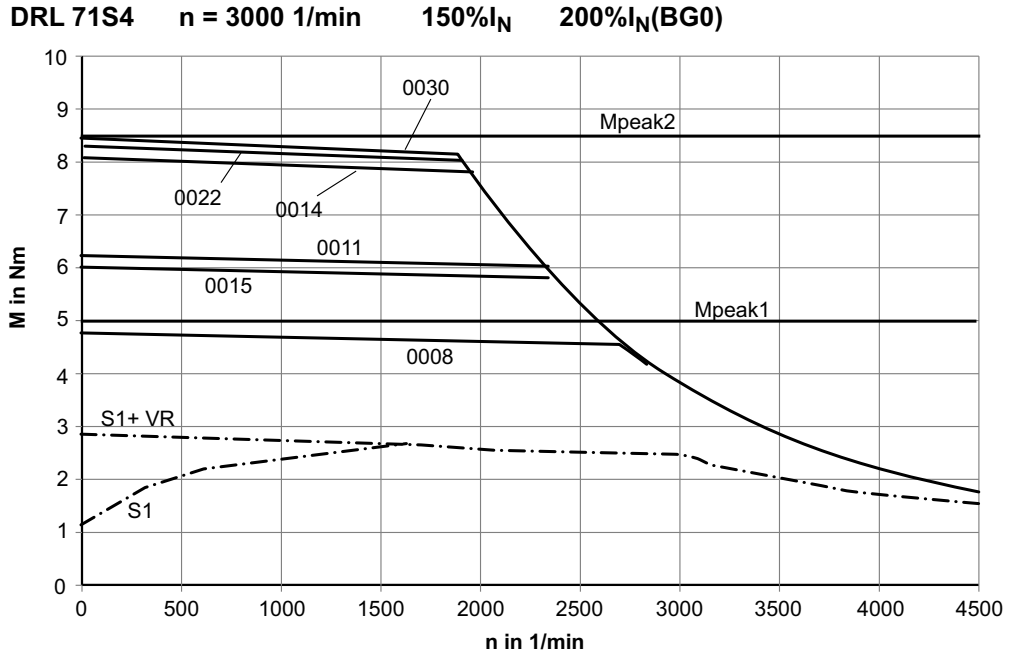
67094axx

DRL71S4, n_N = 3000 1/min, 100% I_N



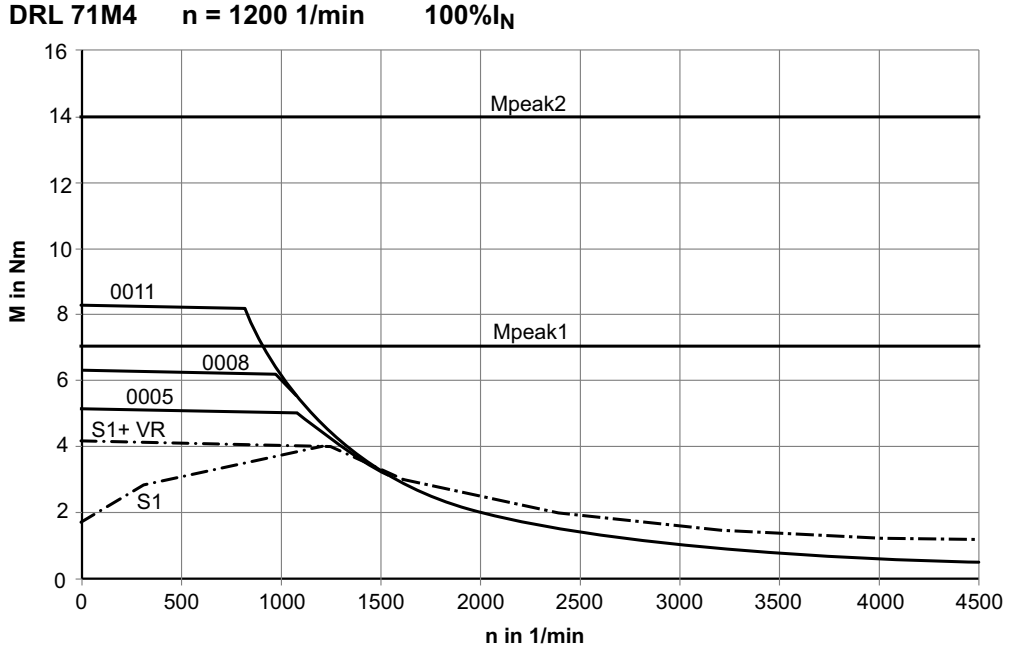
67095axx

DRL71S4, n_N = 3000 1/min, 200% I_N



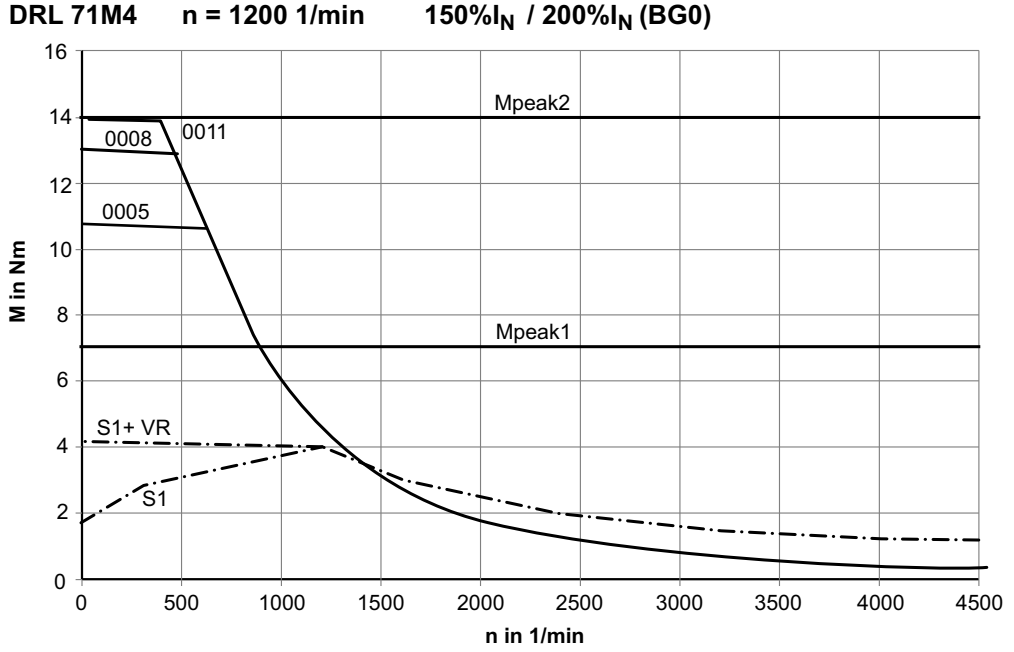
67096axx

DRL71M4, n_N = 1200 1/min, 100% I_N



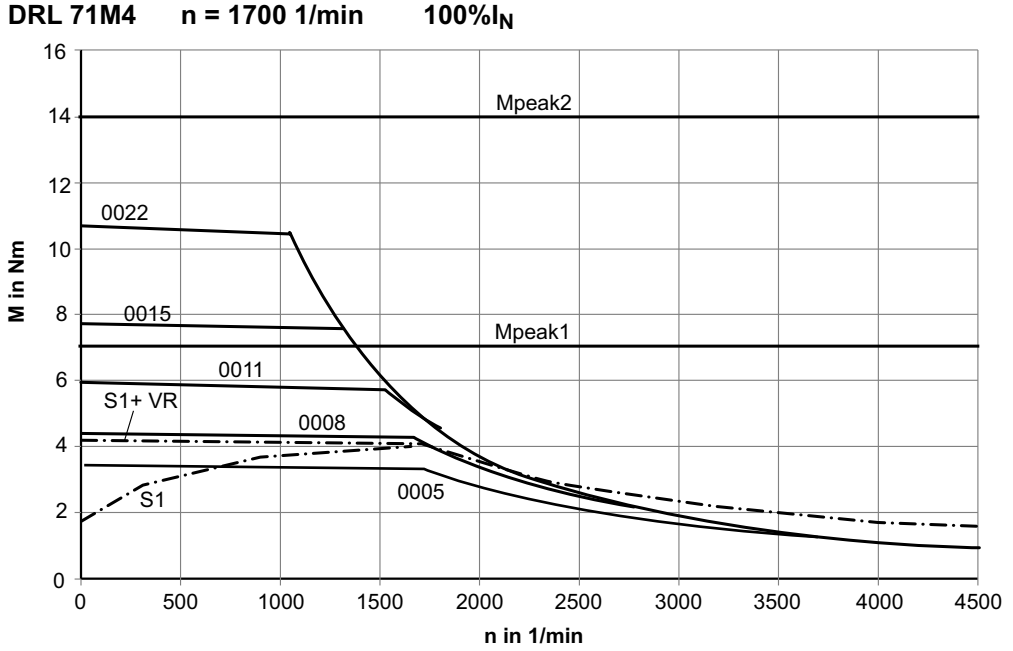
67081axx

DRL71M4, n_N = 1200 1/min, 150% or 200% I_N



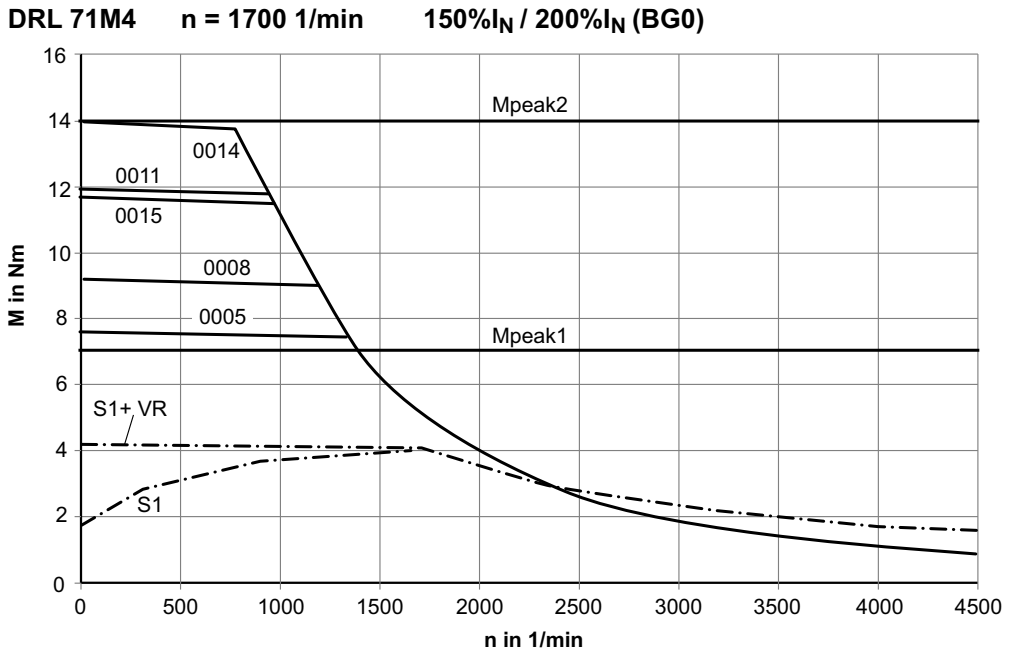
67082axx

DRL71M4, n_N = 1700 1/min, 100% I_N



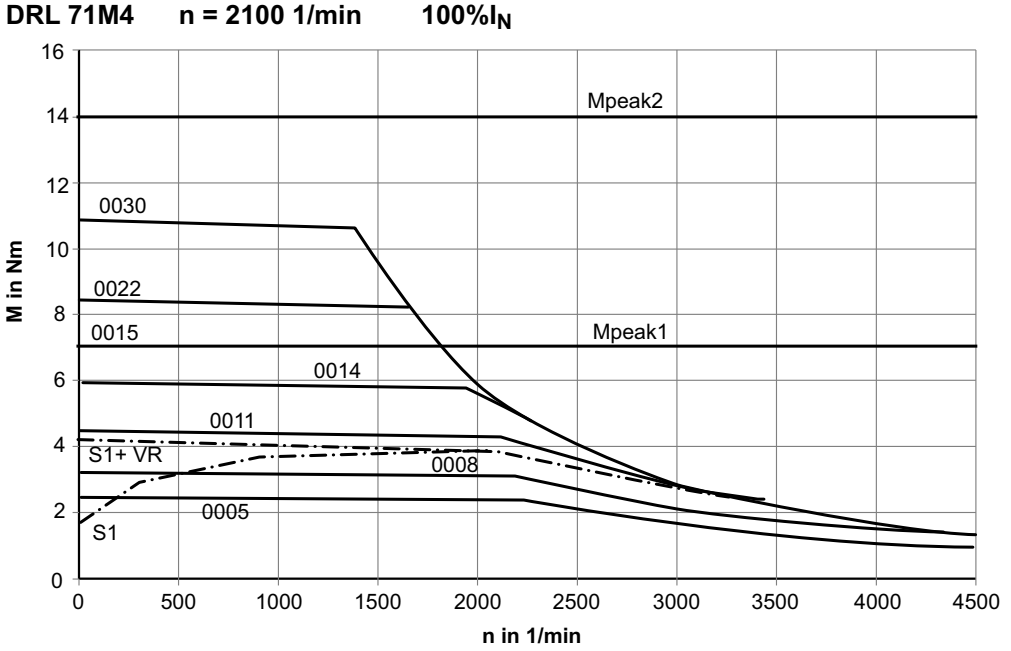
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DRL71M4, n_N = 1700 1/min, 150% or 200% I_N



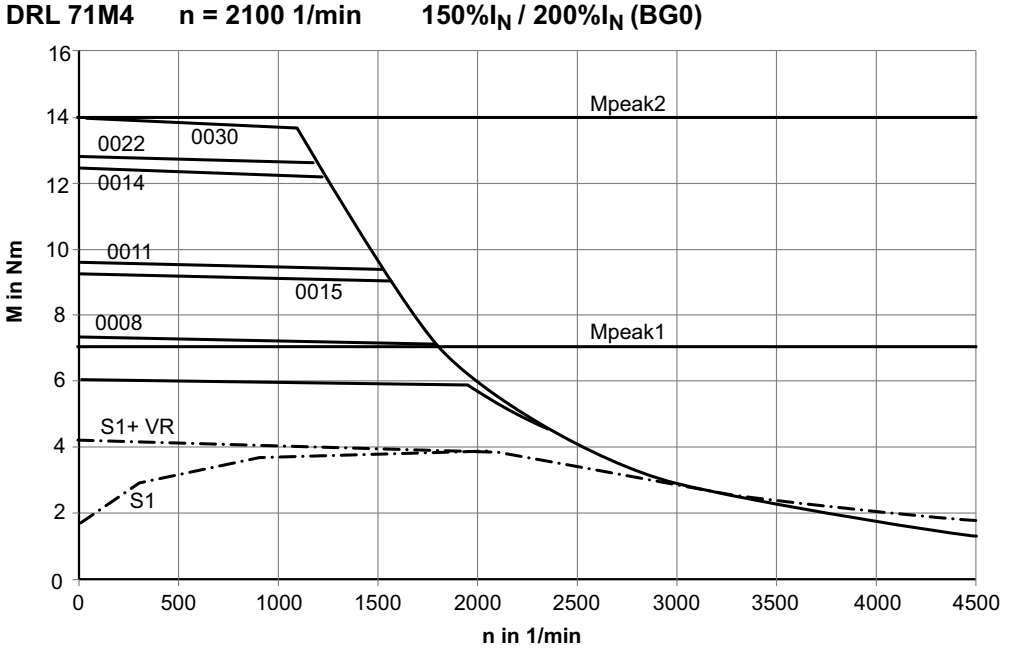
67084axx

DRL71M4, n_N = 2100 1/min, 100% I_N



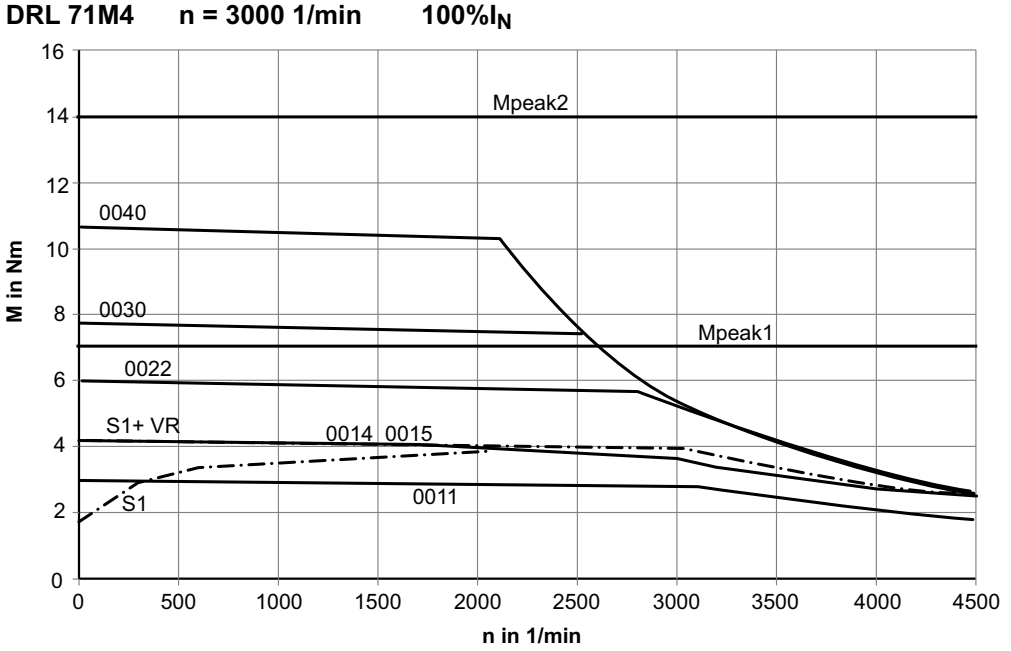
67085axx

DRL71M4, n_N = 2100 1/min, 150% or 200% I_N



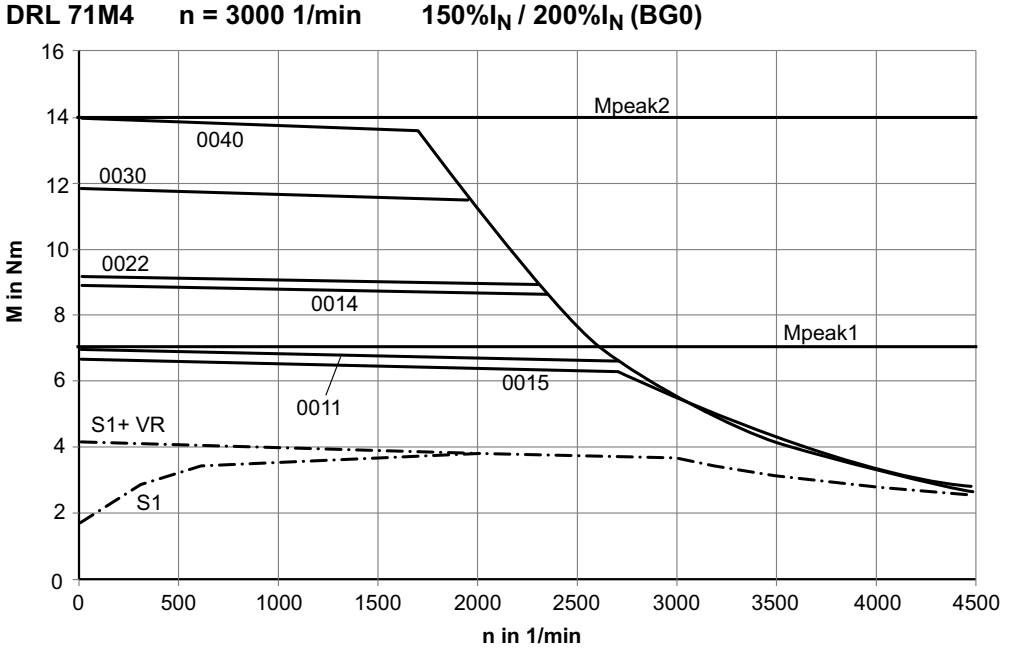
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DRL71M4, n_N = 3000 1/min, 100% I_N



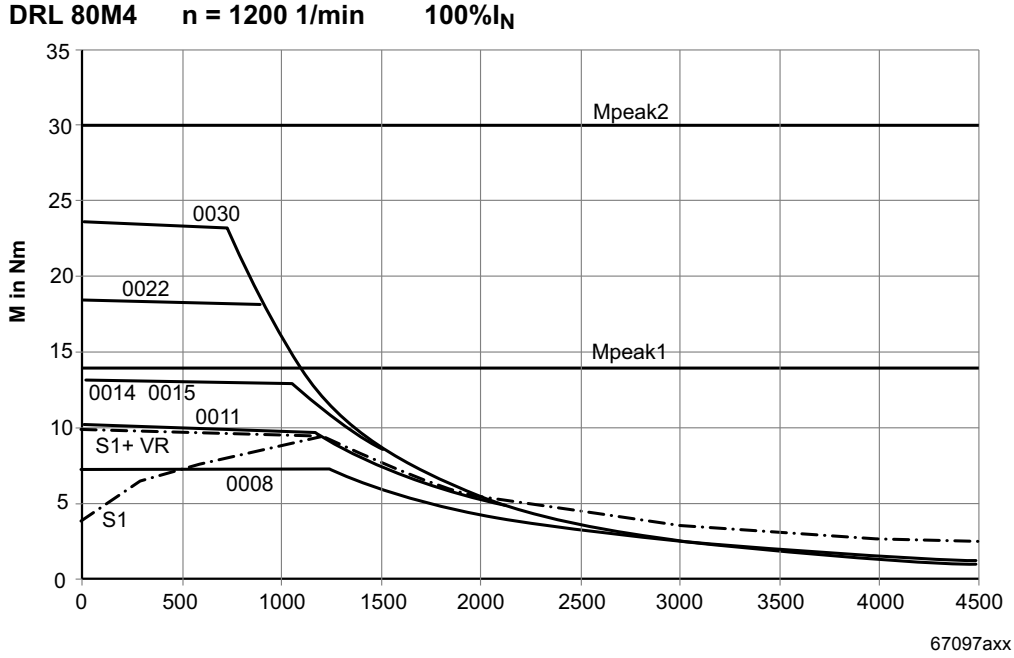
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DRL71M4, n_N = 3000 1/min, 150% or 200% I_N

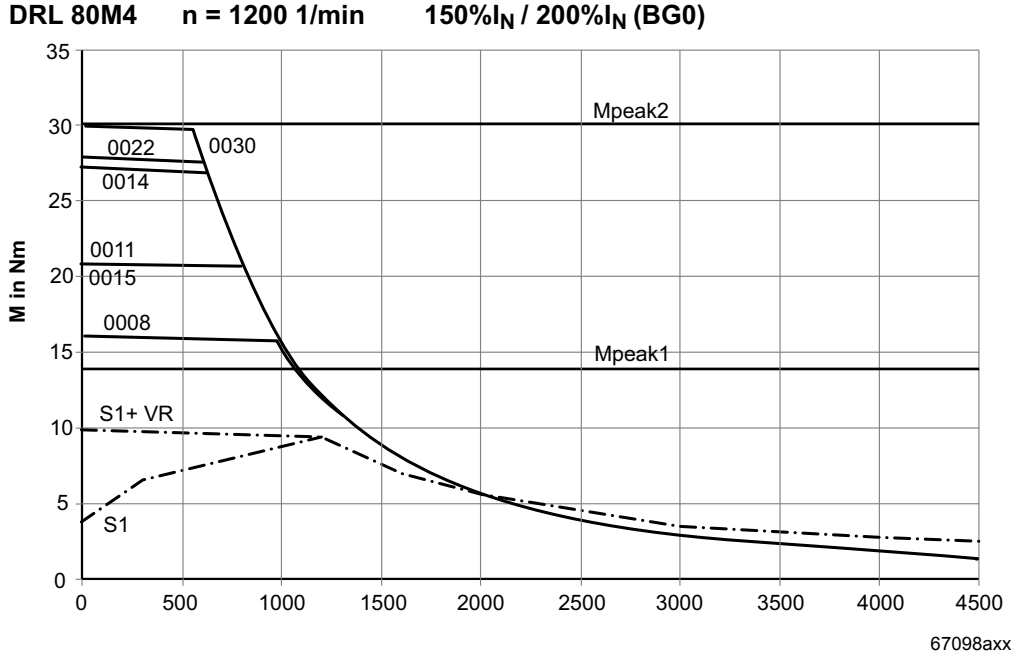


67088axx

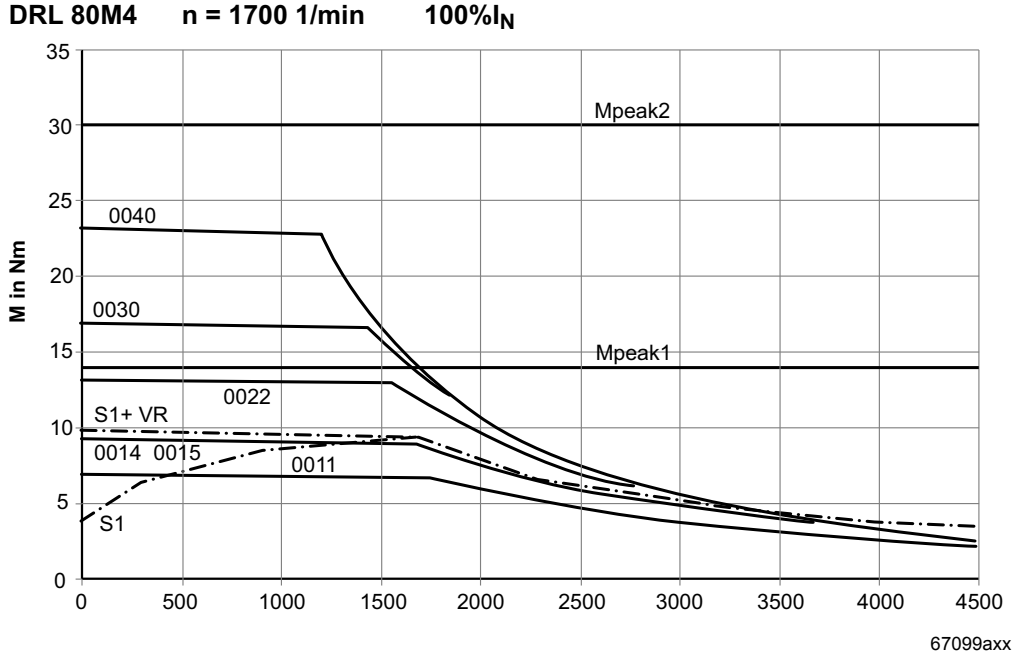
DRL80M4, n_N = 1200 1/min, 100% I_N



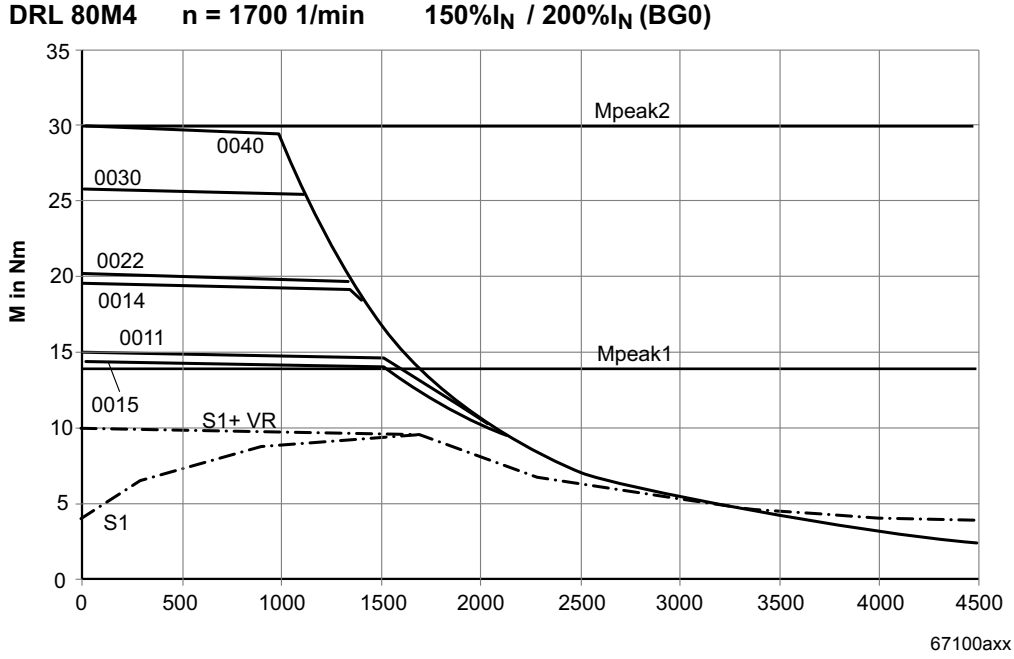
DRL80M4, n_N = 1200 1/min, 150% or 200% I_N



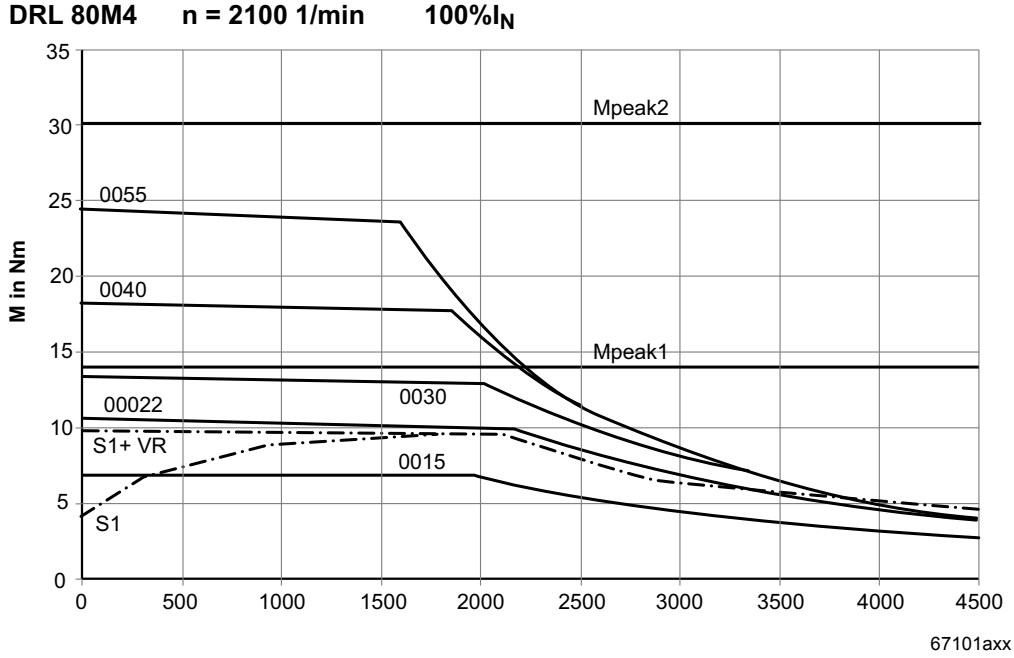
DRL80M4, n_N = 1700 1/min, 100% I_N



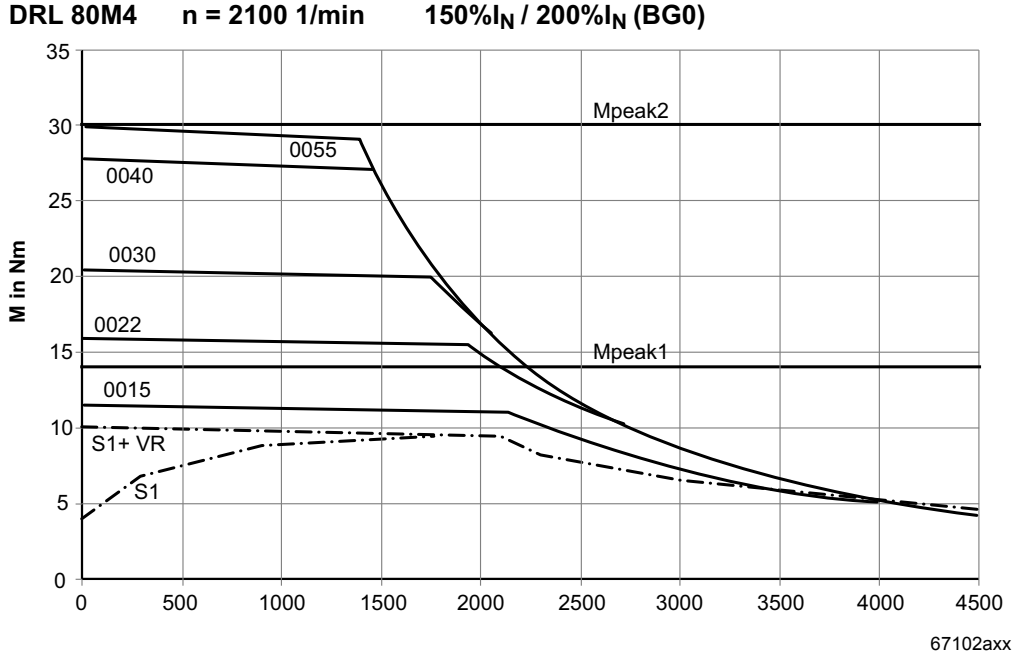
DRL80M4, n_N = 1700 1/min, 150% or 200% I_N



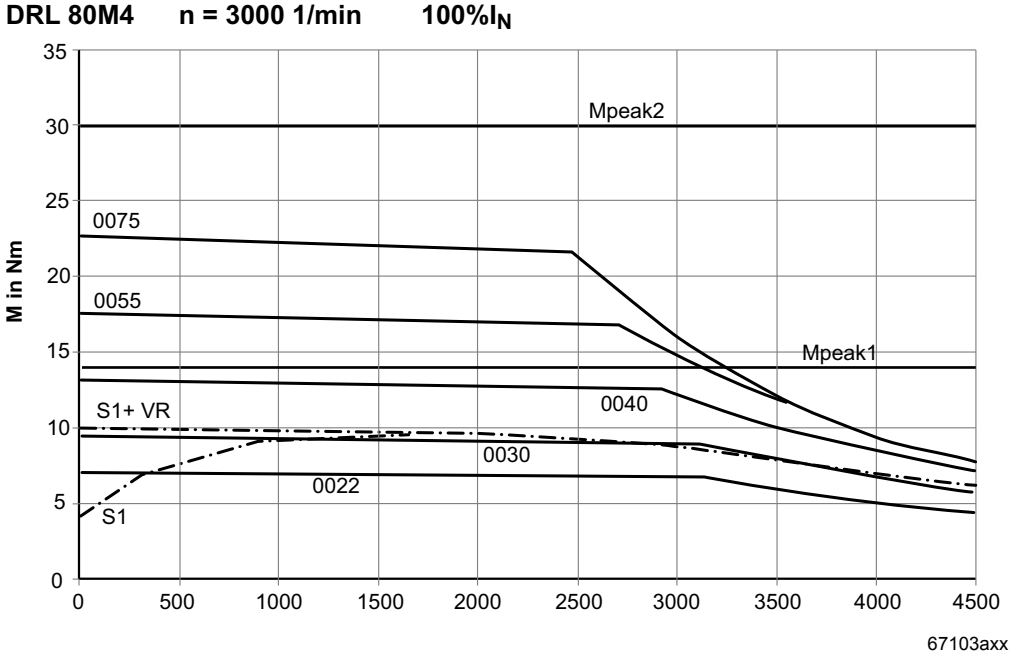
DRL80M4, n_N = 2100 1/min, 100% I_N



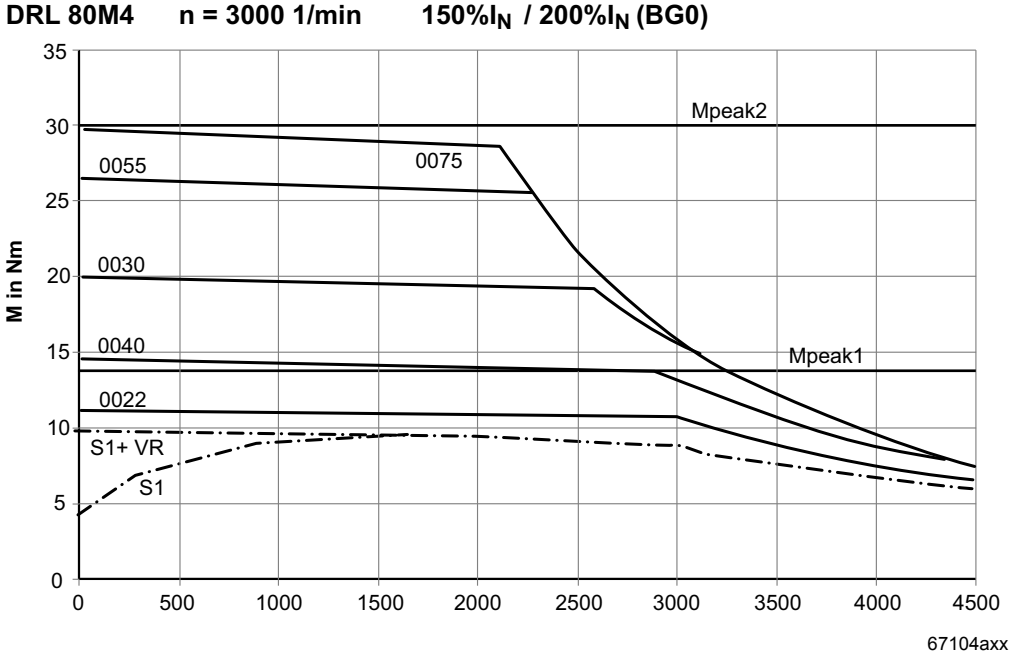
DRL80M4, n_N = 2100 1/min, 150% or 200% I_N



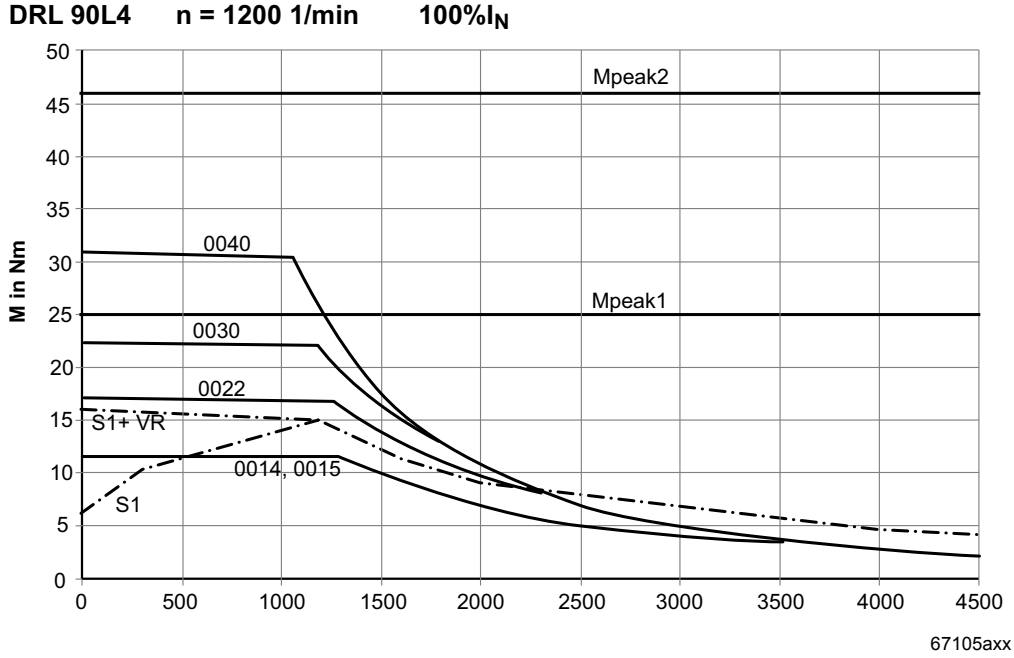
DRL80M4, n_N = 3000 1/min, 100% I_N



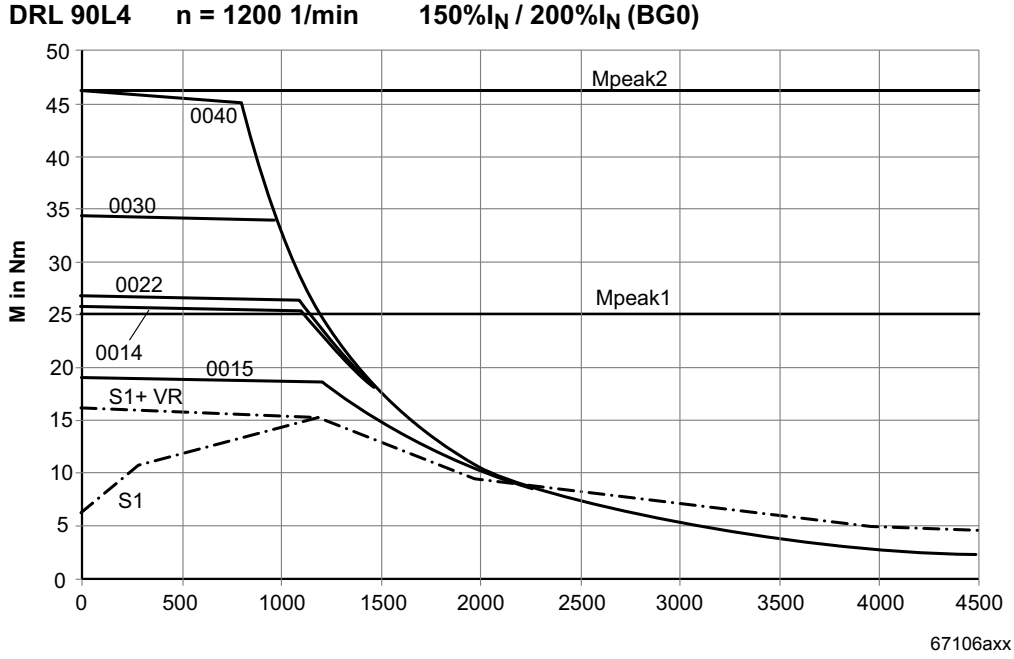
DRL80M4, n_N = 3000 1/min, 150% or 200% I_N



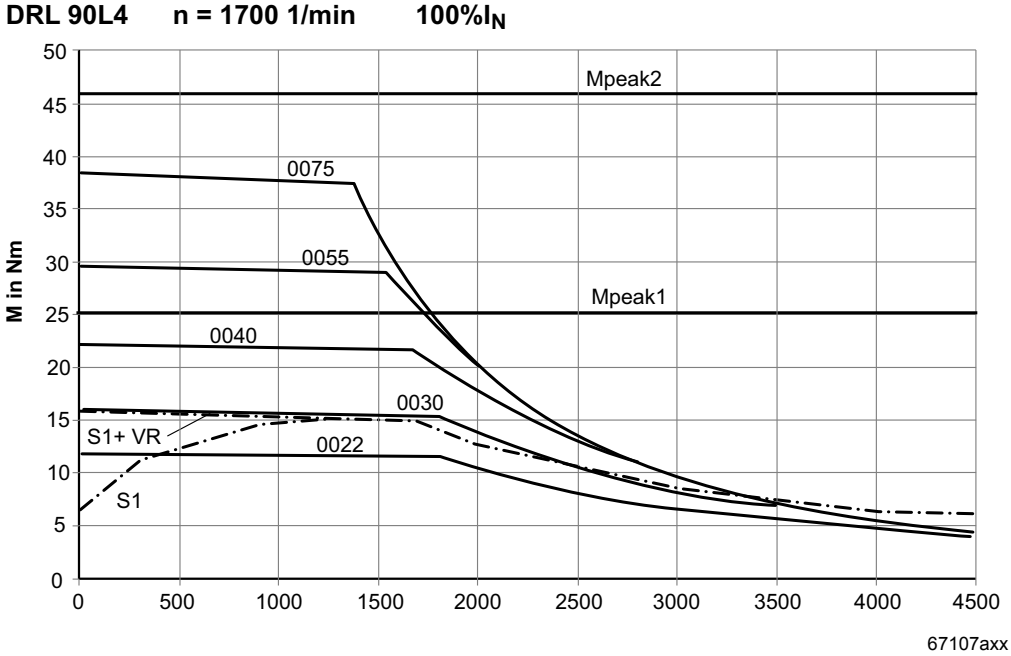
DRL90L4, n_N = 1200 1/min, 100% I_N



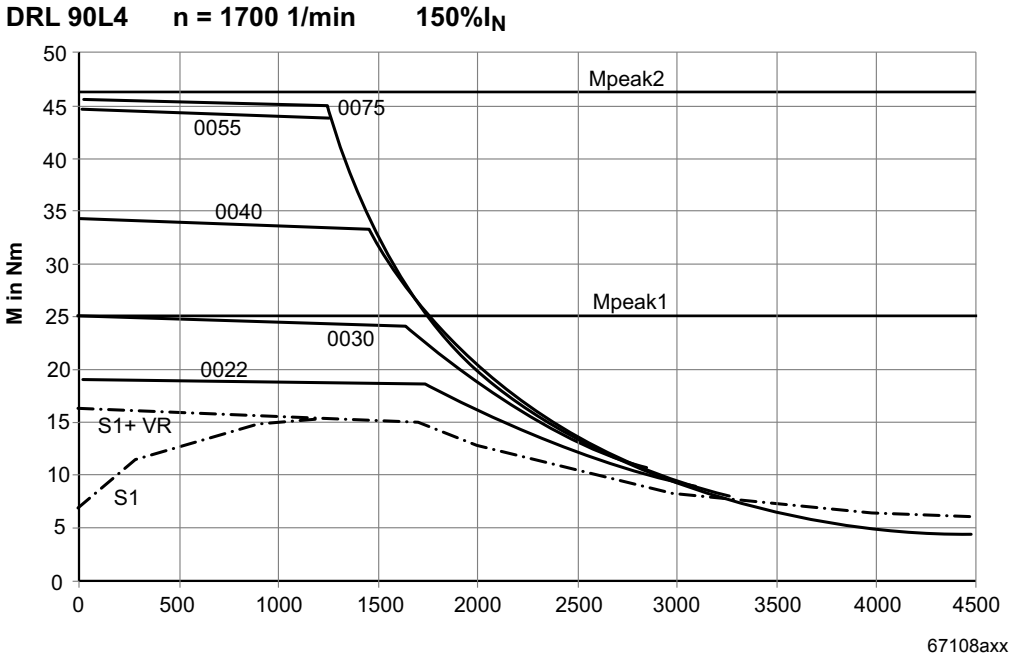
DRL90L4, n_N = 1200 1/min, 150% or 200% I_N



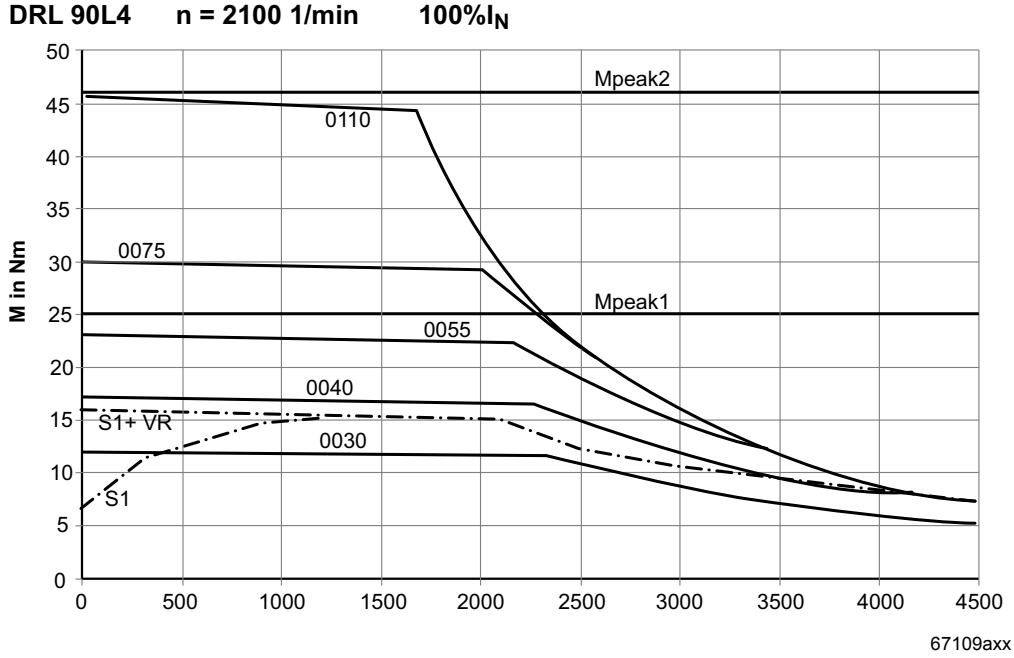
DRL90L4, n_N = 1700 1/min, 100% I_N



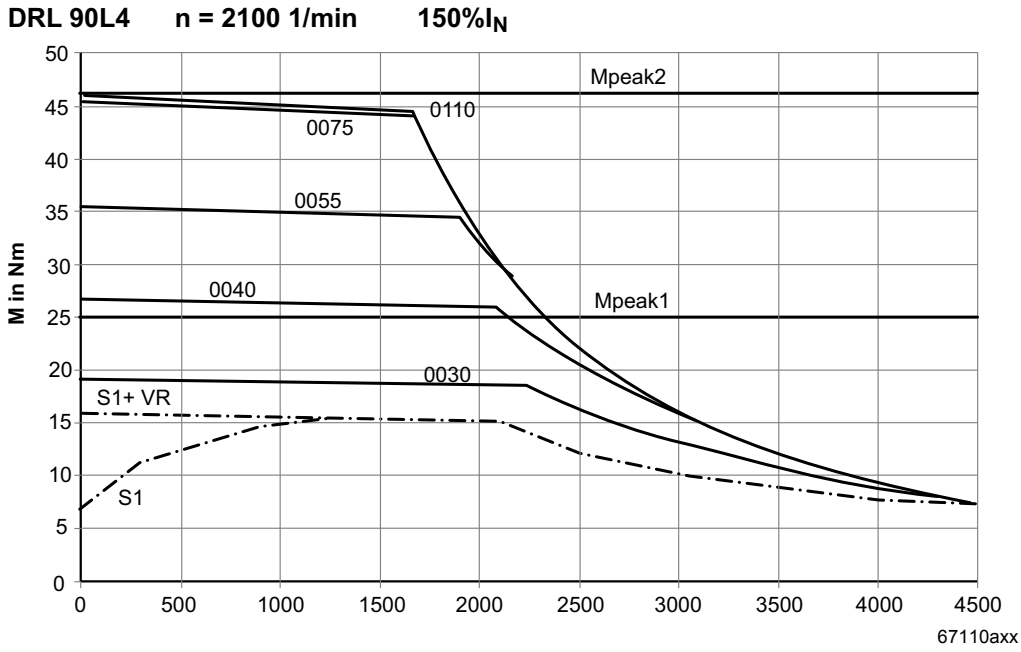
DRL90L4, n_N = 1700 1/min, 150% I_N



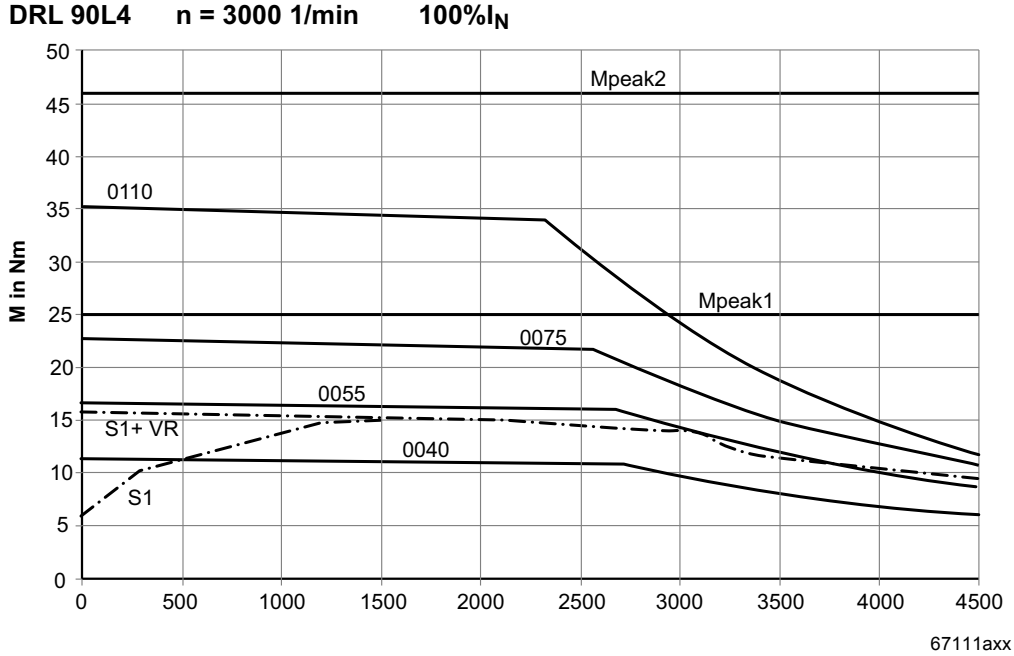
DRL90L4, n_N = 2100 1/min, 100% I_N



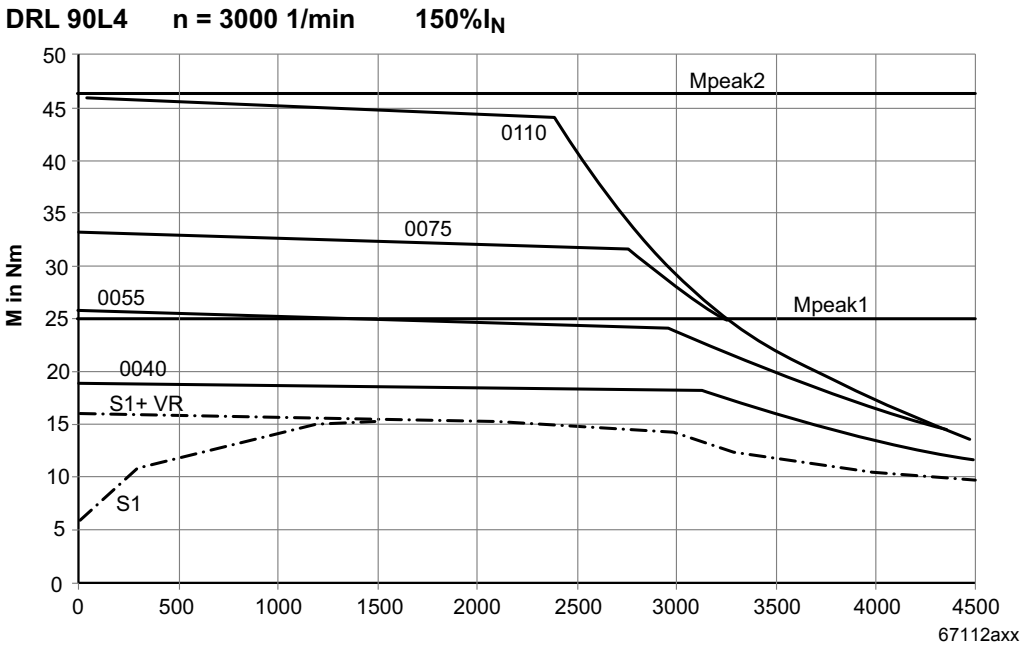
DRL90L4, n_N = 2100 1/min, 150% I_N



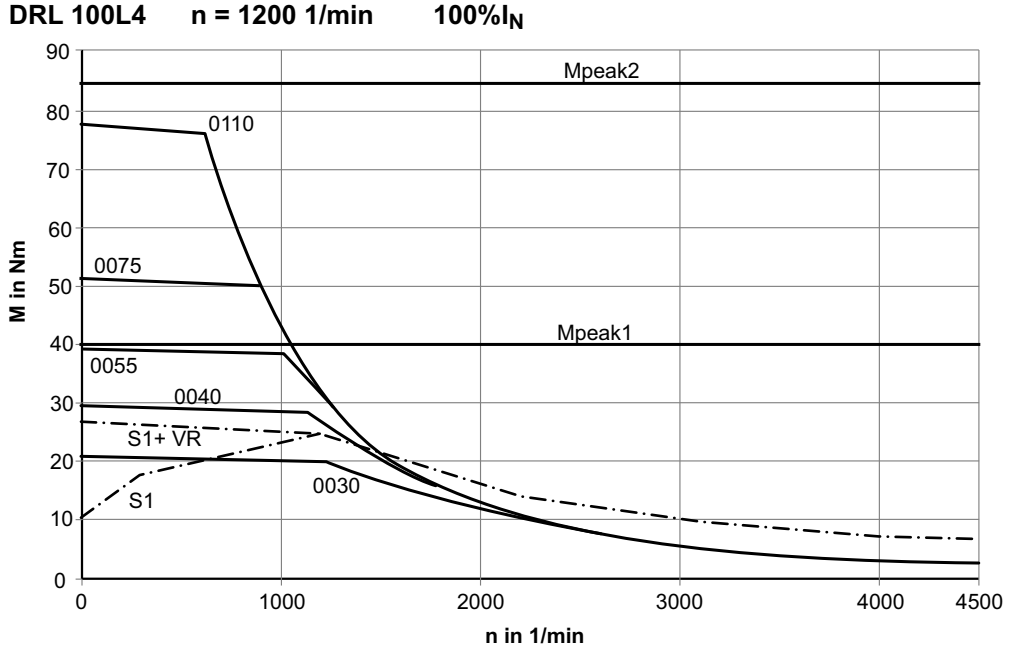
DRL90L4, n_N = 3000 1/min, 100% I_N



DRL90L4, n_N = 3000 1/min, 150% I_N

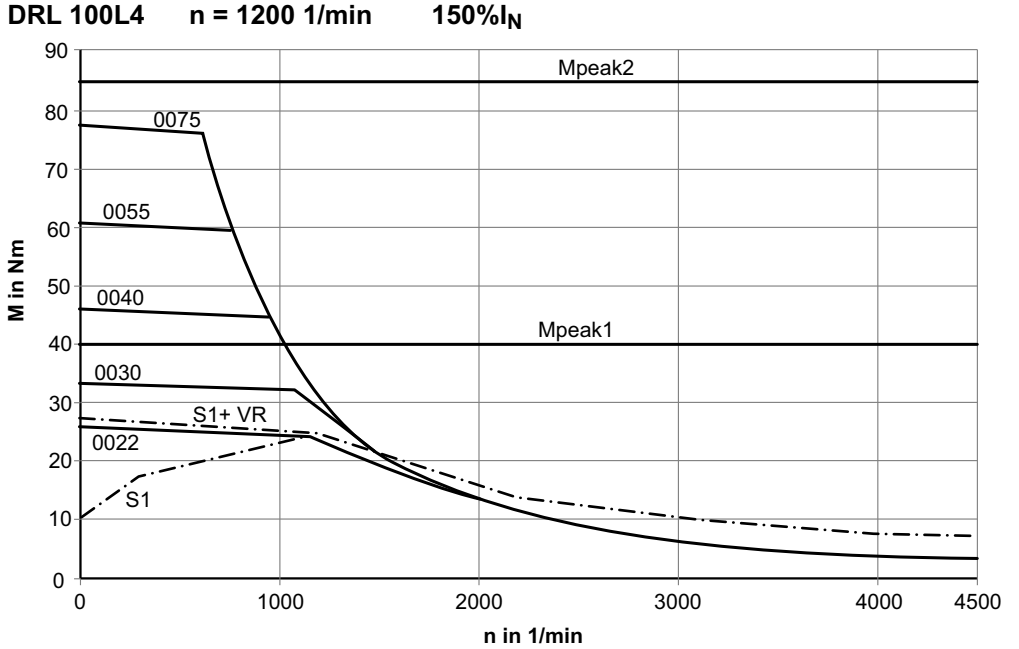


DRL100L4, n_N = 1200 1/min, 100% I_N



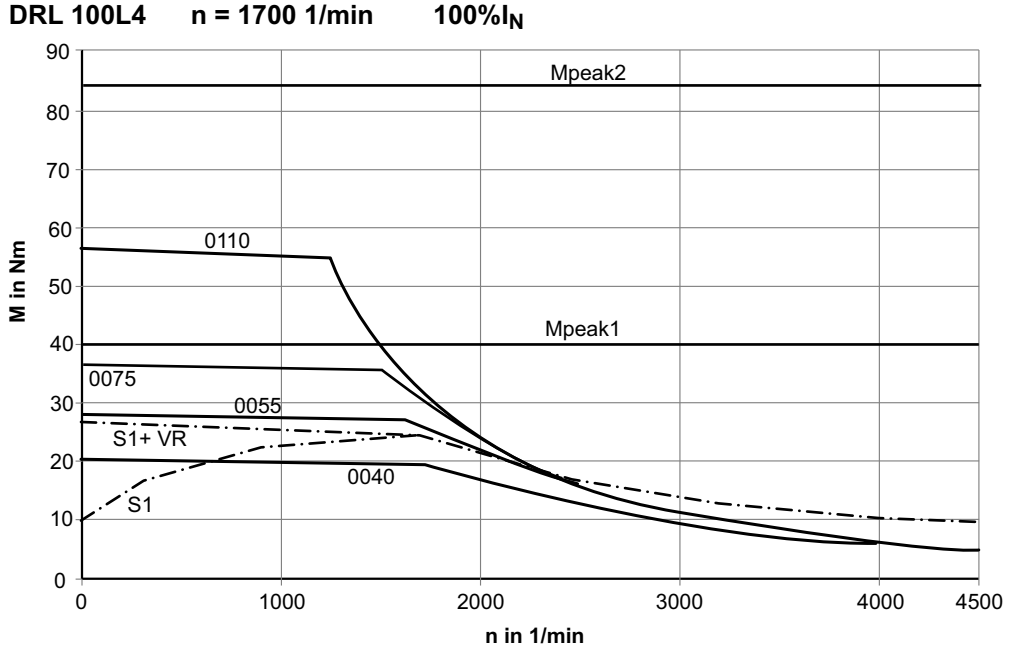
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DRL100L4, n_N = 1200 1/min, 150% I_N

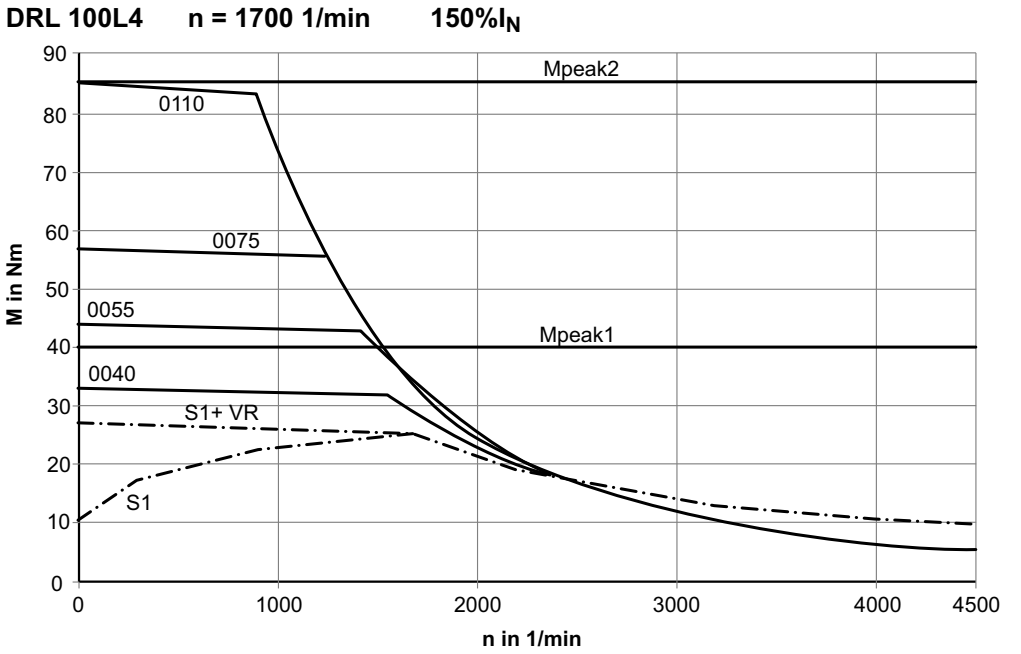


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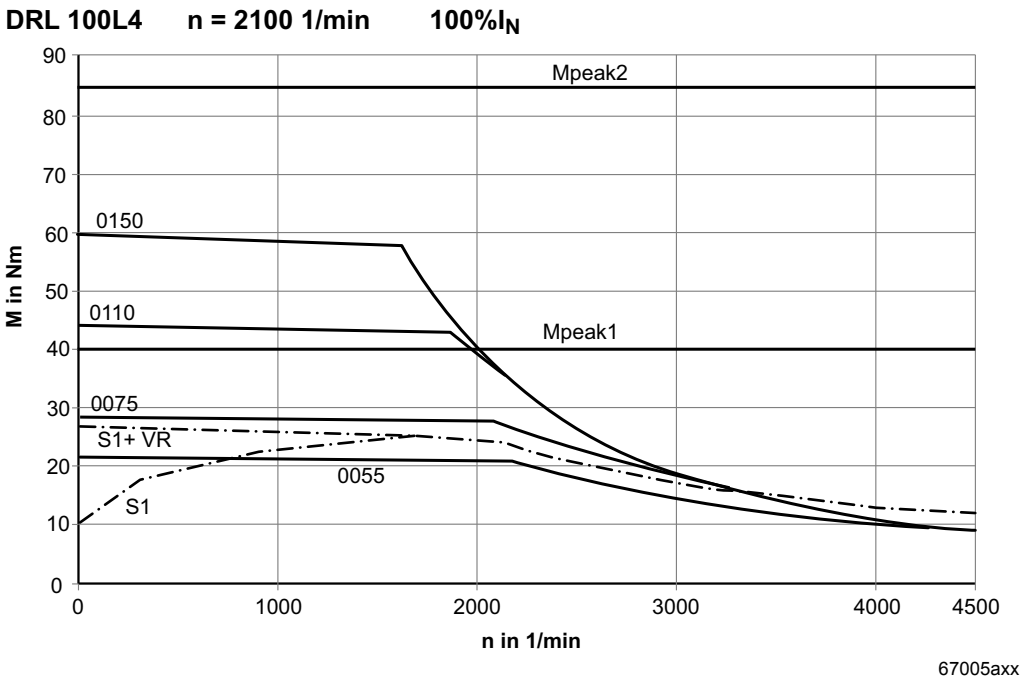
DRL100L4, n_N = 1700 1/min, 100% I_N



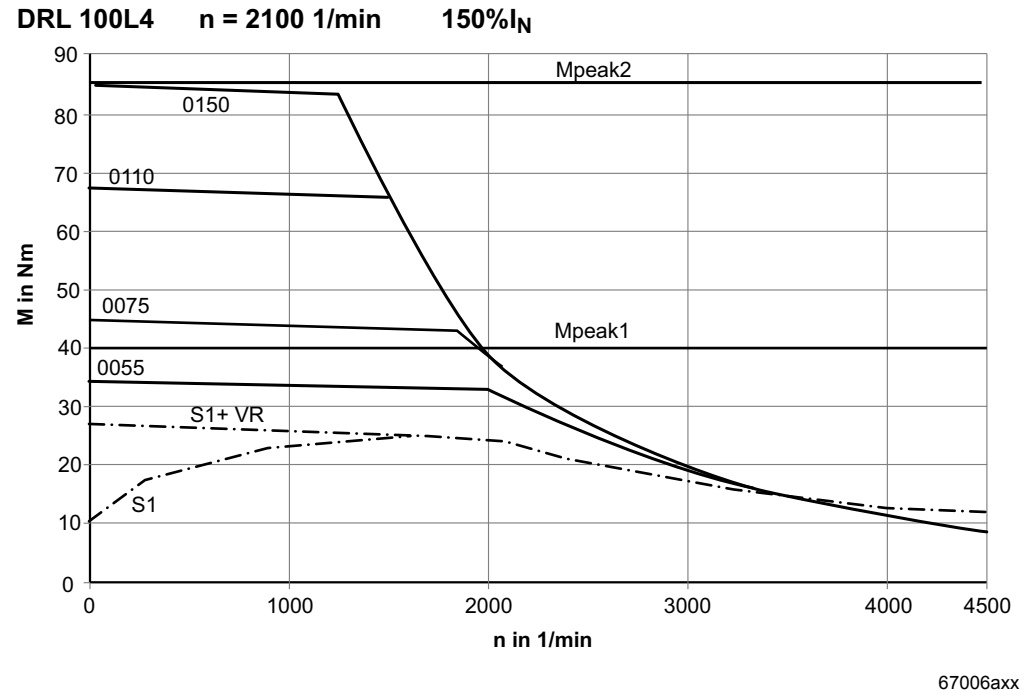
DRL100L4, n_N = 1700 1/min, 150% I_N



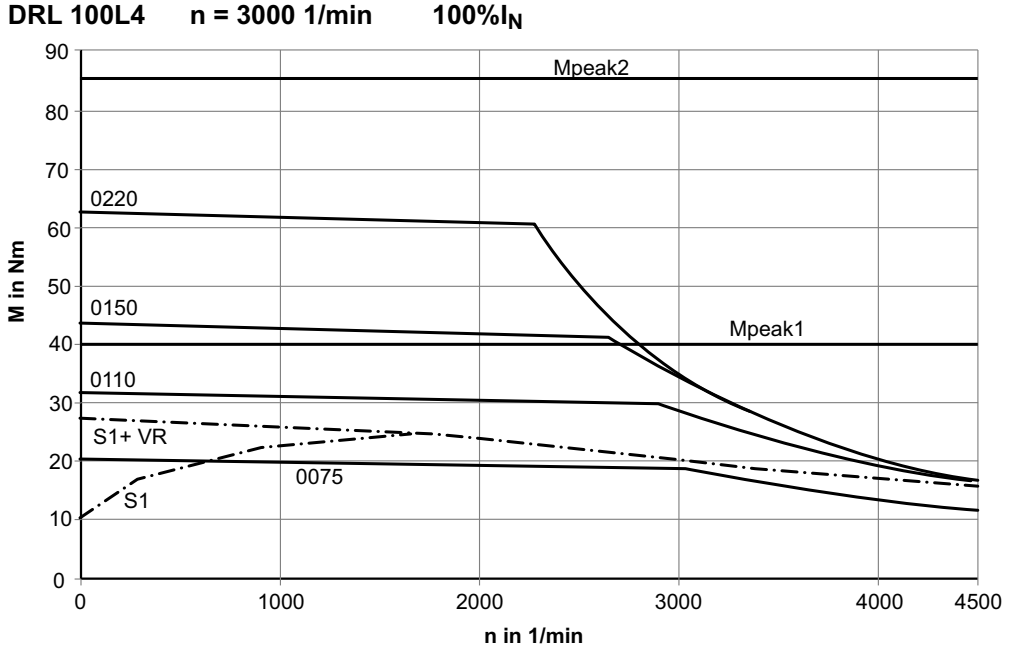
DRL100L4, n_N = 2100 1/min, 100% I_N



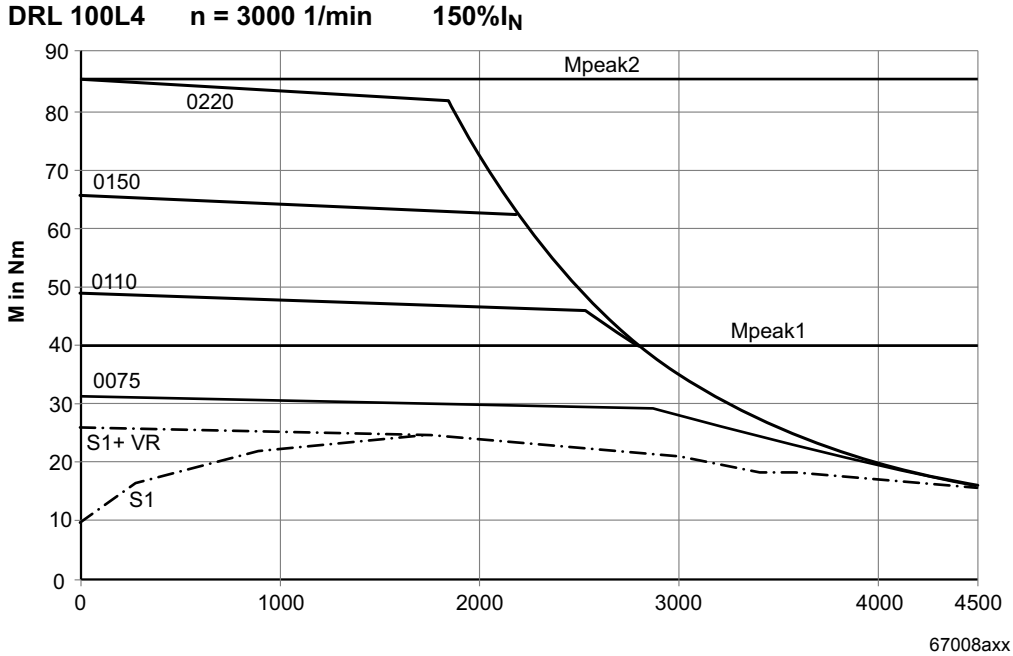
DRL100L4, n_N = 2100 1/min, 150% I_N



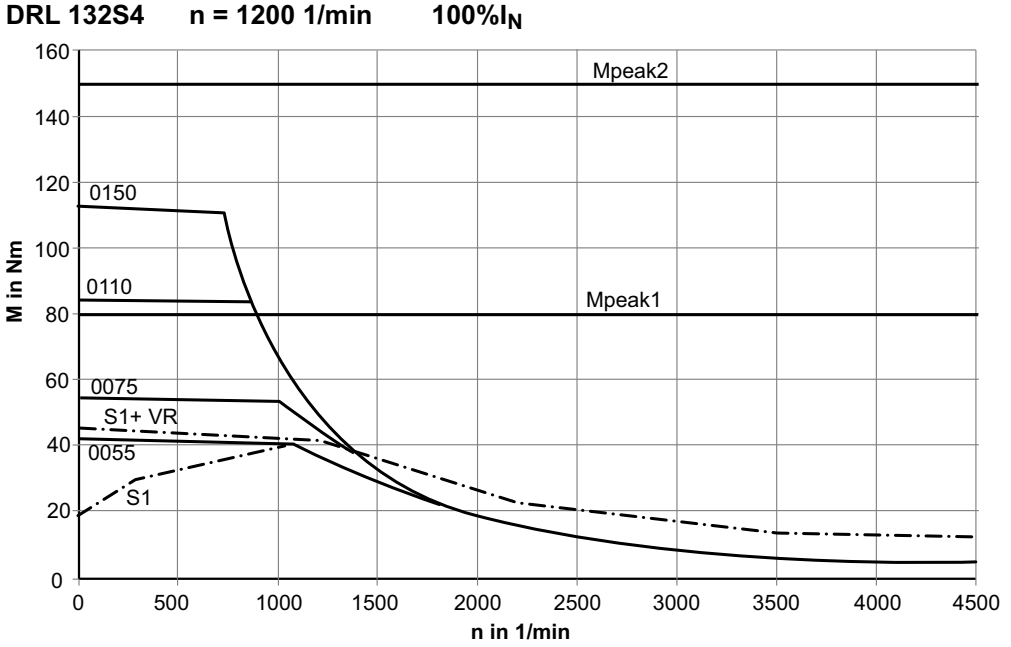
DRL100L4, n_N = 3000 1/min, 100% I_N



DRL100L4, n_N = 3000 1/min, 150% I_N

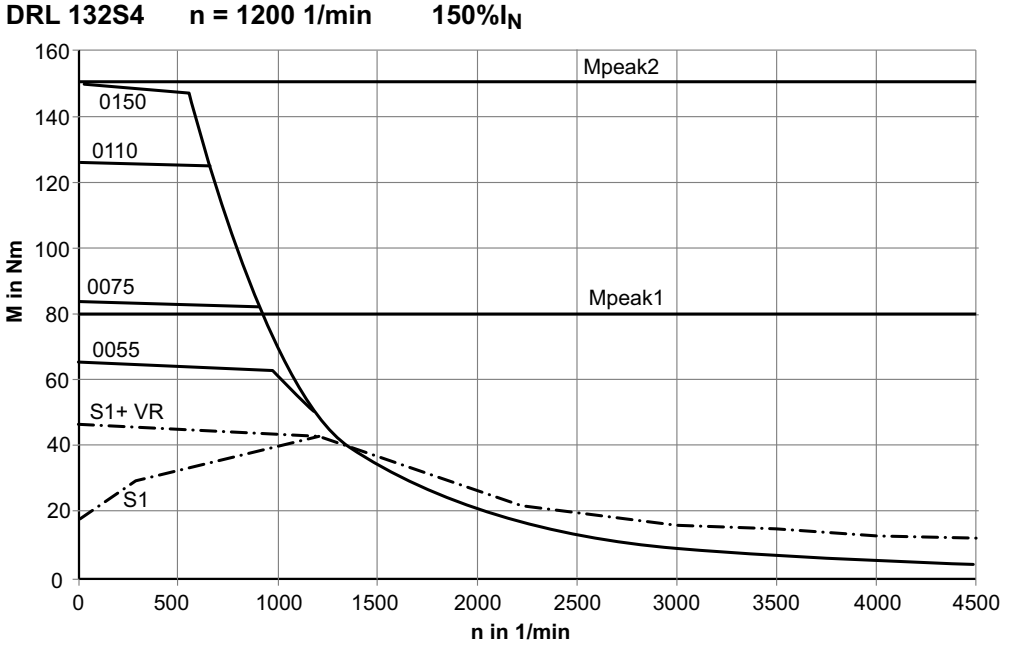


DRL132S4, n_N = 1200 1/min, 100% I_N



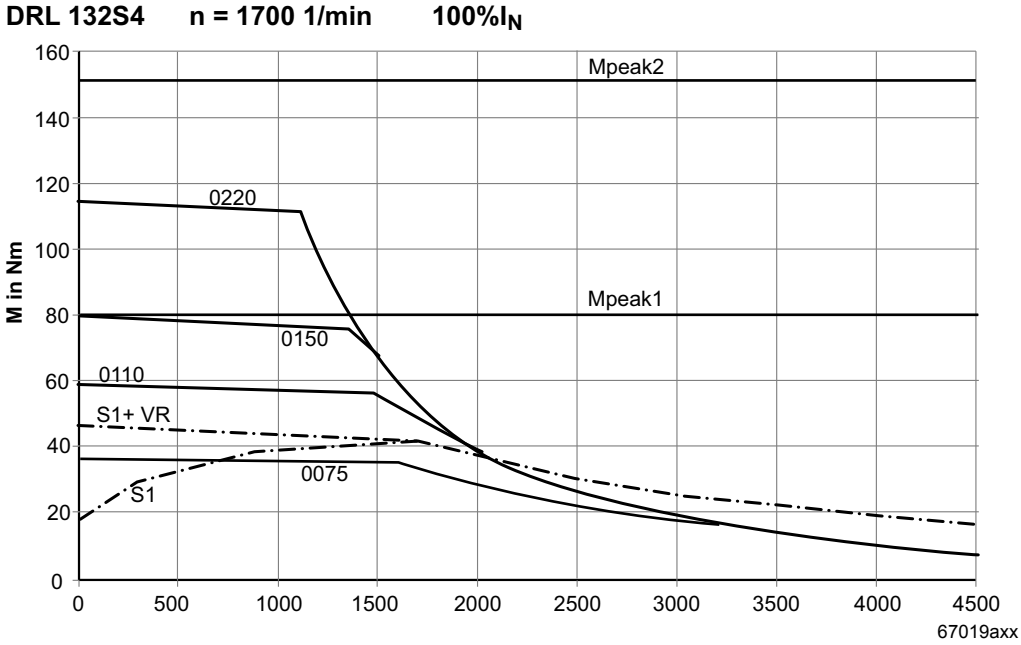
67017axx

DRL132S4, n_N = 1200 1/min, 150% I_N

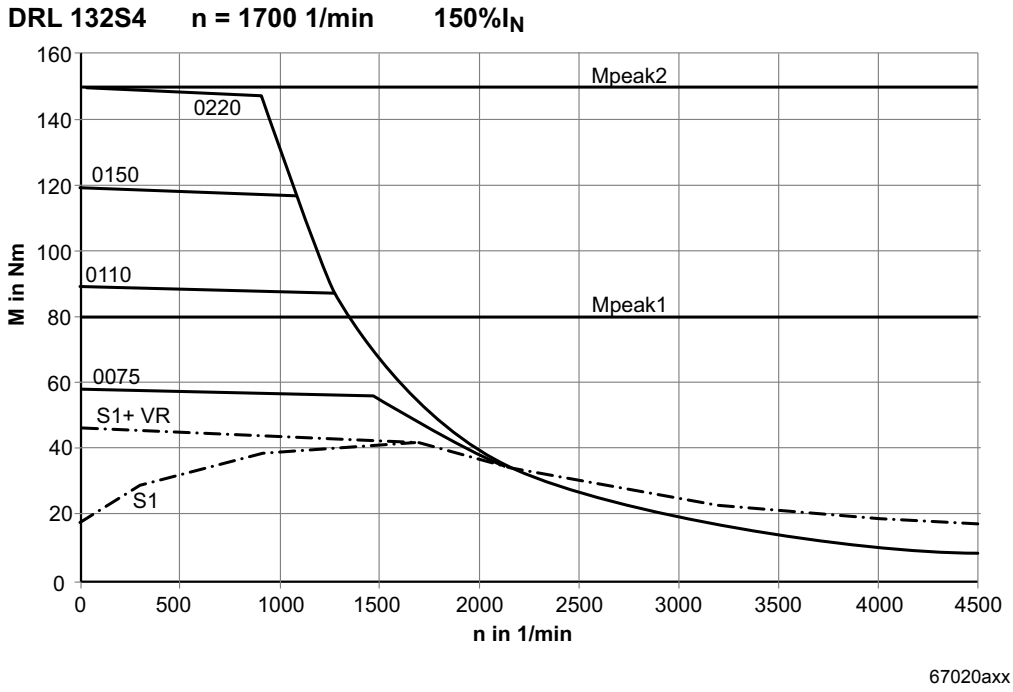


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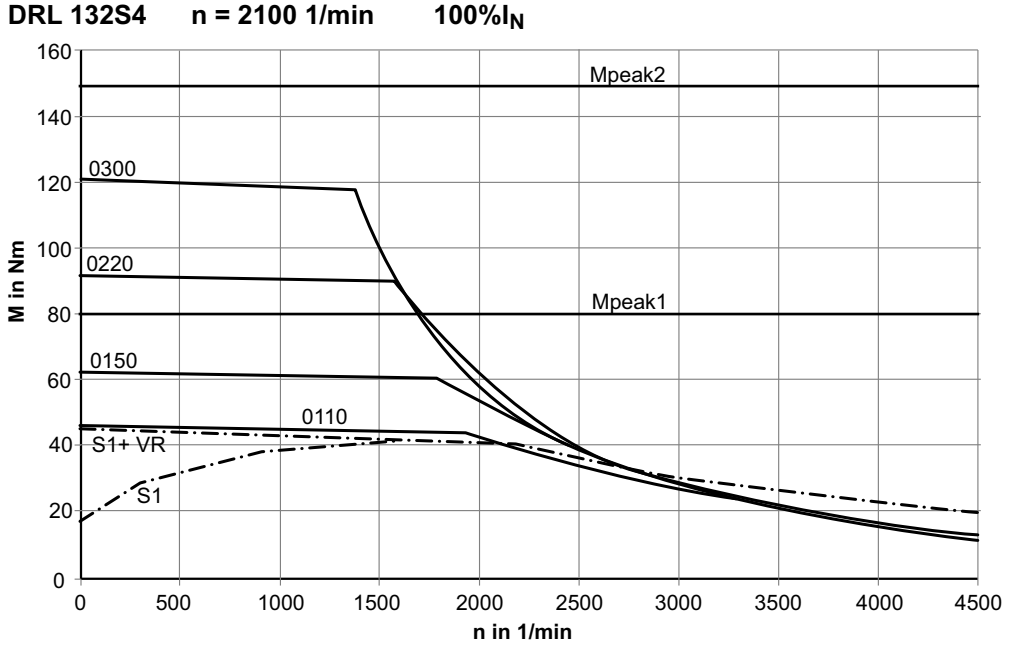
DRL132S4, n_N = 1700 1/min, 100% I_N



DRL132S4, n_N = 1700 1/min, 150% I_N

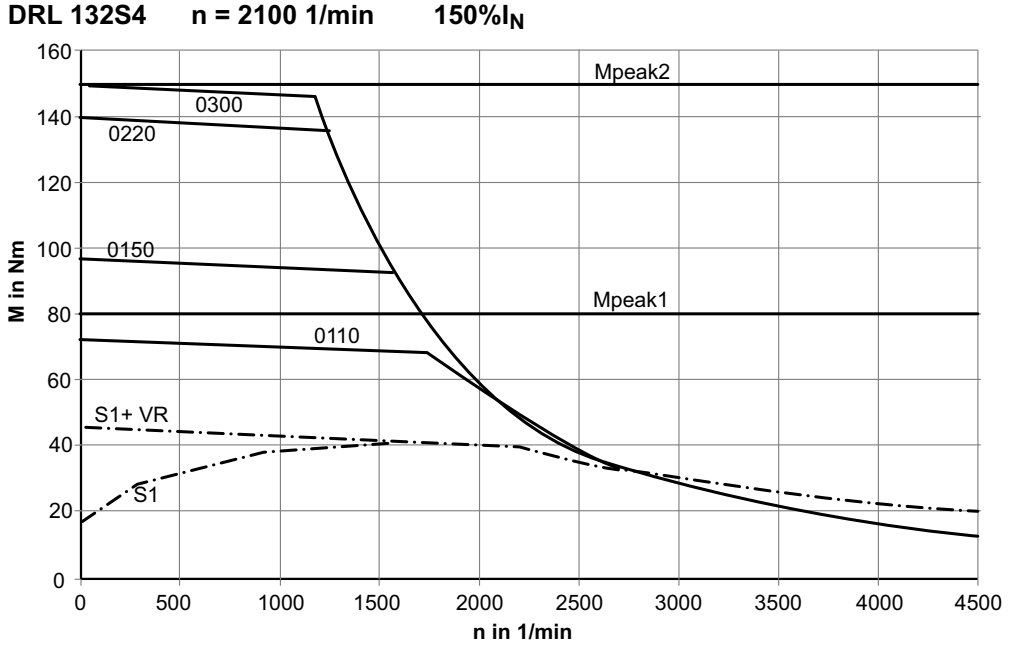


DRL132S4, n_N = 2100 1/min, 100% I_N



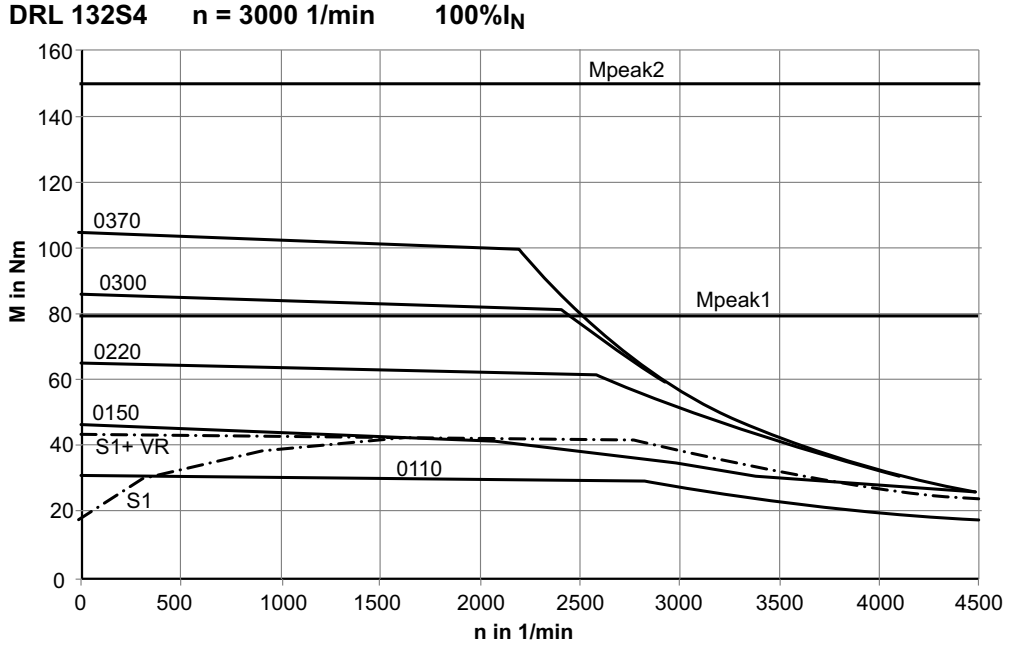
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DRL132S4, n_N = 2100 1/min, 150% I_N



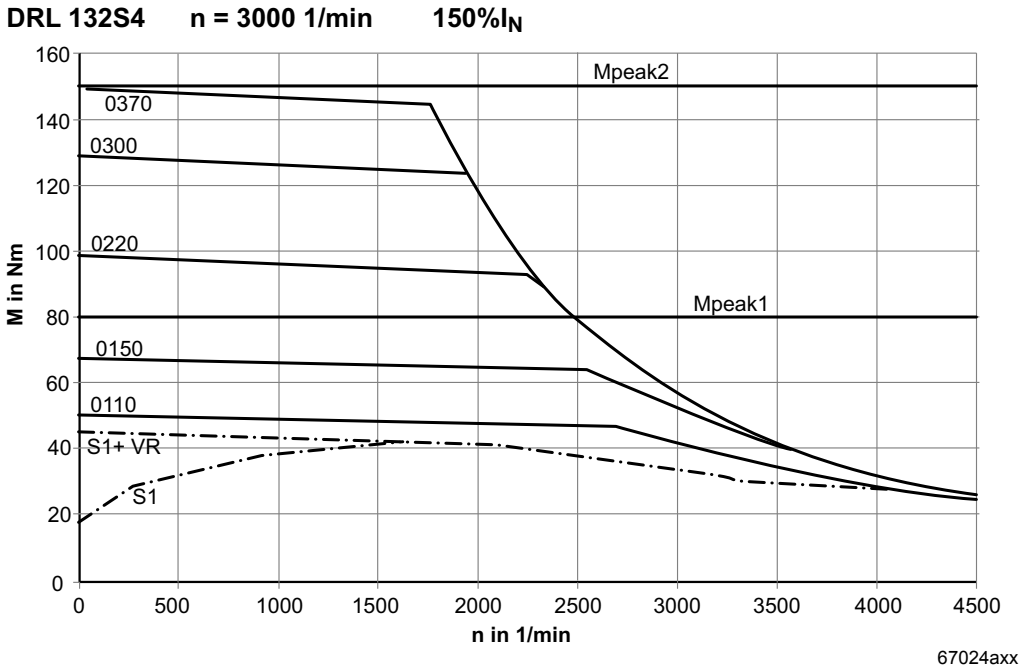
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DRL132S4, n_N = 3000 1/min, 100% I_N



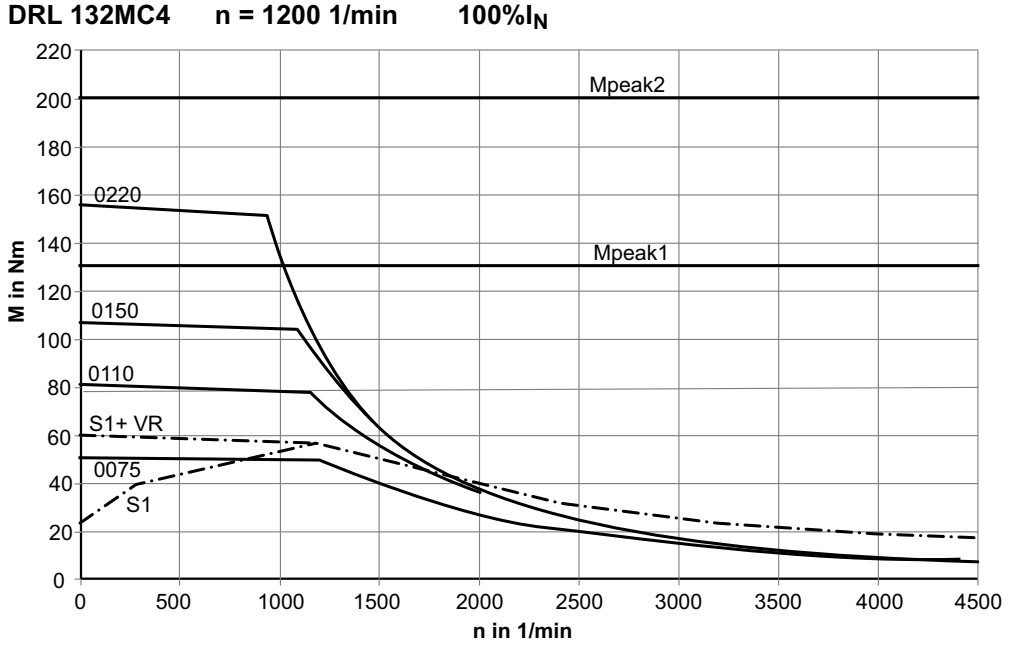
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DRL132S4, n_N = 3000 1/min, 150% I_N



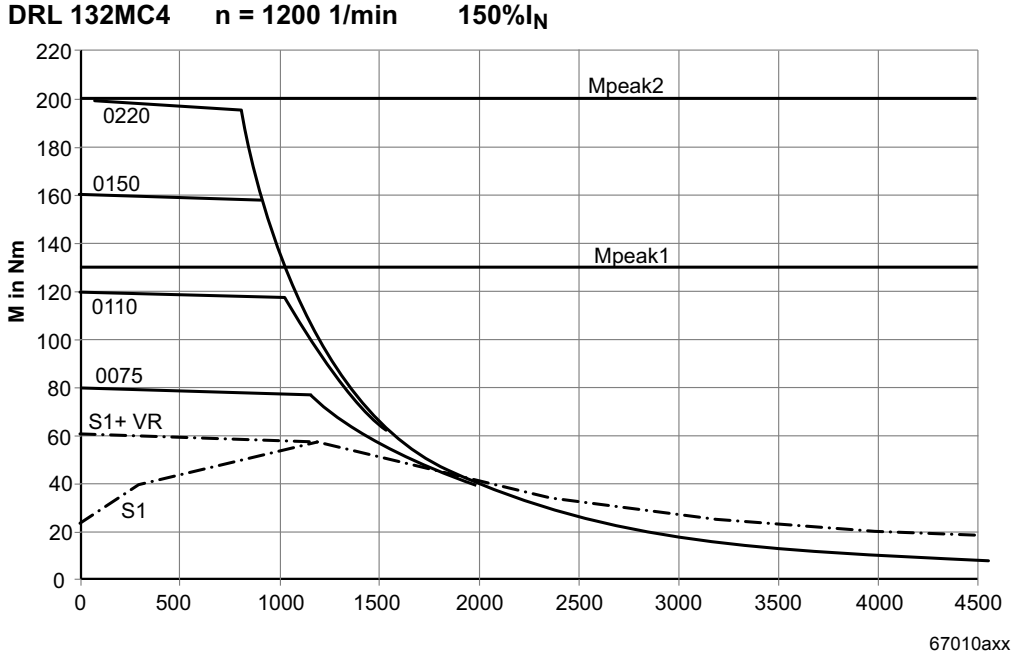
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DRL132MC4, n_N = 1200 1/min, 100% I_N



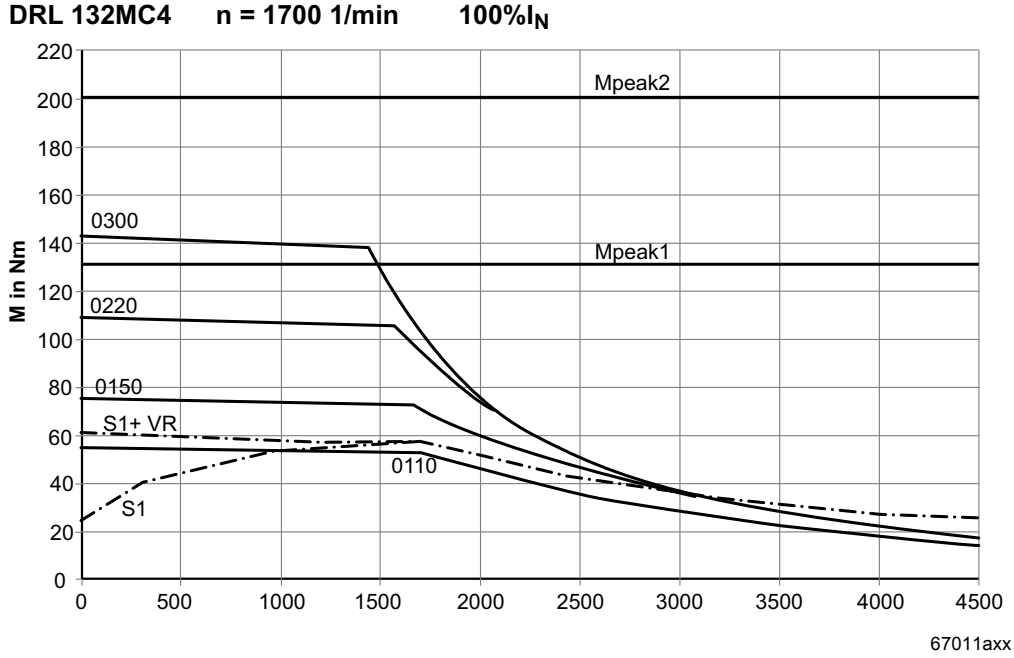
67009axx

DRL132MC4, n_N = 1200 1/min, 150% I_N

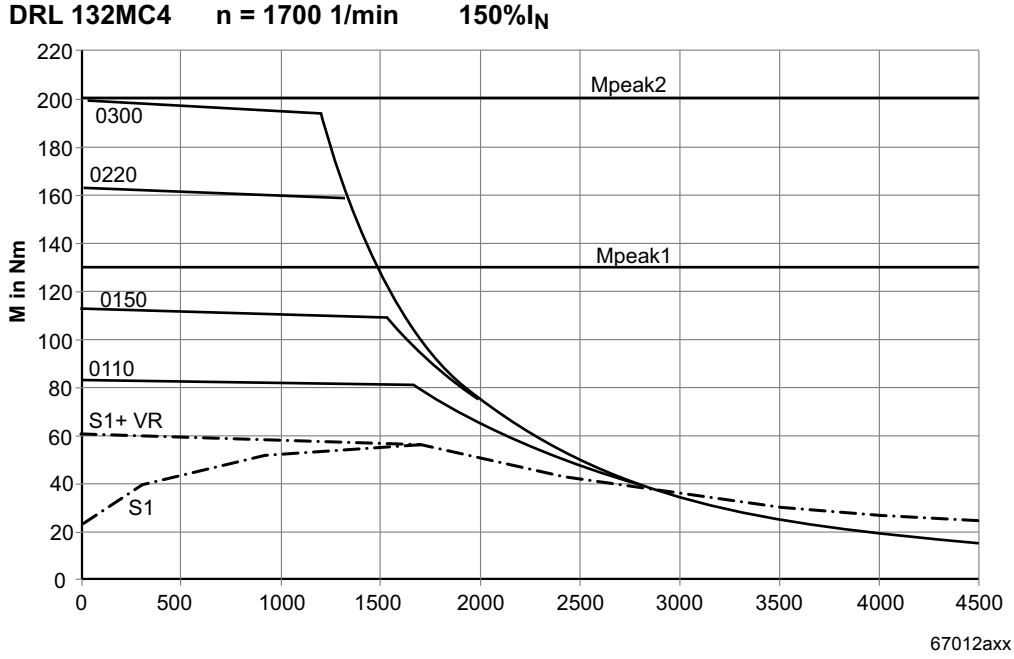


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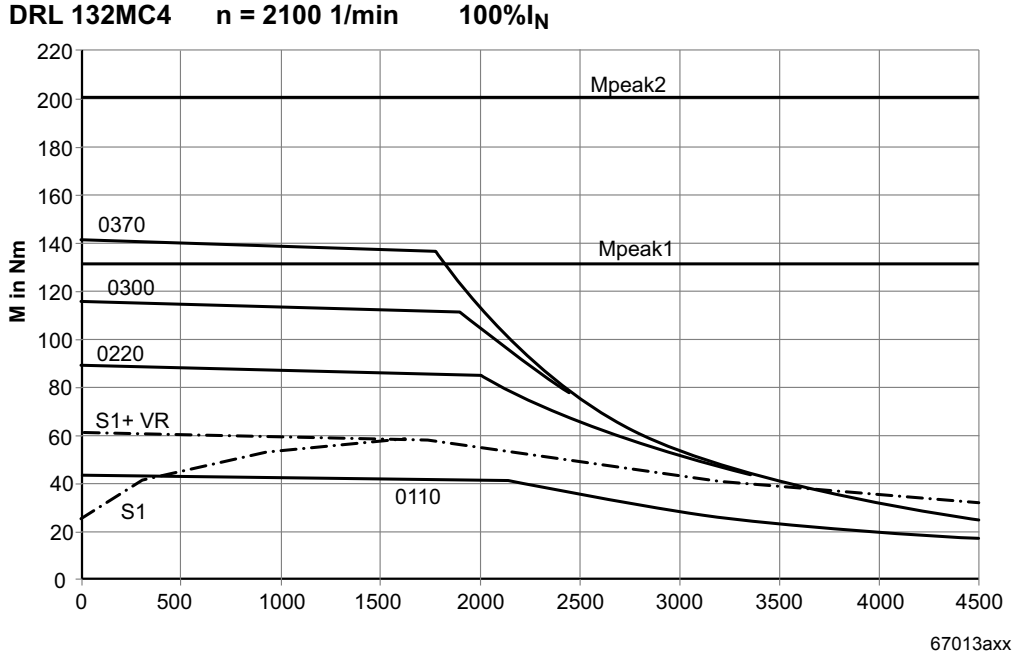
DRL132MC4, n_N = 1700 1/min, 100% I_N



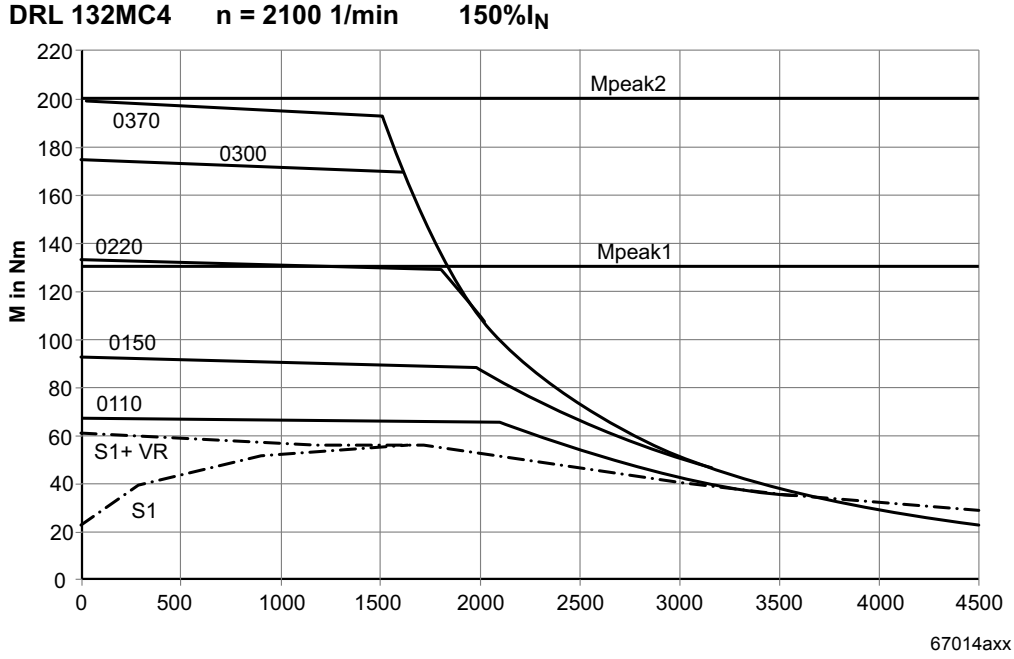
DRL132MC4, n_N = 1700 1/min, 150% I_N



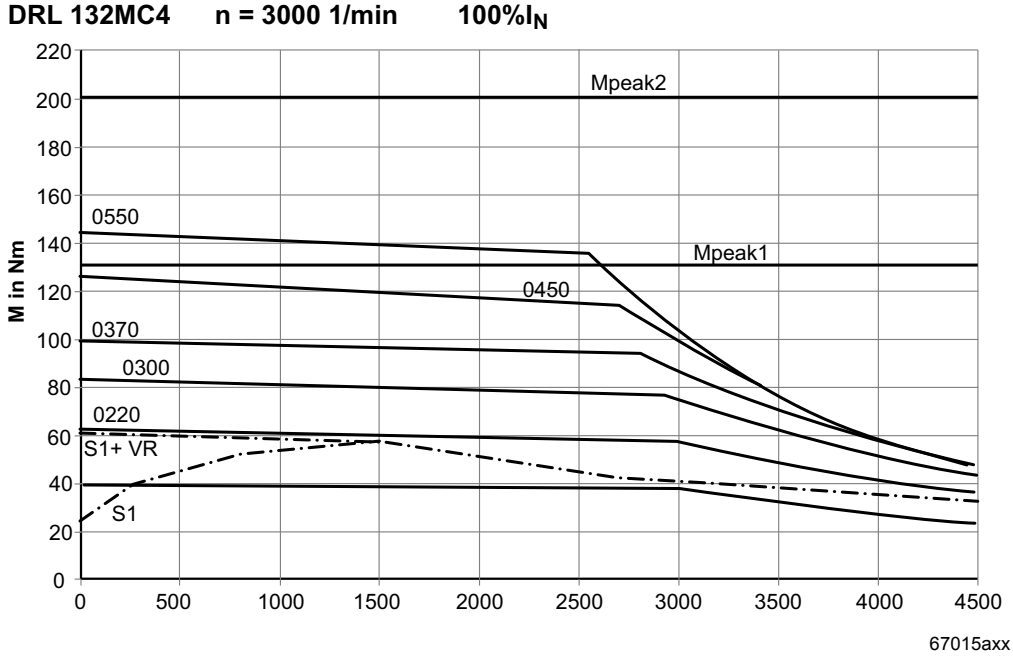
DRL132MC4, n_N = 2100 1/min, 100% I_N



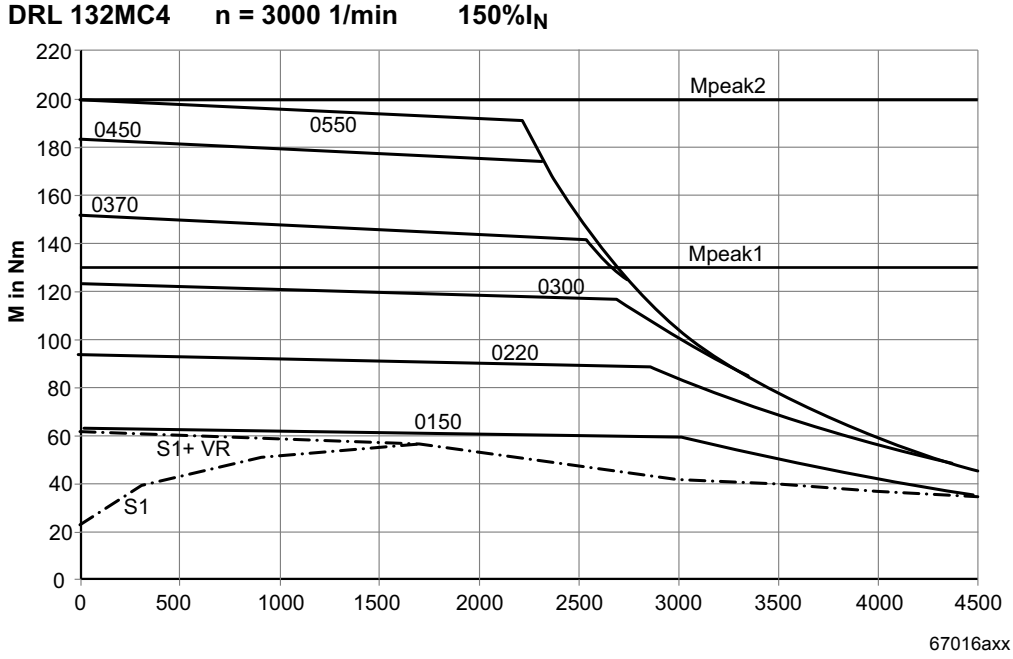
DRL132MC4, n_N = 2100 1/min, 150% I_N



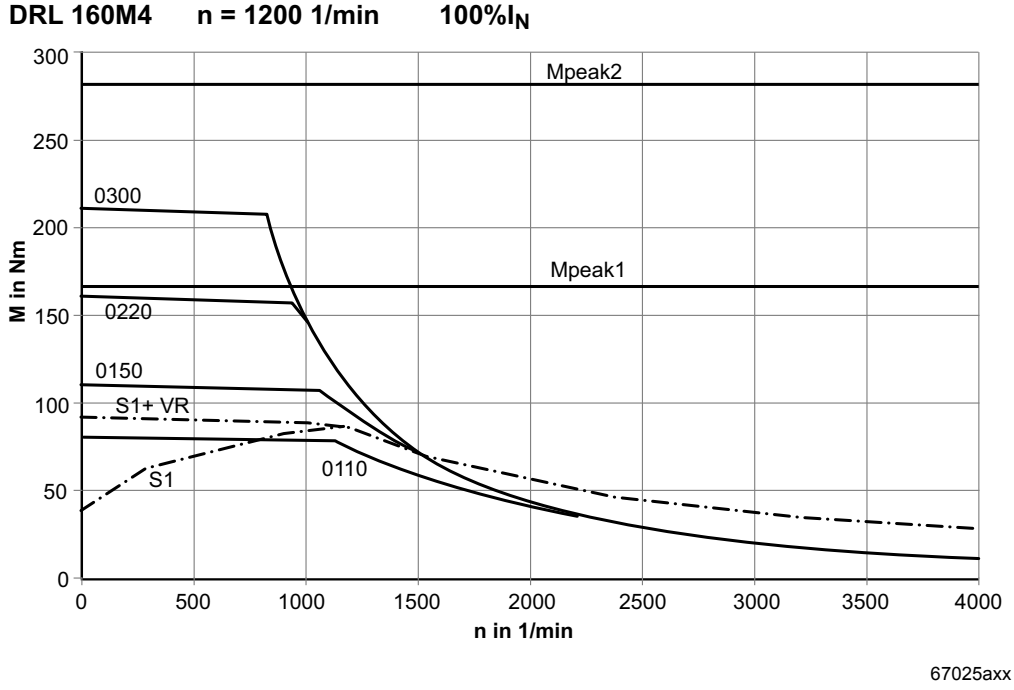
DRL132MC4, n_N = 3000 1/min, 100% I_N



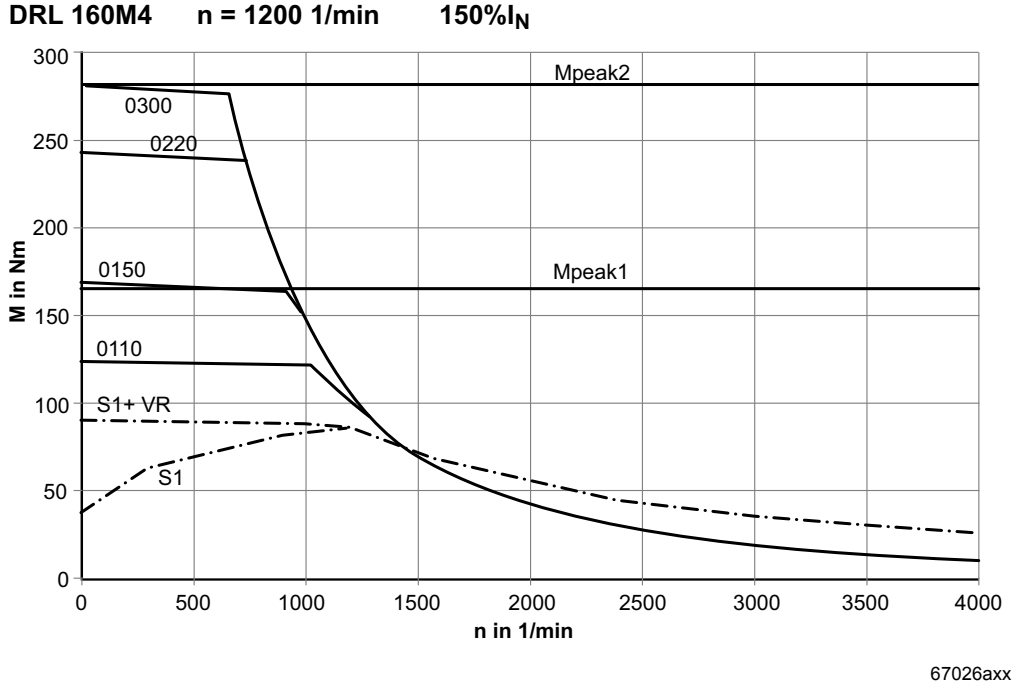
DRL132MC4, n_N = 3000 1/min, 150% I_N



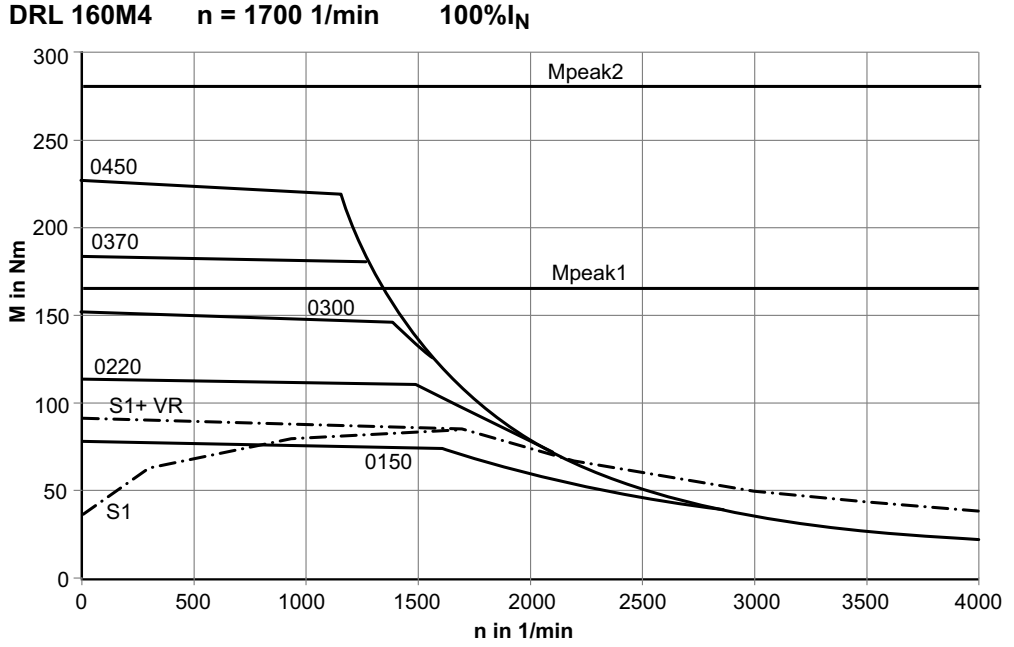
DRL160M4, n_N = 1200 1/min, 100% I_N



DRL160M4, n_N = 1200 1/min, 150% I_N

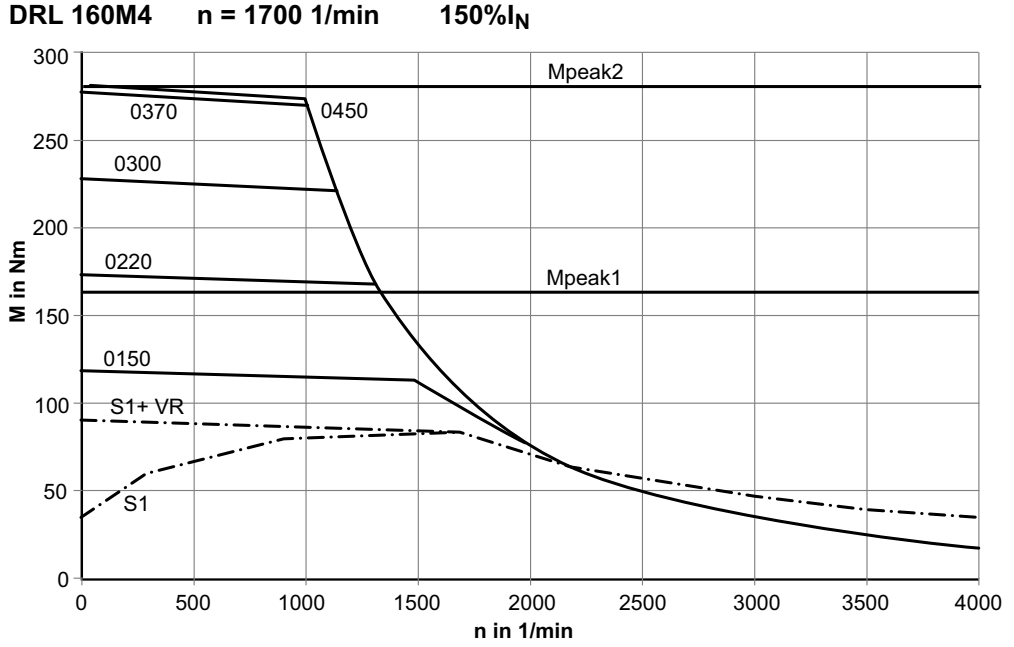


DRL160M4, n_N = 1700 1/min, 100% I_N



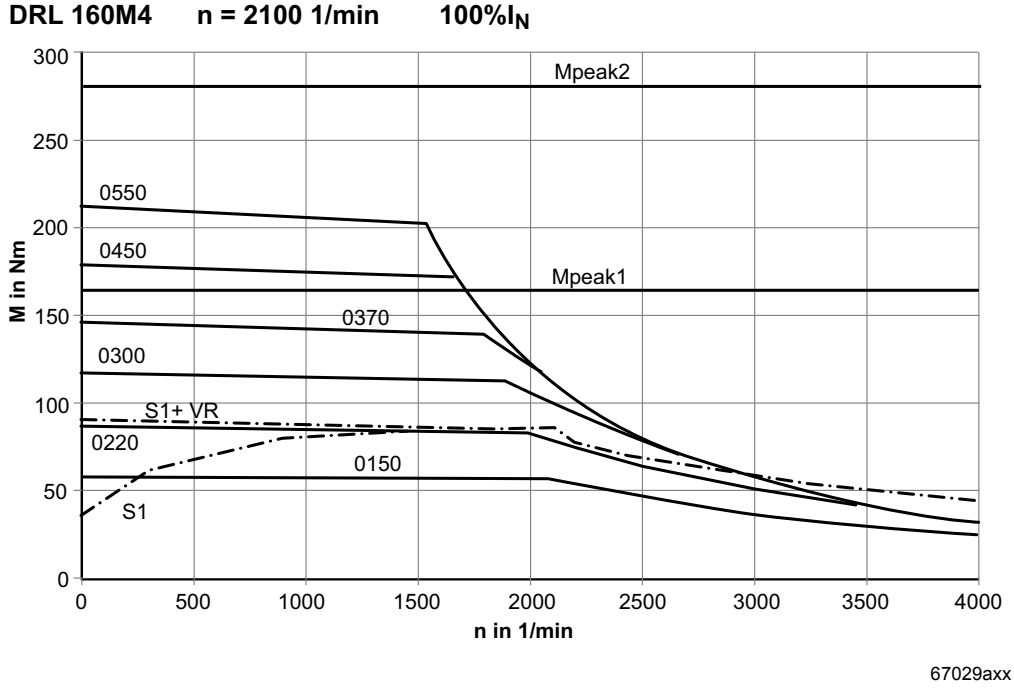
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DRL160M4, n_N = 1700 1/min, 150% I_N

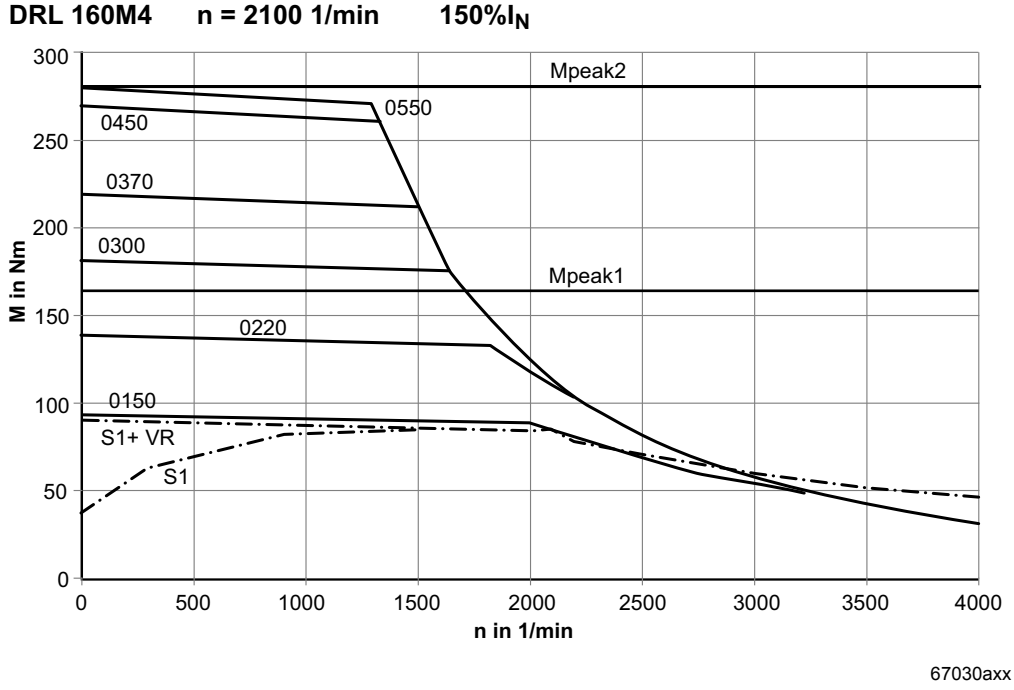


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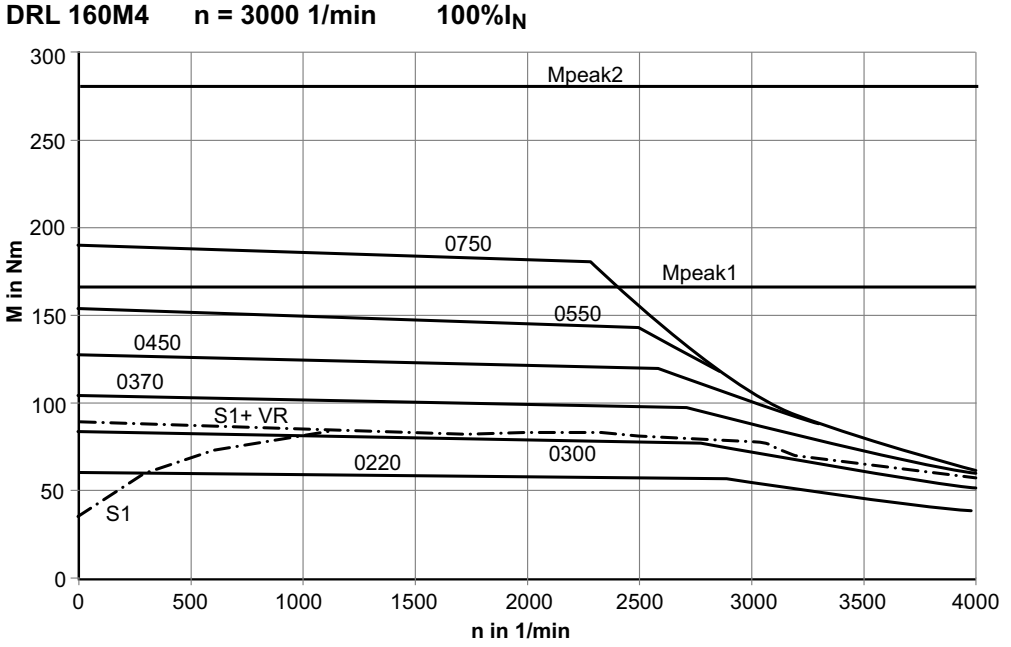
DRL160M4, n_N = 2100 1/min, 100% I_N



DRL160M4, n_N = 2100 1/min, 150% I_N

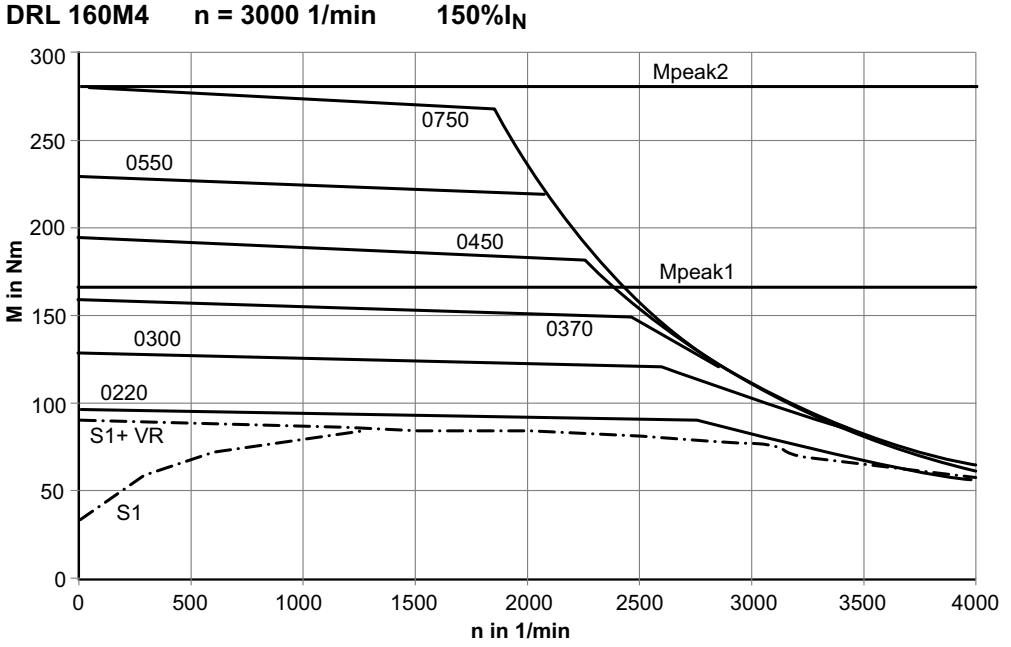


DRL160M4, n_N = 3000 1/min, 100% I_N



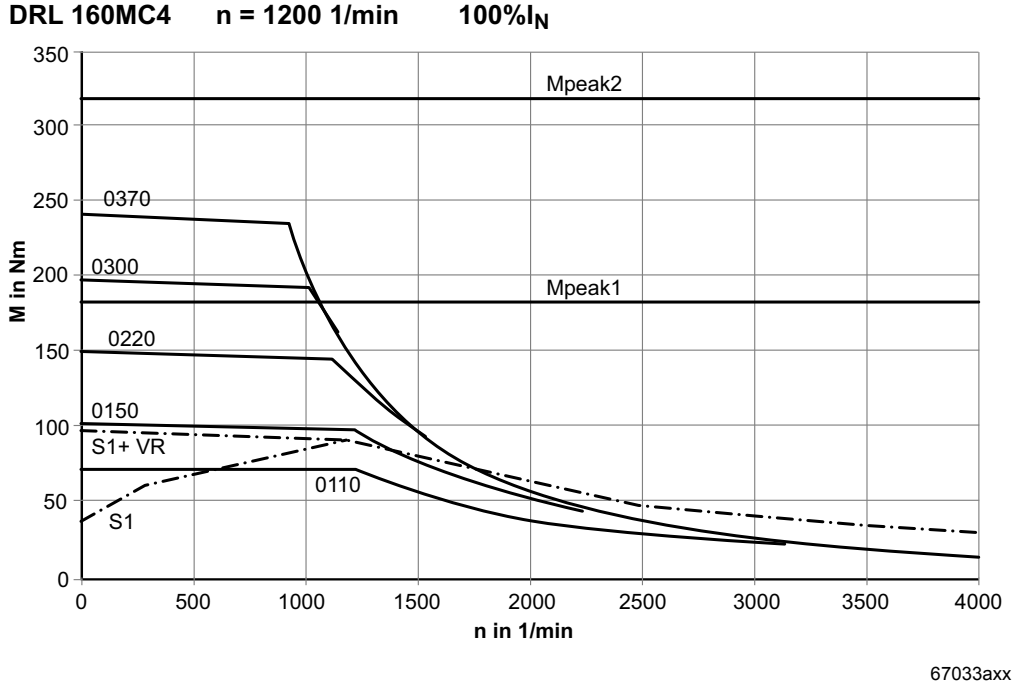
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DRL160M4, n_N = 3000 1/min, 150% I_N

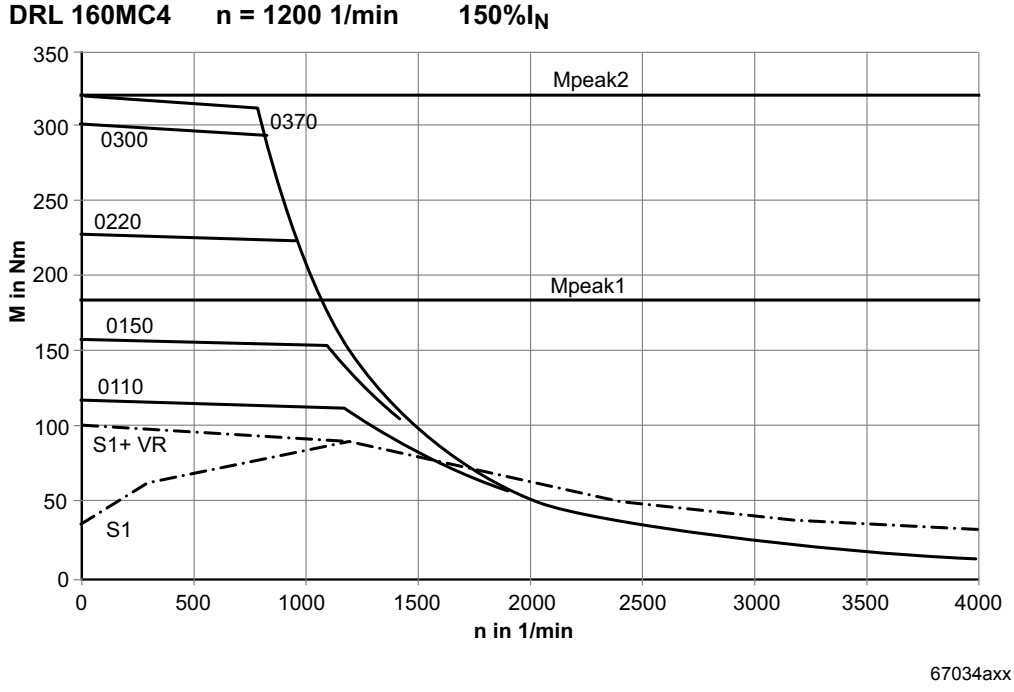


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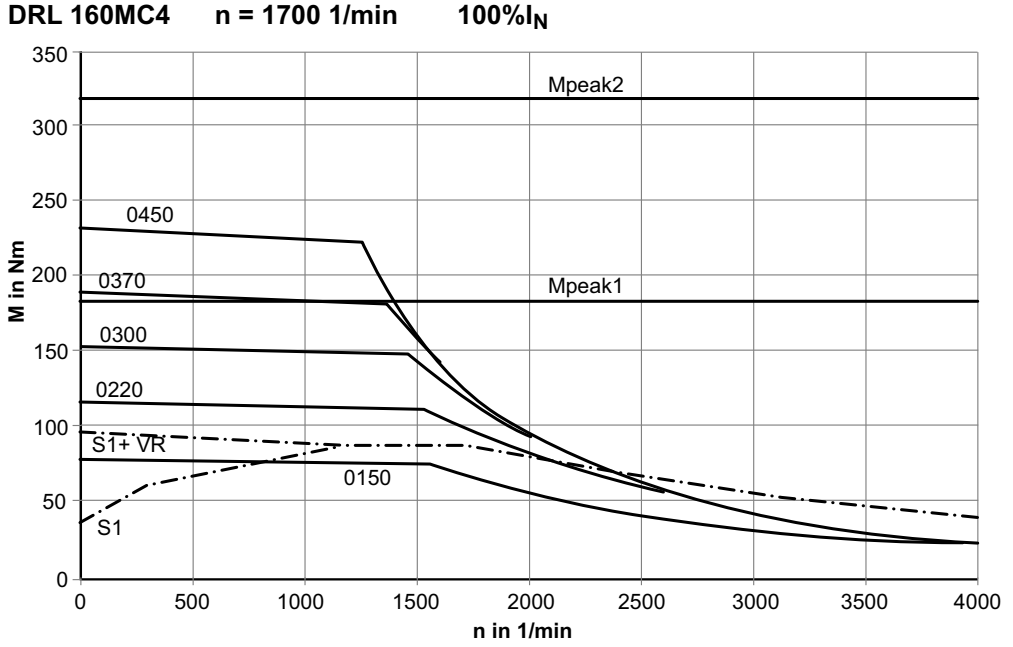
DRL160MC4, n_N = 1200 1/min, 100% I_N



DRL160MC4, n_N = 1200 1/min, 150% I_N

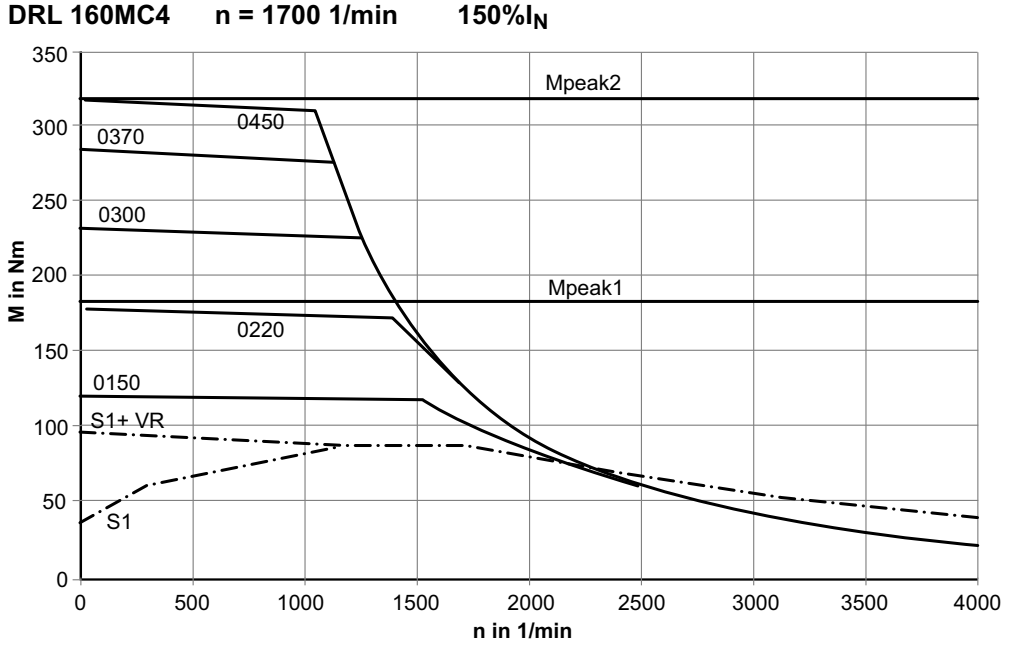


DRL160MC4, n_N = 1700 1/min, 100% I_N



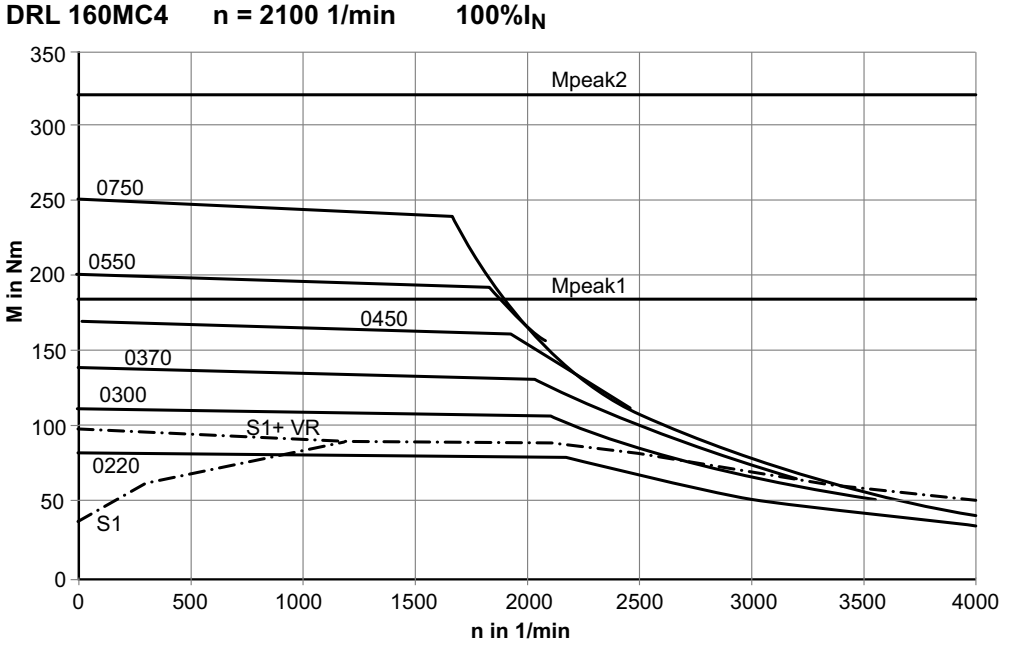
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DRL160MC4, n_N = 1700 1/min, 150% I_N



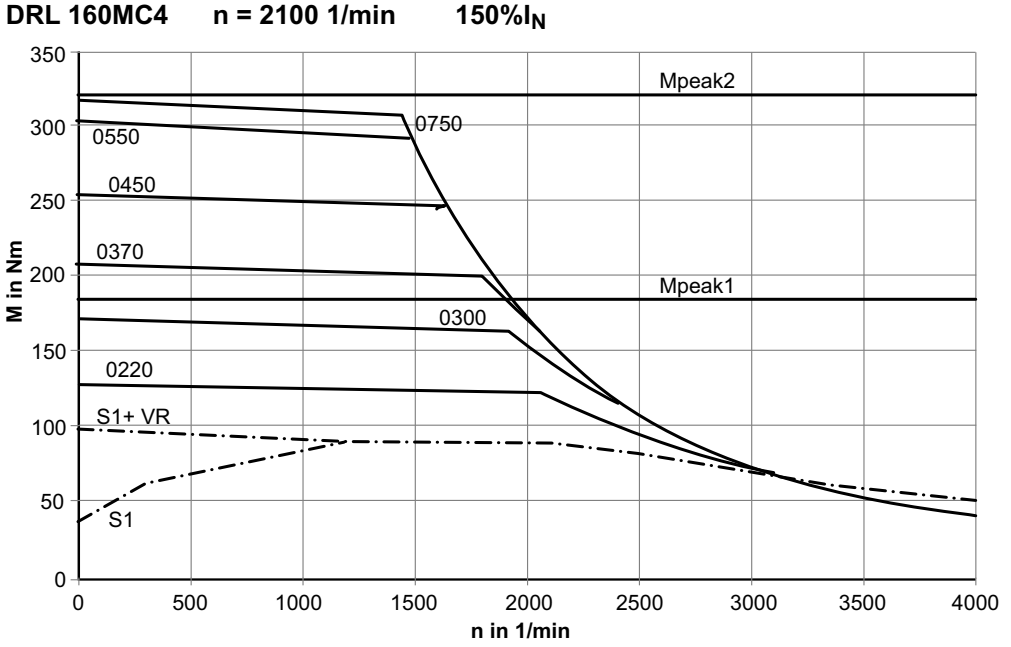
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DRL160MC4, n_N = 2100 1/min, 100% I_N



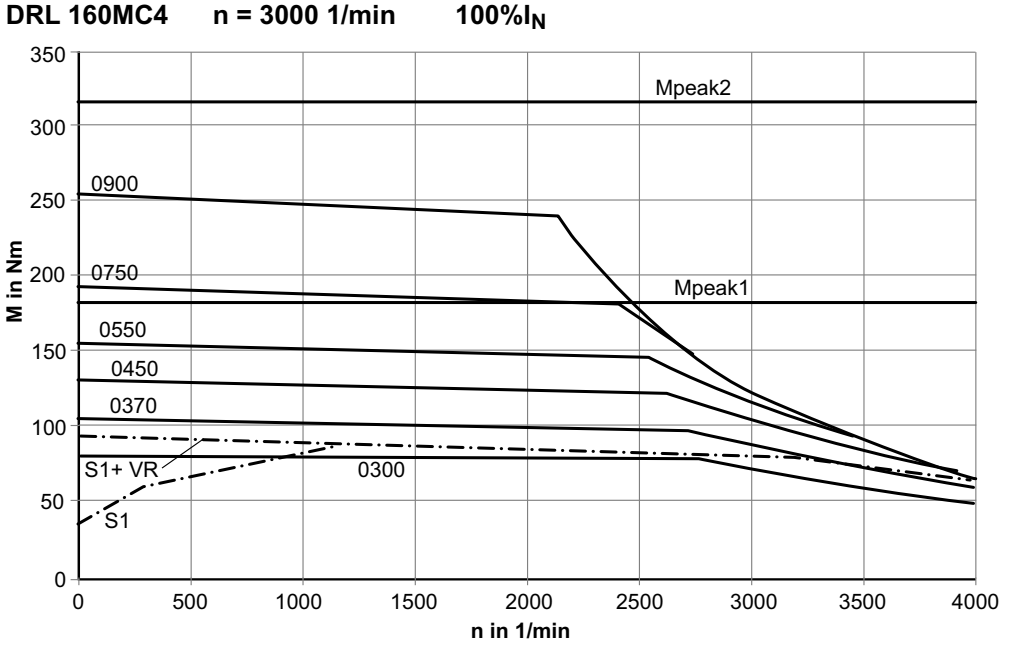
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DRL160MC4, n_N = 2100 1/min, 150% I_N



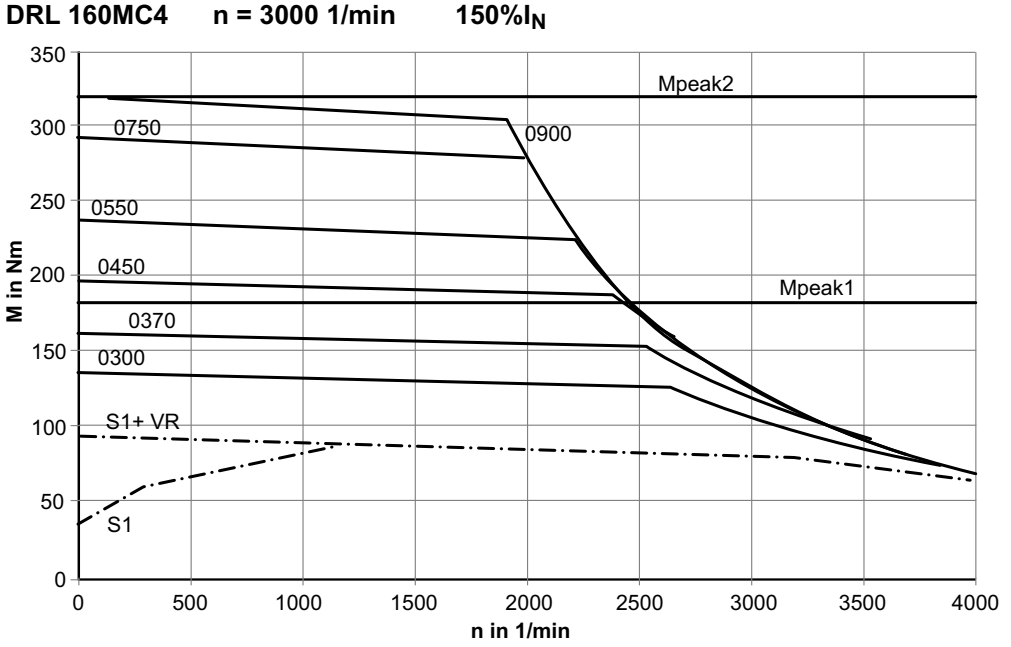
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DRL160MC4, n_N = 3000 1/min, 100% I_N



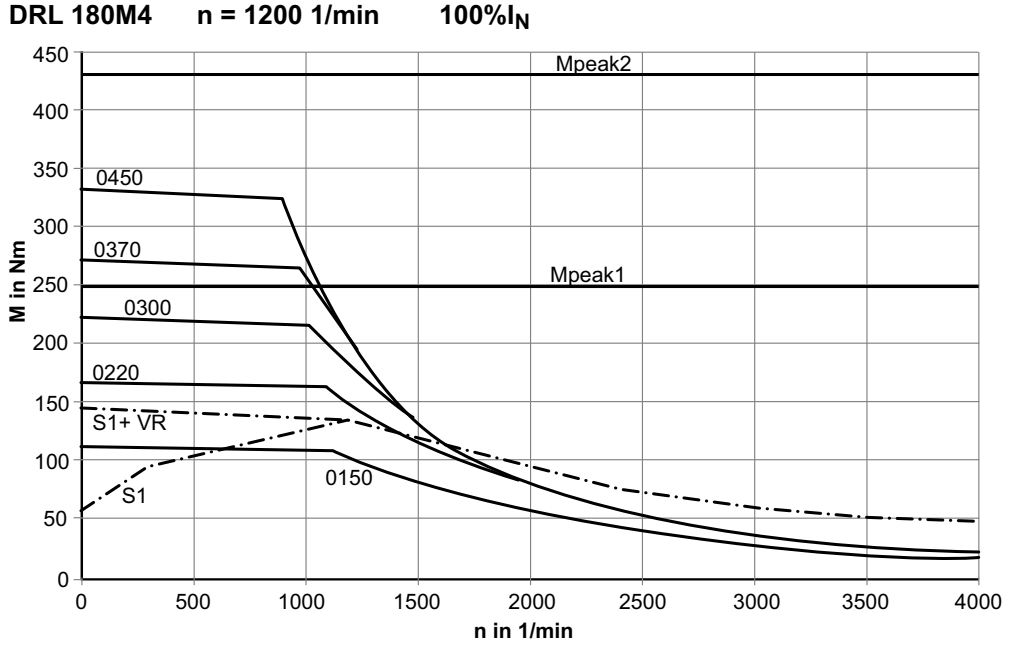
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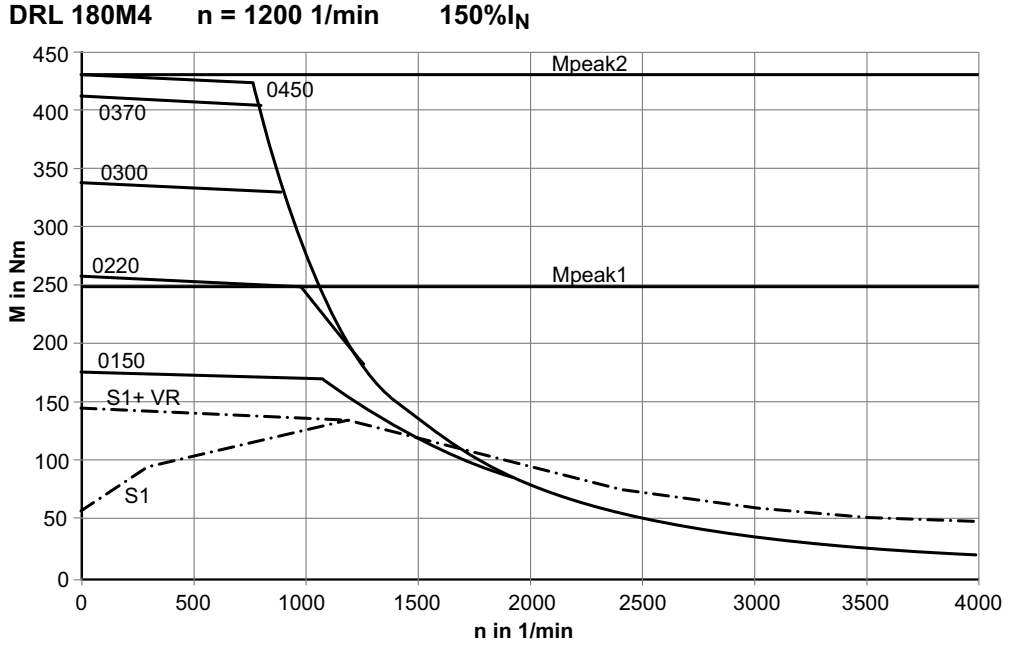
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DRL180M4, n_N = 1200 1/min, 100% I_N



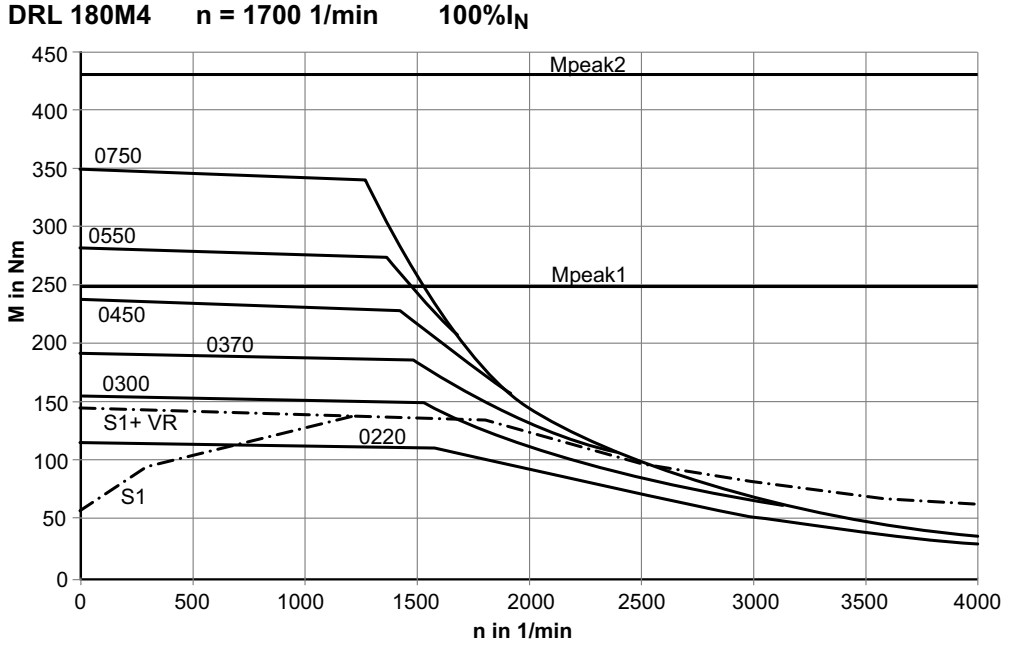
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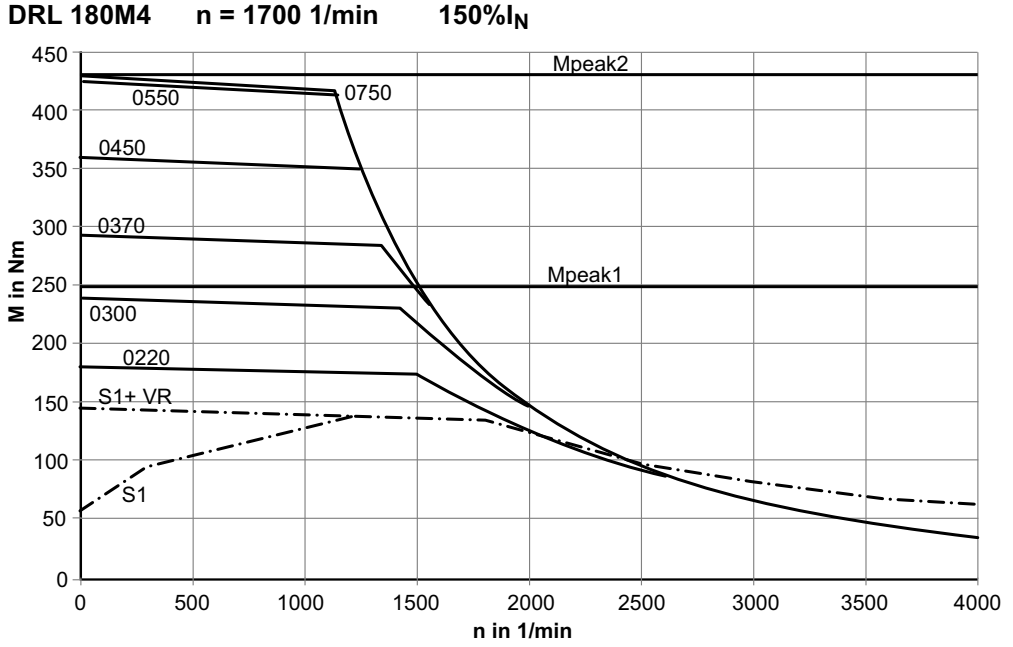
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DRL180M4, n_N = 1700 1/min, 100% I_N



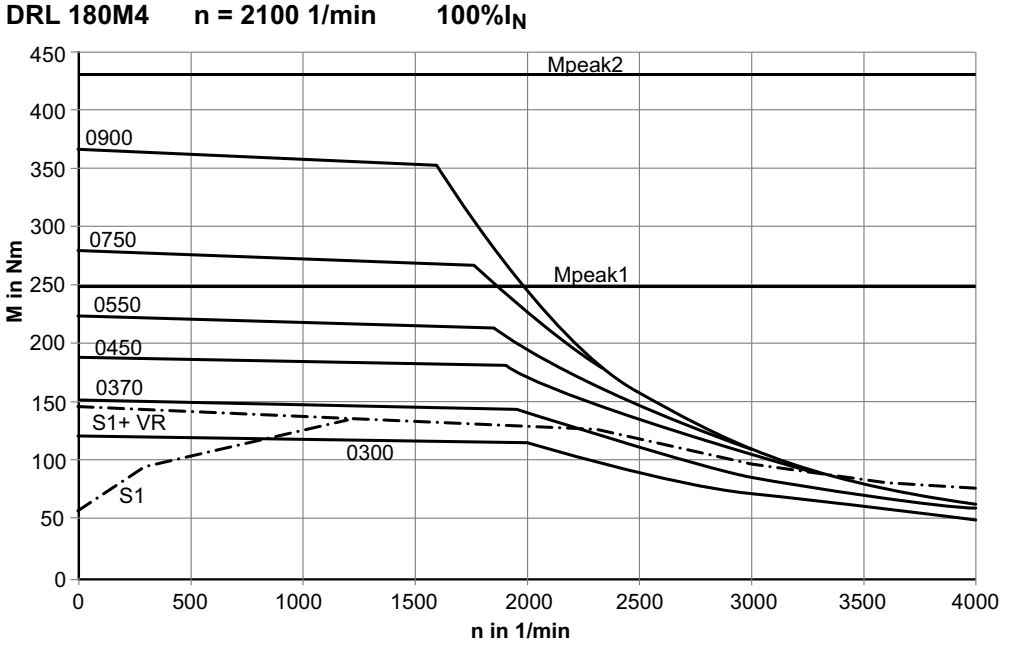
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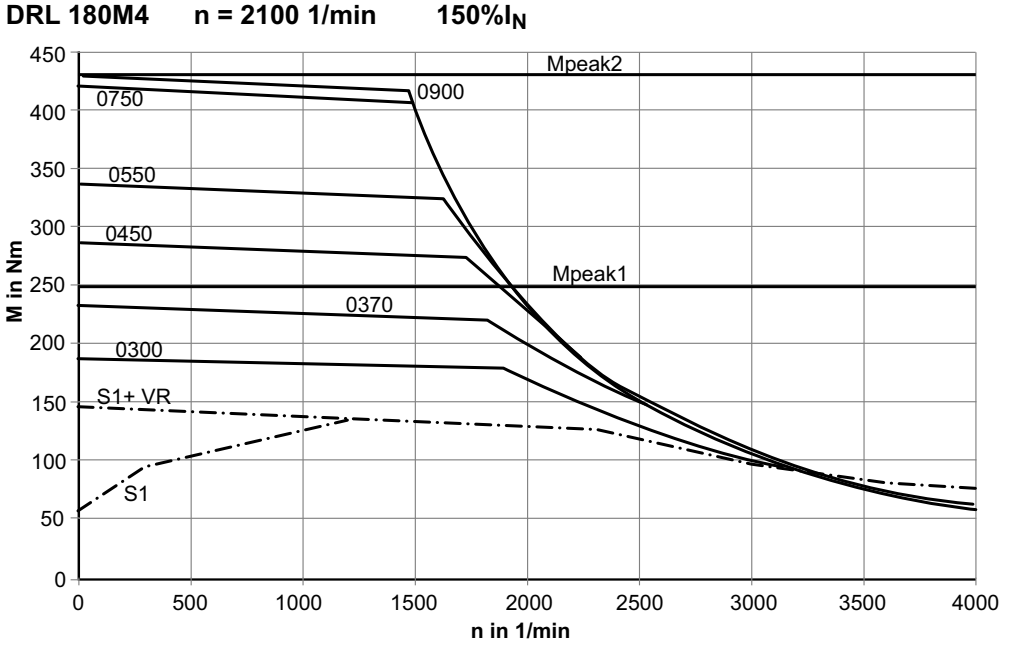


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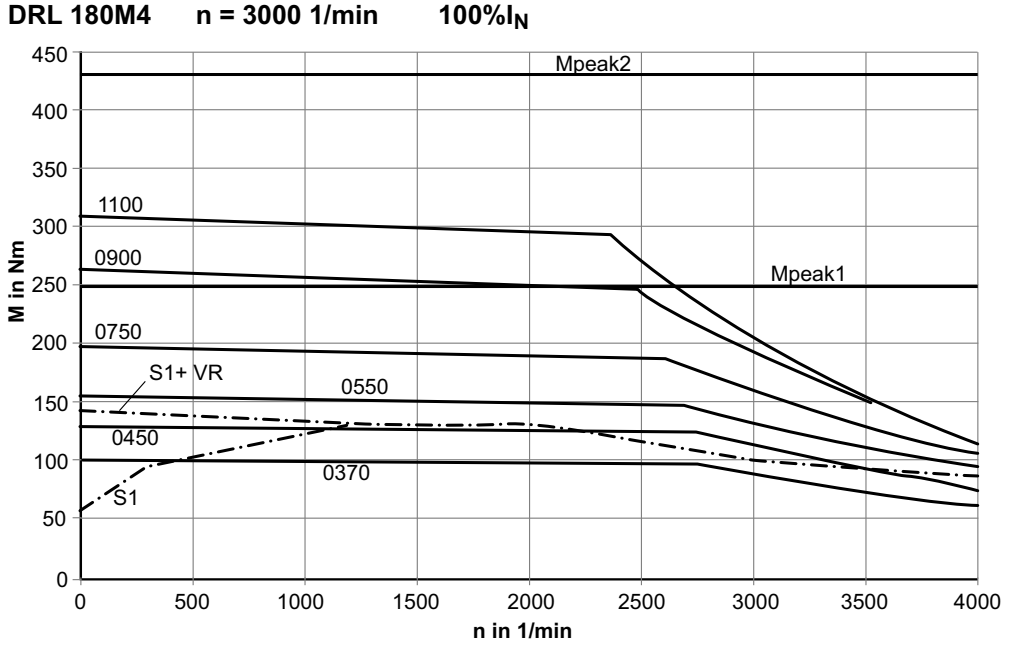
DRL180M4, n_N = 2100 1/min, 100% I_N



DRL180M4, n_N = 2100 1/min, 150% I_N

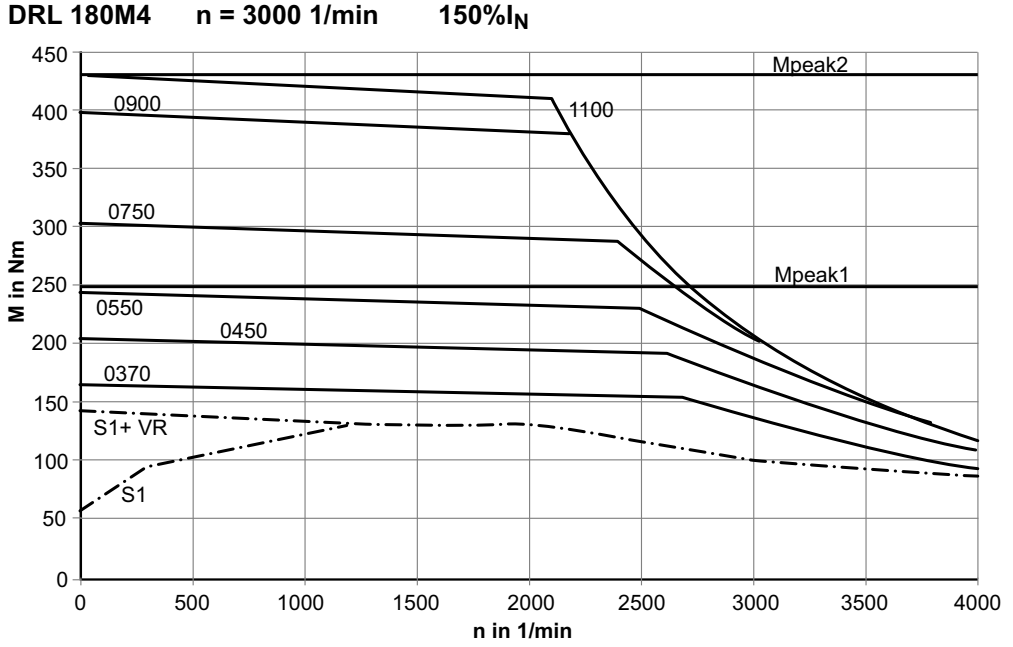


DRL180M4, n_N = 3000 1/min, 100% I_N



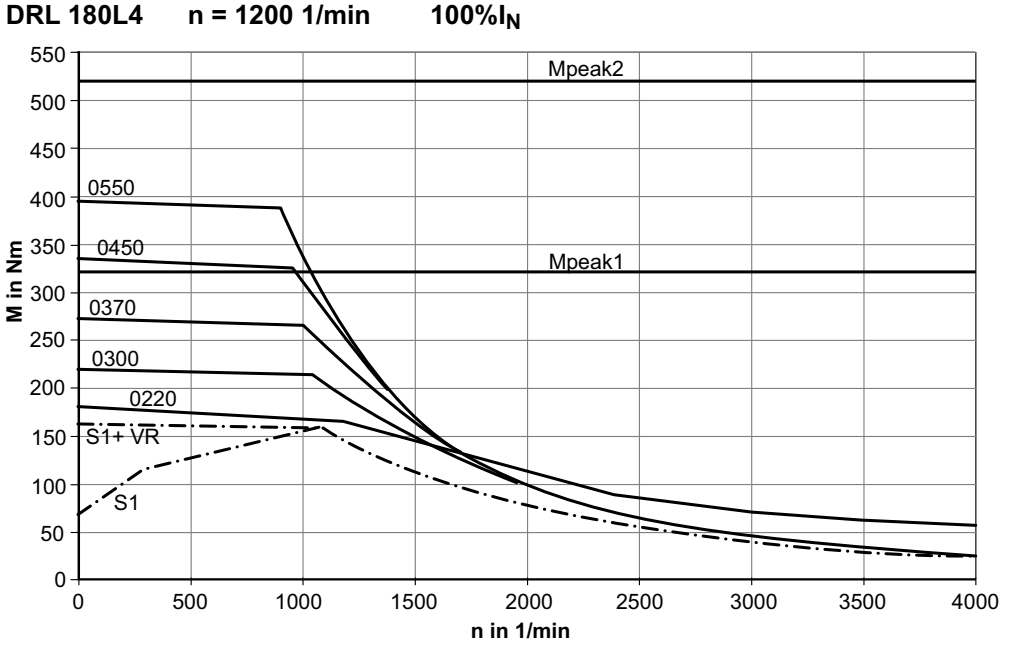
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DRL180M4, n_N = 3000 1/min, 150% I_N



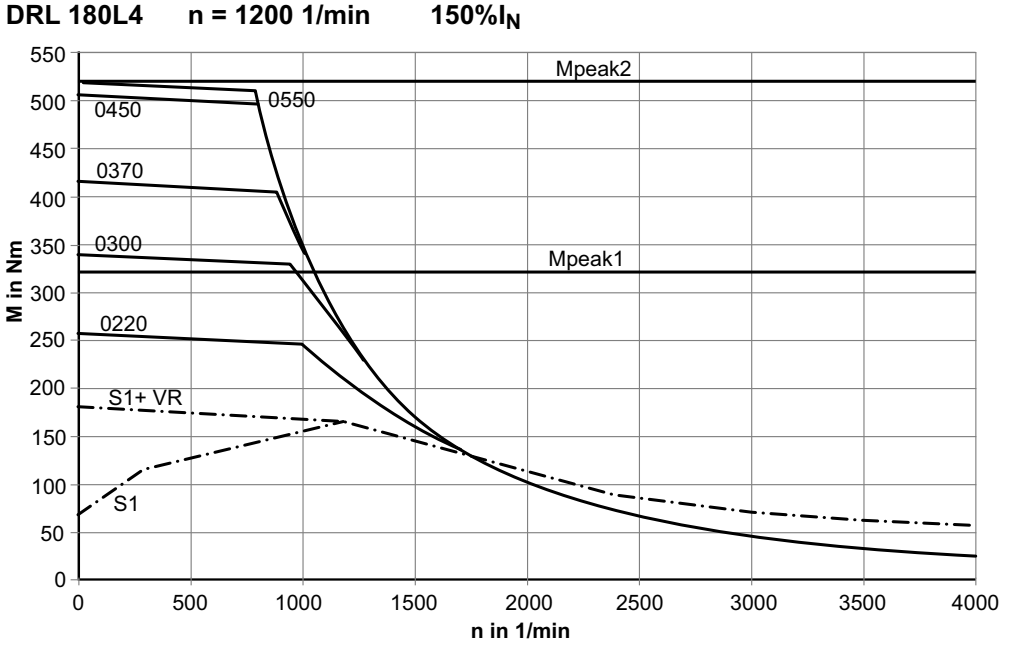
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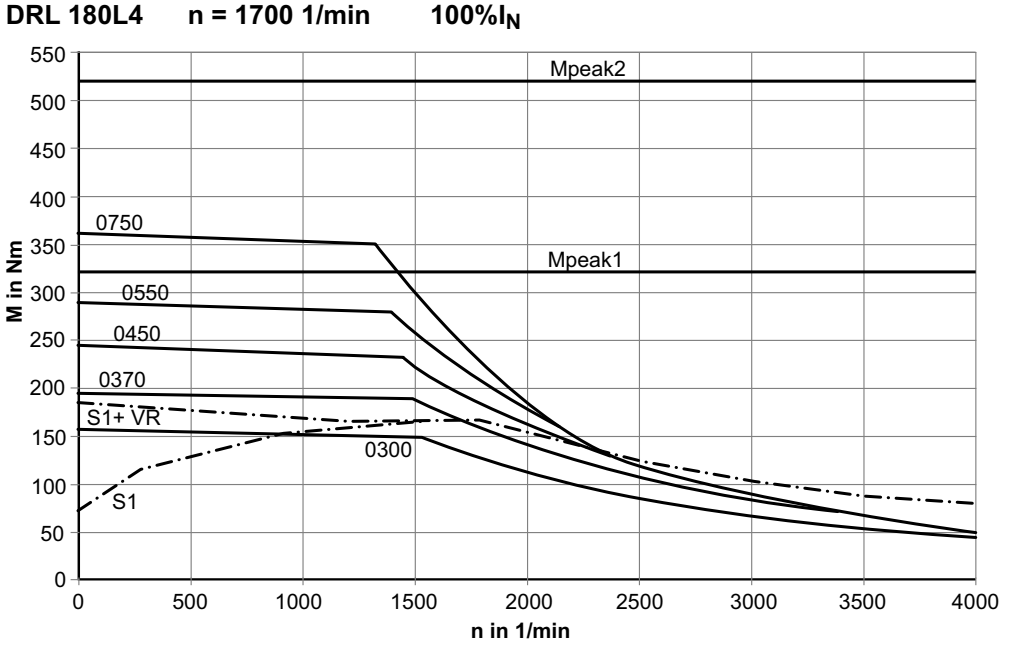
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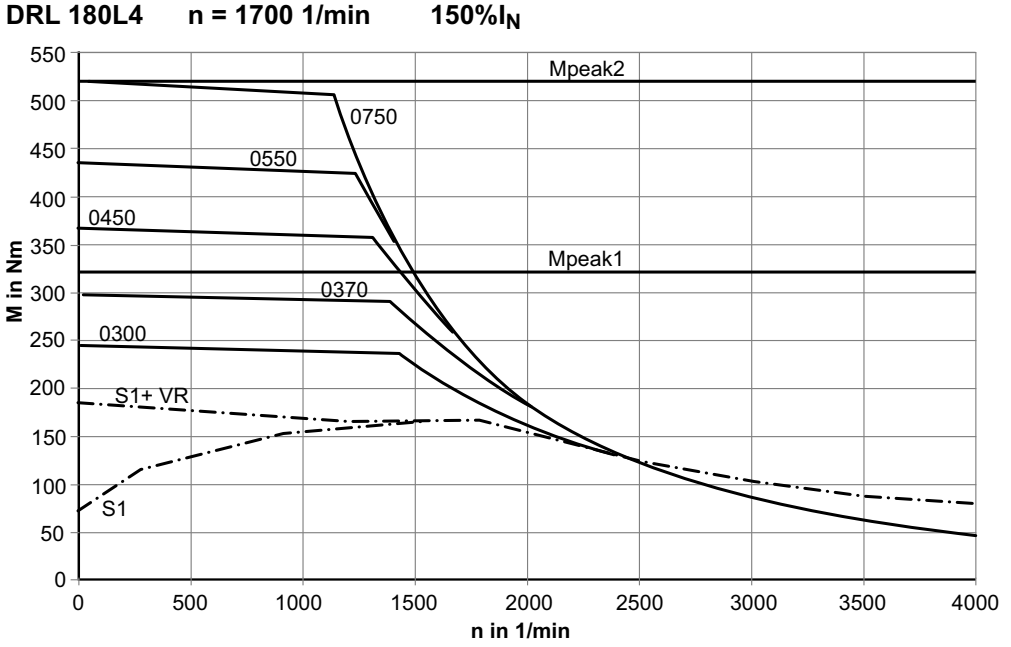
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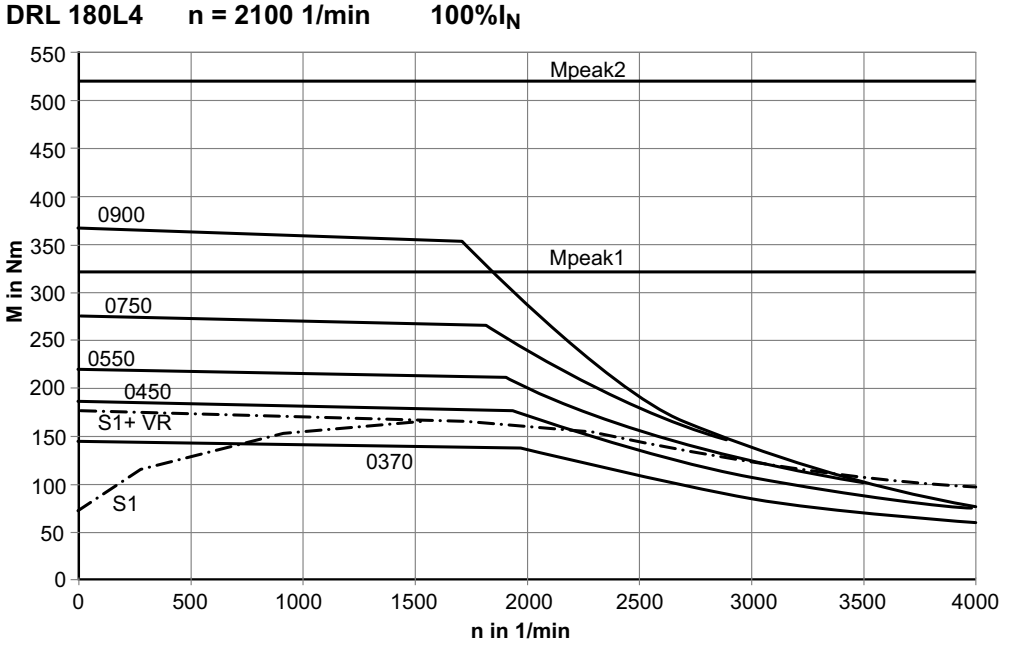
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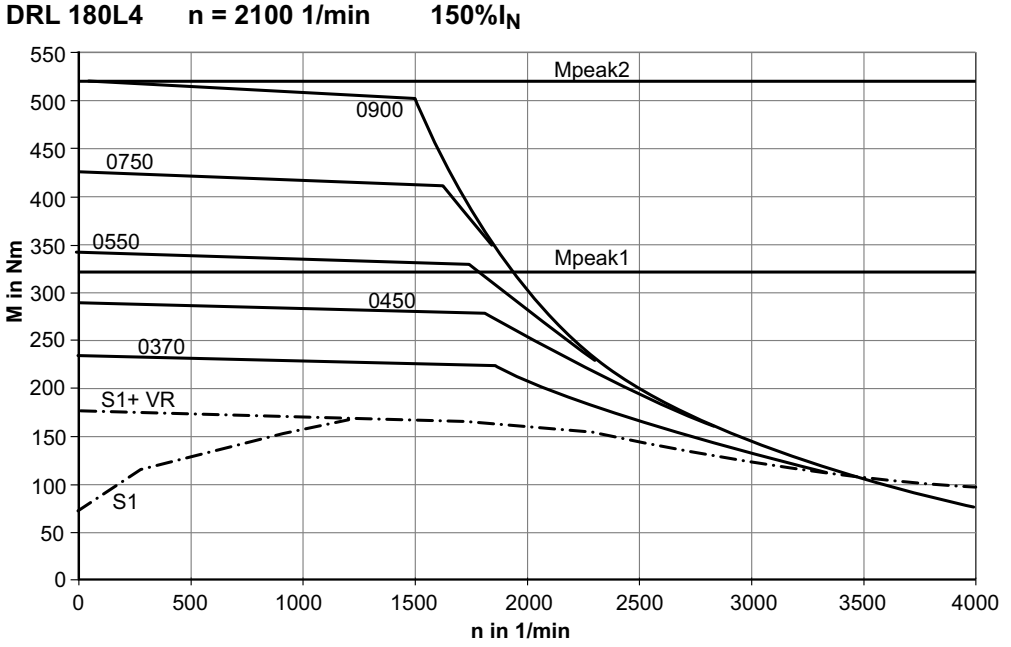
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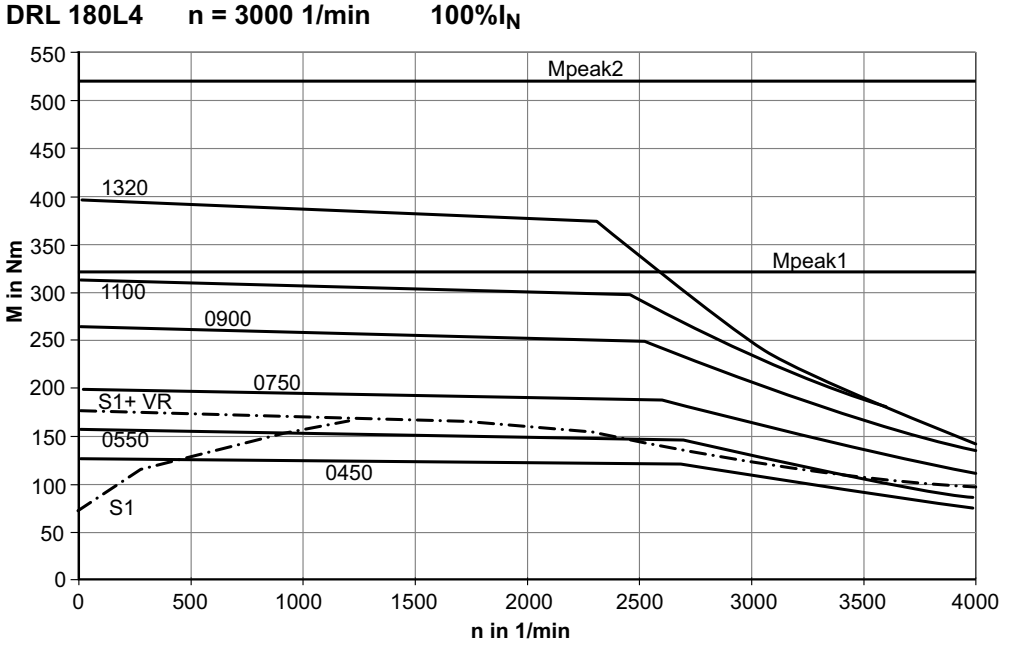
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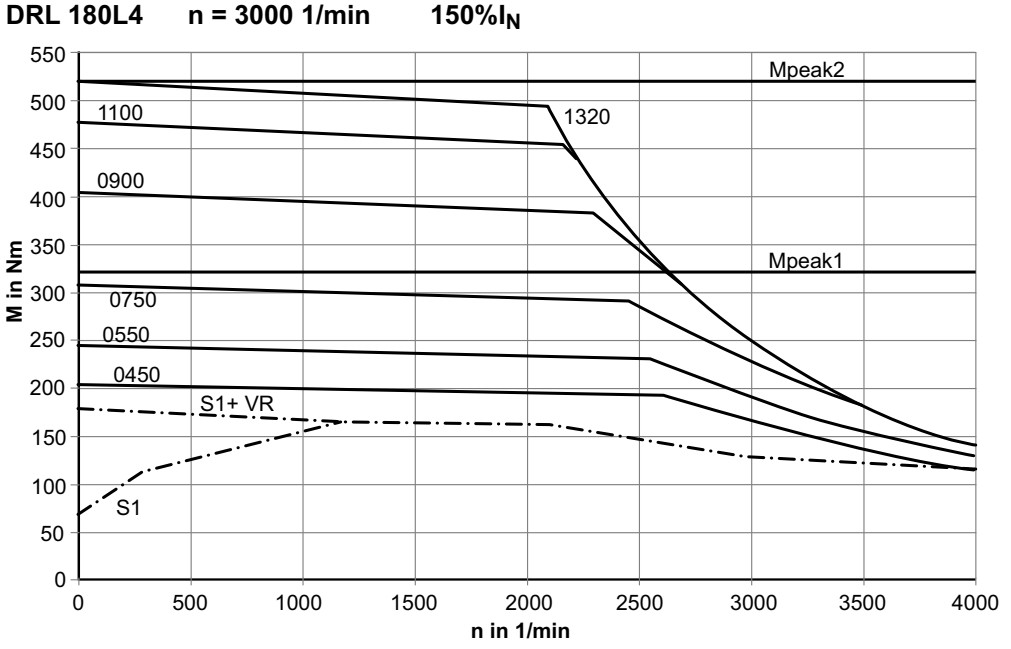
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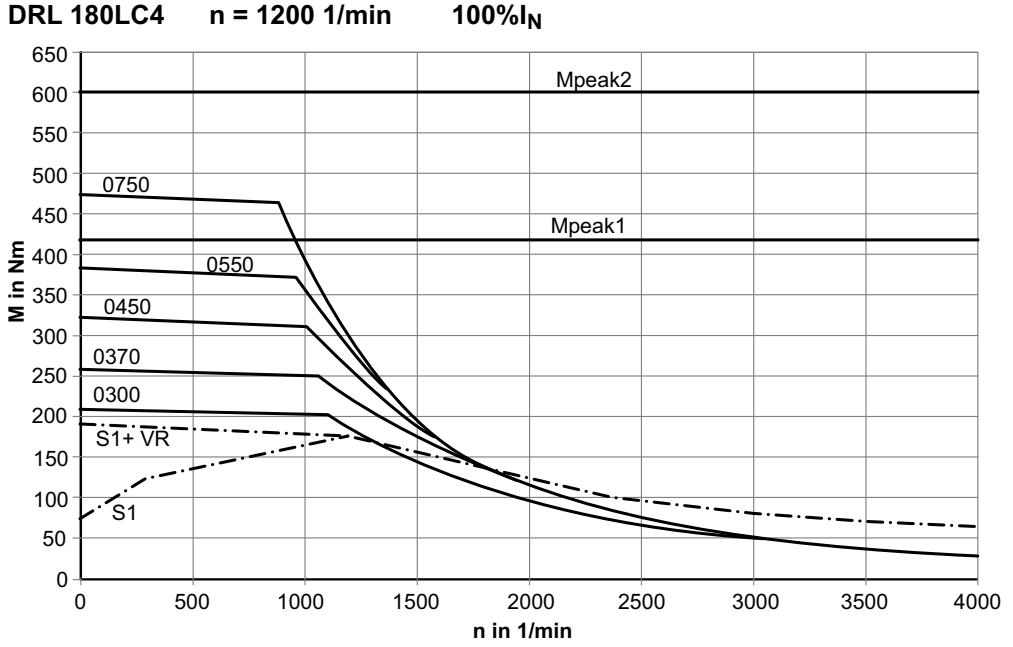
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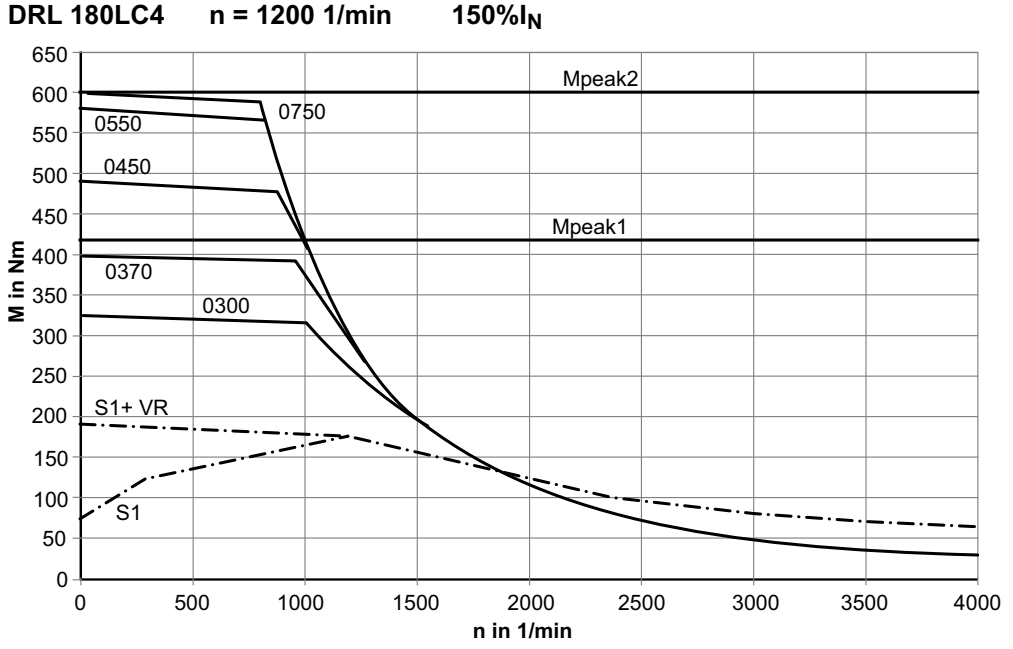
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DRL180LC4, n_N = 1200 1/min, 100% I_N



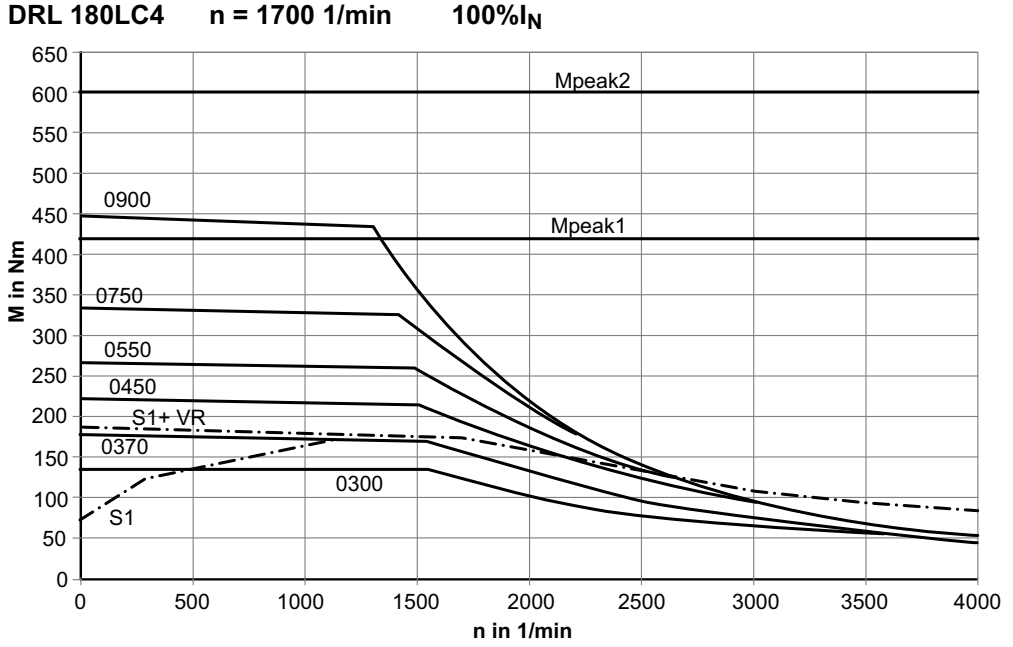
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DRL180LC4, n_N = 1200 1/min, 150% I_N



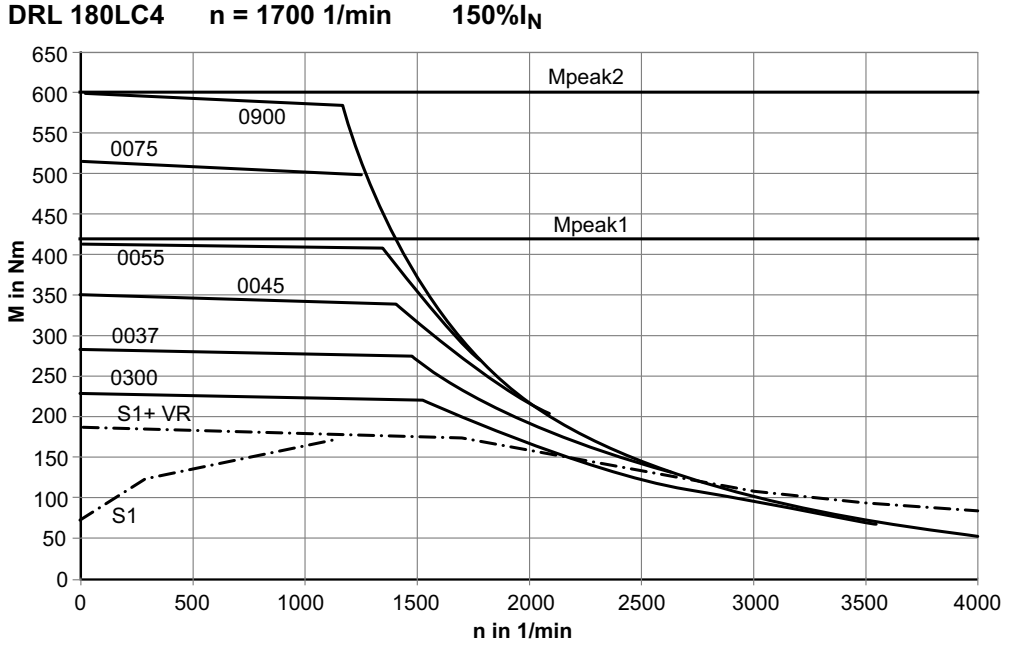
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DRL180LC4, n_N = 1700 1/min, 100% I_N



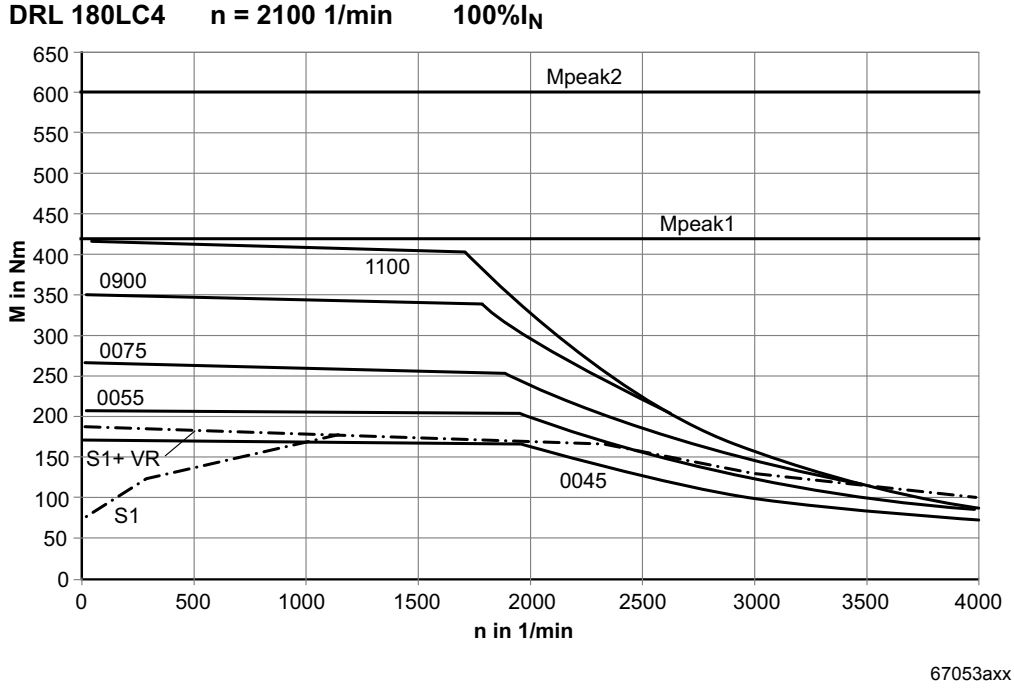
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DRL180LC4, n_N = 1700 1/min, 150% I_N



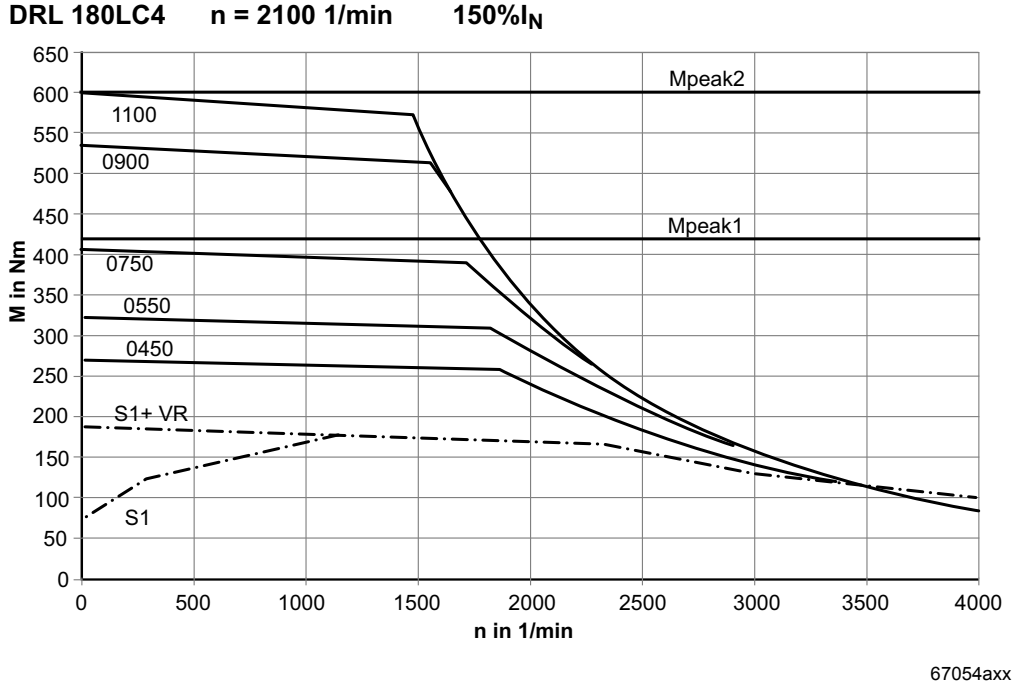
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DRL180LC4, n_N = 2100 1/min, 100% I_N



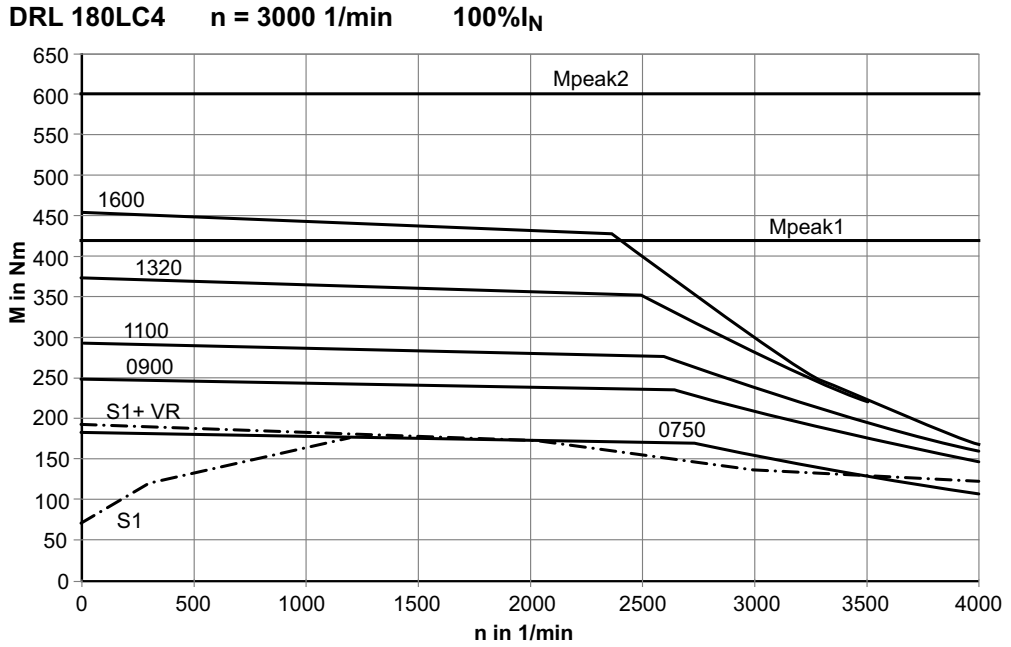
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DRL180LC4, n_N = 2100 1/min, 150% I_N



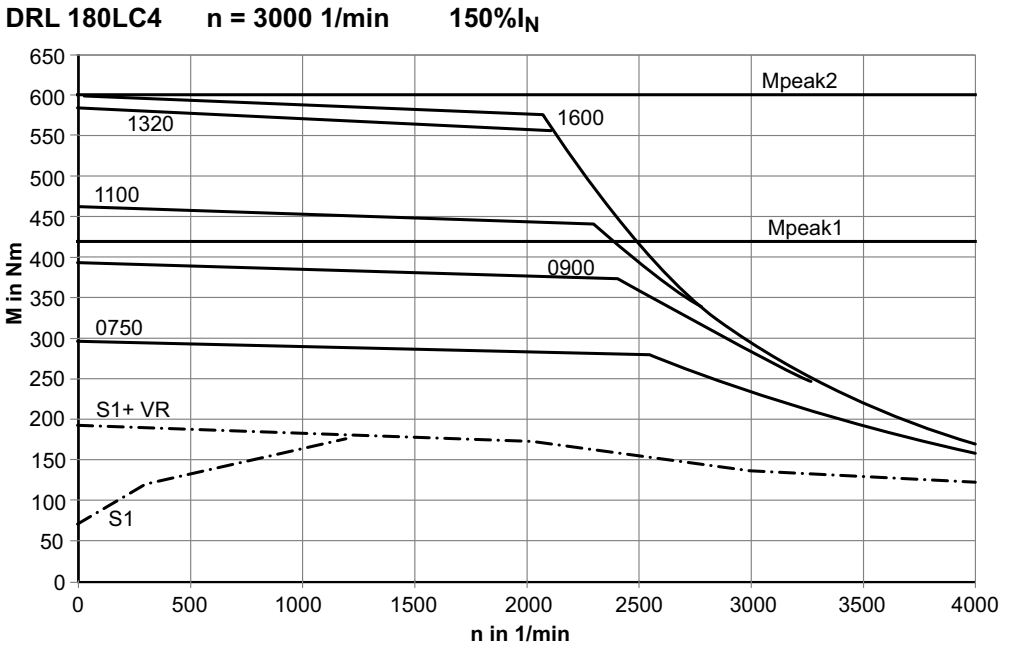
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DRL180LC4, n_N = 3000 1/min, 100% I_N



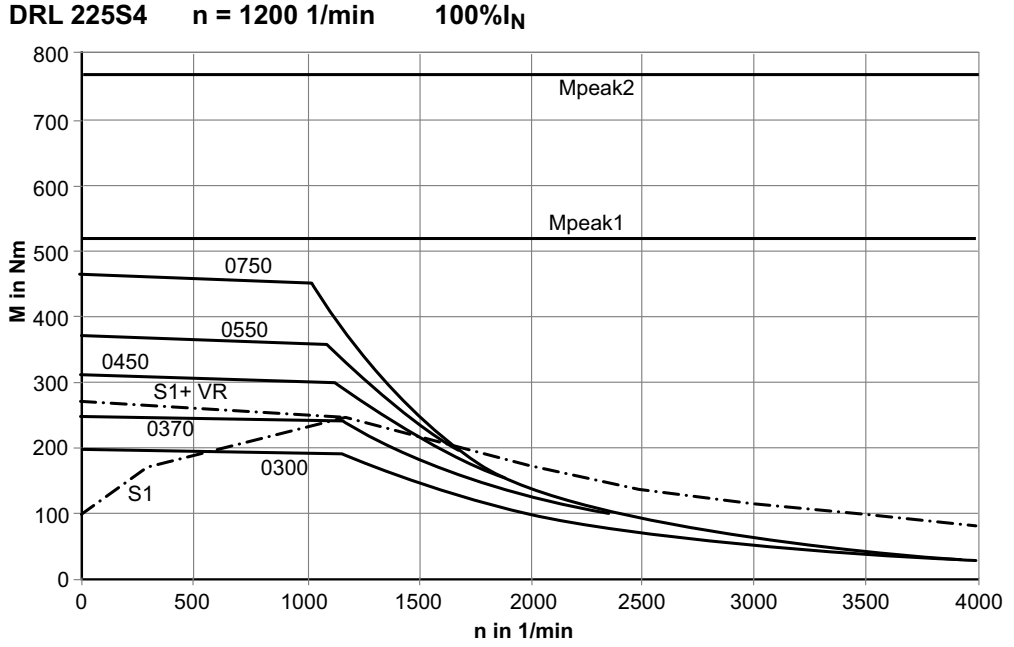
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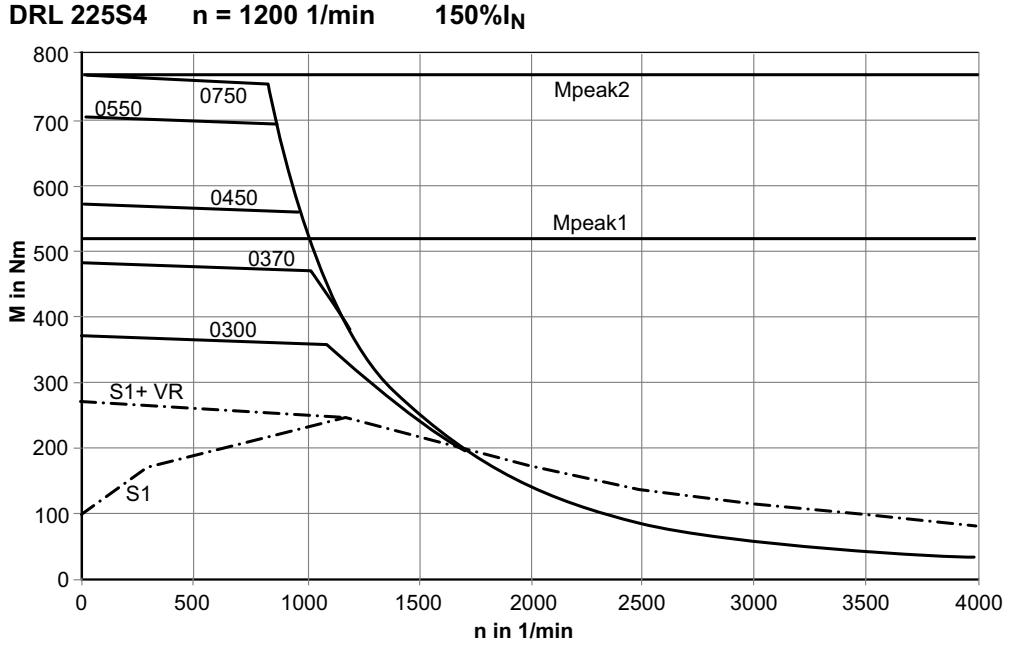
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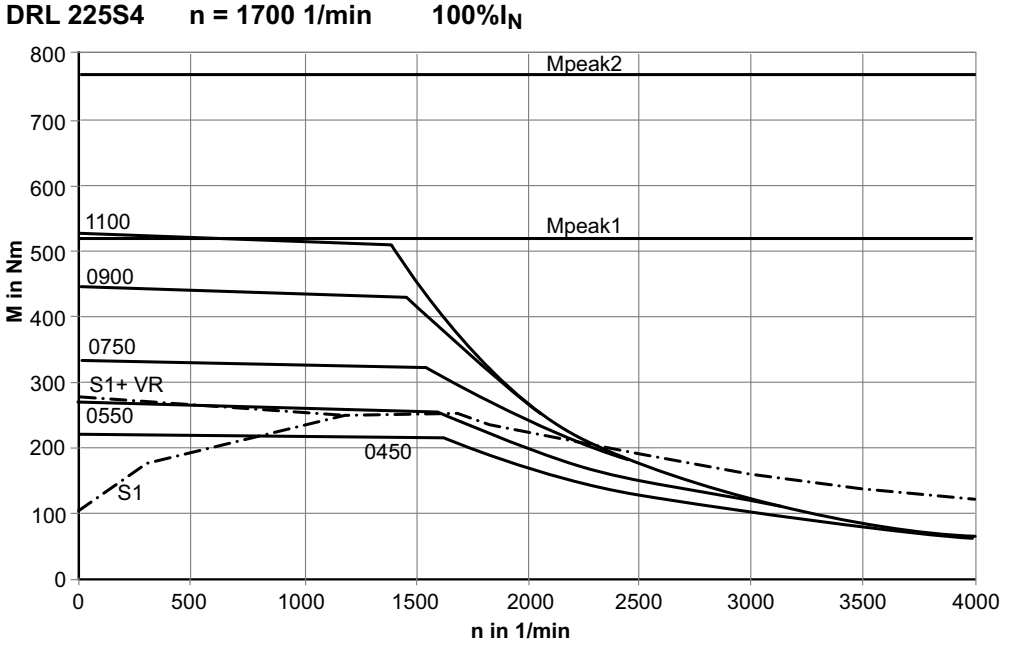
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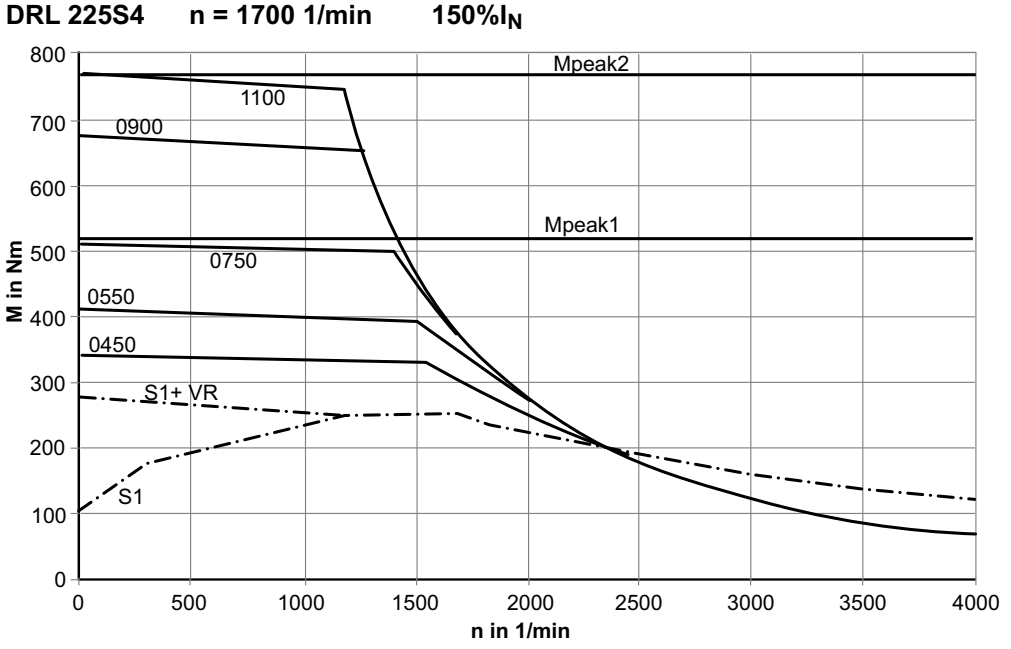
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DRL225S4, n_N = 1700 1/min, 100% I_N



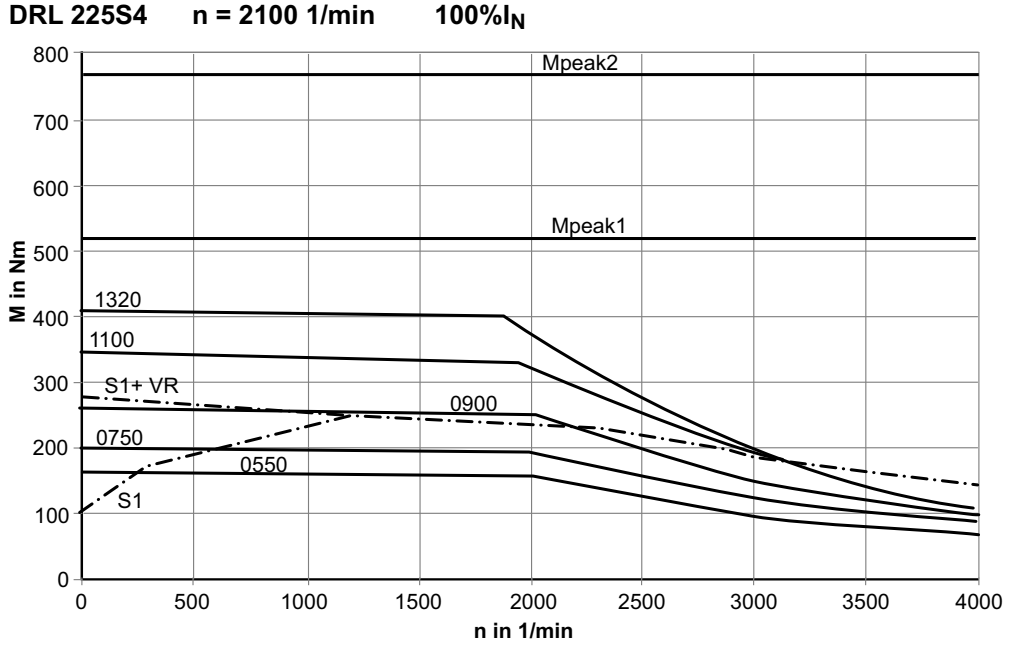
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DRL225S4, n_N = 1700 1/min, 150% I_N



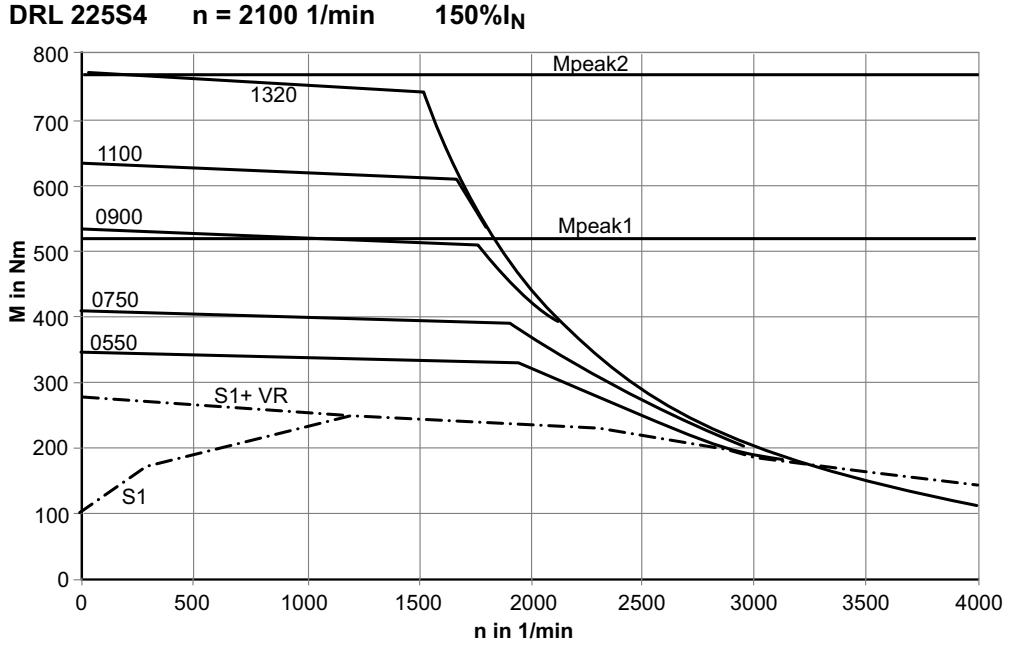
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DRL225S4, n_N = 2100 1/min, 100% I_N



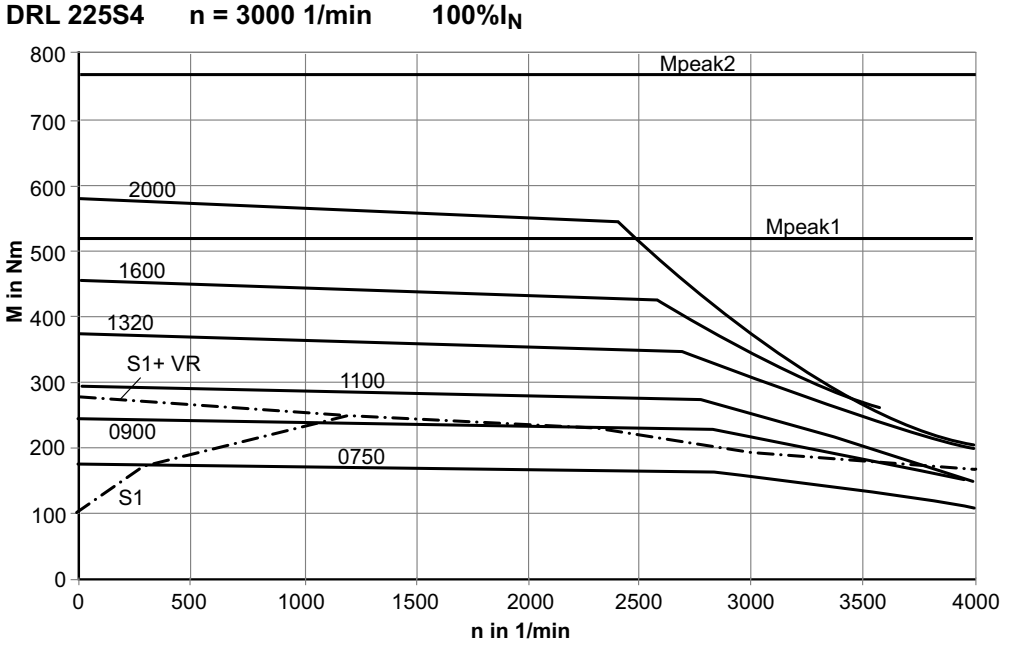
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DRL225S4, n_N = 2100 1/min, 150% I_N



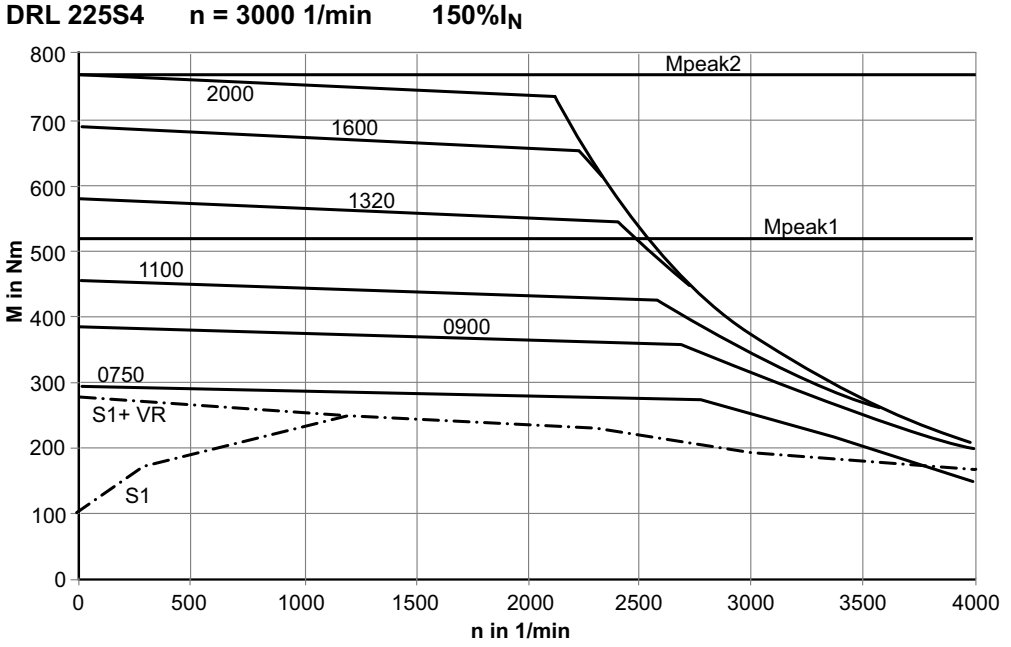
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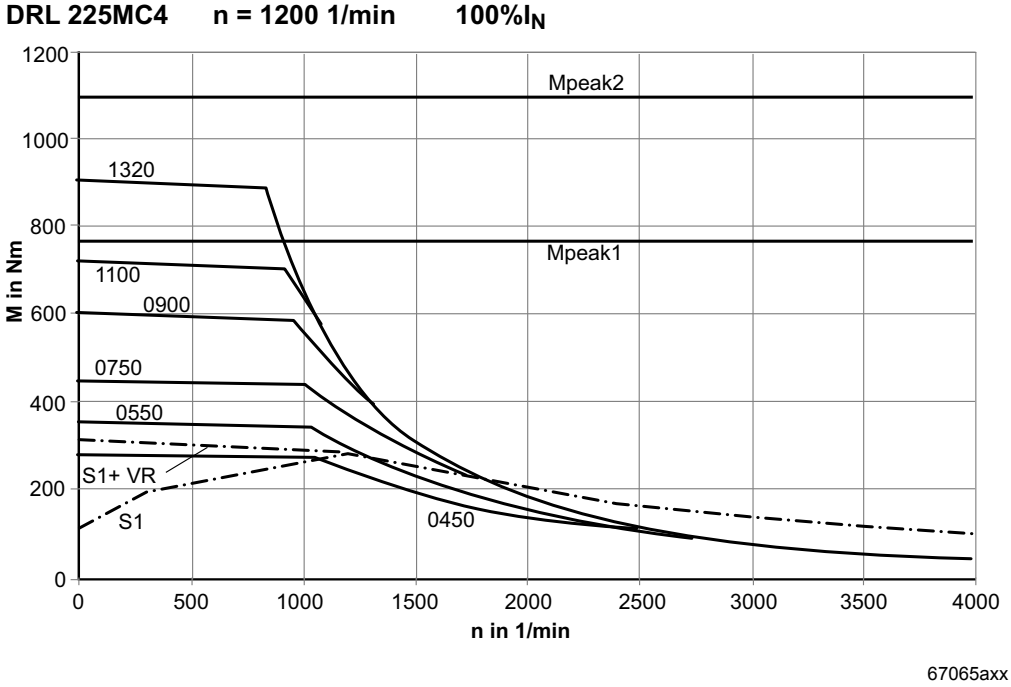
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DRL225S4, n_N = 3000 1/min, 150% I_N

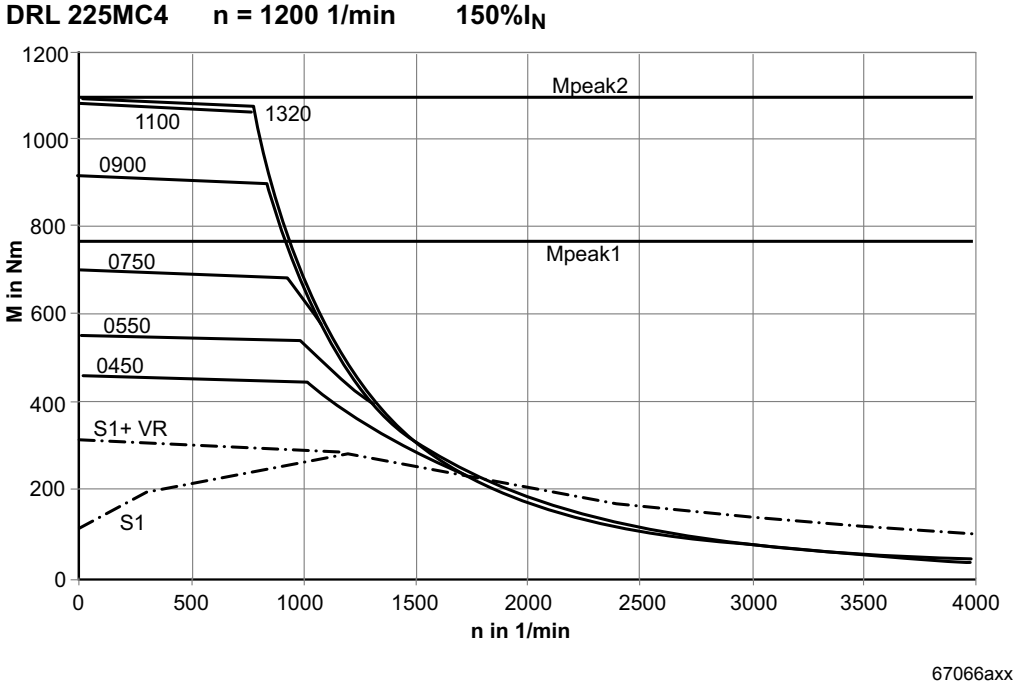


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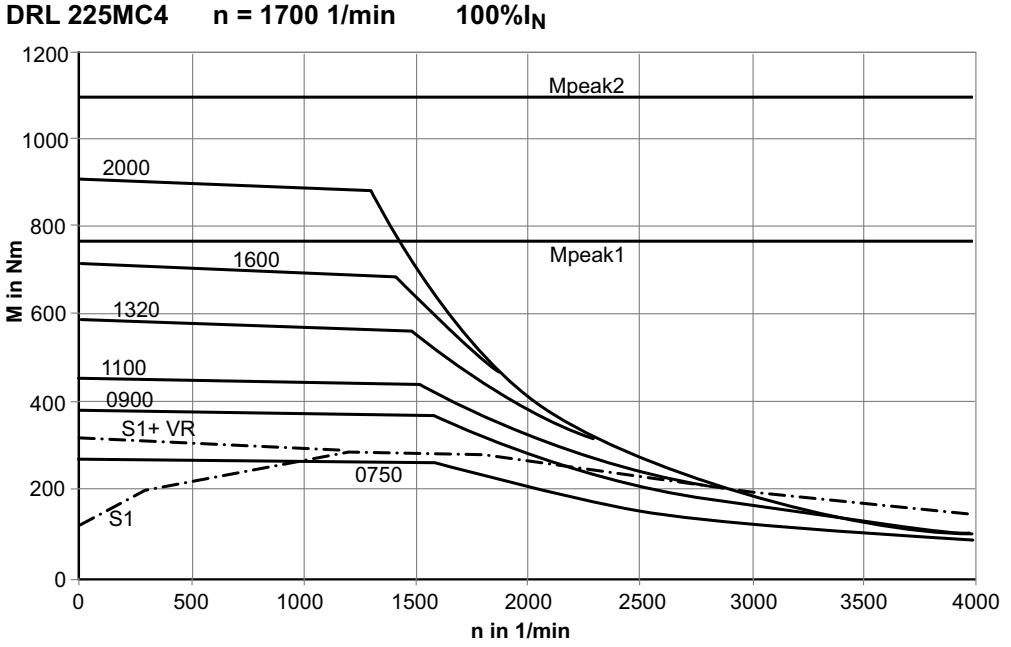
DRL225MC4, n_N = 1200 1/min, 100% I_N



DRL225MC4, n_N = 1200 1/min, 150% I_N

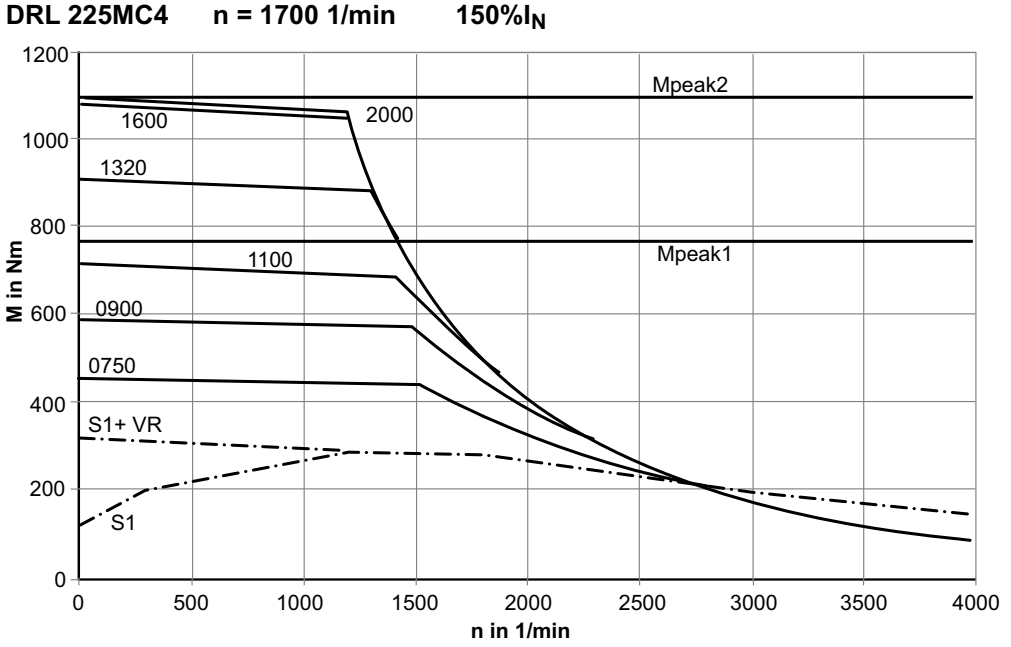


DRL225MC4, n_N = 1700 1/min, 100% I_N



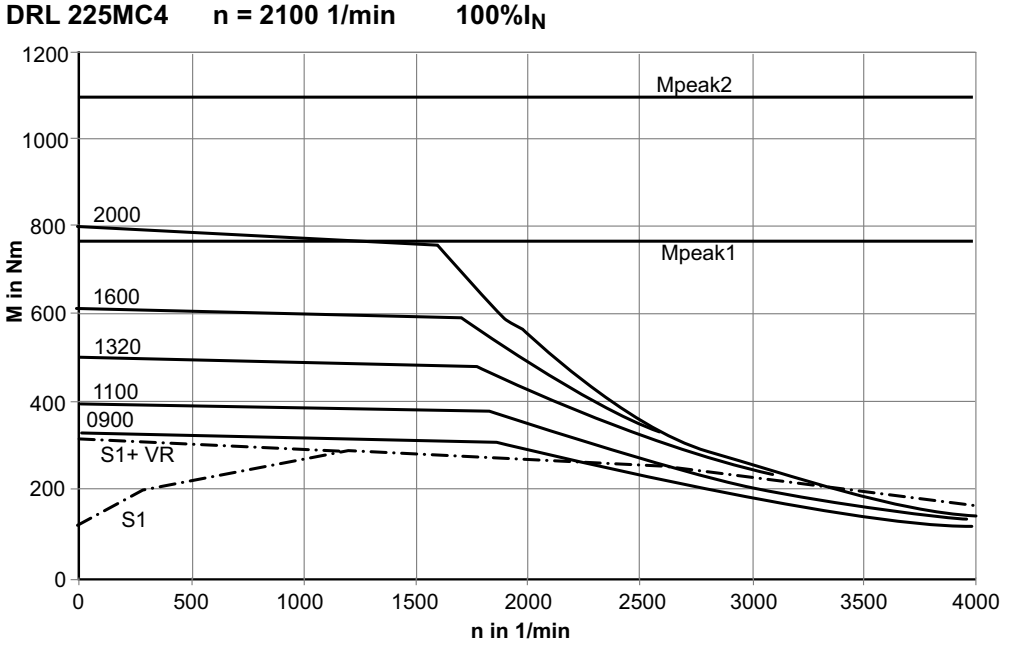
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DRL225MC4, n_N = 1700 1/min, 150% I_N



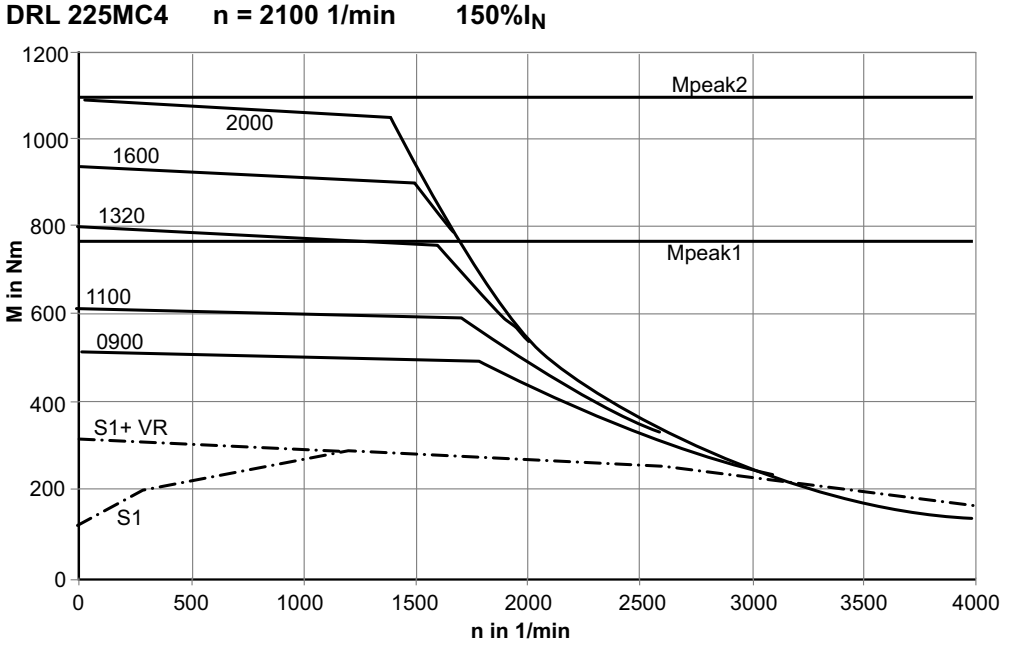
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DRL225MC4, n_N = 2100 1/min, 100% I_N



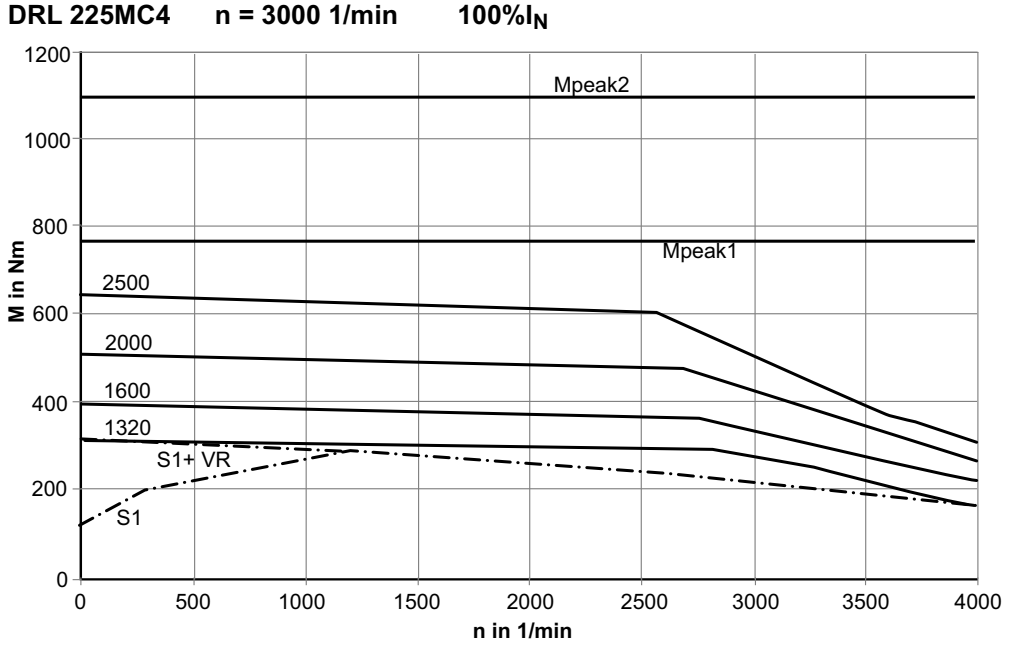
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DRL225MC4, n_N = 2100 1/min, 150% I_N



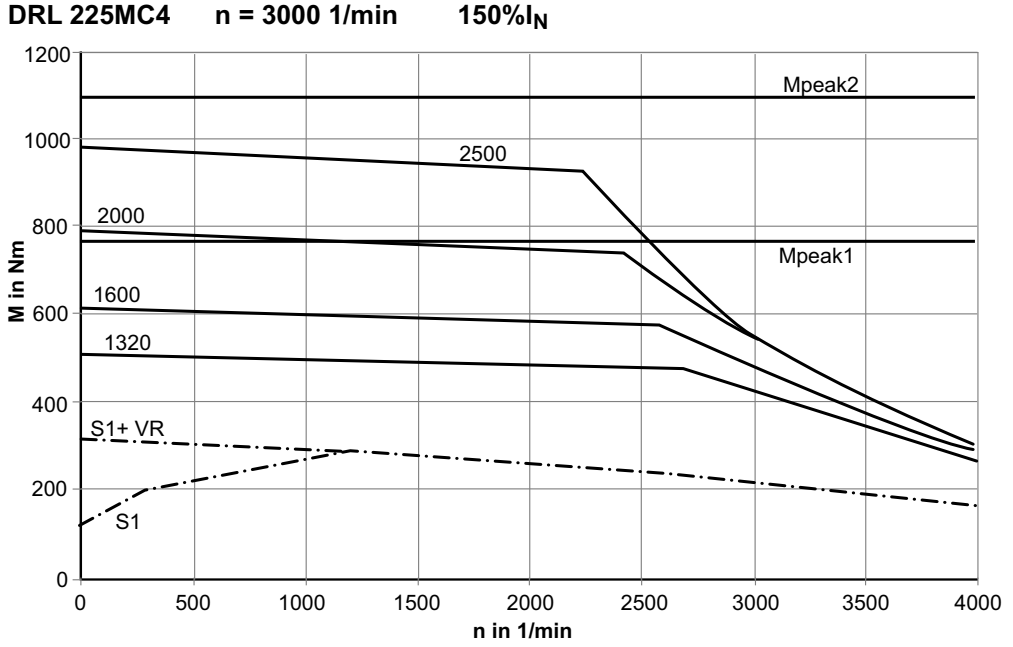
67070axx

DRL225MC4, n_N = 3000 1/min, 100% I_N



67071axx

DRL225MC4, n_N = 3000 1/min, 150% I_N



67072axx



4 Combinations, Characteristic Curves: DRL – MOVIAXIS®, 8 kHz

4.1 Combination overview: DRL motors with MOVIAXIS®, PWM = 8 kHz

1. Rated speed n_N = 1200 1/min, dynamics package 1, PWM = 8 kHz

Motor			Assignment to MOVIAXIS® MXA									
	Size		1			2		3		4	5	6
Type	I_N [A]		2	4	8	12	16	24	32	48	64	100
	I_{max} [A]		5	10	20	30	40	60	80	120	160	250
	M_{max}	Nm	13.03									
DRL71S4	n_{tra} V_{sply}=400V	1/min	826									
	n_{tra} V_{DCL}=750V	1/min	1219									
	M_{max}	Nm	14.08									
DRL71M4	n_{tra} V_{sply}=400V	1/min	850									
	n_{tra} V_{DCL}=750V	1/min	1248									
	M_{max}	Nm	15.26									
DRL80M4	n_{tra} V_{sply}=400V	1/min	984									
	n_{tra} V_{DCL}=750V	1/min	1453									
	M_{max}	Nm		32.94	70.82							
DRL90L4	n_{tra} V_{sply}=400V	1/min		1037	1037							
	n_{tra} V_{DCL}=750V	1/min		1500	1500							
	M_{max}	Nm		19.31	59.33	93.62						
DRL100L4	n_{tra} V_{sply}=400V	1/min		1119	1049	1049						
	n_{tra} V_{DCL}=750V	1/min		1546	1482	1482						
	M_{max}	Nm			56.51	96.9						
DRL132S4	n_{tra} V_{sply}=400V	1/min			962	918						
	n_{tra} V_{DCL}=750V	1/min			1323	1279						
	M_{max}	Nm					133.78	210.21				
DRL132MC4	n_{tra} V_{sply}=400V	1/min					903	757				
	n_{tra} V_{DCL}=750V	1/min					1333	1372				
	M_{max}	Nm					113.49	194.97				
DRL160M4	n_{tra} V_{sply}=400V	1/min					1006	945				
	n_{tra} V_{DCL}=750V	1/min					1371	1301				
	M_{max}	Nm						194.95	271.78	419.91		
DRL160MC4	n_{tra} V_{sply}=400V	1/min						1020	1033	1033		
	n_{tra} V_{DCL}=750V	1/min						1393	1411	1437		
	M_{max}	Nm						179.2	266.95	427.93		
DRL180M4	n_{tra} V_{sply}=400V	1/min						1015	1050	1055		
	n_{tra} V_{DCL}=750V	1/min						1292	1349	1358		
	M_{max}	Nm							254.38	423.82	583.53	
DRL180L4	n_{tra} V_{sply}=400V	1/min							1002	1068	1068	
	n_{tra} V_{DCL}=750V	1/min							1362	1468	1468	
	M_{max}	Nm								413.14	572.06	918.21
DRL180LC4	n_{tra} V_{sply}=400V	1/min								949	989	989
	n_{tra} V_{DCL}=750V	1/min								1296	1354	1354
	M_{max}	Nm								362.51	531.26	882.69
DRL225S4	n_{tra} V_{sply}=400V	1/min								1055	1025	1025
	n_{tra} V_{DCL}=750V	1/min								1420	1386	1386
	M_{max}	Nm										875.63
DRL225MC4	n_{tra} V_{sply}=400V	1/min										935
	n_{tra} V_{DCL}=750V	1/min										1263



2. Rated speed n_N = 1200 1/min, dynamics package 1, PWM = 8 kHz

Motor			Assignment to MOVIAXIS® MXA									
	Size		1			2		3		4	5	6
Type	I_N	[A]	2	4	8	12	16	24	32	48	64	100
	I_{max}	[A]	5	10	20	30	40	60	80	120	160	250
DRL71S4	M_{max}	Nm	13.03									
	n_{tra} V_{sply}=400V	1/min	445									
	n_{tra} V_{DCL}=750V	1/min	773									
DRL71M4	M_{max}	Nm	14.08									
	n_{tra} V_{sply}=400V	1/min	352									
	n_{tra} V_{DCL}=750V	1/min	656									
DRL80M4	M_{max}	Nm	15.26	34.68								
	n_{tra} V_{sply}=400V	1/min	815	469								
	n_{tra} V_{DCL}=750V	1/min	1207	820								
DRL90L4	M_{max}	Nm		32.94	70.82							
	n_{tra} V_{sply}=400V	1/min		791	650							
	n_{tra} V_{DCL}=750V	1/min		1154	990							
DRL100L4	M_{max}	Nm		19.31	59.33	93.62	126.91					
	n_{tra} V_{sply}=400V	1/min		1119	750	533	533					
	n_{tra} V_{DCL}=750V	1/min		1547	1107	844	844					
DRL132S4	M_{max}	Nm			56.51	96.9	134.41	207.01				
	n_{tra} V_{sply}=400V	1/min			962	776	610	566				
	n_{tra} V_{DCL}=750V	1/min			1323	1099	894	835				
DRL132MC4	M_{max}	Nm					133.78	210.21	284.59			
	n_{tra} V_{sply}=400V	1/min					903	757	757			
	n_{tra} V_{DCL}=750V	1/min					1240	1060	1060			
DRL160M4	M_{max}	Nm					113.49	194.97	270.55	416.8		
	n_{tra} V_{sply}=400V	1/min					1006	826	664	664		
	n_{tra} V_{DCL}=750V	1/min					1371	1147	945	940		
DRL160MC4	M_{max}	Nm						194.95	271.78	419.91	565.48	
	n_{tra} V_{sply}=400V	1/min						923	800	734	734	
	n_{tra} V_{DCL}=750V	1/min						1261	1103	1024	1024	
DRL180M4	M_{max}	Nm						179.2	266.95	427.93	582.87	
	n_{tra} V_{sply}=400V	1/min						1015	927	769	769	
	n_{tra} V_{DCL}=750V	1/min						1376	1270	1077	1077	
DRL180L4	M_{max}	Nm							254.38	423.82	583.53	933.03
	n_{tra} V_{sply}=400V	1/min							1002	861	795	795
	n_{tra} V_{DCL}=750V	1/min							1362	1191	1112	1112
DRL180LC4	M_{max}	Nm								413.14	572.06	918.21
	n_{tra} V_{sply}=400V	1/min								919	795	791
	n_{tra} V_{DCL}=750V	1/min								1244	1099	1094
DRL225S4	M_{max}	Nm								362.51	531.26	882.69
	n_{tra} V_{sply}=400V	1/min								1055	958	832
	n_{tra} V_{DCL}=750V	1/min								1421	1295	1137
DRL225MC4	M_{max}	Nm										875.63
	n_{tra} V_{sply}=400V	1/min										847
	n_{tra} V_{DCL}=750V	1/min										1146



3. Rated speed n_N = 1700 1/min, dynamics package 1, PWM = 8 kHz

Motor			Assignment to MOVIAXIS® MXA									
	Size		1			2		3		4	5	6
Type	I_N	[A]	2	4	8	12	16	24	32	48	64	100
	I_{max}	[A]	5	10	20	30	40	60	80	120	160	250
	M_{max}	Nm	9.24									
DRL71S4	n_{tra} V_{sply}=400V	1/min	1313									
	n_{tra} V_{DCL}=750V	1/min	1887									
	M_{max}	Nm	9.78	20.74								
DRL71M4	n_{tra} V_{sply}=400V	1/min	1348	1324								
	n_{tra} V_{DCL}=750V	1/min	1922	1922								
	M_{max}	Nm		24.56								
DRL80M4	n_{tra} V_{sply}=400V	1/min		1570								
	n_{tra} V_{DCL}=750V	1/min		2285								
	M_{max}	Nm			50.86							
DRL90L4	n_{tra} V_{sply}=400V	1/min			1559							
	n_{tra} V_{DCL}=750V	1/min			2232							
	M_{max}	Nm			45.99	74.86						
DRL100L4	n_{tra} V_{sply}=400V	1/min			1547	1547						
	n_{tra} V_{DCL}=750V	1/min			2156	2139						
	M_{max}	Nm				60.23	88.44	140.72				
DRL132S4	n_{tra} V_{sply}=400V	1/min				1392	1377	1377				
	n_{tra} V_{DCL}=750V	1/min				1895	1885	1885				
	M_{max}	Nm						142.73	196.61			
DRL132MC4	n_{tra} V_{sply}=400V	1/min						1665	1484			
	n_{tra} V_{DCL}=750V	1/min						1997	2022			
	M_{max}	Nm						126.74	184.87	293.14		
DRL160M4	n_{tra} V_{sply}=400V	1/min						1389	1358	1358		
	n_{tra} V_{DCL}=750V	1/min						1881	1850	1850		
	M_{max}	Nm							203.68	321.66		
DRL160MC4	n_{tra} V_{sply}=400V	1/min							1362	1389		
	n_{tra} V_{DCL}=750V	1/min							1850	1890		
	M_{max}	Nm							169.29	295.4	411.47	
DRL180M4	n_{tra} V_{sply}=400V	1/min							1450	1516	1516	
	n_{tra} V_{DCL}=750V	1/min							1956	2087	2056	
	M_{max}	Nm								289.61	412.66	674.52
DRL180L4	n_{tra} V_{sply}=400V	1/min								1402	1521	1521
	n_{tra} V_{DCL}=750V	1/min								1894	2065	2065
	M_{max}	Nm									390.65	645.54
DRL180LC4	n_{tra} V_{sply}=400V	1/min									1340	1433
	n_{tra} V_{DCL}=750V	1/min									1806	1942
	M_{max}	Nm									349.38	620.11
DRL225S4	n_{tra} V_{sply}=400V	1/min									1488	1441
	n_{tra} V_{DCL}=750V	1/min									1992	1983



4. Rated speed n_N = 1700 1/min, dynamics package 1, PWM = 8 kHz

Motor			Assignment to MOVIAXIS® MXA									
	Size		1			2		3		4	5	6
Type	I_N	[A]	2	4	8	12	16	24	32	48	64	100
	I_{max}	[A]	5	10	20	30	40	60	80	120	160	250
	M_{max}	Nm	9.26									
DRL71S4	n_{tra} V_{sply}=400V	1/min	826									
	n_{tra} V_{DCL}=750V	1/min	1272									
	M_{max}	Nm	9.78	20.74								
DRL71M4	n_{tra} V_{sply}=400V	1/min	1020	715								
	n_{tra} V_{DCL}=750V	1/min	1500	1131								
	M_{max}	Nm		24.56	51.81							
DRL80M4	n_{tra} V_{sply}=400V	1/min		1014	879							
	n_{tra} V_{DCL}=750V	1/min		1518	1365							
	M_{max}	Nm			50.86	78.11						
DRL90L4	n_{tra} V_{sply}=400V	1/min			1031.3	1031.3						
	n_{tra} V_{DCL}=750V	1/min			1518	1518						
	M_{max}	Nm			45.99	74.86	102.41	156.34				
DRL100L4	n_{tra} V_{sply}=400V	1/min			1395	1072	891	891				
	n_{tra} V_{DCL}=750V	1/min			1940	1541	1318	1318				
	M_{max}	Nm				60.23	88.44	140.72	191.25	290.69		
DRL132S4	n_{tra} V_{sply}=400V	1/min				1392	1226	918	913	913		
	n_{tra} V_{DCL}=750V	1/min				1895	1690	1304	1294	1294		
	M_{max}	Nm						142.73	196.61	301.49		
DRL132MC4	n_{tra} V_{sply}=400V	1/min						1309	1148	1148		
	n_{tra} V_{DCL}=750V	1/min						1782	1577	1577		
	M_{max}	Nm						126.74	184.87	293.14	397.97	
DRL160M4	n_{tra} V_{sply}=400V	1/min						1389	1222	989	989	
	n_{tra} V_{DCL}=750V	1/min						1881	1670	1371	1371	
	M_{max}	Nm							203.68	321.66	436	690.01
DRL160MC4	n_{tra} V_{sply}=400V	1/min							1204	993.	993	993
	n_{tra} V_{DCL}=750V	1/min							1630	1362	1362	1362
	M_{max}	Nm							169.29	295.4	411.47	663.04
DRL180M4	n_{tra} V_{sply}=400V	1/min							1450	1292	1129	1129
	n_{tra} V_{DCL}=750V	1/min							1956	1753	1551	1551
	M_{max}	Nm								289.61	412.66	674.52
DRL180L4	n_{tra} V_{sply}=400V	1/min								1376	1244	1147
	n_{tra} V_{DCL}=750V	1/min								1859	1696	1578
	M_{max}	Nm									390.65	645.54
DRL180LC4	n_{tra} V_{sply}=400V	1/min									1340	1160
	n_{tra} V_{DCL}=750V	1/min									1806	1582
	M_{max}	Nm									349.38	620.11
DRL225S4	n_{tra} V_{sply}=400V	1/min									1488	1277
	n_{tra} V_{DCL}=750V	1/min									1992	1723



5. Rated speed n_N = 2100 1/min, dynamics package 1, PWM = 8 kHz

Motor			Assignment to MOVIAXIS® MXA									
	Size		1			2		3		4	5	6
Type	I_N	[A]	2	4	8	12	16	24	32	48	64	100
	I_{max}	[A]	5	10	20	30	40	60	80	120	160	250
	M_{max}	Nm	7.47									
DRL71S4	n_{tra} V_{sply}=400V	1/min	1770									
	n_{tra} V_{DCL}=750V	1/min	2484									
	M_{max}	Nm	8.1	16.76								
DRL71M4	n_{tra} V_{sply}=400V	1/min	1775	1787								
	n_{tra} V_{DCL}=750V	1/min	2490	2502								
	M_{max}	Nm		20.28								
DRL80M4	n_{tra} V_{sply}=400V	1/min		2127								
	n_{tra} V_{DCL}=750V	1/min		3006								
	M_{max}	Nm			41.39							
DRL90L4	n_{tra} V_{sply}=400V	1/min			2121							
	n_{tra} V_{DCL}=750V	1/min			2953							
	M_{max}	Nm			36.08	55.03	73.8					
DRL100L4	n_{tra} V_{sply}=400V	1/min			2004	2033	2033					
	n_{tra} V_{DCL}=750V	1/min			2725	2830	2789					
	M_{max}	Nm					80.01	121.06				
DRL132S4	n_{tra} V_{sply}=400V	1/min					1690	1729				
	n_{tra} V_{DCL}=750V	1/min					2295	2354				
	M_{max}	Nm						121.85	164.73	249.48		
DRL132MC4	n_{tra} V_{sply}=400V	1/min						1743	1851	1851		
	n_{tra} V_{DCL}=750V	1/min						2439	2505	2549		
	M_{max}	Nm							159.97	242.03		
DRL160M4	n_{tra} V_{sply}=400V	1/min							1740	1745		
	n_{tra} V_{DCL}=750V	1/min							2347	2360		
	M_{max}	Nm								243.43	327.18	
DRL160MC4	n_{tra} V_{sply}=400V	1/min								1881	1925	
	n_{tra} V_{DCL}=750V	1/min								2536	2597	
	M_{max}	Nm								255.36	342.81	538.39
DRL180M4	n_{tra} V_{sply}=400V	1/min								1797	1969	1934
	n_{tra} V_{DCL}=750V	1/min								2417	2659	2659
	M_{max}	Nm								254.9	344.32	543.24
DRL180L4	n_{tra} V_{sply}=400V	1/min								1868	1859	1969
	n_{tra} V_{DCL}=750V	1/min								2505	2505	2663
	M_{max}	Nm										533.41
DRL180LC4	n_{tra} V_{sply}=400V	1/min										1806
	n_{tra} V_{DCL}=750V	1/min										2439
	M_{max}	Nm										525.03
DRL225S4	n_{tra} V_{sply}=400V	1/min										1789
	n_{tra} V_{DCL}=750V	1/min										2395



6. Rated speed n_N = 2100 1/min, dynamics package 1, PWM = 8 kHz

Motor			Assignment to MOVIAXIS® MXA									
	Size		1			2		3		4	5	6
Type	I_N	[A]	2	4	8	12	16	24	32	48	64	100
	I_{max}	[A]	5	10	20	30	40	60	80	120	160	250
	M_{max}	Nm	7.47	15.24								
DRL71S4	n_{tra} V_{sply}=400V	1/min	1330	1178								
	n_{tra} V_{DCL}=750V	1/min	1922	1740								
	M_{max}	Nm	8.1	16.76								
DRL71M4	n_{tra} V_{sply}=400V	1/min	1600	1031								
	n_{tra} V_{DCL}=750V	1/min	2238	1547								
	M_{max}	Nm		20.28	41.25							
DRL80M4	n_{tra} V_{sply}=400V	1/min		1594	1260							
	n_{tra} V_{DCL}=750V	1/min		2256	1863							
	M_{max}	Nm			41.39	62.95	84.33					
DRL90L4	n_{tra} V_{sply}=400V	1/min			1506	1428	1418					
	n_{tra} V_{DCL}=750V	1/min			2953	2953	2953					
	M_{max}	Nm			36.08	55.03	73.8	111.16	148.42			
DRL100L4	n_{tra} V_{sply}=400V	1/min			2004	1693	1400	1242	1242			
	n_{tra} V_{DCL}=750V	1/min			2725	2344	1981	1781	1781			
	M_{max}	Nm					80.01	121.06	161.9	243.37		
DRL132S4	n_{tra} V_{sply}=400V	1/min					1690	1377	1177	1177		
	n_{tra} V_{DCL}=750V	1/min					2295	1899	1646	1646		
	M_{max}	Nm						121.85	164.73	249.48	333.75	
DRL132MC4	n_{tra} V_{sply}=400V	1/min						1743	1577	1440	1440	
	n_{tra} V_{DCL}=750V	1/min						2349	2139	1982	1982	
	M_{max}	Nm							159.97	242.03	323.68	506.88
DRL160M4	n_{tra} V_{sply}=400V	1/min							1740	1424	1288	1288
	n_{tra} V_{DCL}=750V	1/min							2347	1942	1771	1771
	M_{max}	Nm								243.43	327.18	514.3
DRL160MC4	n_{tra} V_{sply}=400V	1/min								1591	1389	1389
	n_{tra} V_{DCL}=750V	1/min								2149	1890	1890
	M_{max}	Nm								255.36	342.81	538.39
DRL180M4	n_{tra} V_{sply}=400V	1/min								1767	1613	1455
	n_{tra} V_{DCL}=750V	1/min								2377	2178	1982
	M_{max}	Nm								254.9	344.32	543.24
DRL180L4	n_{tra} V_{sply}=400V	1/min								1868	1749	1503
	n_{tra} V_{DCL}=750V	1/min								2505	2356	2044
	M_{max}	Nm										533.41
DRL180LC4	n_{tra} V_{sply}=400V	1/min										1547
	n_{tra} V_{DCL}=750V	1/min										2092
	M_{max}	Nm										525.03
DRL225S4	n_{tra} V_{sply}=400V	1/min										1781
	n_{tra} V_{DCL}=750V	1/min										2387



7. Rated speed n_N = 3000 1/min, dynamics package 1, PWM = 8 kHz

Motor			Assignment to MOVIAXIS® MXA									
	Size		1			2		3		4	5	6
Type	I_N	[A]	2	4	8	12	16	24	32	48	64	100
	I_{max}	[A]	5	10	20	30	40	60	80	120	160	250
	M_{max}	Nm	5.29	11								
DRL71S4	n_{tra} V_{sply}=400V	1/min	2543	2602								
	n_{tra} V_{DCL}=750V	1/min	3498	3586								
	M_{max}	Nm		11.98								
DRL71M4	n_{tra} V_{sply}=400V	1/min		2361								
	n_{tra} V_{DCL}=750V	1/min		3621								
	M_{max}	Nm		14.4	29.78							
DRL80M4	n_{tra} V_{sply}=400V	1/min		2666	3158							
	n_{tra} V_{DCL}=750V	1/min		3639	4371							
	M_{max}	Nm			29.14	44.87						
DRL90L4	n_{tra} V_{sply}=400V	1/min			2795	3059						
	n_{tra} V_{DCL}=750V	1/min			3802	3059						
	M_{max}	Nm				39.73	53.55	80.94				
DRL100L4	n_{tra} V_{sply}=400V	1/min				2754	2941	2941				
	n_{tra} V_{DCL}=750V	1/min				3727	4002	4002				
	M_{max}	Nm						85.44	114.62			
DRL132S4	n_{tra} V_{sply}=400V	1/min						2515	2515			
	n_{tra} V_{DCL}=750V	1/min						3389	3471			
	M_{max}	Nm							114.81	175.8	236.04	
DRL132MC4	n_{tra} V_{sply}=400V	1/min							2559	2690	2739	
	n_{tra} V_{DCL}=750V	1/min							3428	3618	3687	
	M_{max}	Nm								173.64	232.85	
DRL160M4	n_{tra} V_{sply}=400V	1/min								2470	2470	
	n_{tra} V_{DCL}=750V	1/min								3318	3393	
	M_{max}	Nm								187.43	253.27	399.68
DRL160MC4	n_{tra} V_{sply}=400V	1/min								2298	2452	2509
	n_{tra} V_{DCL}=750V	1/min								3076	3371	3371
	M_{max}	Nm									246.15	388.45
DRL180M4	n_{tra} V_{sply}=400V	1/min									2505	2786
	n_{tra} V_{DCL}=750V	1/min									3353	3740
	M_{max}	Nm										394.29
DRL180L4	n_{tra} V_{sply}=400V	1/min										2733
	n_{tra} V_{DCL}=750V	1/min										3674
	M_{max}	Nm										375.62
DRL180LC4	n_{tra} V_{sply}=400V	1/min										2461
	n_{tra} V_{DCL}=750V	1/min										3195



8. Rated speed n_N = 3000 1/min, dynamics package 1, PWM = 8 kHz

Motor			Assignment to MOVIAXIS® MXA									
	Size		1			2		3		4	5	6
Type	I_N	[A]	2	4	8	12	16	24	32	48	64	100
	I_{max}	[A]	5	10	20	30	40	60	80	120	160	250
	M_{max}	Nm	5.29	11								
DRL71S4	n_{tra} V_{sply}=400V	1/min	2426	1828								
	n_{tra} V_{DCL}=750V	1/min	3340	2596								
	M_{max}	Nm		11.98	24.36							
DRL71M4	n_{tra} V_{sply}=400V	1/min		1875	1641							
	n_{tra} V_{DCL}=750V	1/min		2643	2350							
	M_{max}	Nm		14.4	29.78	44.94						
DRL80M4	n_{tra} V_{sply}=400V	1/min		2590	1963	1975						
	n_{tra} V_{DCL}=750V	1/min		3533	2789	2783						
	M_{max}	Nm			29.14	44.87	60.36	91.1				
DRL90L4	n_{tra} V_{sply}=400V	1/min			2432	2104	2121	2121				
	n_{tra} V_{DCL}=750V	1/min			3311	2918	2953	2953				
	M_{max}	Nm				39.73	53.55	80.94	108.21			
DRL100L4	n_{tra} V_{sply}=400V	1/min				2754	2467	1928	1857			
	n_{tra} V_{DCL}=750V	1/min				3727	3369	2690	2596			
	M_{max}	Nm						85.44	114.62	172.66		
DRL132S4	n_{tra} V_{sply}=400V	1/min						2393	2095	1763		
	n_{tra} V_{DCL}=750V	1/min						3228	2874	2422		
	M_{max}	Nm							114.81	175.8	236.04	
DRL132MC4	n_{tra} V_{sply}=400V	1/min							2559	2246	2134	
	n_{tra} V_{DCL}=750V	1/min							3428	3032	2886	
	M_{max}	Nm								173.64	232.85	365.4
DRL160M4	n_{tra} V_{sply}=400V	1/min								2382	2079	1859
	n_{tra} V_{DCL}=750V	1/min								3204	2813	2523
	M_{max}	Nm								187.43	253.27	399.68
DRL160MC4	n_{tra} V_{sply}=400V	1/min								2263	2044	1824
	n_{tra} V_{DCL}=750V	1/min								3037	2751	2465
	M_{max}	Nm									246.15	388.45
DRL180M4	n_{tra} V_{sply}=400V	1/min									2505	2175
	n_{tra} V_{DCL}=750V	1/min									3305	2878
	M_{max}	Nm										394.29
DRL180L4	n_{tra} V_{sply}=400V	1/min										2343
	n_{tra} V_{DCL}=750V	1/min										3199
	M_{max}	Nm										375.62
DRL180LC4	n_{tra} V_{sply}=400V	1/min										2461
	n_{tra} V_{DCL}=750V	1/min										3292

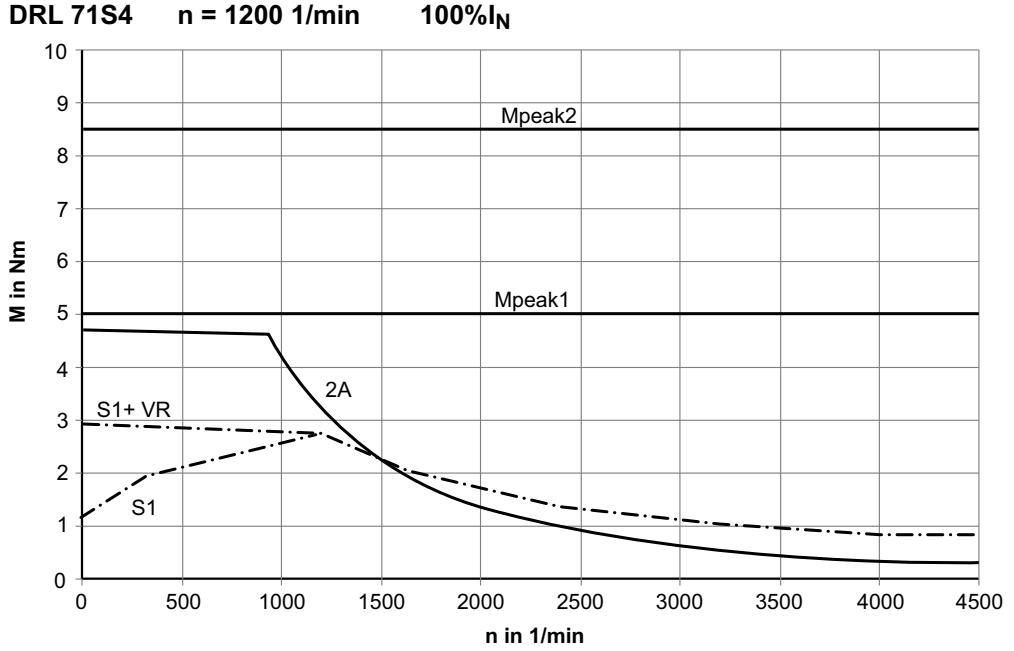
4.2 Limit characteristic curves: DRL – MOVIAXIS®, V_{DCL} = 565 V, PWM = 8 kHz

Key to the dynamic and thermal limit characteristic curves

S1	S1 characteristic curve (thermal limit characteristic curve)
S1+VR	S1 characteristic curve with forced cooling fan (thermal limit characteristic curve)
M_{peak1}	Maximum limit torque of dynamics package 1
M_{peak2}	Maximum limit torque of dynamics package 2
2 A	2 A nominal output current of the axis module
4 A	4 A nominal output current of the axis module
8 A	8 A nominal output current of the axis module
12 A	12 A nominal output current of the axis module
16 A	16 A nominal output current of the axis module
24 A	24 A nominal output current of the axis module
32 A	32 A nominal output current of the axis module
48 A	48 A nominal output current of the axis module
64 A	64 A nominal output current of the axis module
100 A	100 A nominal output current of the axis module

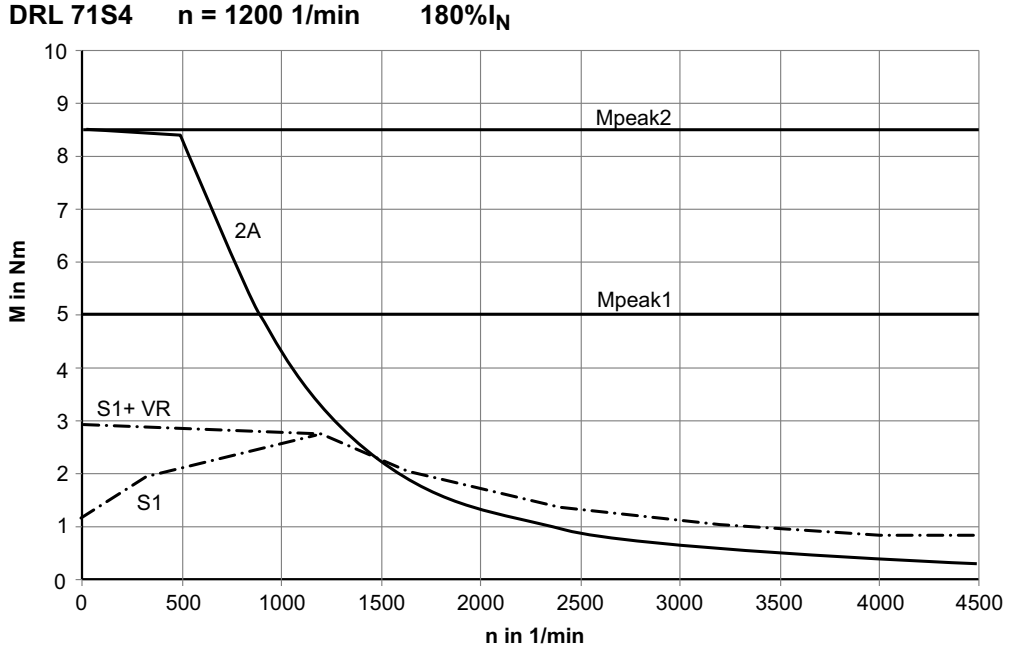
V_{DCL} = DC link voltage

DRL71S4, n_N = 1200 1/min, 100% I_N



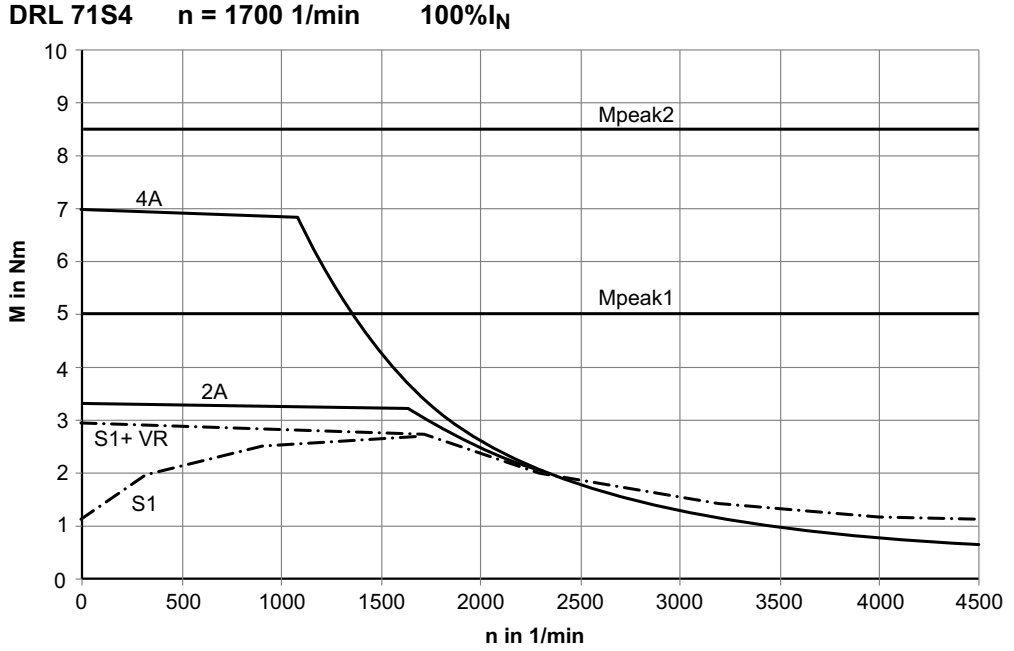
67300axx

DRL71S4, n_N = 1200 1/min, 180% I_N



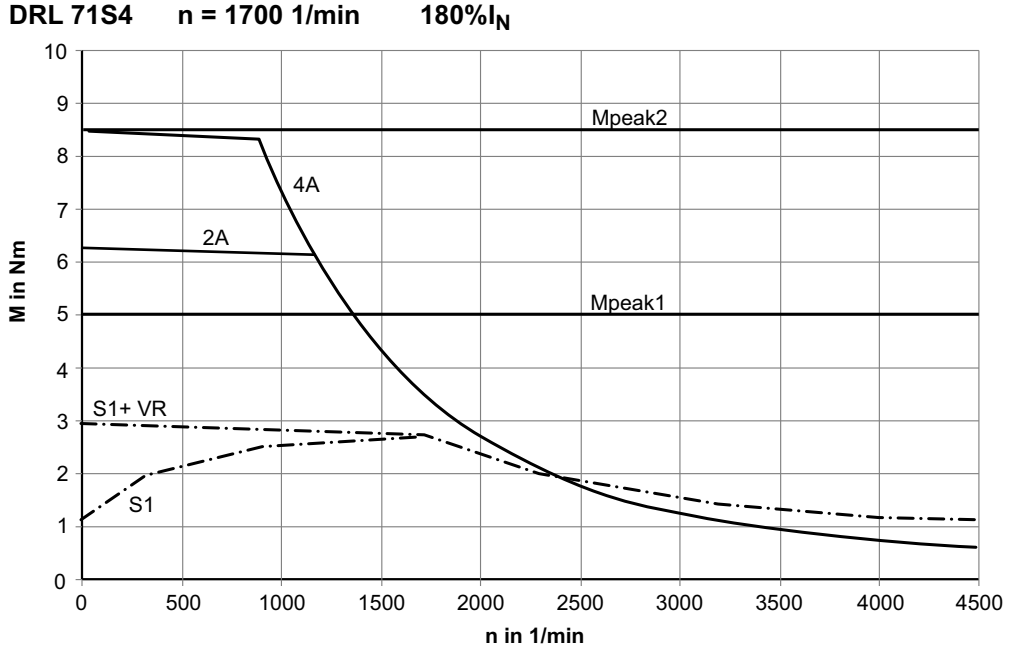
67301axx

DRL71S4, n_N = 1700 1/min, 100% I_N



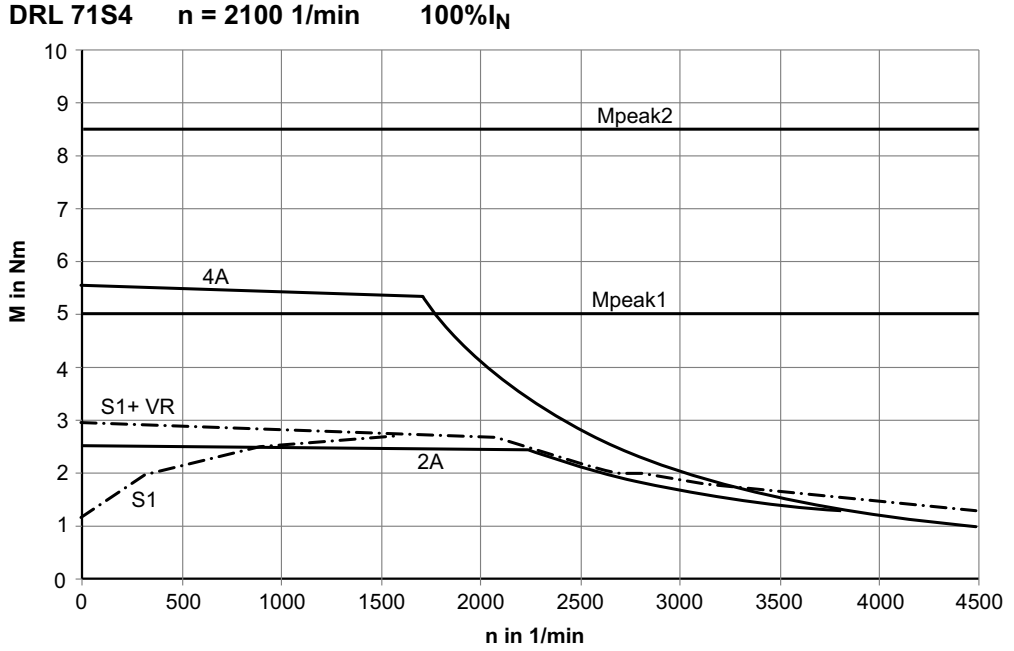
67302axx

DRL71S4, n_N = 1700 1/min, 180% I_N



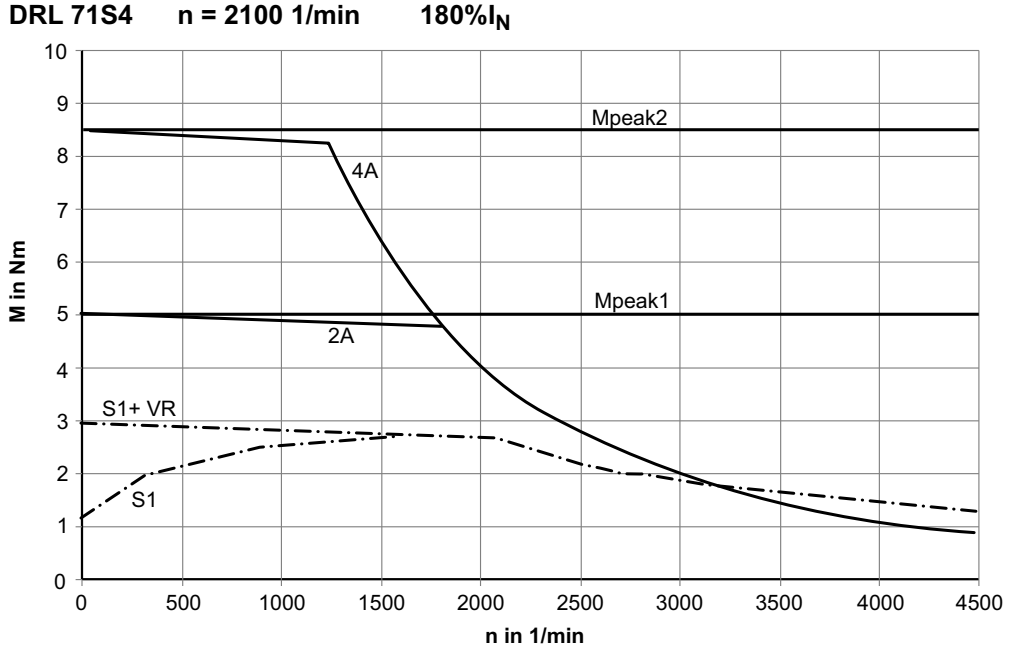
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DRL71S4, n_N = 2100 1/min, 100% I_N



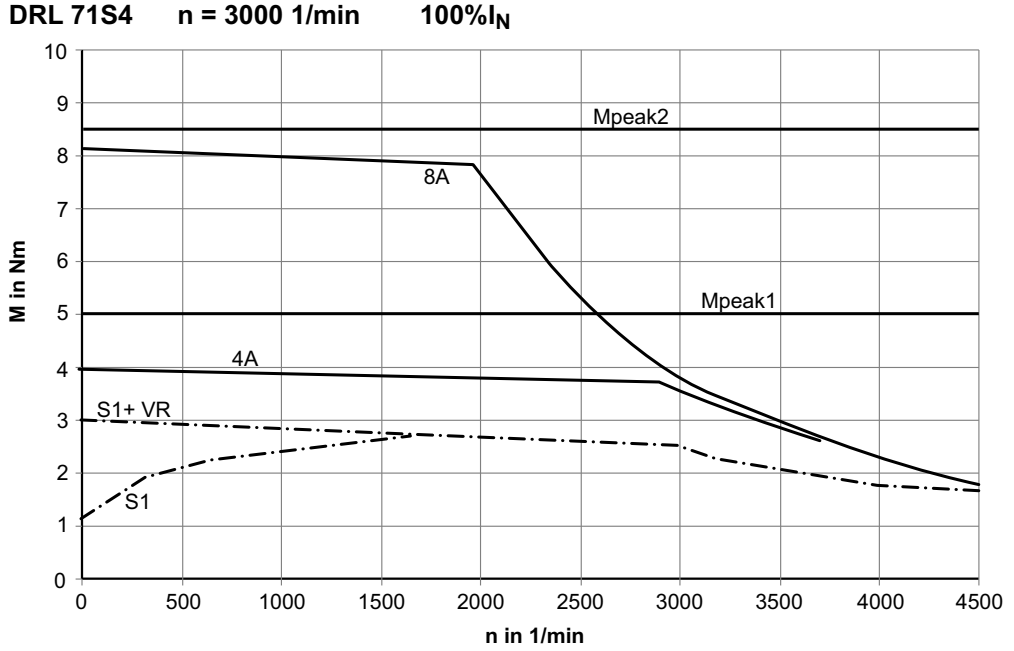
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DRL71S4, n_N = 2100 1/min, 180% I_N



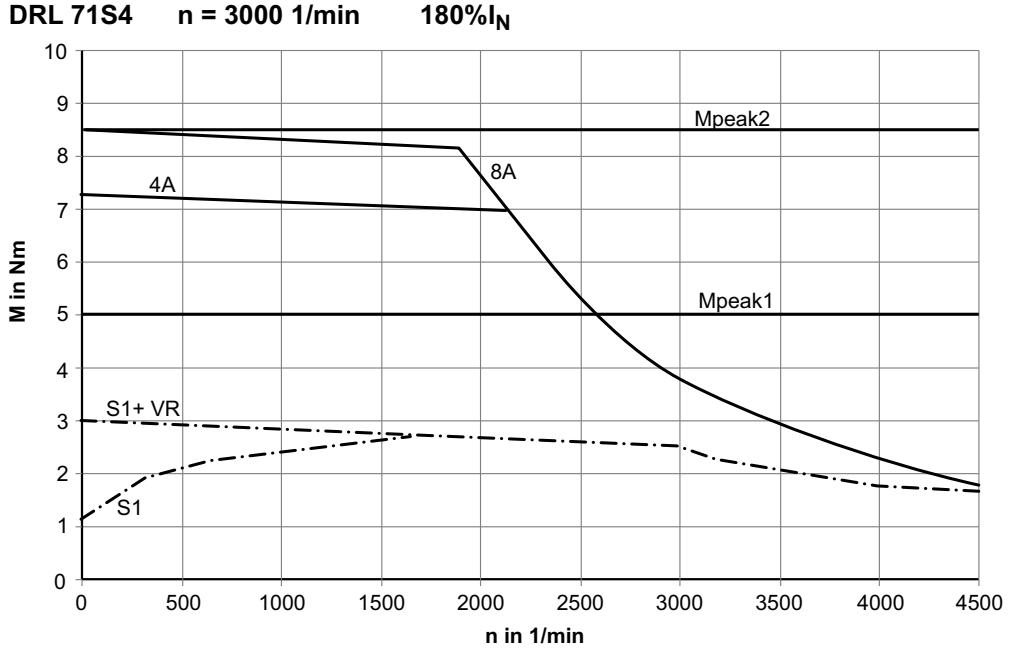
67305axx

DRL71S4, n_N = 3000 1/min, 100% I_N



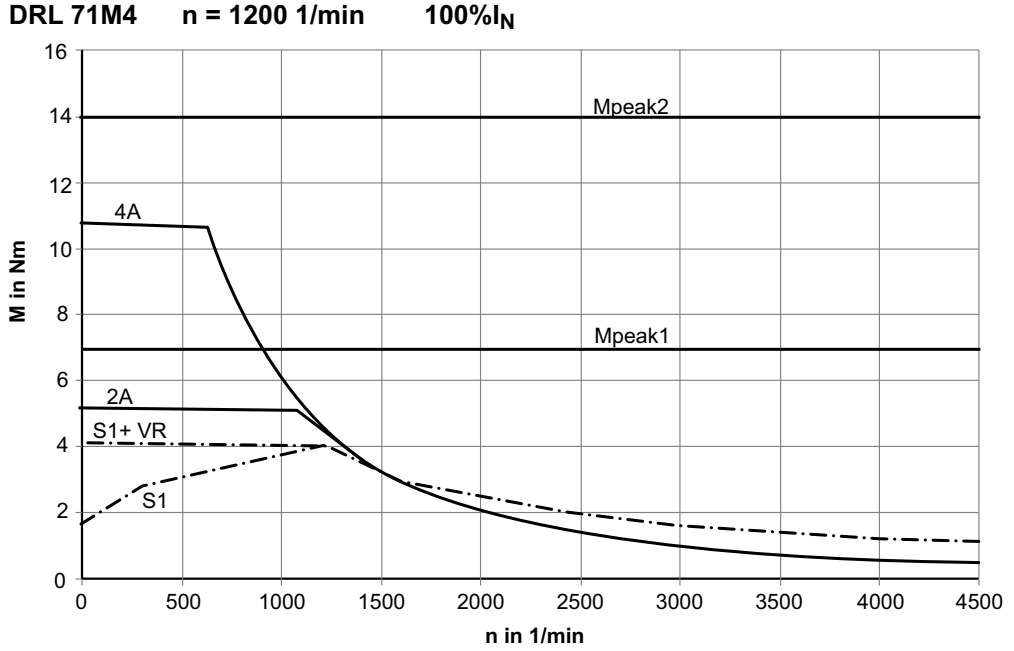
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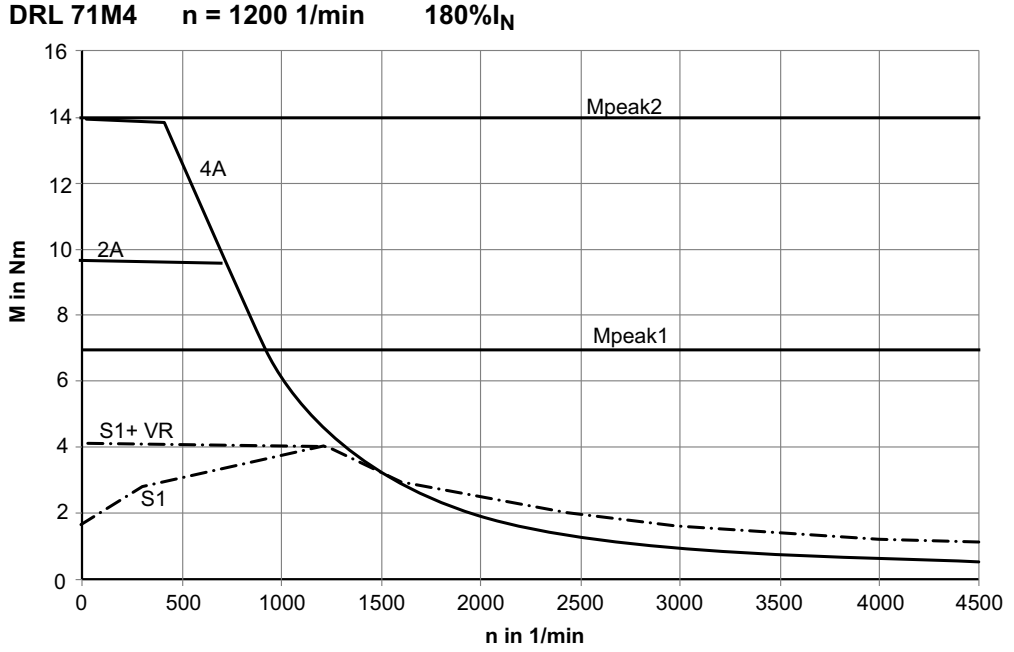
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DRL71M4, n_N = 1200 1/min, 100% I_N



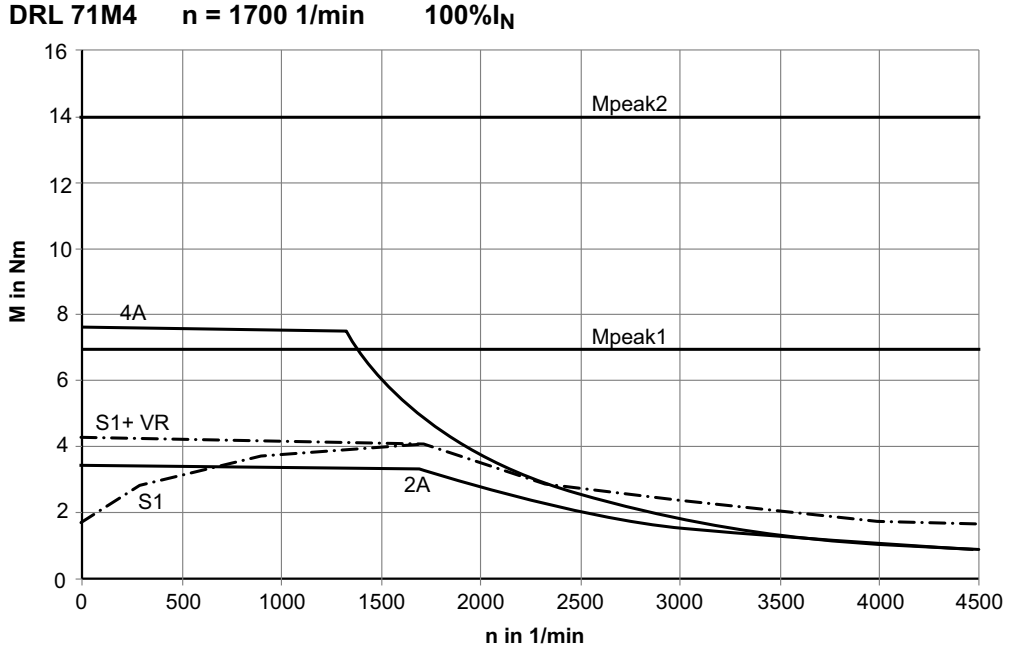
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DRL71M4, n_N = 1200 1/min, 180% I_N



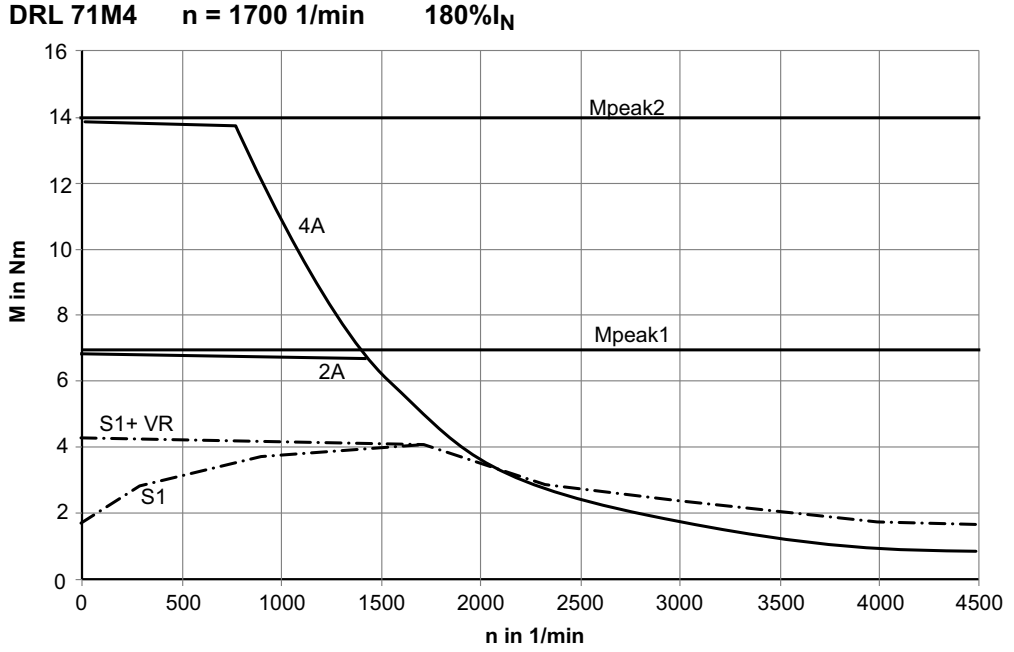
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DRL71M4, n_N = 1700 1/min, 100% I_N



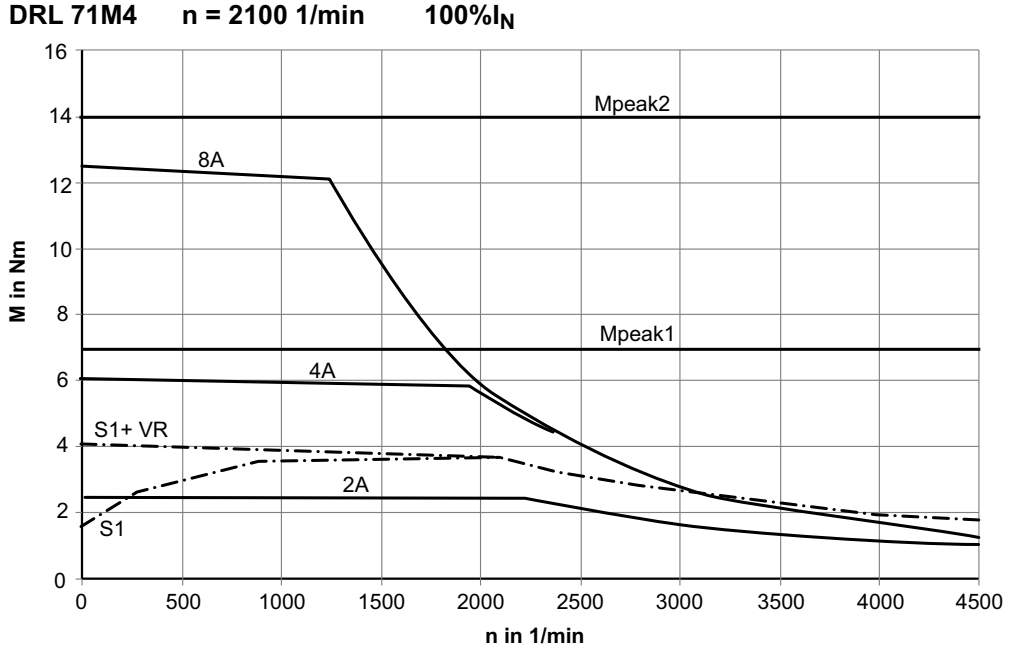
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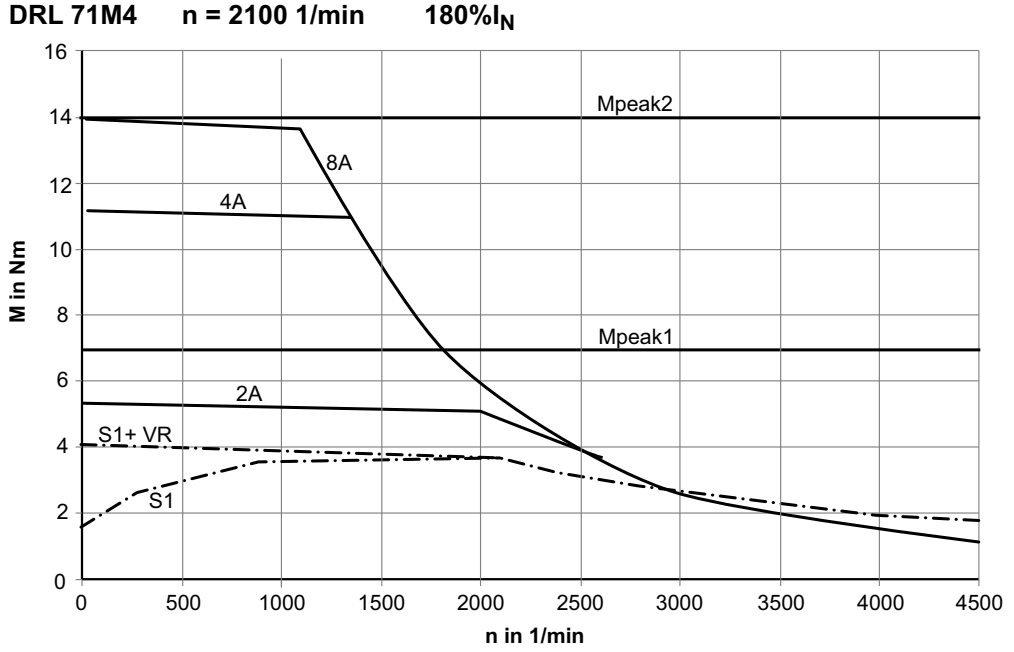
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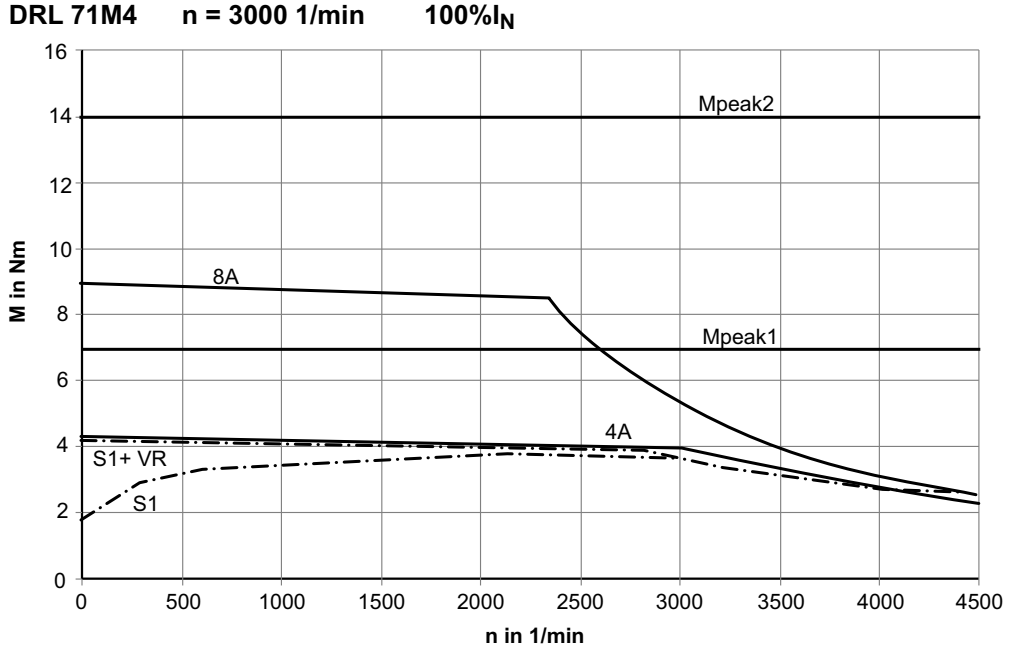
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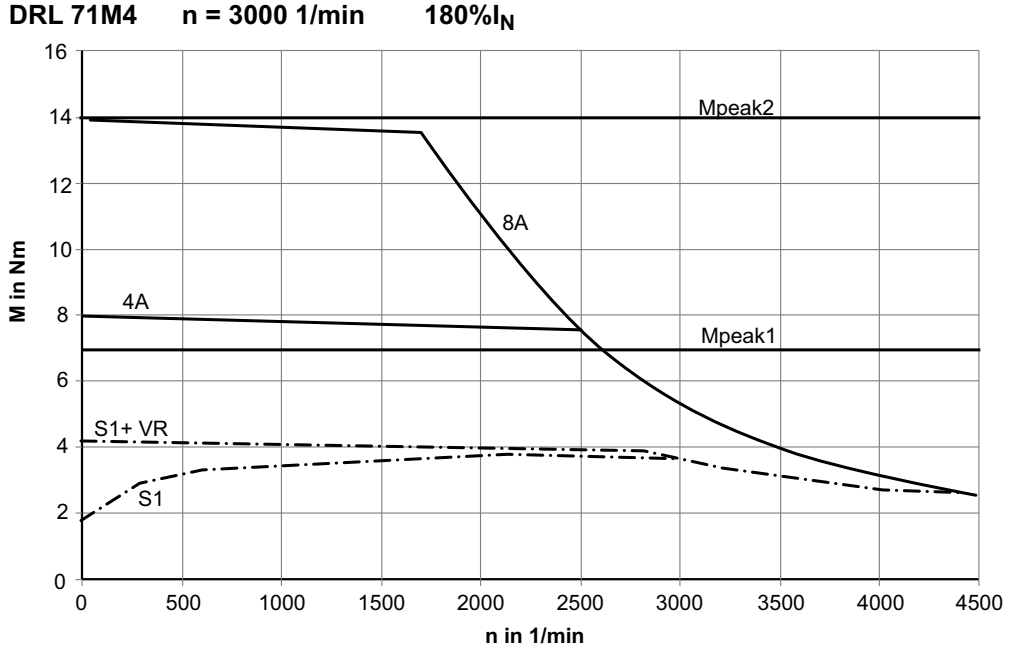
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DRL71M4, n_N = 3000 1/min, 100% I_N



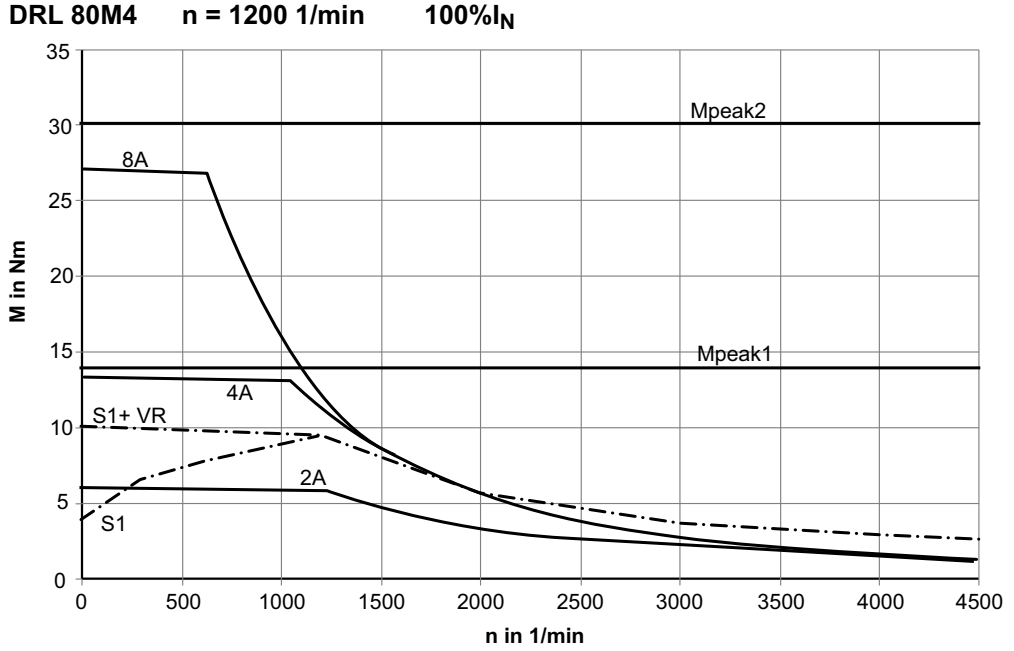
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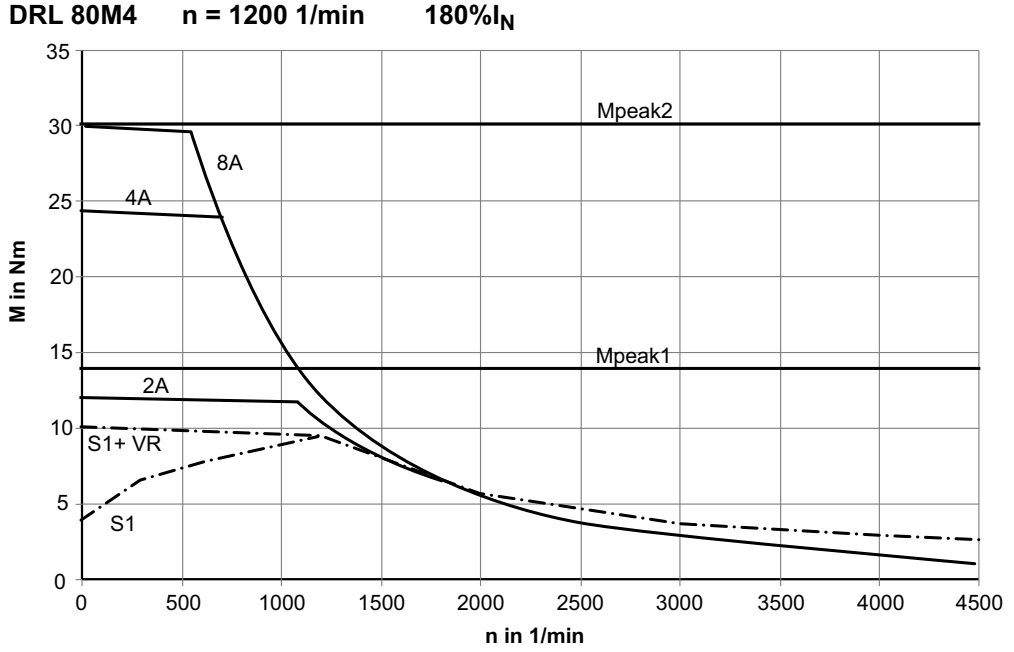
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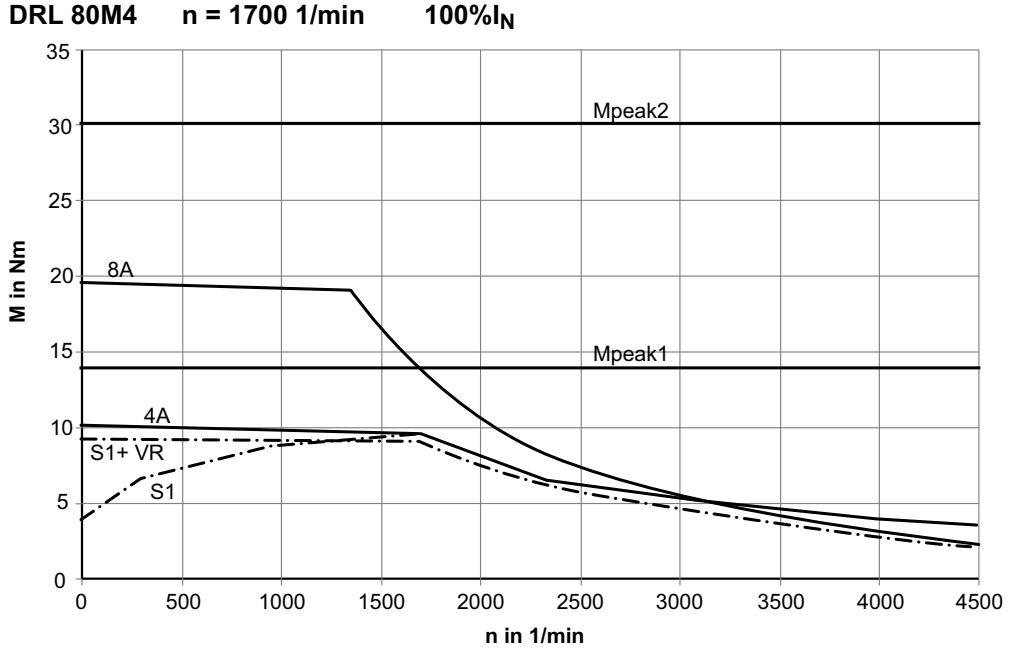
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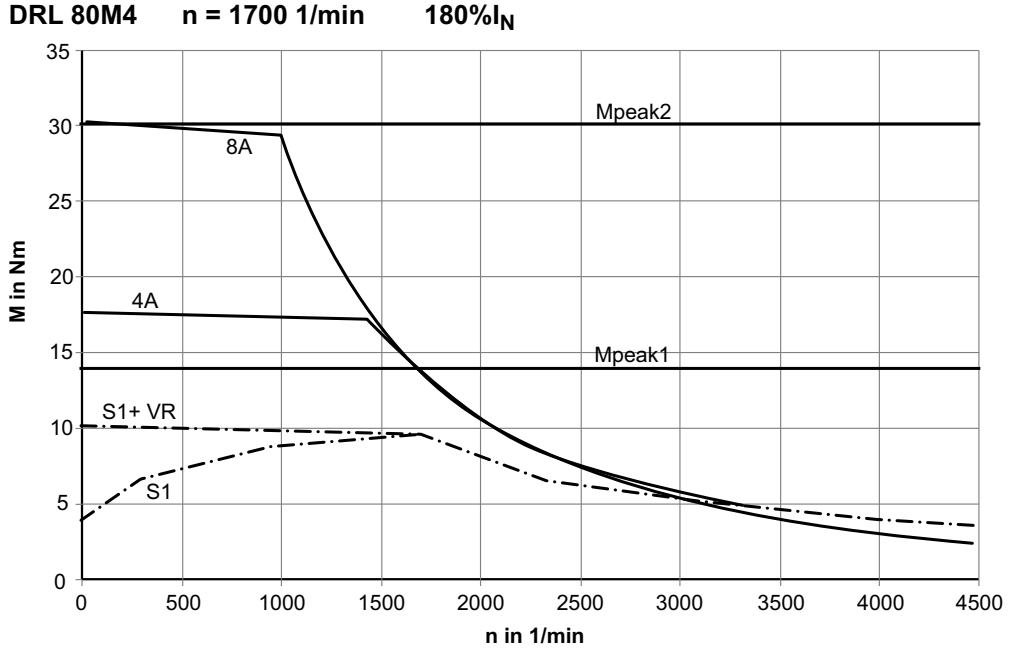
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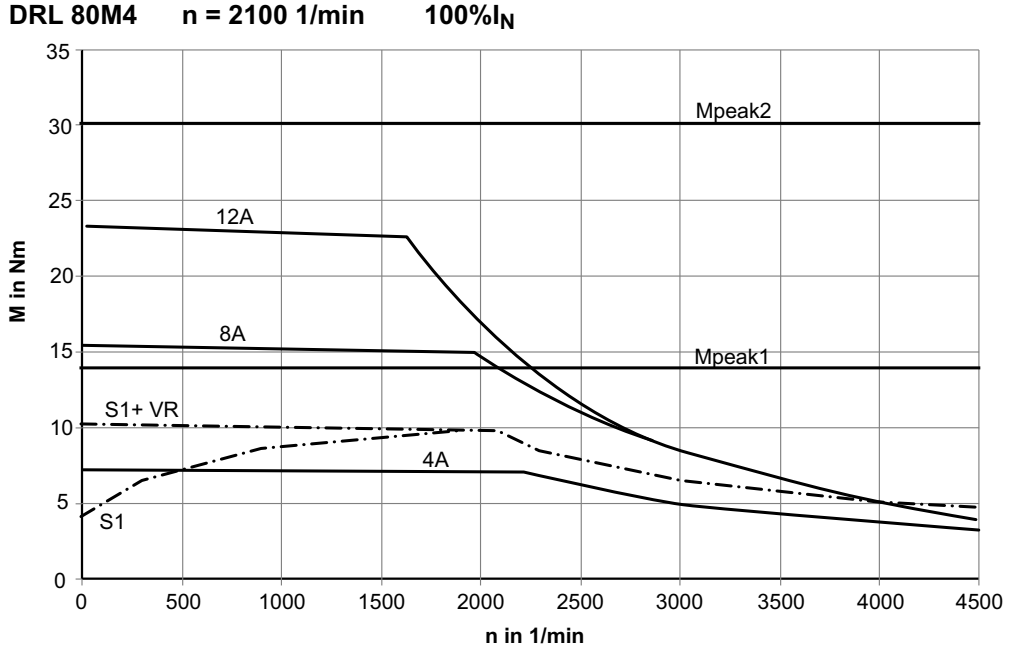
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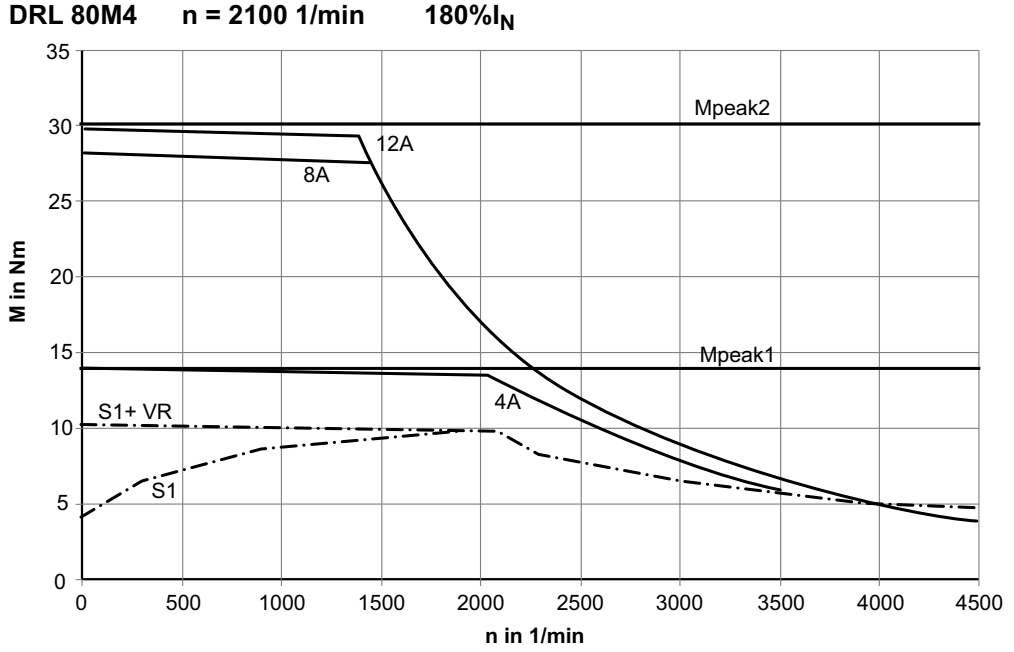
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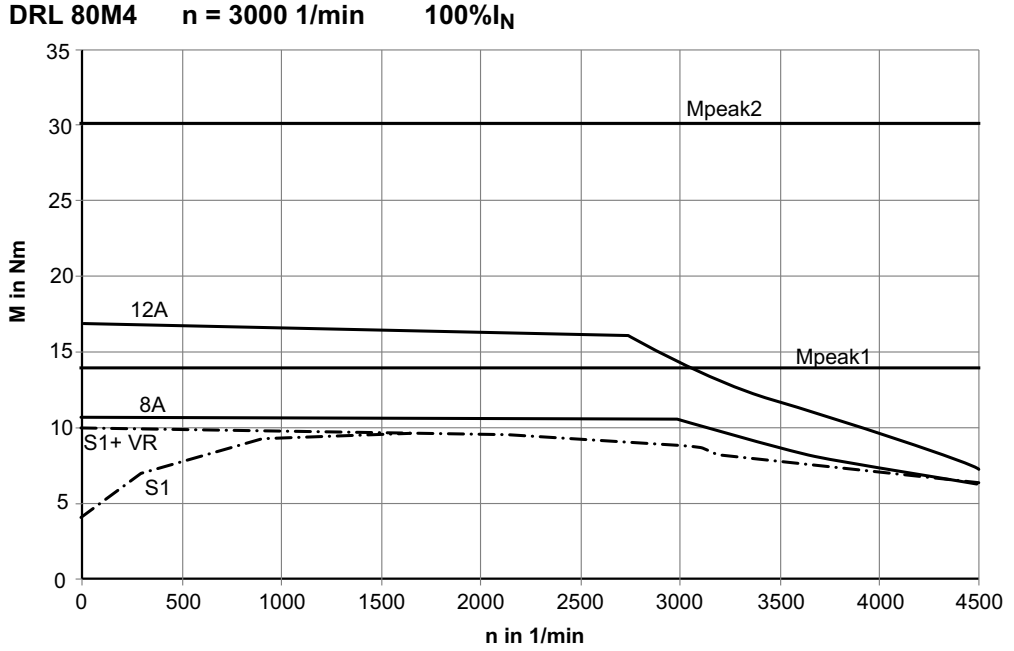
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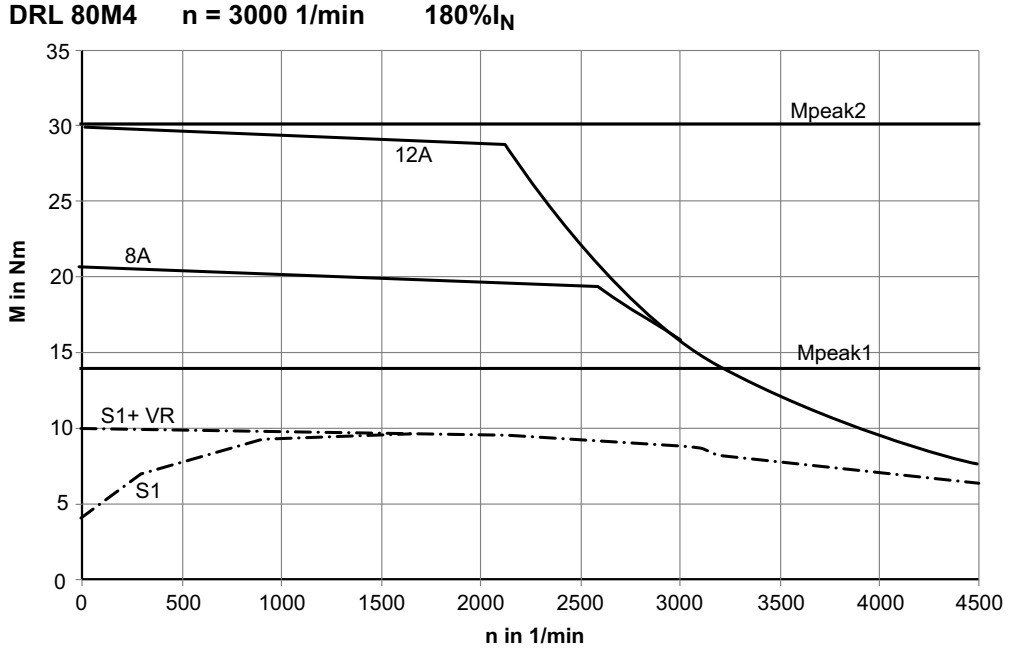
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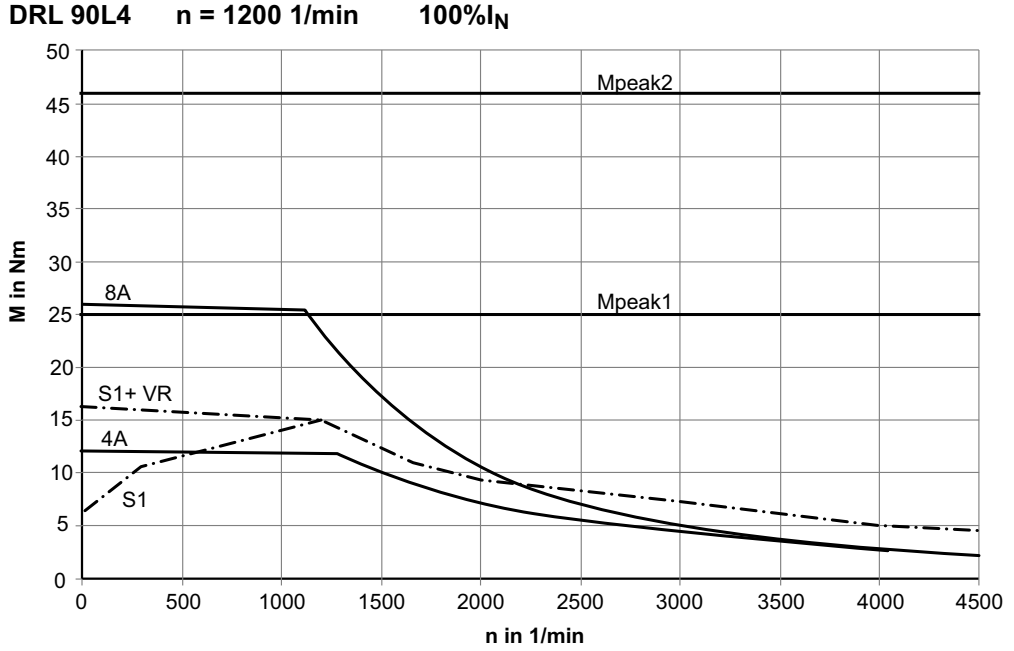
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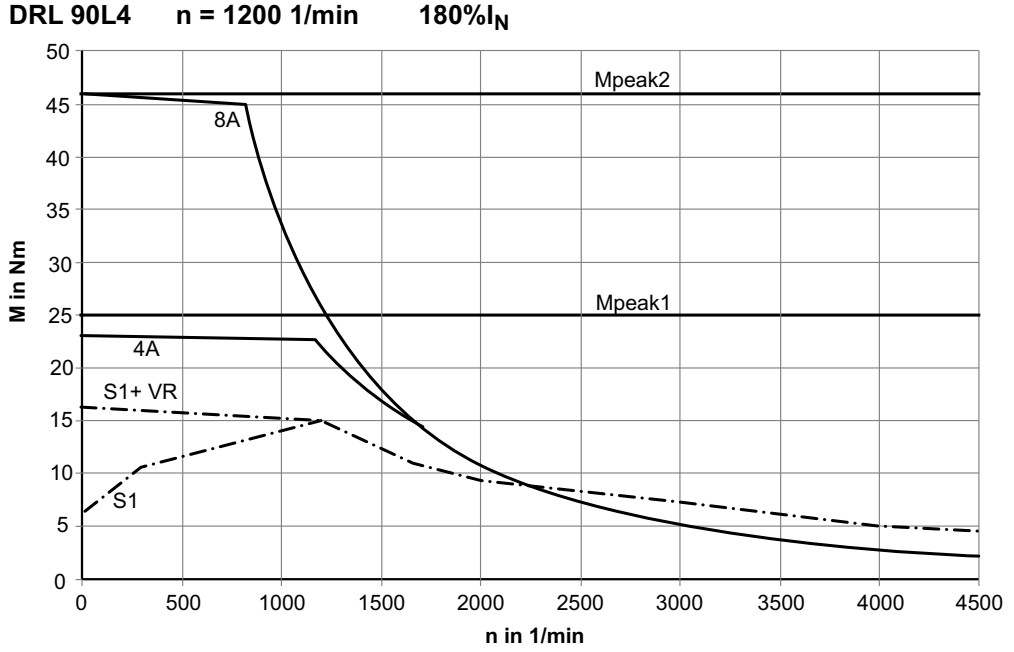
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DRL90L4, n_N = 1200 1/min, 100% I_N



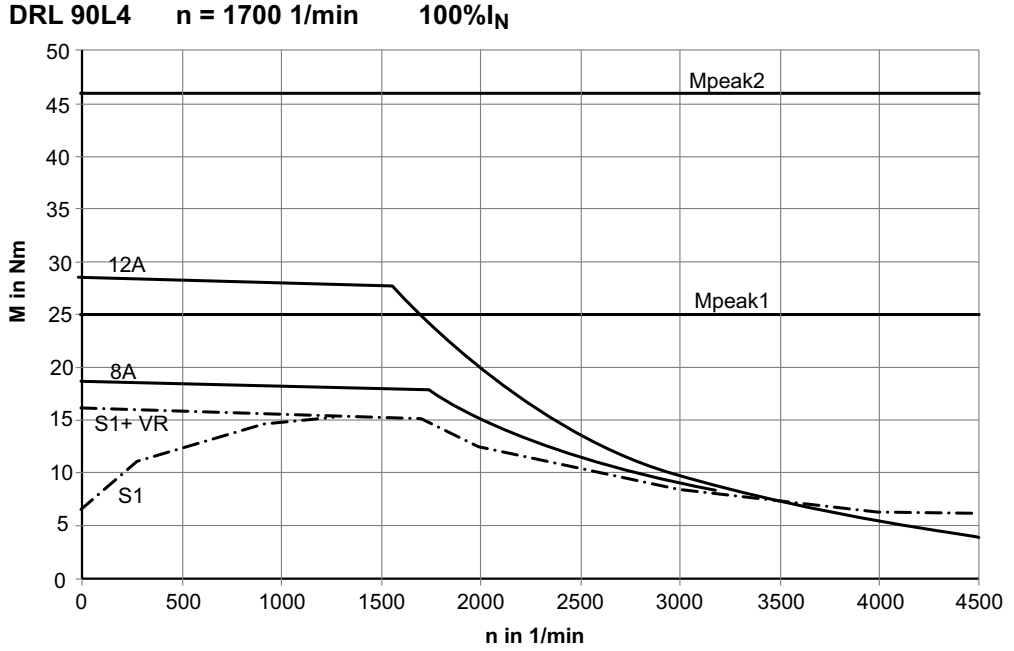
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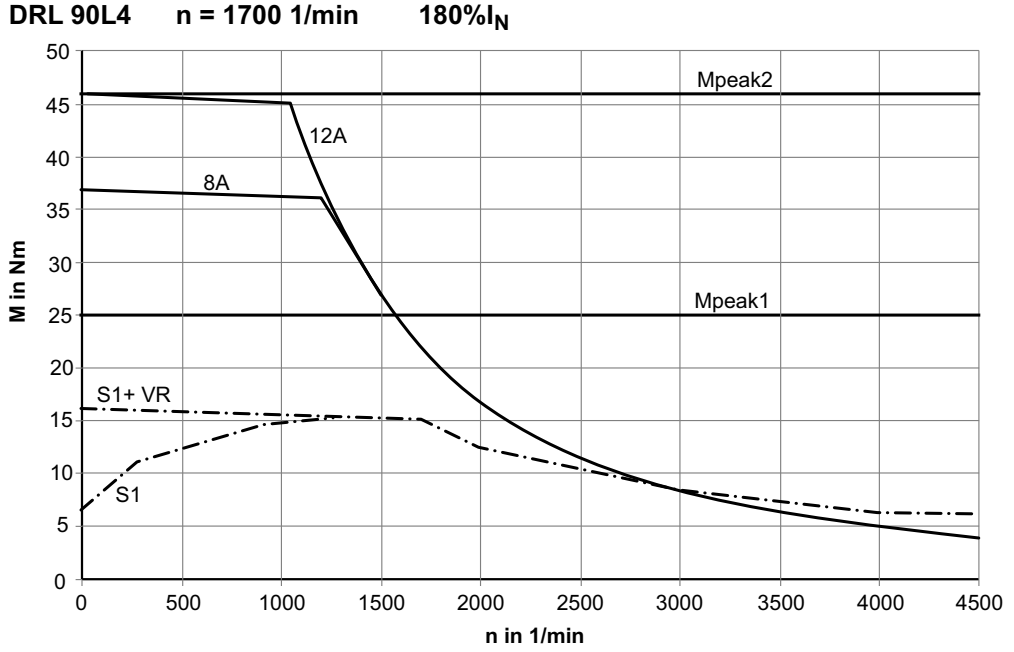
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DRL90L4, n_N = 1700 1/min, 100% I_N



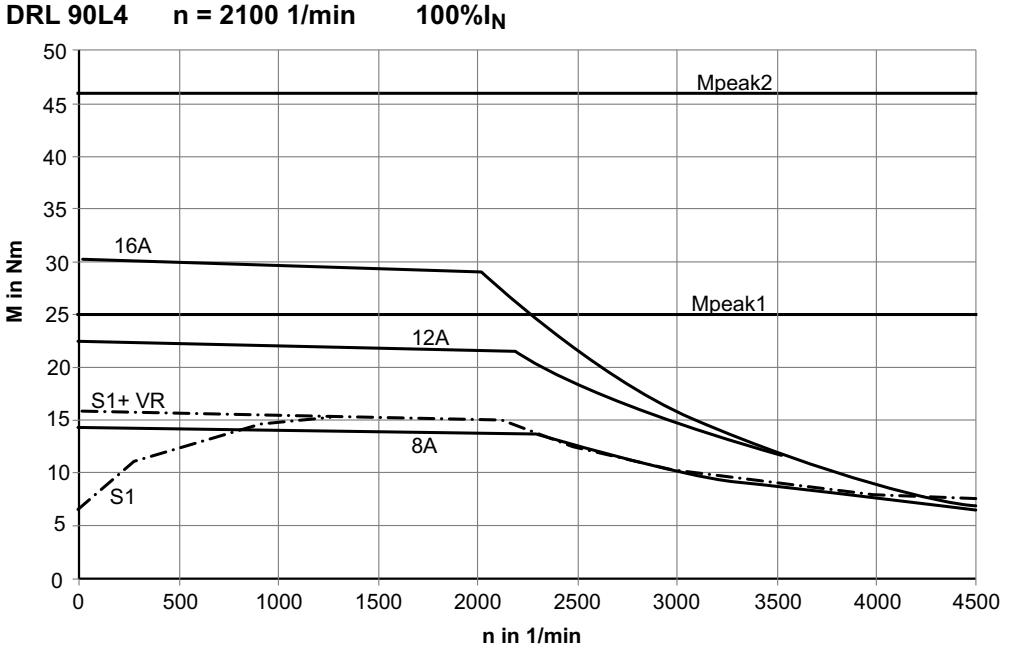
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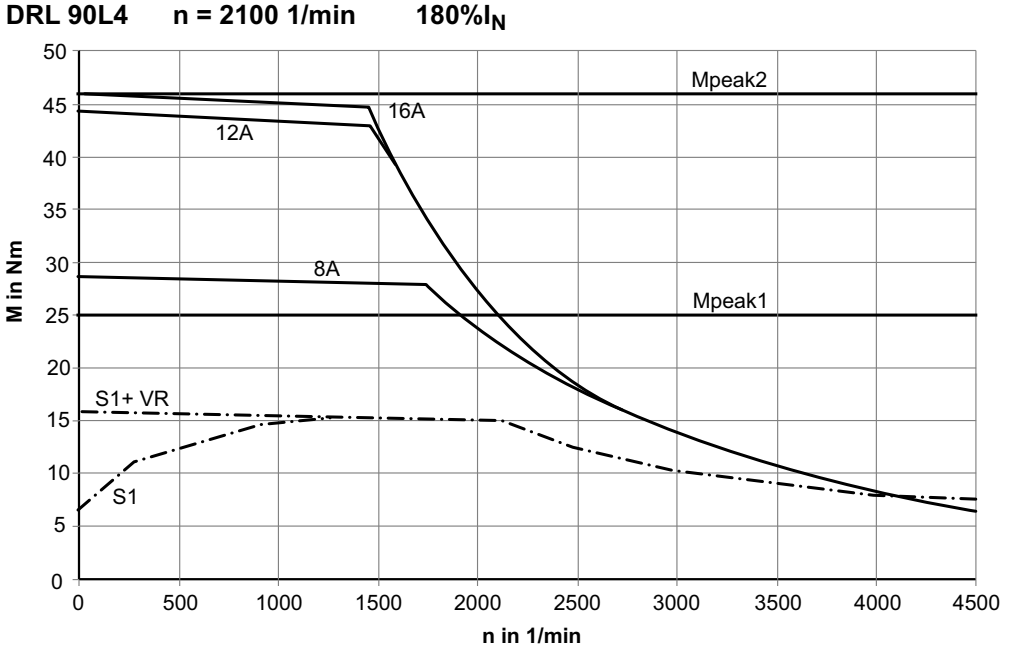
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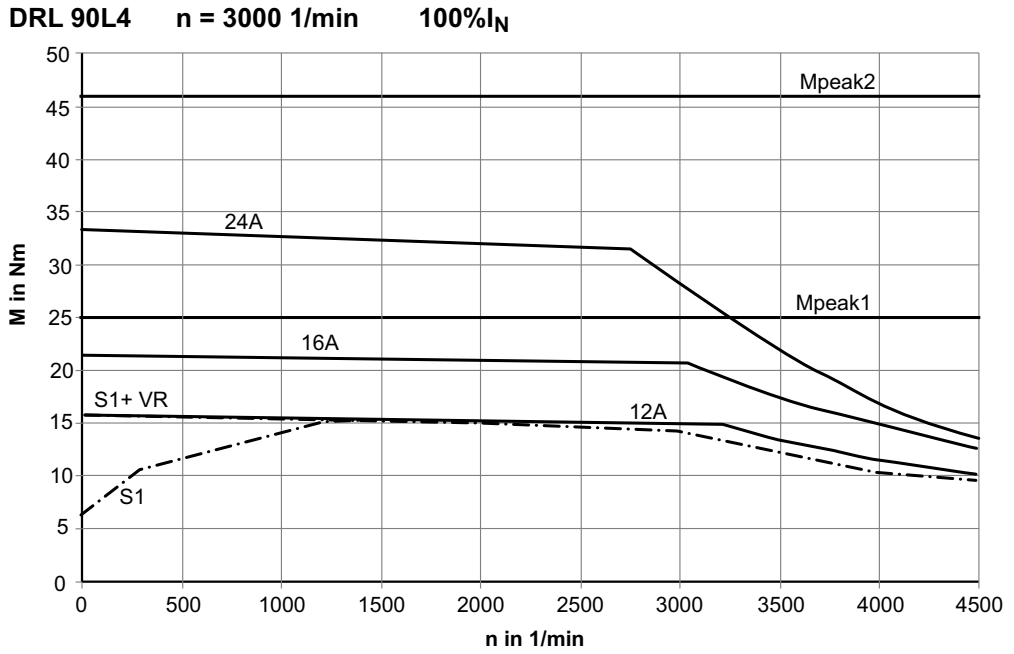
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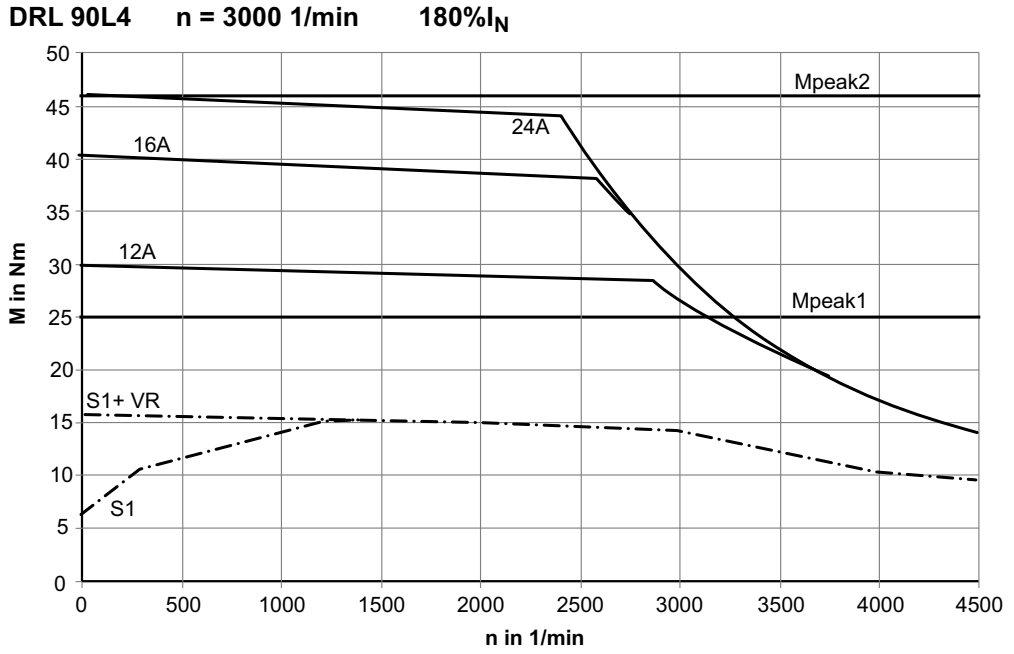
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DRL90L4, n_N = 3000 1/min, 100% I_N



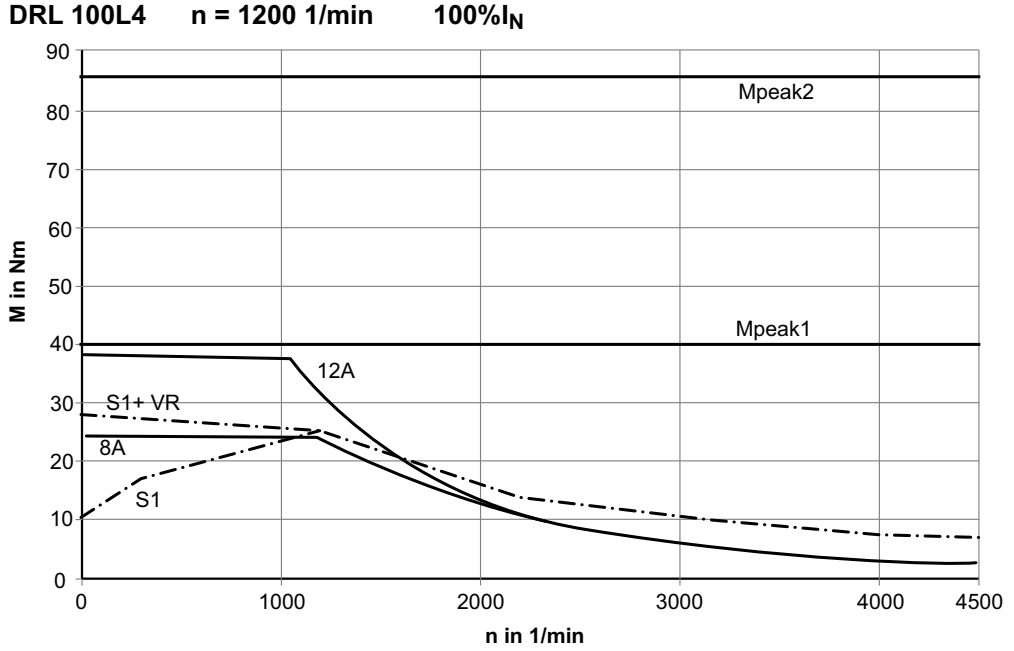
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DRL90L4, n_N = 3000 1/min, 180% I_N



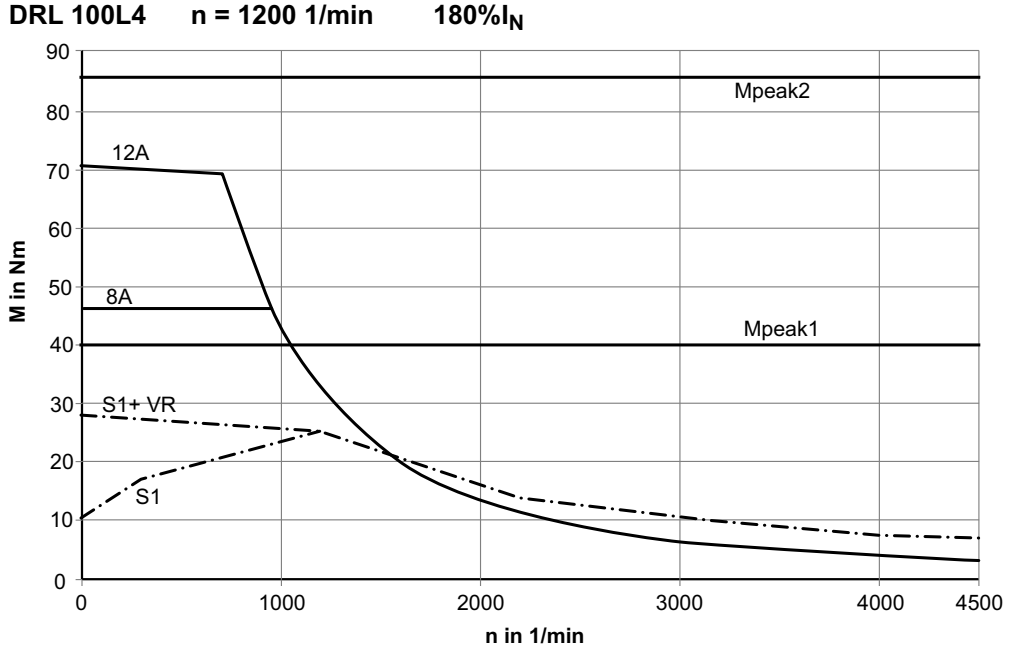
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DRL100L4, n_N = 1200 1/min, 100% I_N



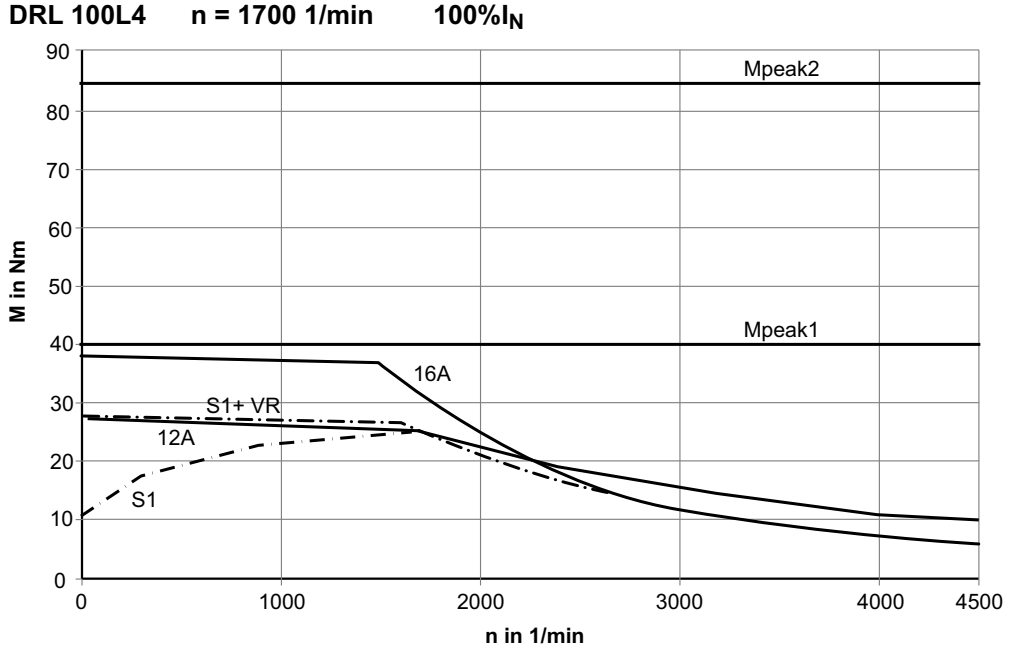
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DRL100L4, n_N = 1200 1/min, 180% I_N



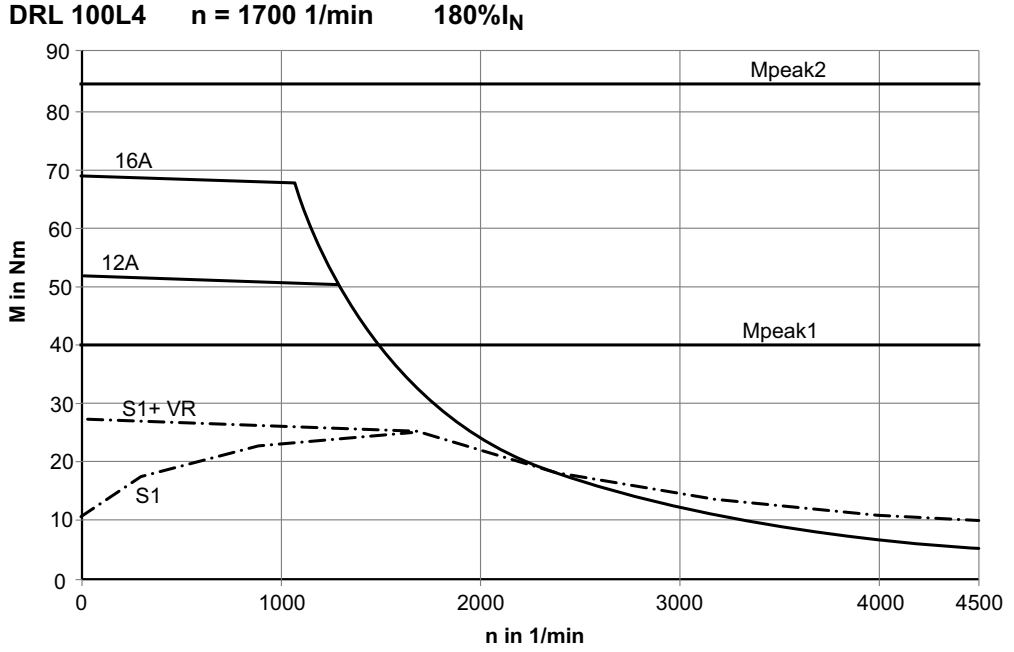
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DRL100L4, n_N = 1700 1/min, 100% I_N



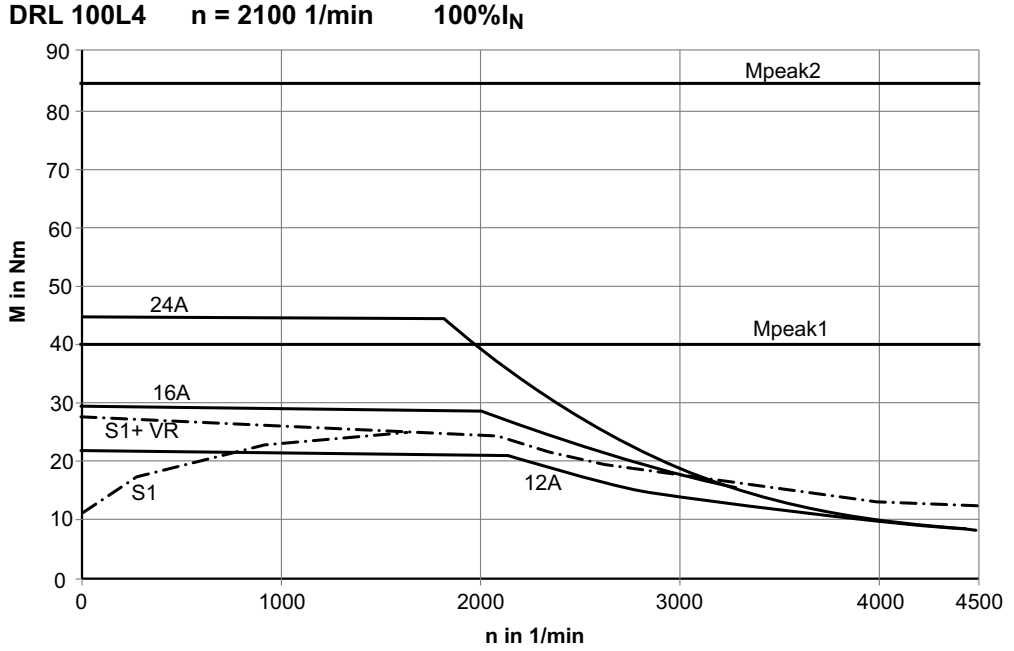
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DRL100L4, n_N = 1700 1/min, 180% I_N



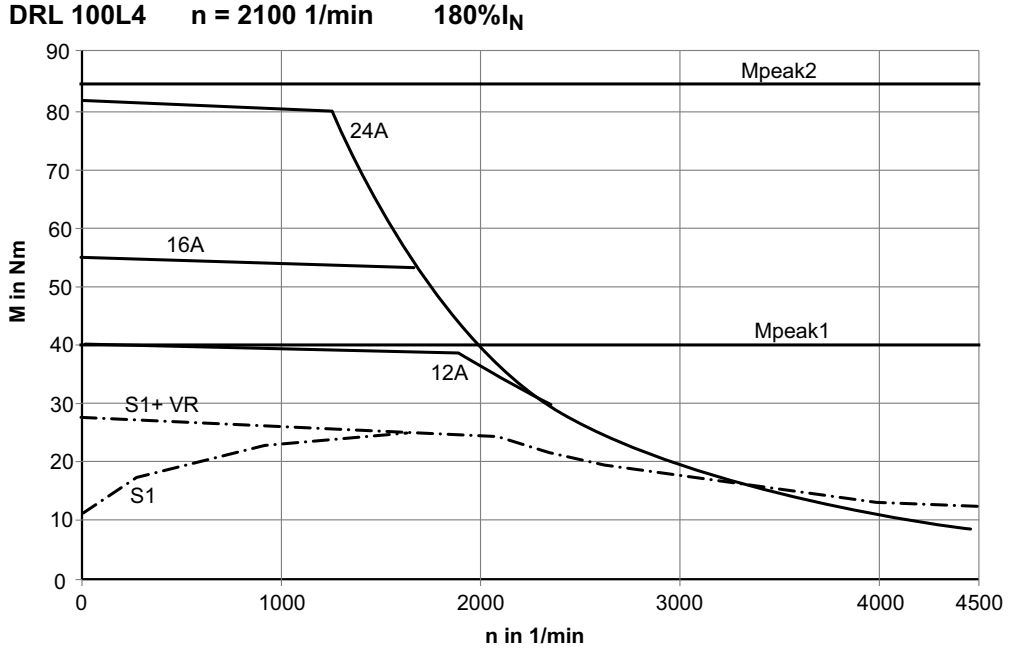
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DRL100L4, n_N = 2100 1/min, 100% I_N



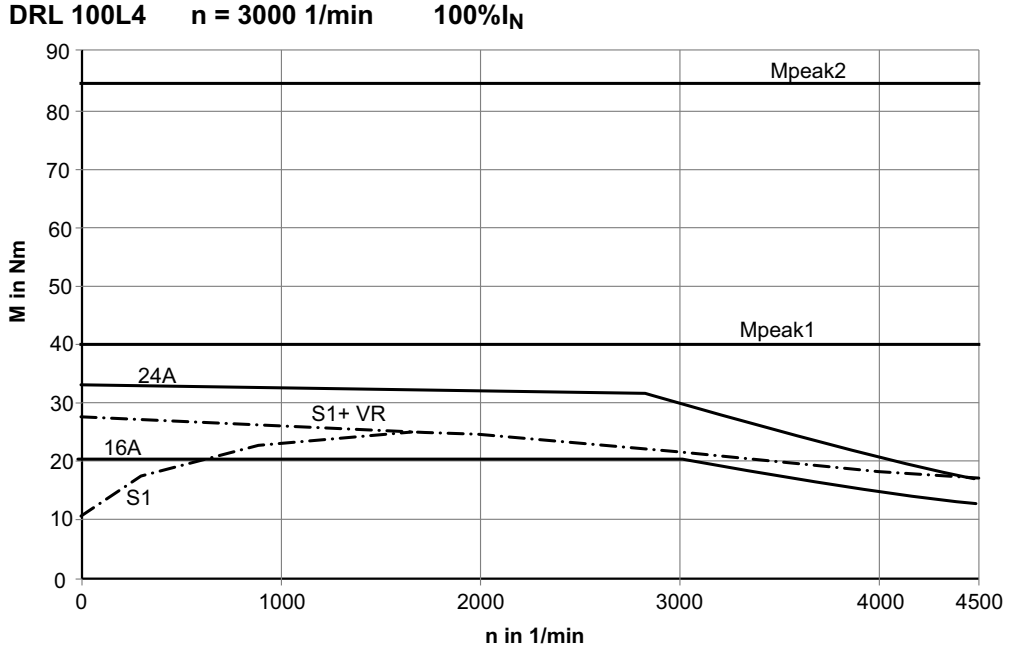
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DRL100L4, n_N = 2100 1/min, 180% I_N



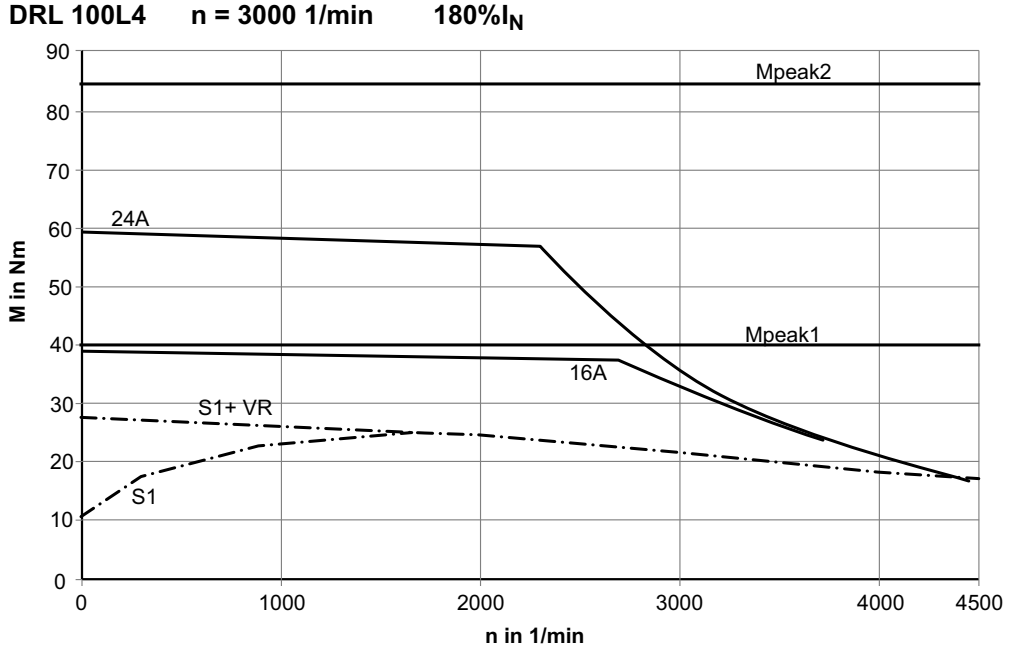
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DRL100L4, n_N = 3000 1/min, 100% I_N



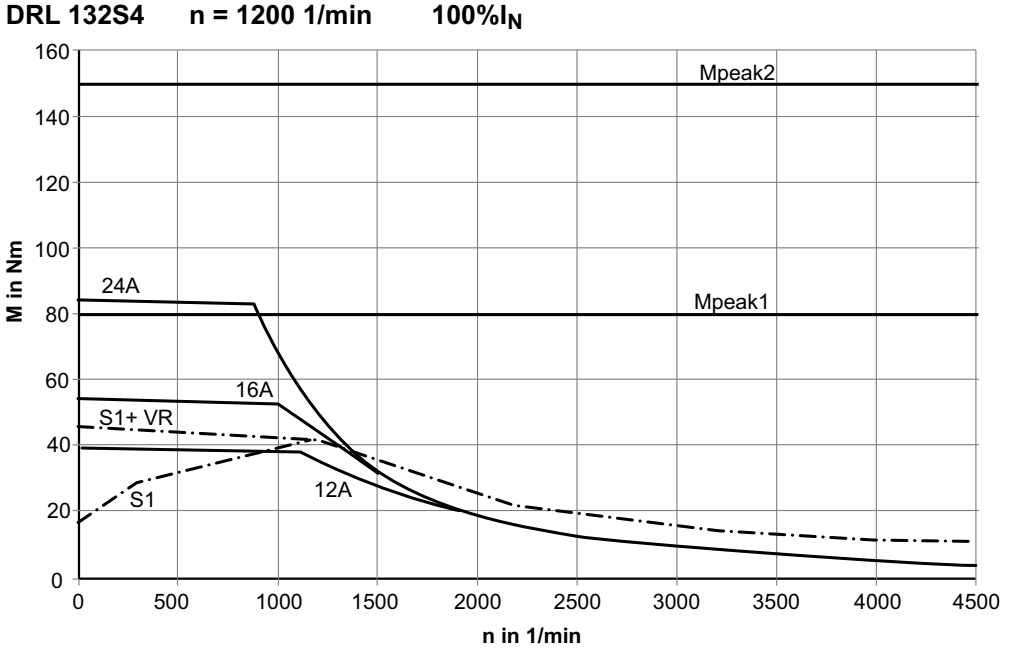
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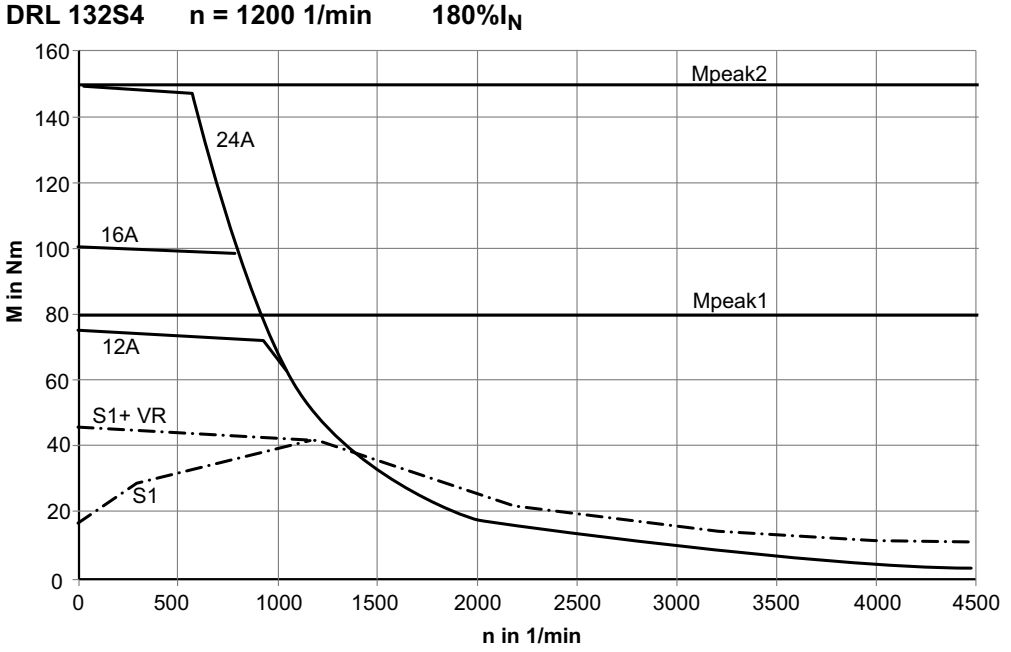
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DRL132S4, n_N = 1200 1/min, 100% I_N



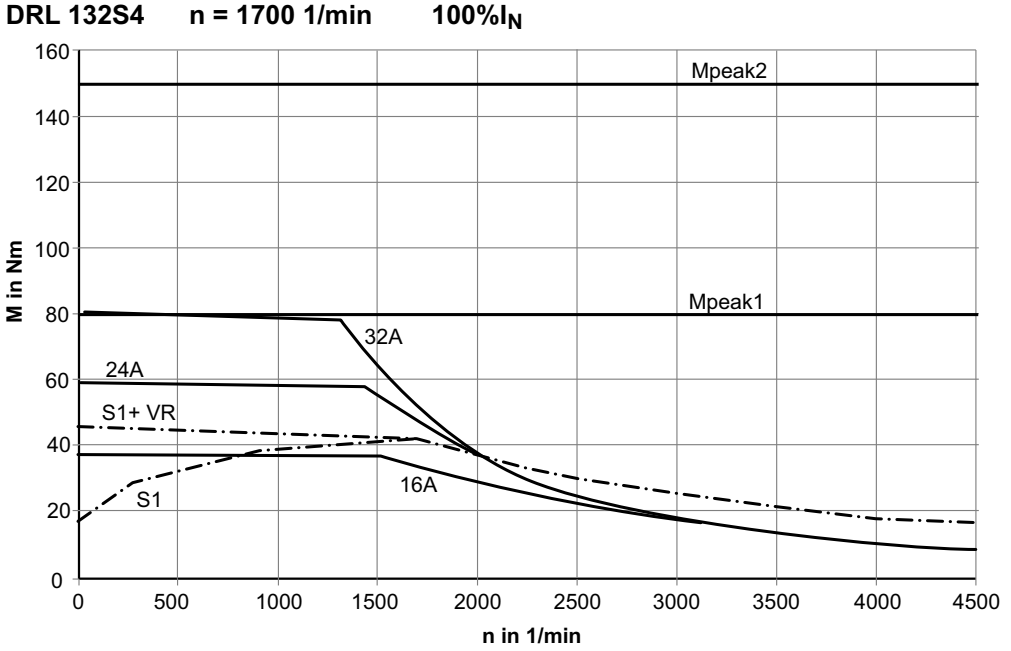
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DRL132S4, n_N = 1200 1/min, 180% I_N



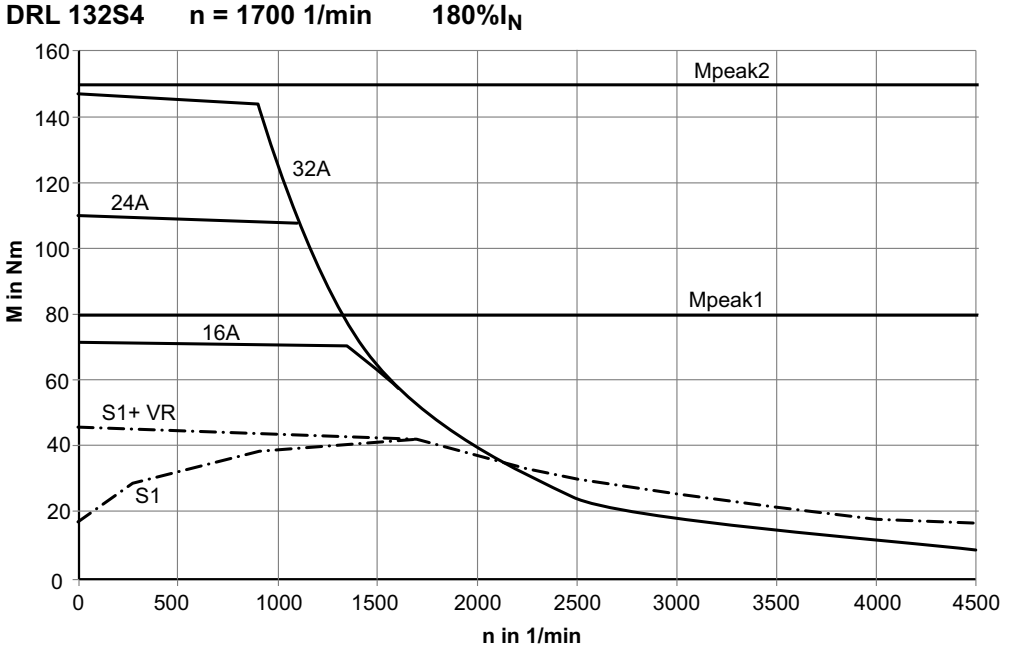
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DRL132S4, n_N = 1700 1/min, 100% I_N



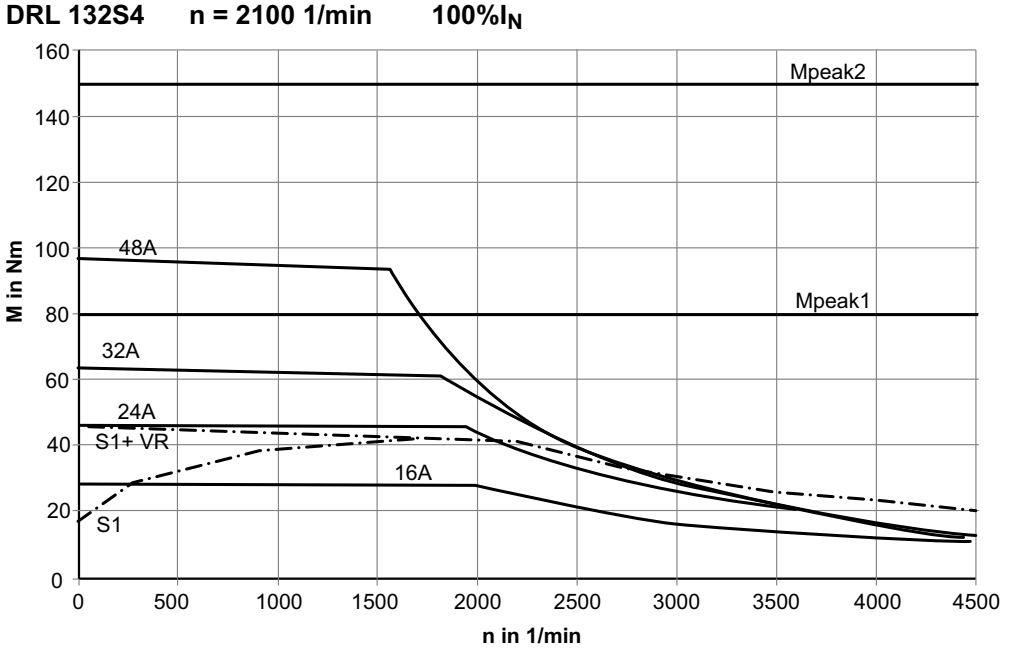
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DRL132S4, n_N = 1700 1/min, 180% I_N



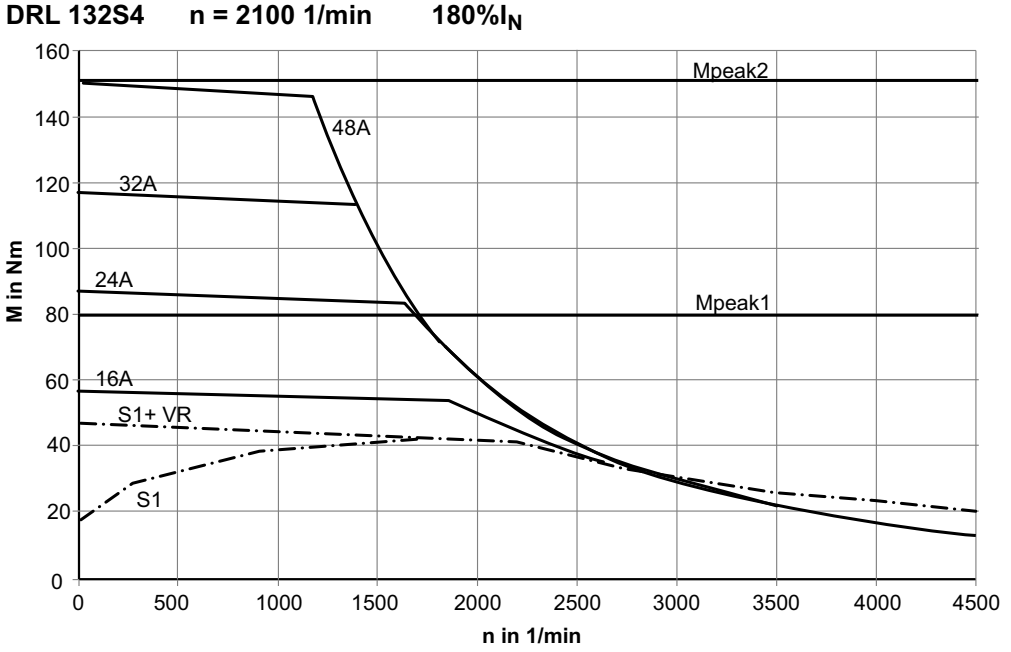
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DRL132S4, n_N = 2100 1/min, 100% I_N



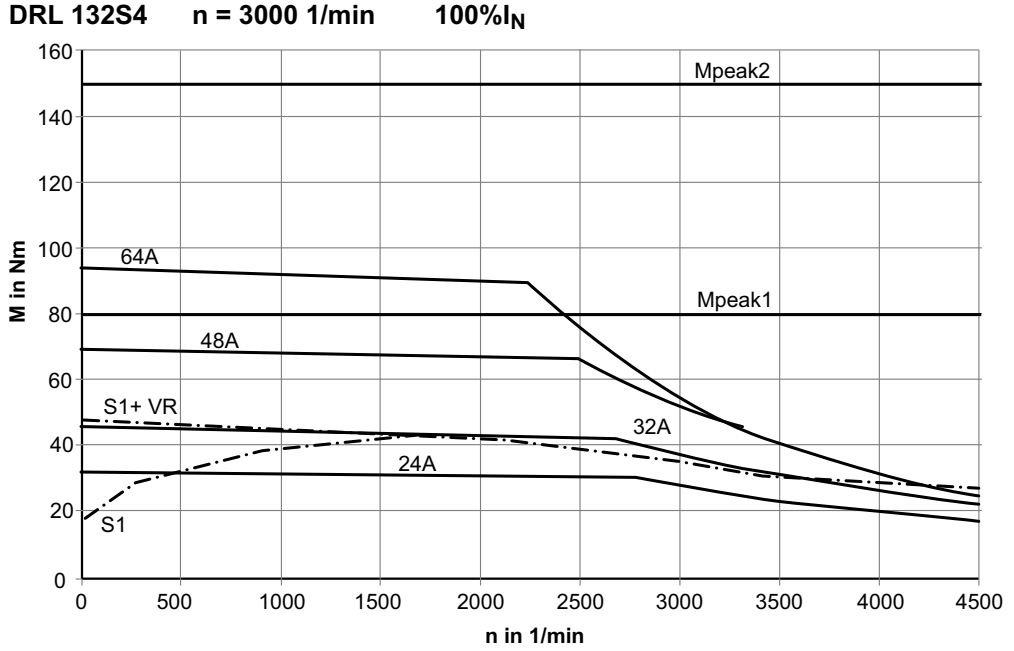
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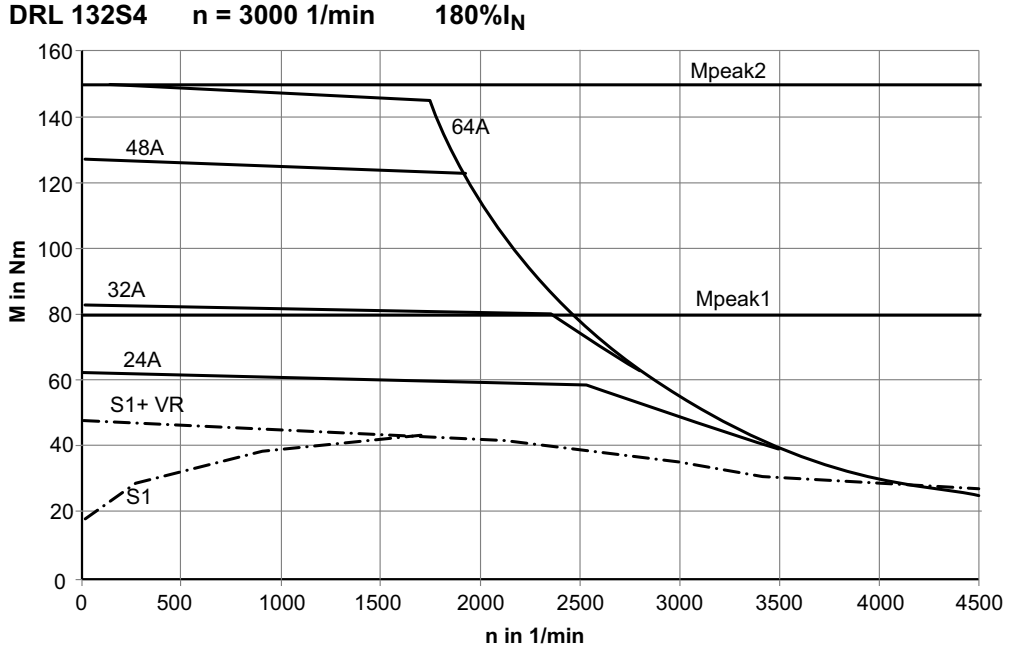
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DRL132S4, n_N = 3000 1/min, 100% I_N



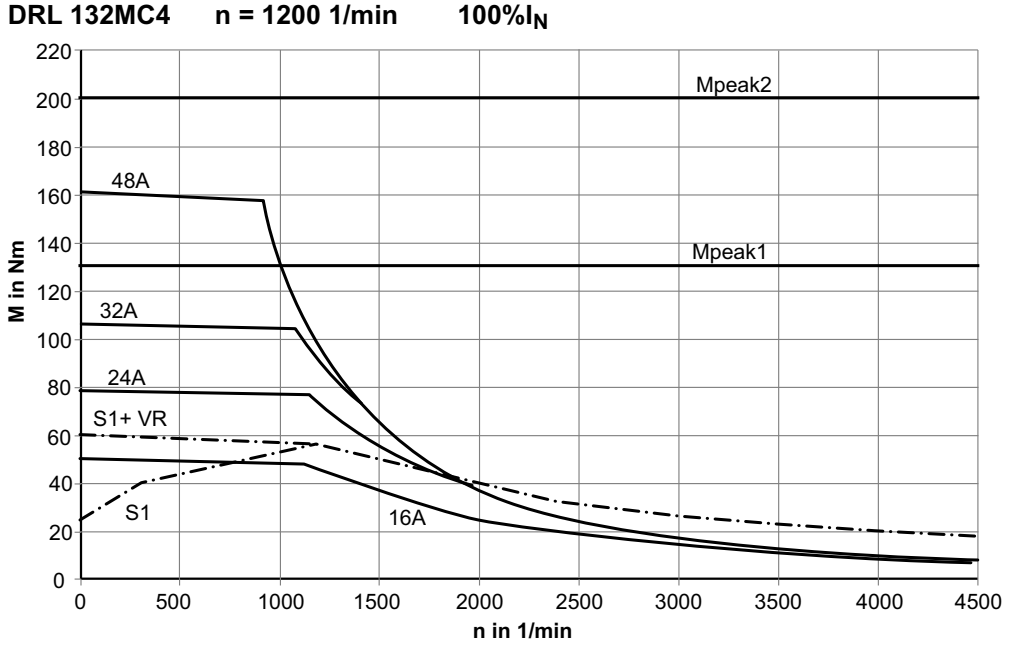
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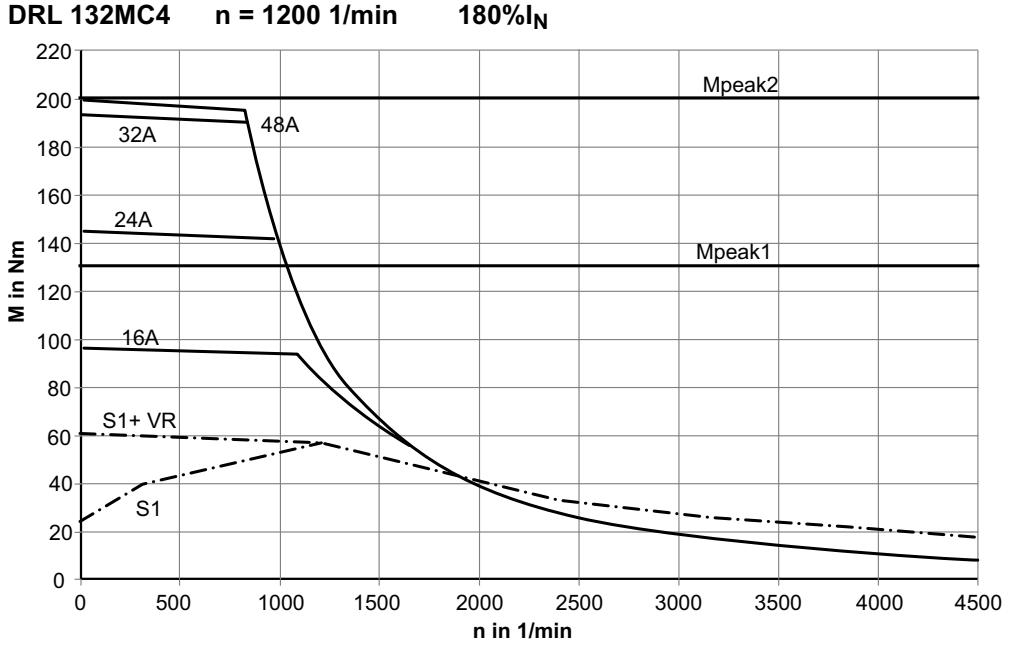
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DRL132MC4, n_N = 1200 1/min, 100% I_N



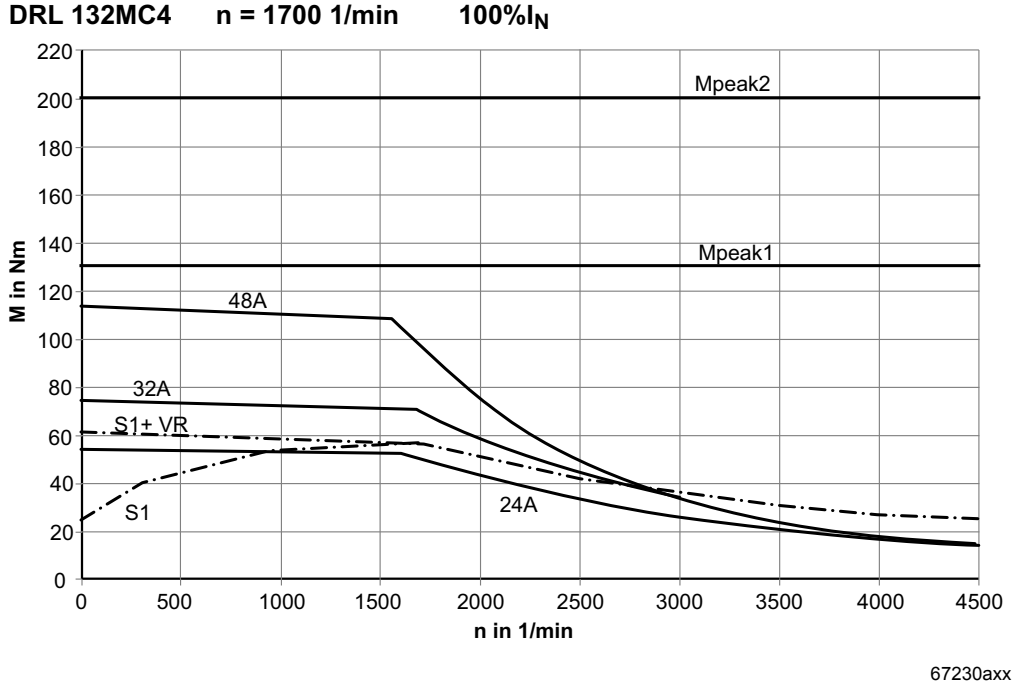
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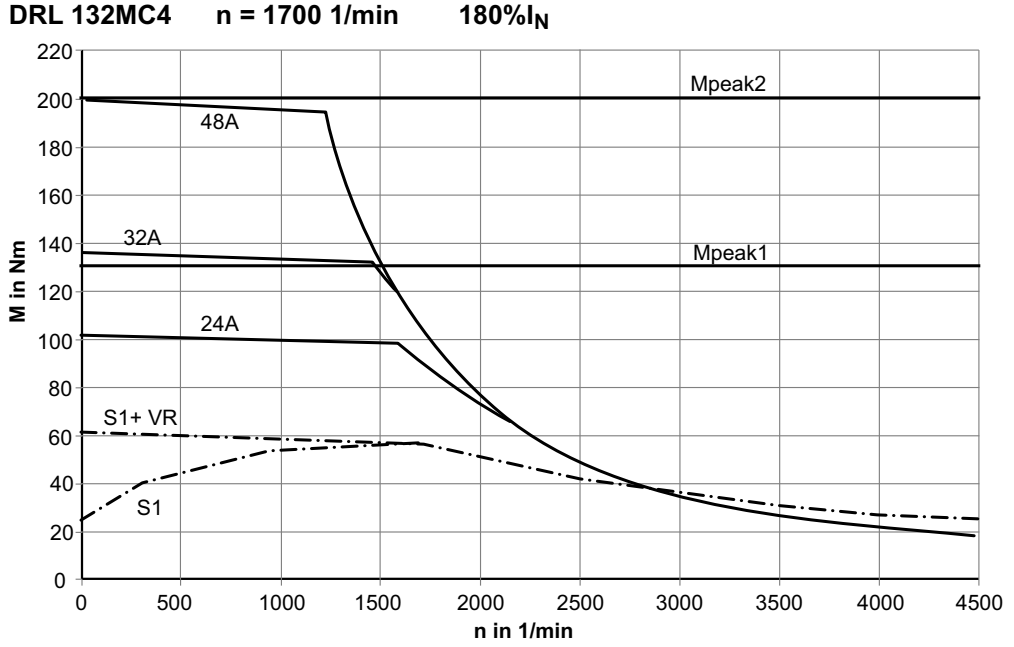
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DRL132MC4, n_N = 1700 1/min, 100% I_N



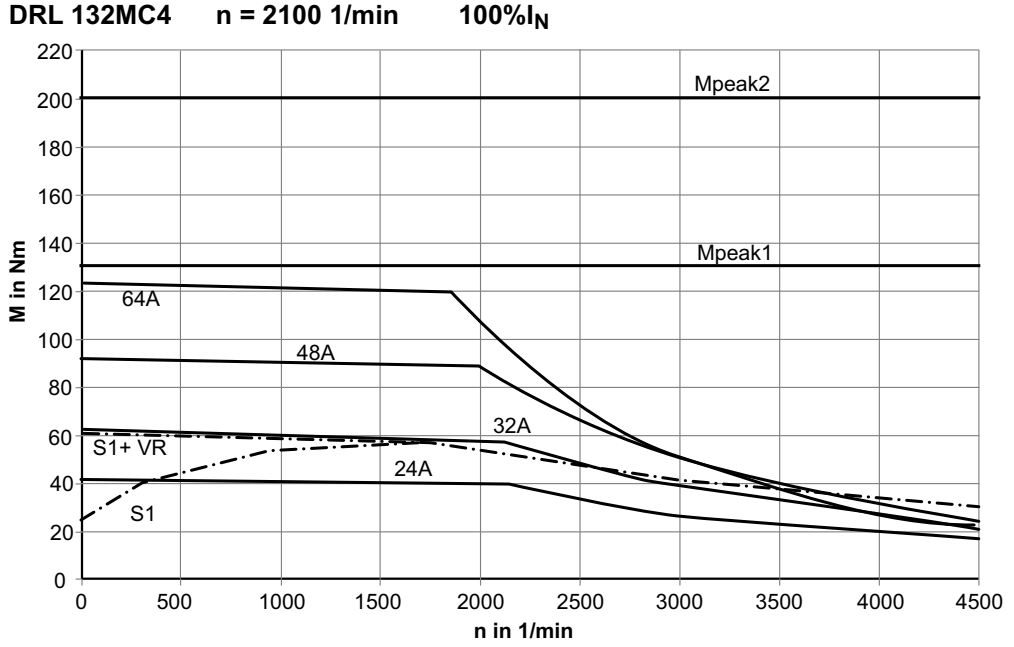
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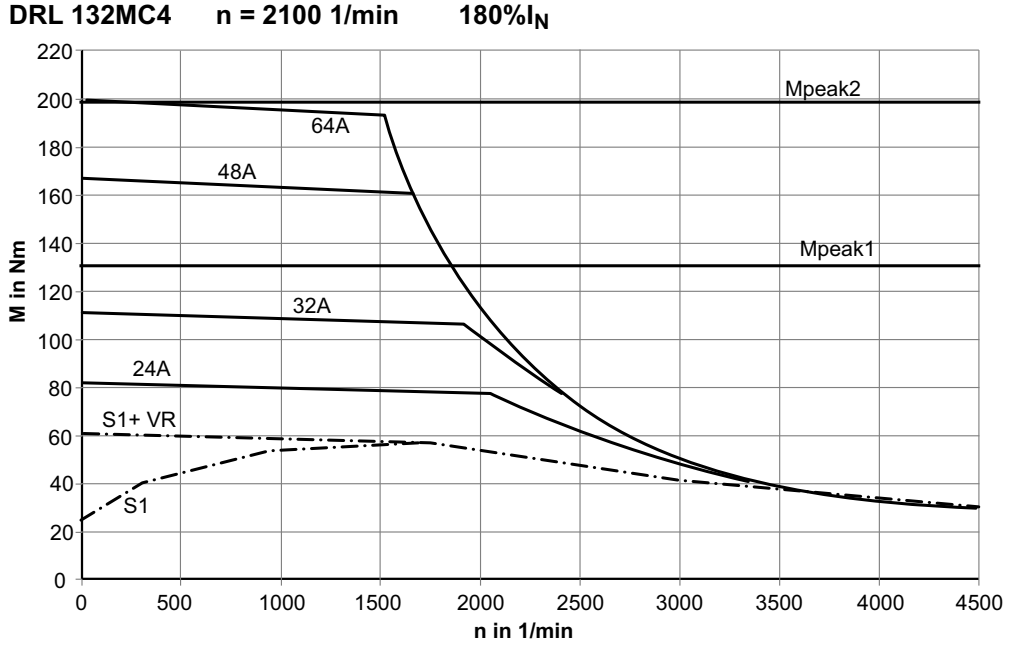
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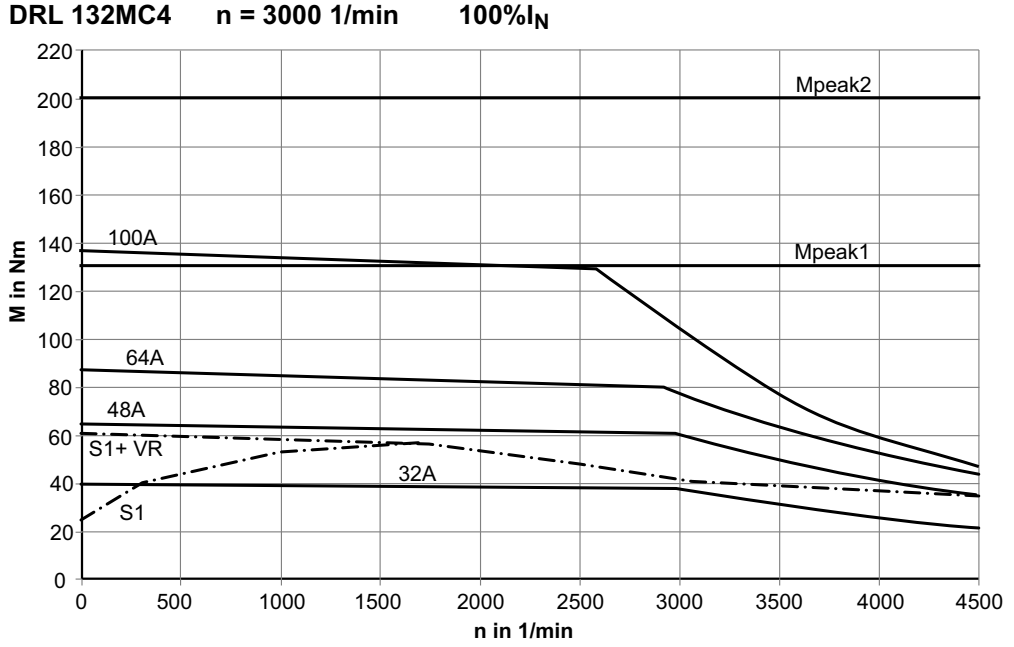
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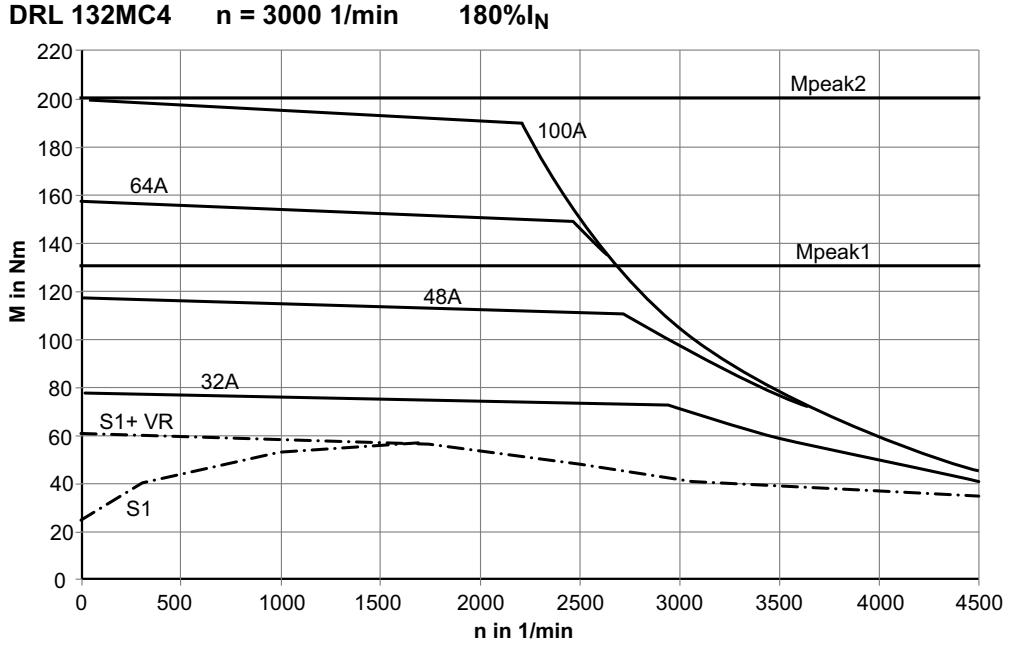
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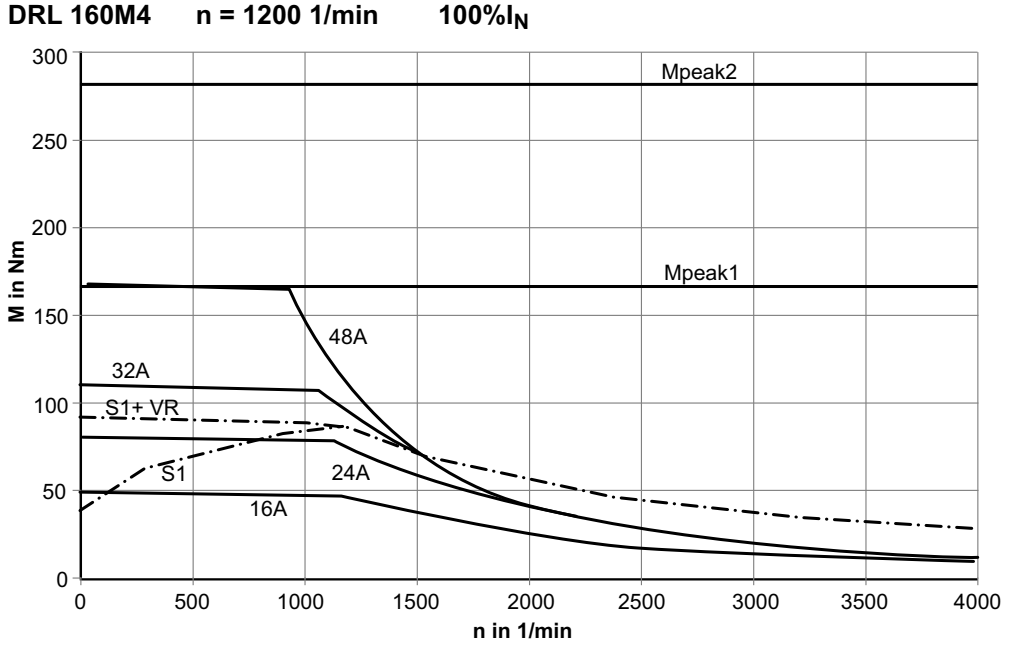
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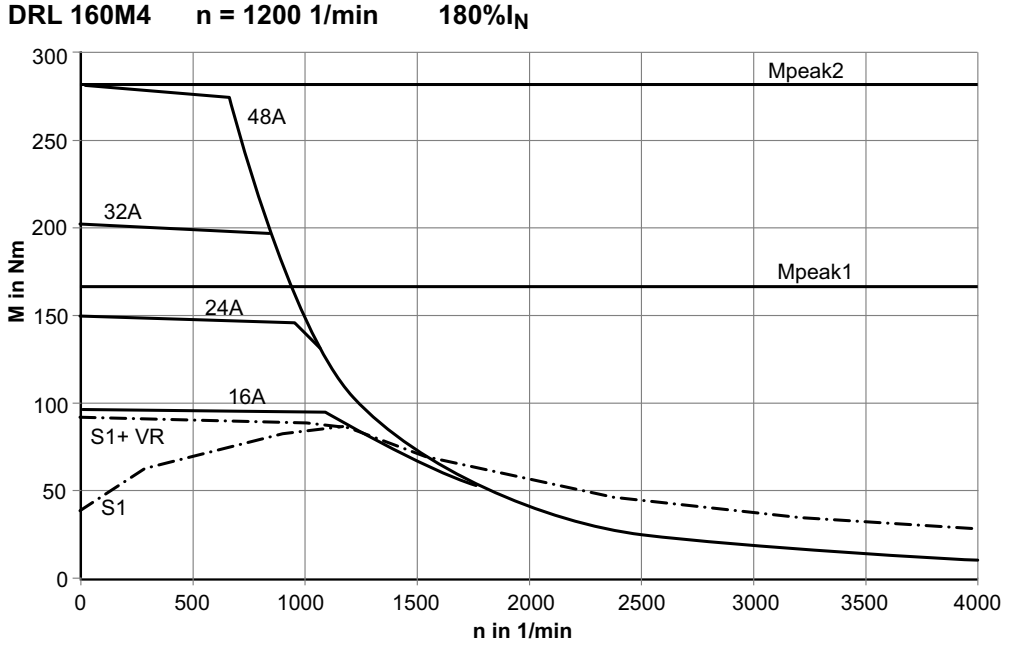
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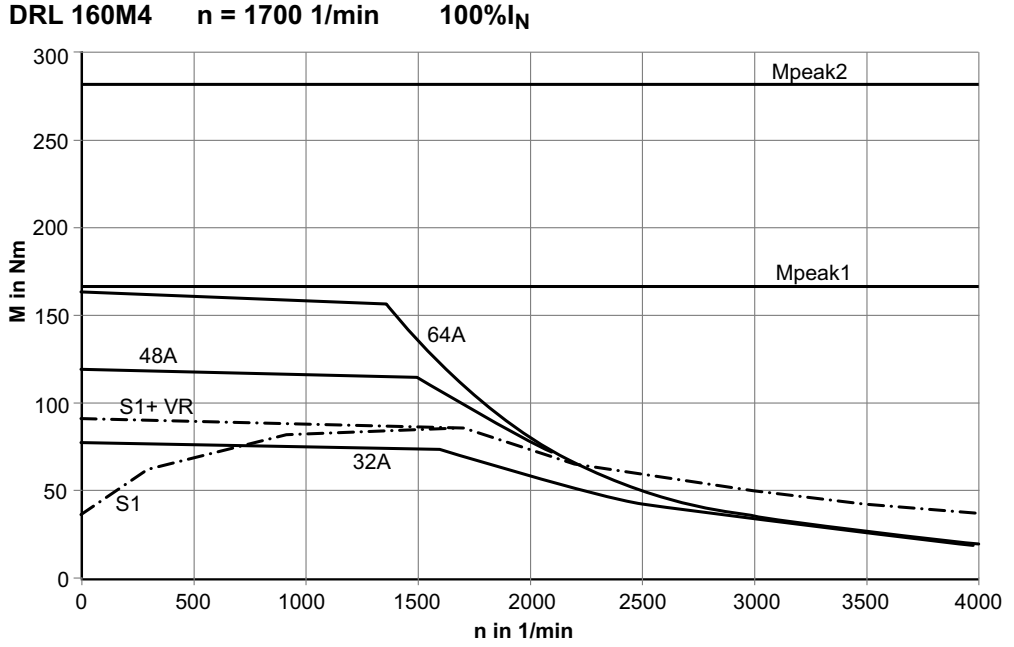
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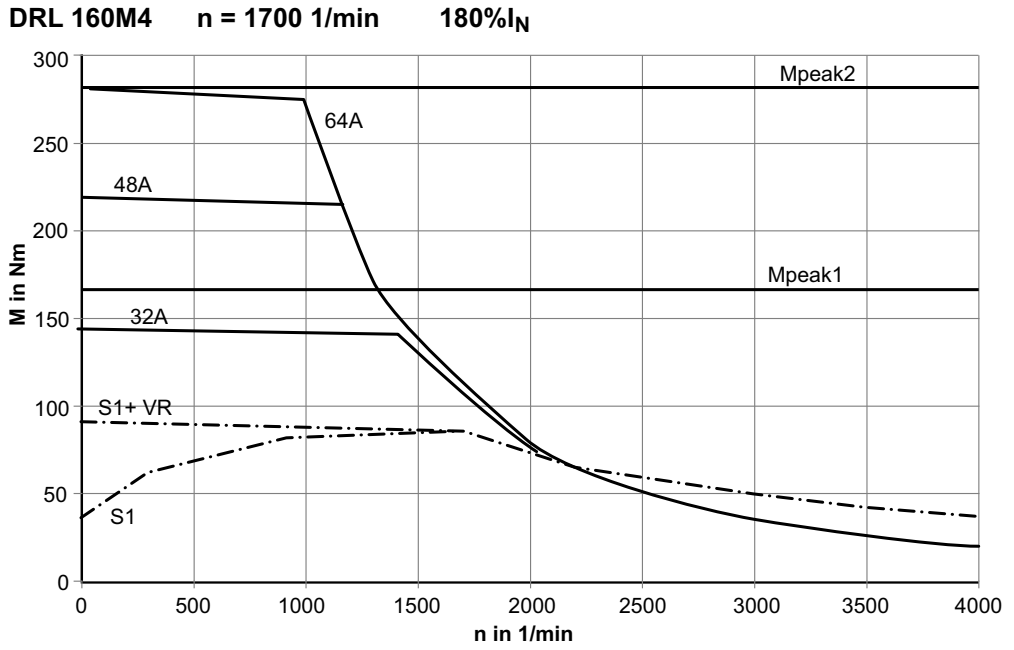
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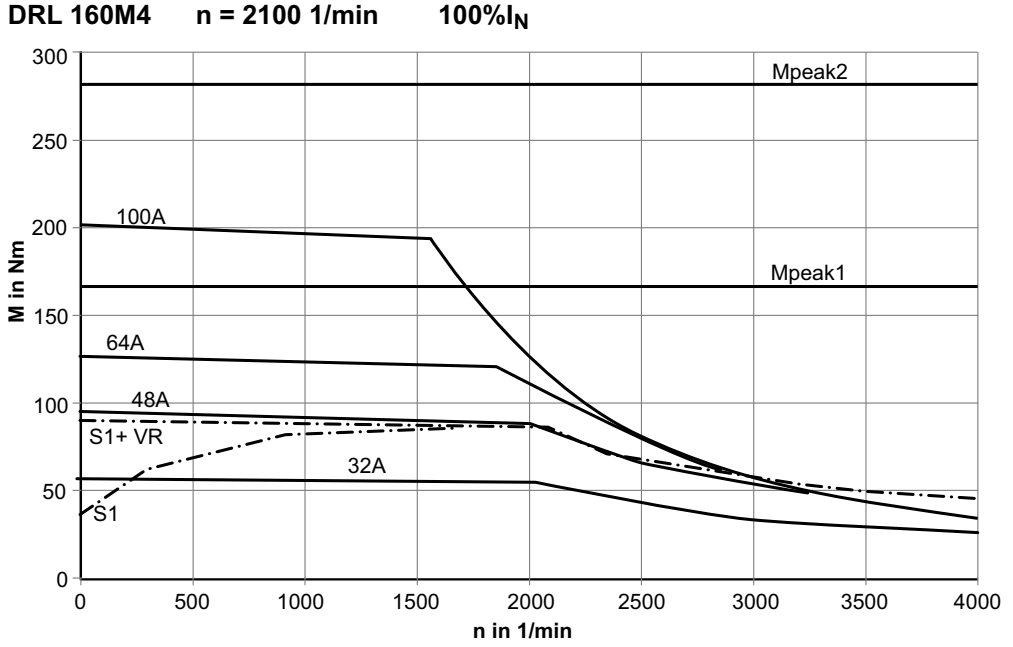
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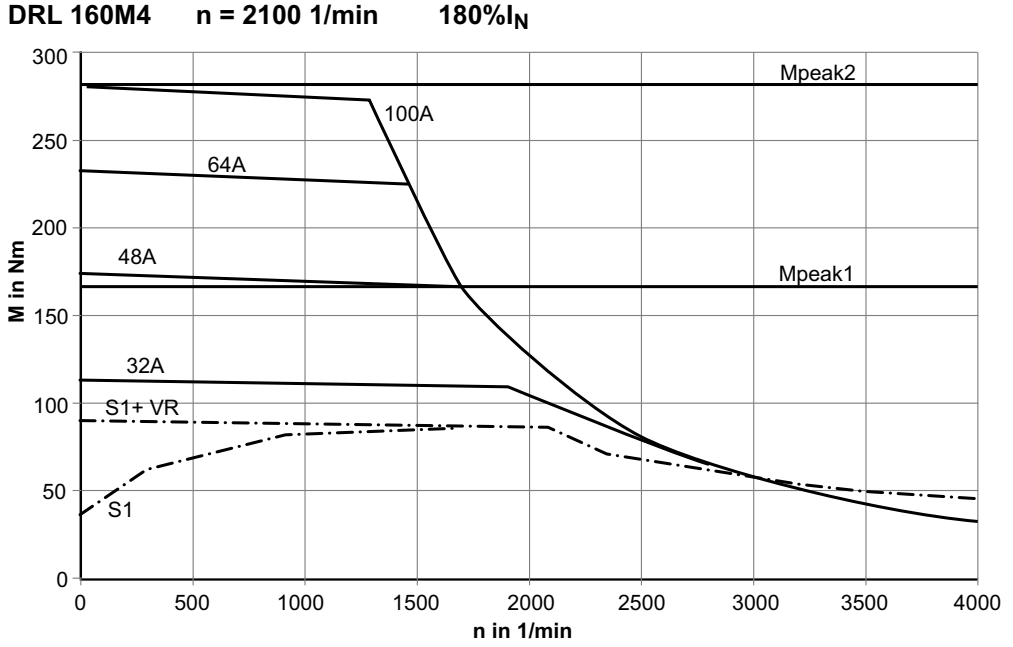
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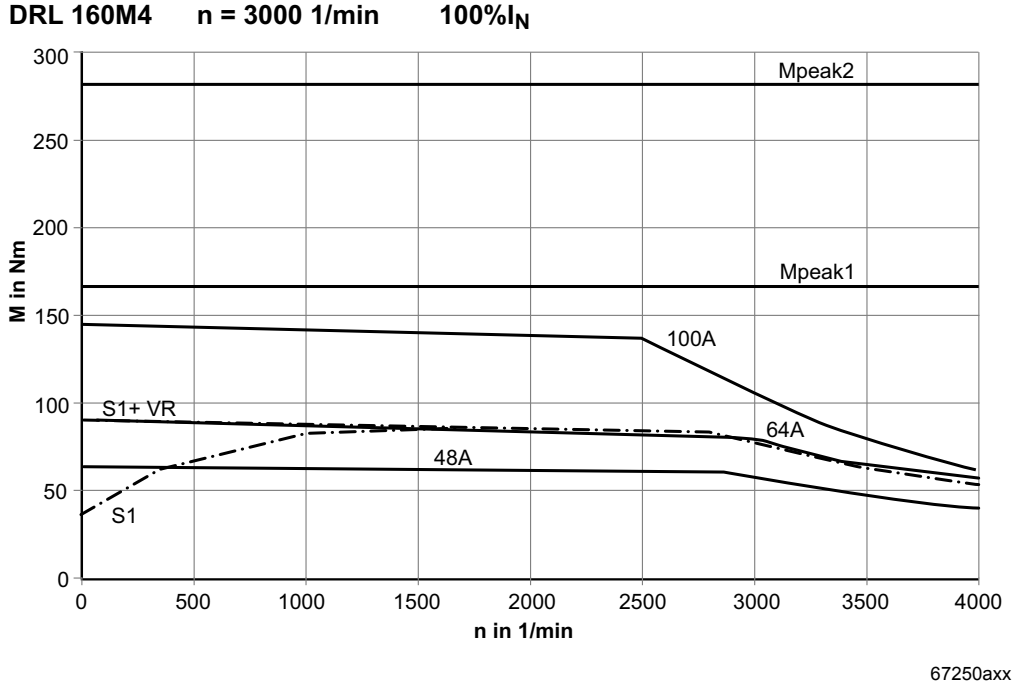
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DRL160M4, n_N = 2100 1/min, 180% I_N

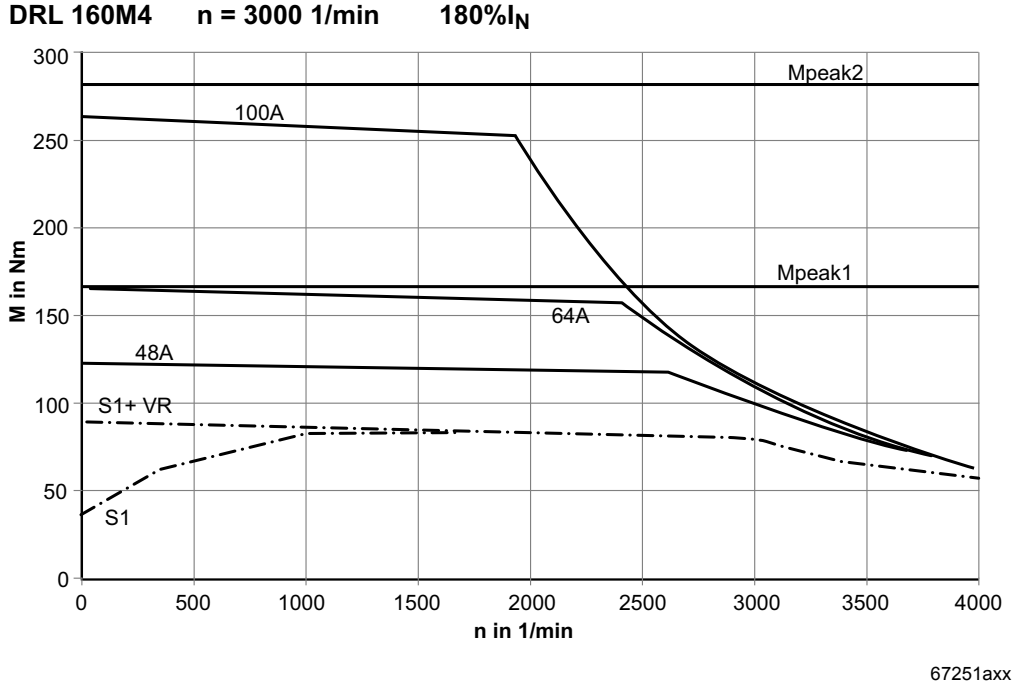


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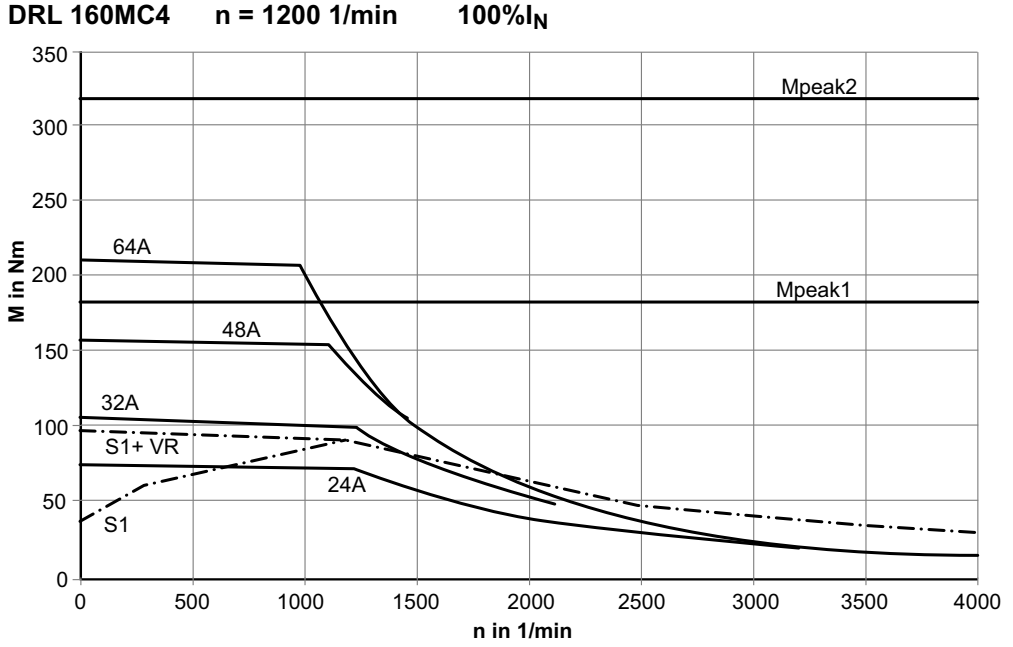
DRL160M4, n_N = 3000 1/min, 100% I_N



DRL160M4, n_N = 3000 1/min, 180% I_N

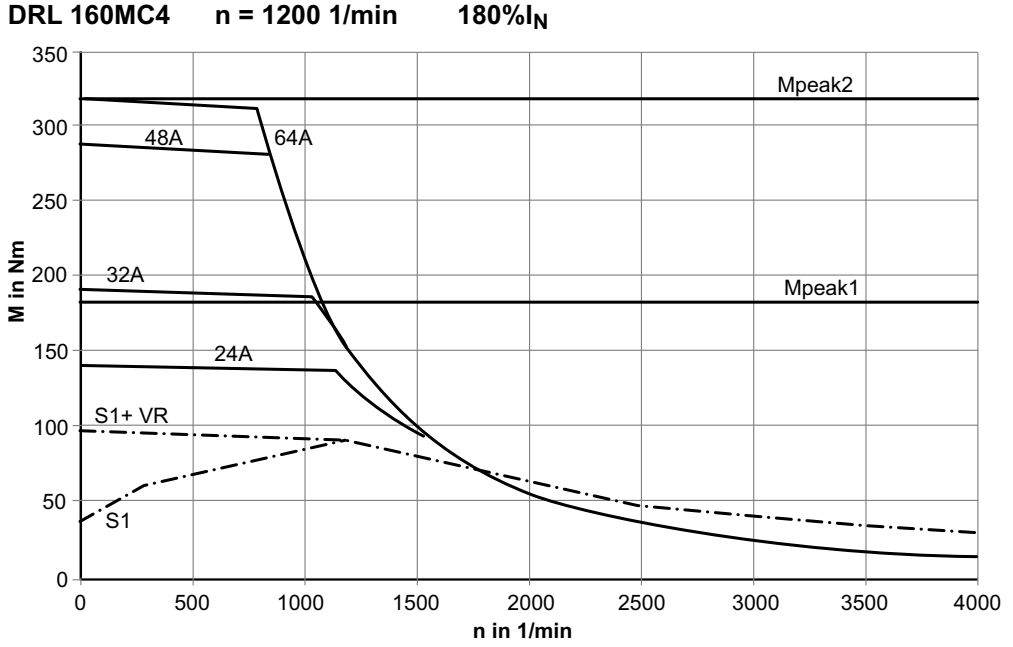


DRL160MC4, n_N = 1200 1/min, 100% I_N



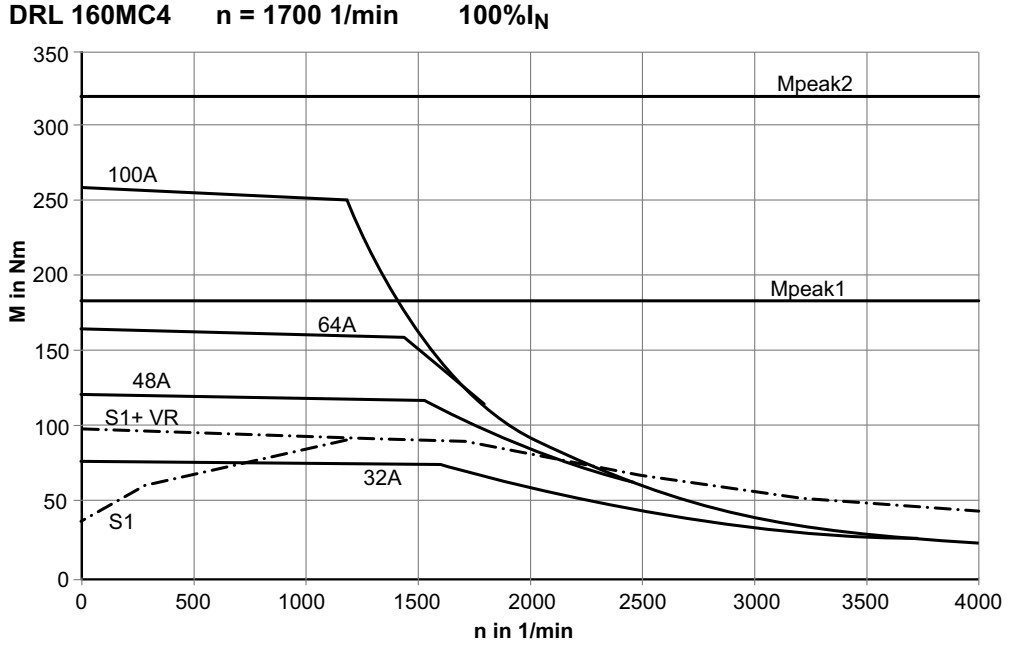
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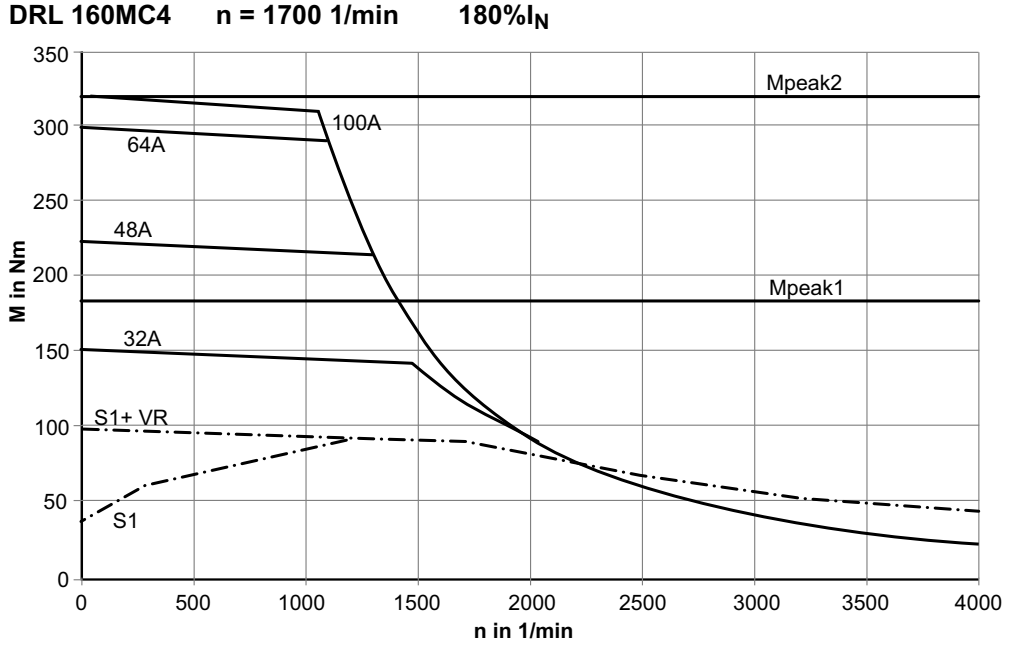
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DRL160MC4, n_N = 1700 1/min, 100% I_N



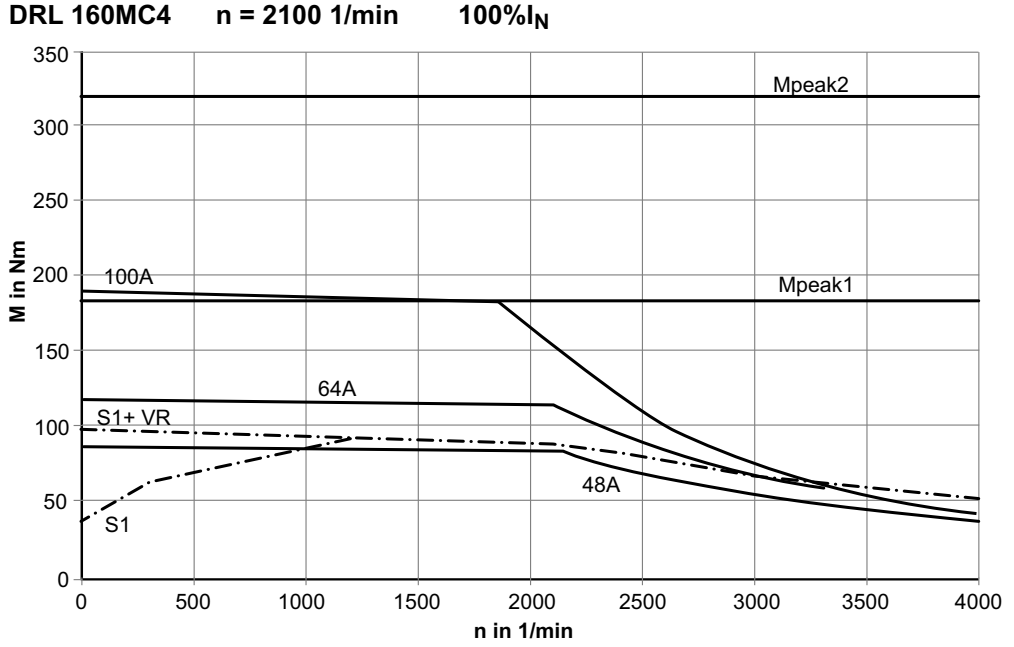
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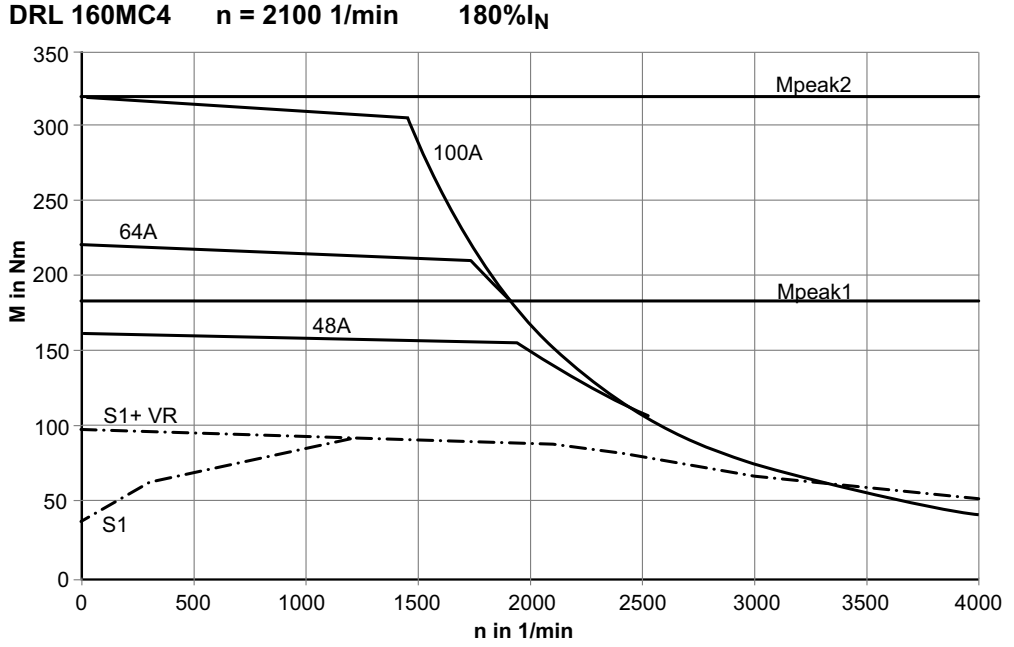
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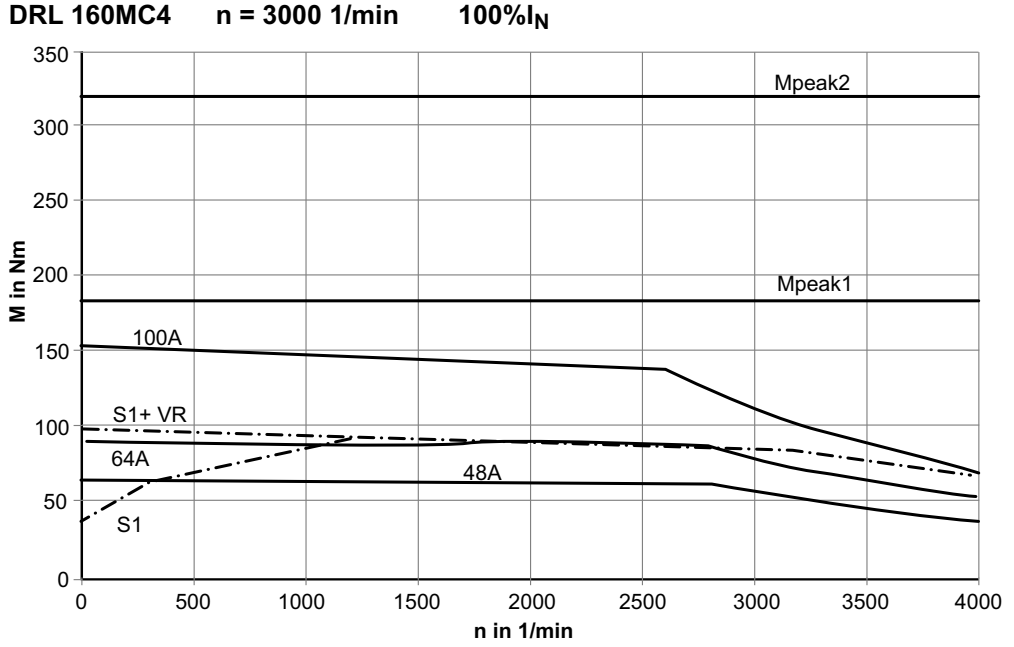
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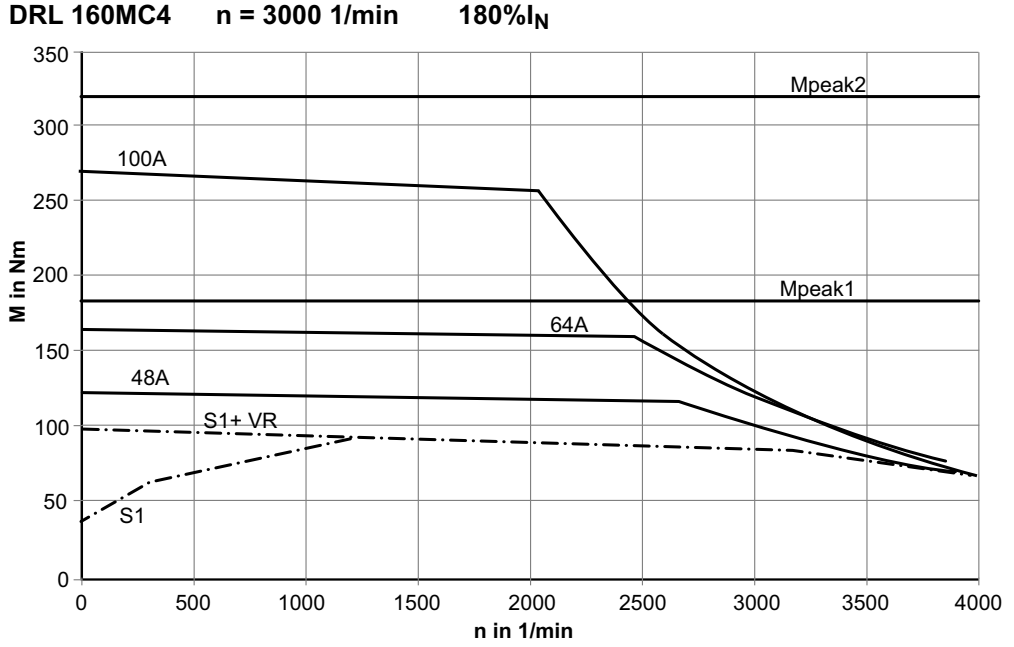
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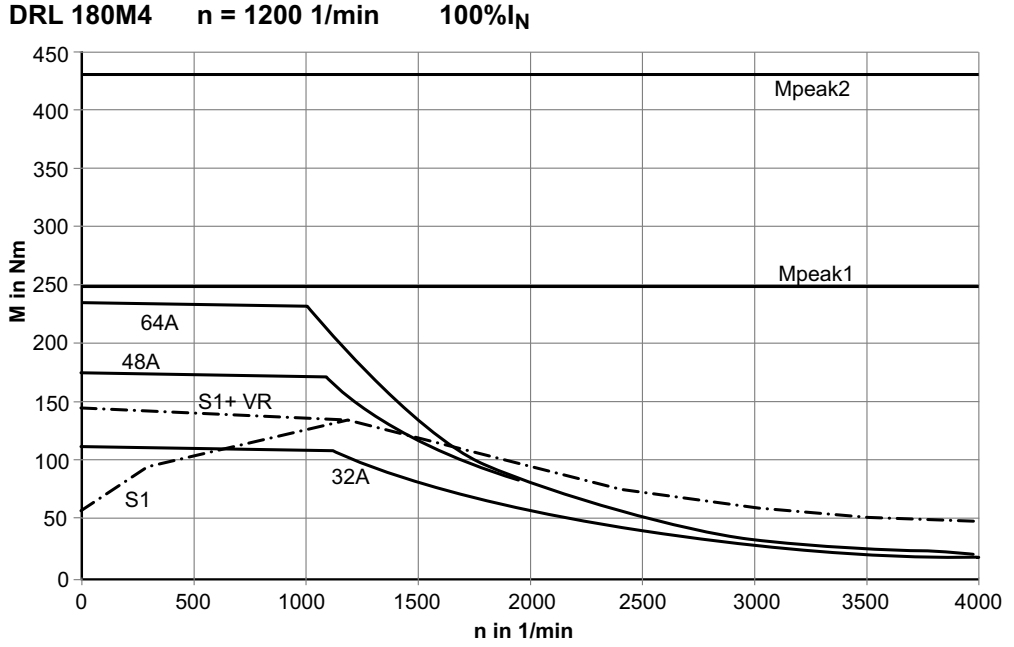
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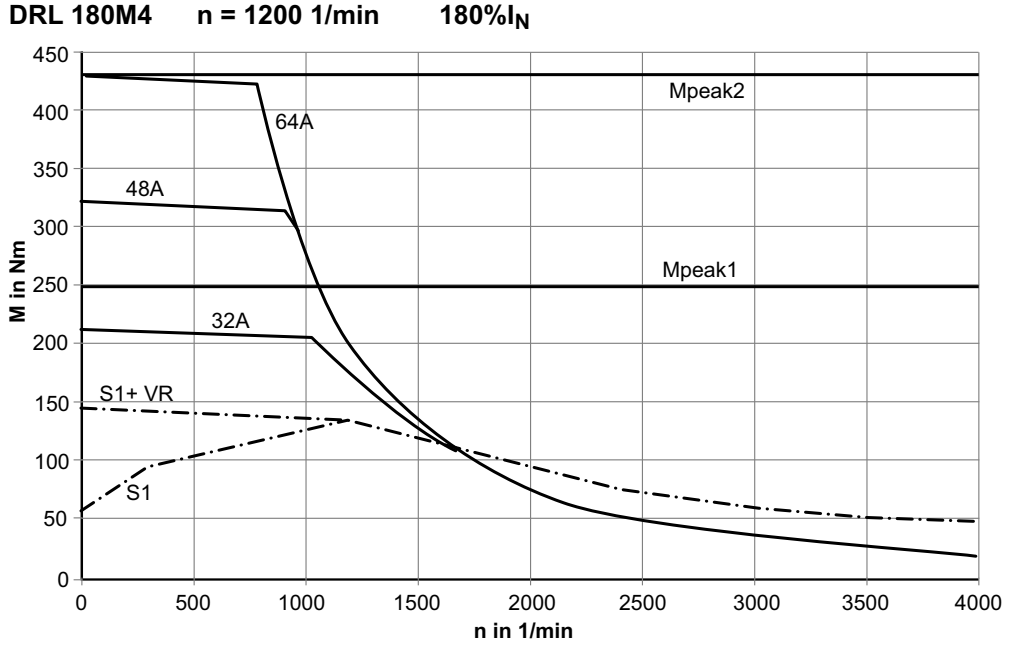
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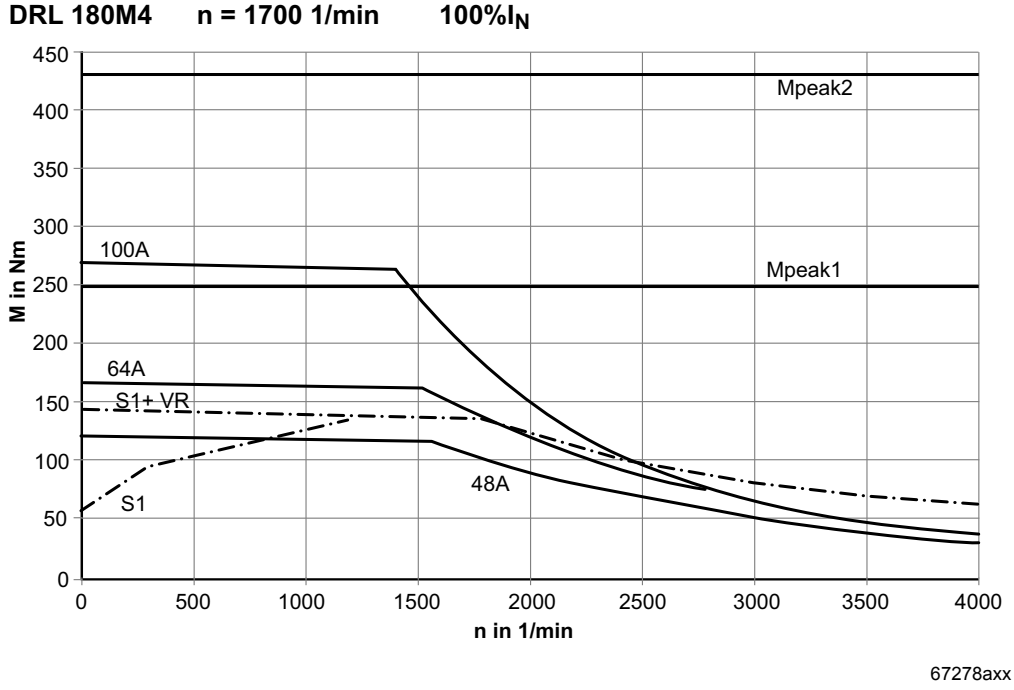
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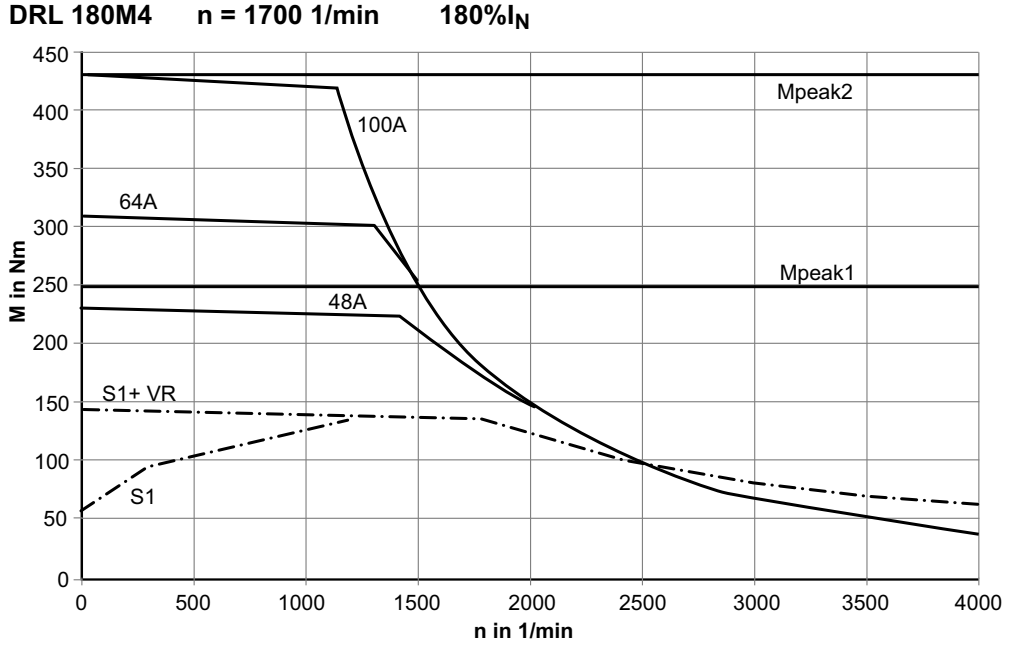
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DRL180M4, n_N = 1700 1/min, 100% I_N



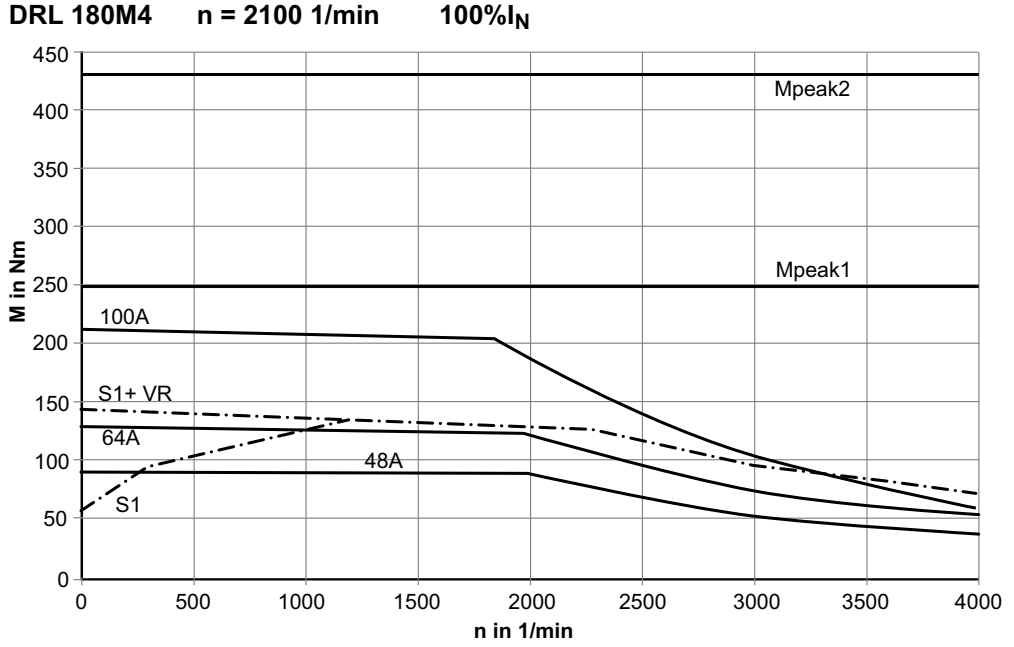
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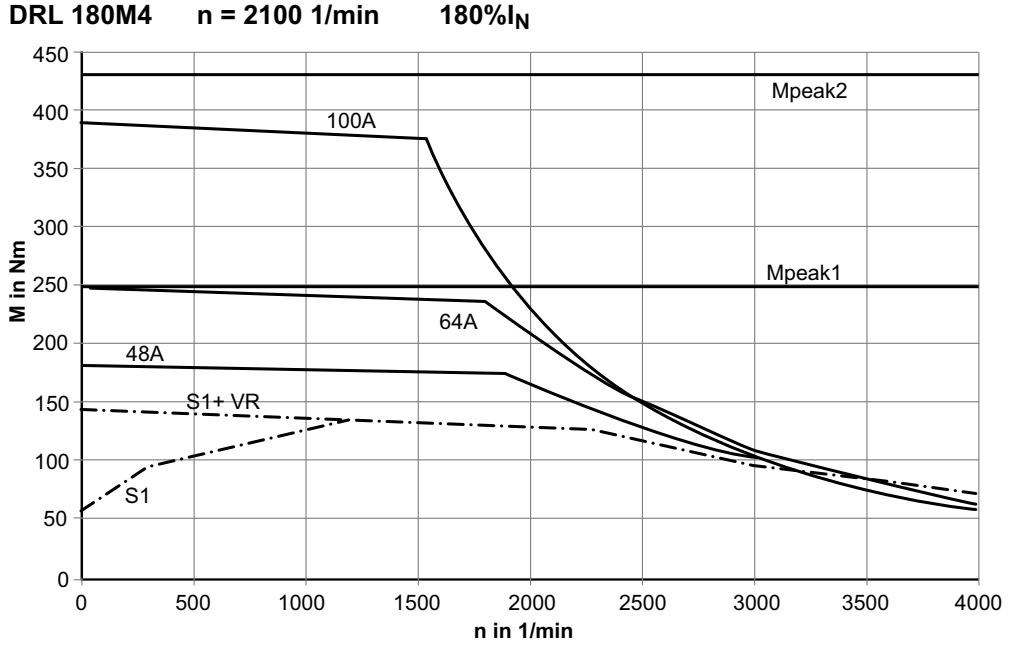
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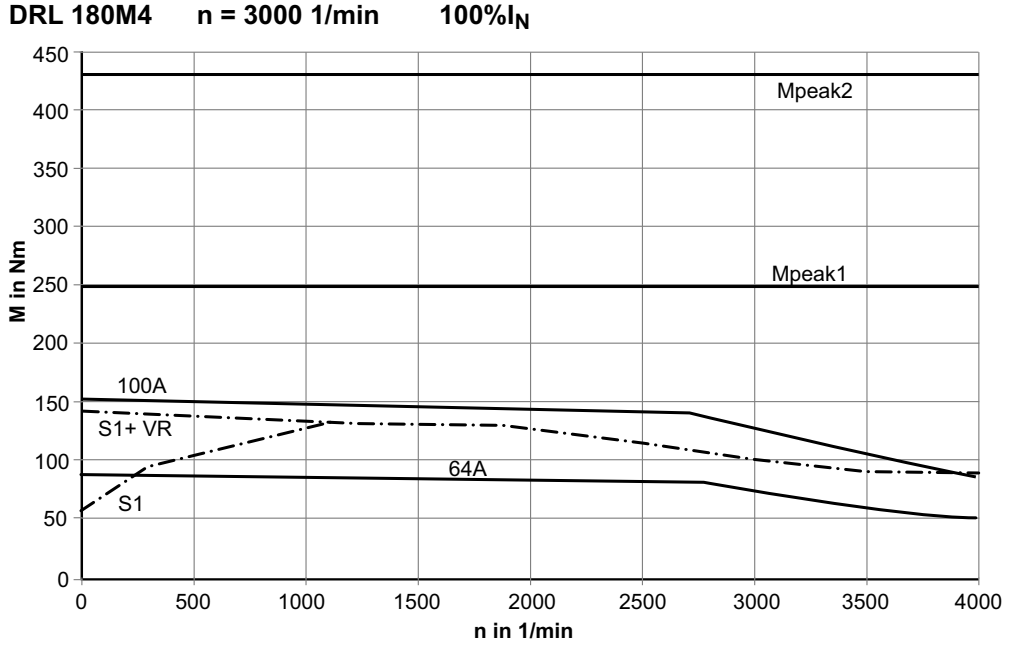
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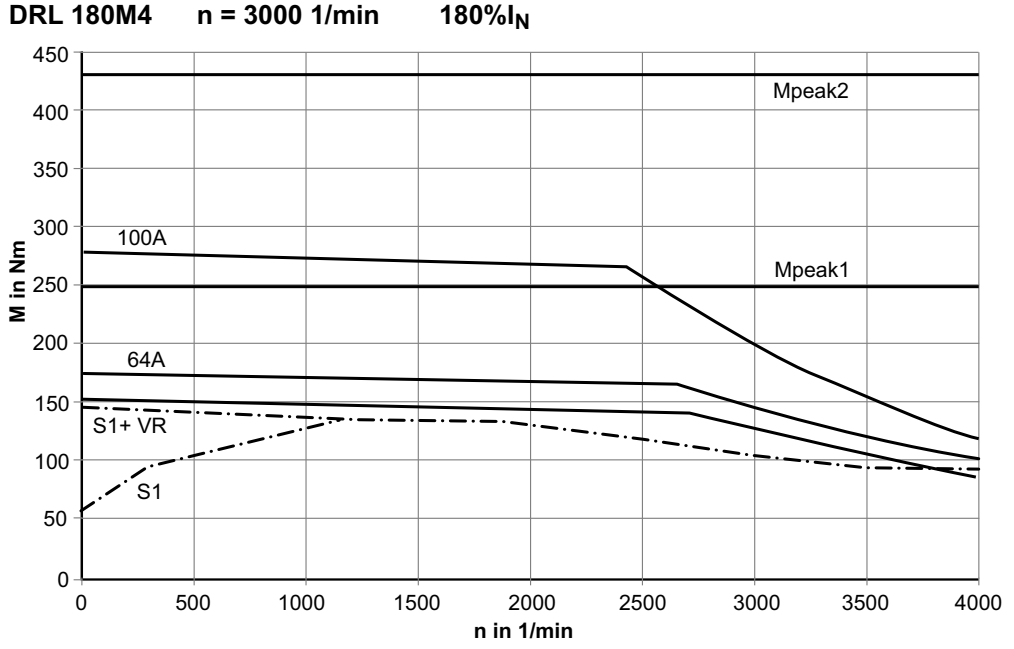
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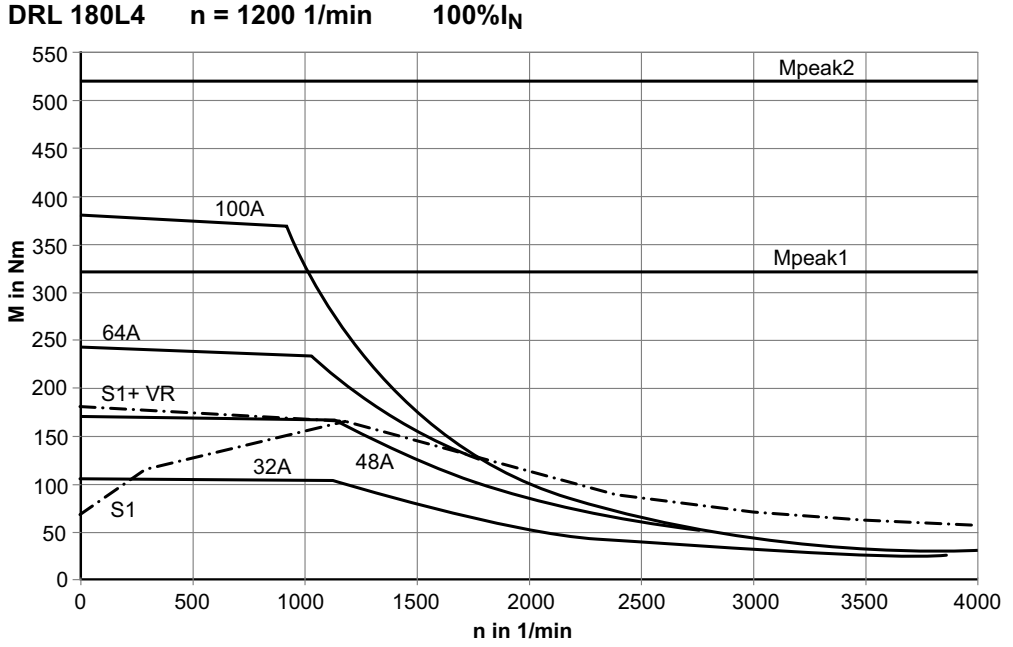
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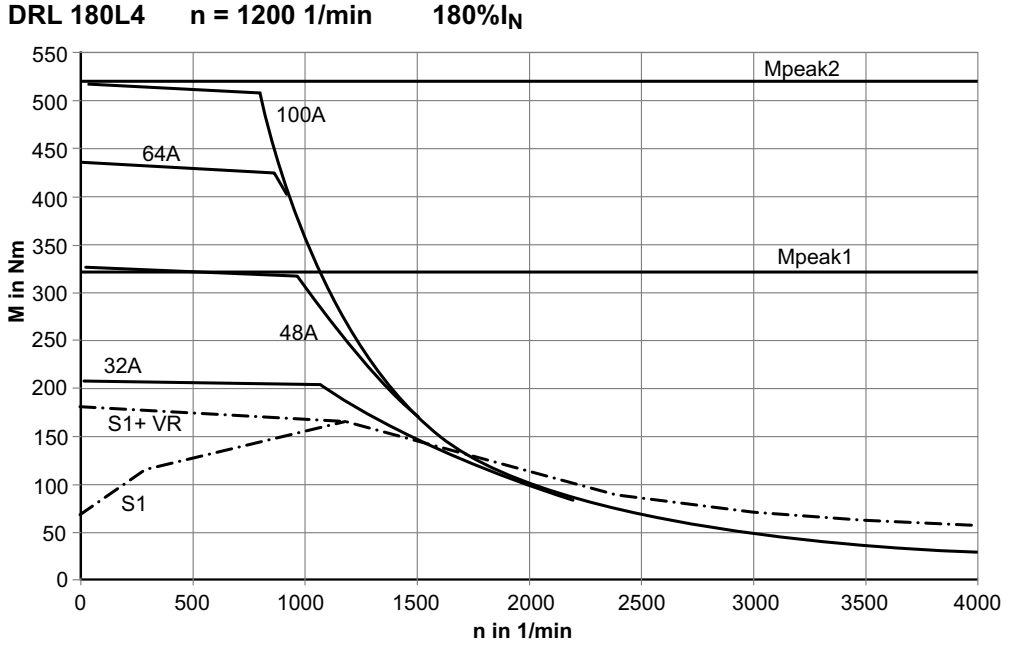
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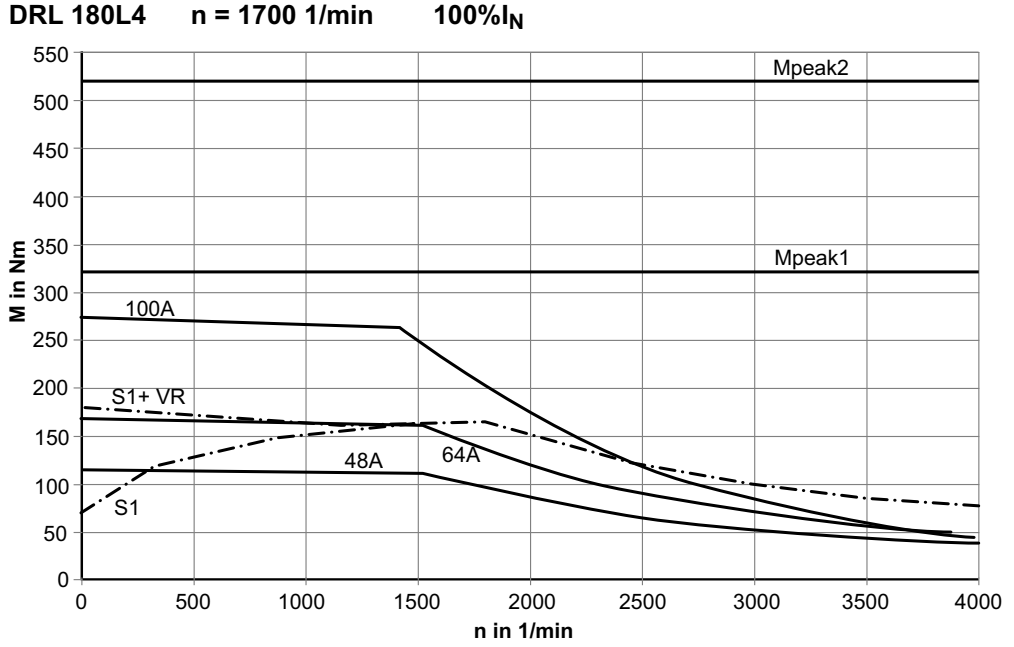
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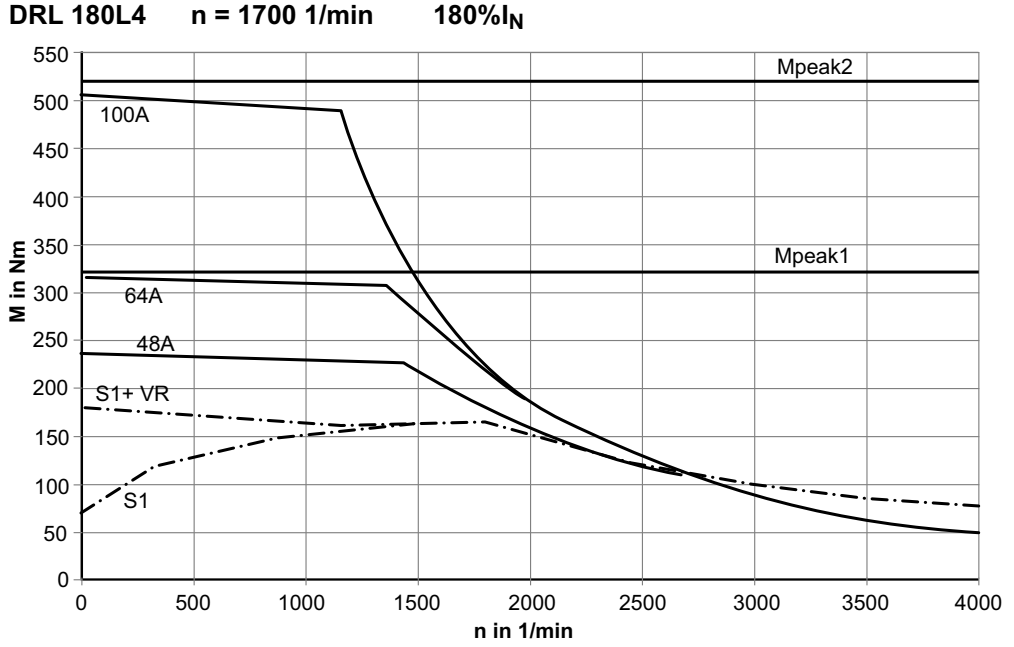
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DRL180L4, n_N = 1700 1/min, 100% I_N



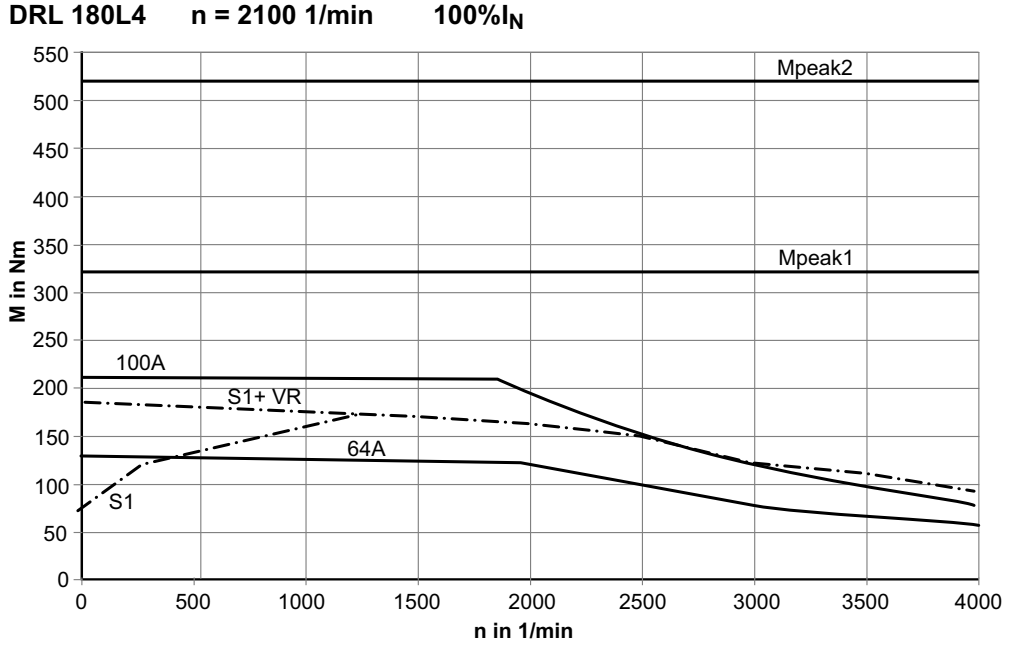
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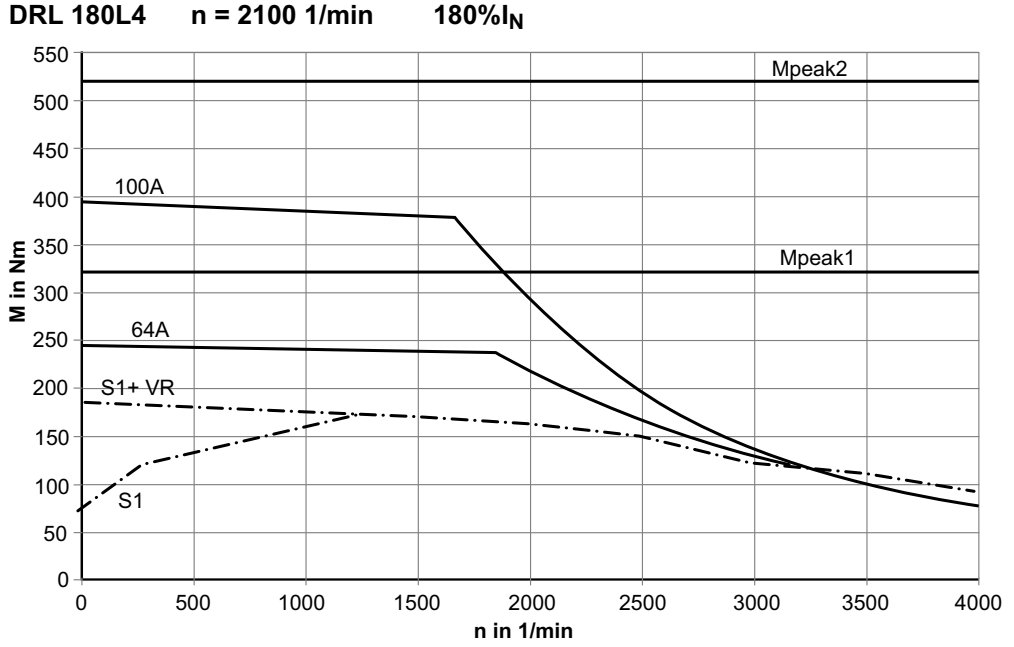
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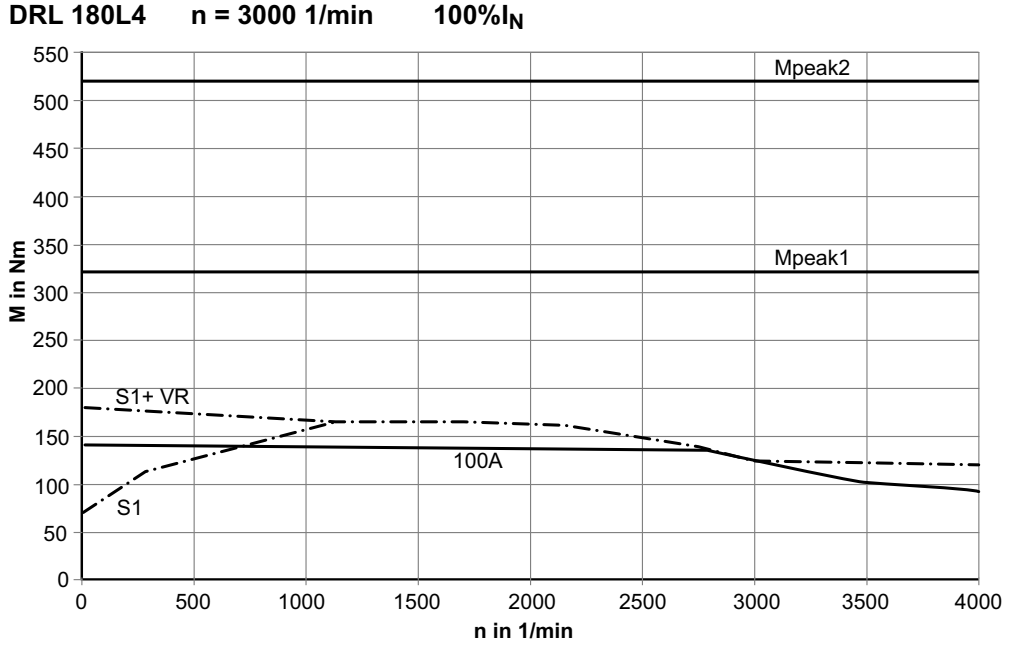
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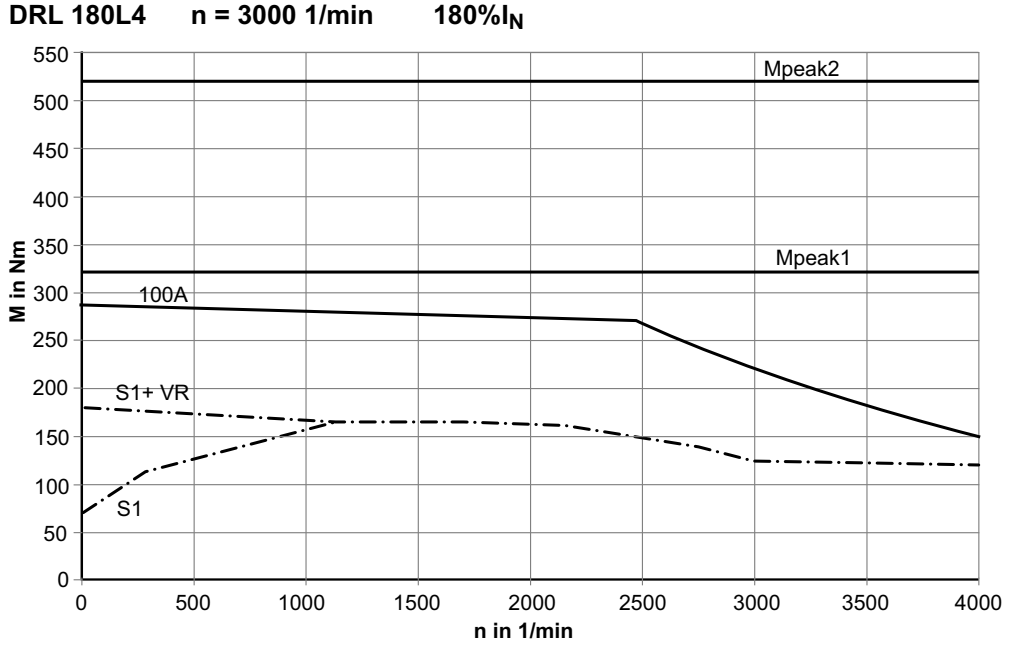
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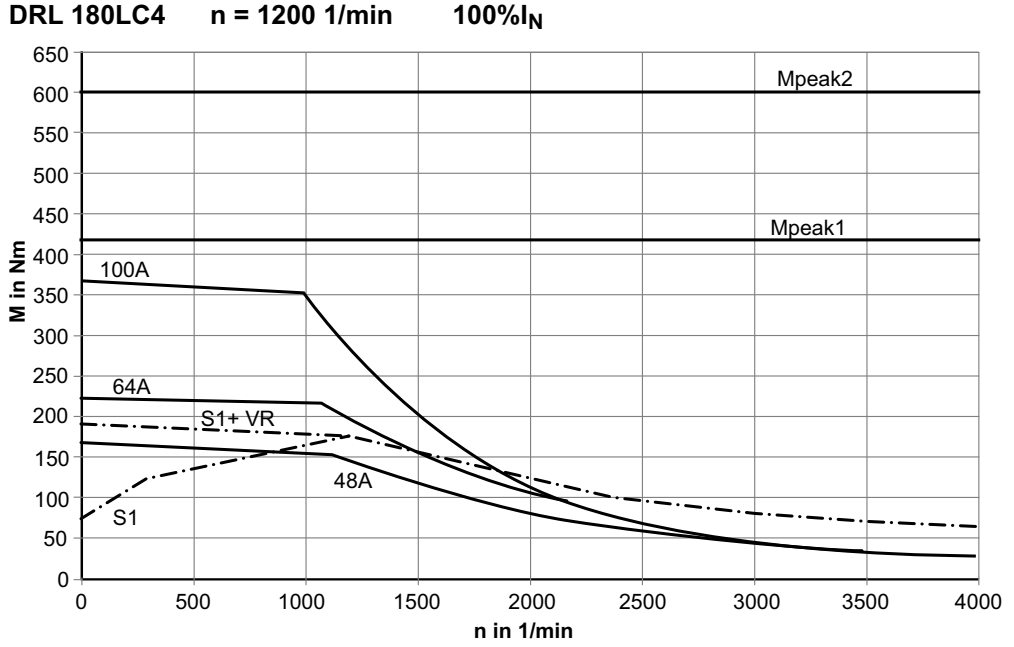
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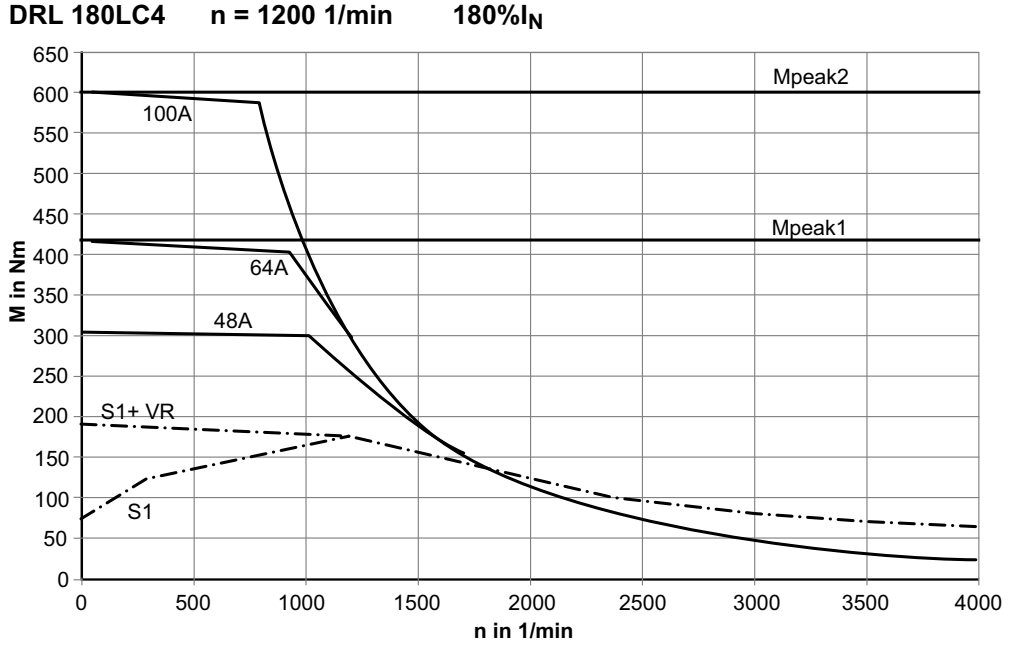
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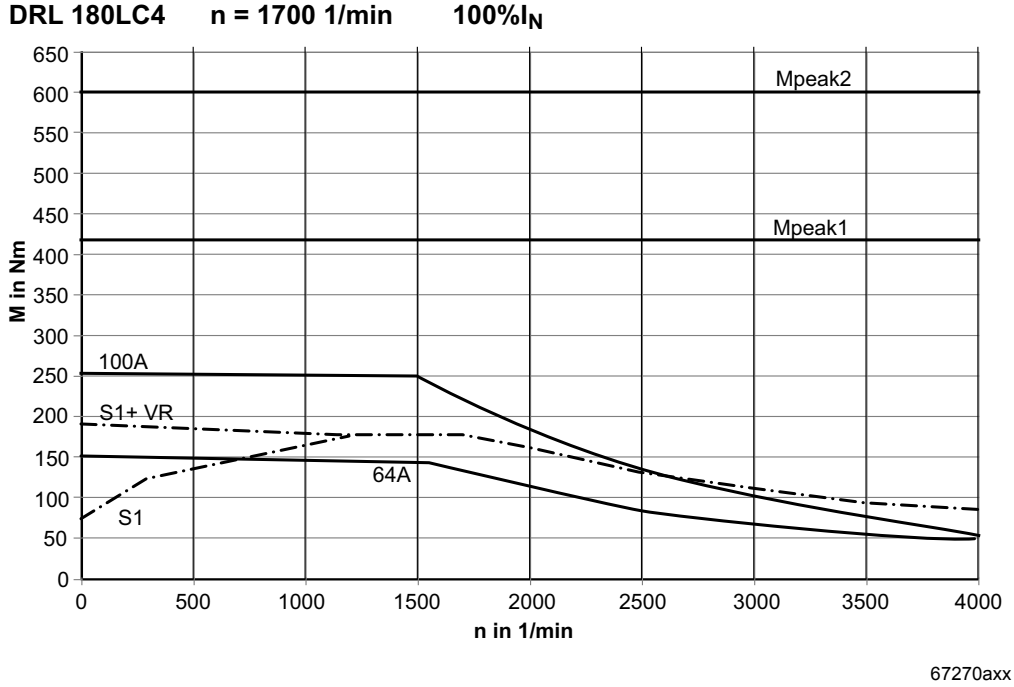
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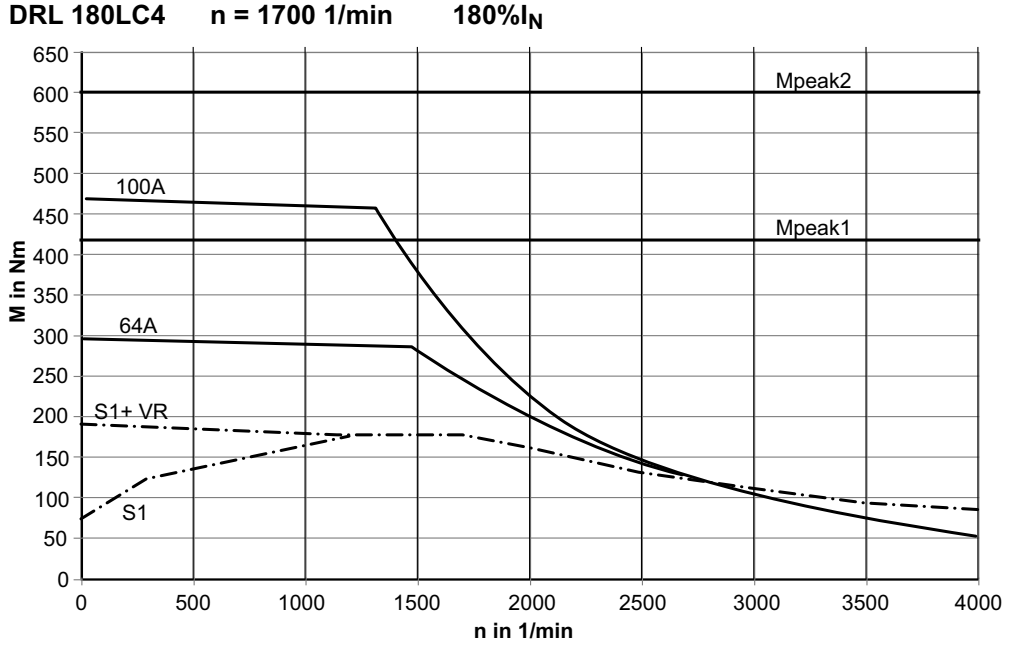
67269axx

DRL180LC4, n_N = 1700 1/min, 100% I_N



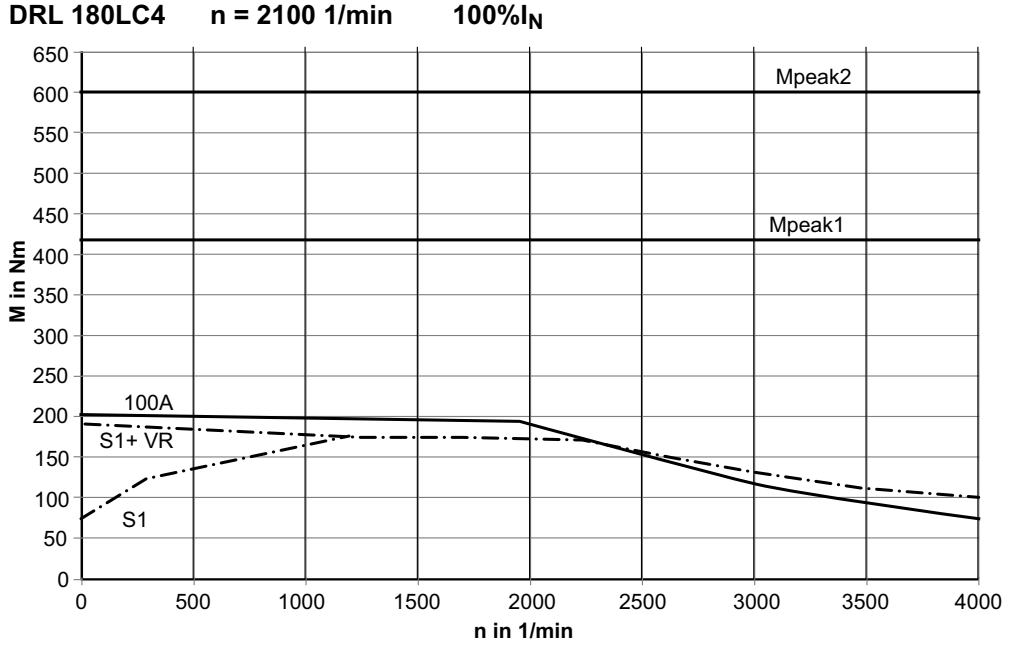
67270axx

DRL180LC4, n_N = 1700 1/min, 180% I_N



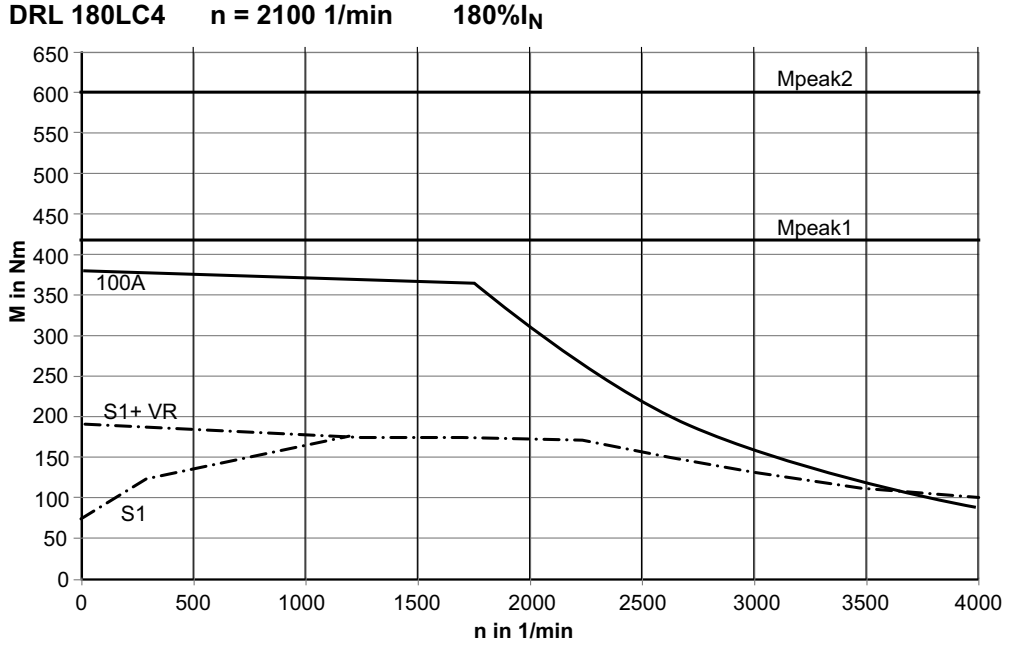
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DRL180LC4, n_N = 2100 1/min, 100% I_N



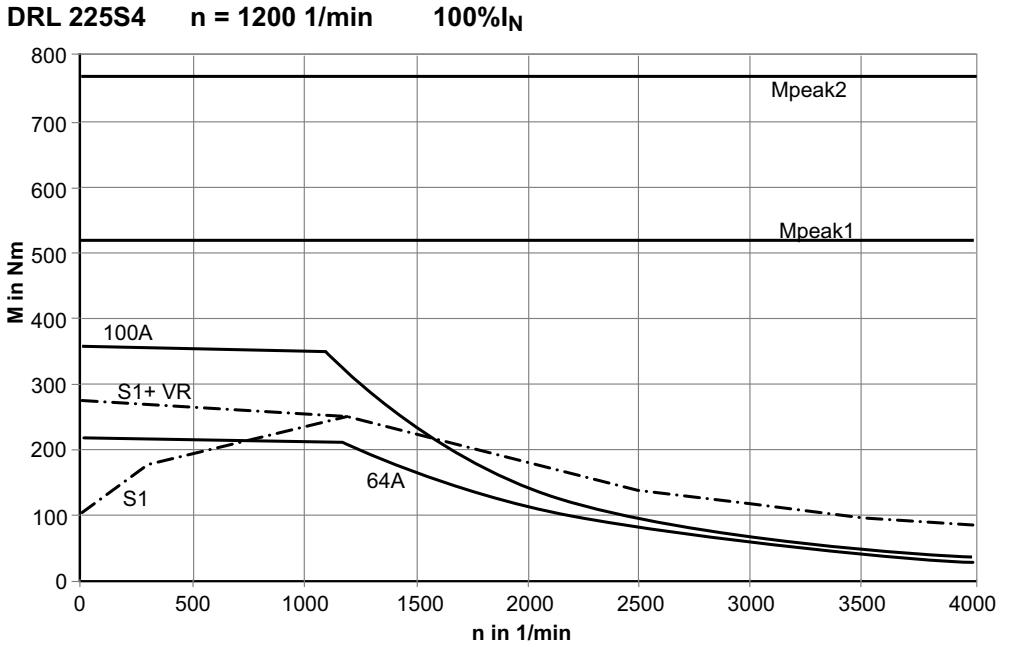
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DRL180LC4, n_N = 2100 1/min, 180% I_N



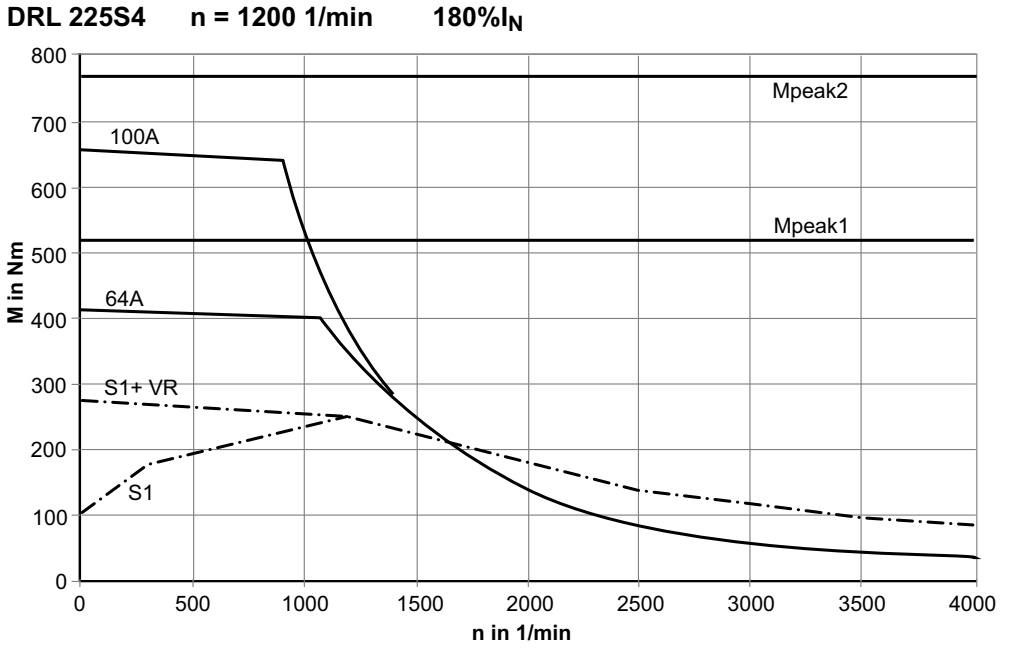
67273axx

DRL225S4, n_N = 1200 1/min, 100% I_N



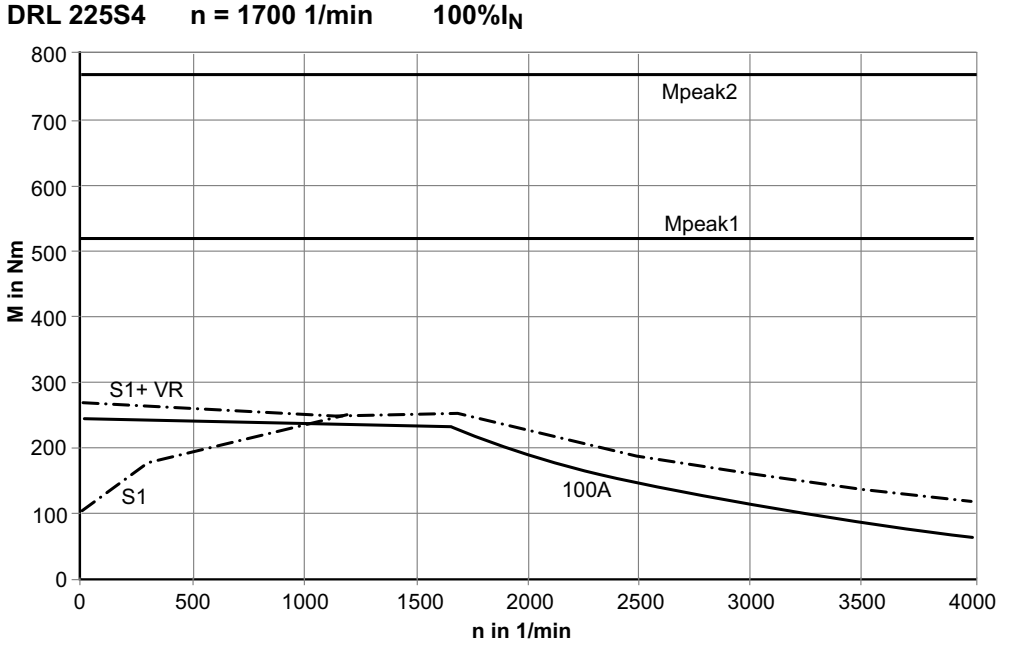
67287axx

DRL225S4, n_N = 1200 1/min, 180% I_N



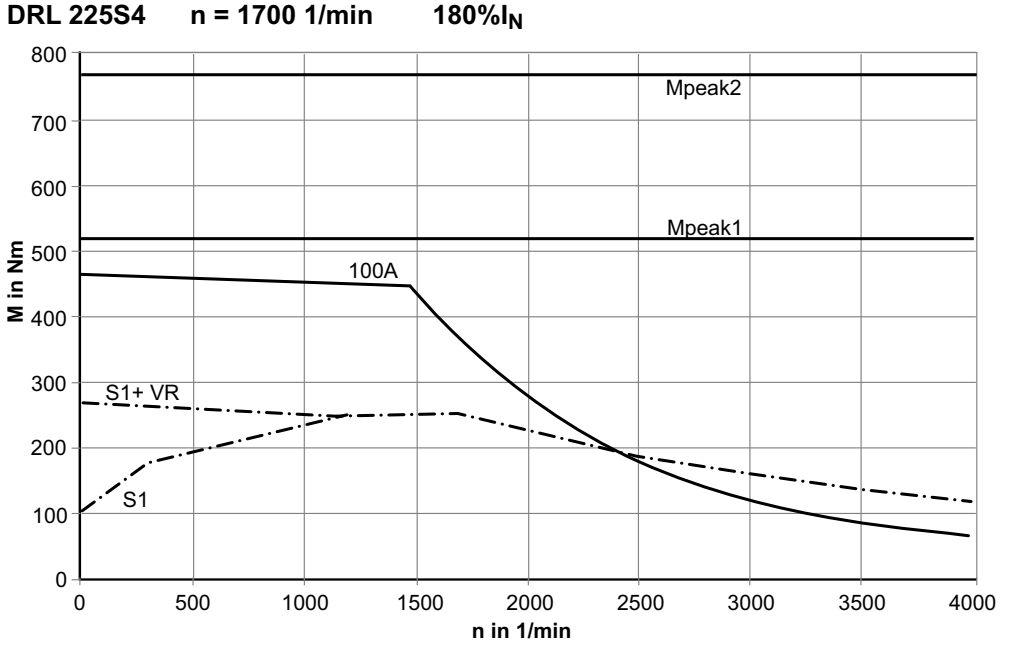
67286axx

DRL225S4, n_N = 1700 1/min, 100% I_N



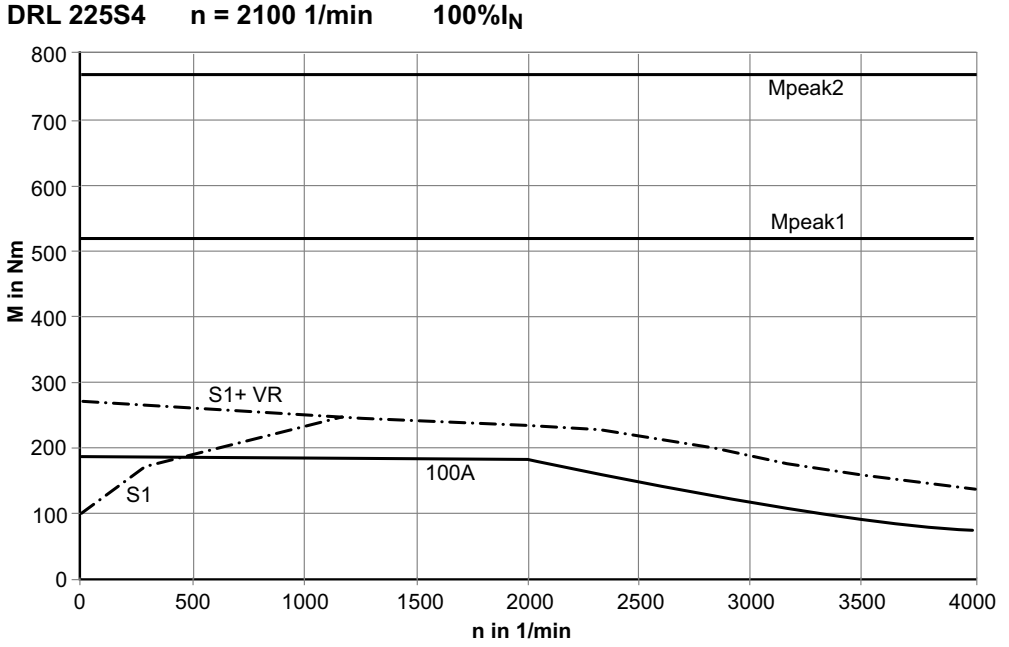
67288axx

DRL225S4, n_N = 1700 1/min, 180% I_N



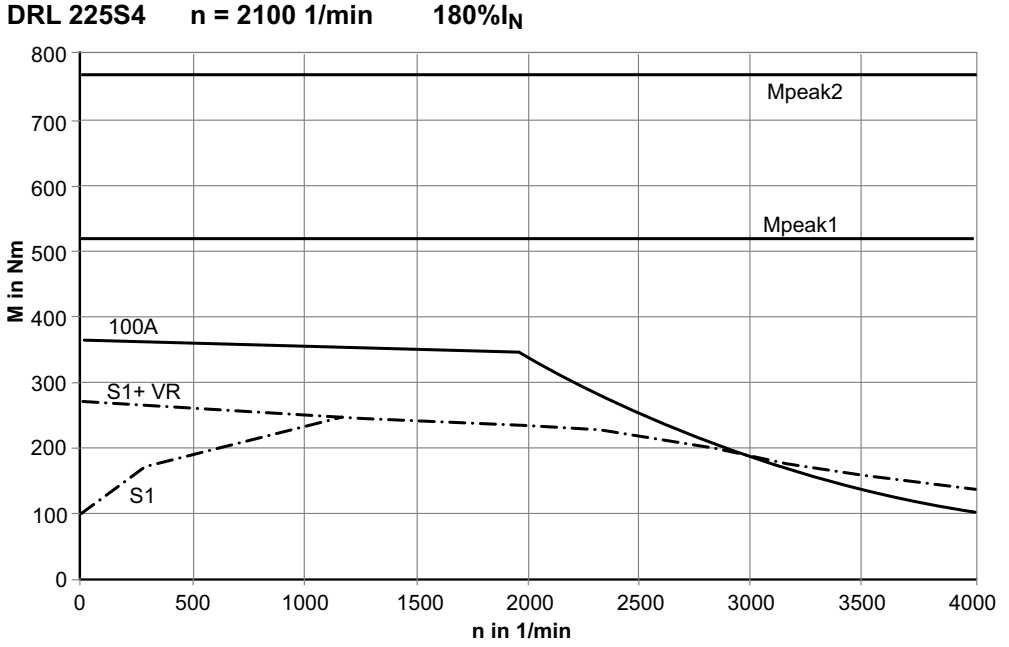
67289axx

DRL225S4, n_N = 2100 1/min, 100% I_N



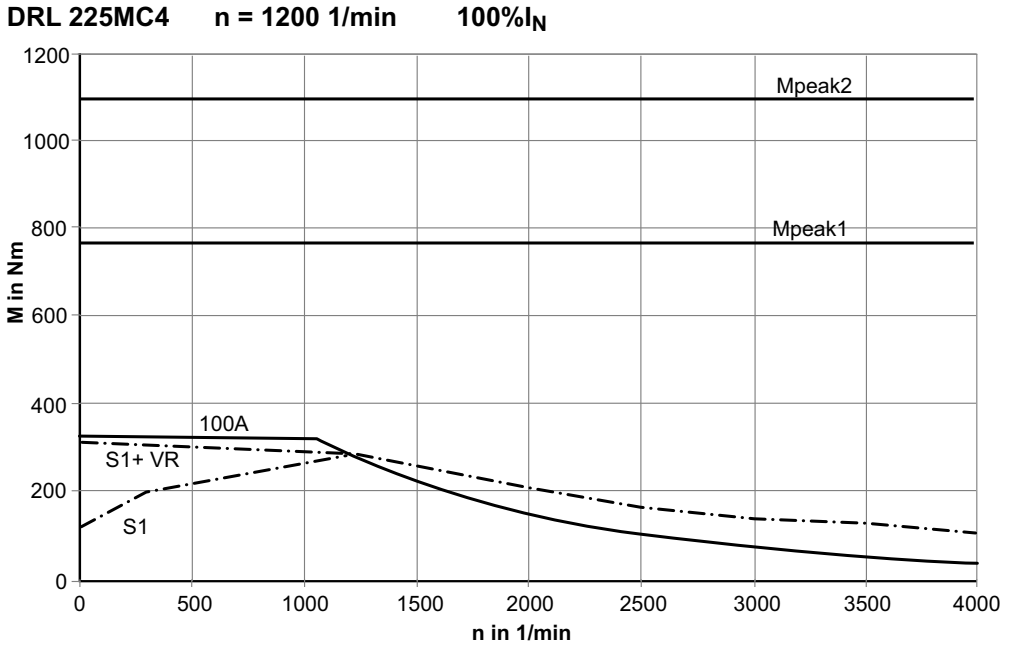
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DRL225S4, n_N = 2100 1/min, 180% I_N

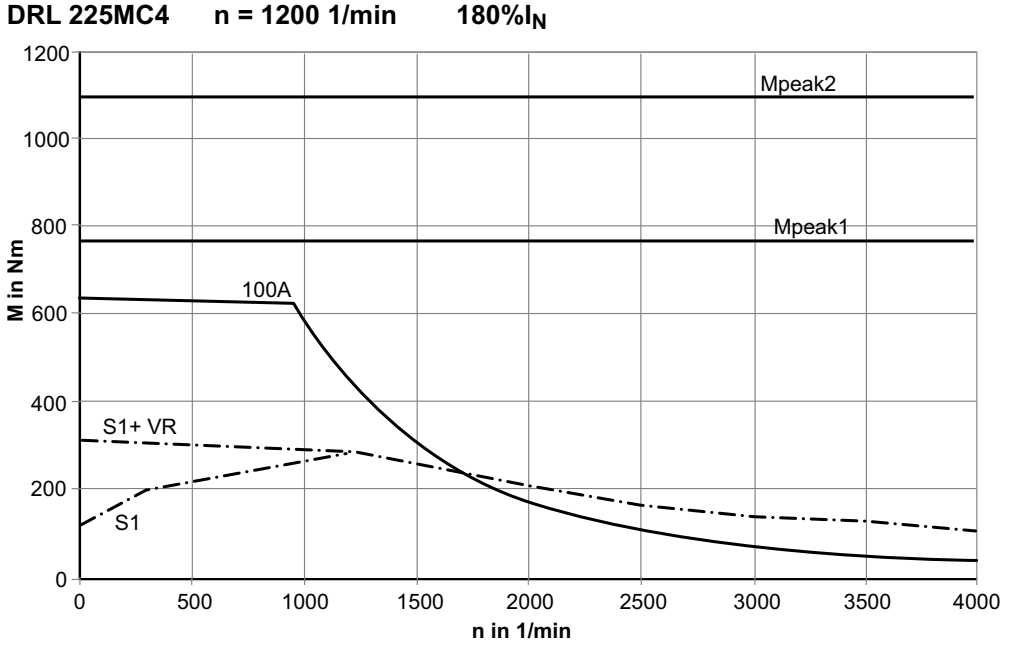


67291axx

DRL225MC4, n_N = 1200 1/min, 100% I_N



DRL225MC4, n_N = 1200 1/min, 180% I_N





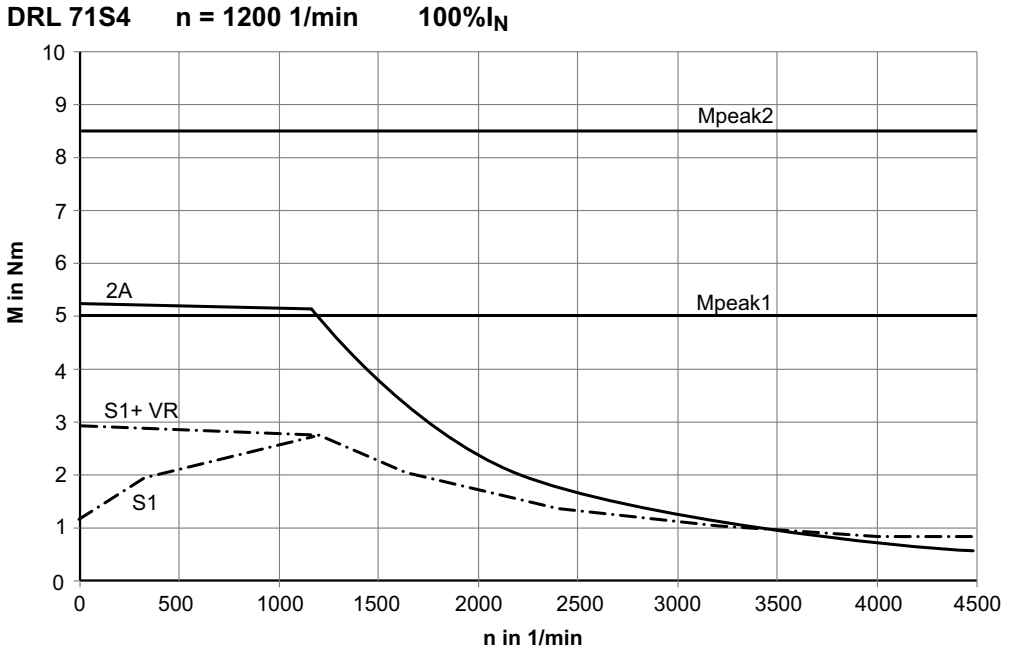
4.3 Limit characteristic curves: DRL – MOVIAXIS®, V_{DCL} = 750 V, PWM = 8 kHz

Key to the dynamic and thermal limit characteristic curves

S1	S1 characteristic curve (thermal limit characteristic curve)
S1+VR	S1 characteristic curve with forced cooling fan (thermal limit characteristic curve)
M_{peak1}	Maximum limit torque of dynamics package 1
M_{peak2}	Maximum limit torque of dynamics package 2
2 A	2 A nominal output current of the axis module
4 A	4 A nominal output current of the axis module
8 A	8 A nominal output current of the axis module
12 A	12 A nominal output current of the axis module
16 A	16 A nominal output current of the axis module
24 A	24 A nominal output current of the axis module
32 A	32 A nominal output current of the axis module
48 A	48 A nominal output current of the axis module
64 A	64 A nominal output current of the axis module
100 A	100 A nominal output current of the axis module

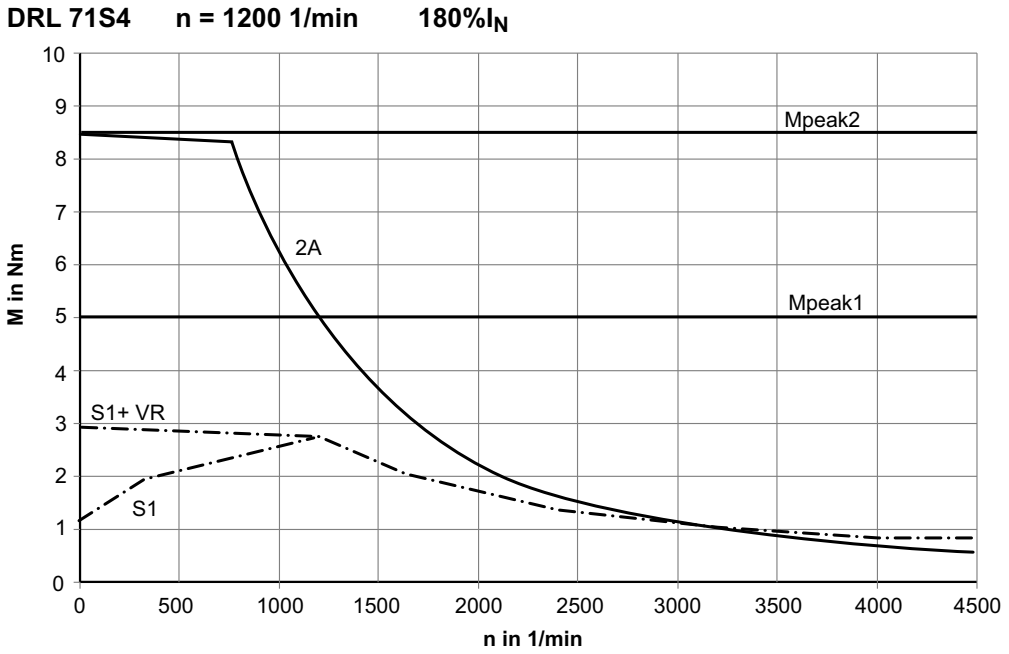
V_{DCL} = DC link voltage

DRL71S4, n_N = 1200 1/min, 100% I_N



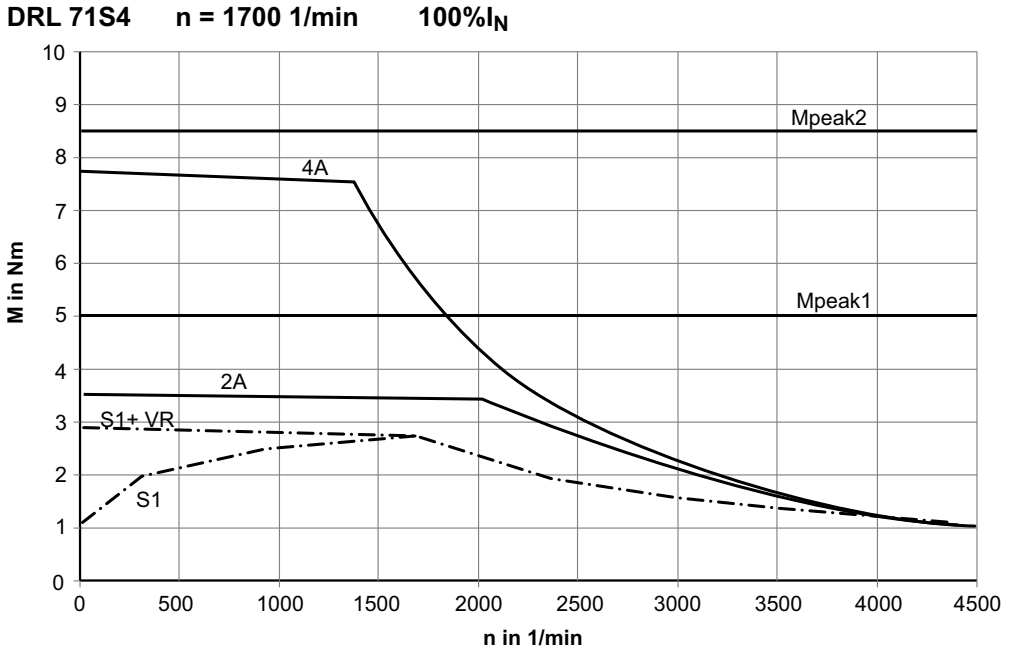
67232axx

DRL71S4, n_N = 1200 1/min, 180% I_N



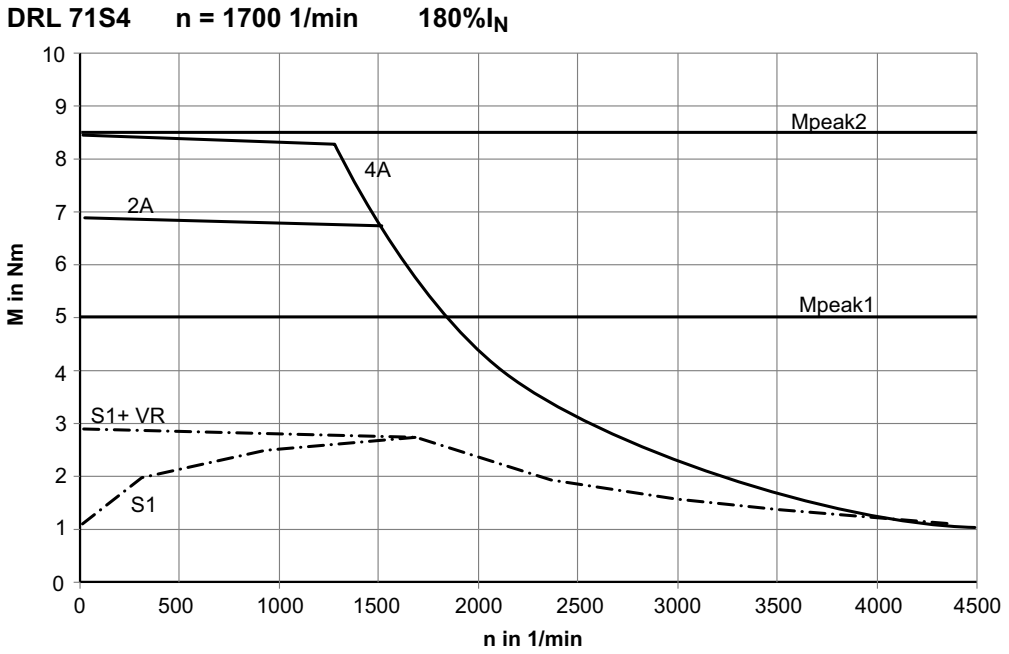
67233axx

DRL71S4, n_N = 1700 1/min, 100% I_N



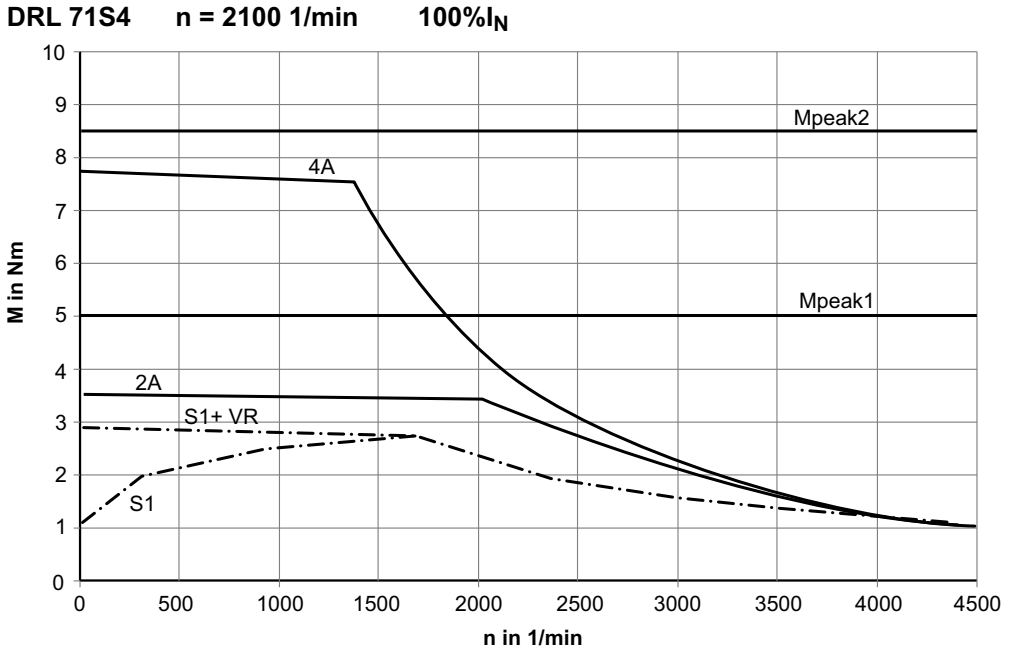
67234axx

DRL71S4, n_N = 1700 1/min, 180% I_N



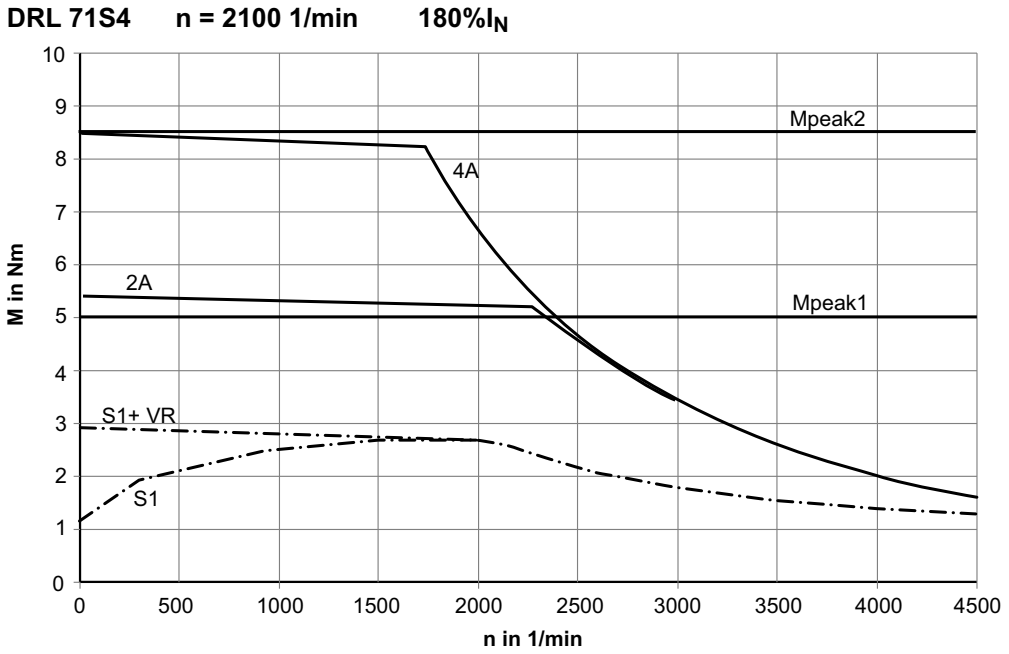
67235axx

DRL71S4, n_N = 2100 1/min, 100% I_N



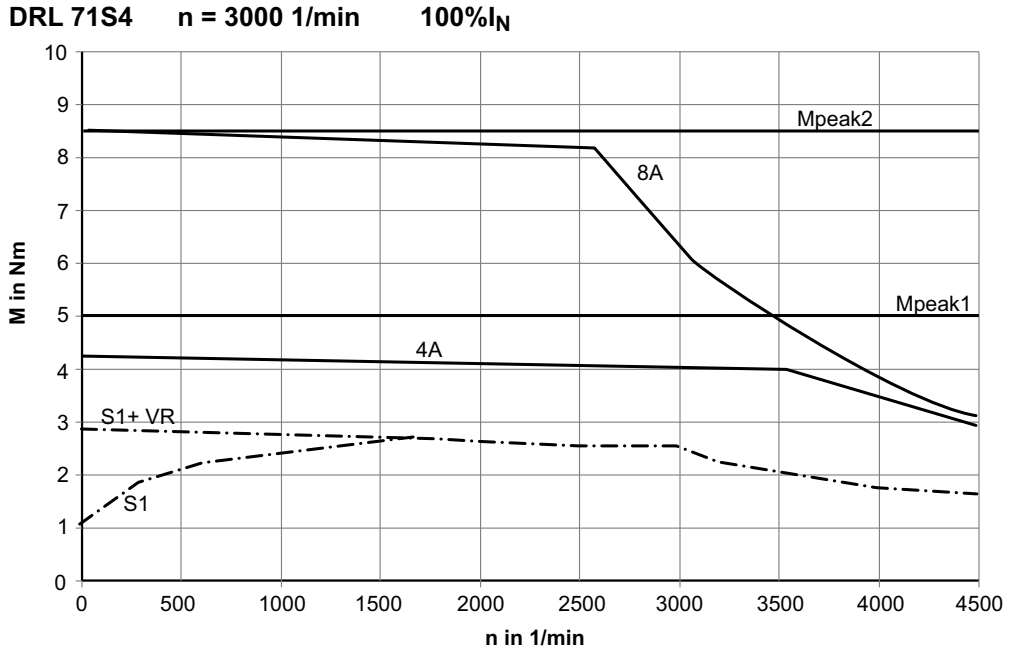
67236axx

DRL71S4, n_N = 2100 1/min, 180% I_N



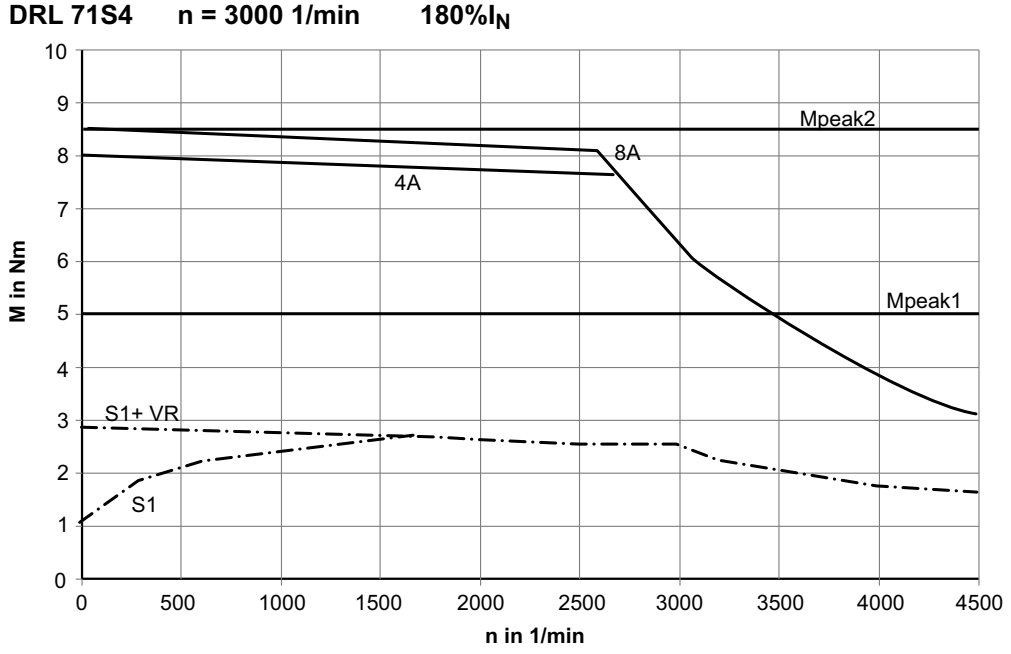
67237axx

DRL71S4, n_N = 3000 1/min, 100% I_N



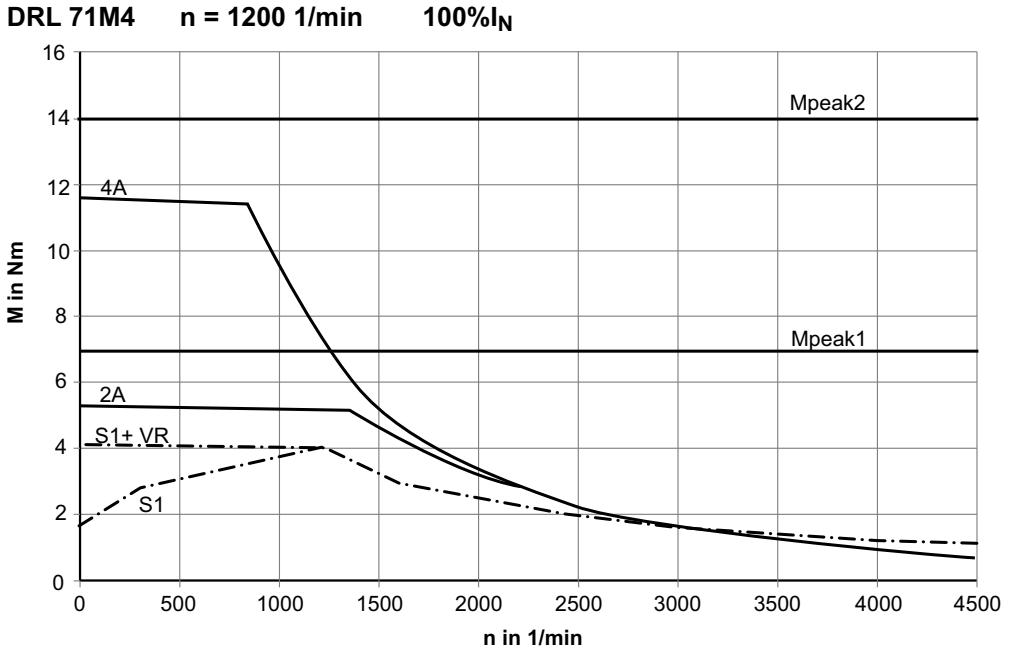
67238axx

DRL71S4, n_N = 3000 1/min, 180% I_N



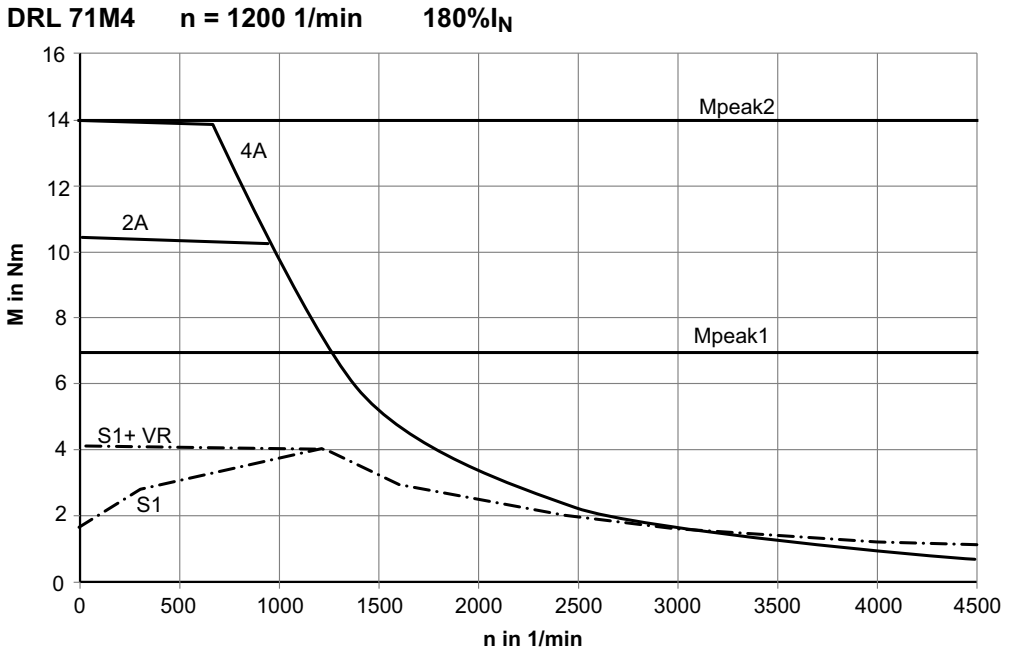
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DRL71M4, n_N = 1200 1/min, 100% I_N



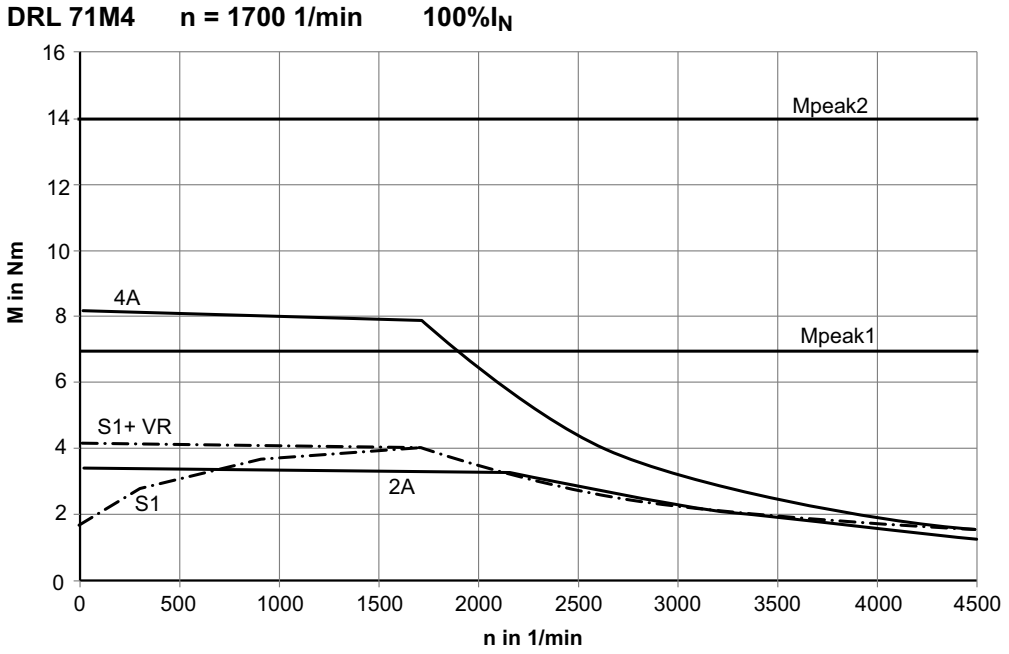
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DRL71M4, n_N = 1200 1/min, 180% I_N



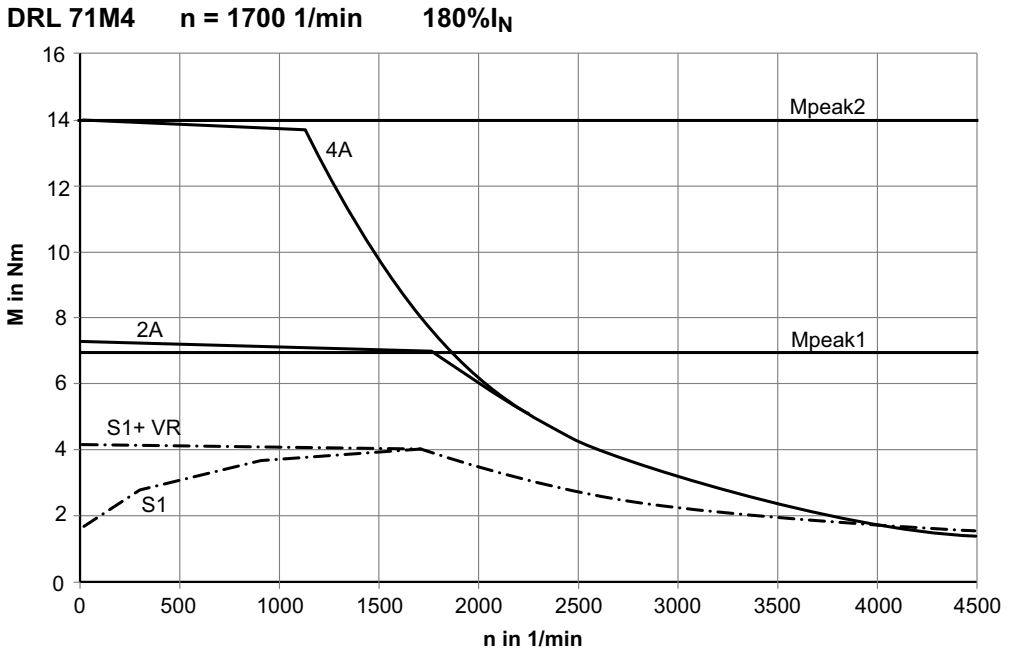
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DRL71M4, n_N = 1700 1/min, 100% I_N



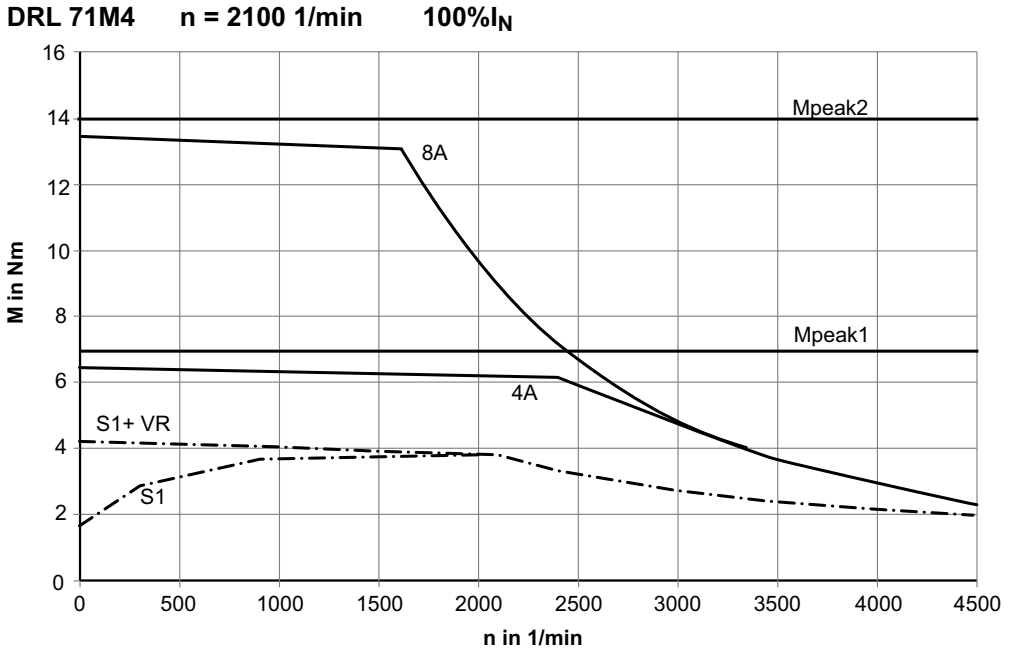
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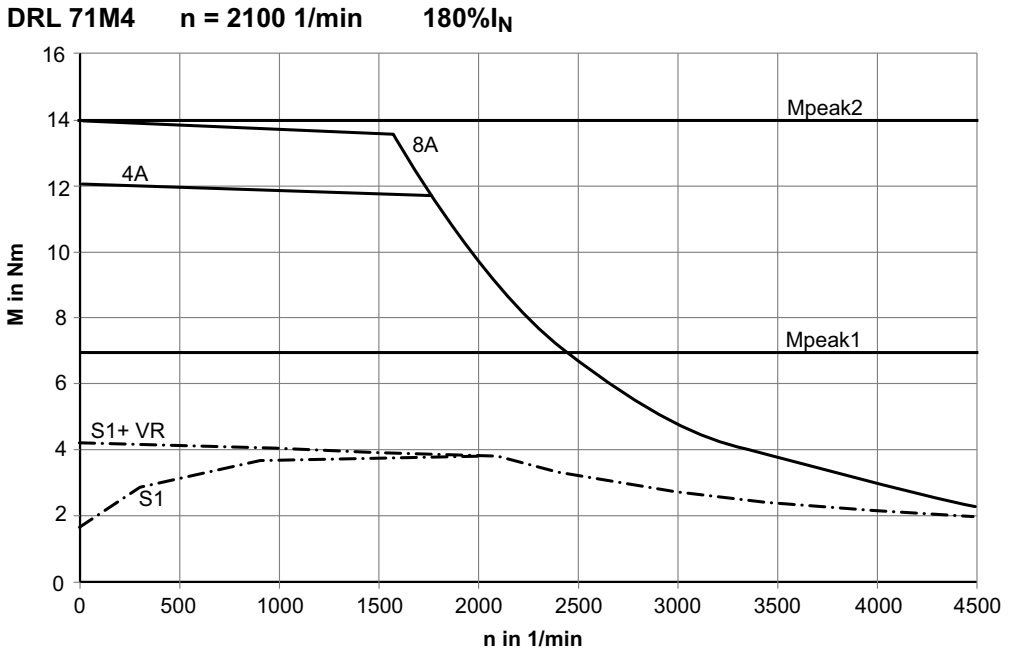
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DRL71M4, n_N = 2100 1/min, 100% I_N



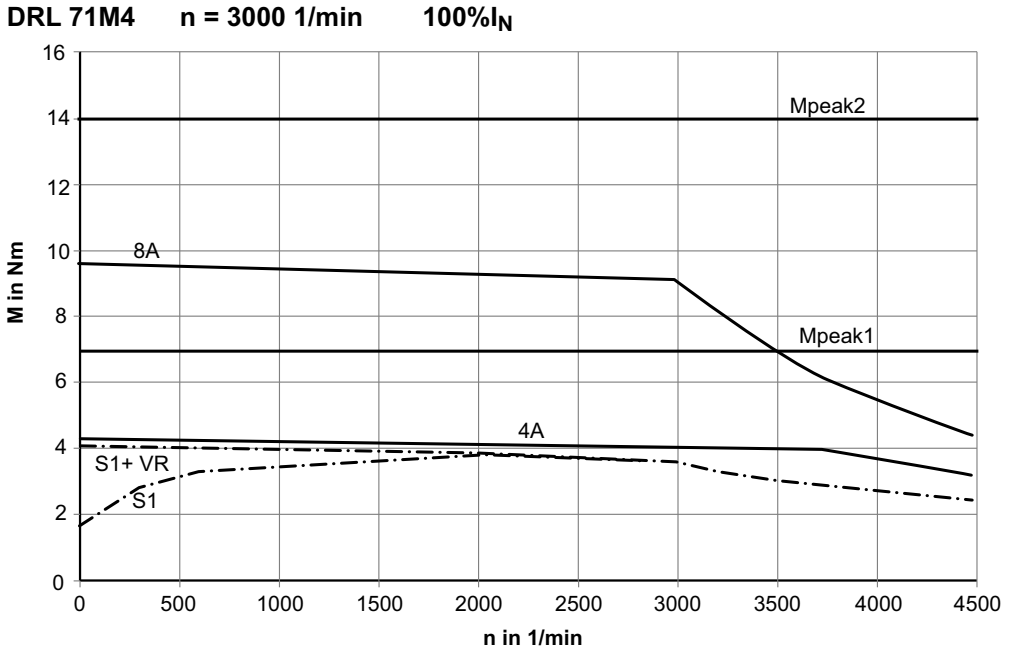
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DRL71M4, n_N = 2100 1/min, 180% I_N



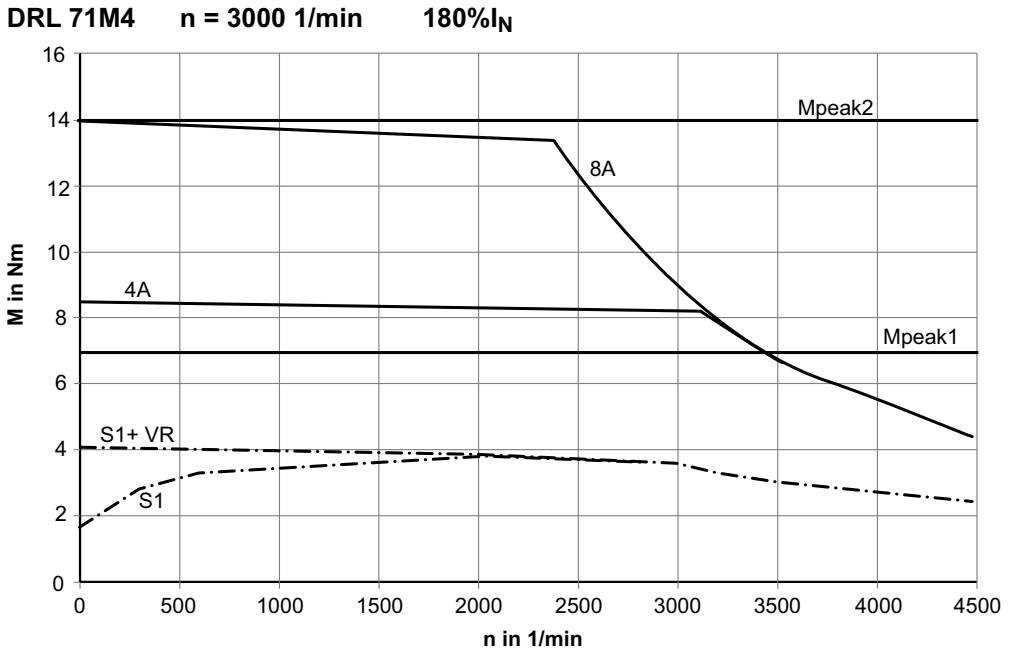
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DRL71M4, n_N = 3000 1/min, 100% I_N



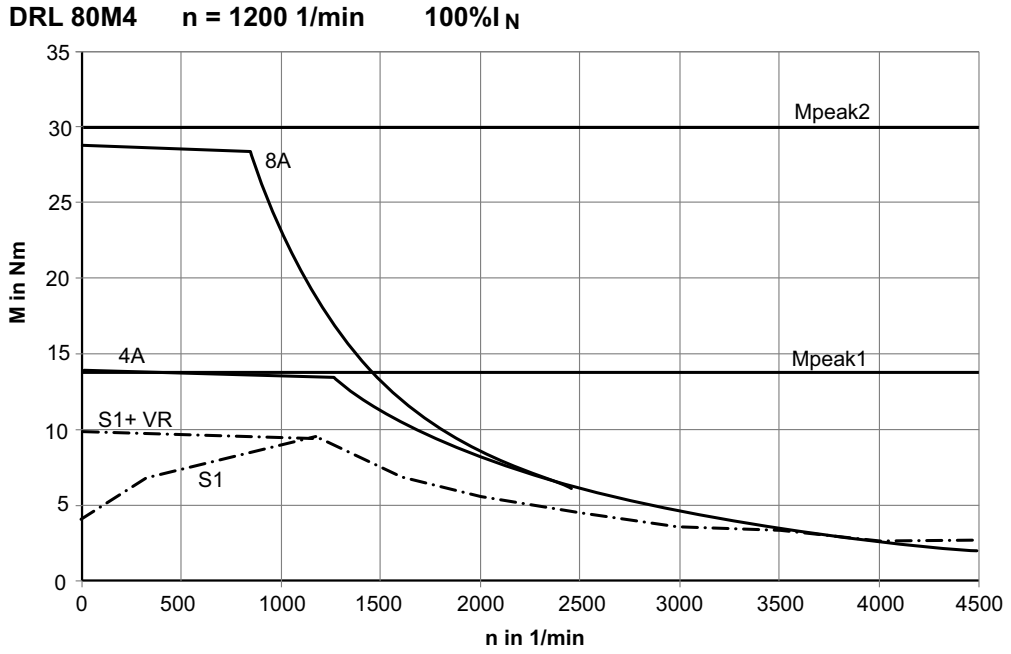
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DRL71M4, n_N = 3000 1/min, 180% I_N



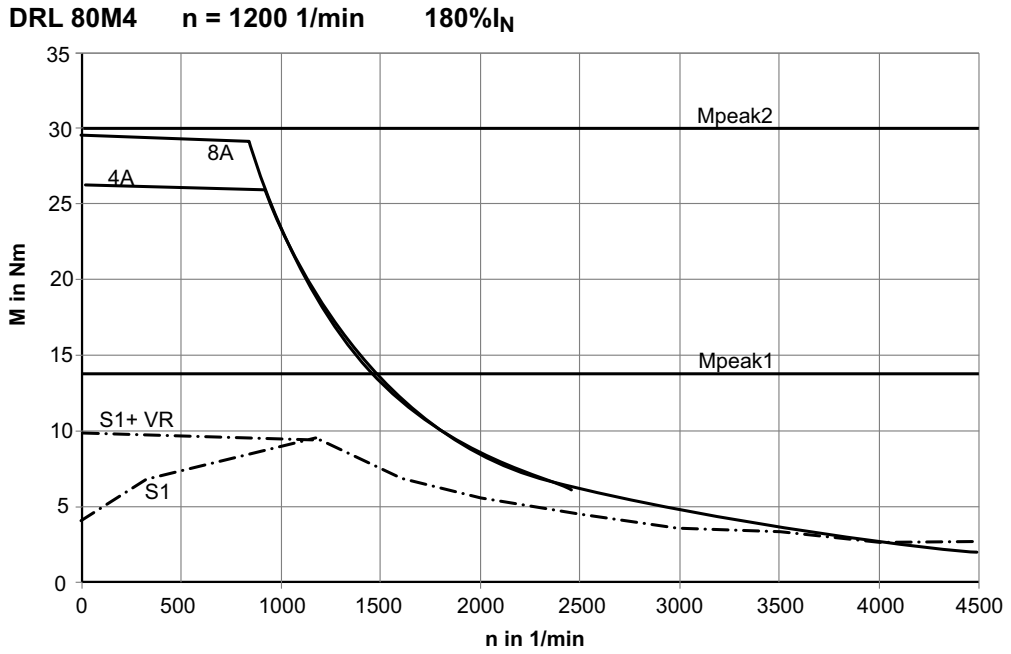
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DRL80M4, n_N = 1200 1/min, 100% I_N



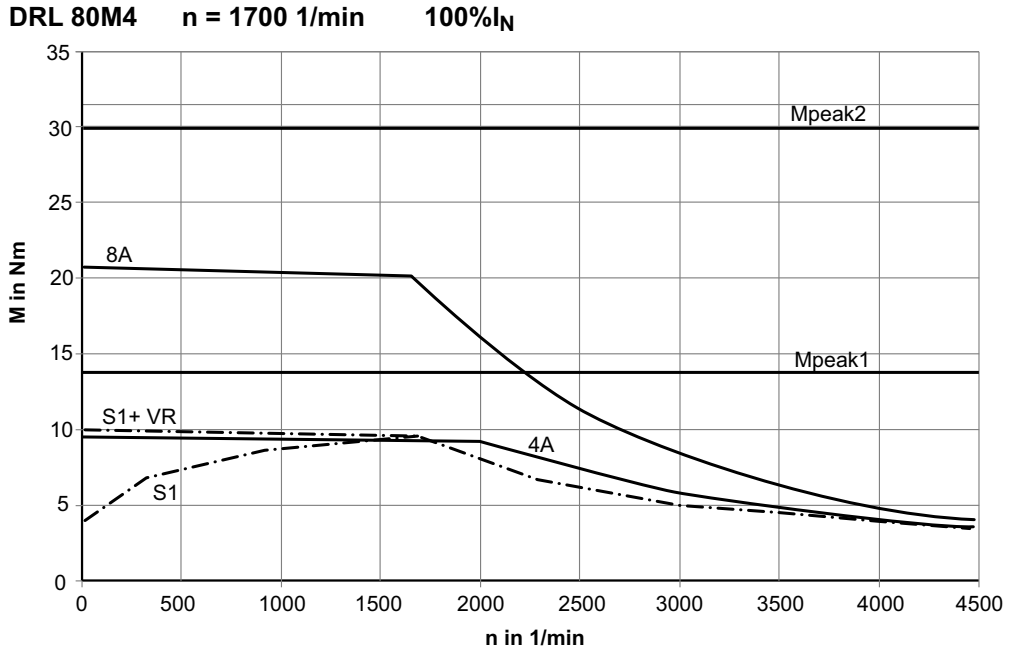
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DRL80M4, n_N = 1200 1/min, 180% I_N



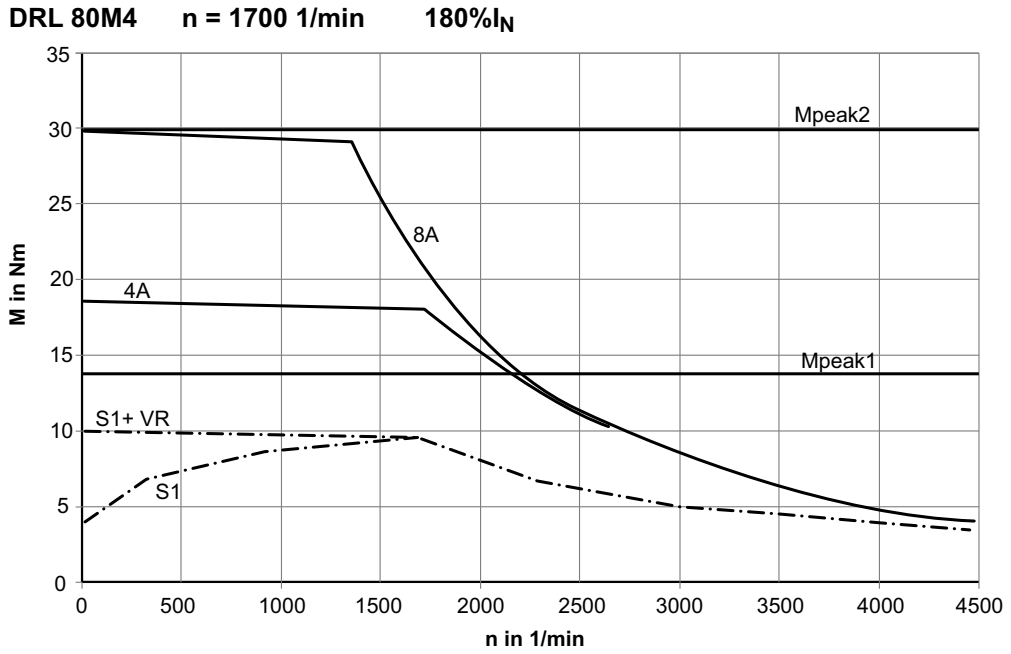
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DRL80M4, n_N = 1700 1/min, 100% I_N



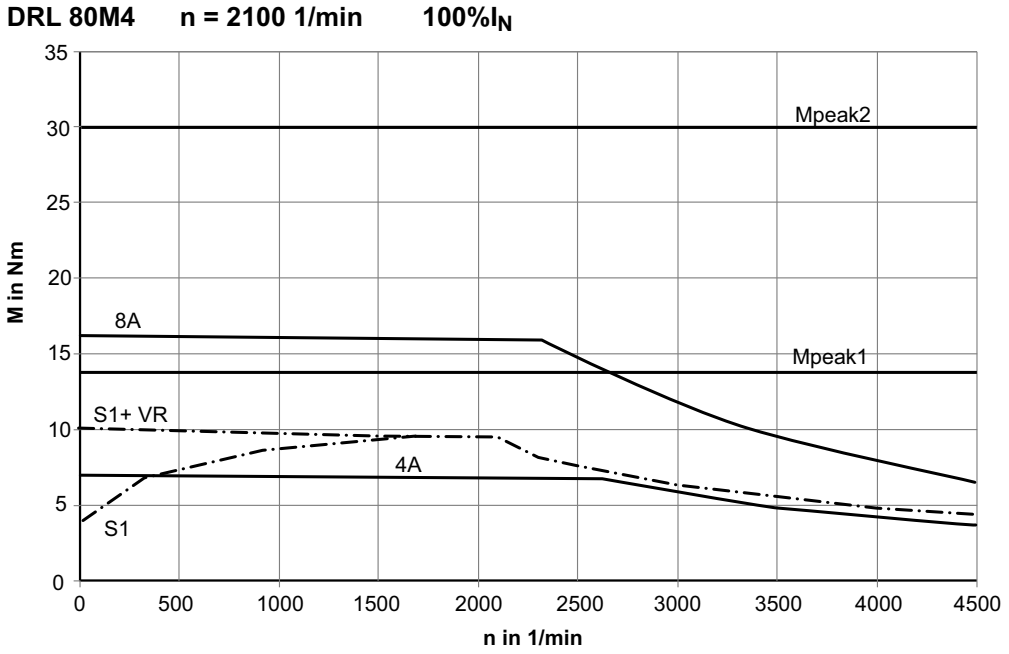
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DRL80M4, n_N = 1700 1/min, 180% I_N



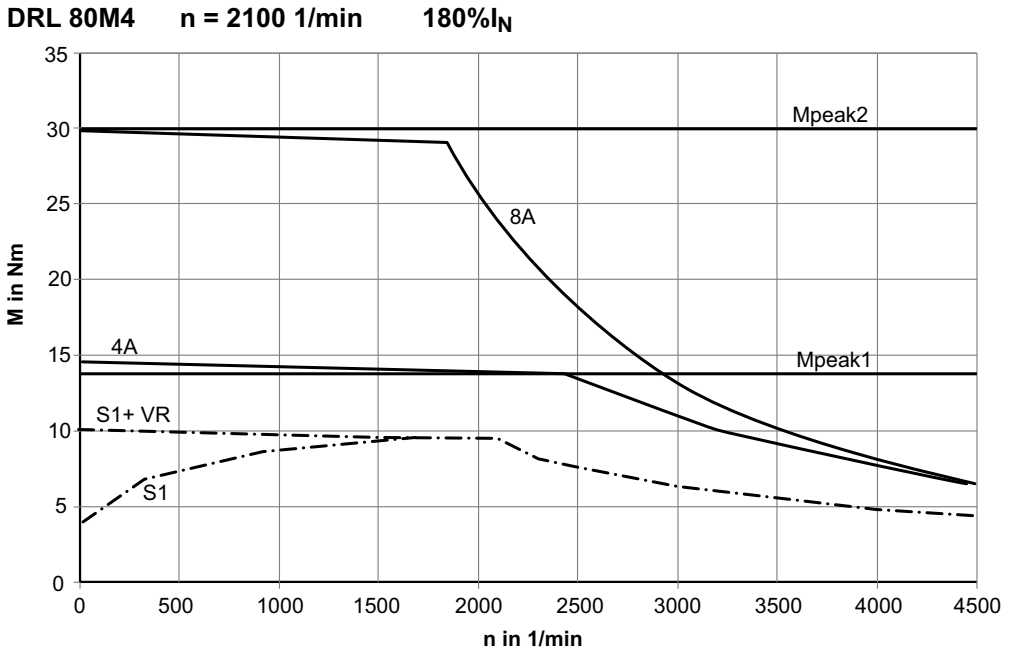
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DRL80M4, n_N = 2100 1/min, 100% I_N



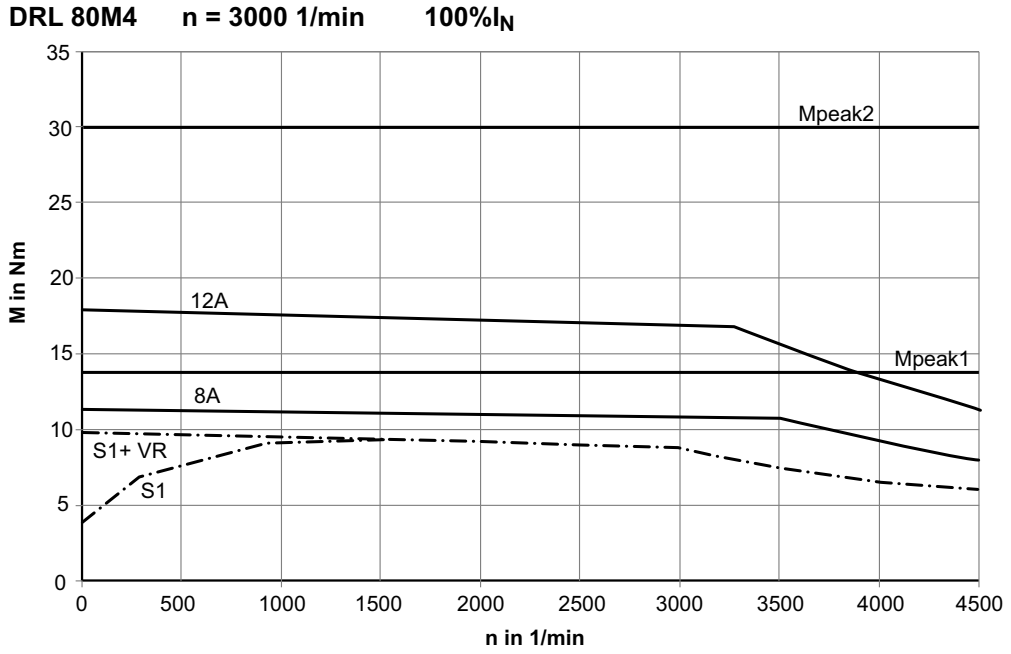
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DRL80M4, n_N = 2100 1/min, 180% I_N



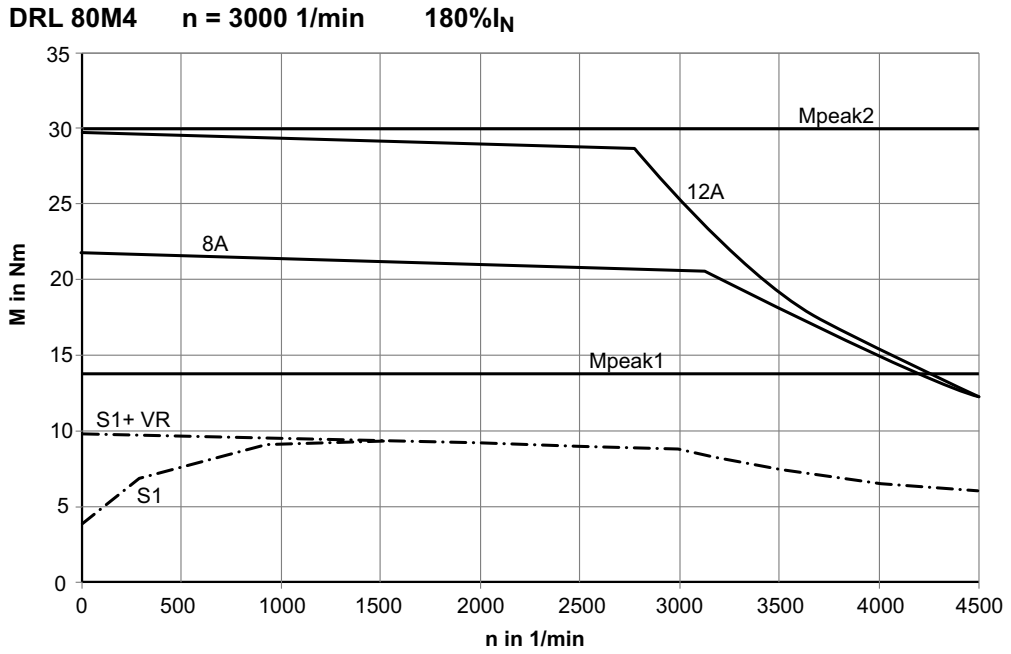
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DRL80M4, n_N = 3000 1/min, 100% I_N



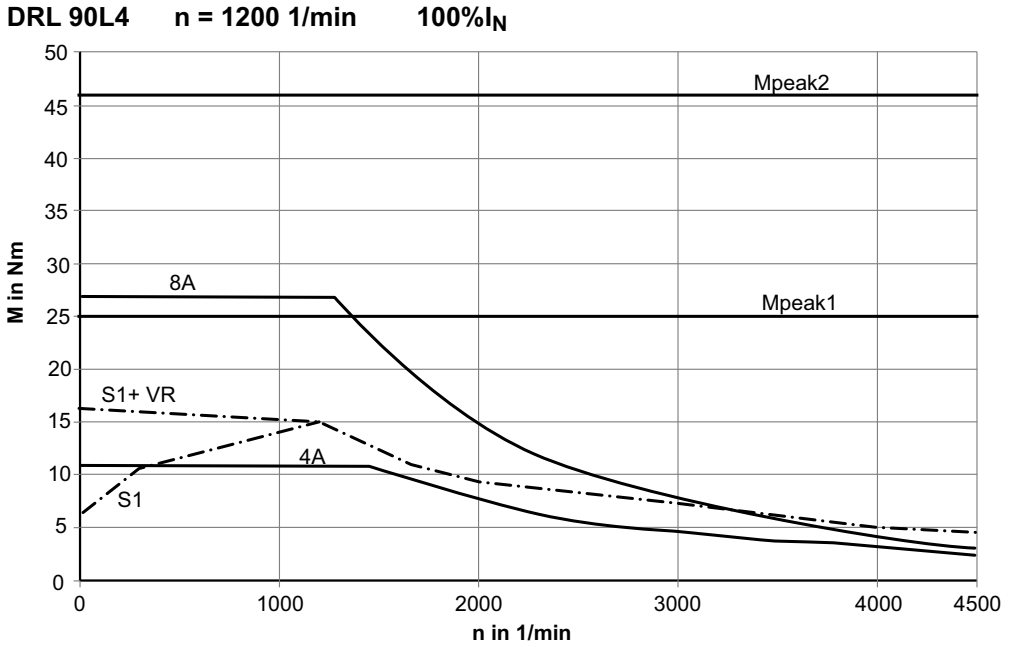
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DRL80M4, n_N = 3000 1/min, 180% I_N



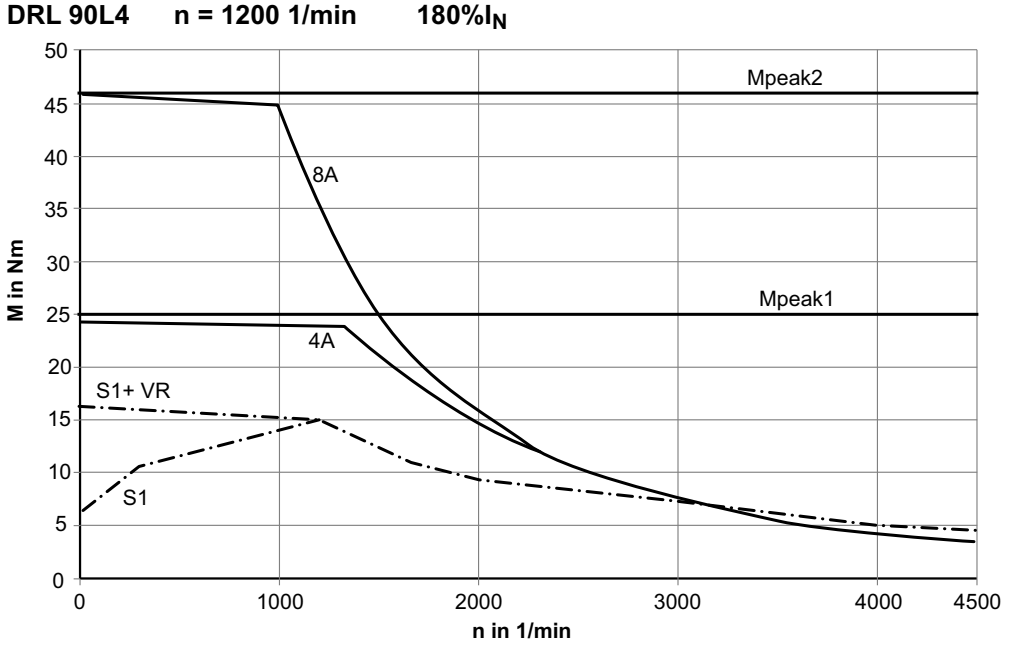
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DRL90L4, n_N = 1200 1/min, 100% I_N



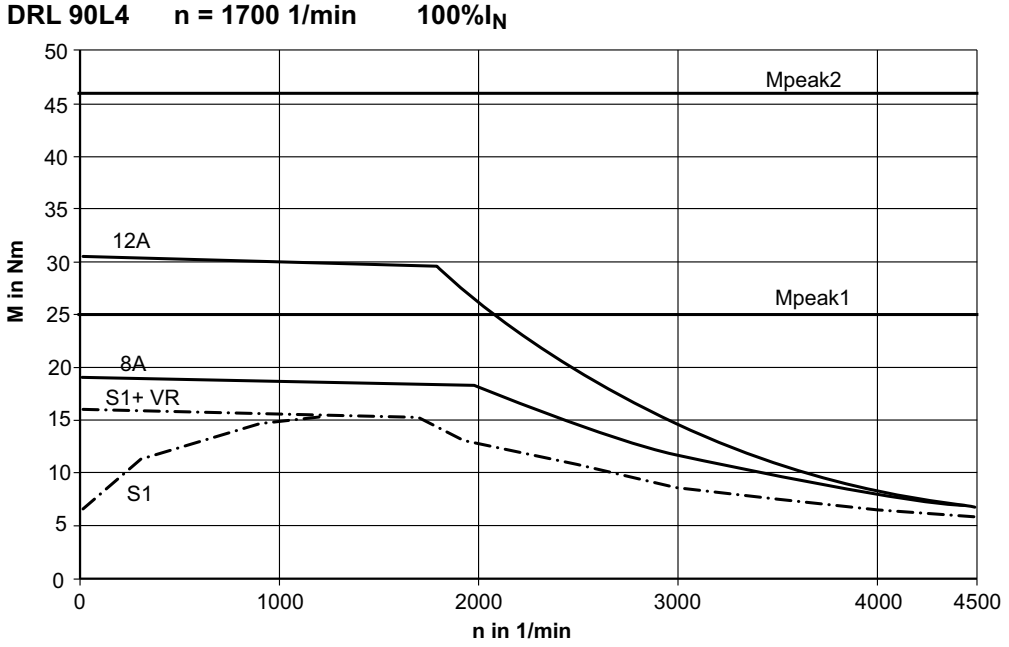
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DRL90L4, n_N = 1200 1/min, 180% I_N

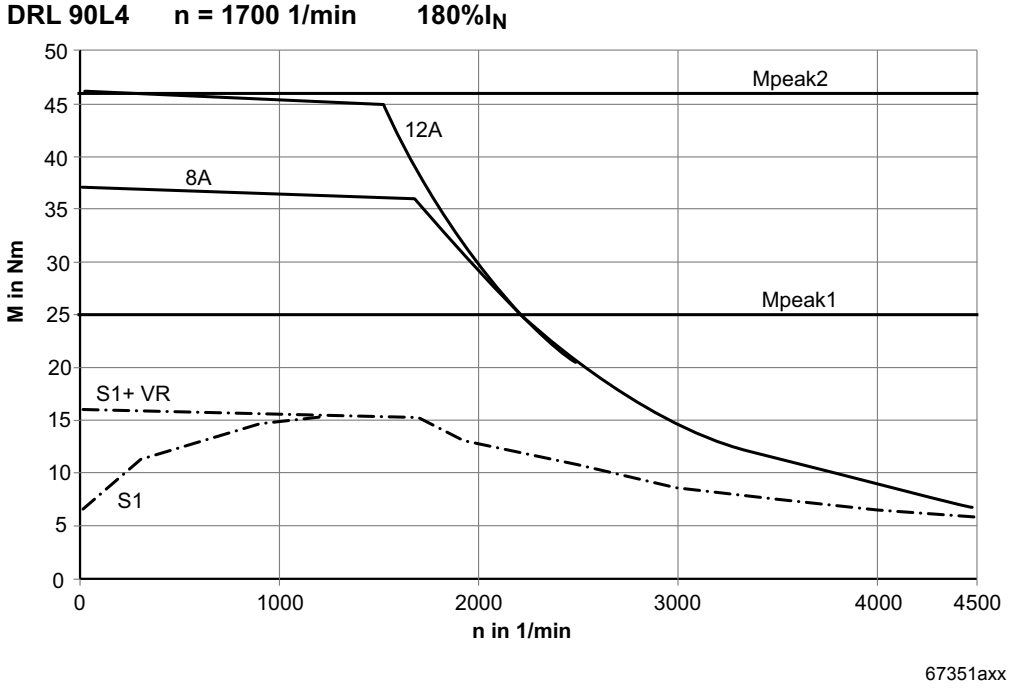


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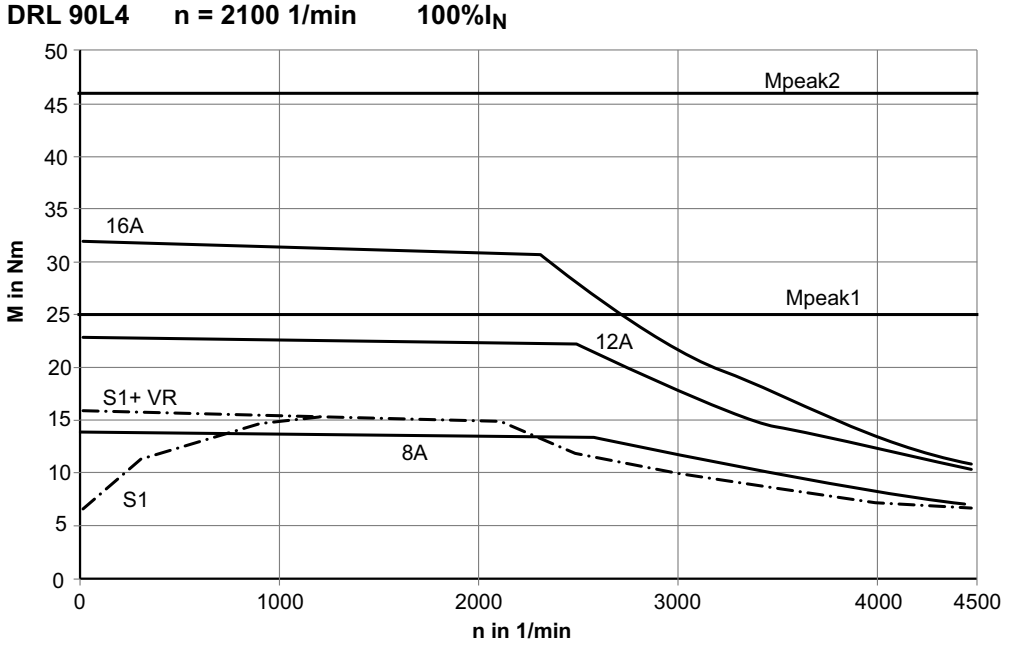
DRL90L4, n_N = 1700 1/min, 100% I_N



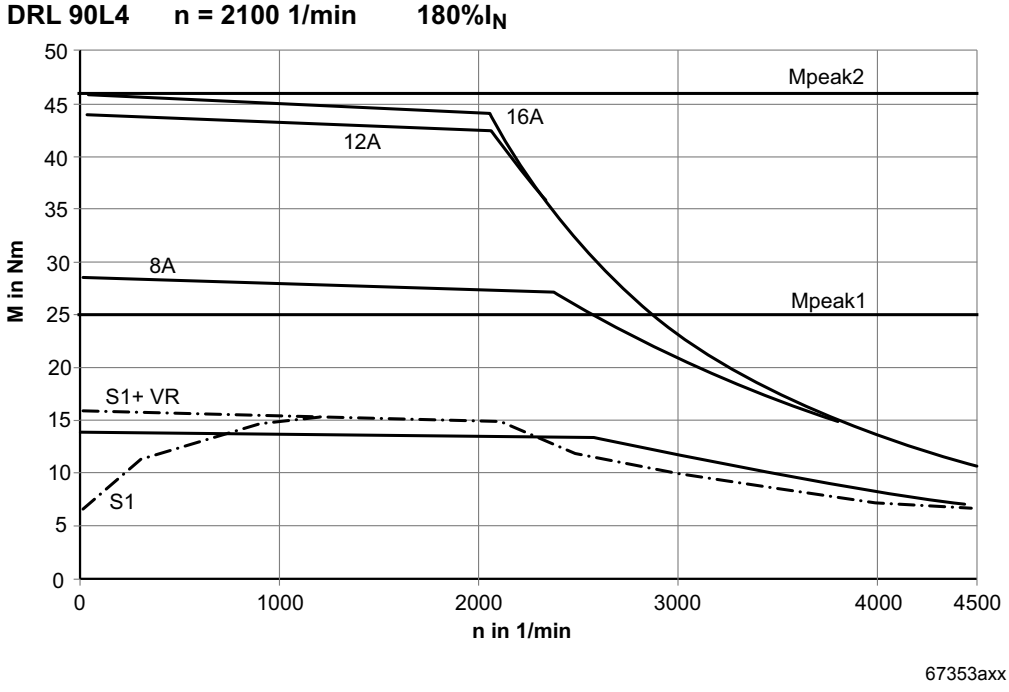
DRL90L4, n_N = 1700 1/min, 180% I_N



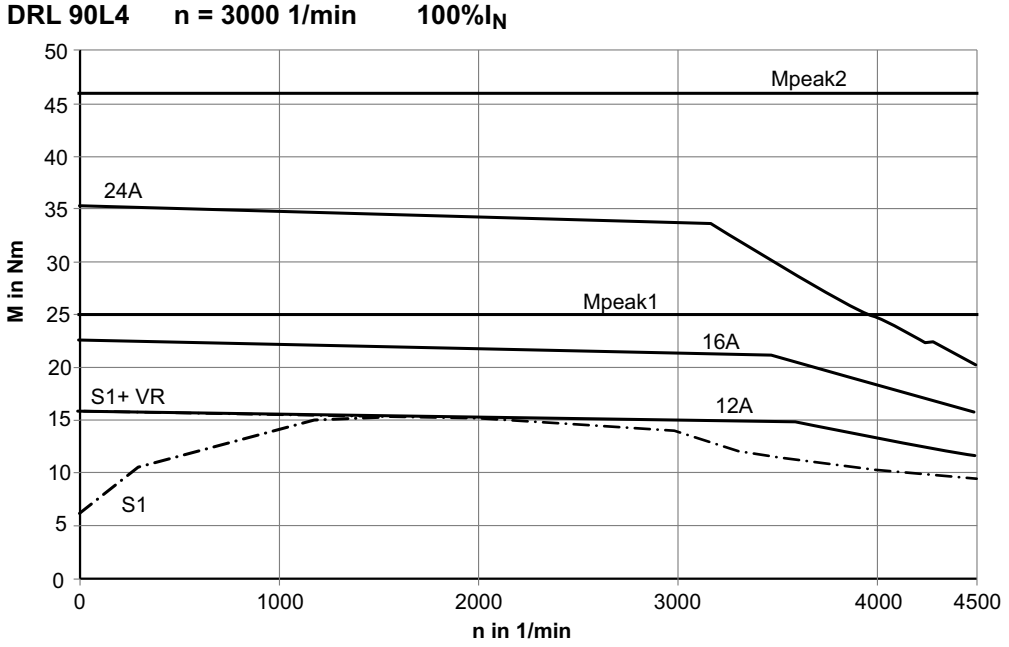
DRL90L4, n_N = 2100 1/min, 100% I_N



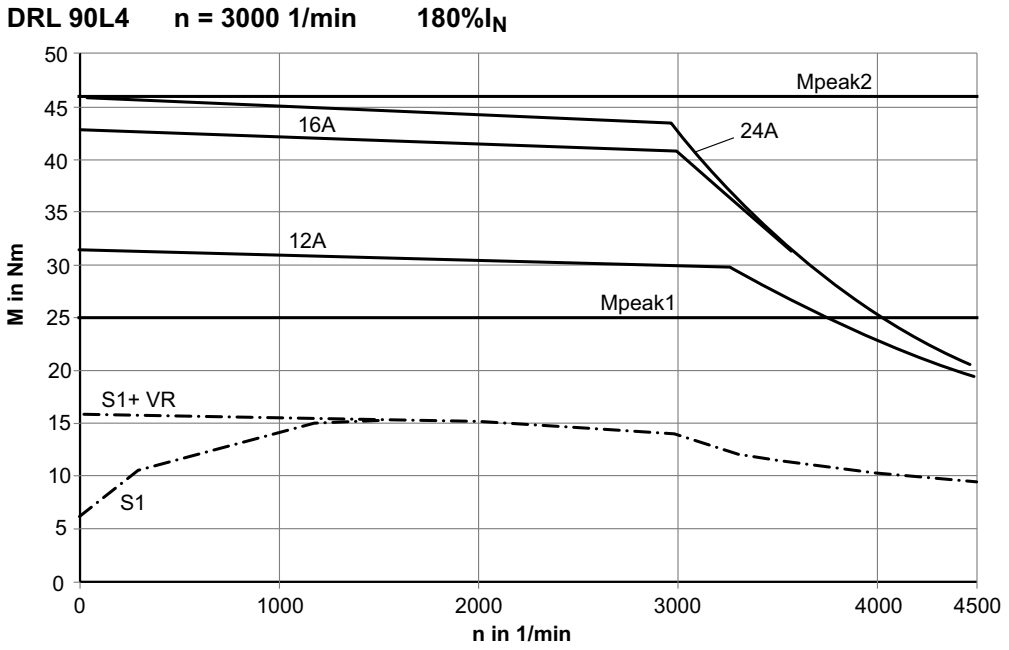
DRL90L4, n_N = 2100 1/min, 180% I_N



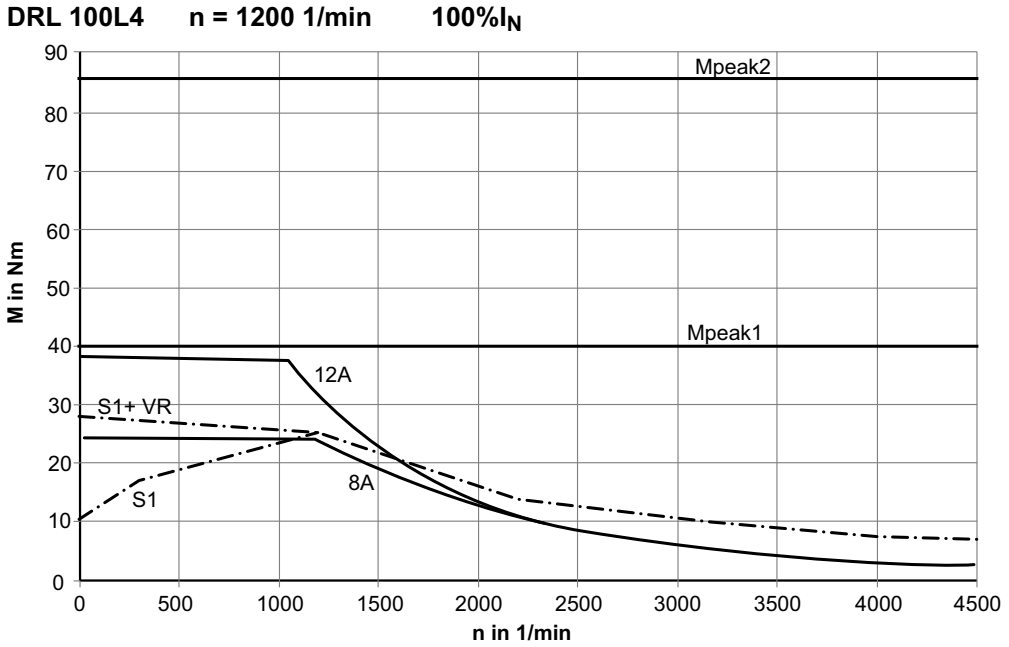
DRL90L4, n_N = 3000 1/min, 100% I_N



DRL90L4, n_N = 3000 1/min, 180% I_N

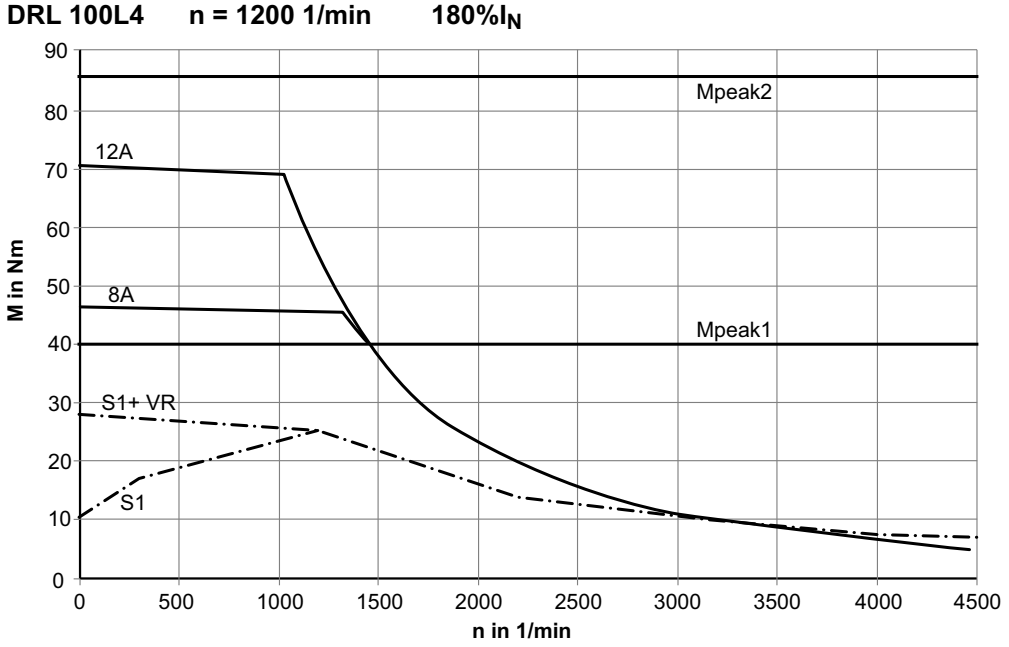


DRL100L4, n_N = 1200 1/min, 100% I_N



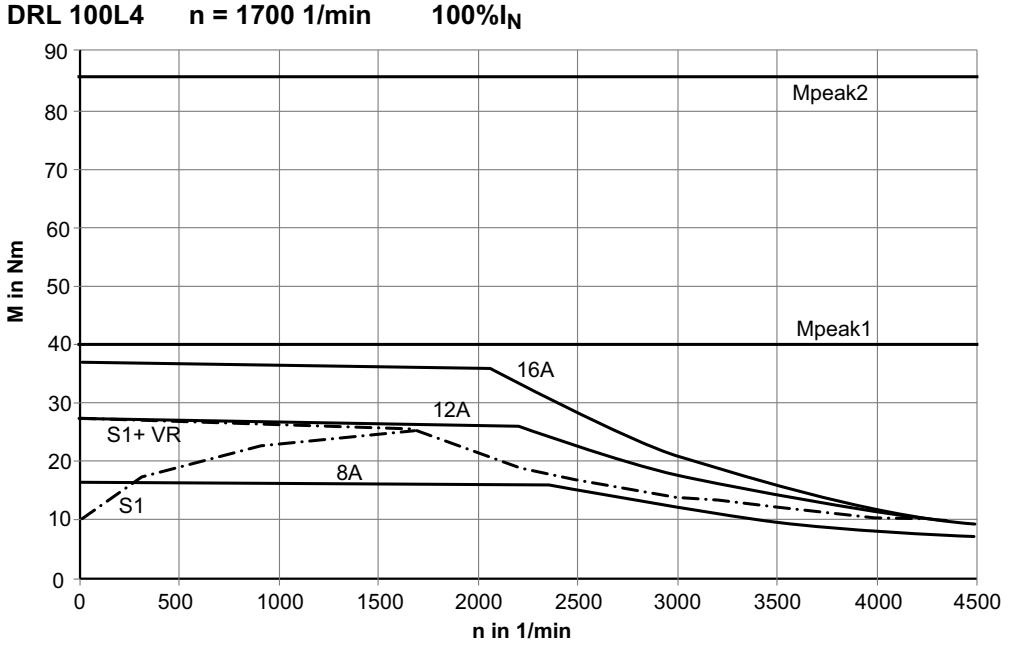
67356axx

DRL100L4, n_N = 1200 1/min, 180% I_N



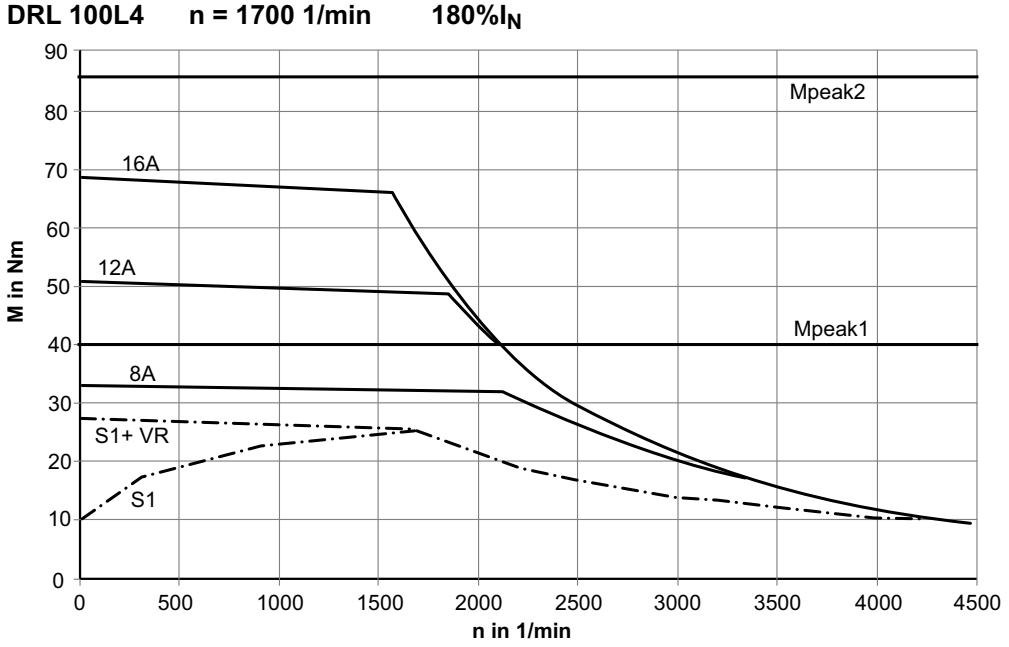
67357axx

DRL100L4, n_N = 1700 1/min, 100% I_N



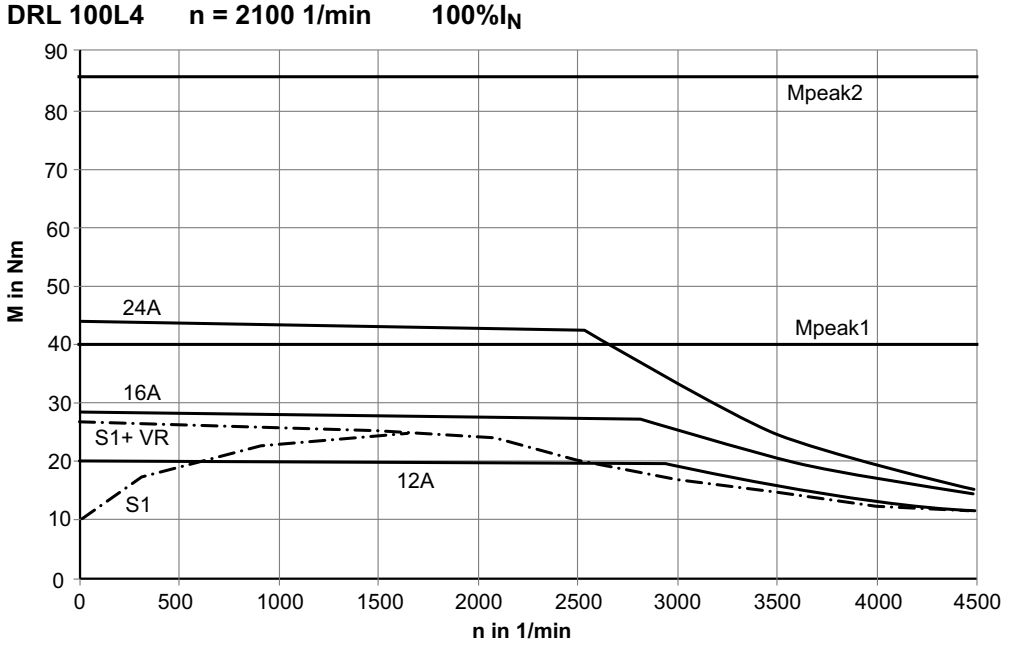
67358axx

DRL100L4, n_N = 1700 1/min, 180% I_N



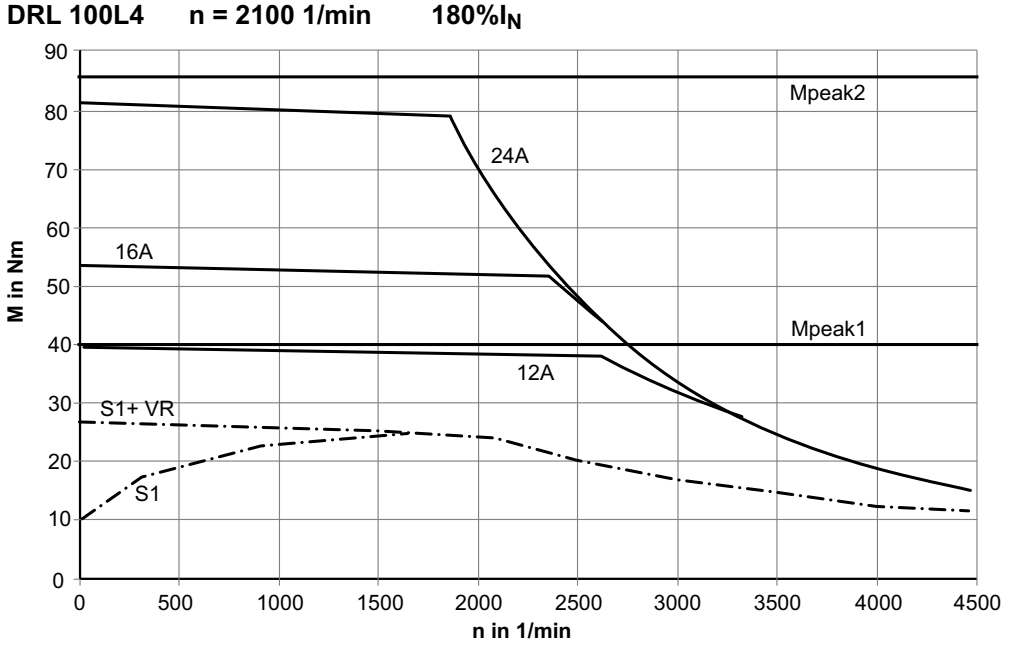
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DRL100L4, n_N = 2100 1/min, 100% I_N



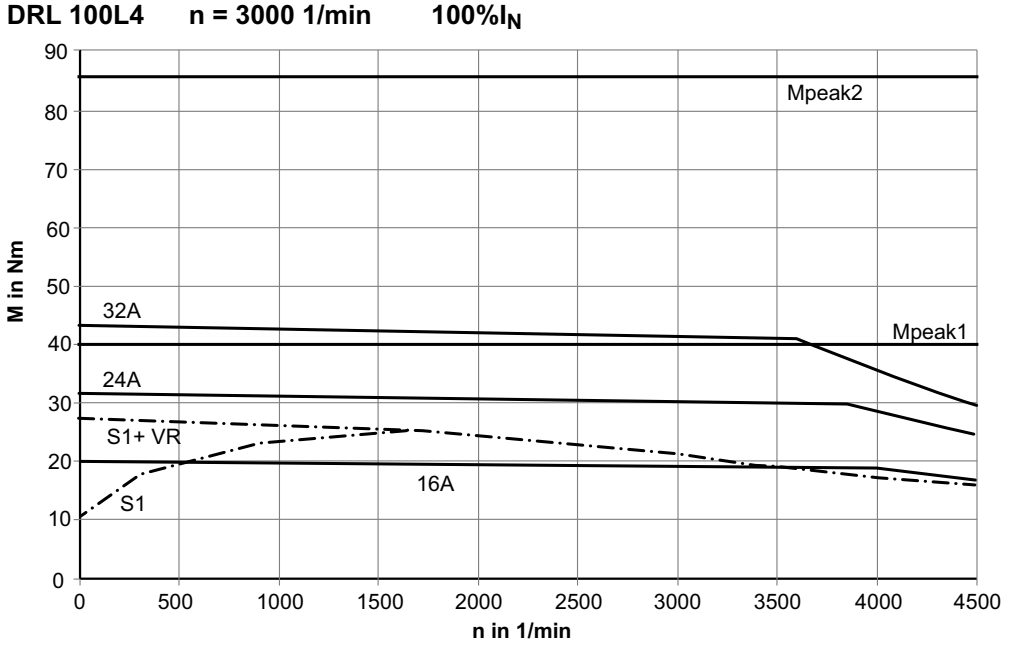
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DRL100L4, n_N = 2100 1/min, 180% I_N



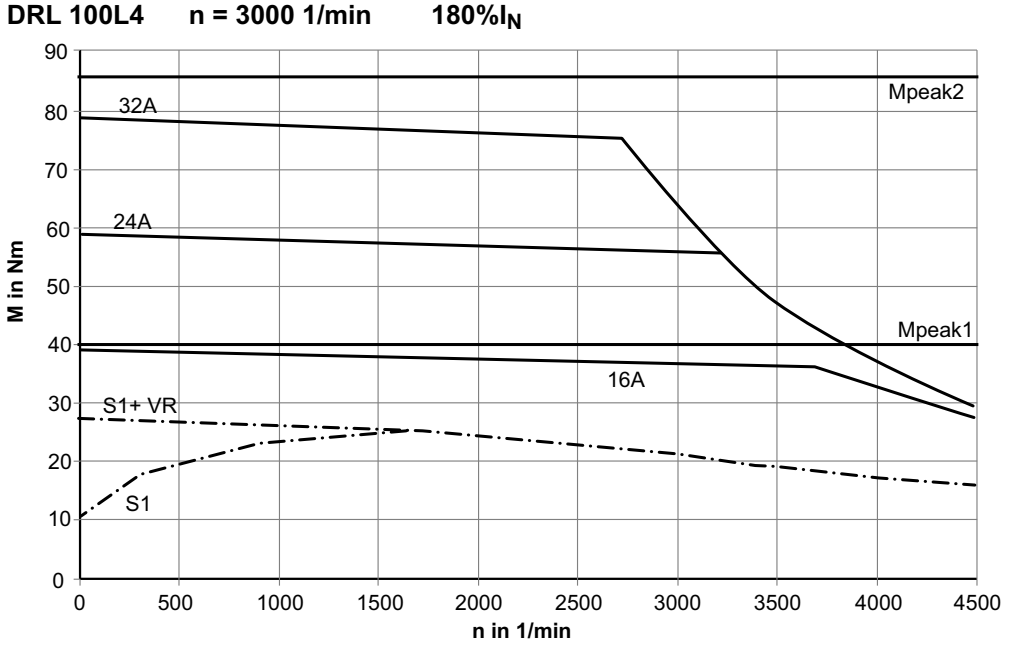
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DRL100L4, n_N = 3000 1/min, 100% I_N



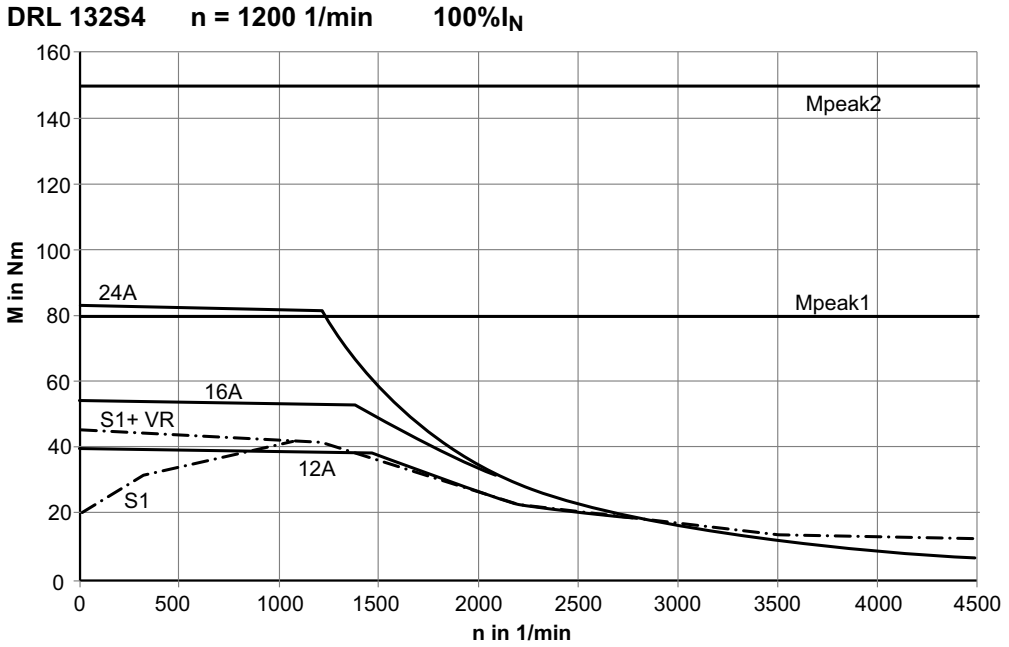
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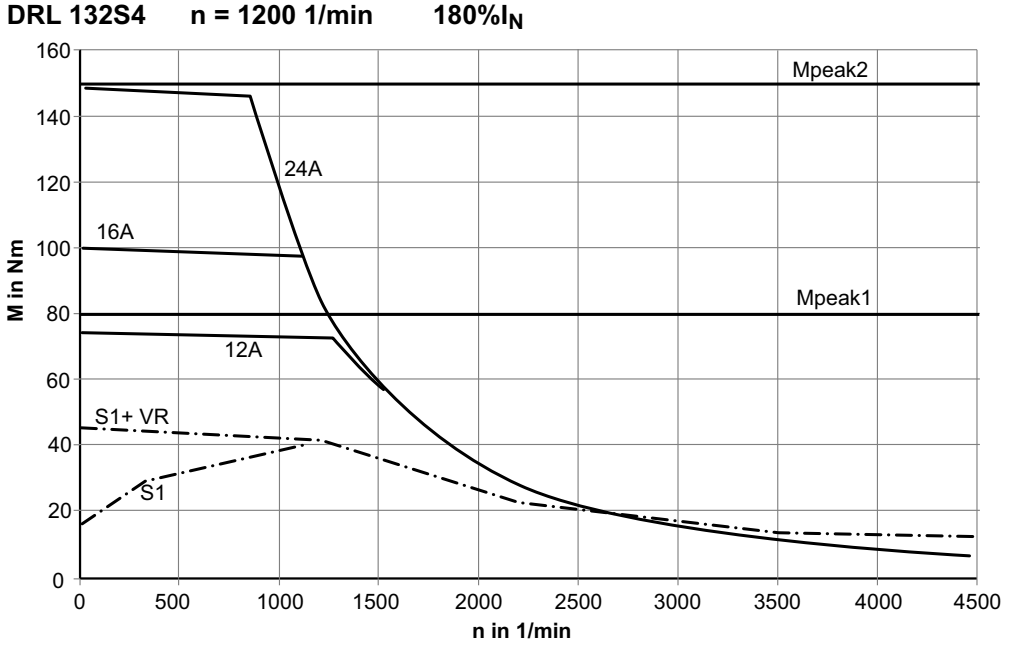
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DRL132S4, n_N = 1200 1/min, 100% I_N



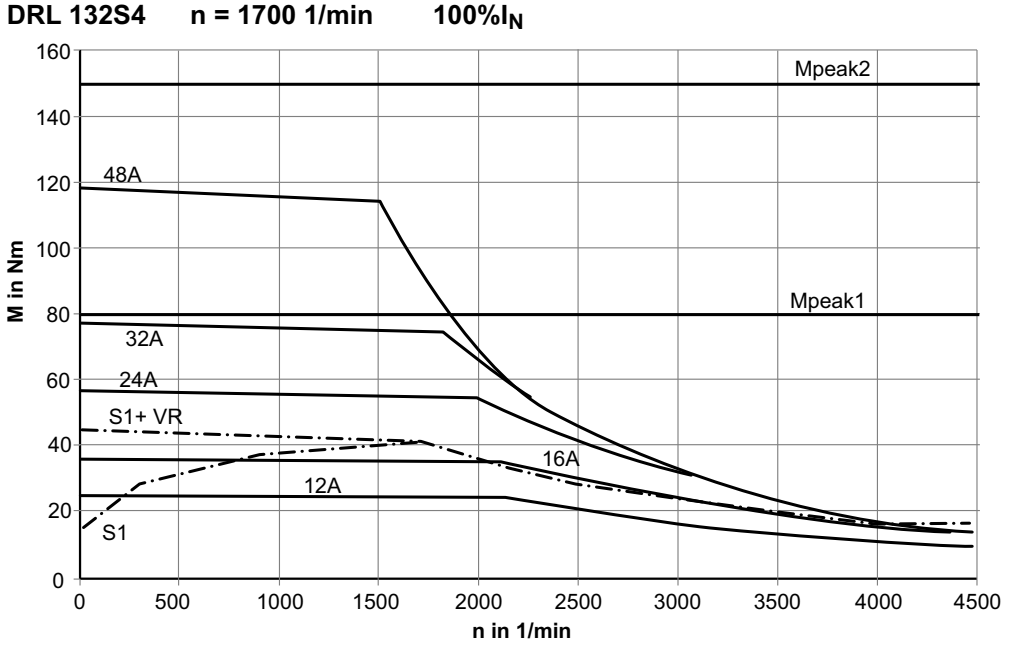
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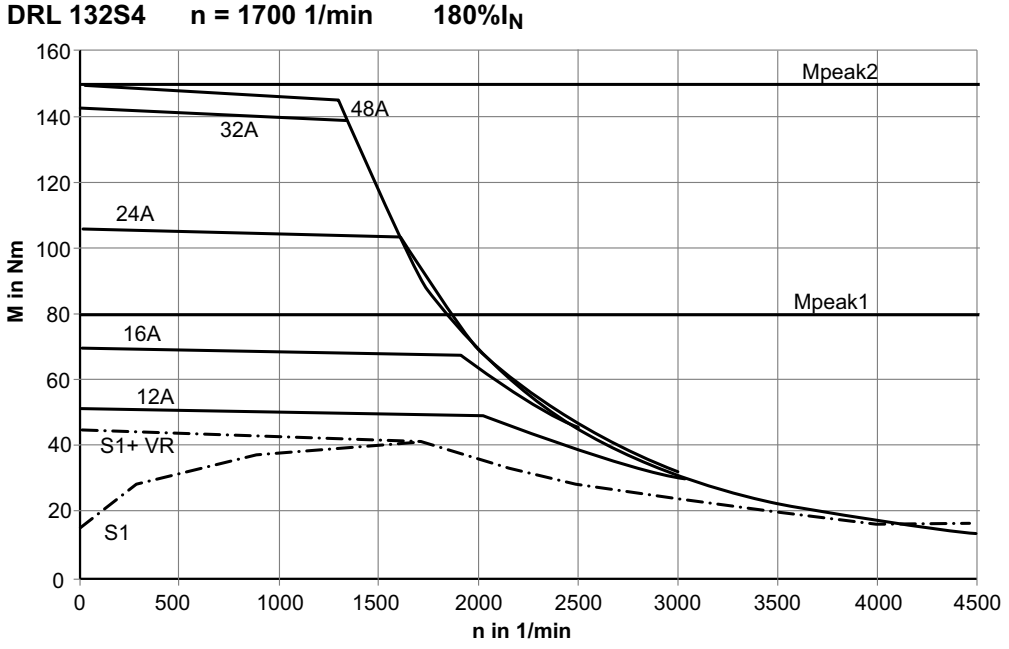
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DRL132S4, n_N = 1700 1/min, 100% I_N



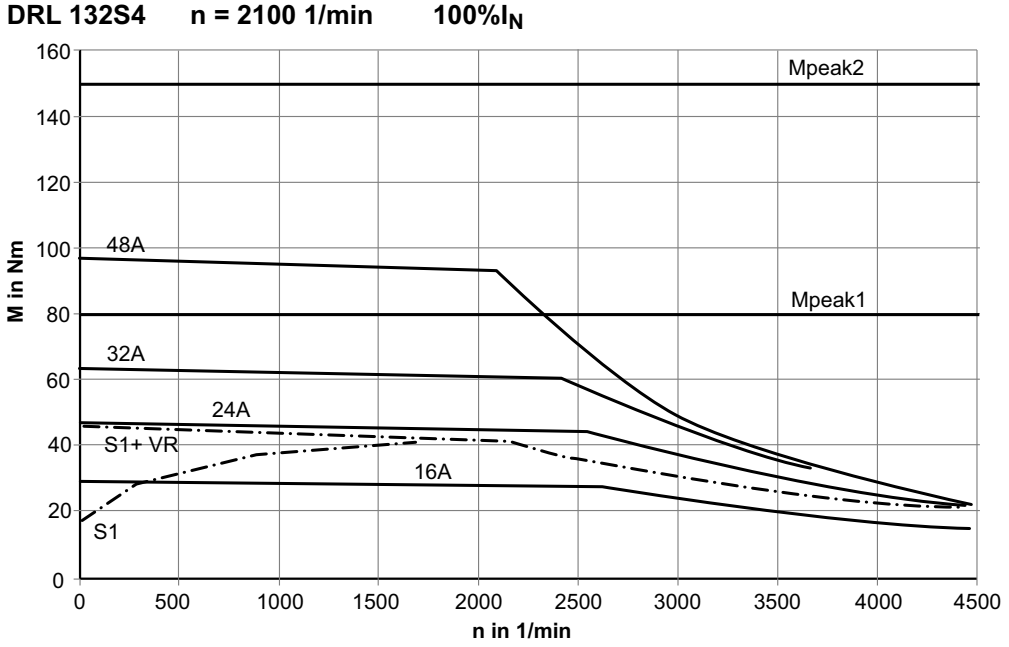
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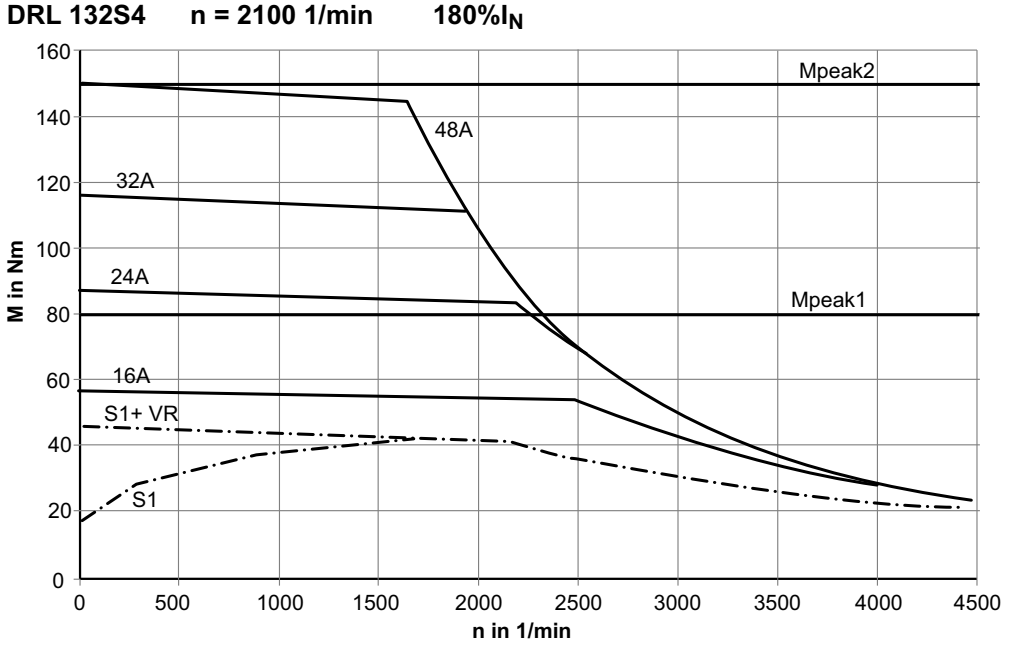
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DRL132S4, n_N = 2100 1/min, 100% I_N



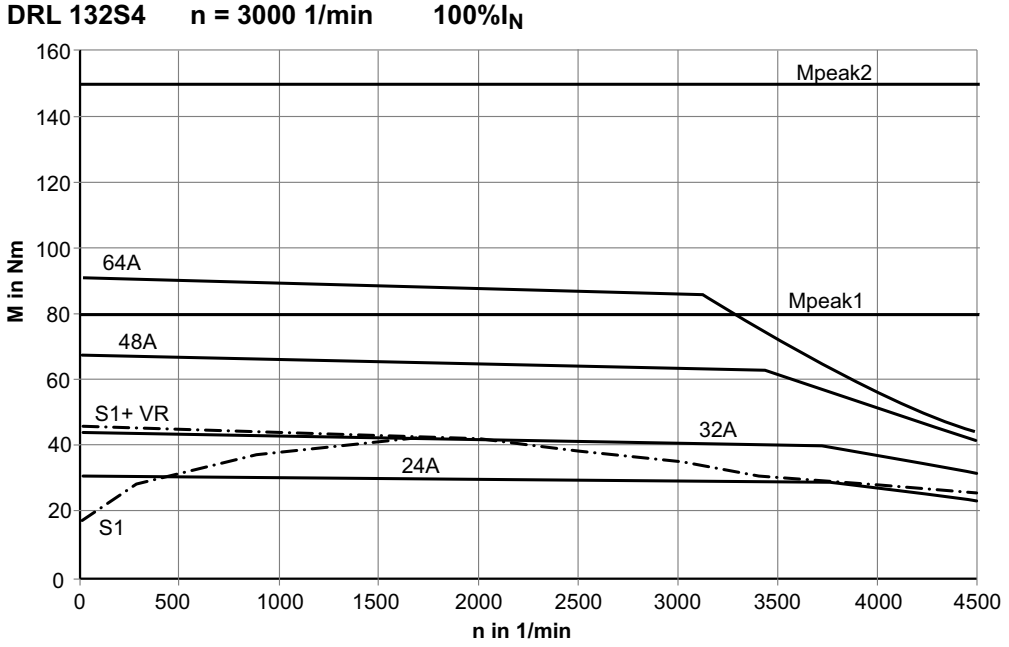
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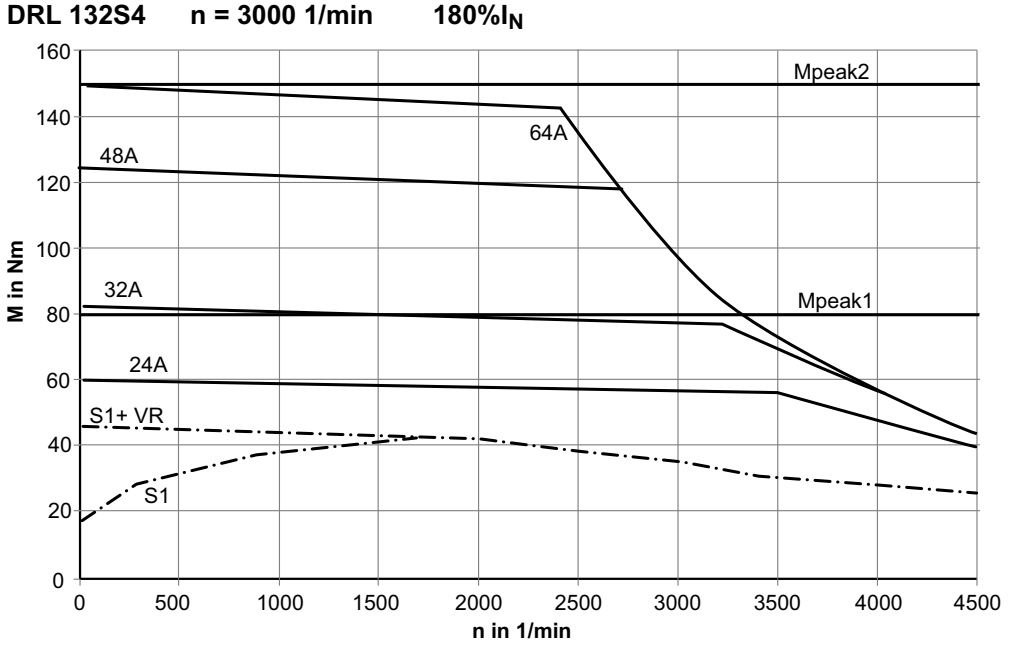
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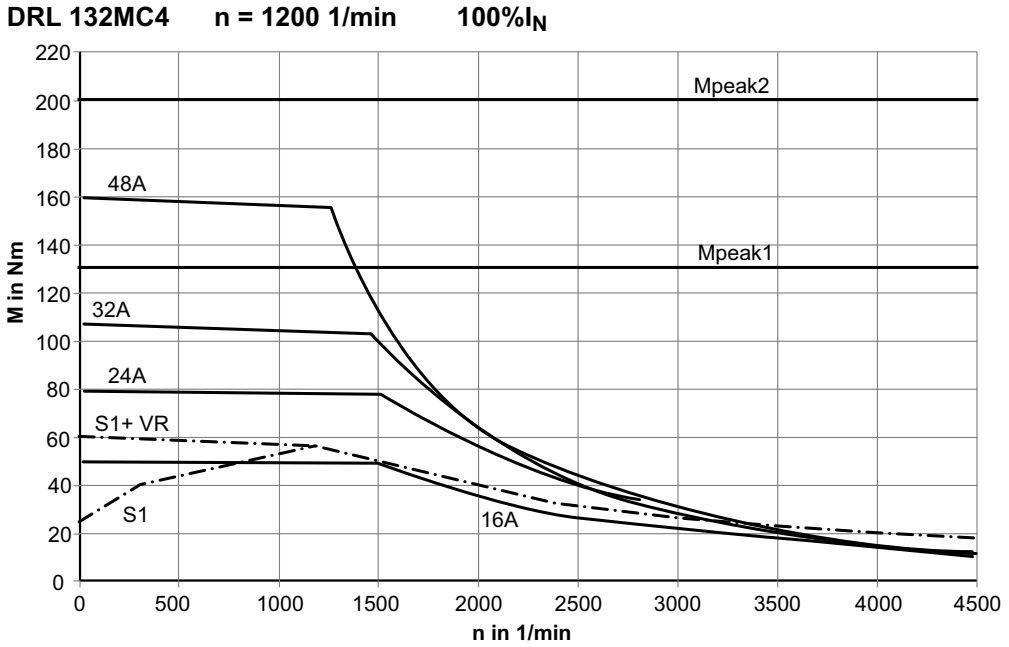
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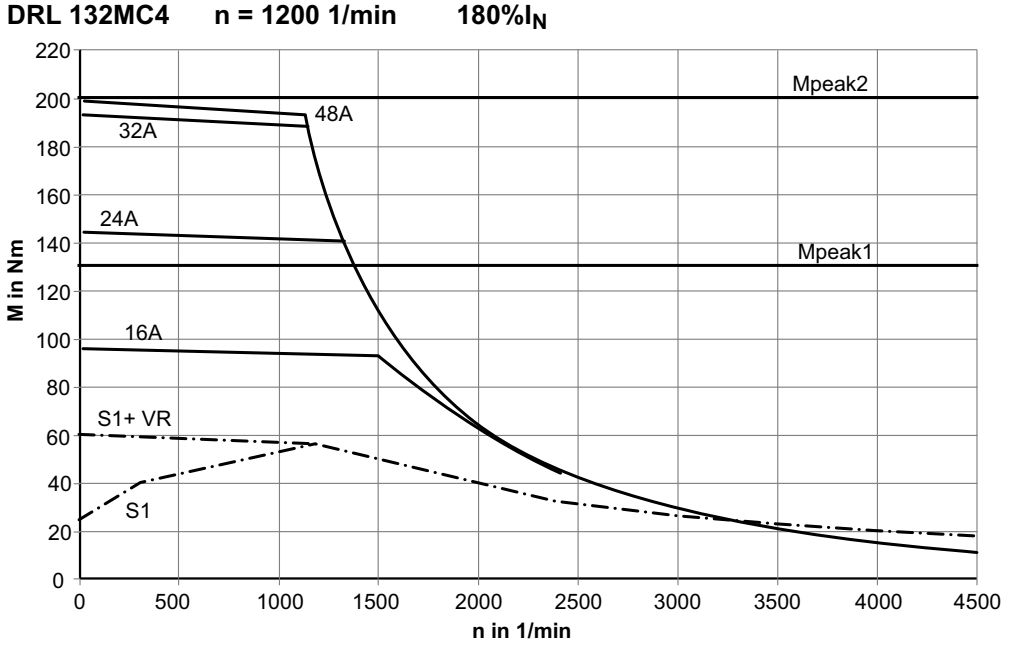
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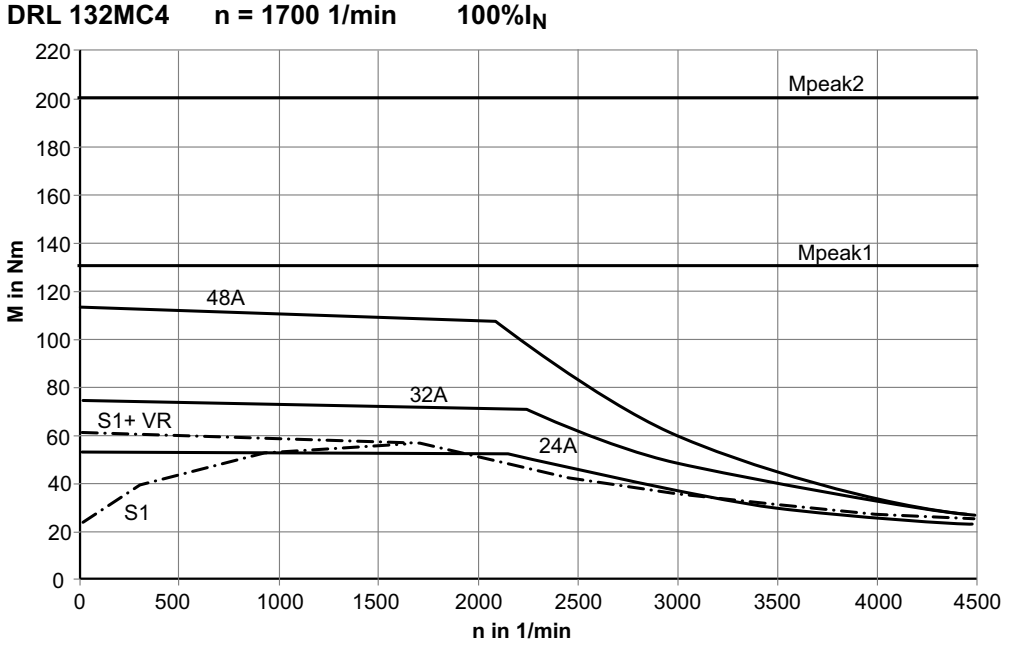
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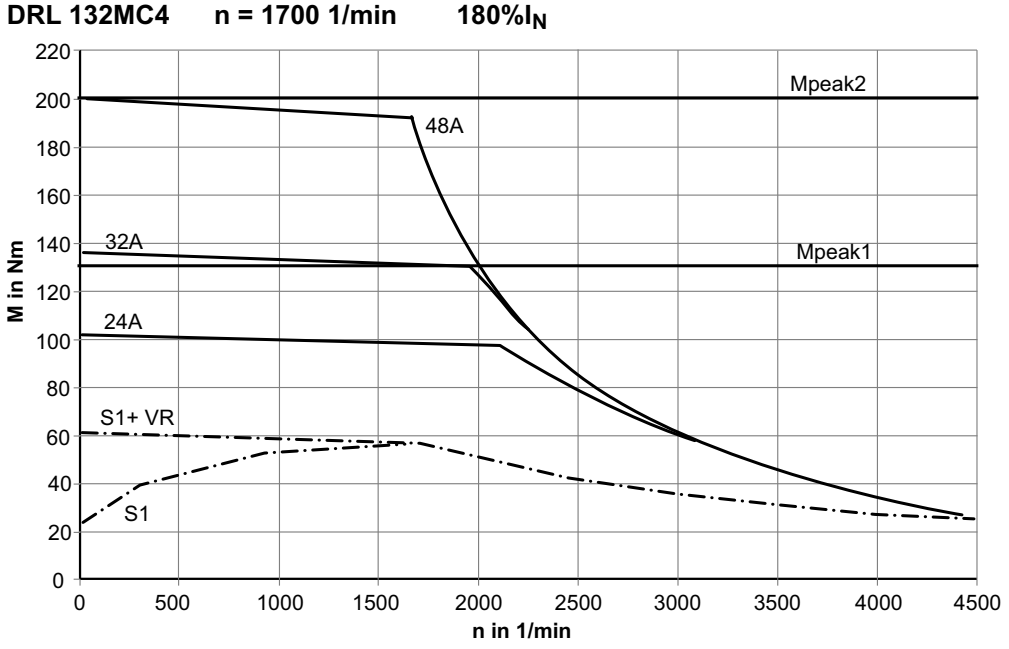
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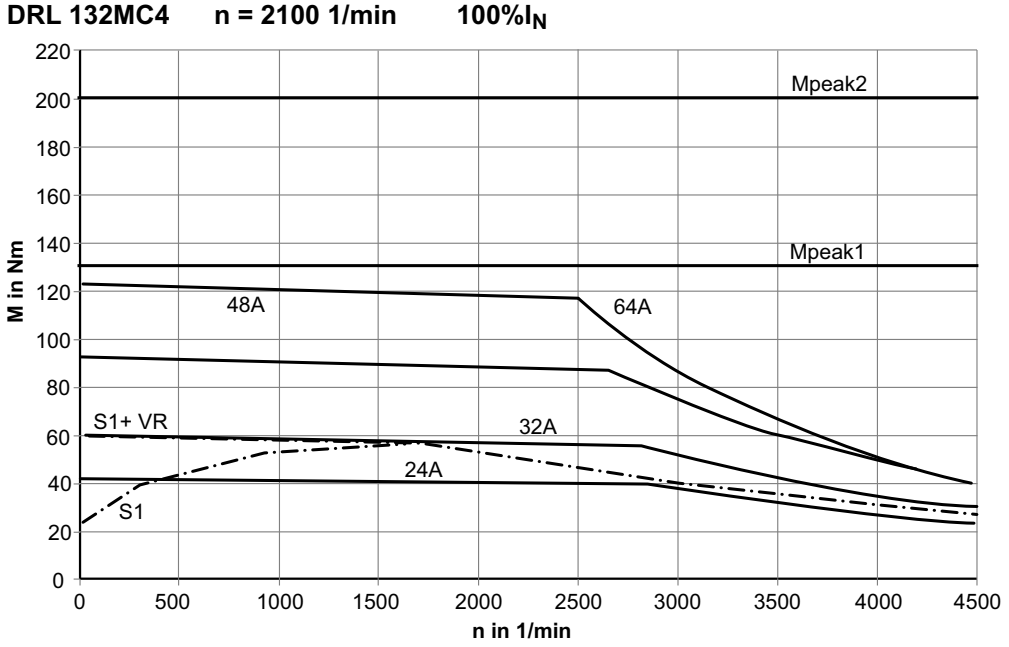
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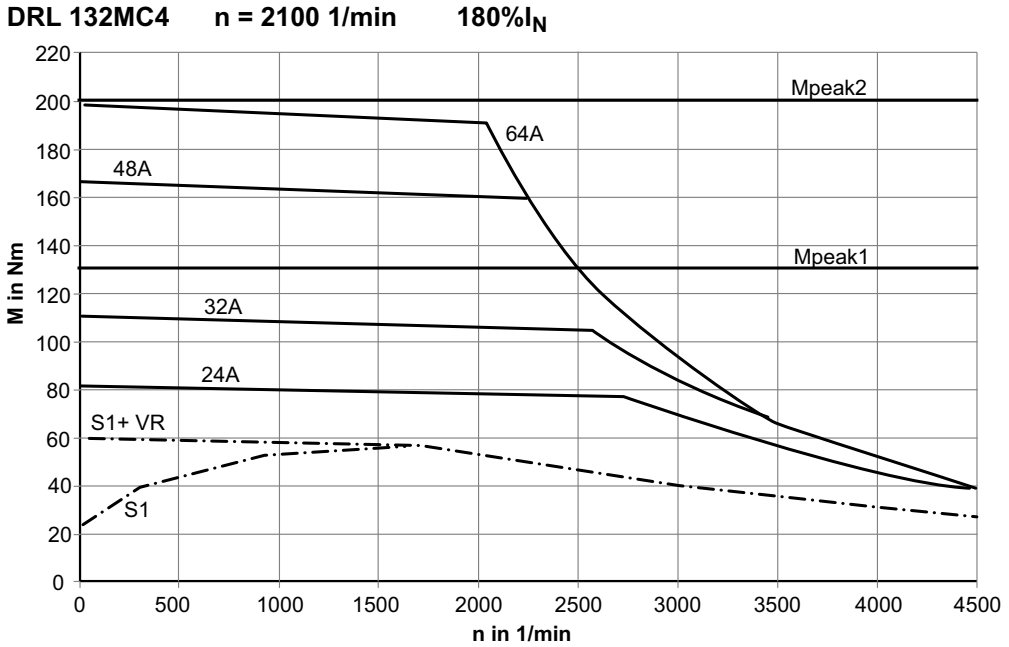
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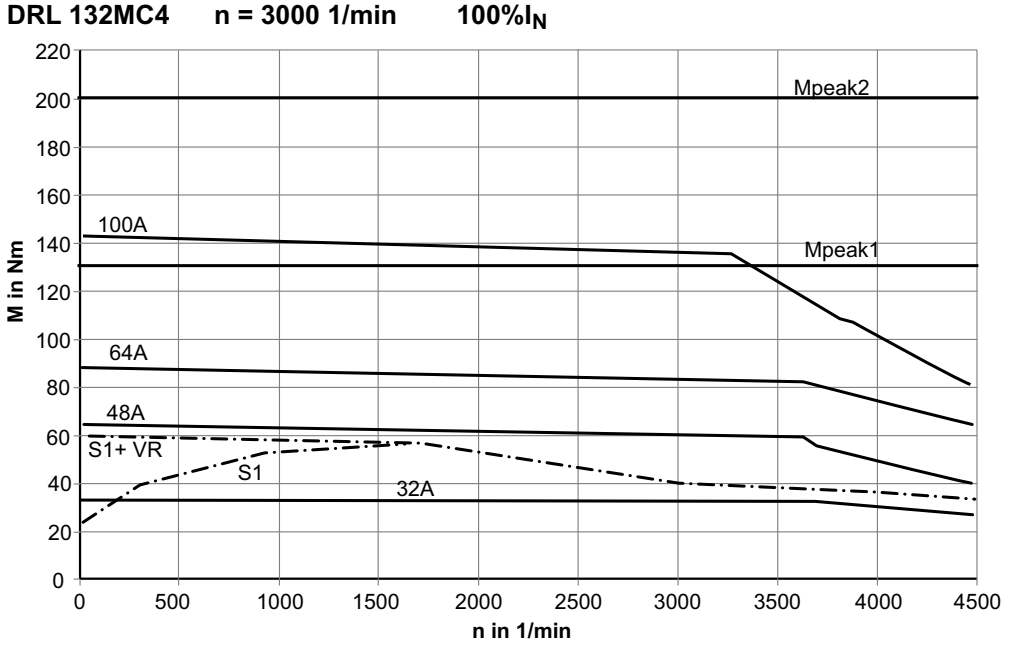
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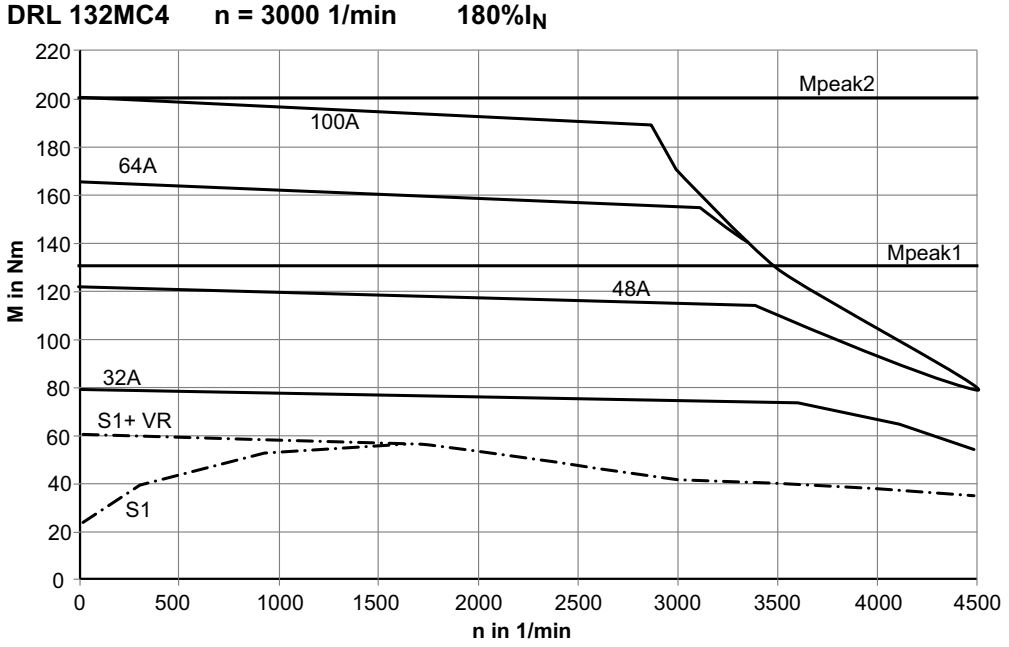
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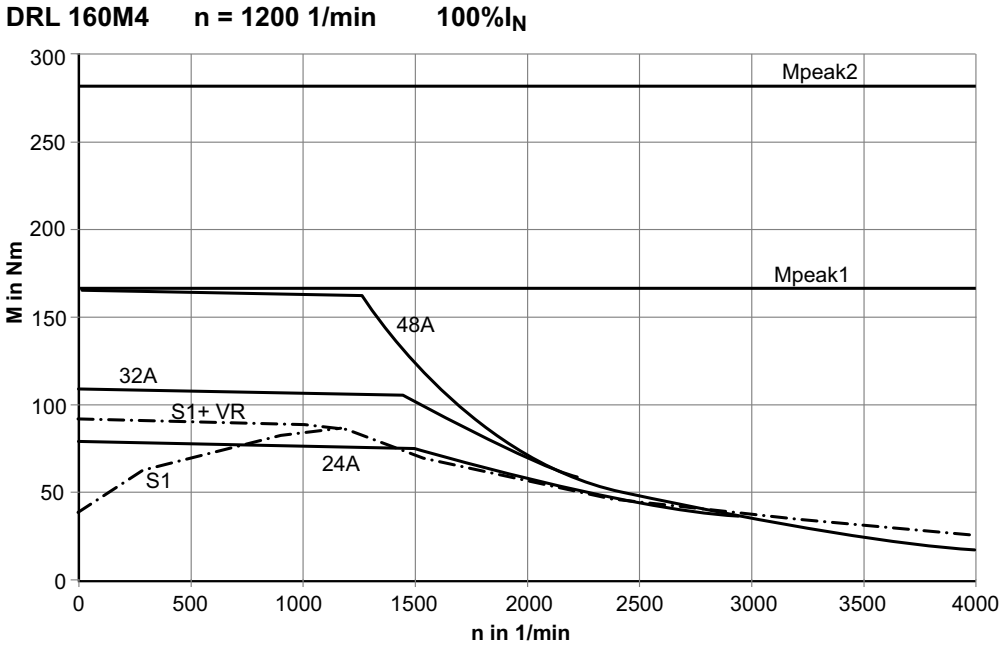
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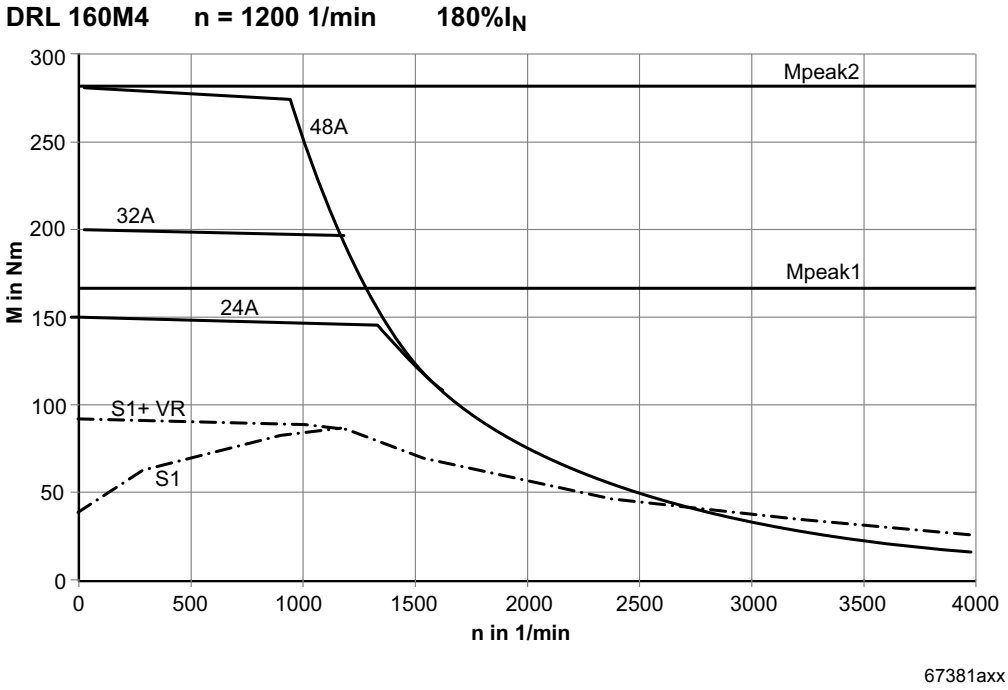


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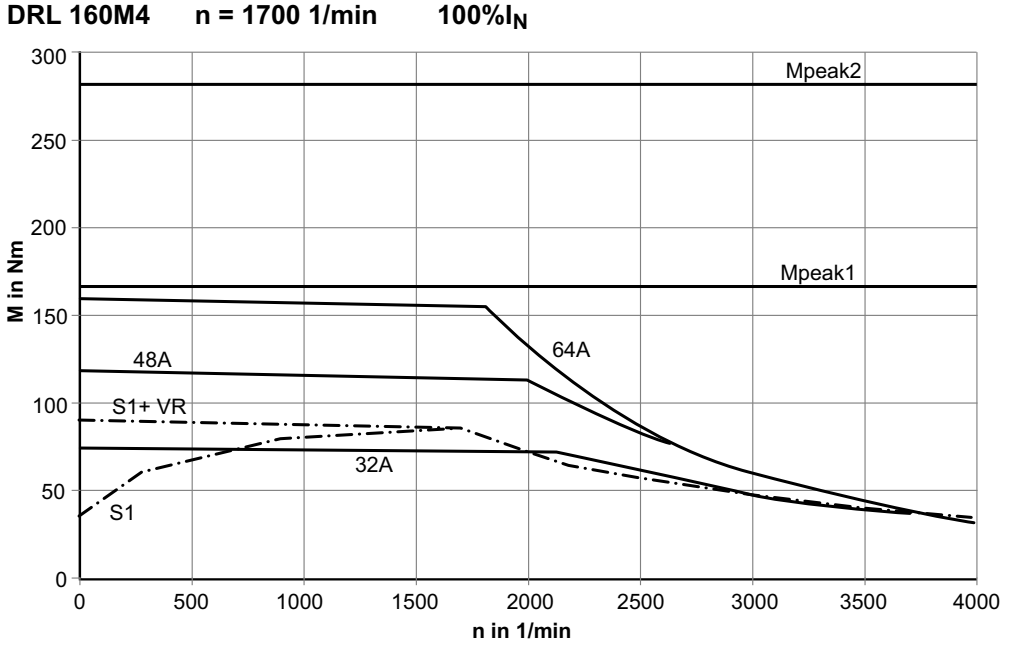
DRL160M4, n_N = 1200 1/min, 100% I_N



DRL160M4, n_N = 1200 1/min, 180% I_N

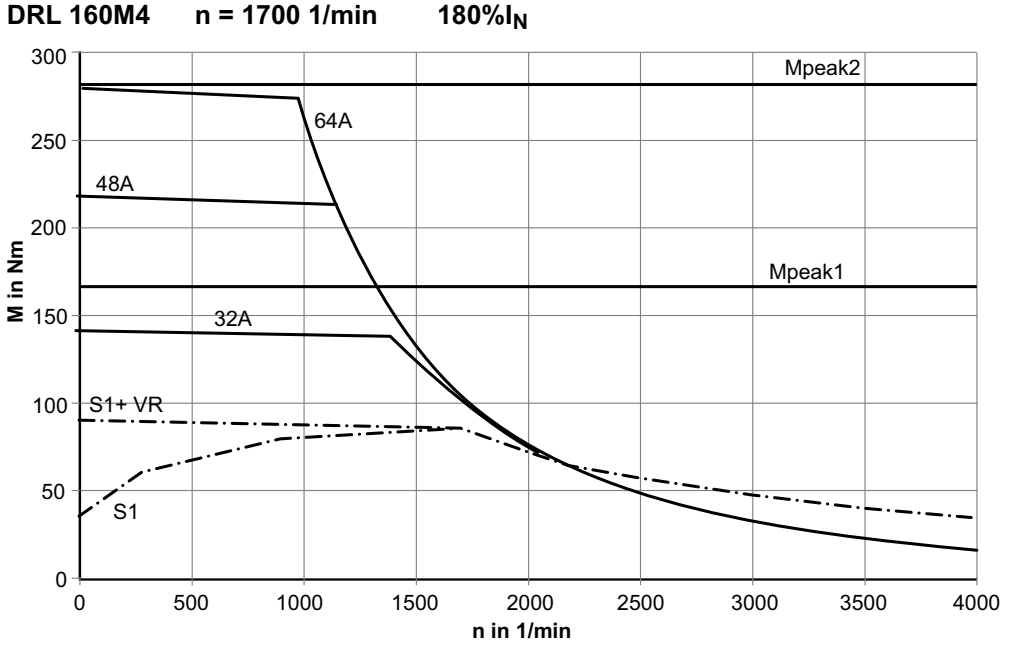


DRL160M4, n_N = 1700 1/min, 100% I_N



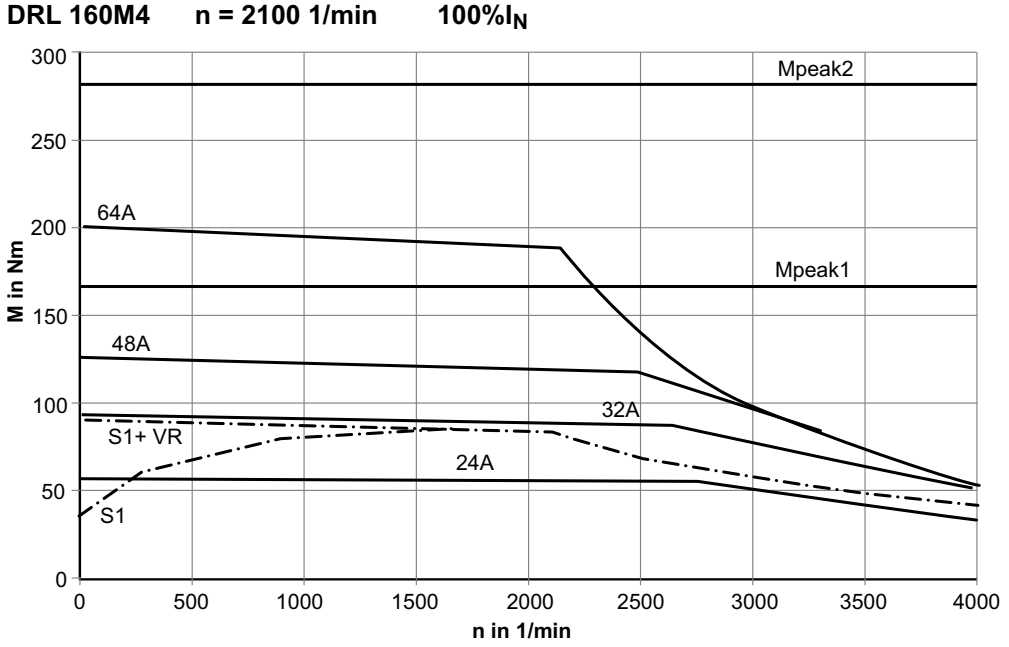
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DRL160M4, n_N = 1700 1/min, 180% I_N



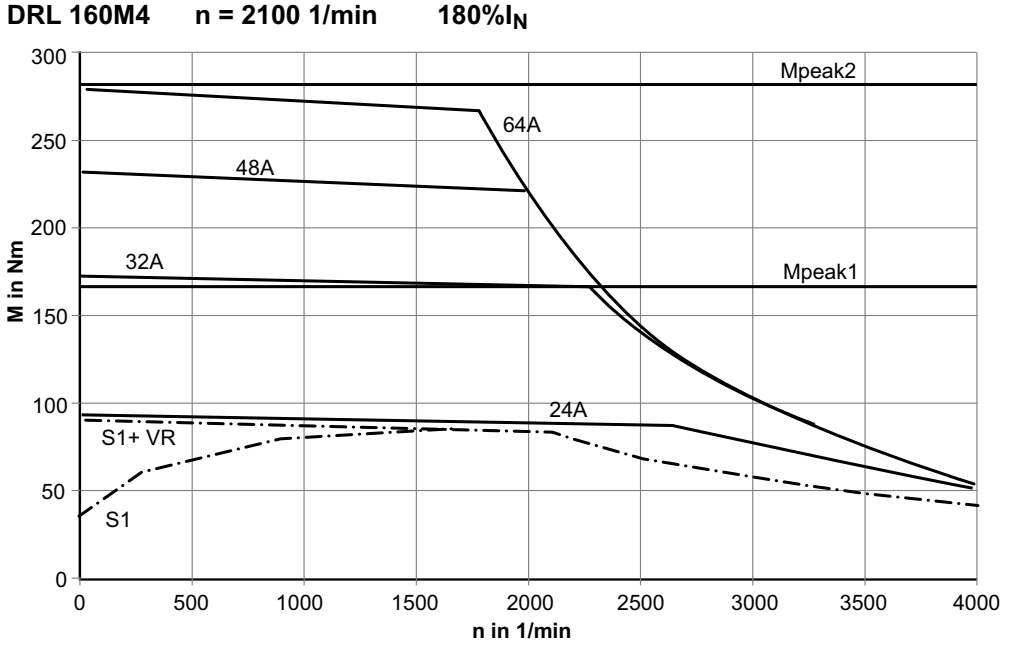
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DRL160M4, n_N = 2100 1/min, 100% I_N



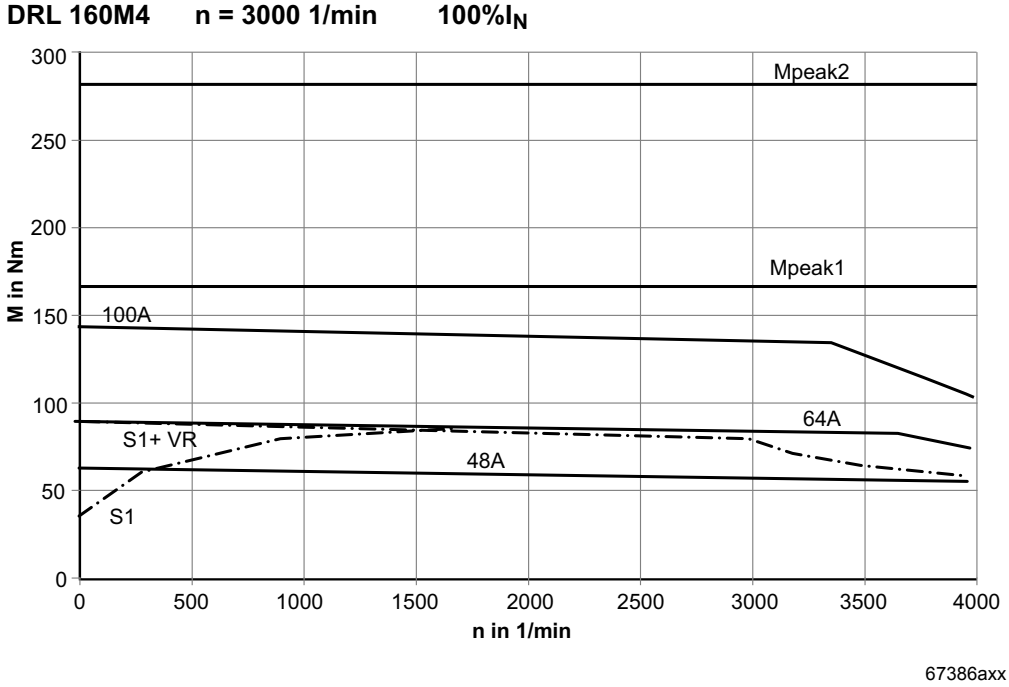
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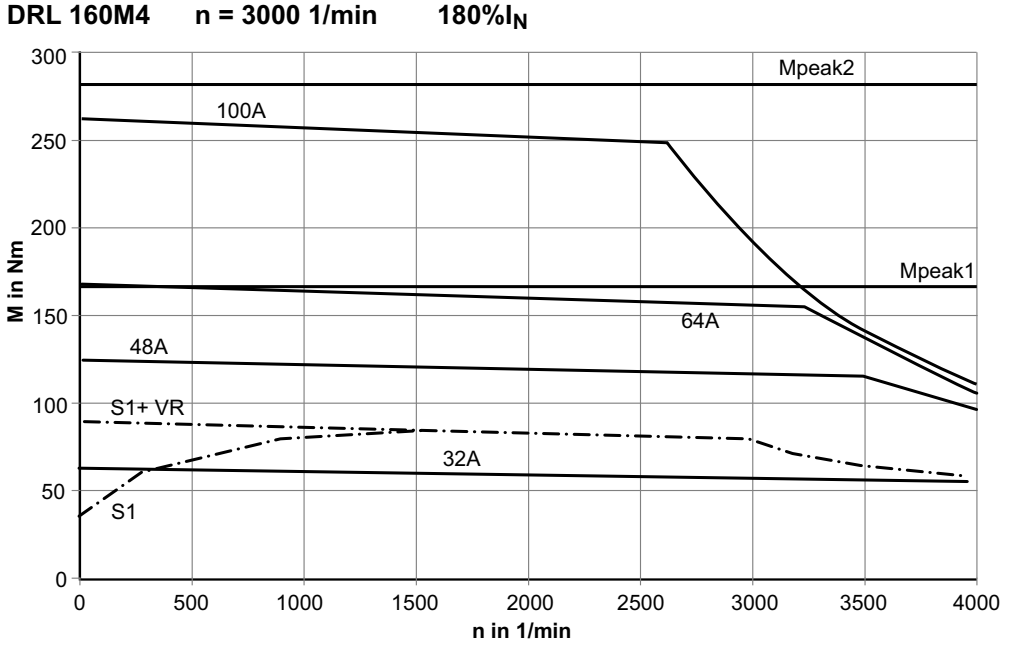
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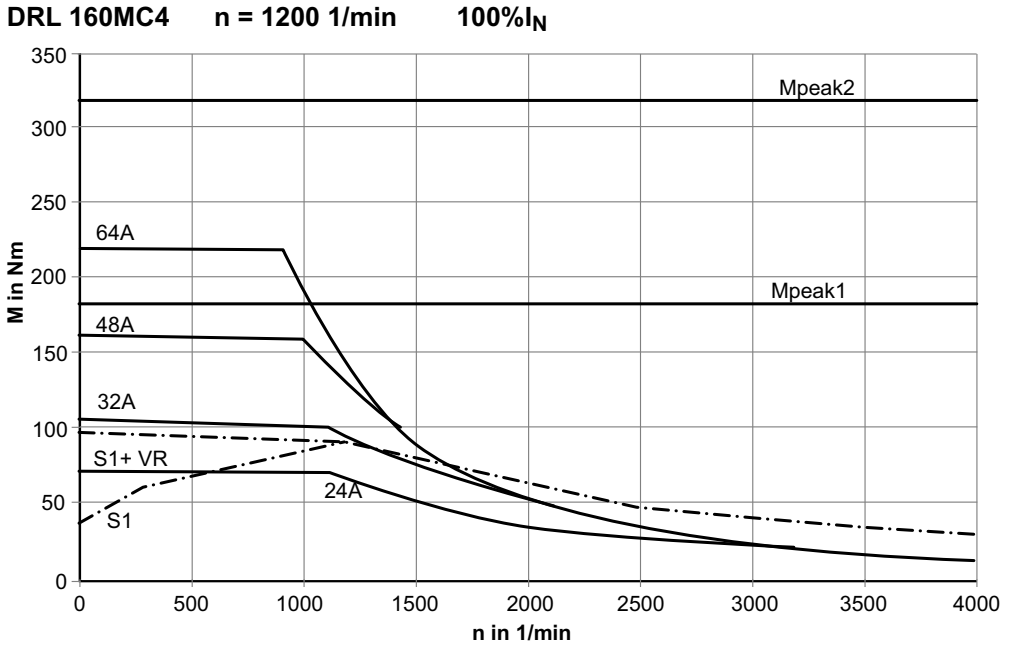
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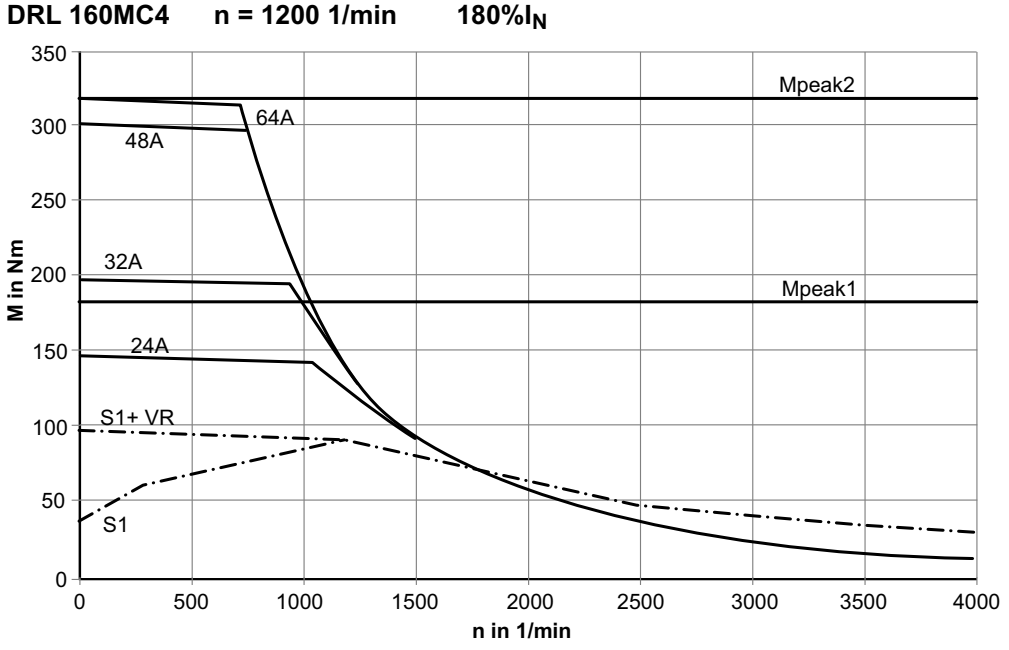
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DRL160MC4, n_N = 1200 1/min, 100% I_N



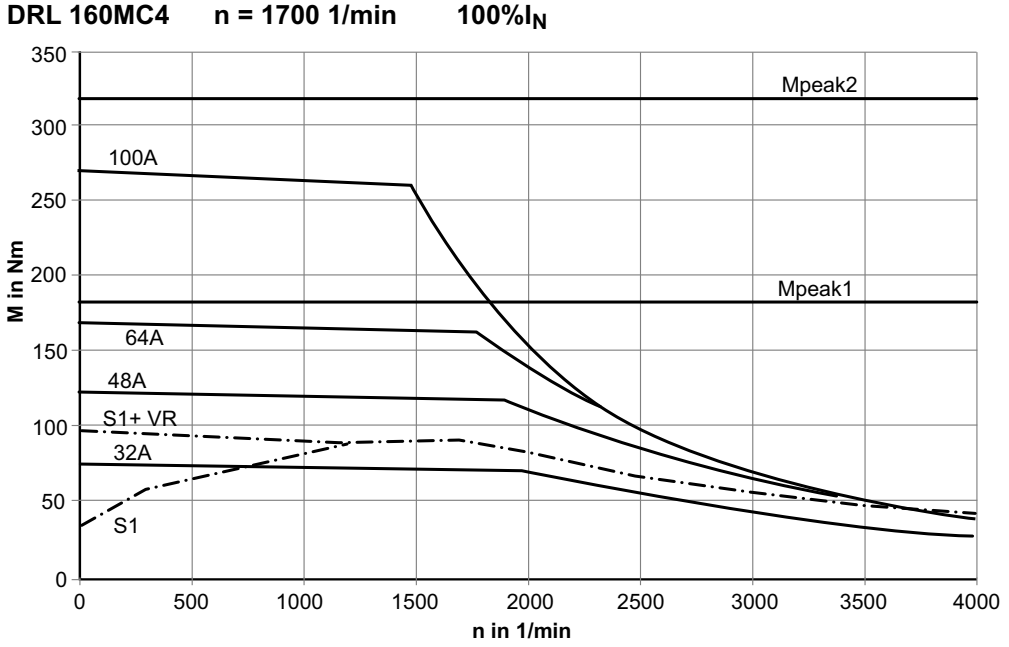
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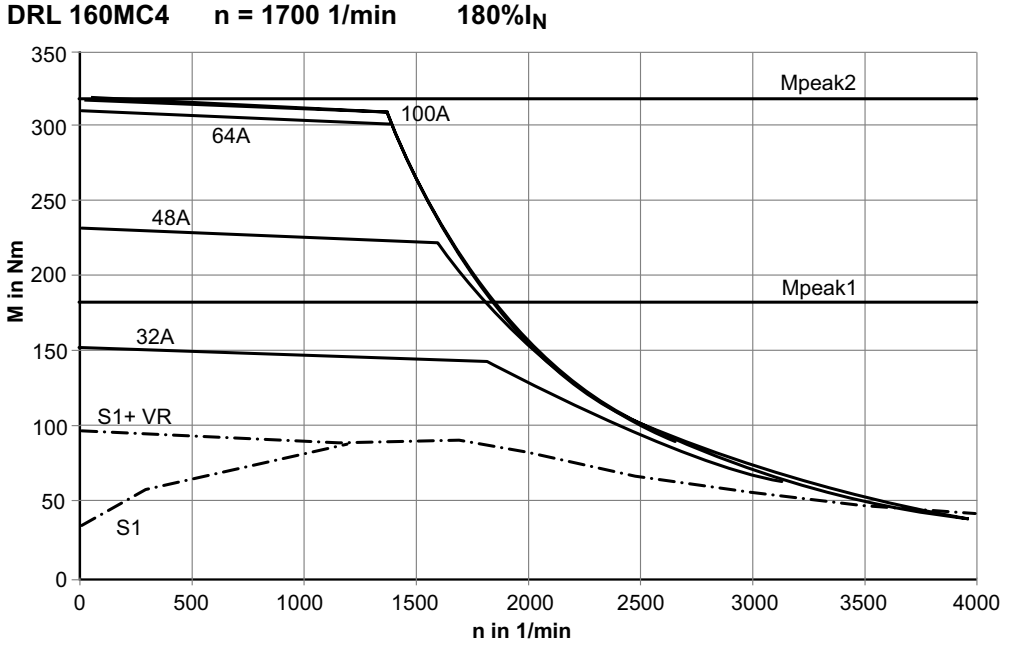
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DRL160MC4, n_N = 1700 1/min, 100% I_N



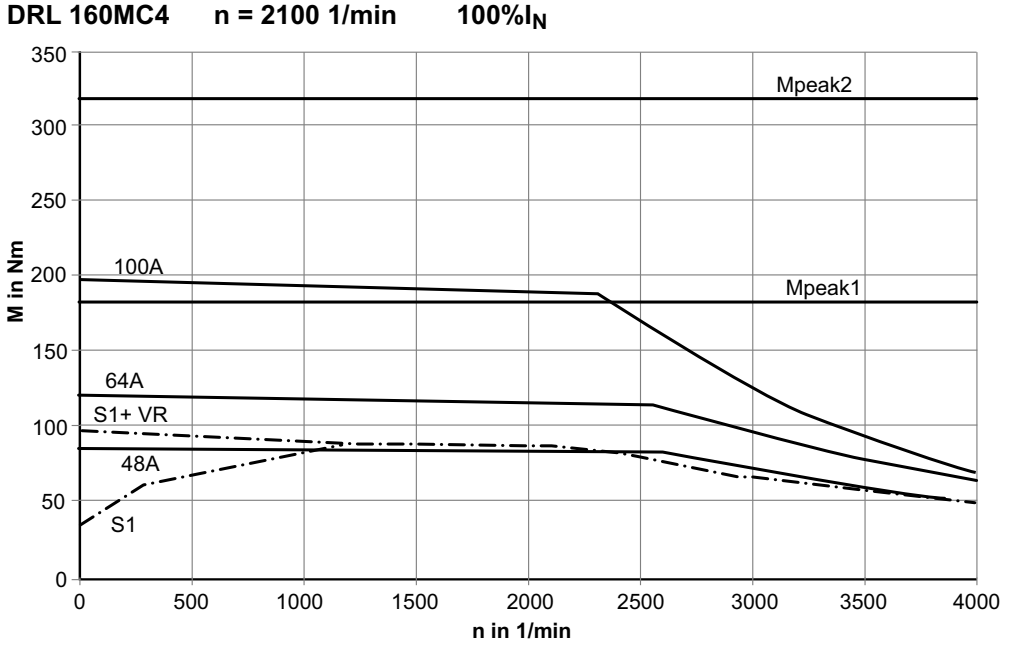
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DRL160MC4, n_N = 1700 1/min, 180% I_N



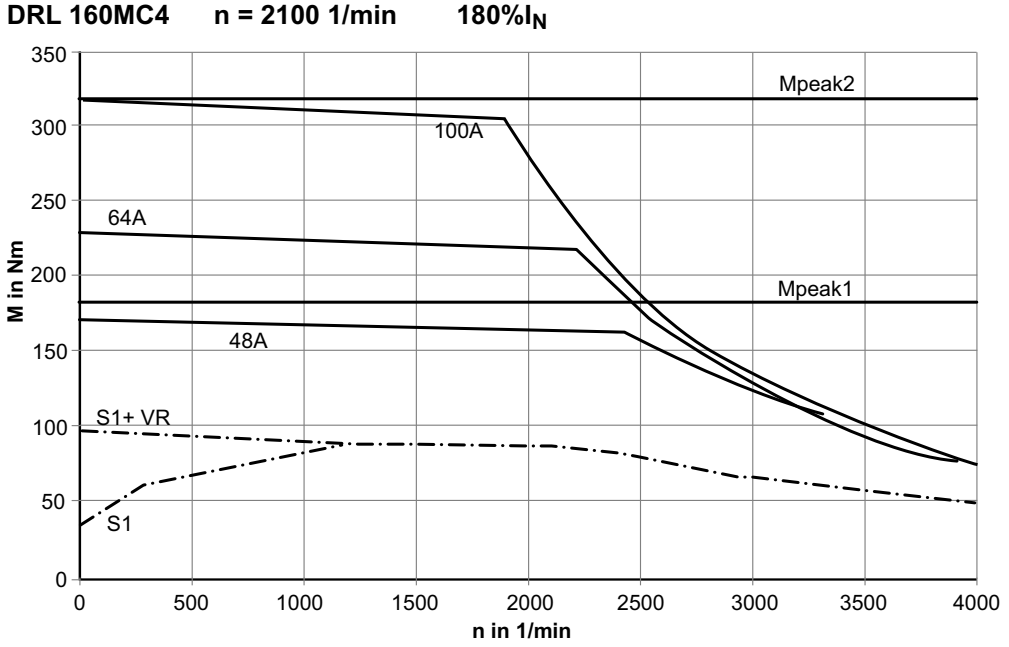
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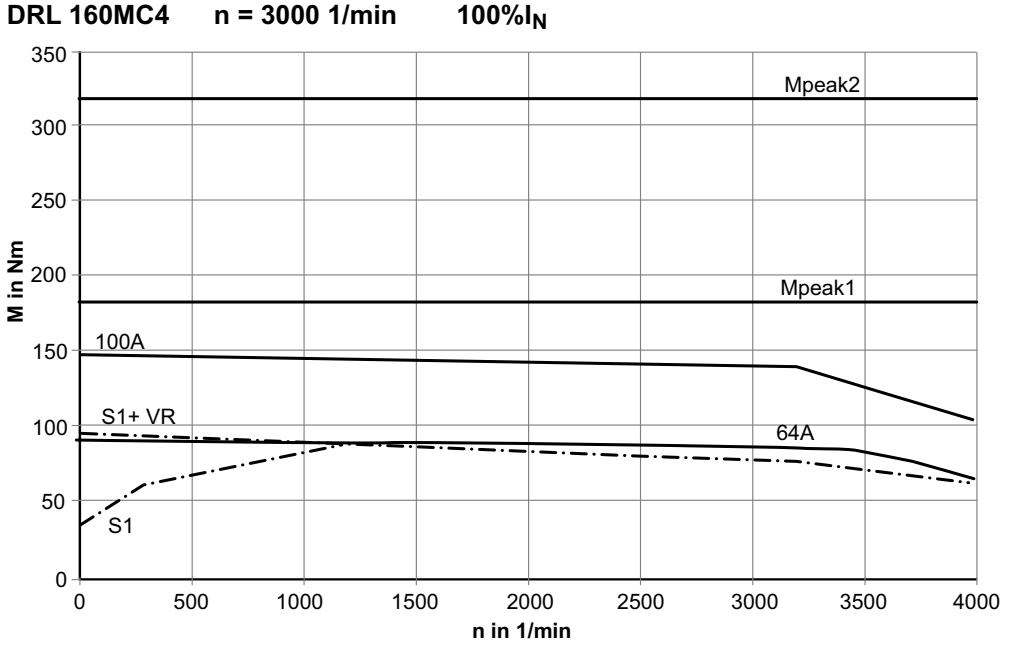
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DRL160MC4, n_N = 2100 1/min, 180% I_N



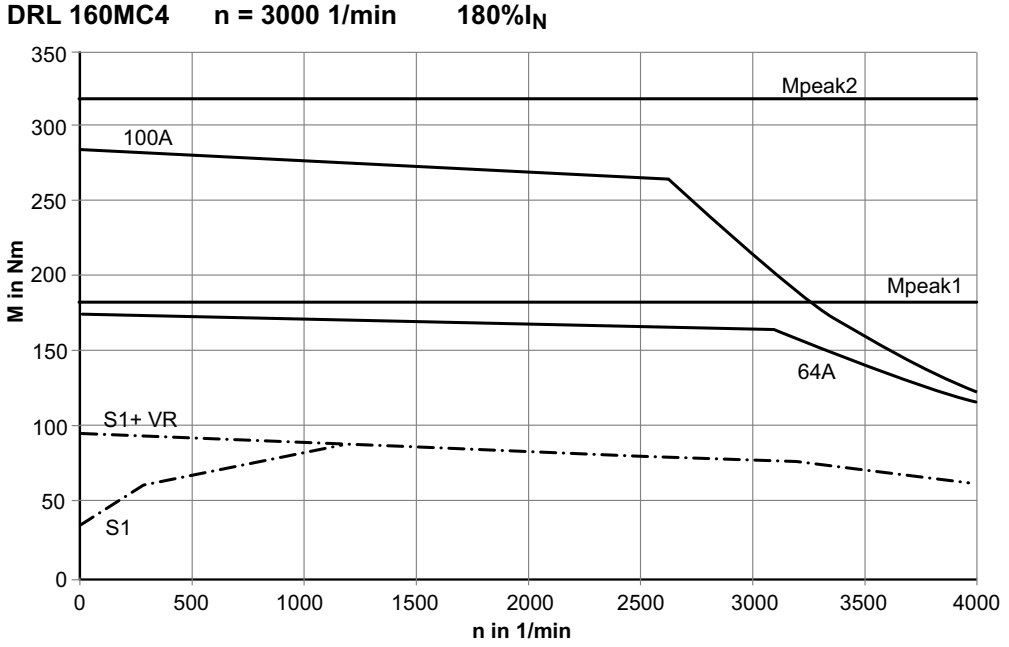
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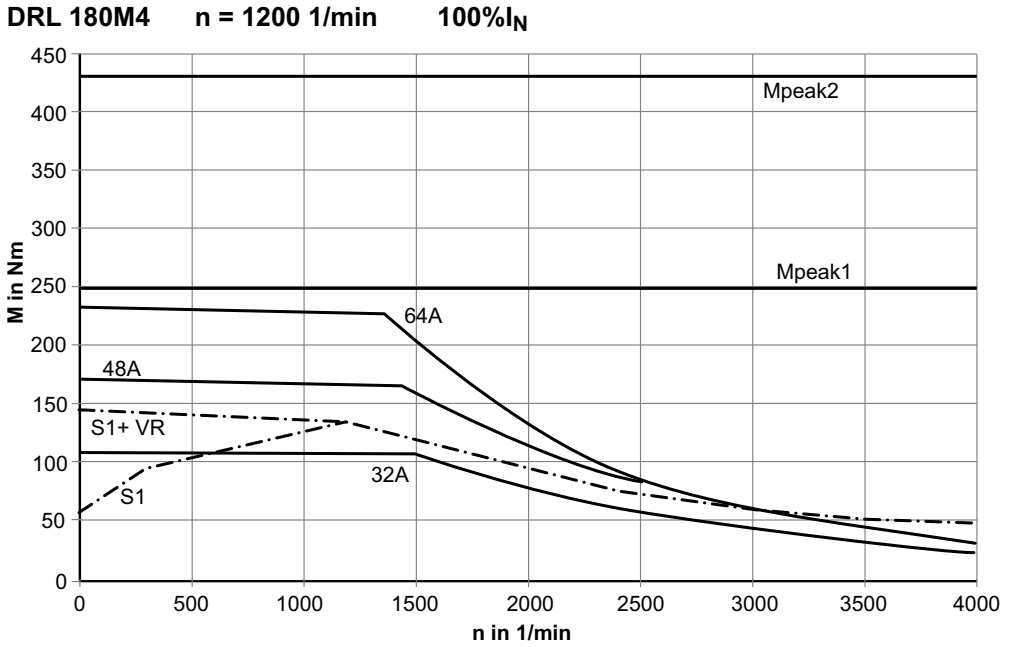
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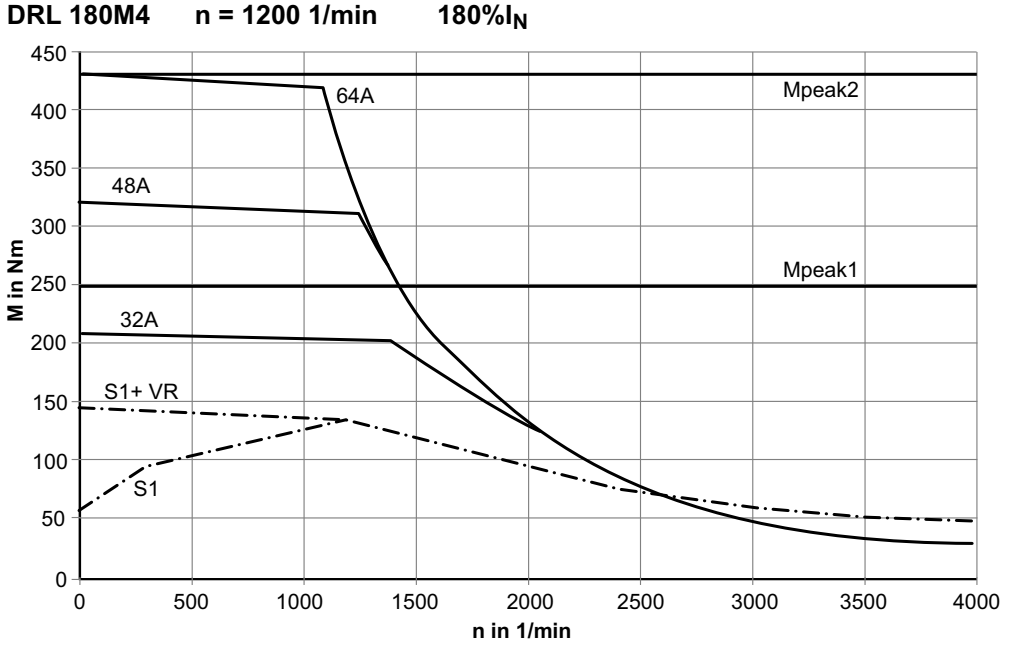
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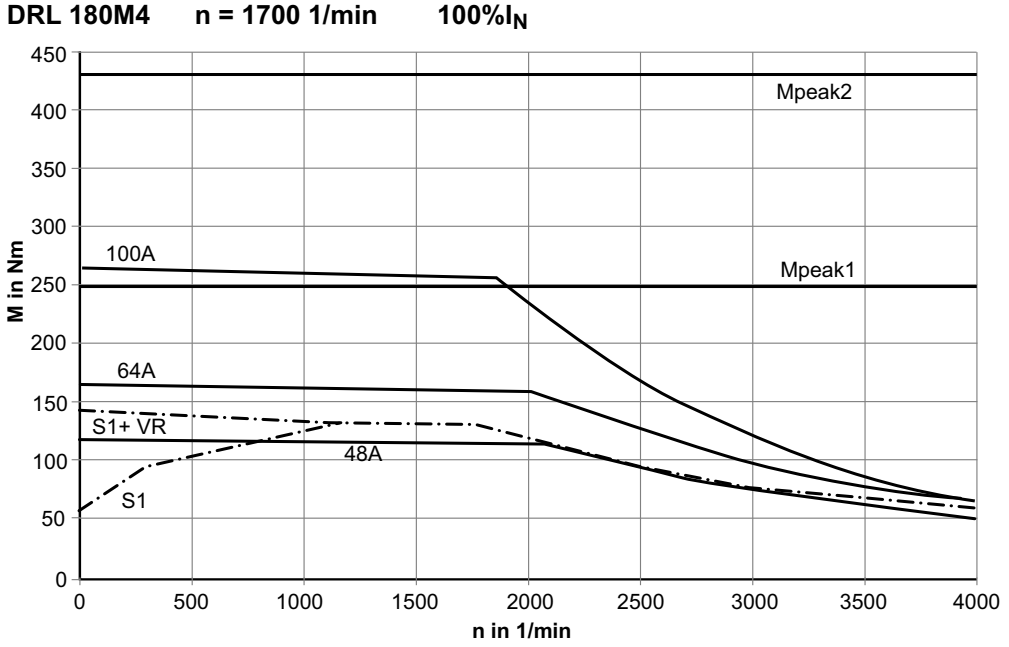
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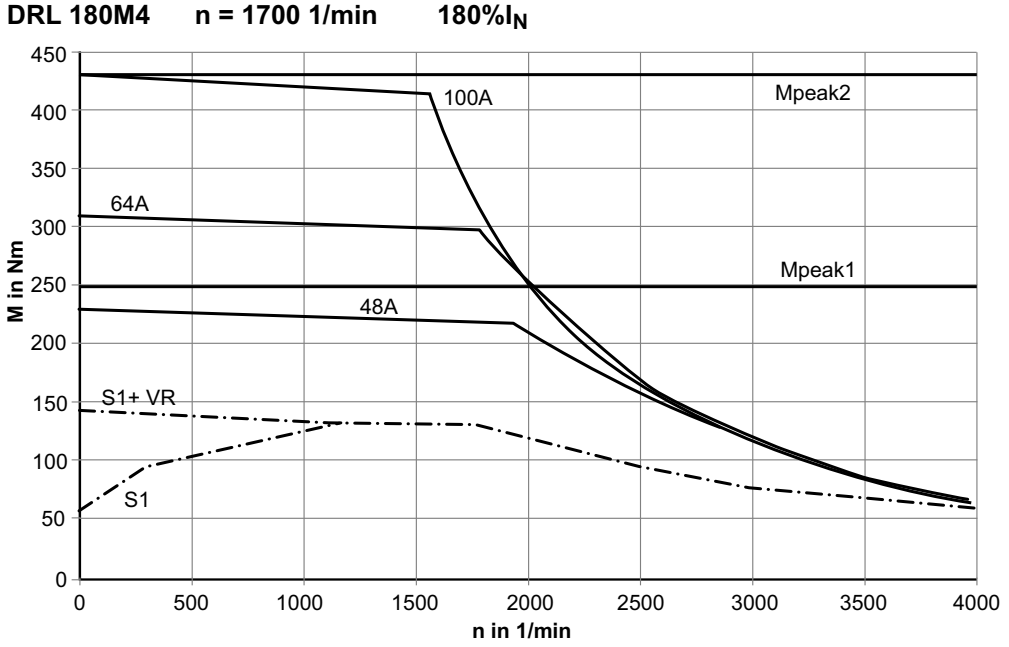
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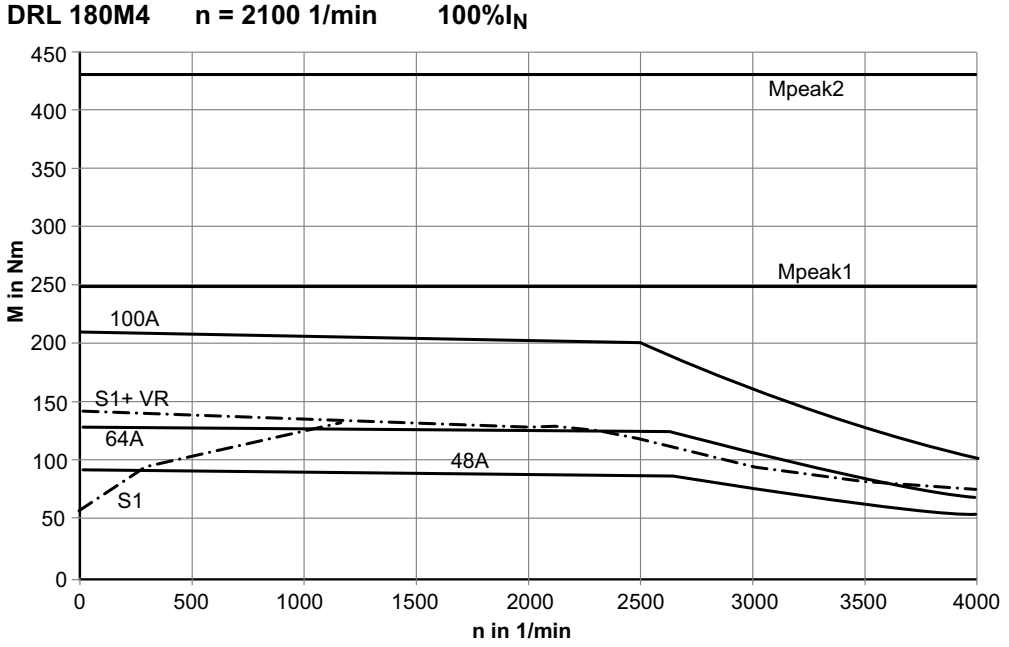
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DRL180M4, n_N = 1700 1/min, 180% I_N



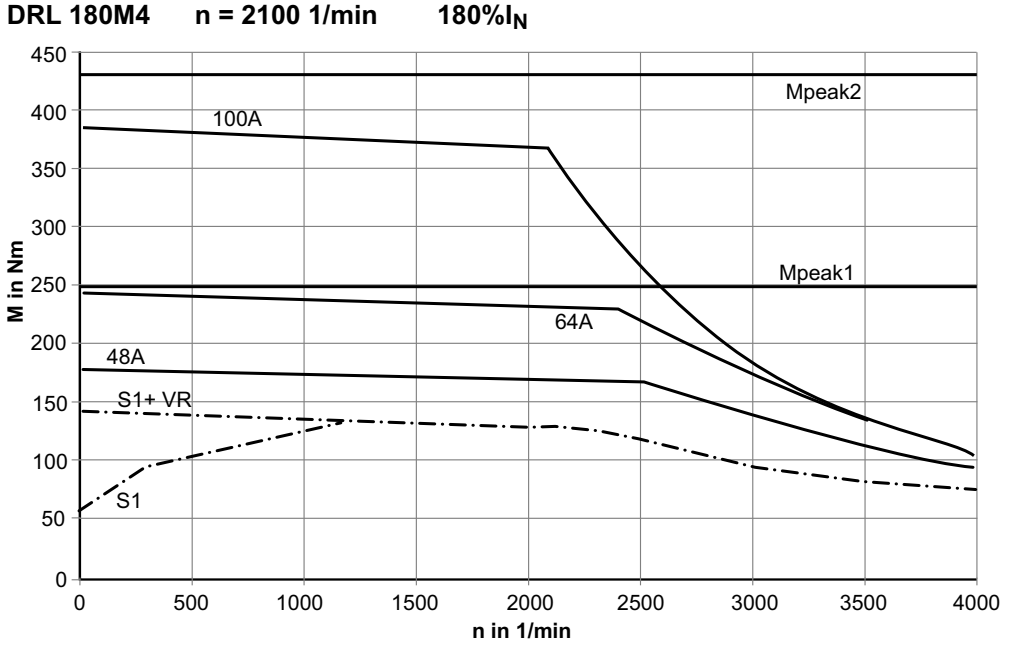
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DRL180M4, n_N = 2100 1/min, 100% I_N



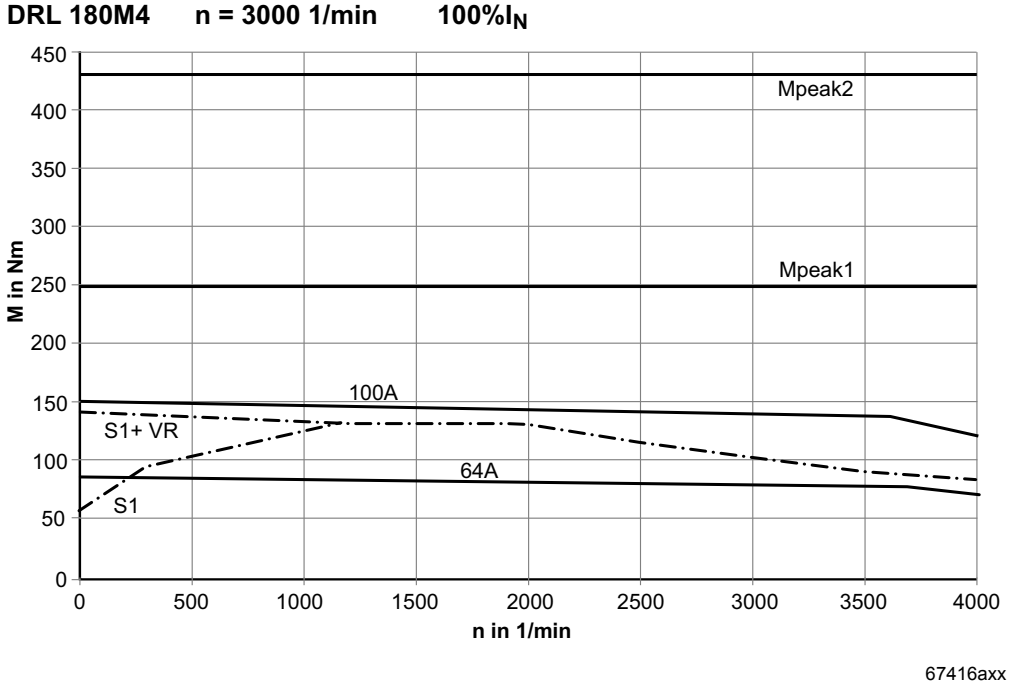
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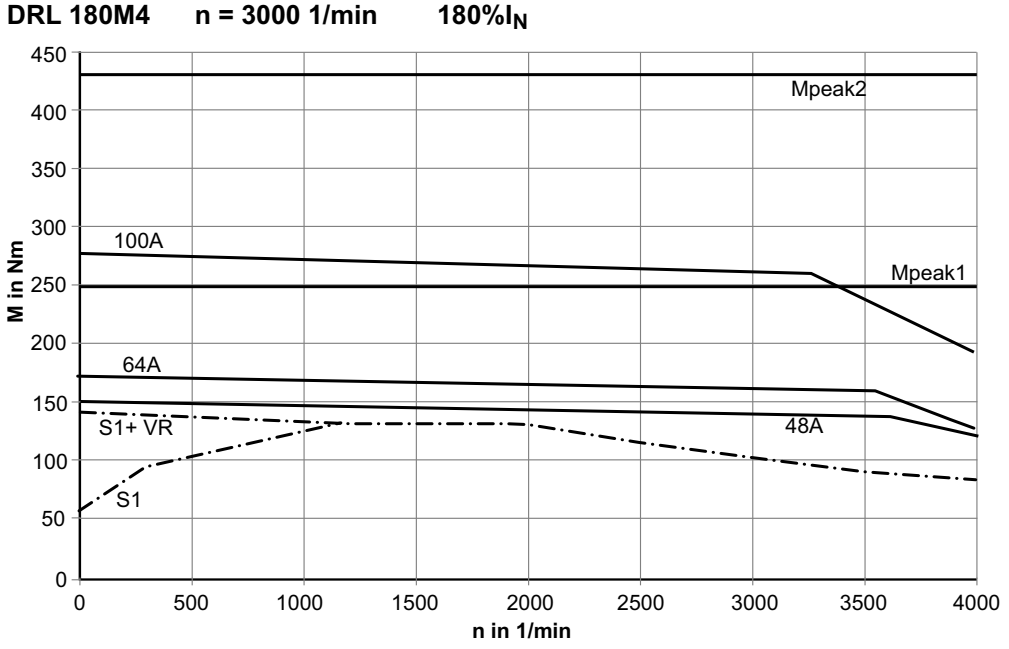
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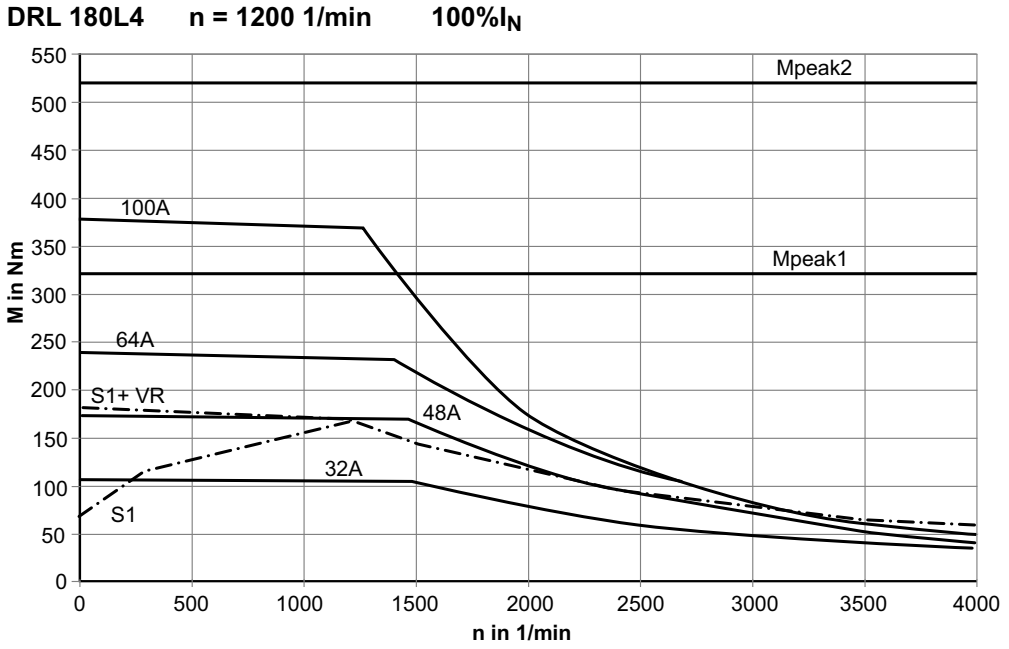
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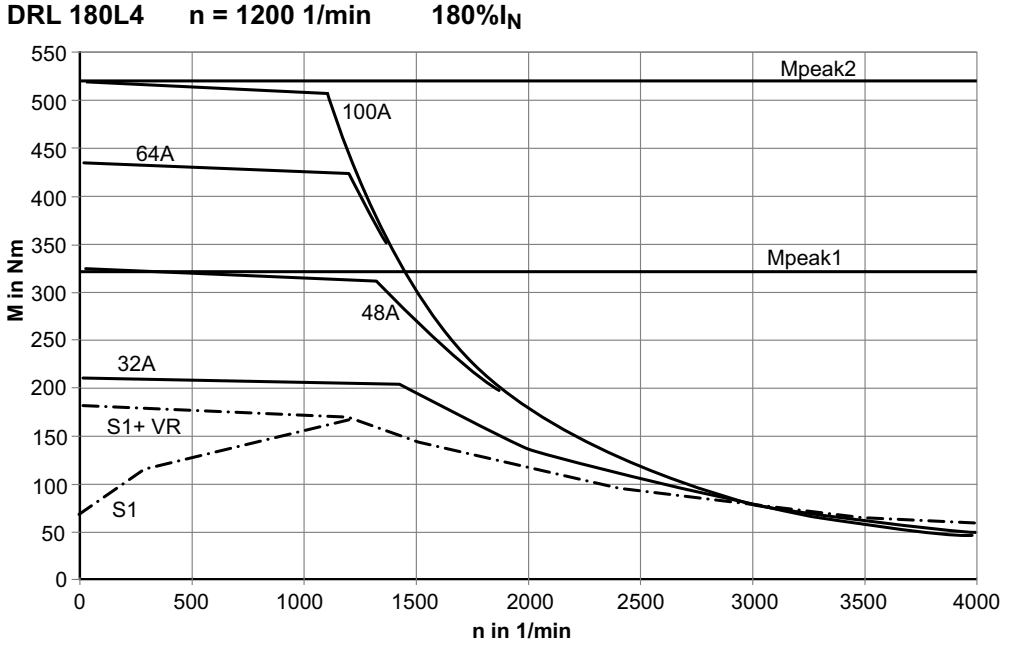
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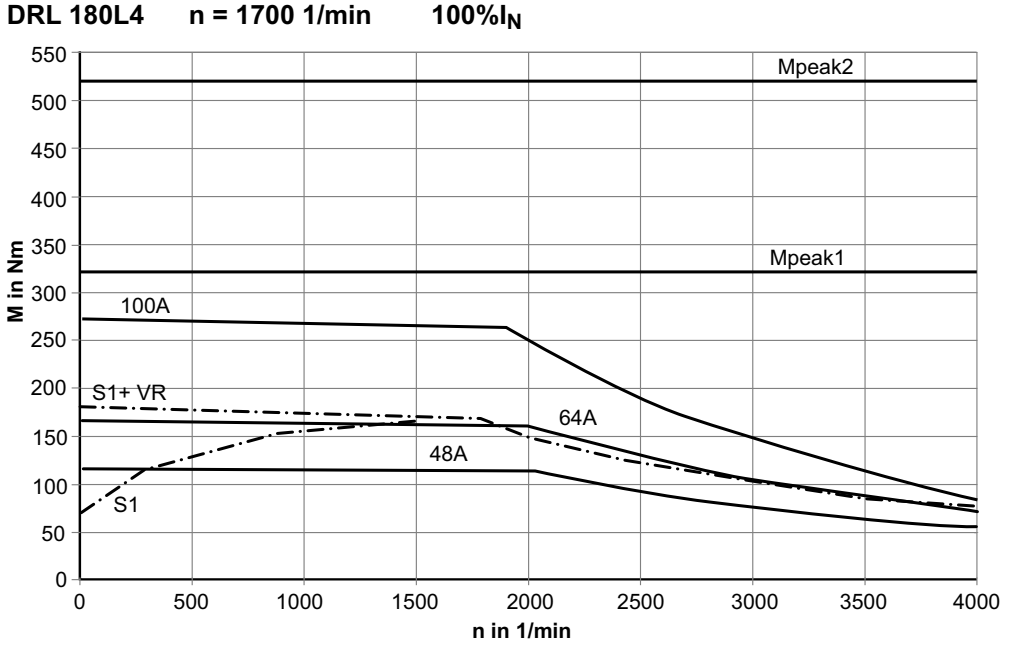
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DRL180L4, n_N = 1200 1/min, 180% I_N



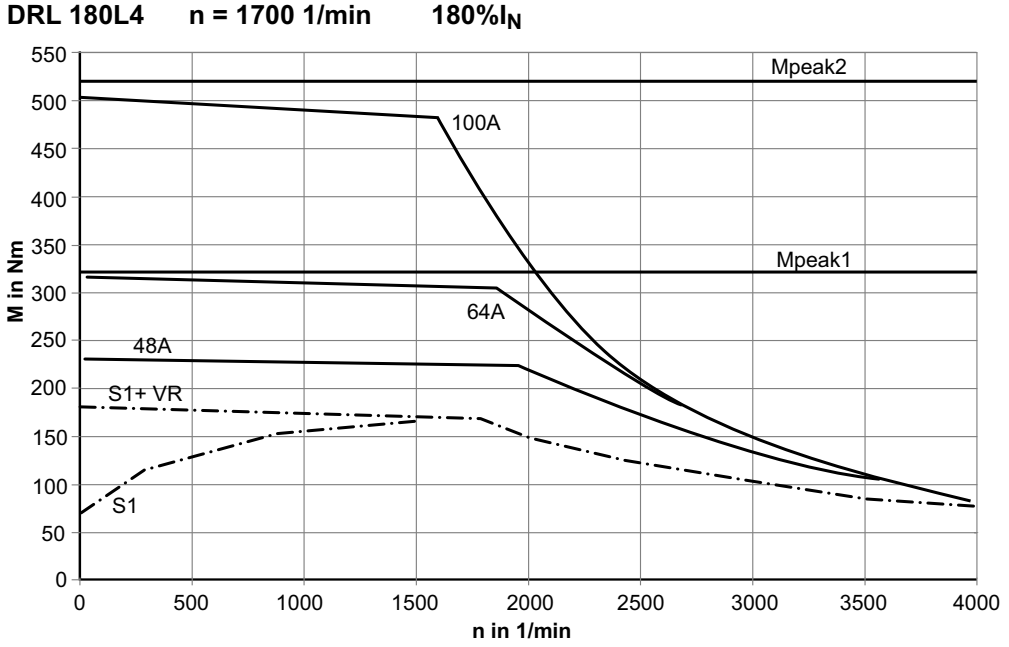
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DRL180L4, n_N = 1700 1/min, 100% I_N



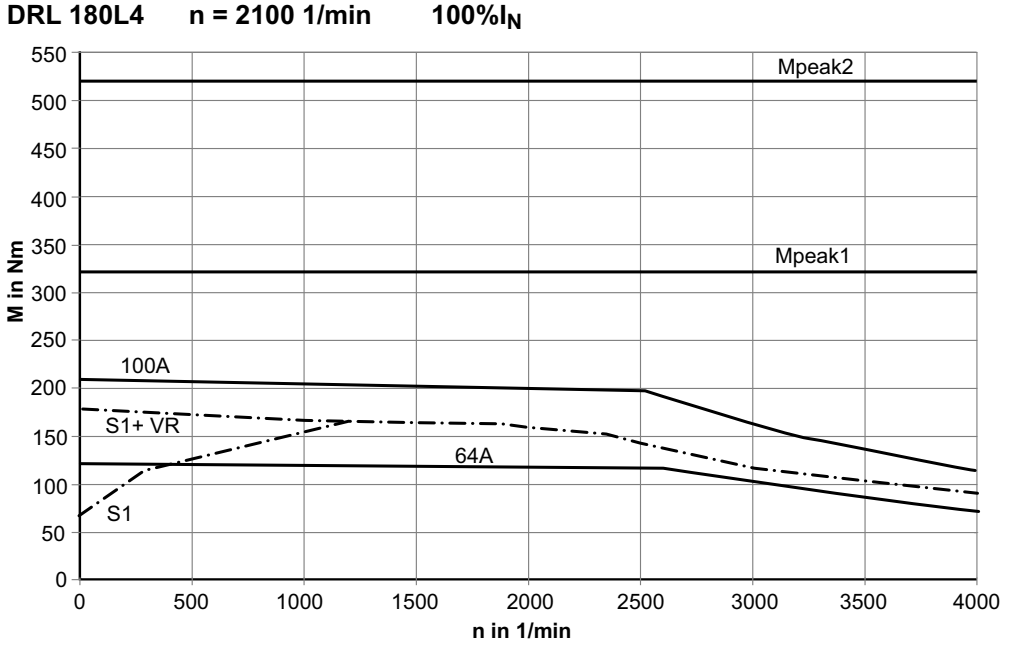
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DRL180L4, n_N = 1700 1/min, 180% I_N



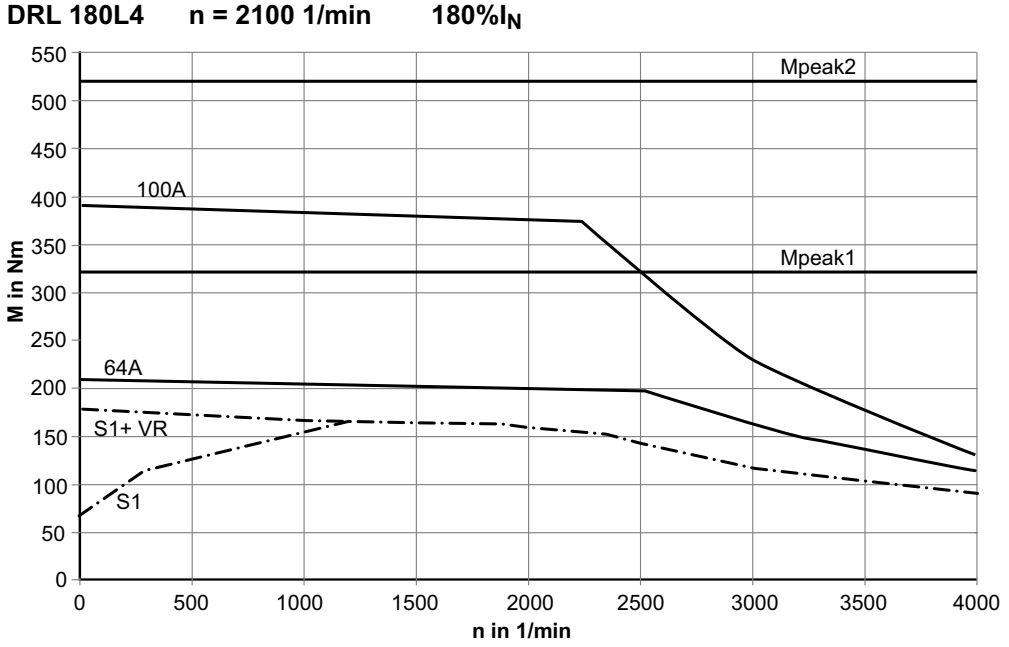
67399axx

DRL180L4, n_N = 2100 1/min, 100% I_N



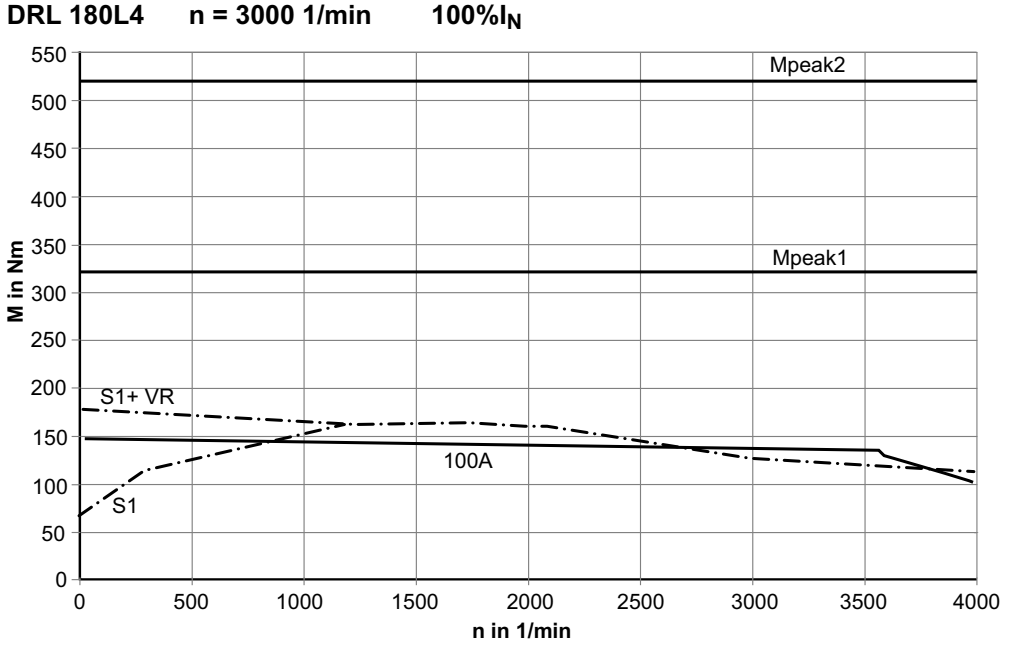
67400axx

DRL180L4, n_N = 2100 1/min, 180% I_N



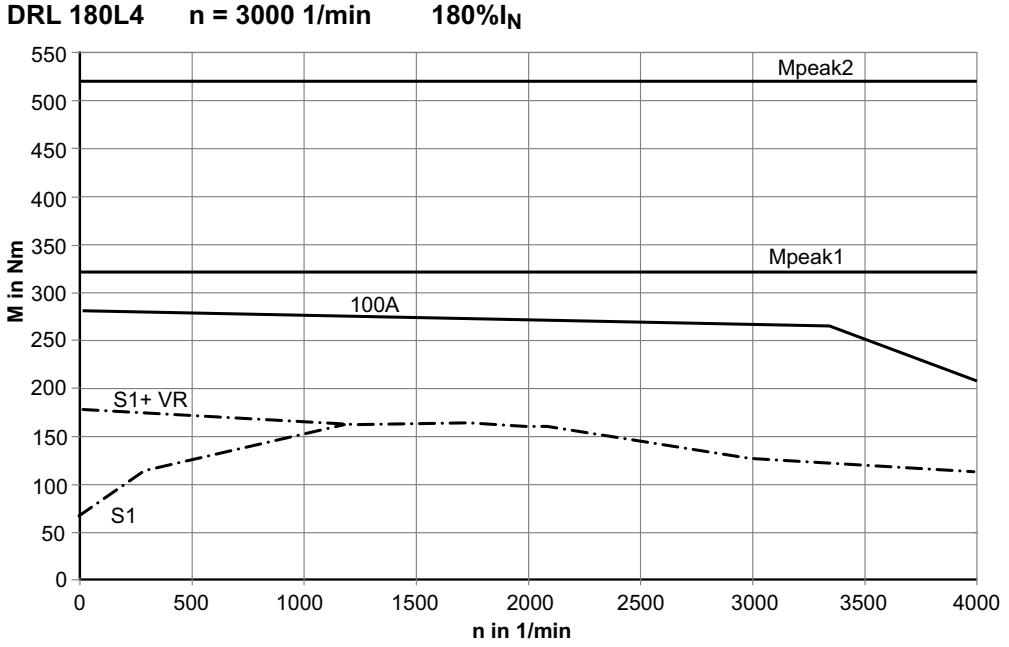
67401axx

DRL180L4, n_N = 3000 1/min, 100% I_N



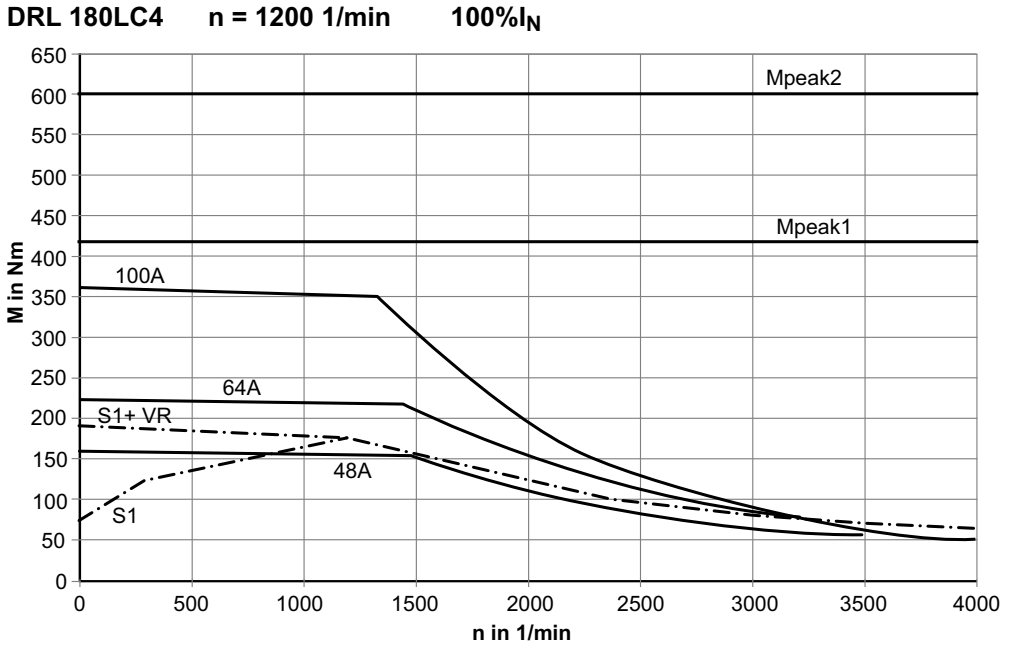
67402axx

DRL180L4, n_N = 3000 1/min, 180% I_N



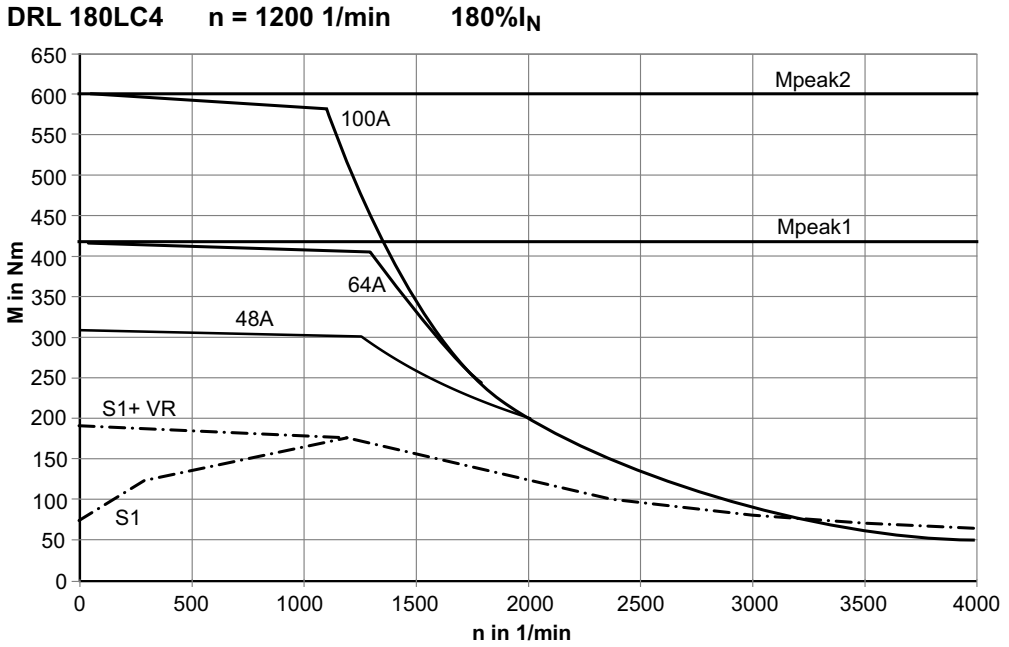
67403axx

DRL180LC4, n_N = 1200 1/min, 100% I_N



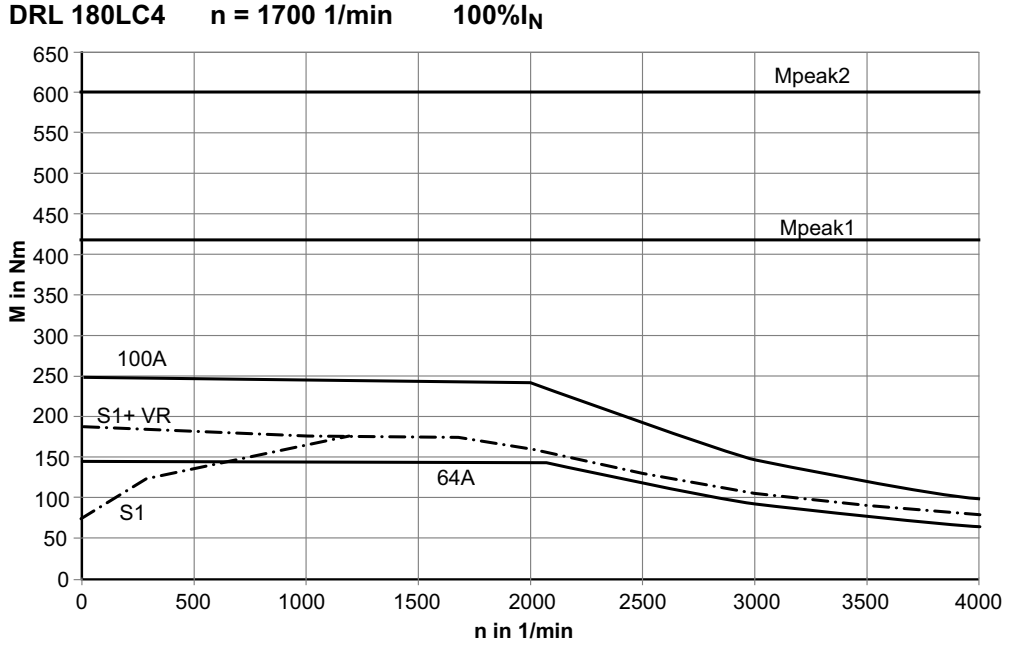
67404axx

DRL180LC4, n_N = 1200 1/min, 180% I_N



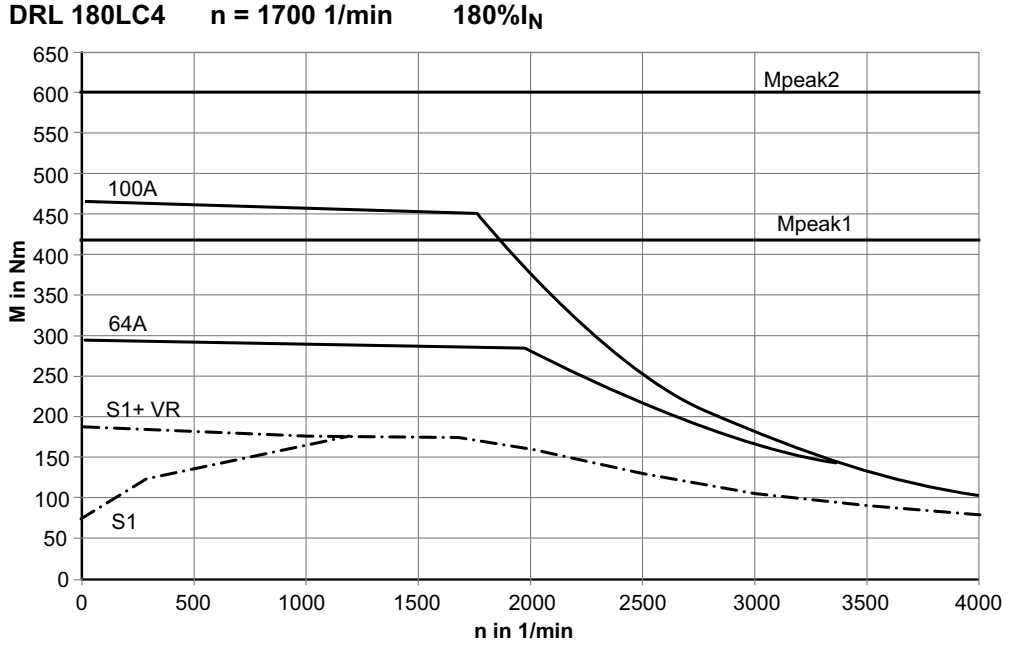
67405axx

DRL180LC4, n_N = 1700 1/min, 100% I_N



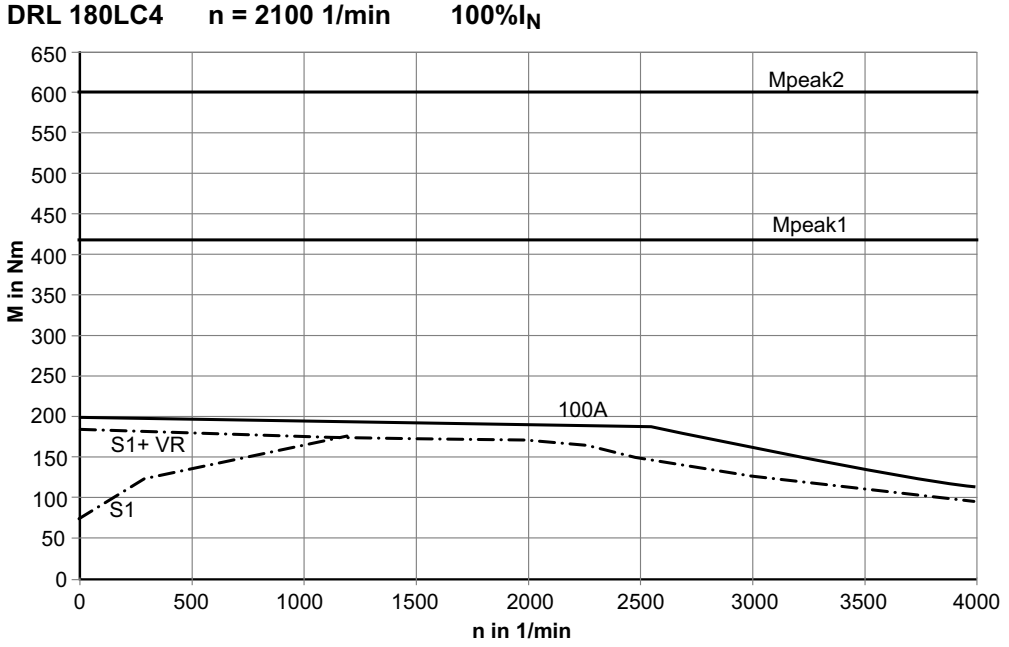
67406axx

DRL180LC4, n_N = 1700 1/min, 180% I_N

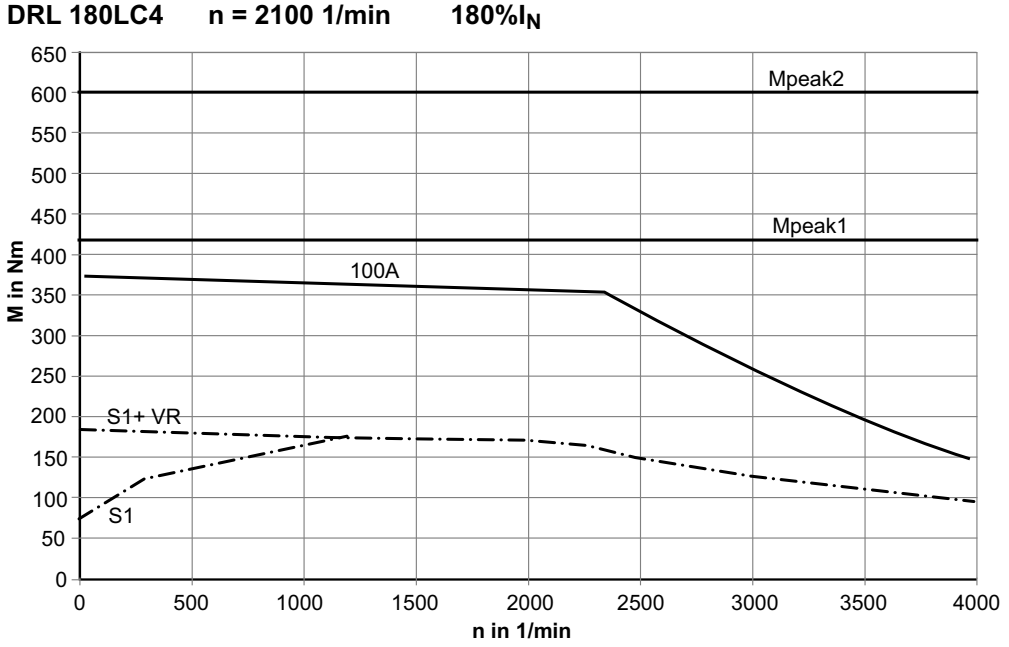


67407axx

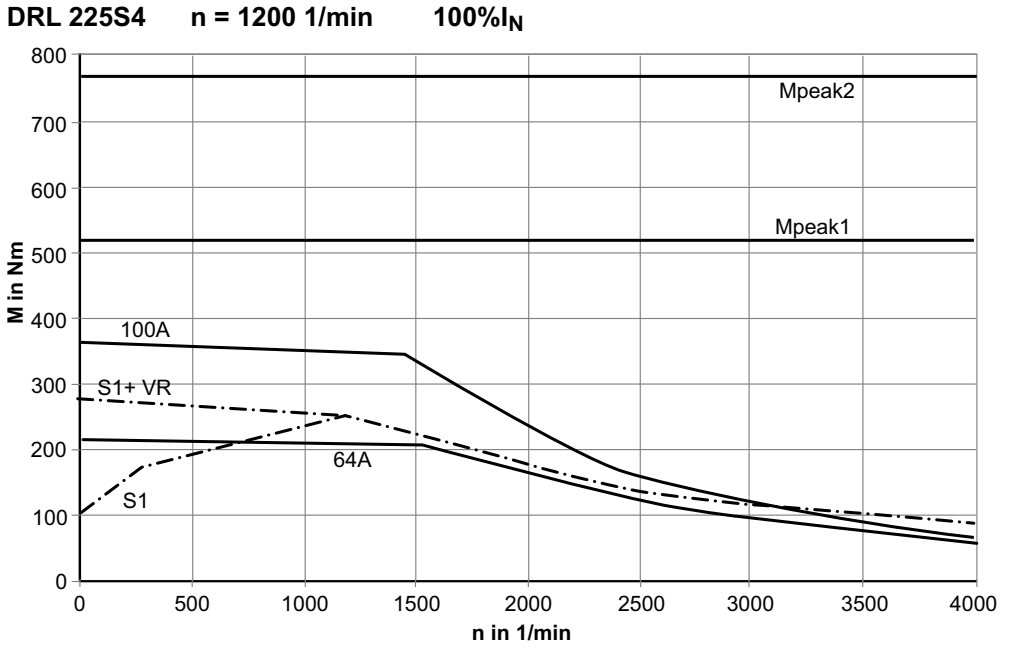
DRL180LC4, n_N = 2100 1/min, 100% I_N



DRL180LC4, n_N = 2100 1/min, 180% I_N

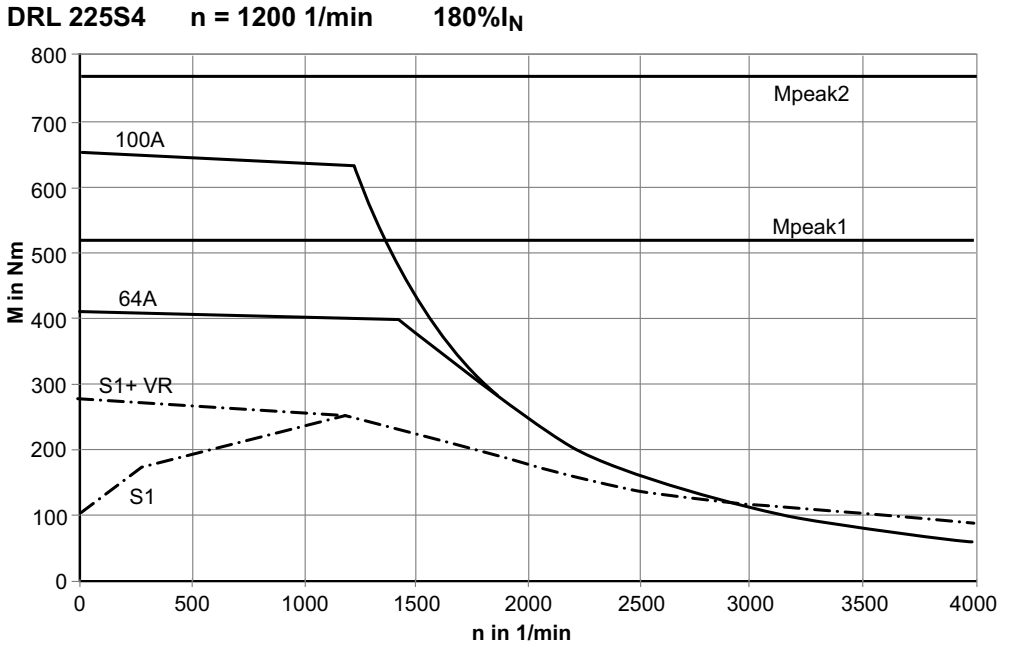


DRL225S4, n_N = 1200 1/min, 100% I_N



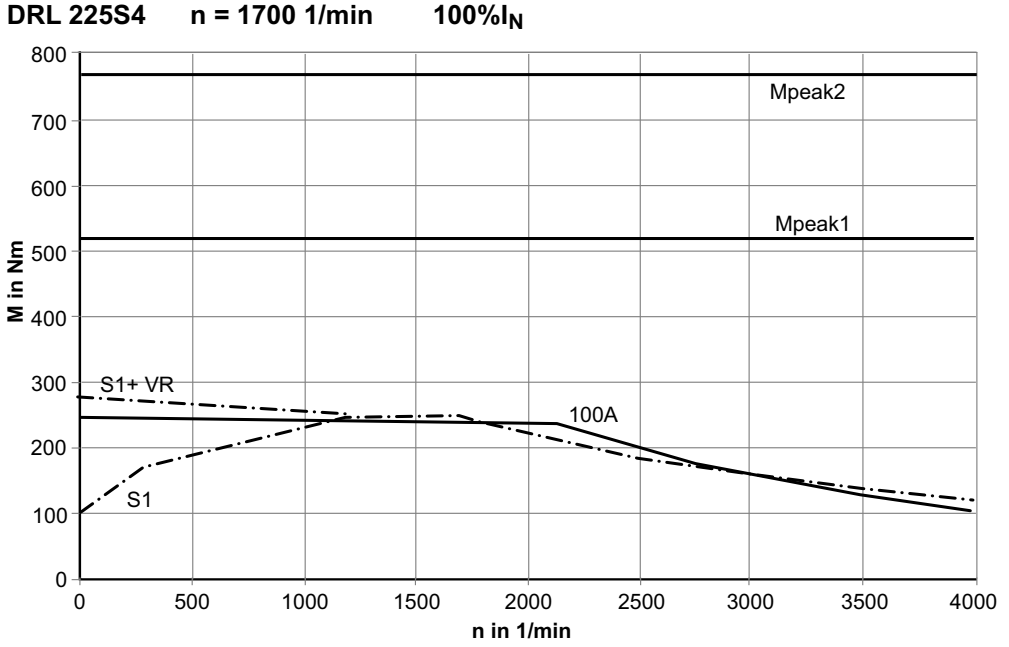
67420axx

DRL225S4, n_N = 1200 1/min, 180% I_N

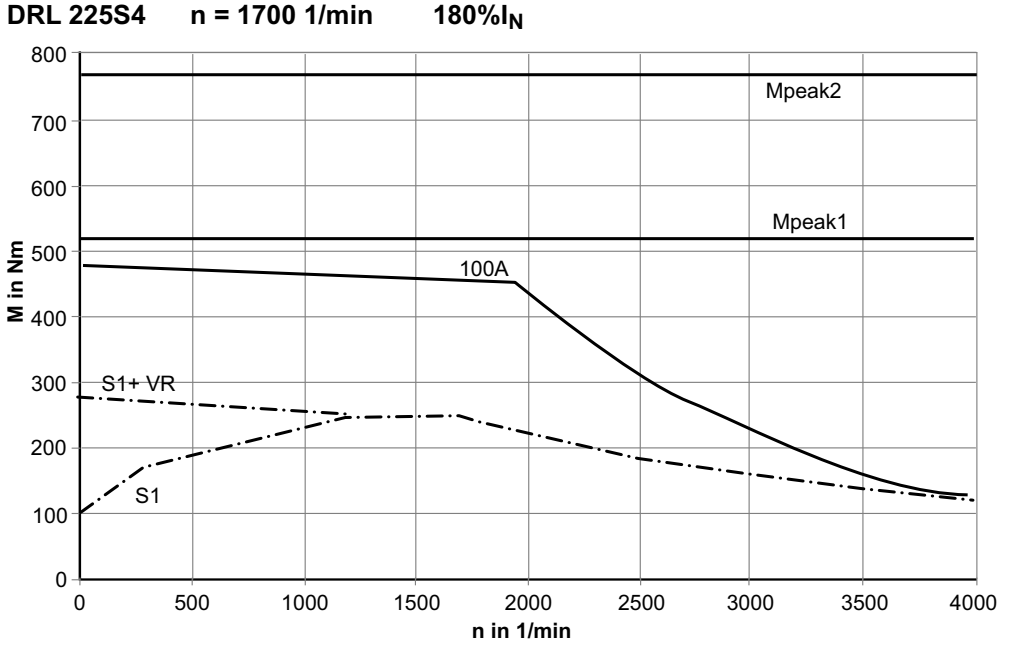


67421axx

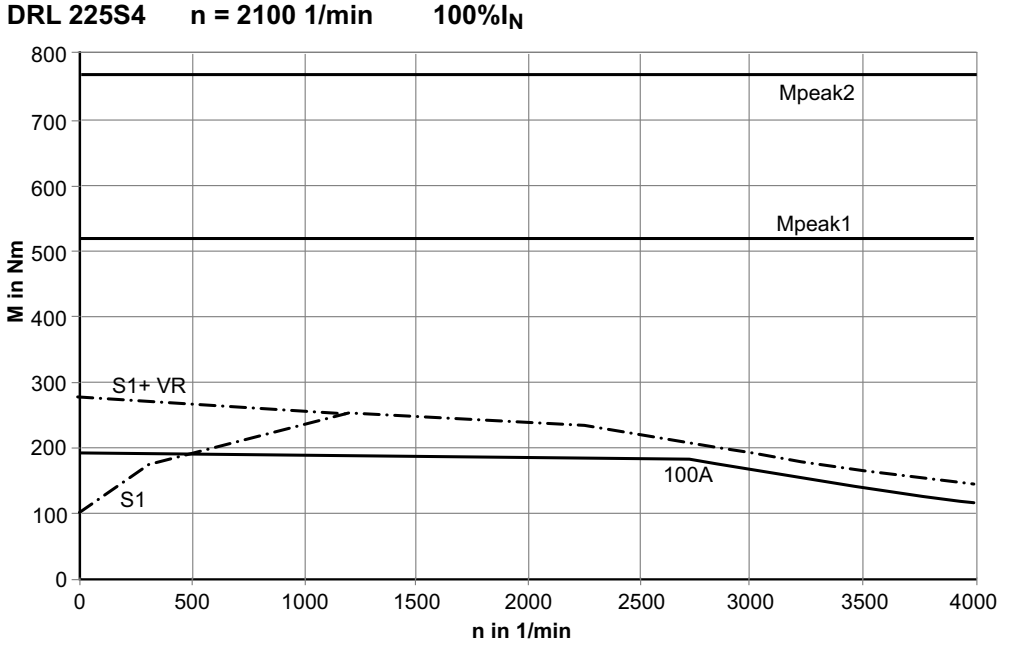
DRL225S4, n_N = 1700 1/min, 100% I_N



DRL225S4, n_N = 1700 1/min, 180% I_N

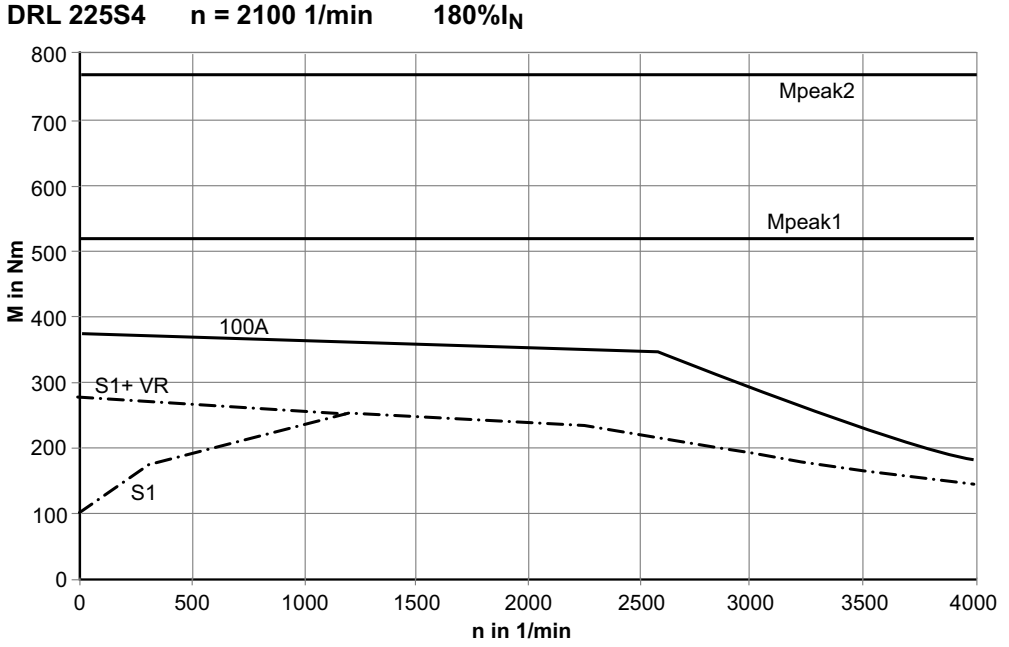


DRL225S4, n_N = 2100 1/min, 100% I_N



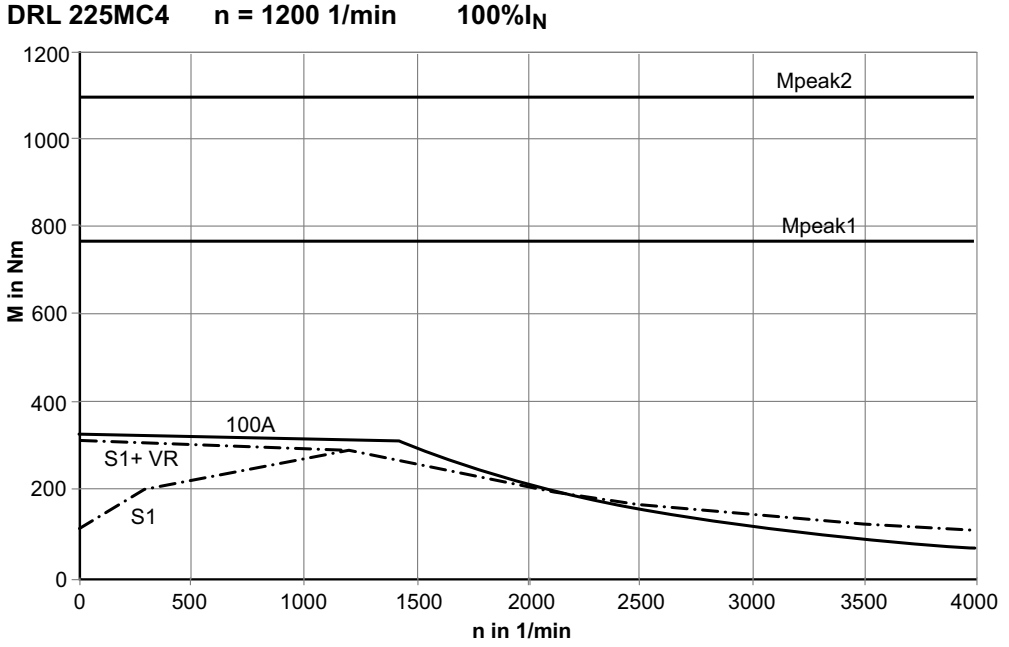
67424axx

DRL225S4, n_N = 2100 1/min, 180% I_N

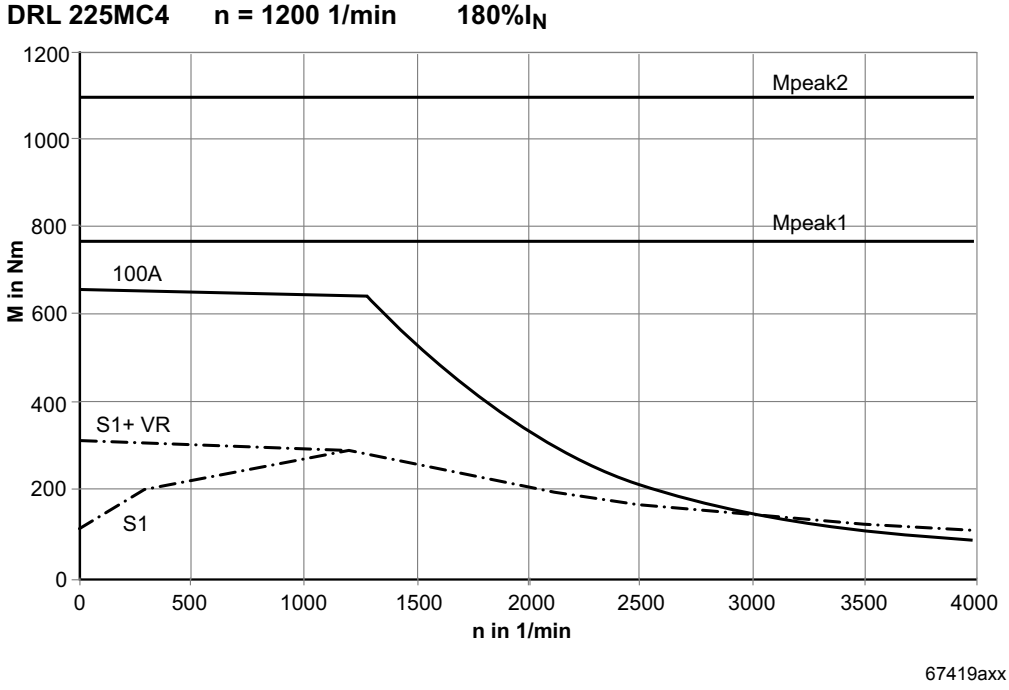


67425axx

DRL225MC4, n_N = 1200 1/min, 100% I_N



DRL225MC4, n_N = 1200 1/min, 180% I_N





5 Combinations, Characteristic Curves: DRL – MOVIAXIS®, 4 kHz

5.1 Combination overview: DRL motors with MOVIAXIS®, PWM = 4 kHz

1. Rated speed n_N = 1200 1/min, dynamics package 1, PWM = 4 kHz

Motor			Assignment to MOVIAXIS® MXA									
	Size		1			2		3		4	5	6
Type	I_N	[A]	2	4	8	12	16	24	32	48	64	100
	I_{max}	[A]	5	10	20	30	40	60	80	120	160	250
	M_{max}	Nm	13.03									
DRL71S4	n_{tra} V_{sply}=400V	1/min	826									
	n_{tra} V_{DCL}=750V	1/min	1219									
	M_{max}	Nm	14.08									
DRL71M4	n_{tra} V_{sply}=400V	1/min	850									
	n_{tra} V_{DCL}=750V	1/min	1248									
	M_{max}	Nm	15.26	34.68								
DRL80M4	n_{tra} V_{sply}=400V	1/min	984	984								
	n_{tra} V_{DCL}=750V	1/min	1453	1488								
	M_{max}	Nm		32.94	70.82							
DRL90L4	n_{tra} V_{sply}=400V	1/min		1037	1037							
	n_{tra} V_{DCL}=750V	1/min		1500	1500							
	M_{max}	Nm		19.31	59.33	93.62						
DRL100L4	n_{tra} V_{sply}=400V	1/min		1119	1049	1049						
	n_{tra} V_{DCL}=750V	1/min		1546	1482	1482						
	M_{max}	Nm			56.51	96.9	134.41					
DRL132S4	n_{tra} V_{sply}=400V	1/min			962	918	918					
	n_{tra} V_{DCL}=750V	1/min			1323	1279	1279					
	M_{max}	Nm					133.78	284.59				
DRL132MC4	n_{tra} V_{sply}=400V	1/min					903	996				
	n_{tra} V_{DCL}=750V	1/min					1333	1377				
	M_{max}	Nm					113.49	270.55				
DRL160M4	n_{tra} V_{sply}=400V	1/min					1006	945				
	n_{tra} V_{DCL}=750V	1/min					1371	1301				
	M_{max}	Nm						271.78				
DRL160MC4	n_{tra} V_{sply}=400V	1/min						1033				
	n_{tra} V_{DCL}=750V	1/min						1411				
	M_{max}	Nm						266.95	368.69	582.87		
DRL180M4	n_{tra} V_{sply}=400V	1/min						927	809	769		
	n_{tra} V_{DCL}=750V	1/min						1437	1446	1446		
	M_{max}	Nm						254.38	362.14	583.53		
DRL180L4	n_{tra} V_{sply}=400V	1/min						1002	1068	1068		
	n_{tra} V_{DCL}=750V	1/min						1362	1463	1468		
	M_{max}	Nm							351.43	572.06	775.01	
DRL180LC4	n_{tra} V_{sply}=400V	1/min							949	989	989	
	n_{tra} V_{DCL}=750V	1/min							1292	1354	1354	
	M_{max}	Nm								531.26	738.64	
DRL225S4	n_{tra} V_{sply}=400V	1/min								1023	1023	
	n_{tra} V_{DCL}=750V	1/min								1387	1387	
	M_{max}	Nm									728.44	1192.02
DRL225MC4	n_{tra} V_{sply}=400V	1/min									902	935
	n_{tra} V_{DCL}=750V	1/min									770	1293



2. Rated speed n_N = 1200 1/min, dynamics package 1, PWM = 4 kHz

Motor			Assignment to MOVIAXIS® MXA									
	Size		1			2		3		4	5	6
Type	I_N	[A]	2	4	8	12	16	24	32	48	64	100
	I_{max}	[A]	5	10	20	30	40	60	80	120	160	250
	M_{max}	Nm	13.03									
DRL71S4	n_{tra} V_{sply}=400V	1/min	445									
	n_{tra} V_{DCL}=750V	1/min	773									
	M_{max}	Nm	14.08									
DRL71M4	n_{tra} V_{sply}=400V	1/min	352									
	n_{tra} V_{DCL}=750V	1/min	656									
	M_{max}	Nm	15.26	34.68								
DRL80M4	n_{tra} V_{sply}=400V	1/min	815	469								
	n_{tra} V_{DCL}=750V	1/min	1207	820								
	M_{max}	Nm		32.94	70.82							
DRL90L4	n_{tra} V_{sply}=400V	1/min		791	650							
	n_{tra} V_{DCL}=750V	1/min		1154	990							
	M_{max}	Nm		19.31	59.33	93.62	126.91					
DRL100L4	n_{tra} V_{sply}=400V	1/min		1119	750	533	533					
	n_{tra} V_{DCL}=750V	1/min		1547	1107	844	844					
	M_{max}	Nm			56.51	96.9	134.41	278.49				
DRL132S4	n_{tra} V_{sply}=400V	1/min			962	776	610	566				
	n_{tra} V_{DCL}=750V	1/min			1323	1099	894	835				
	M_{max}	Nm					133.78	284.59				
DRL132MC4	n_{tra} V_{sply}=400V	1/min					903	757				
	n_{tra} V_{DCL}=750V	1/min					1240	1060				
	M_{max}	Nm					113.49	270.55	362.37	560.77		
DRL160M4	n_{tra} V_{sply}=400V	1/min					1006	664	664	664		
	n_{tra} V_{DCL}=750V	1/min					1371	945	940	940		
	M_{max}	Nm						271.78	364.83	565.48		
DRL160MC4	n_{tra} V_{sply}=400V	1/min						800	734	734		
	n_{tra} V_{DCL}=750V	1/min						1103	1024	1024		
	M_{max}	Nm						266.95	368.69	582.87	783.06	
DRL180M4	n_{tra} V_{sply}=400V	1/min						927	809	769	769	
	n_{tra} V_{DCL}=750V	1/min						1270	1125	1077	1077	
	M_{max}	Nm						254.38	362.14	583.53	788.30	
DRL180L4	n_{tra} V_{sply}=400V	1/min						1002	1000	795	795	
	n_{tra} V_{DCL}=750V	1/min						1362	1248	1112	1112	
	M_{max}	Nm							351.43	572.06	775.01	
DRL180LC4	n_{tra} V_{sply}=400V	1/min							949	795	791	
	n_{tra} V_{DCL}=750V	1/min							1292	1099	1094	
	M_{max}	Nm								531.26	738.64	1194.28
DRL225S4	n_{tra} V_{sply}=400V	1/min								957	832	832
	n_{tra} V_{DCL}=750V	1/min								1297	1137	1137
	M_{max}	Nm									728.44	1192.02
DRL225MC4	n_{tra} V_{sply}=400V	1/min									902	770
	n_{tra} V_{DCL}=750V	1/min									1215	1147



3. Rated speed n_N = 1700 1/min, dynamics package 1, PWM = 4 kHz

Motor			Assignment to MOVIAXIS® MXA									
	Size		1			2		3		4	5	6
Type	I_N	[A]	2	4	8	12	16	24	32	48	64	100
	I_{max}	[A]	5	10	20	30	40	60	80	120	160	250
	M_{max}	Nm	9.24									
DRL71S4	n_{tra} V_{sply}=400V	1/min	1313									
	n_{tra} V_{DCL}=750V	1/min	1887									
	M_{max}	Nm	9.78	20.74								
DRL71M4	n_{tra} V_{sply}=400V	1/min	1348	1324								
	n_{tra} V_{DCL}=750V	1/min	1922	1922								
	M_{max}	Nm		24.56								
DRL80M4	n_{tra} V_{sply}=400V	1/min		1570								
	n_{tra} V_{DCL}=750V	1/min		2285								
	M_{max}	Nm			50.86							
DRL90L4	n_{tra} V_{sply}=400V	1/min			1559							
	n_{tra} V_{DCL}=750V	1/min			2232							
	M_{max}	Nm			45.99	74.86						
DRL100L4	n_{tra} V_{sply}=400V	1/min			1547	1547						
	n_{tra} V_{DCL}=750V	1/min			2156	2139						
	M_{max}	Nm				60.23	88.44	191,25				
DRL132S4	n_{tra} V_{sply}=400V	1/min				1392	1377	1377				
	n_{tra} V_{DCL}=750V	1/min				1895	1885	1885				
	M_{max}	Nm						196,61				
DRL132MC4	n_{tra} V_{sply}=400V	1/min						1484				
	n_{tra} V_{DCL}=750V	1/min						2022				
	M_{max}	Nm						184,87	253,17			
DRL160M4	n_{tra} V_{sply}=400V	1/min						1358	1358			
	n_{tra} V_{DCL}=750V	1/min						1850	1850			
	M_{max}	Nm						203,68	278,06			
DRL160MC4	n_{tra} V_{sply}=400V	1/min						1352	1389			
	n_{tra} V_{DCL}=750V	1/min						1850	1870			
	M_{max}	Nm						169,29	250,08	411,47		
DRL180M4	n_{tra} V_{sply}=400V	1/min						1450	1490	1516		
	n_{tra} V_{DCL}=750V	1/min						1956	2017	2057		
	M_{max}	Nm							240,49	412,66	566,72	
DRL180L4	n_{tra} V_{sply}=400V	1/min							1415	1521	1521	
	n_{tra} V_{DCL}=750V	1/min							1907	2065	2065	
	M_{max}	Nm								390,65	540,91	872,17
DRL180LC4	n_{tra} V_{sply}=400V	1/min								1340	1433	1433
	n_{tra} V_{DCL}=750V	1/min								1806	1942	1942
	M_{max}	Nm								349,38	511,05	852,26
DRL225S4	n_{tra} V_{sply}=400V	1/min								1488	1441	1441
	n_{tra} V_{DCL}=750V	1/min								1992	1941	1984
	M_{max}	Nm										768,44
DRL225MC4	n_{tra} V_{sply}=400V	1/min										1414
	n_{tra} V_{DCL}=750V	1/min										1914



4. Rated speed n_N = 1700 1/min, dynamics package 1, PWM = 4 kHz

Motor			Assignment to MOVIAXIS® MXA									
	Size		1			2		3		4	5	6
Type	I_N	[A]	2	4	8	12	16	24	32	48	64	100
	I_{max}	[A]	5	10	20	30	40	60	80	120	160	250
	M_{max}	Nm	9.26									
DRL71S4	n_{tra} V_{sply}=400V	1/min	826									
	n_{tra} V_{DCL}=750V	1/min	1272									
	M_{max}	Nm	9.78	20.74								
DRL71M4	n_{tra} V_{sply}=400V	1/min	1020	715								
	n_{tra} V_{DCL}=750V	1/min	1500	1131								
	M_{max}	Nm		24.56	51.81							
DRL80M4	n_{tra} V_{sply}=400V	1/min		1014	879							
	n_{tra} V_{DCL}=750V	1/min		1518	1365							
	M_{max}	Nm			50.86	78.11						
DRL90L4	n_{tra} V_{sply}=400V	1/min			1031.3	1031.3						
	n_{tra} V_{DCL}=750V	1/min			1518	1518						
	M_{max}	Nm			45.99	74.86	102.41					
DRL100L4	n_{tra} V_{sply}=400V	1/min			1395	1072	891					
	n_{tra} V_{DCL}=750V	1/min			1940	1541	1318					
	M_{max}	Nm				60.23	88.44	191,25	253,54			
DRL132S4	n_{tra} V_{sply}=400V	1/min				1226	918	913	913			
	n_{tra} V_{DCL}=750V	1/min				1690	1304	1294	1294			
	M_{max}	Nm						196,61	262,41	405,01		
DRL132MC4	n_{tra} V_{sply}=400V	1/min						1148	1148	1148		
	n_{tra} V_{DCL}=750V	1/min						1577	1577	1577		
	M_{max}	Nm						184,87	253,17	397,97		
DRL160M4	n_{tra} V_{sply}=400V	1/min						1222	1051	989		
	n_{tra} V_{DCL}=750V	1/min						1670	1403	1371		
	M_{max}	Nm						203,68	278,06	436,16	584,59	
DRL160MC4	n_{tra} V_{sply}=400V	1/min						1850	1870	1870	1870	
	n_{tra} V_{DCL}=750V	1/min						1630	1433	1362	1362	
	M_{max}	Nm						169,29	250,08	411047	559,08	889,75
DRL180M4	n_{tra} V_{sply}=400V	1/min						1450	1345	1129	1129	1129
	n_{tra} V_{DCL}=750V	1/min						1956	1824	1551	1551	1551
	M_{max}	Nm							240,49	412,66	566,72	908,71
DRL180L4	n_{tra} V_{sply}=400V	1/min							1415	1244	1147	1147
	n_{tra} V_{DCL}=750V	1/min							1907	1696	1578	1578
	M_{max}	Nm								390,65	540,91	872,17
DRL180LC4	n_{tra} V_{sply}=400V	1/min								1340	1195	1160
	n_{tra} V_{DCL}=750V	1/min								1806	1626	1582
	M_{max}	Nm								349,38	5110,5	852,26
DRL225S4	n_{tra} V_{sply}=400V	1/min								1488	1363	1184
	n_{tra} V_{DCL}=750V	1/min								1992	18,32	1602
	M_{max}	Nm										768,44
DRL225MC4	n_{tra} V_{sply}=400V	1/min										1363
	n_{tra} V_{DCL}=750V	1/min										1832



5. Rated speed n_N = 2100 1/min, dynamics package 1, PWM = 4 kHz

Motor			Assignment to MOVIAXIS® MXA									
	Size		1			2		3		4	5	6
Type	I_N	[A]	2	4	8	12	16	24	32	48	64	100
	I_{max}	[A]	5	10	20	30	40	60	80	120	160	250
	M_{max}	Nm	7.47									
DRL71S4	n_{tra} V_{sply}=400V	1/min	1770									
	n_{tra} V_{DCL}=750V	1/min	2484									
	M_{max}	Nm	8.1	16.76								
DRL71M4	n_{tra} V_{sply}=400V	1/min	1775	1787								
	n_{tra} V_{DCL}=750V	1/min	2490	2502								
	M_{max}	Nm		20.28								
DRL80M4	n_{tra} V_{sply}=400V	1/min		2127								
	n_{tra} V_{DCL}=750V	1/min		3006								
	M_{max}	Nm			41.39							
DRL90L4	n_{tra} V_{sply}=400V	1/min			2121							
	n_{tra} V_{DCL}=750V	1/min			2953							
	M_{max}	Nm			36.08	55.03	73.8					
DRL100L4	n_{tra} V_{sply}=400V	1/min			2004	2033	2033					
	n_{tra} V_{DCL}=750V	1/min			2725	2830	2789					
	M_{max}	Nm					80.01	161.9				
DRL132S4	n_{tra} V_{sply}=400V	1/min					1690	1729				
	n_{tra} V_{DCL}=750V	1/min					2295	2354				
	M_{max}	Nm						164.73	217.79			
DRL132MC4	n_{tra} V_{sply}=400V	1/min						1851	1851			
	n_{tra} V_{DCL}=750V	1/min						2505	2549			
	M_{max}	Nm						159.97	211.34	323.68		
DRL160M4	n_{tra} V_{sply}=400V	1/min						1740	1745	1745		
	n_{tra} V_{DCL}=750V	1/min						2347	2360	2360		
	M_{max}	Nm							211.8	327.18		
DRL160MC4	n_{tra} V_{sply}=400V	1/min							1881	1925		
	n_{tra} V_{DCL}=750V	1/min							2536	2597		
	M_{max}	Nm							222.36	342.81	457.01	
DRL180M4	n_{tra} V_{sply}=400V	1/min							1815	1969	1934	
	n_{tra} V_{DCL}=750V	1/min							2439	2659	2610	
	M_{max}	Nm								344.32	460.57	
DRL180L4	n_{tra} V_{sply}=400V	1/min								1859	1969	
	n_{tra} V_{DCL}=750V	1/min								2505	2663	
	M_{max}	Nm									451.27	713.2
DRL180LC4	n_{tra} V_{sply}=400V	1/min									1749	1806
	n_{tra} V_{DCL}=750V	1/min									2356	2439
	M_{max}	Nm									443.56	703.05
DRL225S4	n_{tra} V_{sply}=400V	1/min									1863	1879
	n_{tra} V_{DCL}=750V	1/min									2492	2141
	M_{max}	Nm										688.06
DRL225MC4	n_{tra} V_{sply}=400V	1/min										1660
	n_{tra} V_{DCL}=750V	1/min										2223



6. Rated speed n_N = 2100 1/min, dynamics package 1, PWM = 4 kHz

Motor			Assignment to MOVIAXIS® MXA									
	Size		1			2		3		4	5	6
Type	I_N	[A]	2	4	8	12	16	24	32	48	64	100
	I_{max}	[A]	5	10	20	30	40	60	80	120	160	250
	M_{max}	Nm	7.47	15.24								
DRL71S4	n_{tra} V_{sply}=400V	1/min	1330	1178								
	n_{tra} V_{DCL}=750V	1/min	1922	1740								
	M_{max}	Nm	8.1	16.76								
DRL71M4	n_{tra} V_{sply}=400V	1/min	1600	1031								
	n_{tra} V_{DCL}=750V	1/min	2238	1547								
	M_{max}	Nm		20.28	41.25							
DRL80M4	n_{tra} V_{sply}=400V	1/min		1594	1260							
	n_{tra} V_{DCL}=750V	1/min		2256	1863							
	M_{max}	Nm			41.39	62.95	84.33					
DRL90L4	n_{tra} V_{sply}=400V	1/min			1506	1428	1418					
	n_{tra} V_{DCL}=750V	1/min			2953	2953	2953					
	M_{max}	Nm			36.08	55.03	73.8	148.42				
DRL100L4	n_{tra} V_{sply}=400V	1/min			2004	1693	1400	1242				
	n_{tra} V_{DCL}=750V	1/min			2725	2344	1981	1781				
	M_{max}	Nm					80.01	161.9	212.84	324.74		
DRL132S4	n_{tra} V_{sply}=400V	1/min					1690	1563	1318	1177		
	n_{tra} V_{DCL}=750V	1/min					2295	2134	1826	1646		
	M_{max}	Nm						164.73	217.79	333.75		
DRL132MC4	n_{tra} V_{sply}=400V	1/min						1577	1440	1440		
	n_{tra} V_{DCL}=750V	1/min						2139	1982	1982		
	M_{max}	Nm						159.97	211.34	323.68	430.59	
DRL160M4	n_{tra} V_{sply}=400V	1/min						1740	1525	1288	1288	
	n_{tra} V_{DCL}=750V	1/min						2347	2074	1771	1771	
	M_{max}	Nm							211.8	327.18	436.46	685.24
DRL160MC4	n_{tra} V_{sply}=400V	1/min							1666	1389	1389	1389
	n_{tra} V_{DCL}=750V	1/min							2246	1890	1890	1890
	M_{max}	Nm							222.36	342.81	457.01	717.15
DRL180M4	n_{tra} V_{sply}=400V	1/min							1815	1613	1455	1455
	n_{tra} V_{DCL}=750V	1/min							2439	2180	1982	1982
	M_{max}	Nm								344.32	460.57	724.59
DRL180L4	n_{tra} V_{sply}=400V	1/min								1749	1582	1503
	n_{tra} V_{DCL}=750V	1/min								2356	2145	2044
	M_{max}	Nm									451.27	713.2
DRL180LC4	n_{tra} V_{sply}=400V	1/min									1644	1468
	n_{tra} V_{DCL}=750V	1/min									2210	1991
	M_{max}	Nm									443.56	703.05
DRL225S4	n_{tra} V_{sply}=400V	1/min									1863	1590
	n_{tra} V_{DCL}=750V	1/min									2492	2141
	M_{max}	Nm										688.06
DRL225MC4	n_{tra} V_{sply}=400V	1/min										1660
	n_{tra} V_{DCL}=750V	1/min										2223

7. Rated speed n_N = 3000 1/min, dynamics package 1, PWM = 4 kHz

Motor			Assignment to MOVIAXIS® MXA									
	Size		1			2		3		4	5	6
Type	I_N	[A]	2	4	8	12	16	24	32	48	64	100
	I_{max}	[A]	5	10	20	30	40	60	80	120	160	250
	M_{max}	Nm	5.29	11								
DRL71S4	n_{tra} V_{sply}=400V	1/min	2543	2602								
	n_{tra} V_{DCL}=750V	1/min	3498	3586								
	M_{max}	Nm		11.98								
DRL71M4	n_{tra} V_{sply}=400V	1/min		2361								
	n_{tra} V_{DCL}=750V	1/min		3621								
	M_{max}	Nm		14.4	29.78							
DRL80M4	n_{tra} V_{sply}=400V	1/min		2666	3158							
	n_{tra} V_{DCL}=750V	1/min		3639	4371							
	M_{max}	Nm			29.14	44.87						
DRL90L4	n_{tra} V_{sply}=400V	1/min			2795	3059						
	n_{tra} V_{DCL}=750V	1/min			3802	3059						
	M_{max}	Nm				39.73	53.55	106.53				
DRL100L4	n_{tra} V_{sply}=400V	1/min				2754	2941	2941				
	n_{tra} V_{DCL}=750V	1/min				3727	4002	4002				
	M_{max}	Nm				25.52	45.94	110.07	147.5			
DRL132S4	n_{tra} V_{sply}=400V	1/min				1392	1377	2573	2515			
	n_{tra} V_{DCL}=750V	1/min				1895	1885	3462	3447			
	M_{max}	Nm						111.42	150.53	234.41		
DRL132MC4	n_{tra} V_{sply}=400V	1/min						2778	2676	2573		
	n_{tra} V_{DCL}=750V	1/min						3706	3574	3457		
	M_{max}	Nm							132.11	220.85	301.33	
DRL160M4	n_{tra} V_{sply}=400V	1/min							2804	2571	2470	
	n_{tra} V_{DCL}=750V	1/min							3744	3441	3318	
	M_{max}	Nm								243.79	331.81	
DRL160MC4	n_{tra} V_{sply}=400V	1/min								2395	2386	
	n_{tra} V_{DCL}=750V	1/min								3204	3199	
	M_{max}	Nm								227.21	315.41	509.44
DRL180M4	n_{tra} V_{sply}=400V	1/min								2711	2615	2751
	n_{tra} V_{DCL}=750V	1/min								3617	3494	3691
	M_{max}	Nm									313.38	514.7
DRL180L4	n_{tra} V_{sply}=400V	1/min									2676	2487
	n_{tra} V_{DCL}=750V	1/min									3568	3331
	M_{max}	Nm										492.35
DRL180LC4	n_{tra} V_{sply}=400V	1/min										2580
	n_{tra} V_{DCL}=750V	1/min										3441
	M_{max}	Nm										473.32
DRL225S4	n_{tra} V_{sply}=400V	1/min										2777
	n_{tra} V_{DCL}=750V	1/min										3699



8. Rated speed n_N = 3000 1/min, dynamics package 1, PWM = 4 kHz

Motor			Assignment to MOVIAXIS® MXA									
	Size		1			2		3		4	5	6
Type	I_N	[A]	2	4	8	12	16	24	32	48	64	100
	I_{max}	[A]	5	10	20	30	40	60	80	120	160	250
	M_{max}	Nm	5.29	11								
DRL71S4	n_{tra} V_{sply}=400V	1/min	2426	1828								
	n_{tra} V_{DCL}=750V	1/min	3340	2596								
	M_{max}	Nm		11.98	24.36							
DRL71M4	n_{tra} V_{sply}=400V	1/min		1875	1641							
	n_{tra} V_{DCL}=750V	1/min		2643	2350							
	M_{max}	Nm		14.4	29.78	44.94						
DRL80M4	n_{tra} V_{sply}=400V	1/min		2590	1963	1975						
	n_{tra} V_{DCL}=750V	1/min		3533	2789	2783						
	M_{max}	Nm			29.14	44.87	60.36	121.27				
DRL90L4	n_{tra} V_{sply}=400V	1/min			2432	2104	2121	2121				
	n_{tra} V_{DCL}=750V	1/min			3311	2918	2953	2953				
	M_{max}	Nm				39.73	53.55	106.53	140.96			
DRL100L4	n_{tra} V_{sply}=400V	1/min				2754	2467	2244	1857			
	n_{tra} V_{DCL}=750V	1/min				3727	3369	3088	2596			
	M_{max}	Nm				25.52	45.94	110.07	147.5	228.34		
DRL132S4	n_{tra} V_{sply}=400V	1/min				1226	918	2573	3447	1875		
	n_{tra} V_{DCL}=750V	1/min				1690	1304	3462	2334	2564		
	M_{max}	Nm						111.42	150.53	234.41	313.49	
DRL132MC4	n_{tra} V_{sply}=400V	1/min						2778	2676	2437	2188	
	n_{tra} V_{DCL}=750V	1/min						3706	3574	3272	2954	
	M_{max}	Nm							132.11	220.85	301.33	480.99
DRL160M4	n_{tra} V_{sply}=400V	1/min							2804	2571	2320	1859
	n_{tra} V_{DCL}=750V	1/min							3744	3441	3125	2523
	M_{max}	Nm								243.79	331.81	528.71
DRL160MC4	n_{tra} V_{sply}=400V	1/min								2395	2219	1833
	n_{tra} V_{DCL}=750V	1/min								3204	2980	2474
	M_{max}	Nm								227.21	315.41	509.44
DRL180M4	n_{tra} V_{sply}=400V	1/min								2711	2615	2360
	n_{tra} V_{DCL}=750V	1/min								3617	3494	3169
	M_{max}	Nm									313.38	514.7
DRL180L4	n_{tra} V_{sply}=400V	1/min									2676	2487
	n_{tra} V_{DCL}=750V	1/min									3568	3331
	M_{max}	Nm										492.35
DRL180LC4	n_{tra} V_{sply}=400V	1/min										2580
	n_{tra} V_{DCL}=750V	1/min										3441
	M_{max}	Nm										473.32
DRL225S4	n_{tra} V_{sply}=400V	1/min										2777
	n_{tra} V_{DCL}=750V	1/min										3699



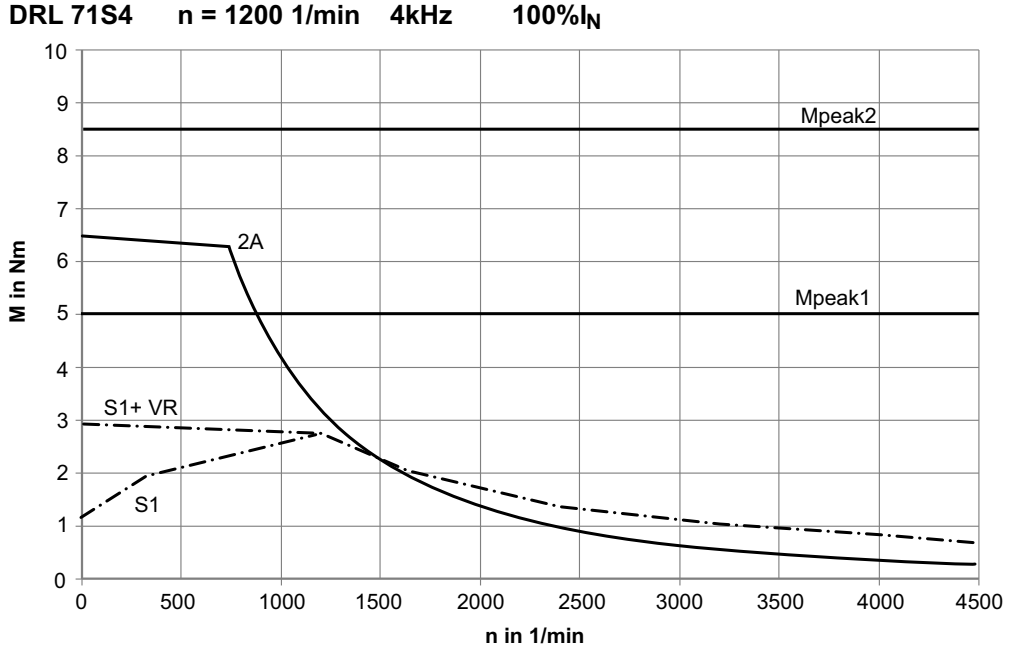
5.2 Limit characteristic curves: DRL – MOVIAXIS®, V_{DCL} = 565 V, PWM = 4 kHz

Key to the dynamic and thermal limit characteristic curves

S1	S1 characteristic curve (thermal limit characteristic curve)
S1+VR	S1 characteristic curve with forced cooling fan (thermal limit characteristic curve)
M_{peak1}	Maximum limit torque of dynamics package 1
M_{peak2}	Maximum limit torque of dynamics package 2
2 A	2 A nominal output current of the axis module
4 A	4 A nominal output current of the axis module
8 A	8 A nominal output current of the axis module
12 A	12 A nominal output current of the axis module
16 A	16 A nominal output current of the axis module
24 A	24 A nominal output current of the axis module
32 A	32 A nominal output current of the axis module
48 A	48 A nominal output current of the axis module
64 A	64 A nominal output current of the axis module
100 A	100 A nominal output current of the axis module

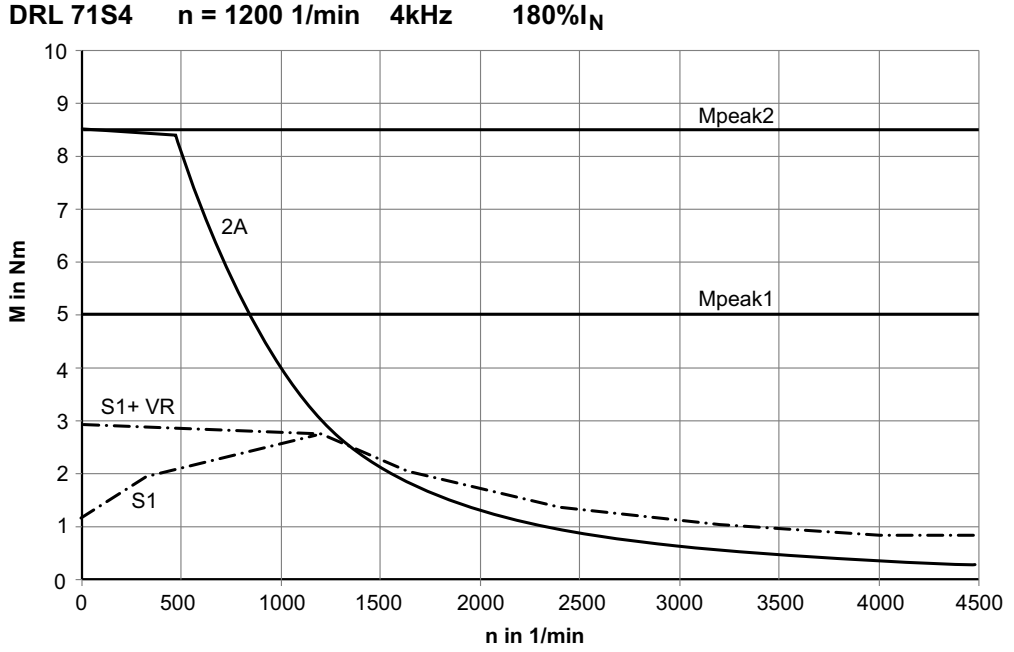
V_{DCL} = DC link voltage

DRL71S4, n_N = 1200 1/min, 100% I_N



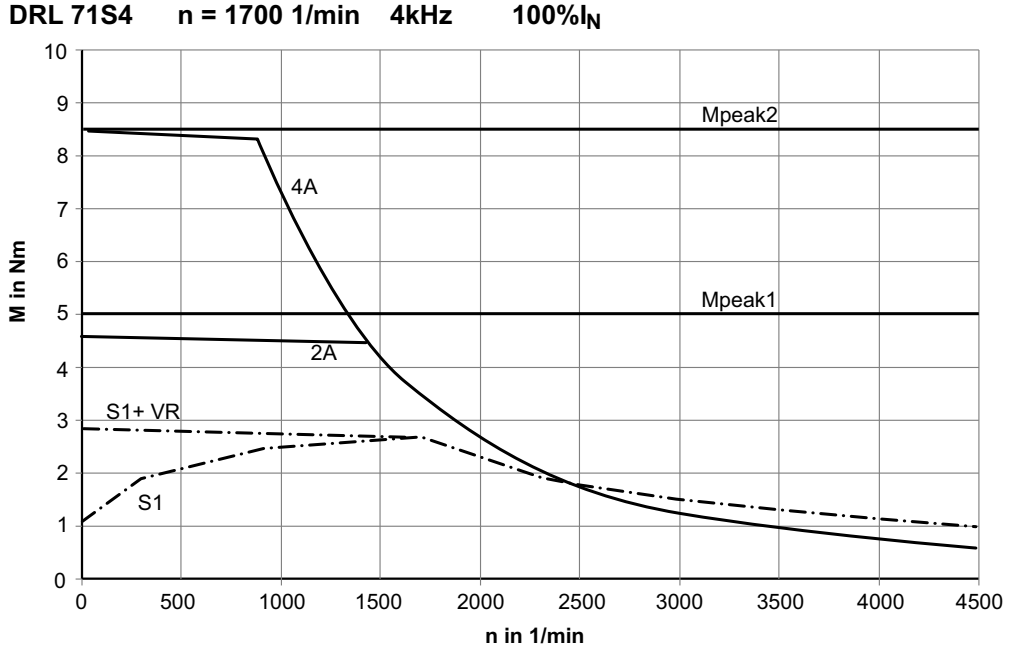
67196axx

DRL71S4, n_N = 1200 1/min, 180% I_N



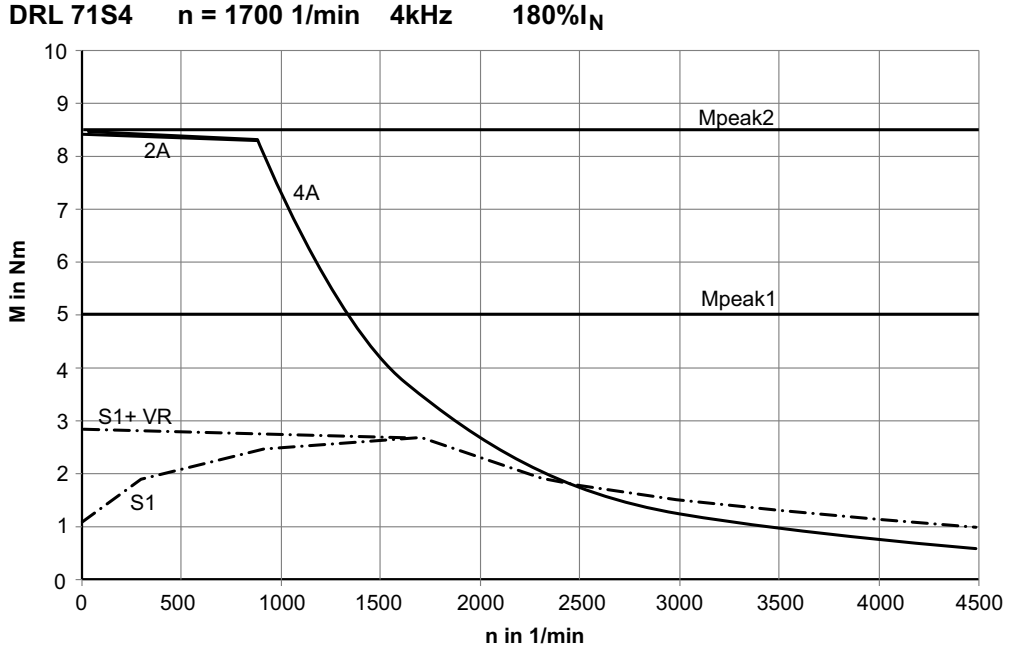
67197axx

DRL71S4, n_N = 1700 1/min, 100% I_N



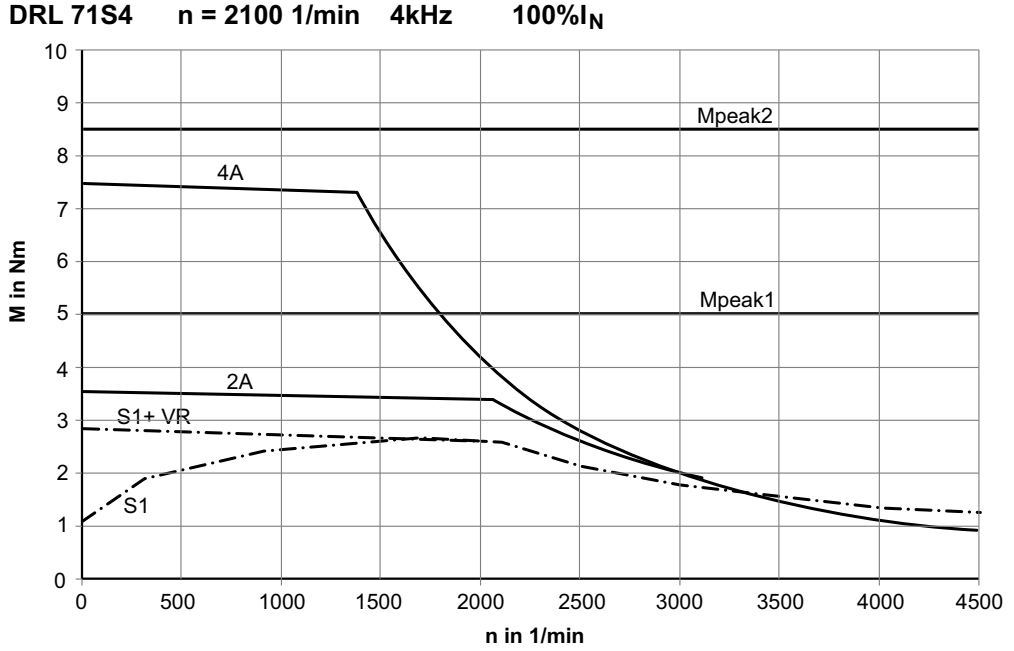
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DRL71S4, n_N = 1700 1/min, 180% I_N



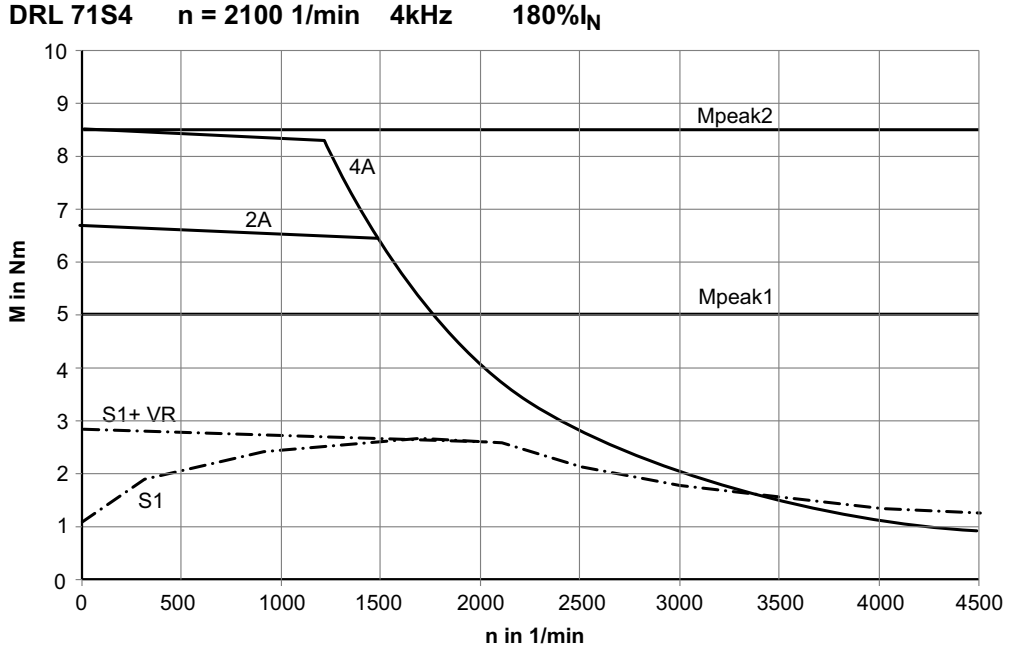
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DRL71S4, n_N = 2100 1/min, 100% I_N



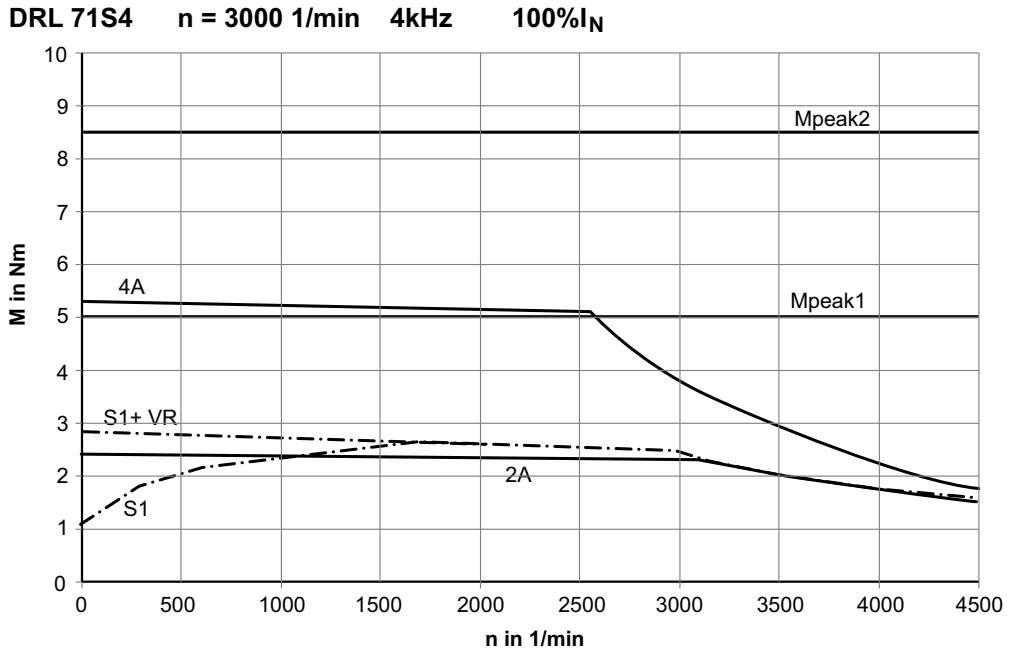
67200axx

DRL71S4, n_N = 2100 1/min, 180% I_N



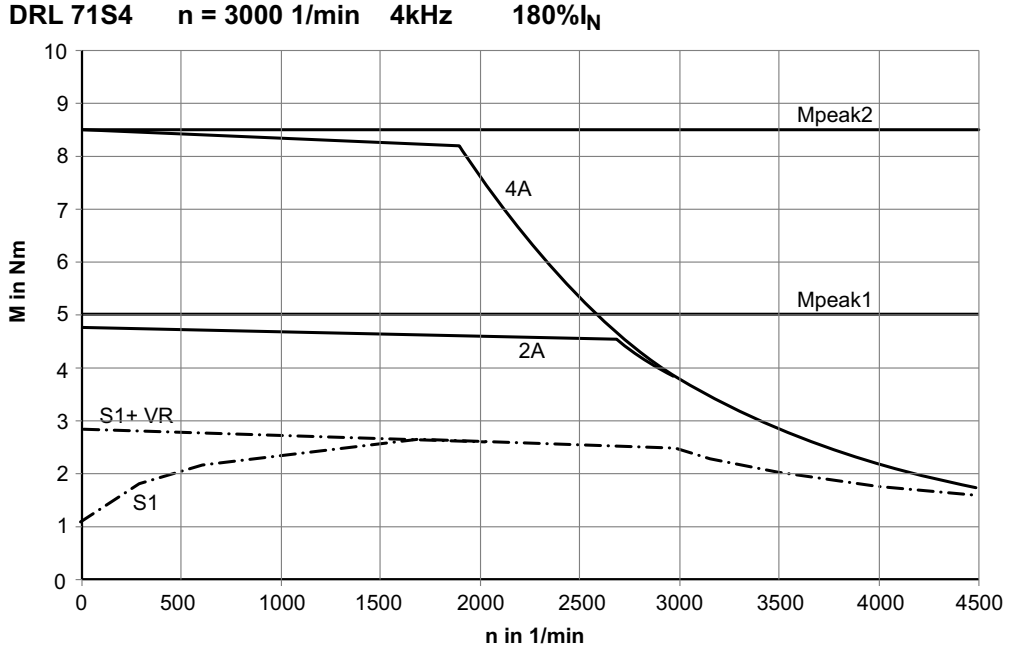
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DRL71S4, n_N = 3000 1/min, 100% I_N



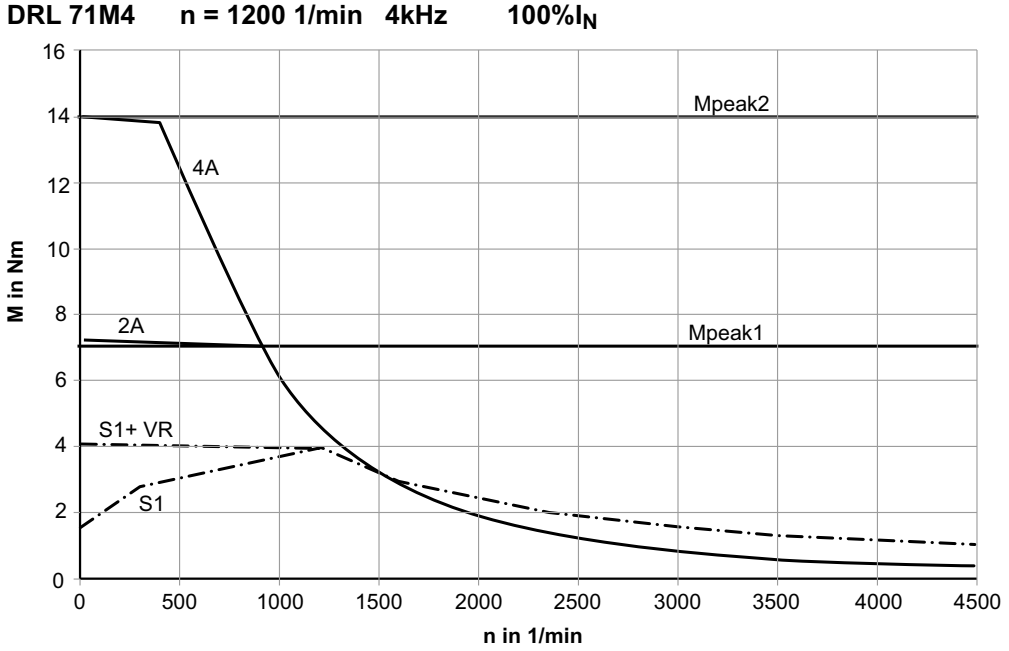
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DRL71S4, n_N = 3000 1/min, 180% I_N



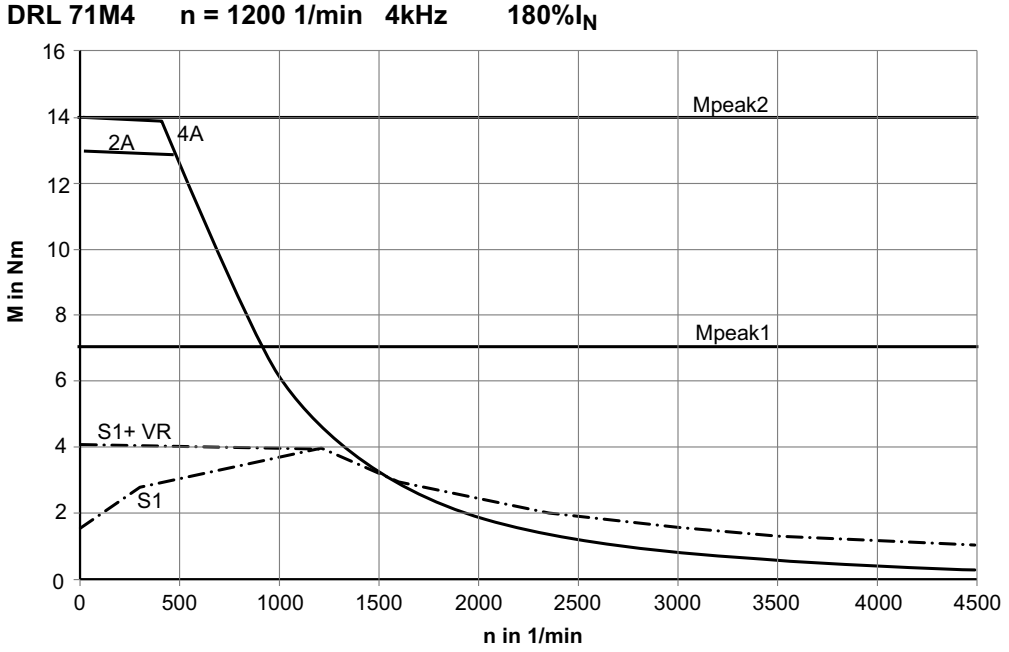
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DRL71M4, n_N = 1200 1/min, 100% I_N



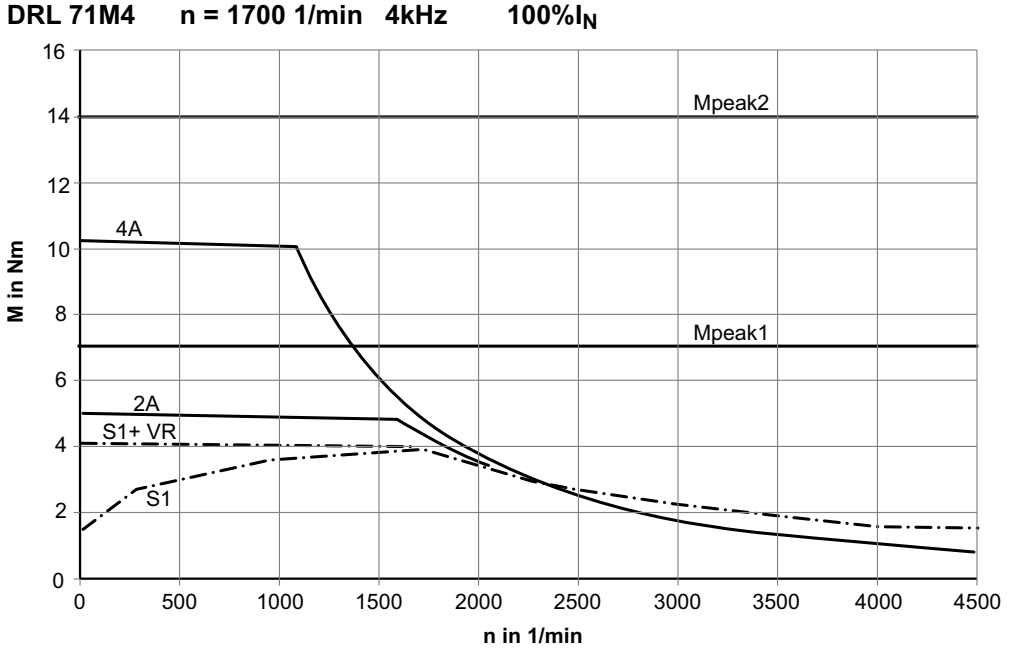
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DRL71M4, n_N = 1200 1/min, 180% I_N



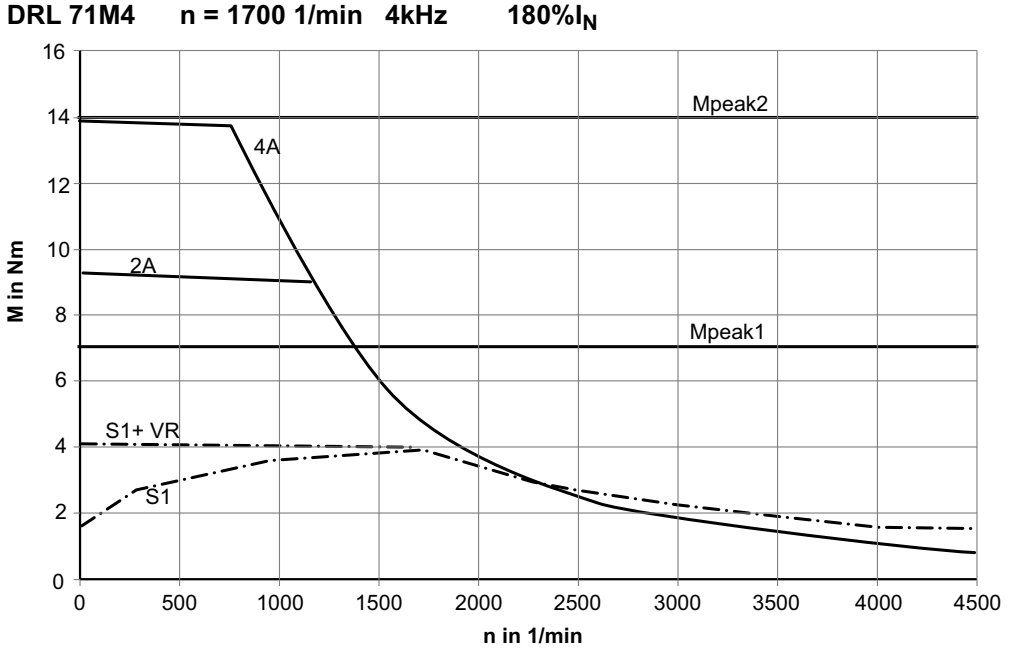
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DRL71M4, n_N = 1700 1/min, 100% I_N



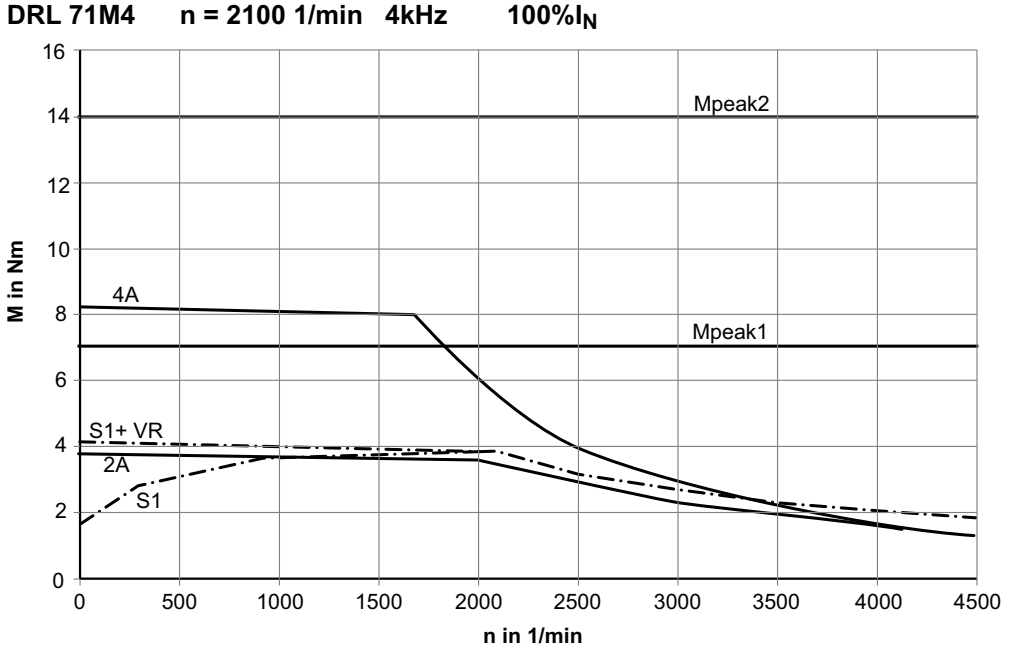
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DRL71M4, n_N = 1700 1/min, 180% I_N



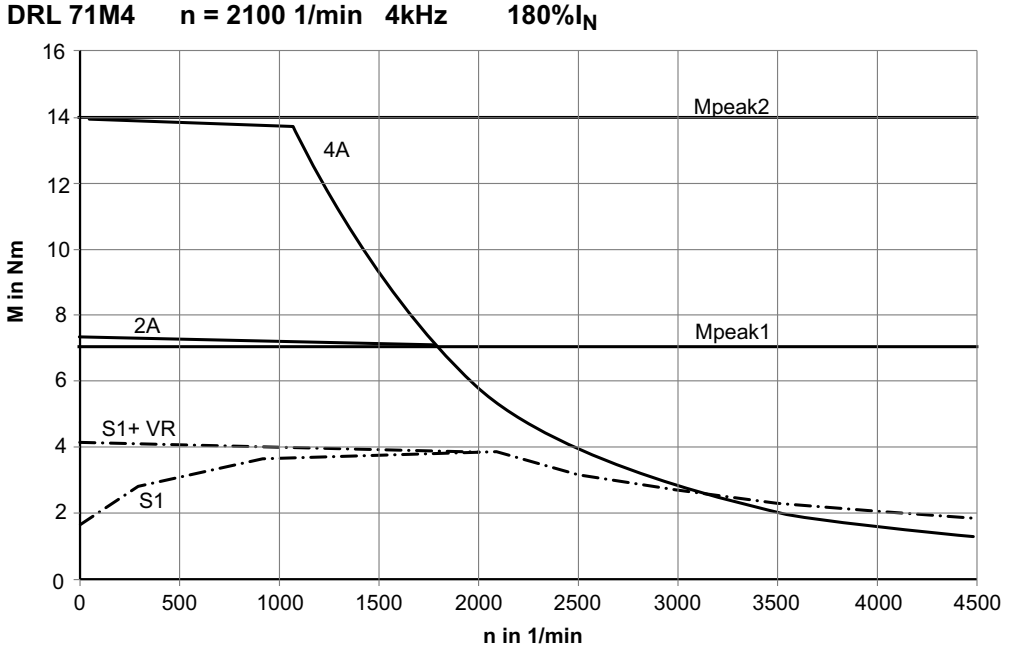
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DRL71M4, n_N = 2100 1/min, 100% I_N



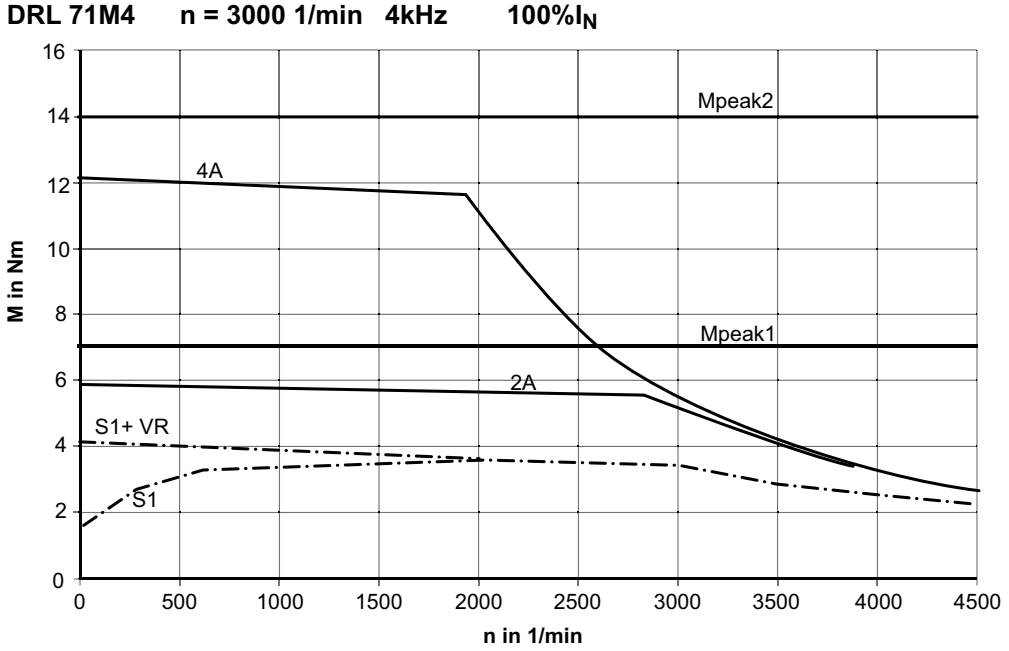
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DRL71M4, n_N = 2100 1/min, 180% I_N



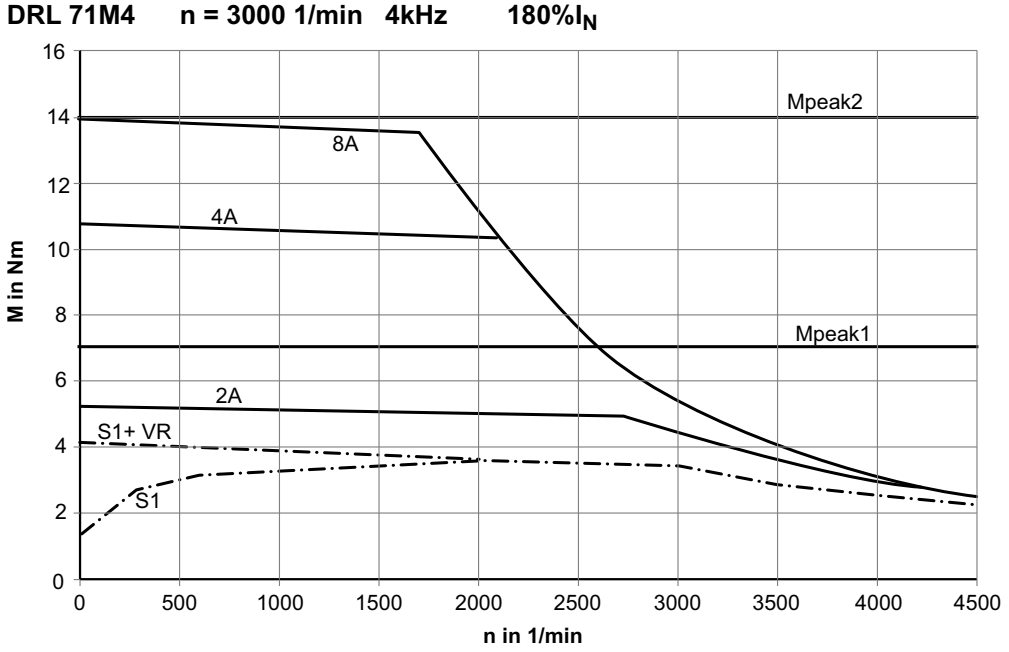
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DRL71M4, n_N = 3000 1/min, 100% I_N



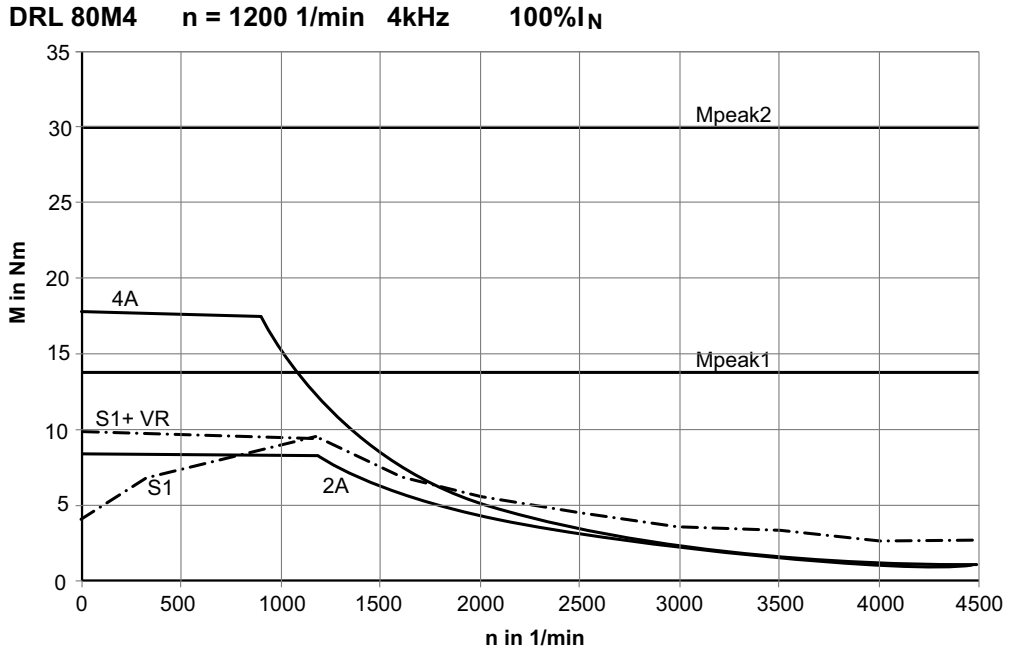
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DRL71M4, n_N = 3000 1/min, 180% I_N



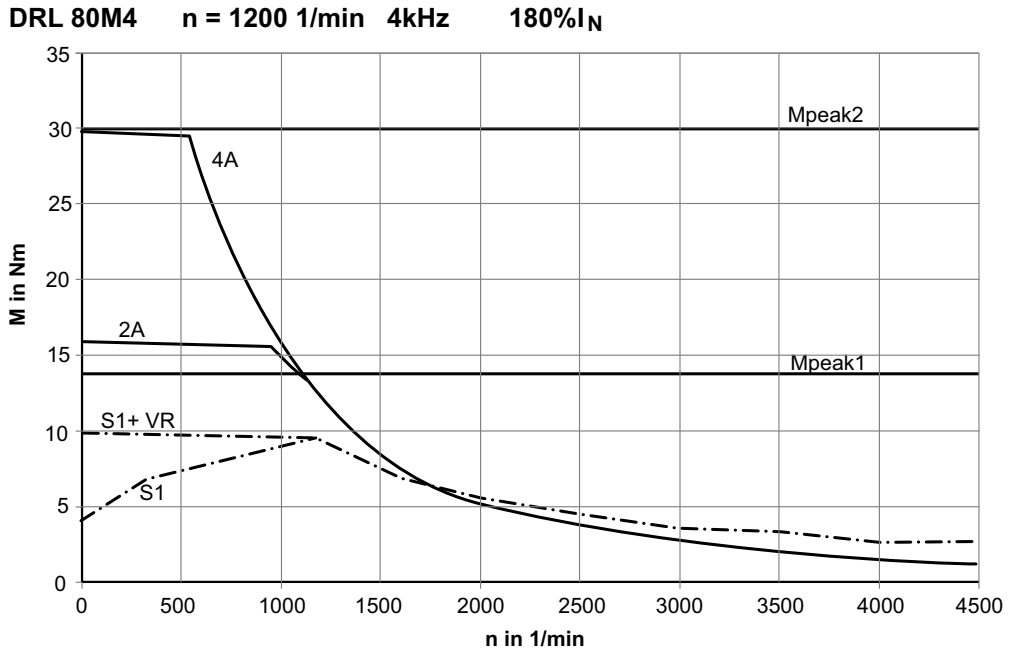
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DRL80M4, n_N = 1200 1/min, 100% I_N



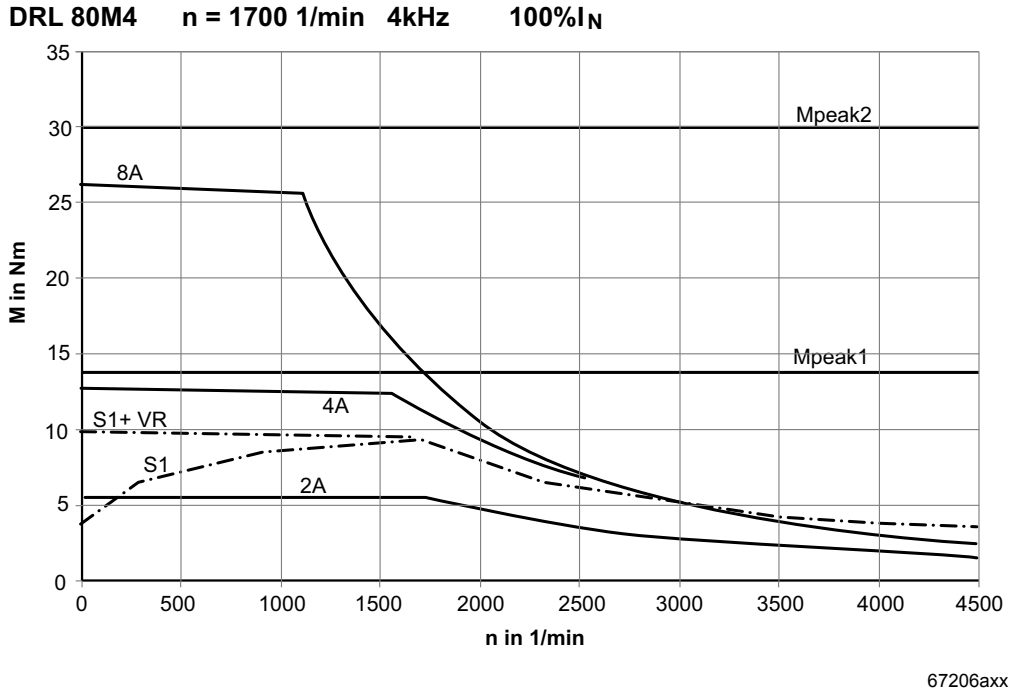
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DRL80M4, n_N = 1200 1/min, 180% I_N



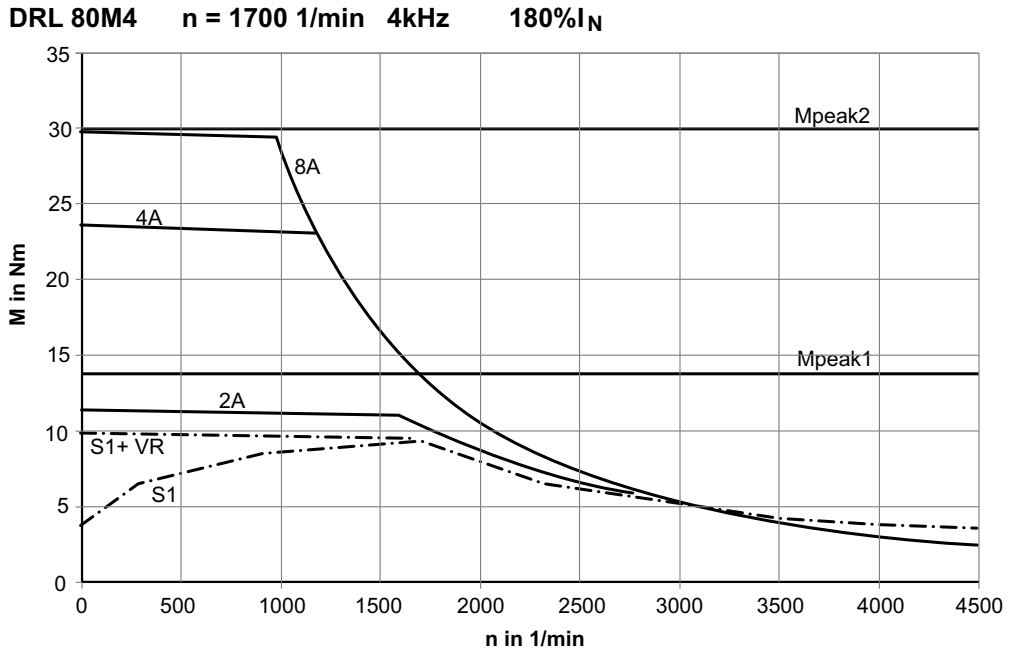
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DRL80M4, n_N = 1700 1/min, 100% I_N



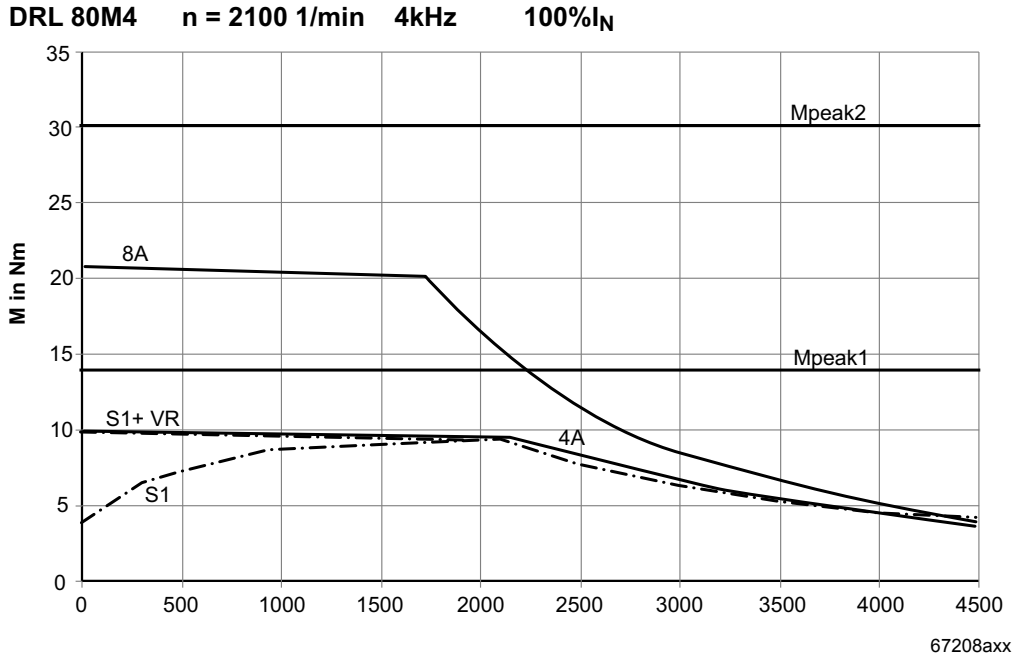
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DRL80M4, n_N = 1700 1/min, 180% I_N

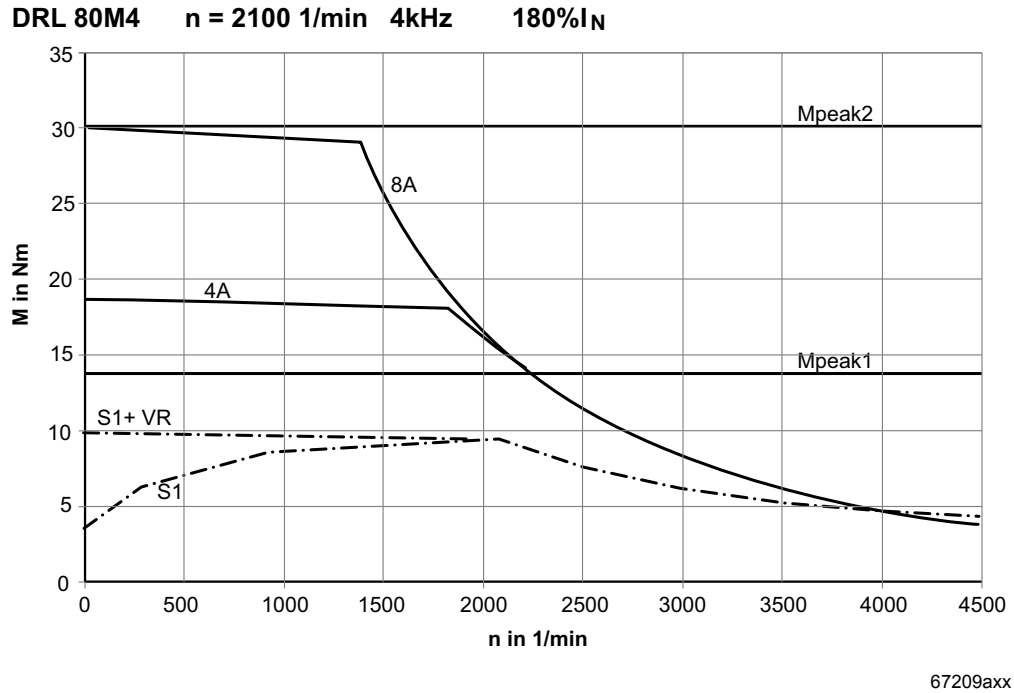


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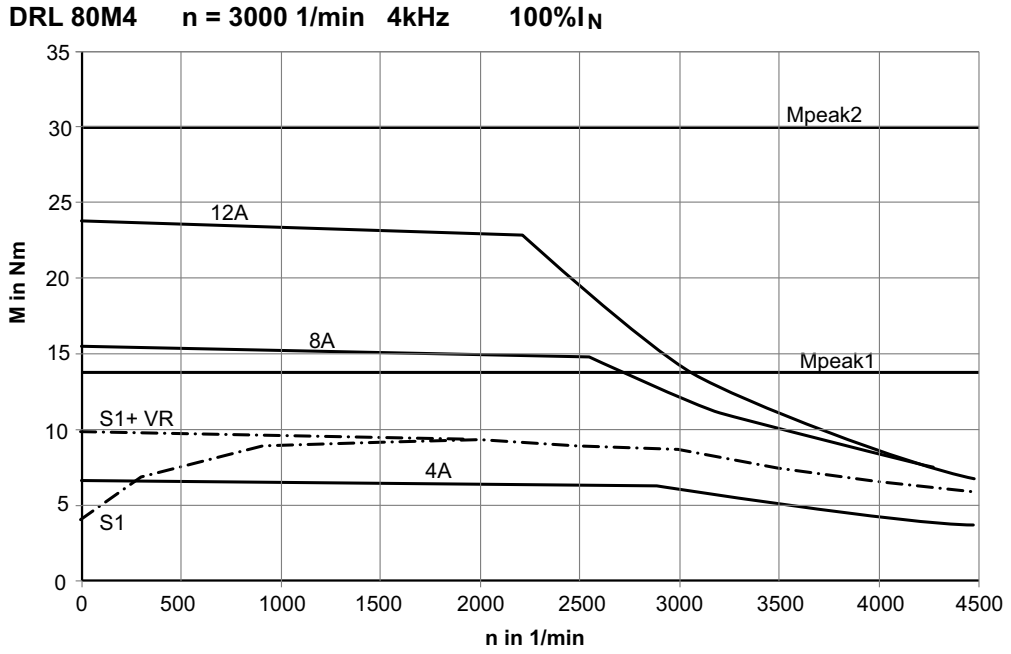
DRL80M4, n_N = 2100 1/min, 100% I_N



DRL80M4, n_N = 2100 1/min, 180% I_N

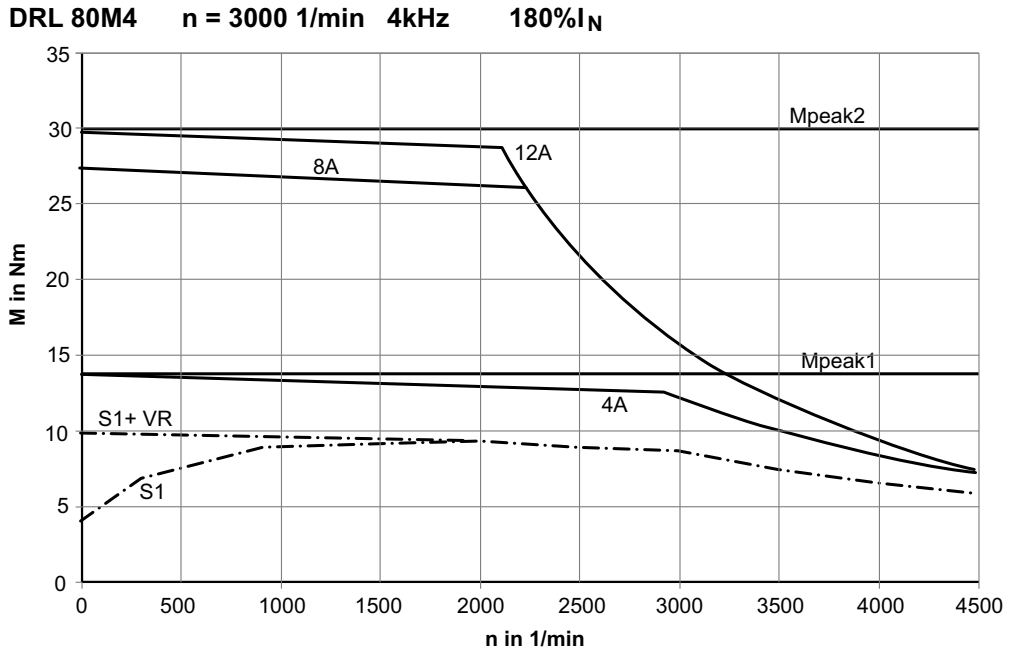


DRL80M4, n_N = 3000 1/min, 100% I_N



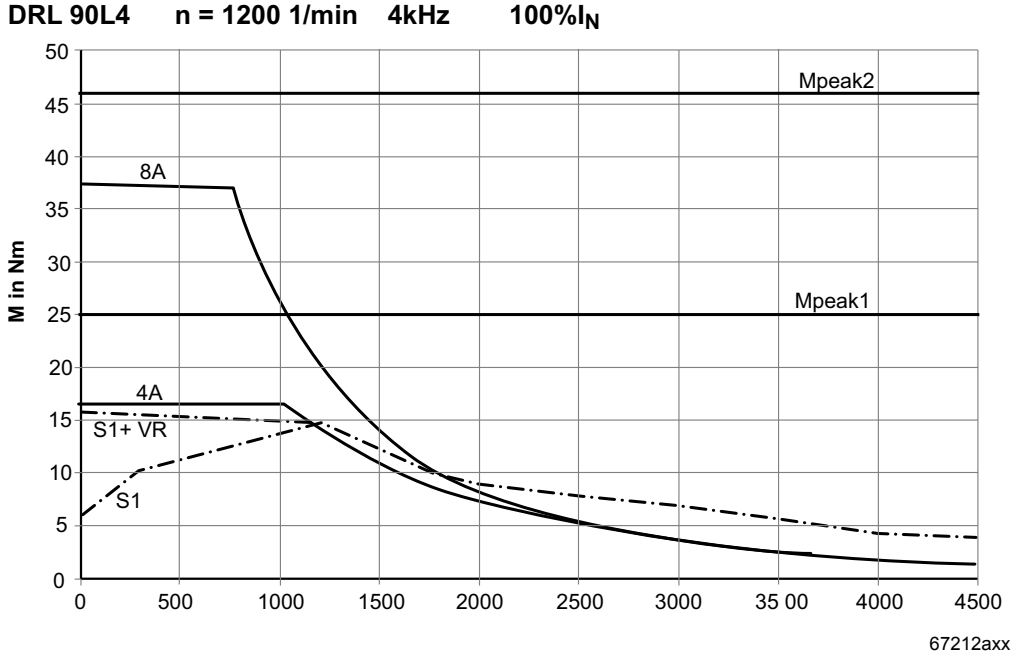
67210axx

DRL80M4, n_N = 3000 1/min, 180% I_N

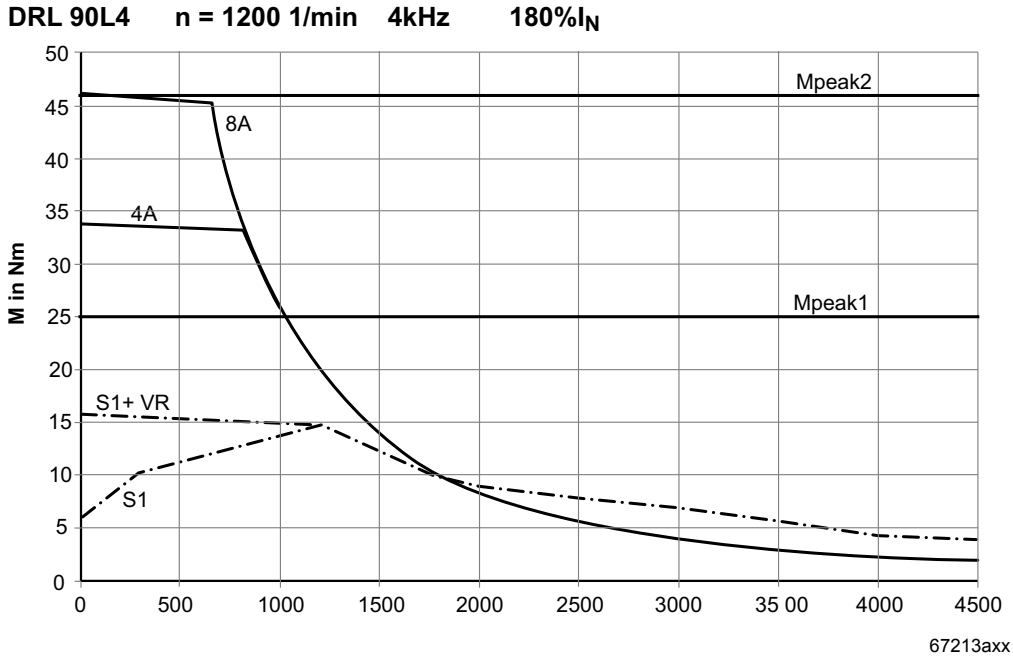


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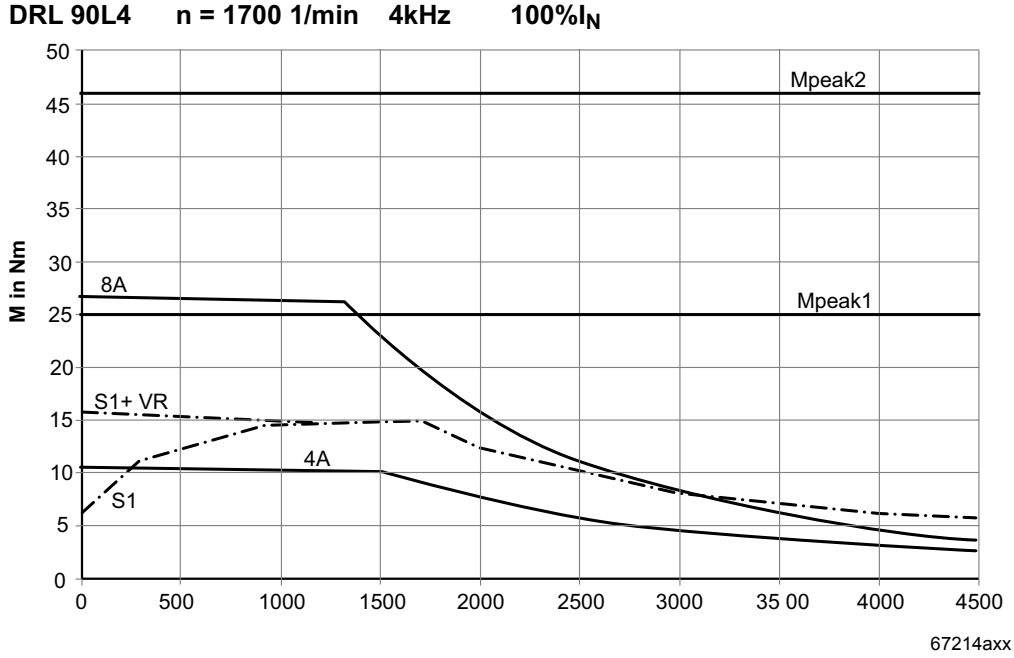
DRL90L4, n_N = 1200 1/min, 100% I_N



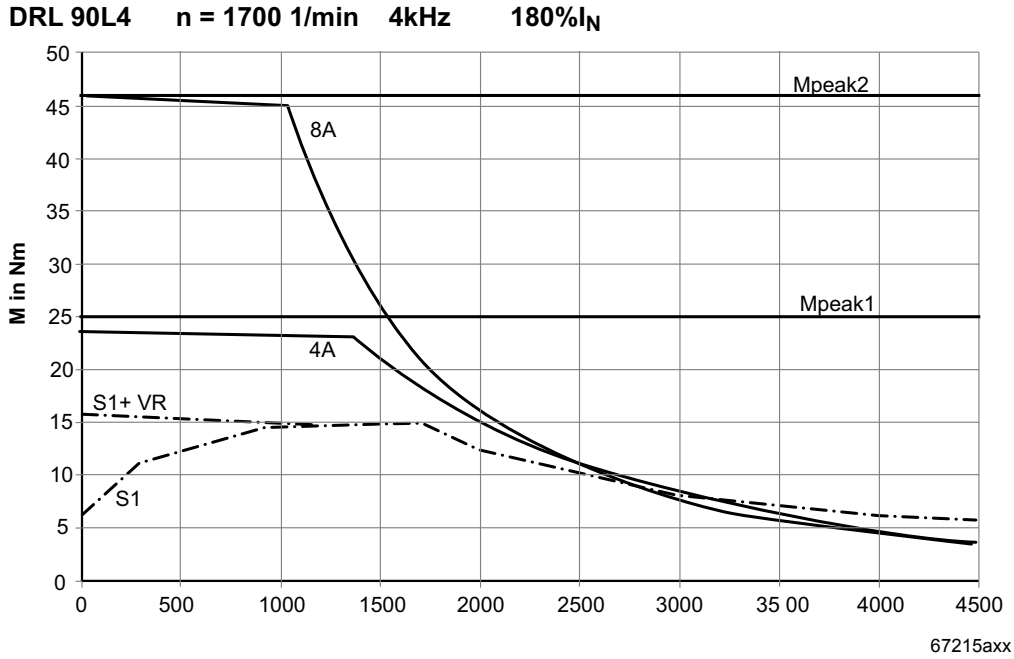
DRL90L4, n_N = 1200 1/min, 180% I_N



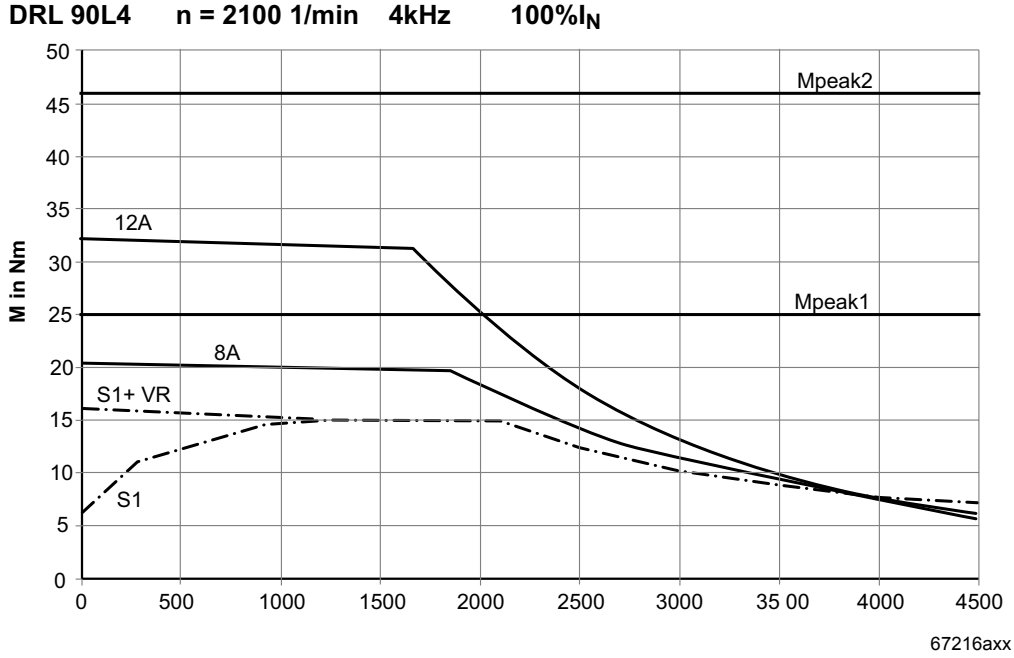
DRL90L4, n_N = 1700 1/min, 100% I_N



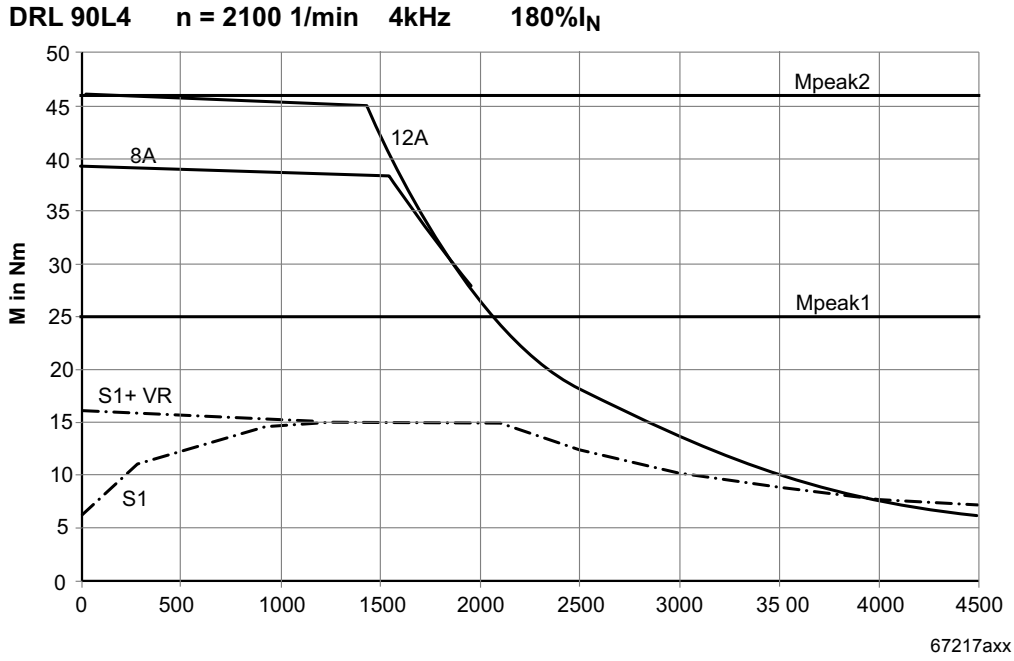
DRL90L4, n_N = 1700 1/min, 180% I_N



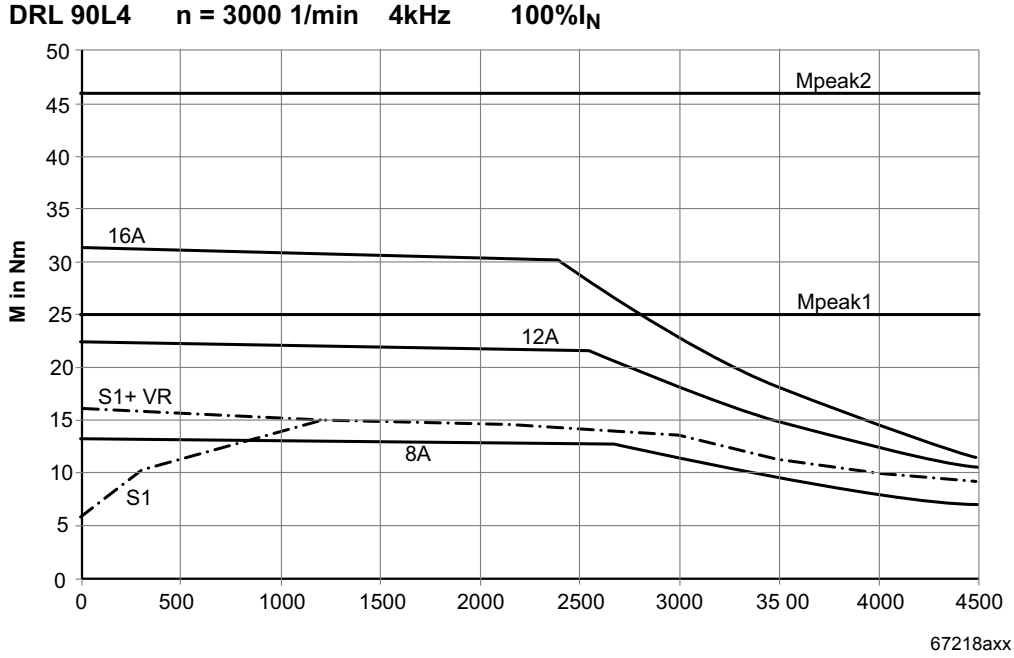
DRL90L4, n_N = 2100 1/min, 100% I_N



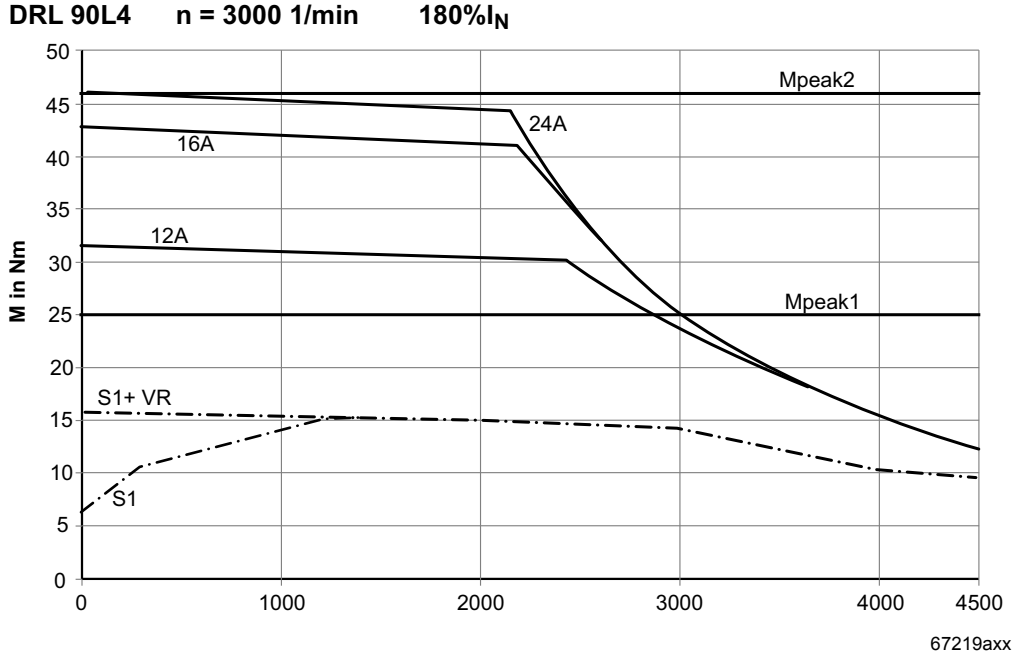
DRL90L4, n_N = 2100 1/min, 180% I_N



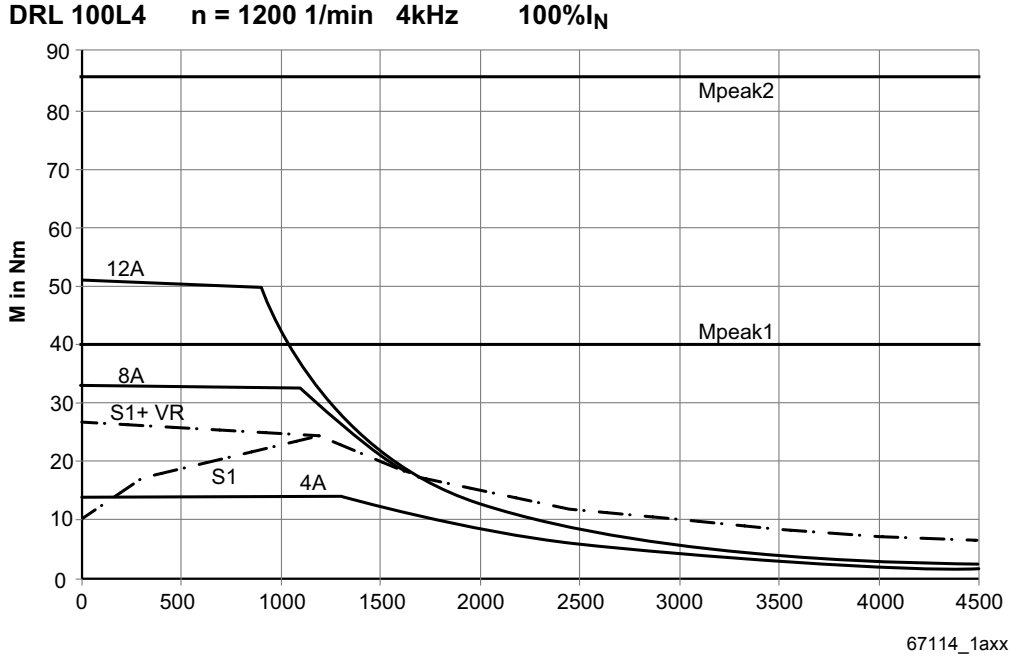
DRL90L4, n_N = 3000 1/min, 100% I_N



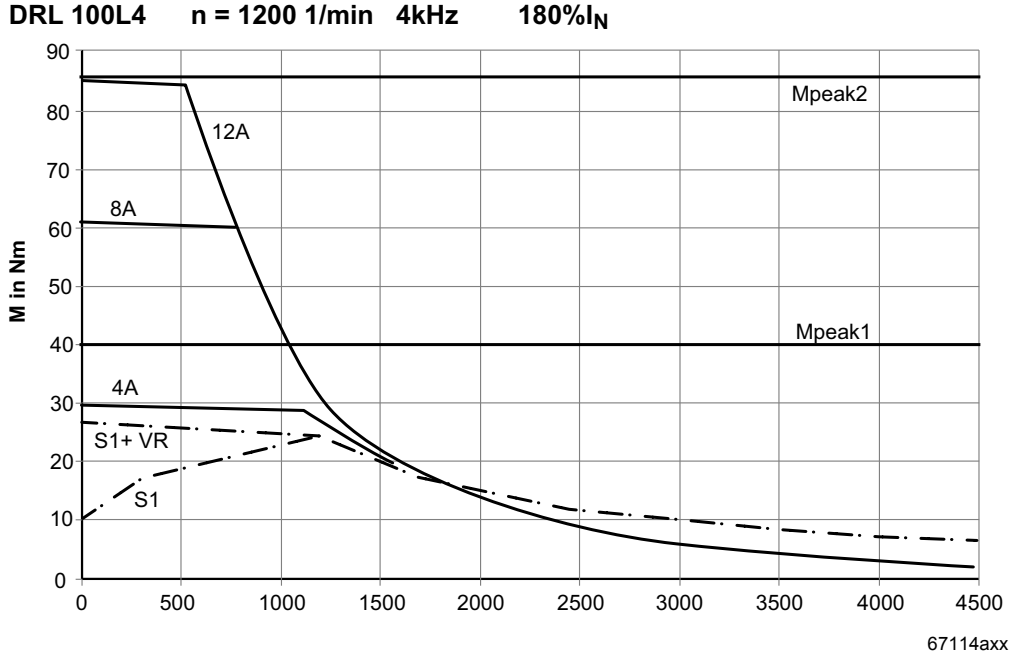
DRL90L4, n_N = 3000 1/min, 180% I_N



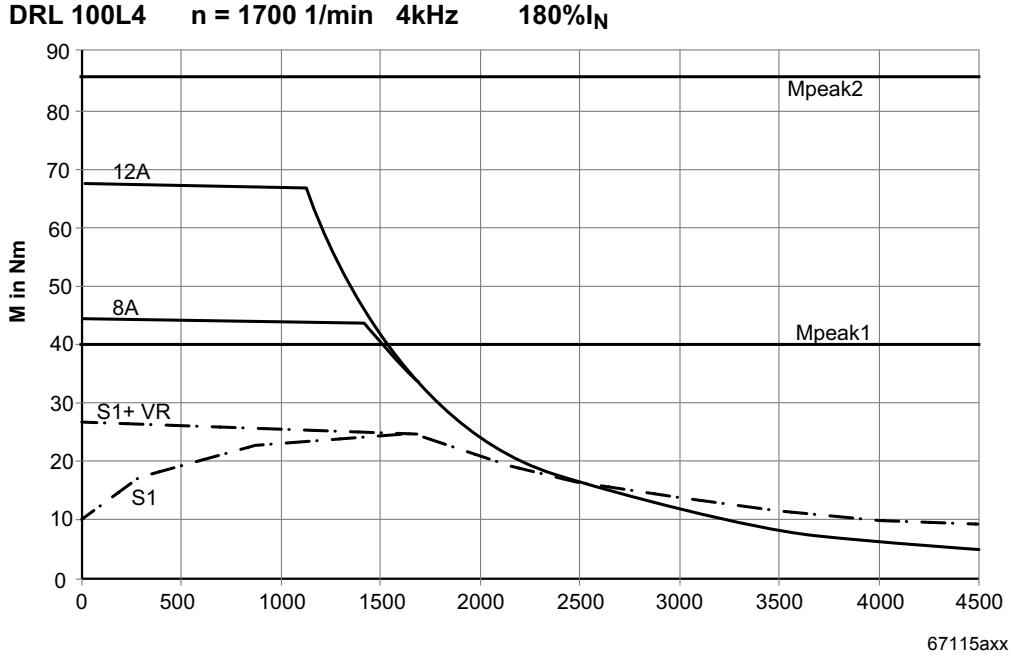
DRL100L4, n_N = 1200 1/min, 100% I_N



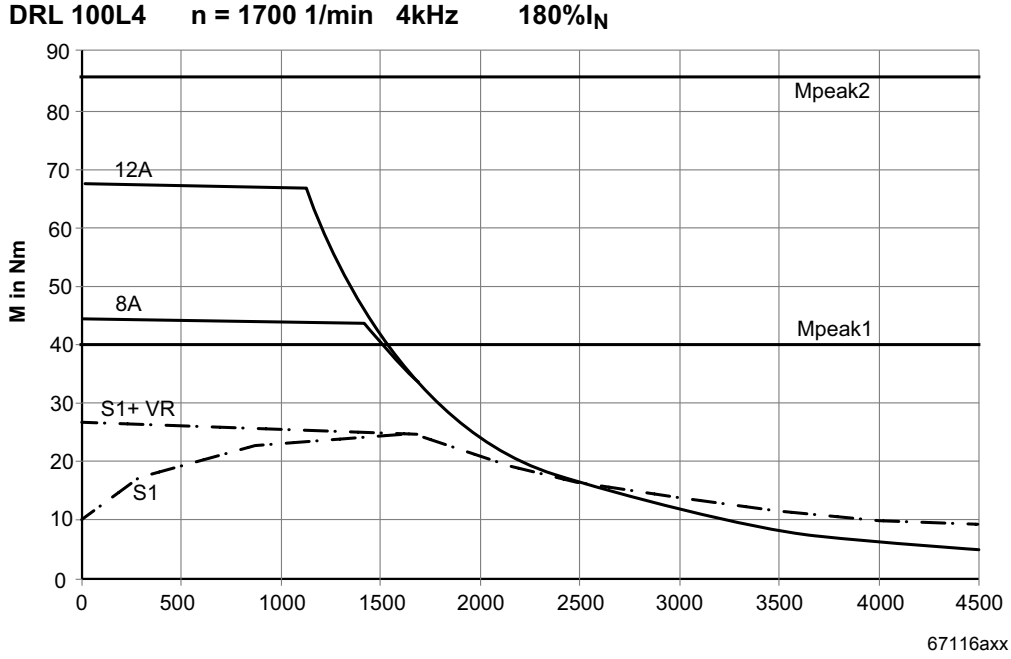
DRL100L4, n_N = 1200 1/min, 180% I_N



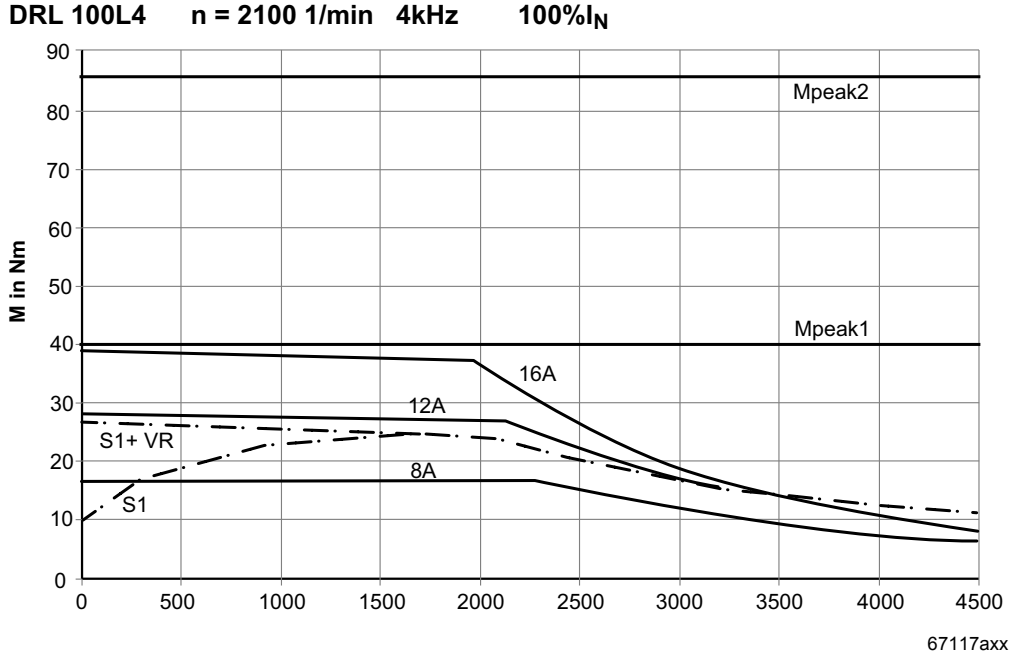
DRL100L4, n_N = 1700 1/min, 100% I_N



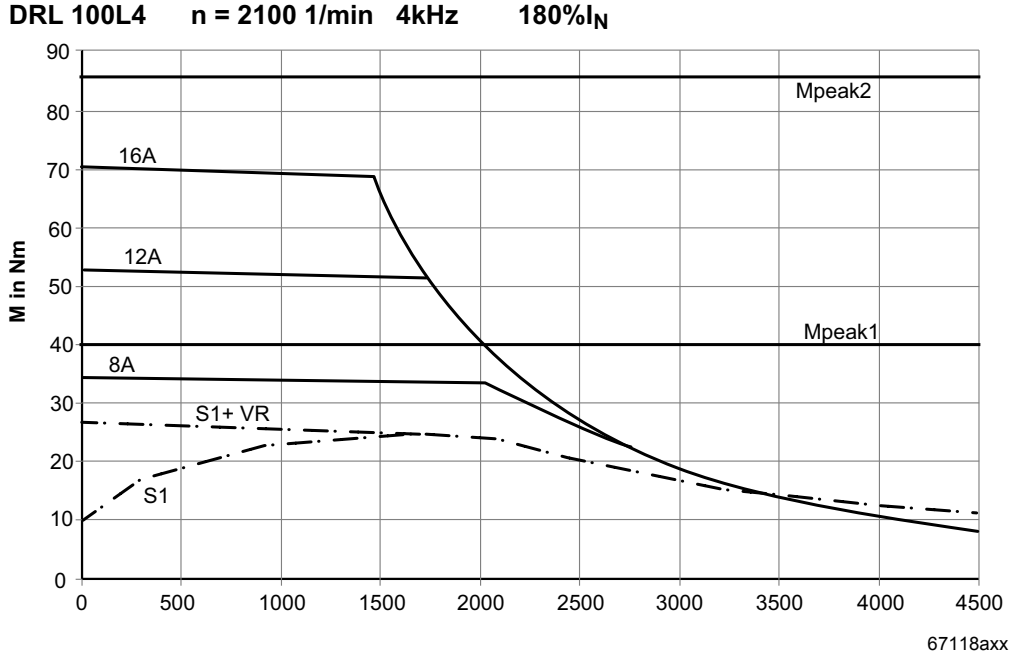
DRL100L4, n_N = 1700 1/min, 180% I_N



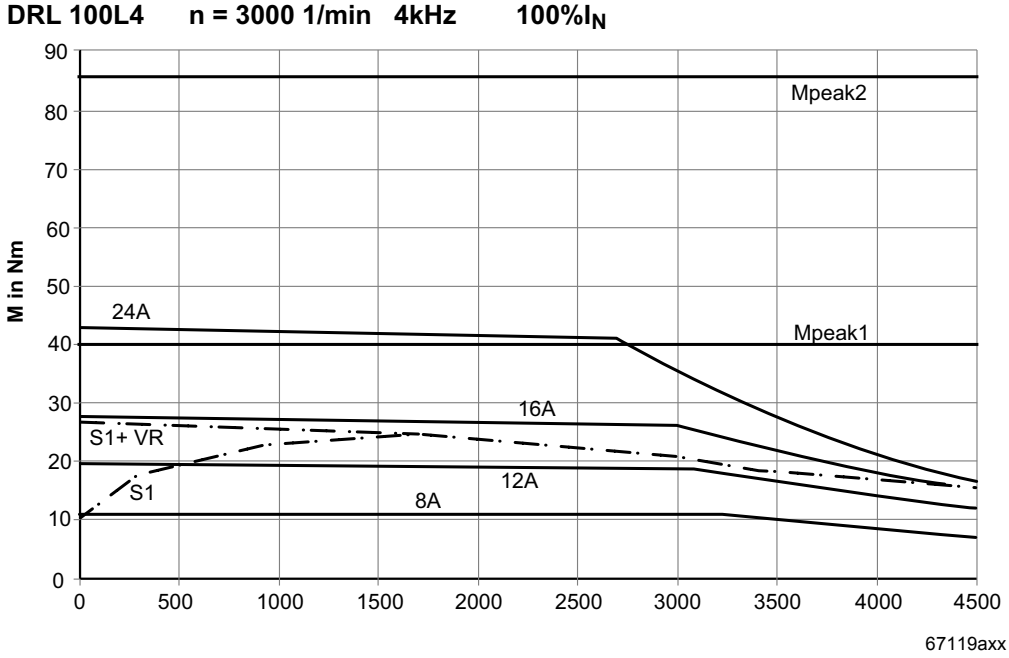
DRL100L4, n_N = 2100 1/min, 100% I_N



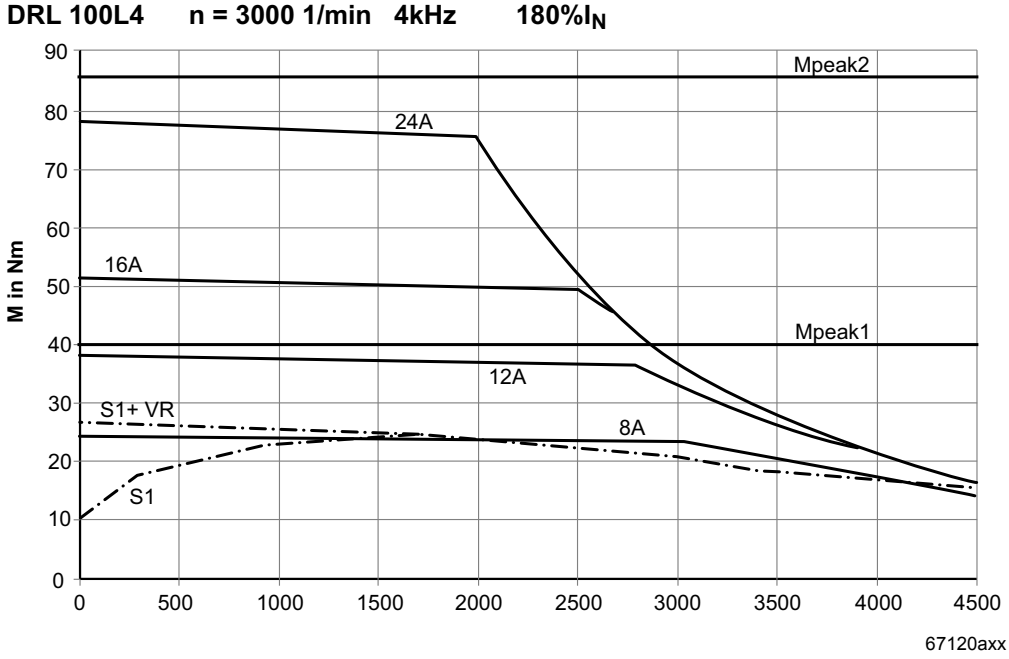
DRL100L4, n_N = 2100 1/min, 180% I_N



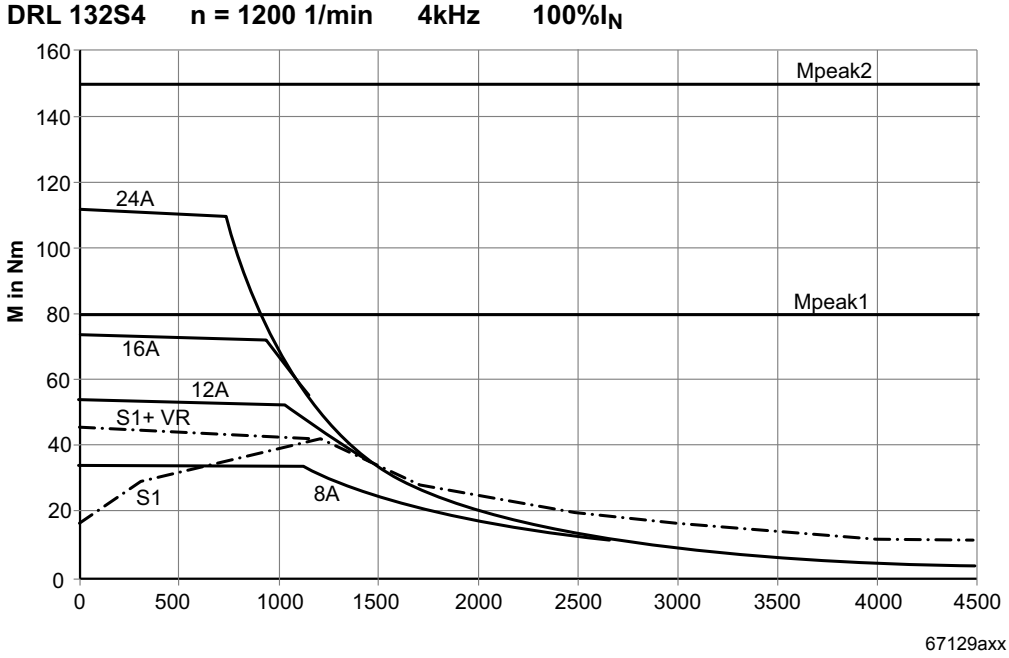
DRL100L4, n_N = 3000 1/min, 100% I_N



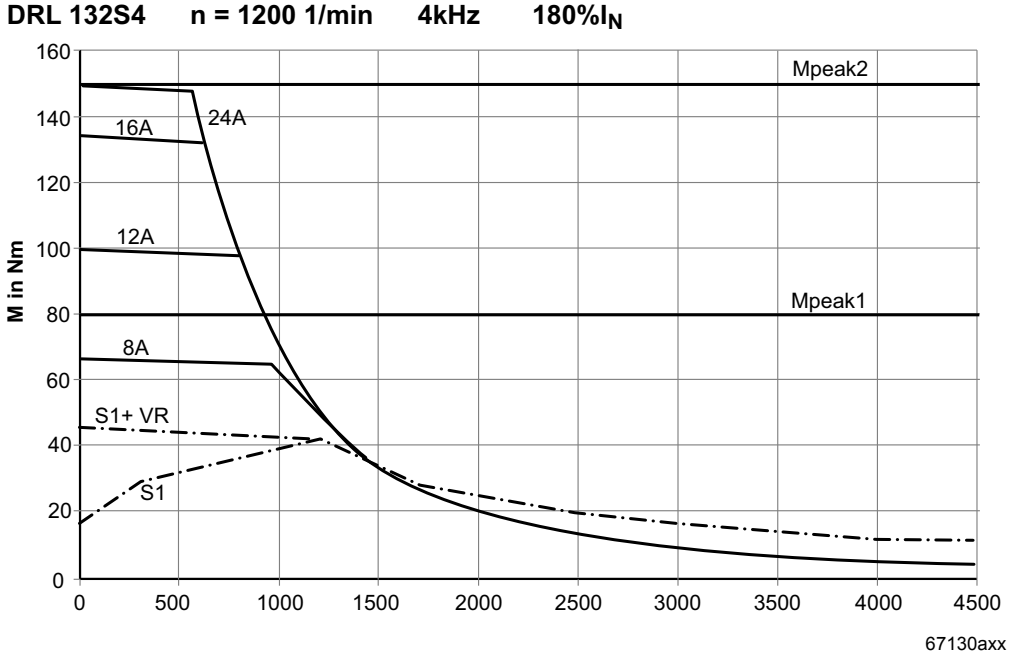
DRL100L4, n_N = 3000 1/min, 180% I_N



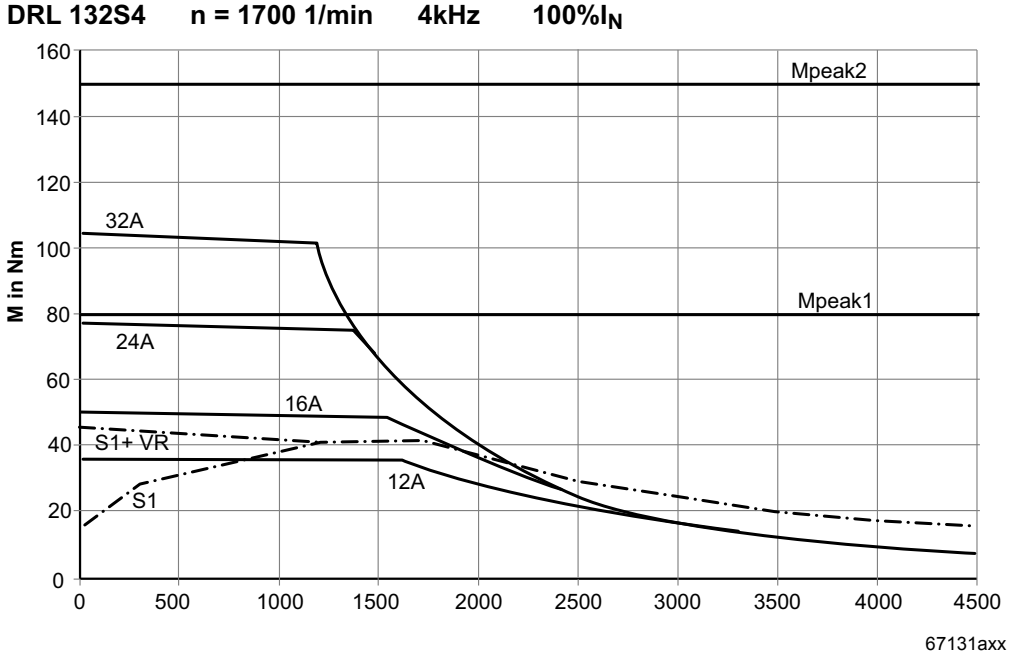
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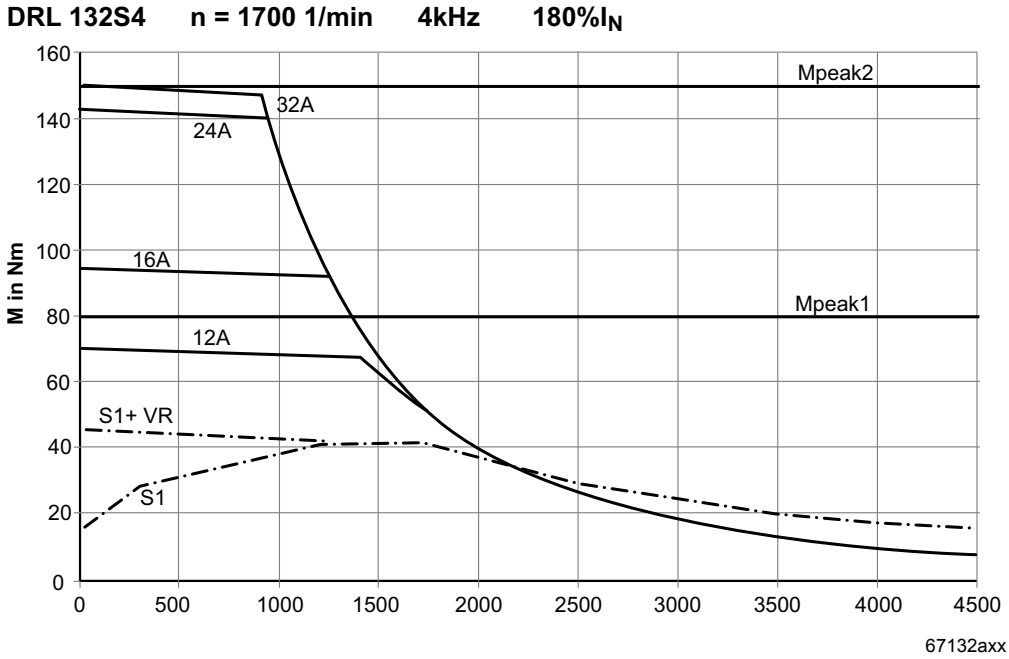
DRL132S4, n_N = 1200 1/min, 180% I_N



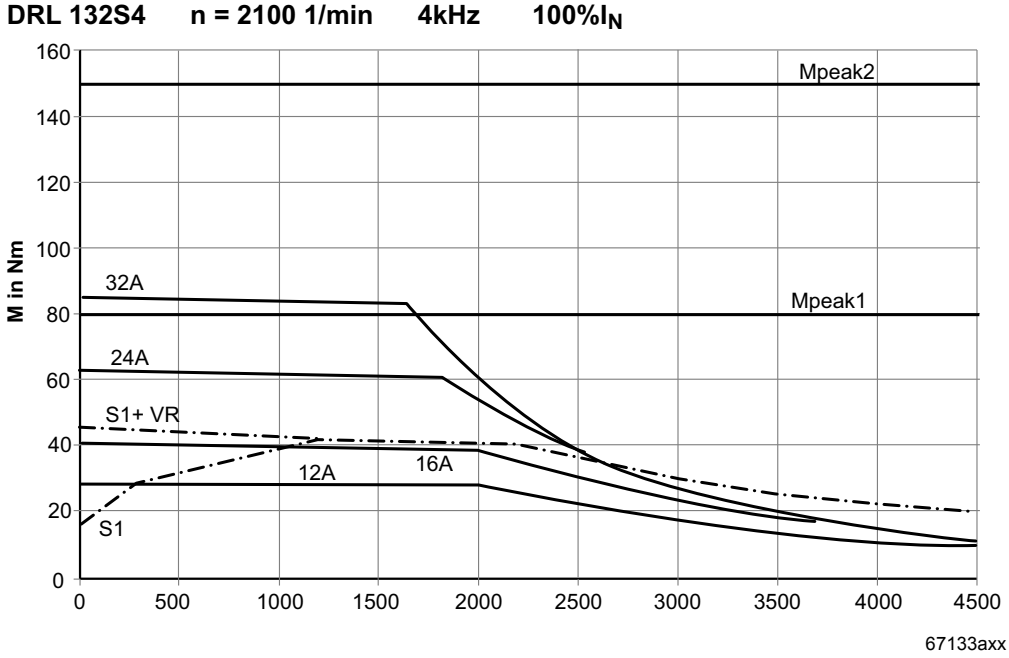
DRL132S4, n_N = 1700 1/min, 100% I_N



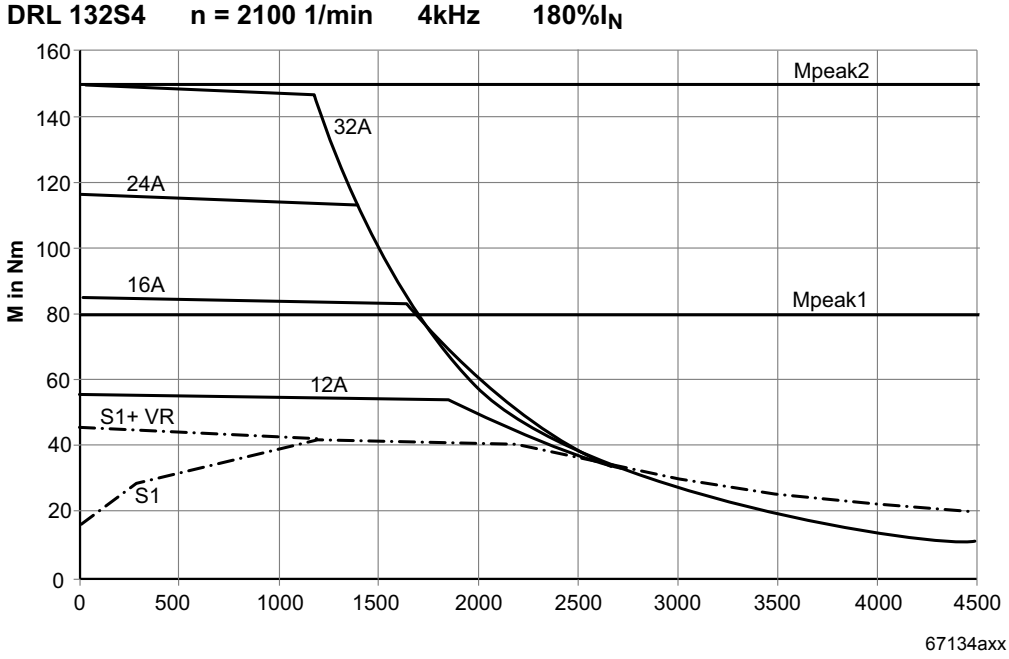
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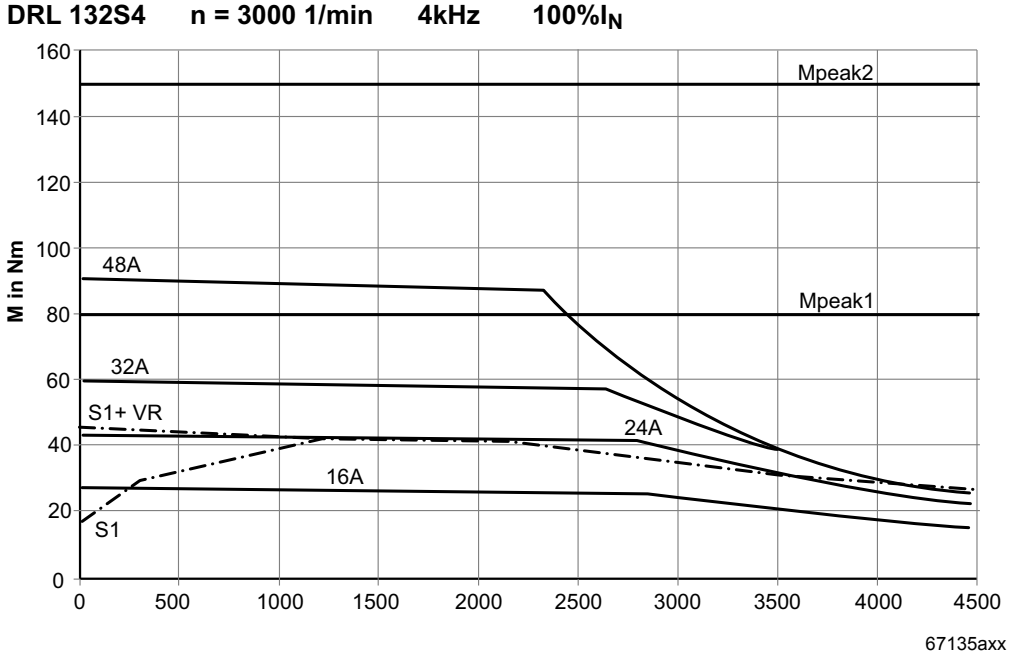
DRL132S4, n_N = 2100 1/min, 100% I_N



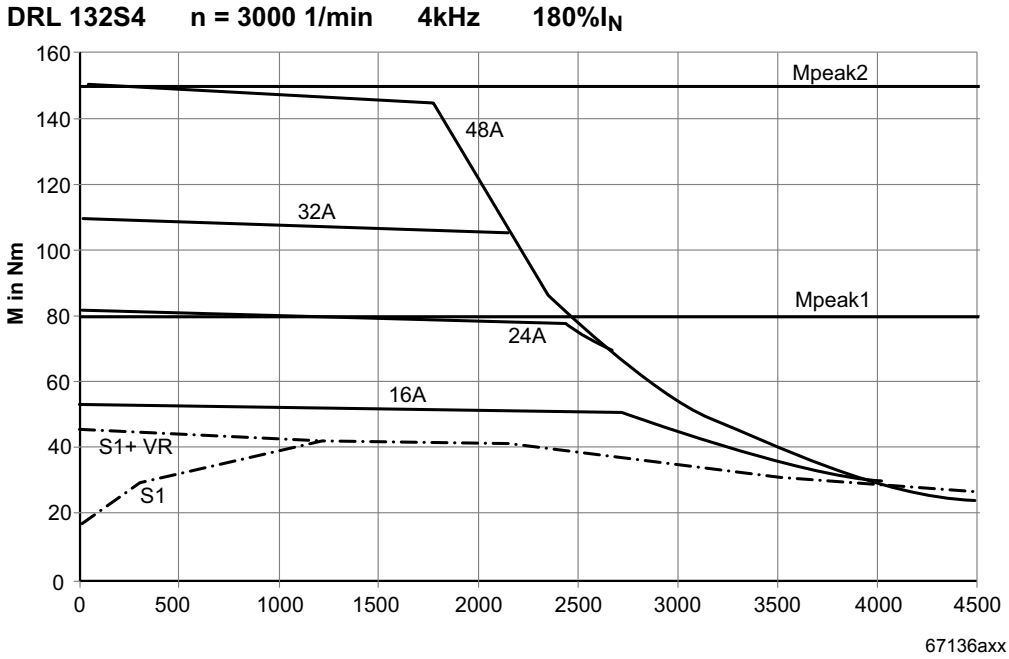
DRL132S4, n_N = 2100 1/min, 180% I_N



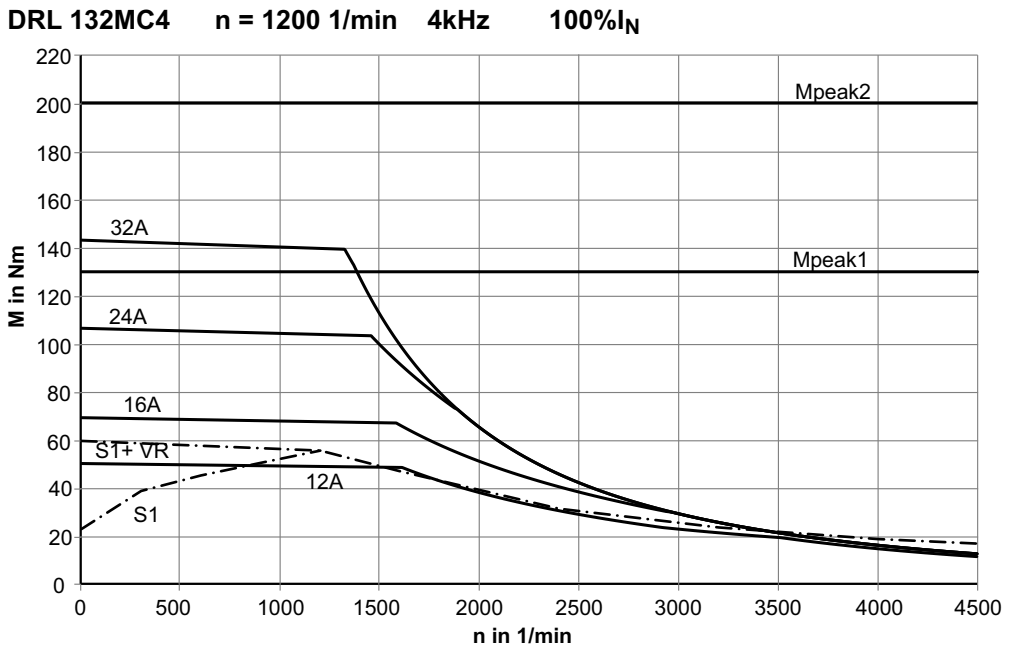
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DRL132S4, n_N = 3000 1/min, 180% I_N

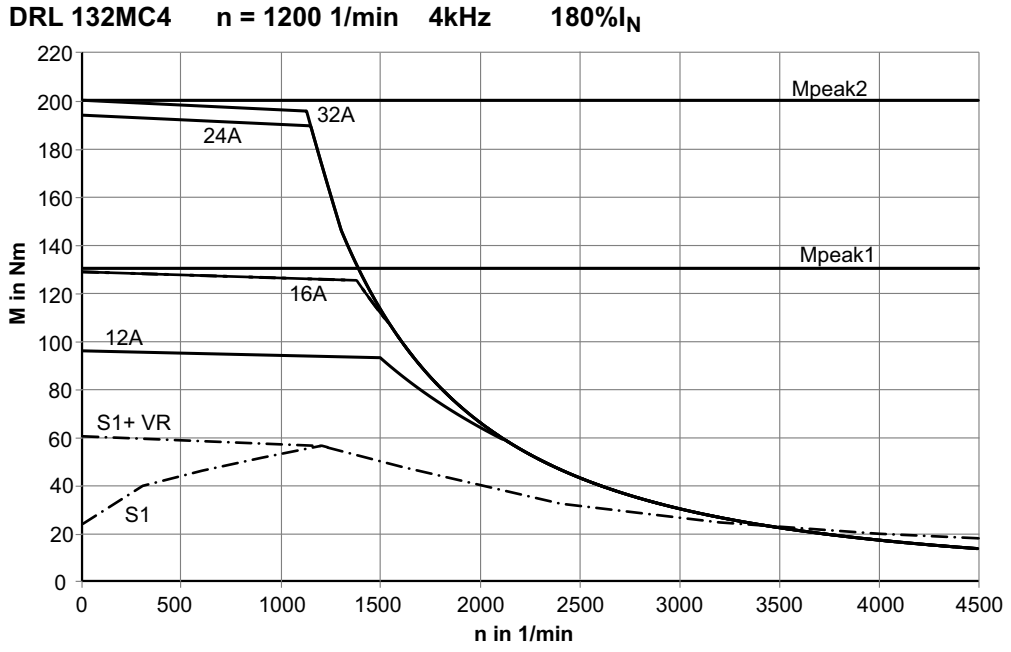


DRL132MC4, n_N = 1200 1/min, 100% I_N



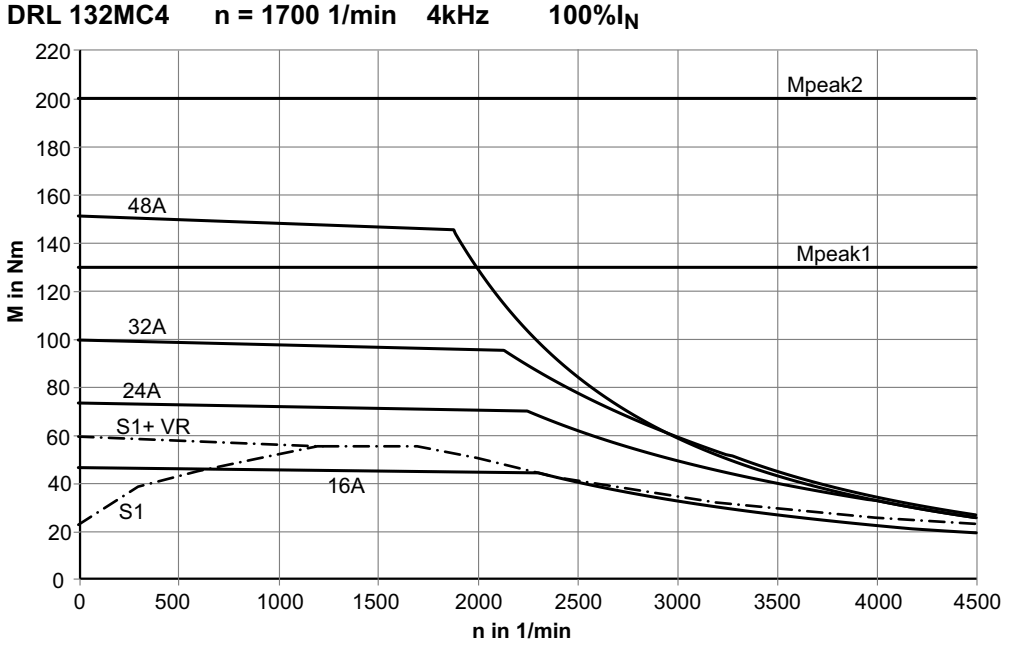
67121axx

DRL132MC4, n_N = 1200 1/min, 180% I_N



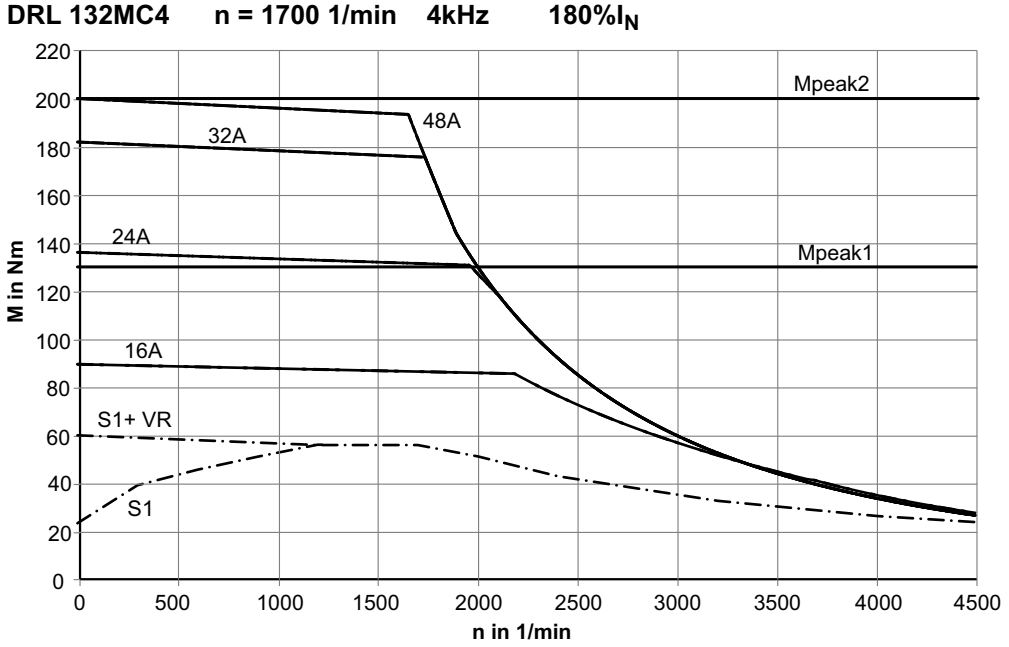
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DRL132MC4, n_N = 1700 1/min, 100% I_N



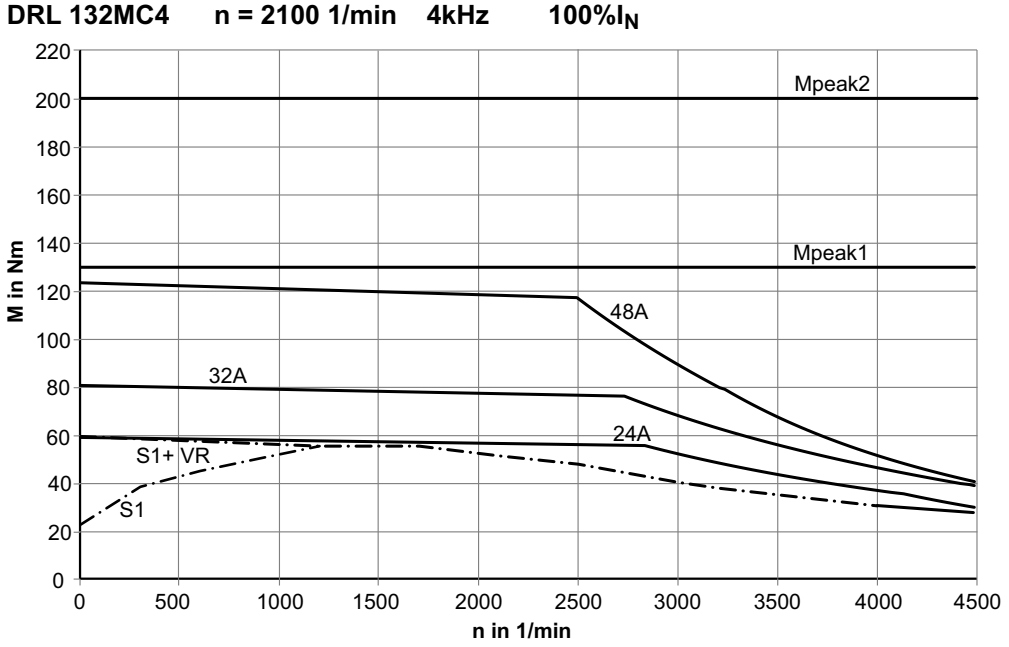
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DRL132MC4, n_N = 1700 1/min, 180% I_N



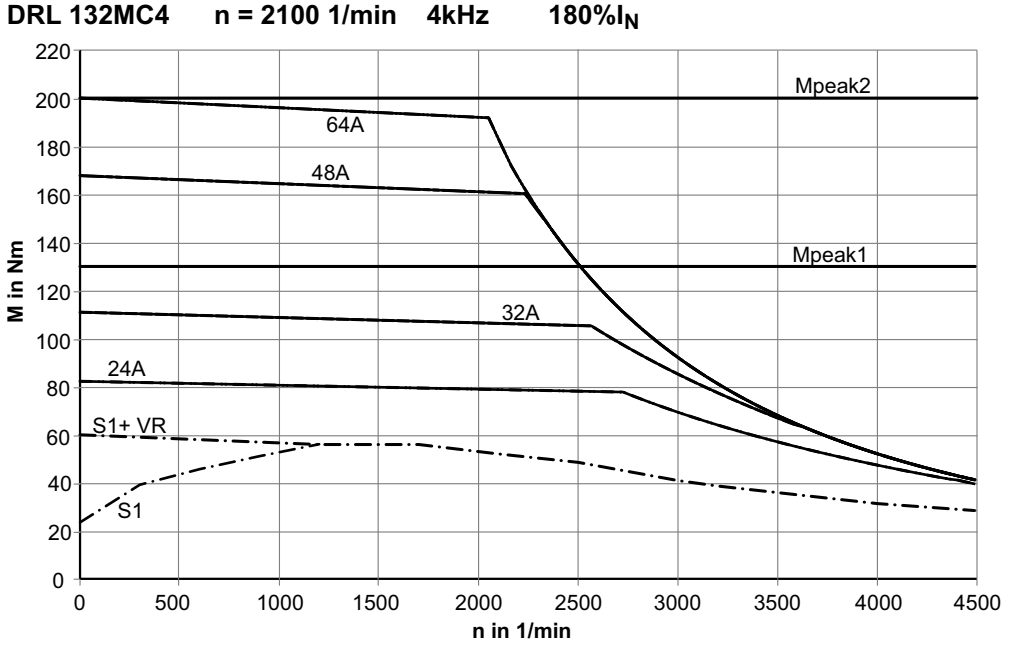
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DRL132MC4, n_N = 2100 1/min, 100% I_N



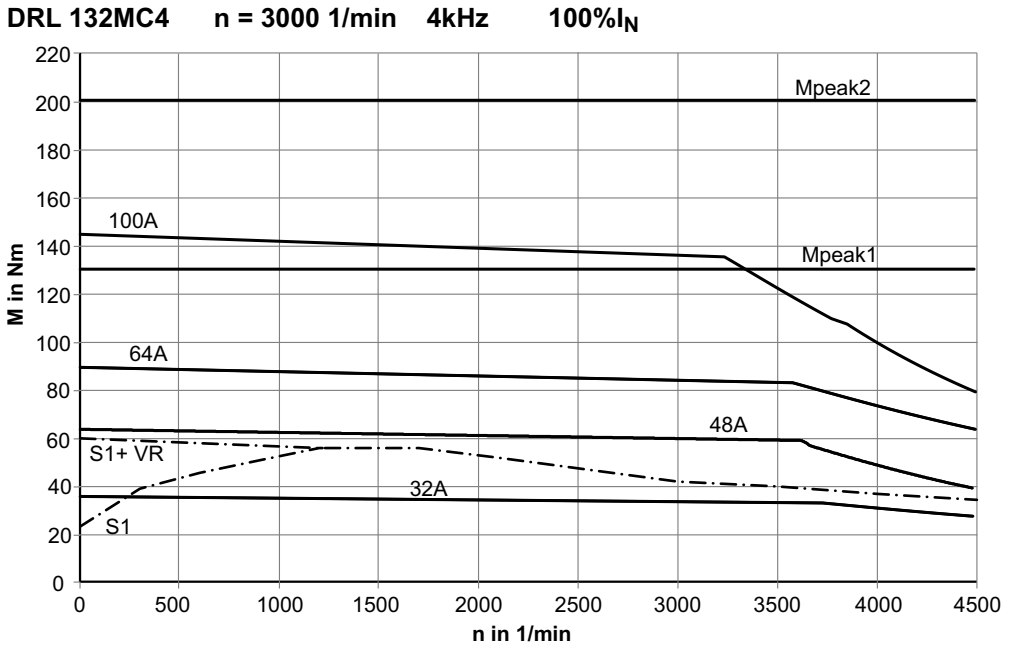
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DRL132MC4, n_N = 2100 1/min, 180% I_N



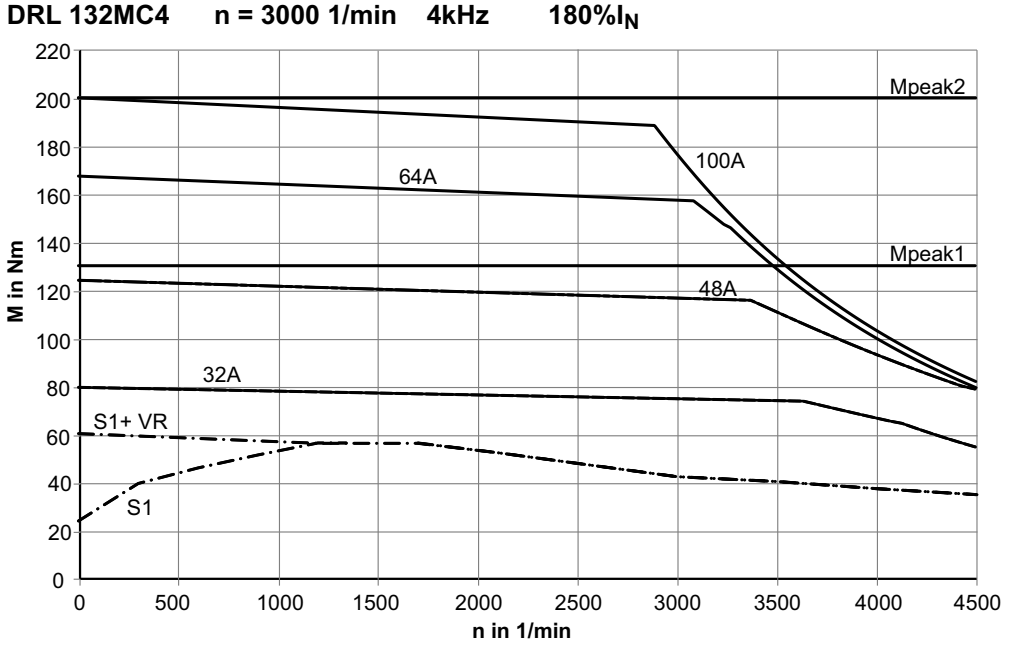
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DRL132MC4, n_N = 3000 1/min, 100% I_N



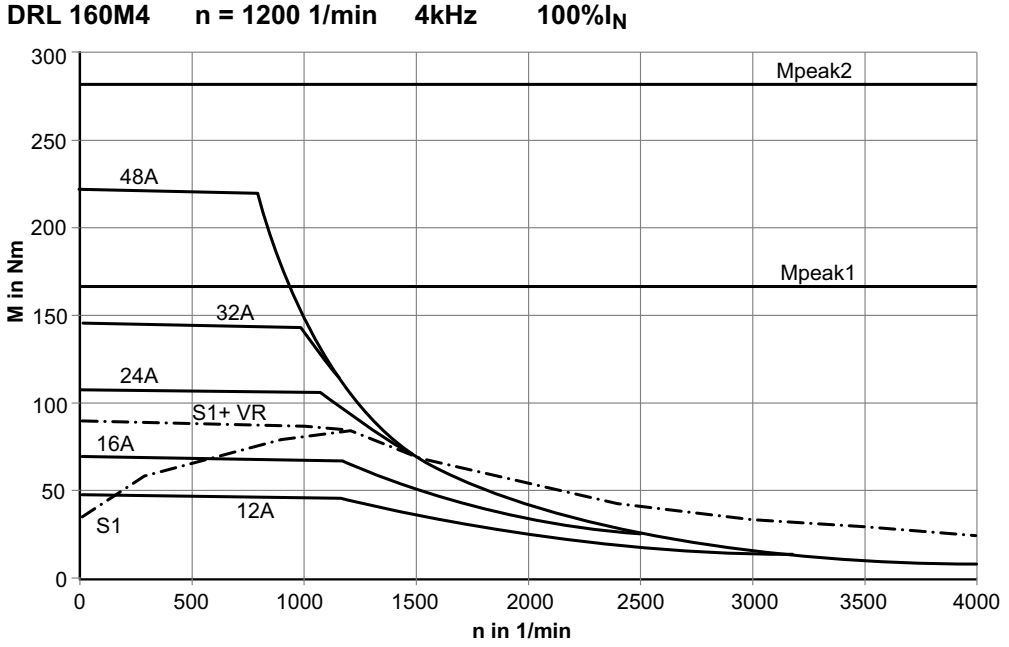
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DRL132MC4, n_N = 3000 1/min, 180% I_N



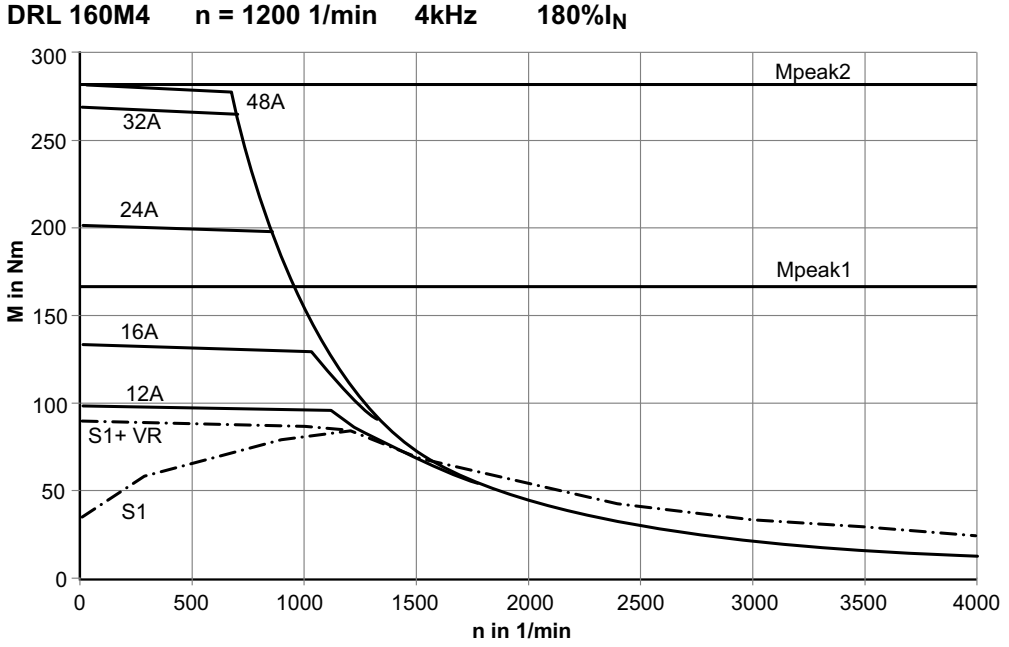
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DRL160M4, n_N = 1200 1/min, 100% I_N



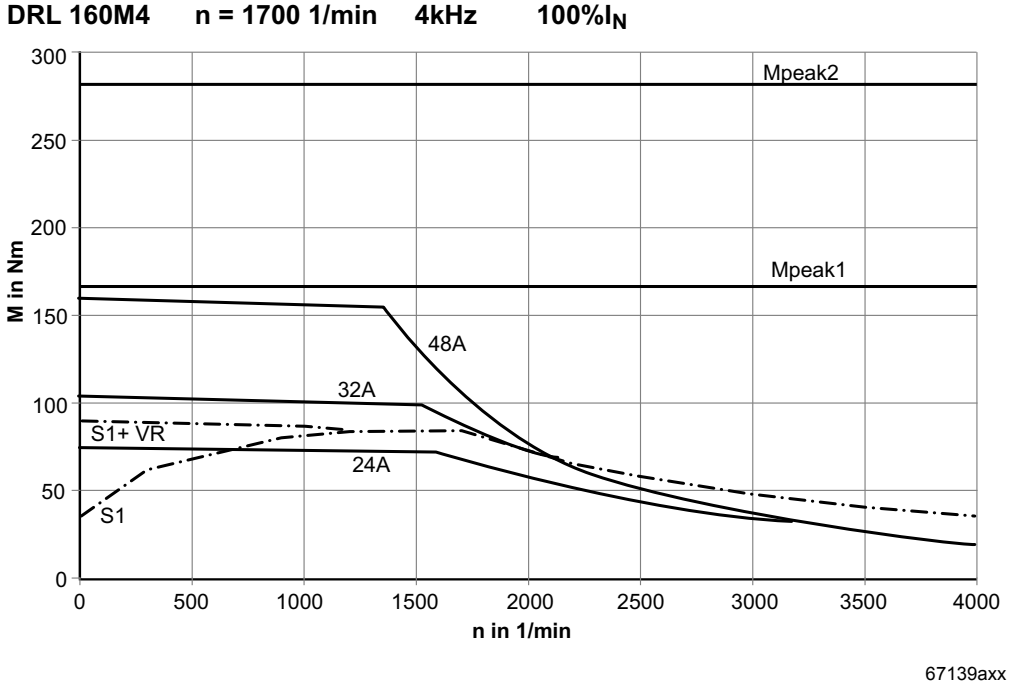
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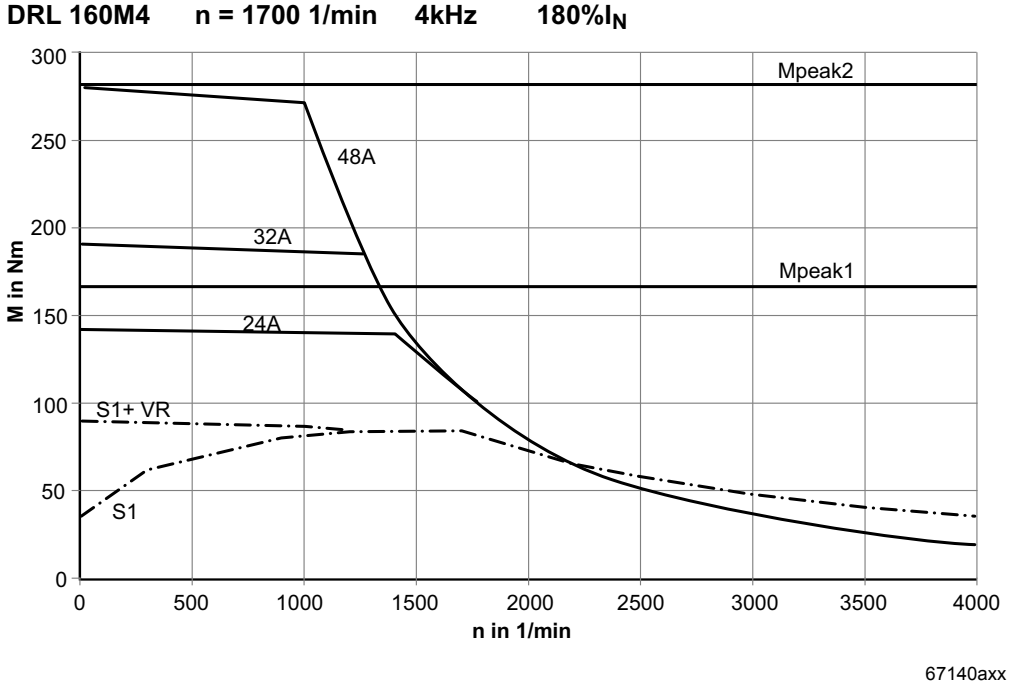
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DRL160M4, n_N = 1700 1/min, 100% I_N



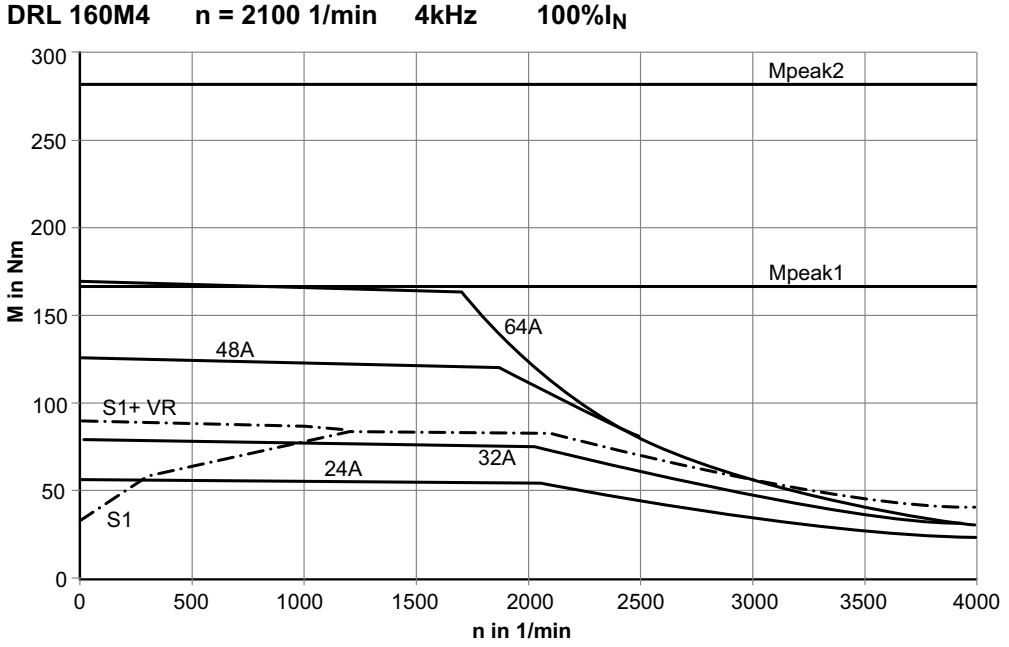
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DRL160M4, n_N = 1700 1/min, 180% I_N



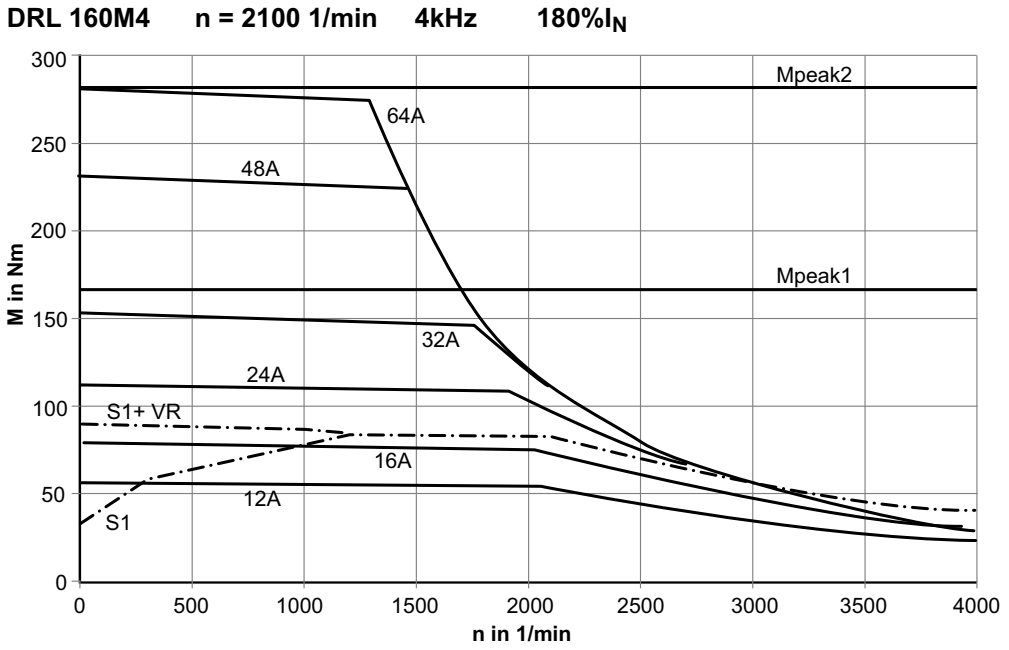
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DRL160M4, n_N = 2100 1/min, 100% I_N



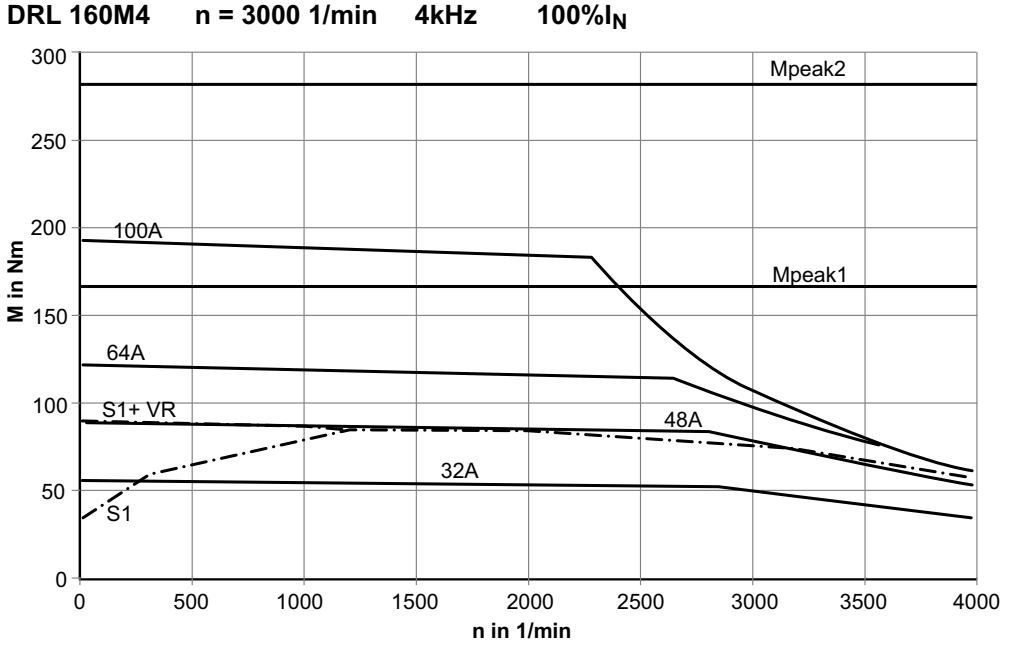
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DRL160M4, n_N = 2100 1/min, 180% I_N



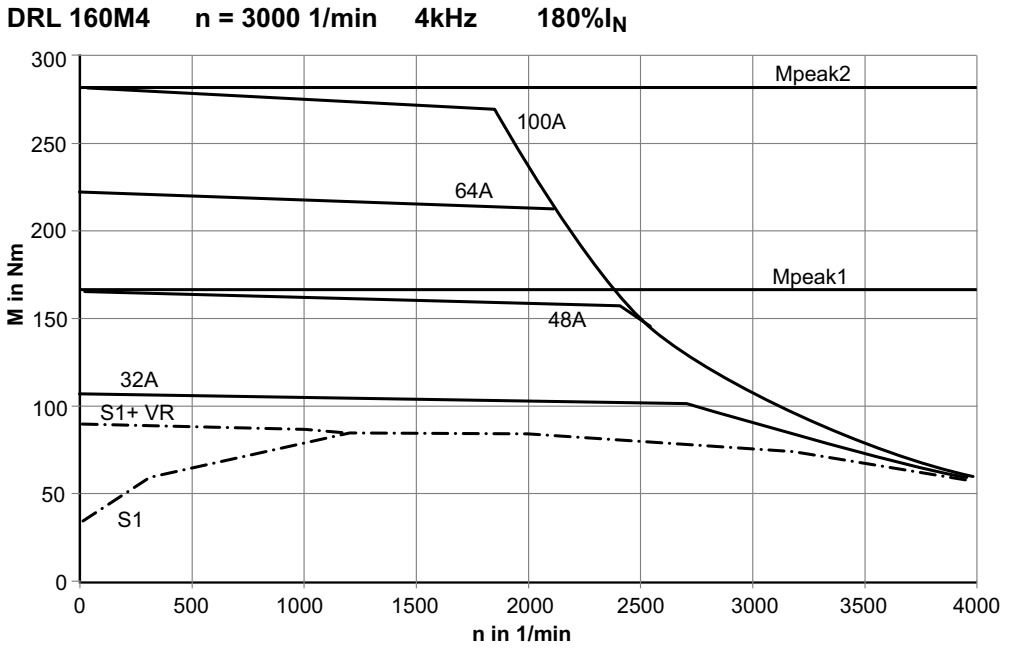
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DRL160M4, n_N = 3000 1/min, 100% I_N



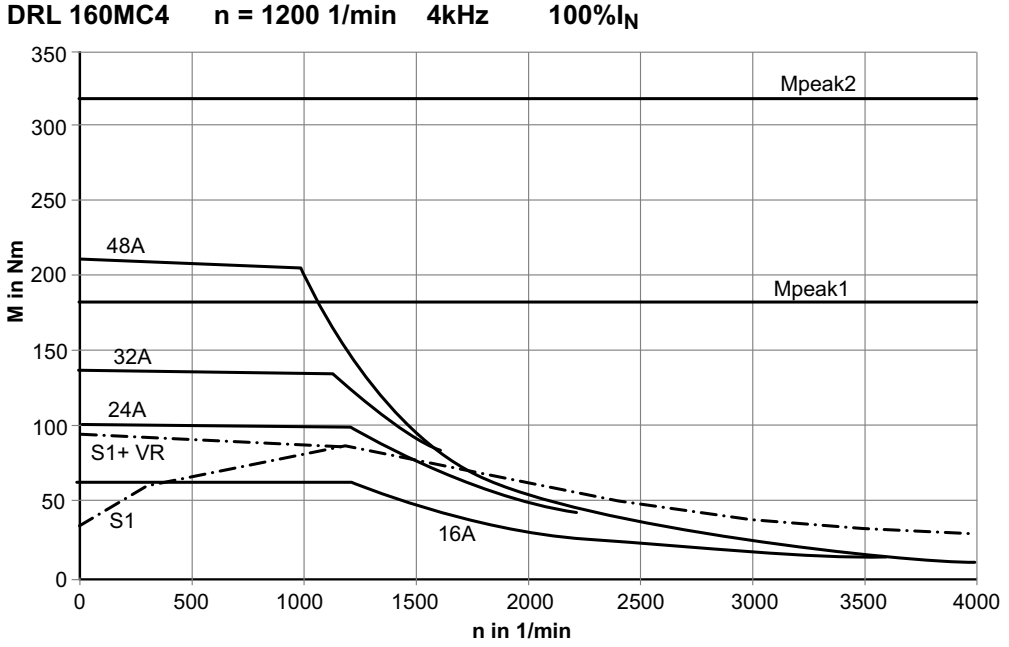
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DRL160M4, n_N = 3000 1/min, 180% I_N



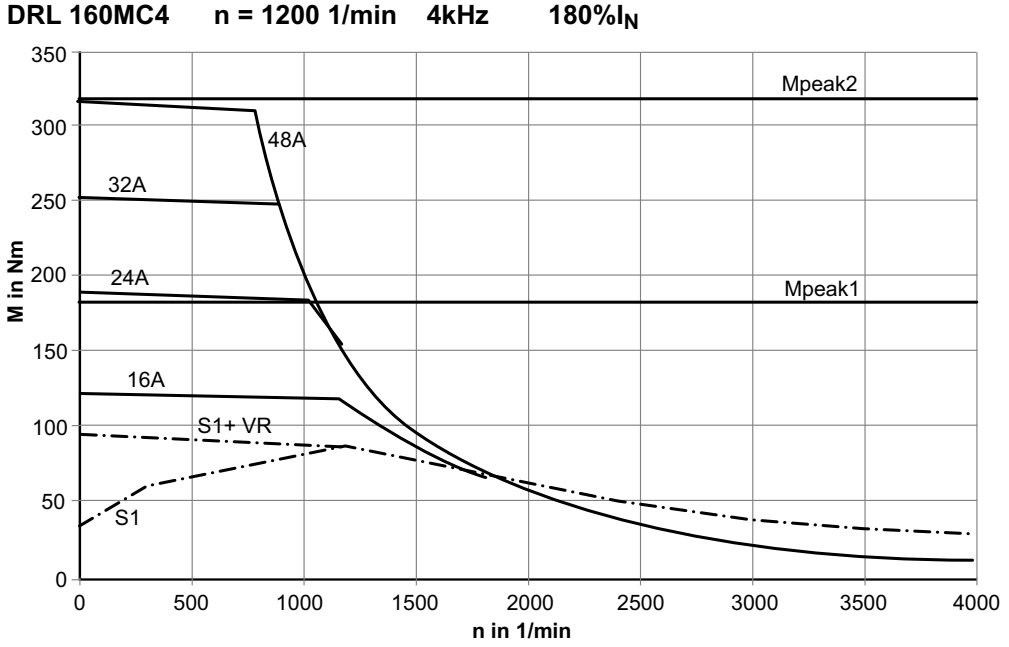
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DRL160MC4, n_N = 1200 1/min, 100% I_N



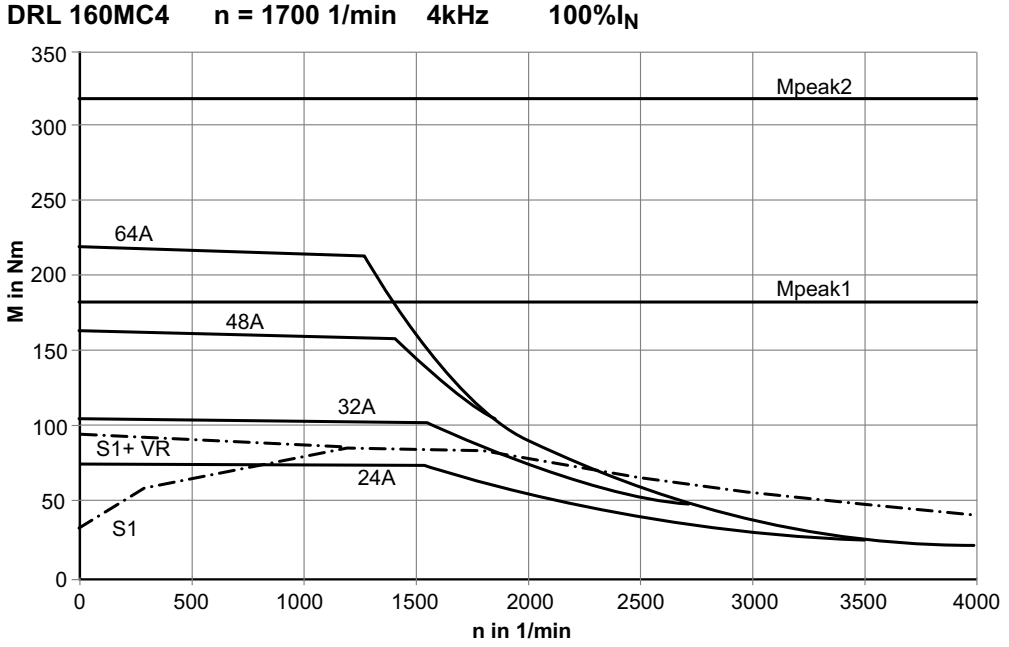
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DRL160MC4, n_N = 1200 1/min, 180% I_N



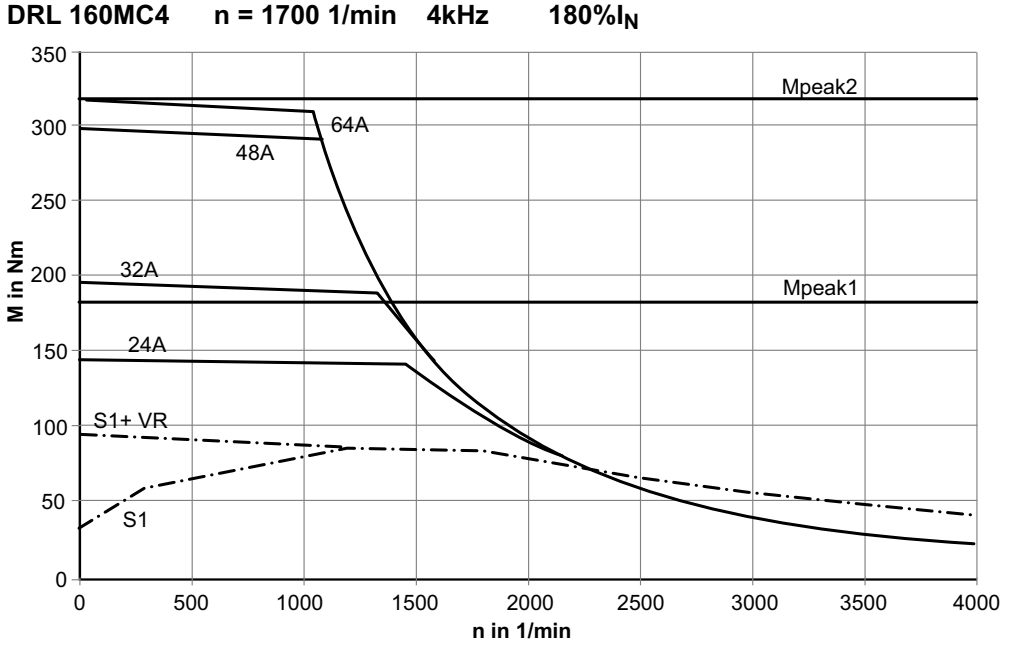
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DRL160MC4, n_N = 1700 1/min, 100% I_N



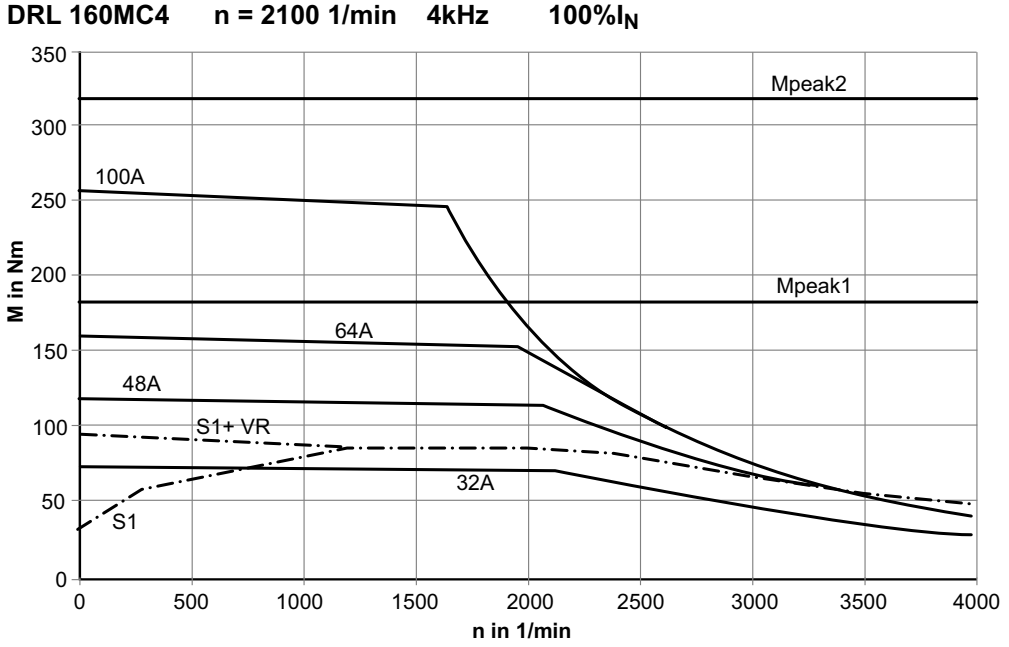
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DRL160MC4, n_N = 1700 1/min, 180% I_N



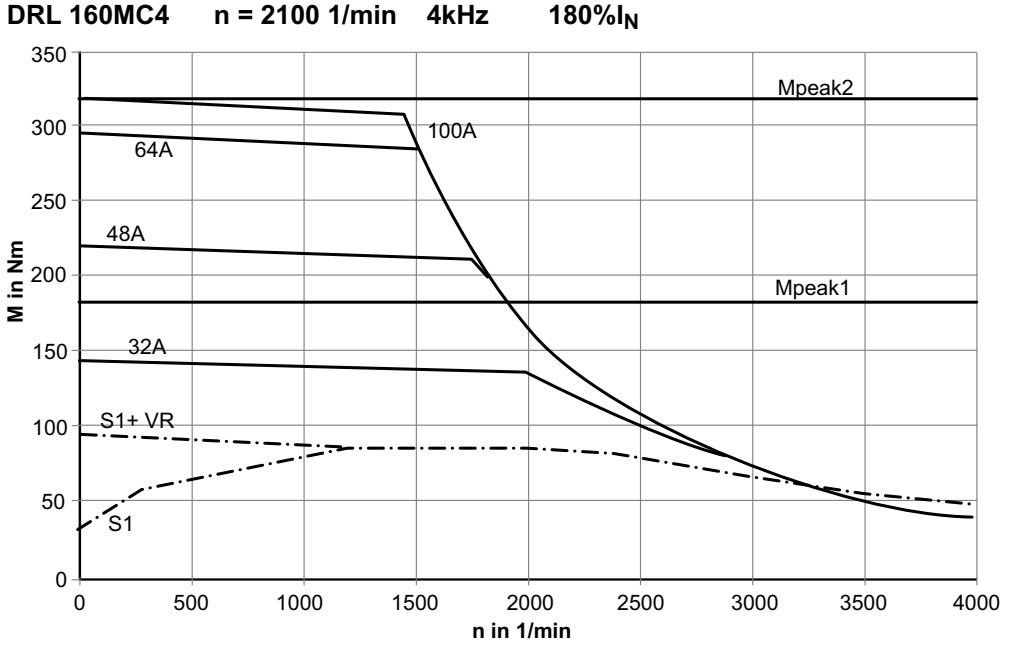
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DRL160MC4, n_N = 2100 1/min, 100% I_N



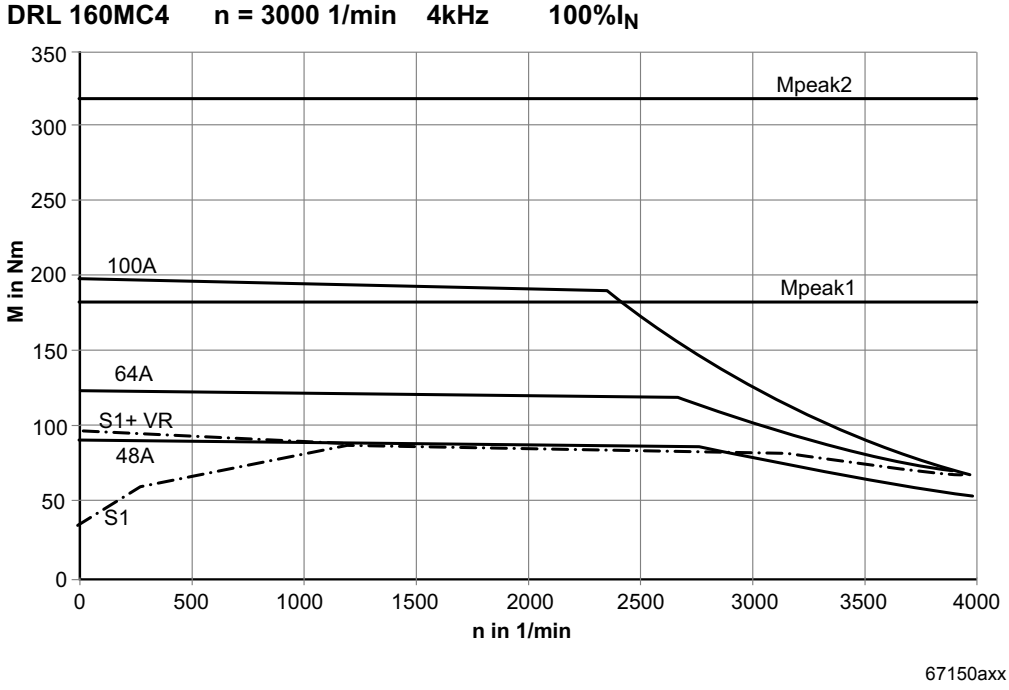
67148axx

DRL160MC4, n_N = 2100 1/min, 180% I_N



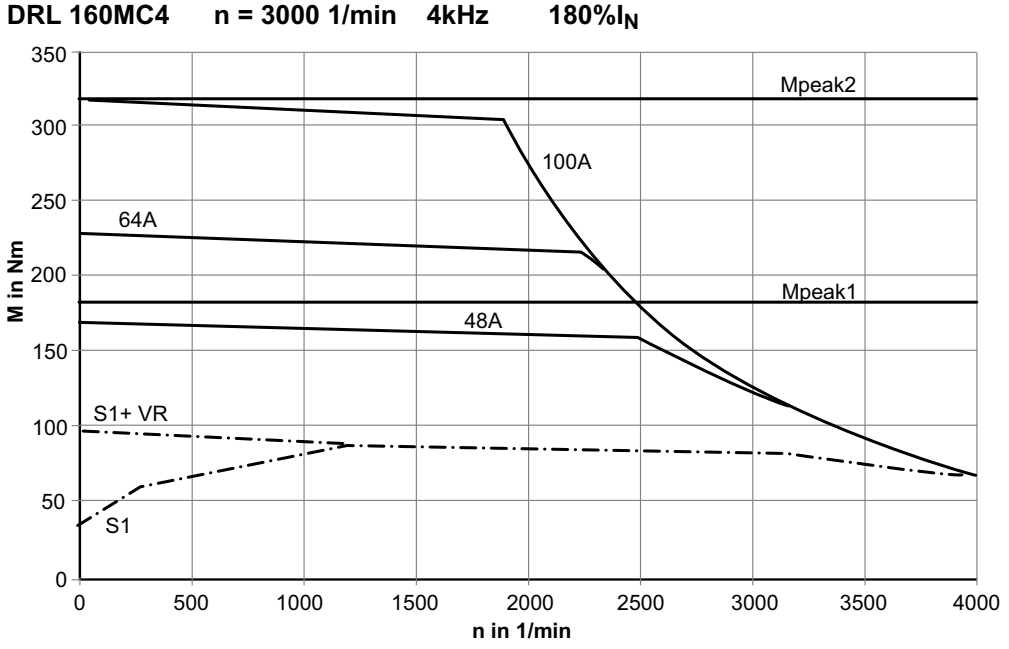
67149axx

DRL160MC4, n_N = 3000 1/min, 100% I_N



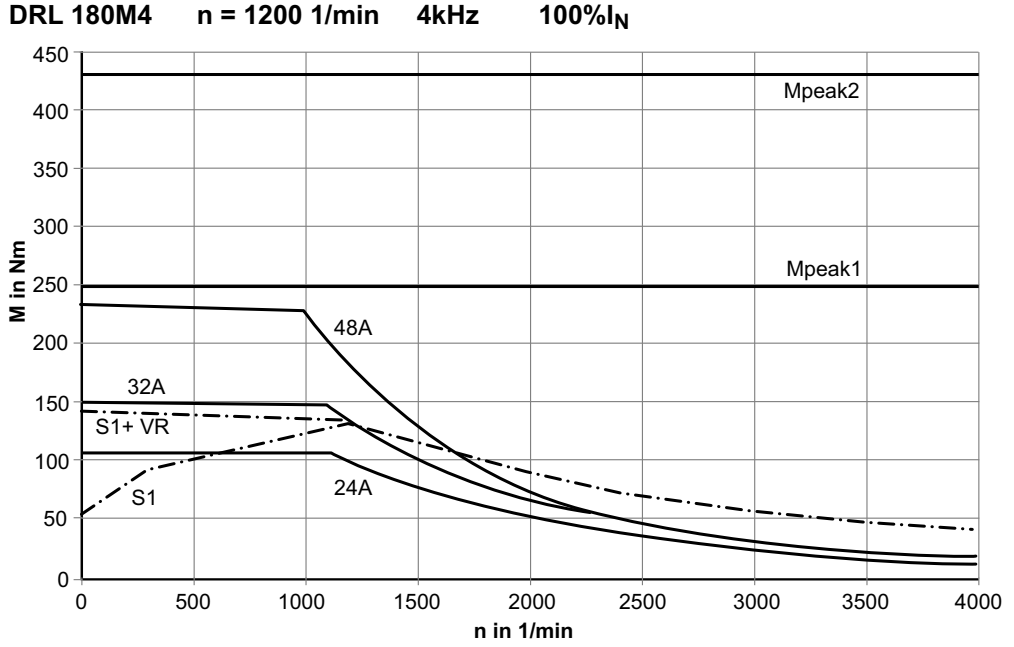
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DRL160MC4, n_N = 3000 1/min, 180% I_N



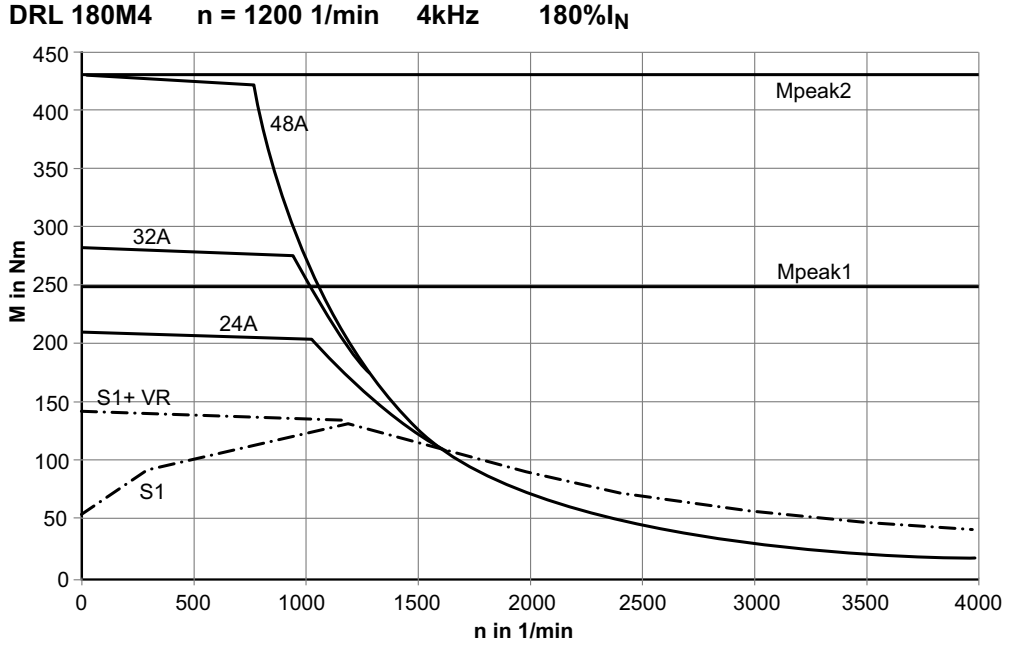
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DRL180M4, n_N = 1200 1/min, 100% I_N



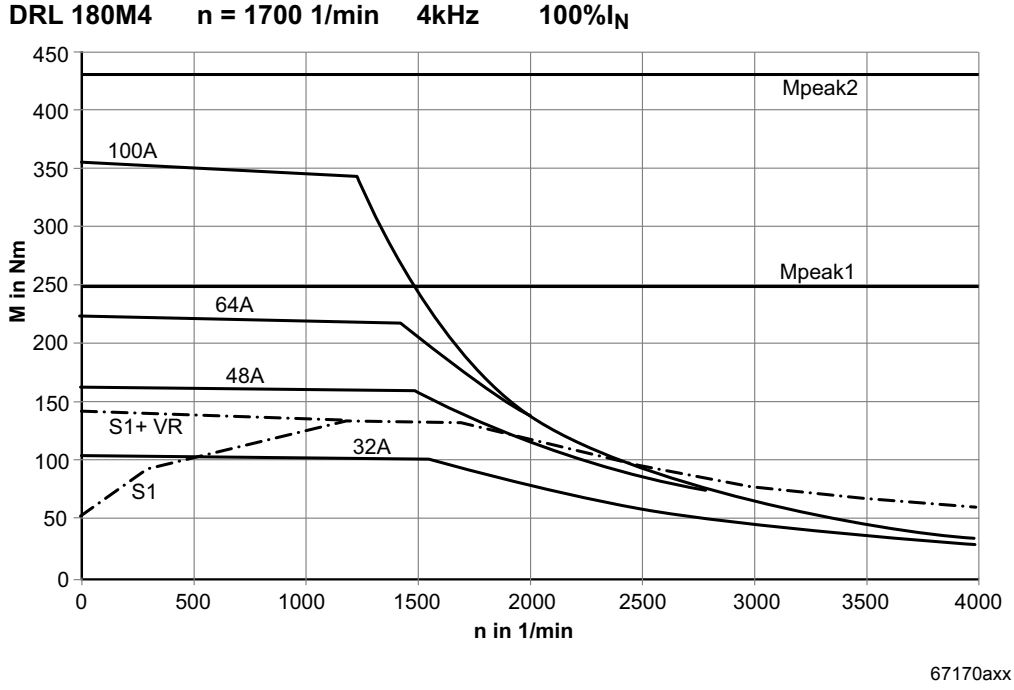
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DRL180M4, n_N = 1200 1/min, 180% I_N



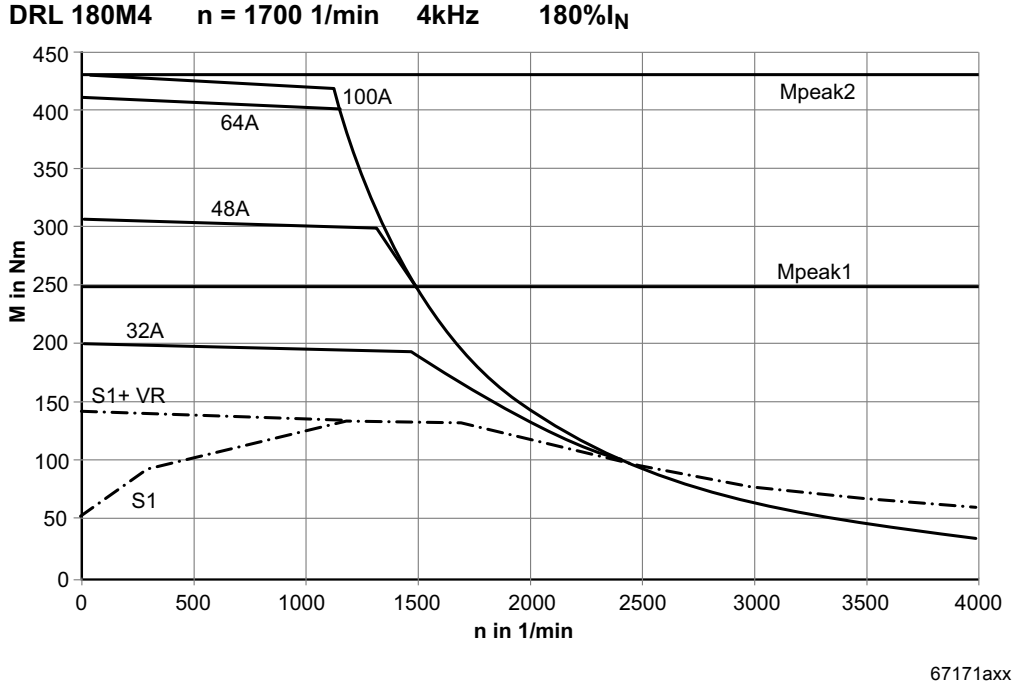
67169axx

DRL180M4, n_N = 1700 1/min, 100% I_N



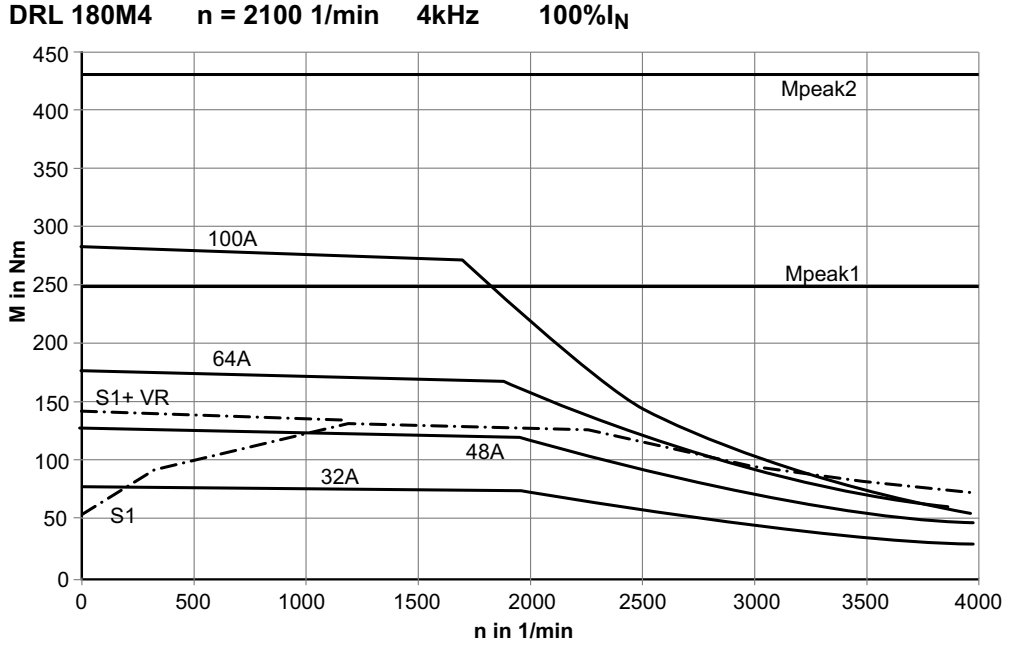
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DRL180M4, n_N = 1700 1/min, 180% I_N



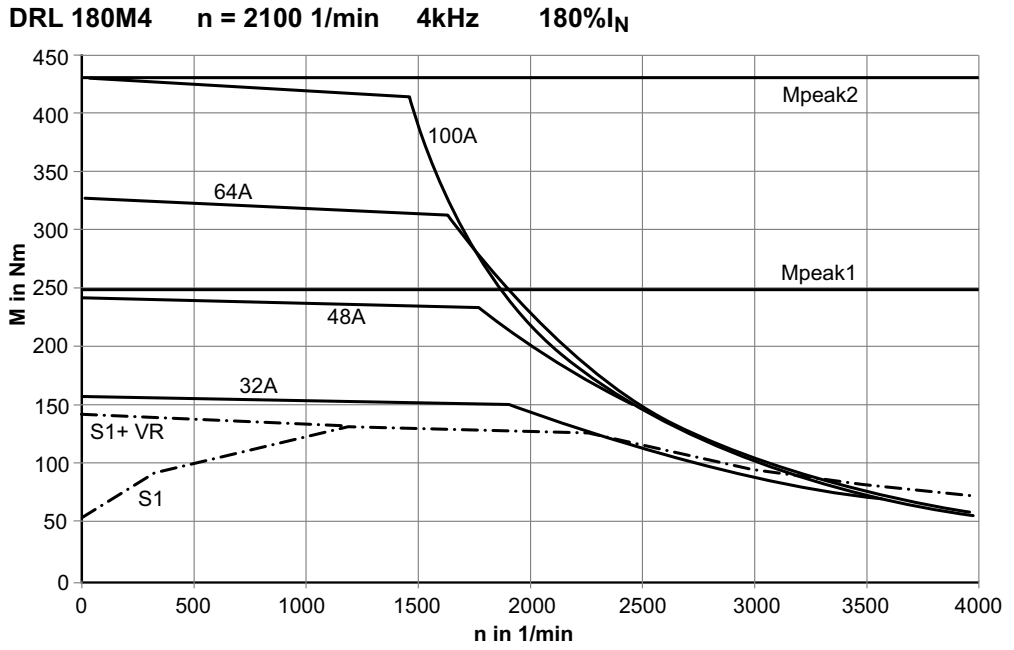
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DRL180M4, n_N = 2100 1/min, 100% I_N



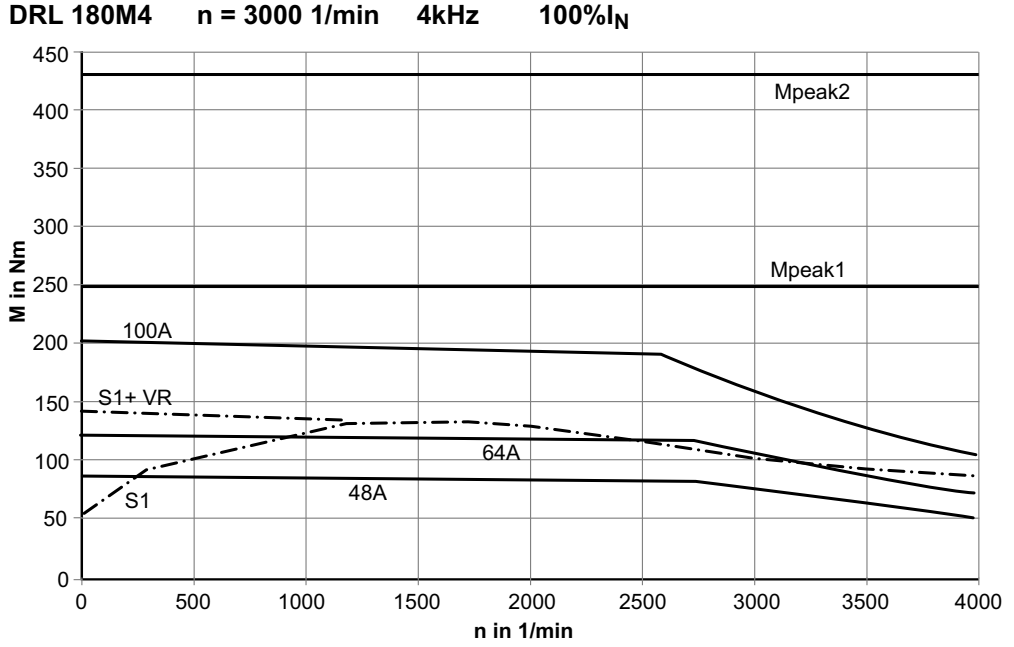
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DRL180M4, n_N = 2100 1/min, 180% I_N



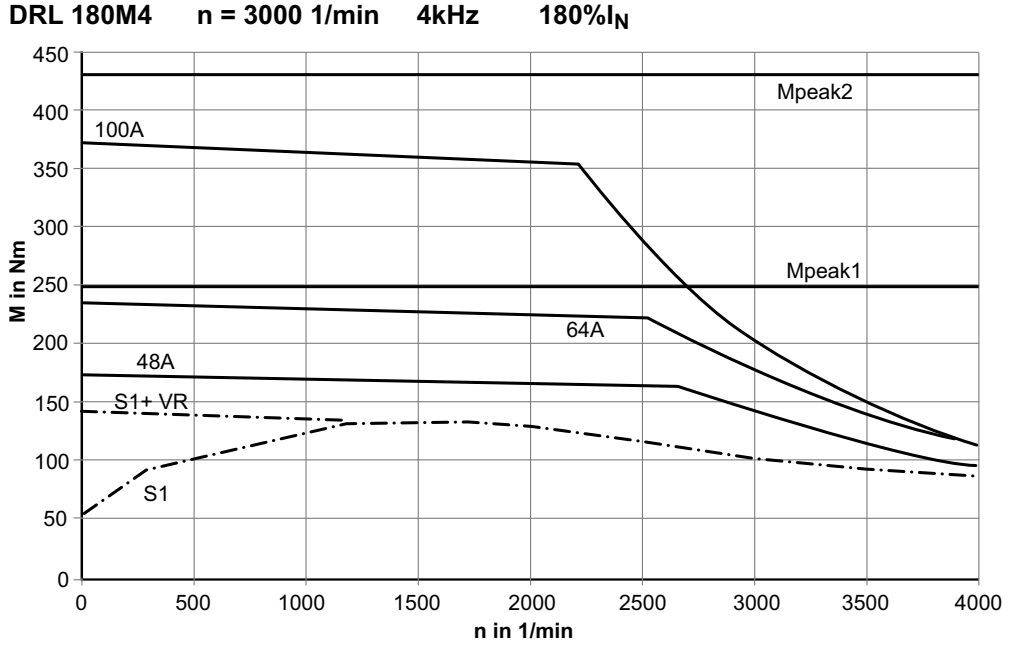
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DRL180M4, n_N = 3000 1/min, 100% I_N



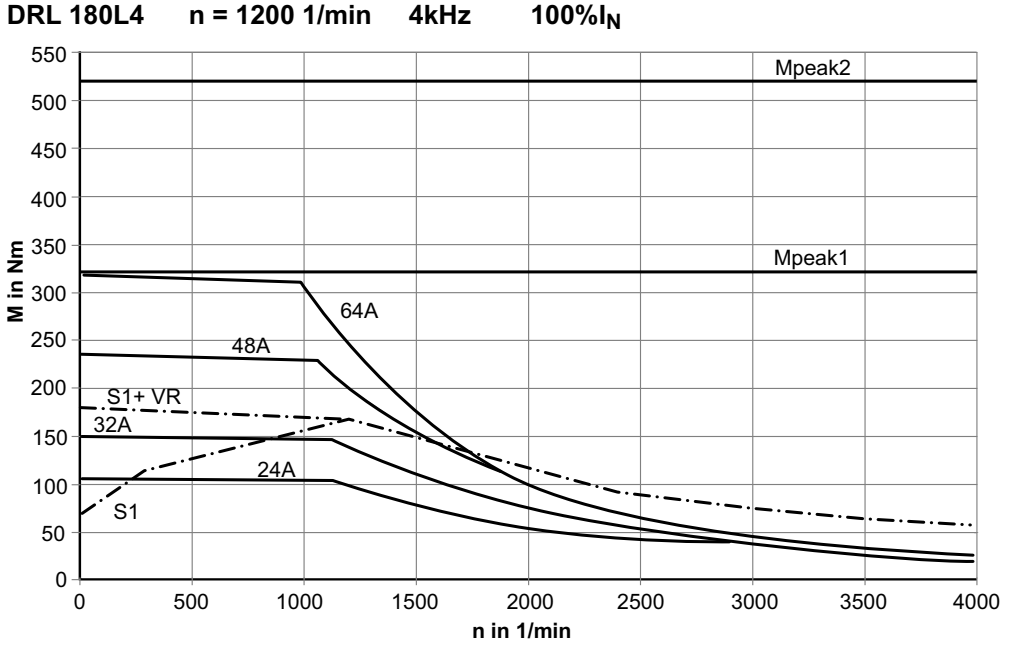
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DRL180M4, n_N = 3000 1/min, 180% I_N



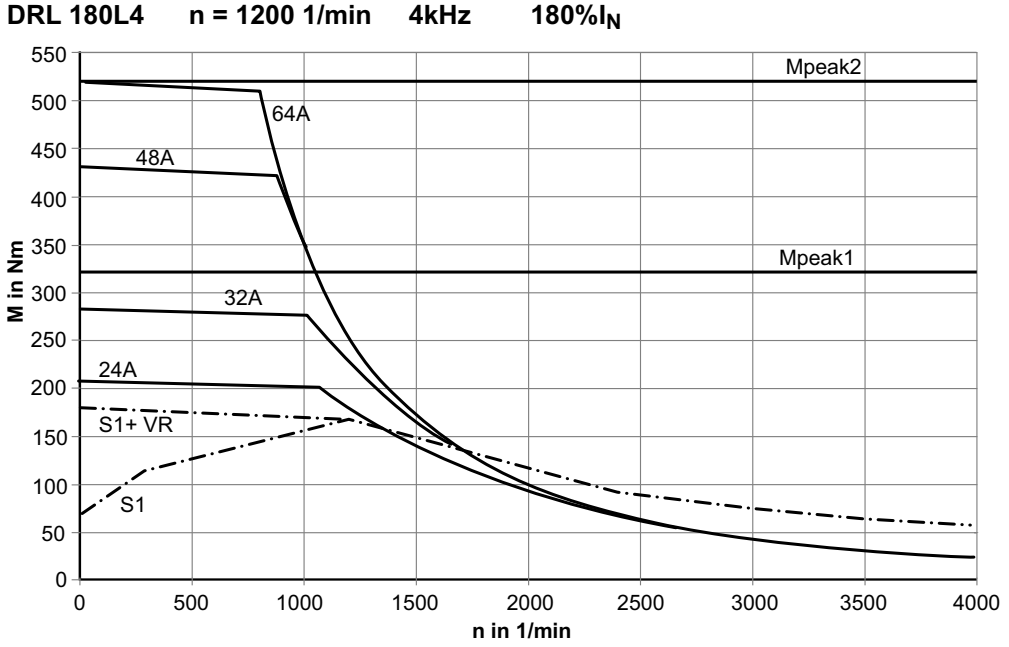
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DRL180L4, n_N = 1200 1/min, 100% I_N



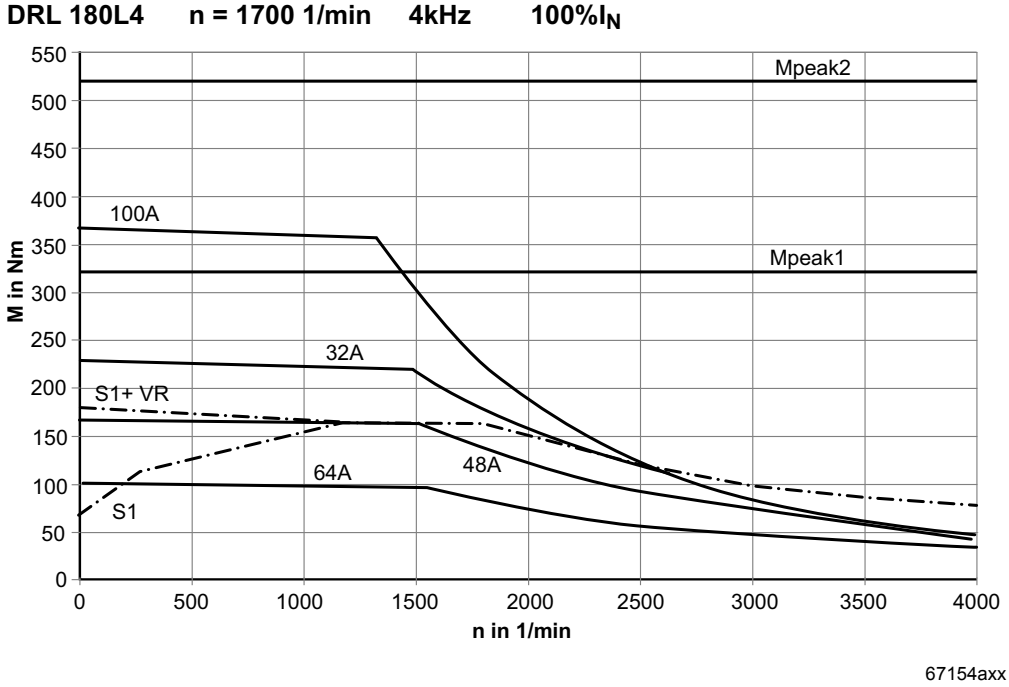
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DRL180L4, n_N = 1200 1/min, 180% I_N



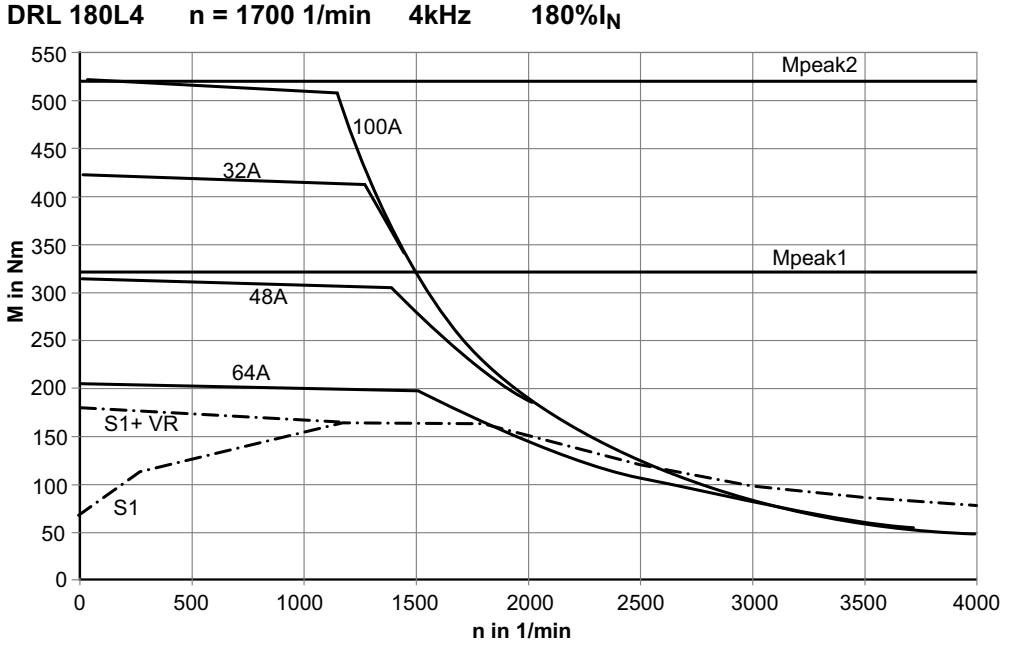
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DRL180L4, n_N = 1700 1/min, 100% I_N



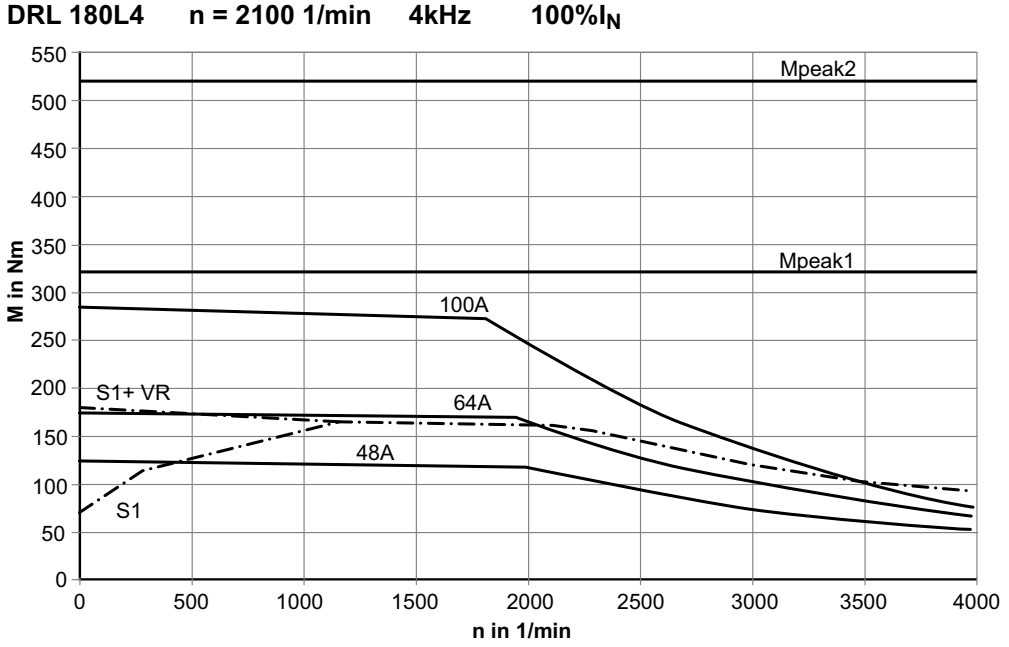
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DRL180L4, n_N = 1700 1/min, 180% I_N



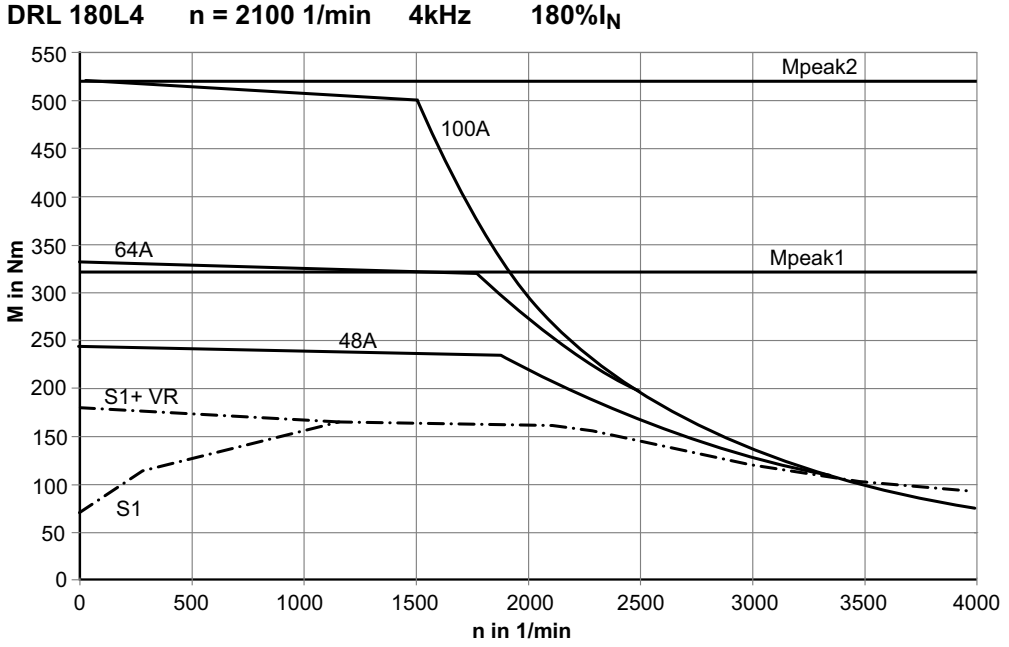
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DRL180L4, n_N = 2100 1/min, 100% I_N



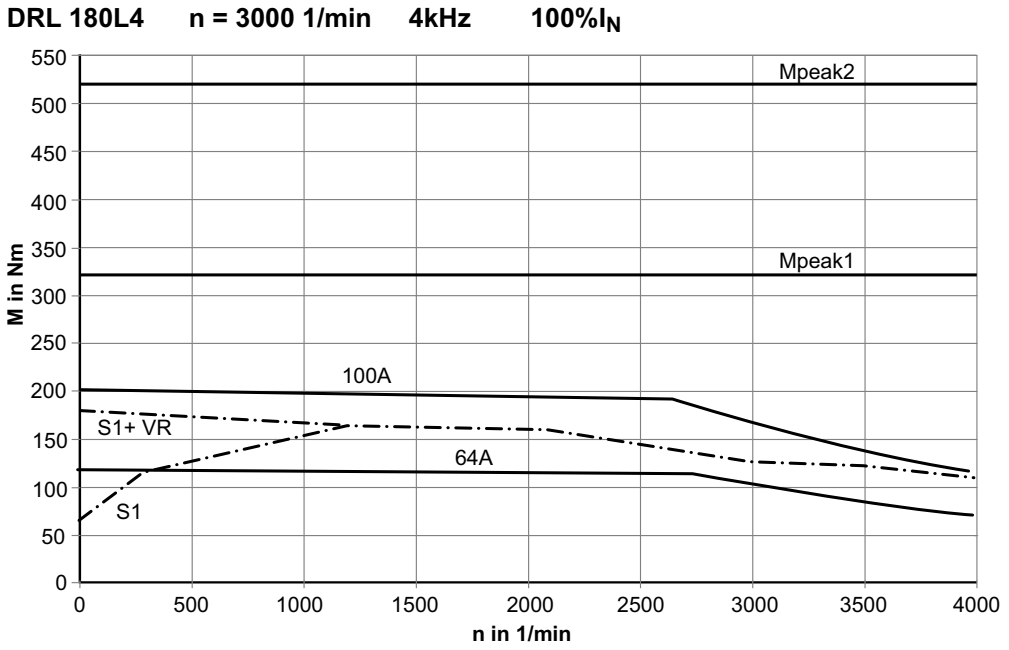
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DRL180L4, n_N = 2100 1/min, 180% I_N



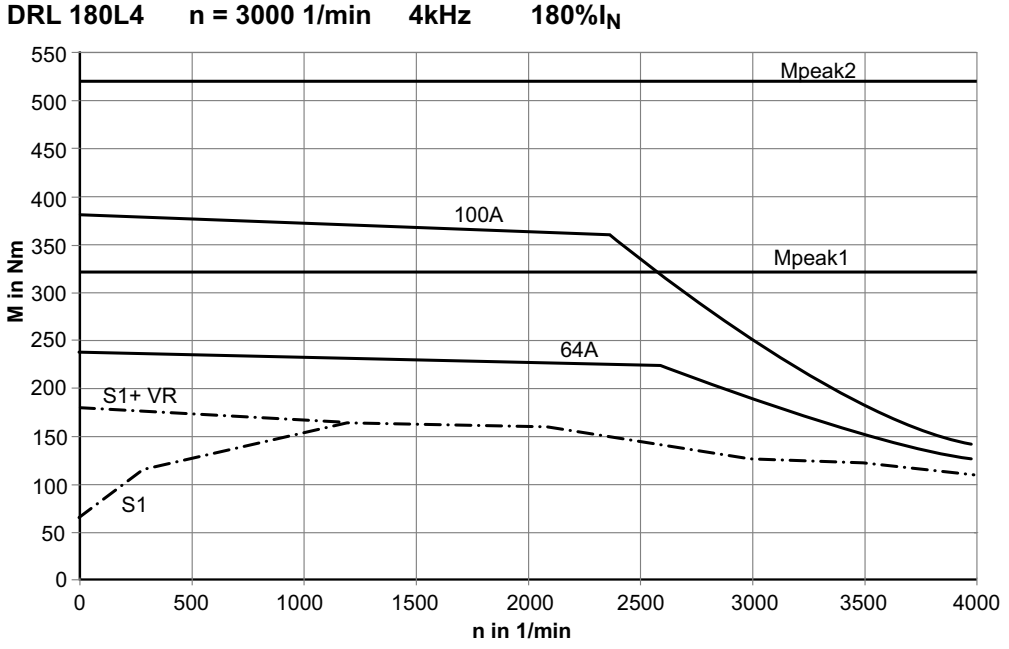
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DRL180L4, n_N = 3000 1/min, 100% I_N



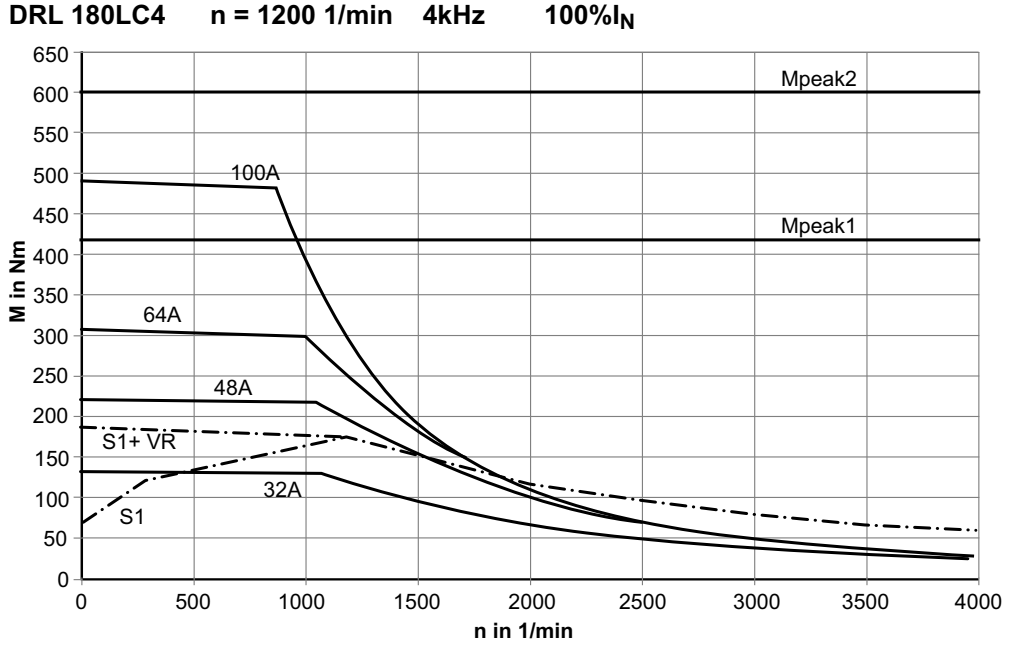
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DRL180L4, n_N = 3000 1/min, 180% I_N



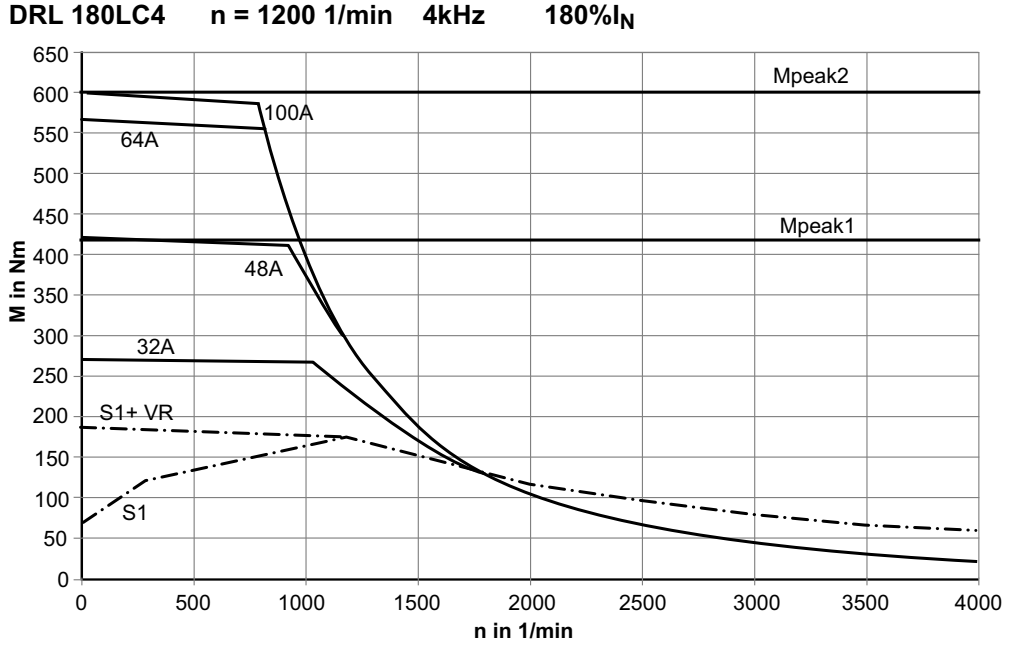
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DRL180LC4, n_N = 1200 1/min, 100% I_N



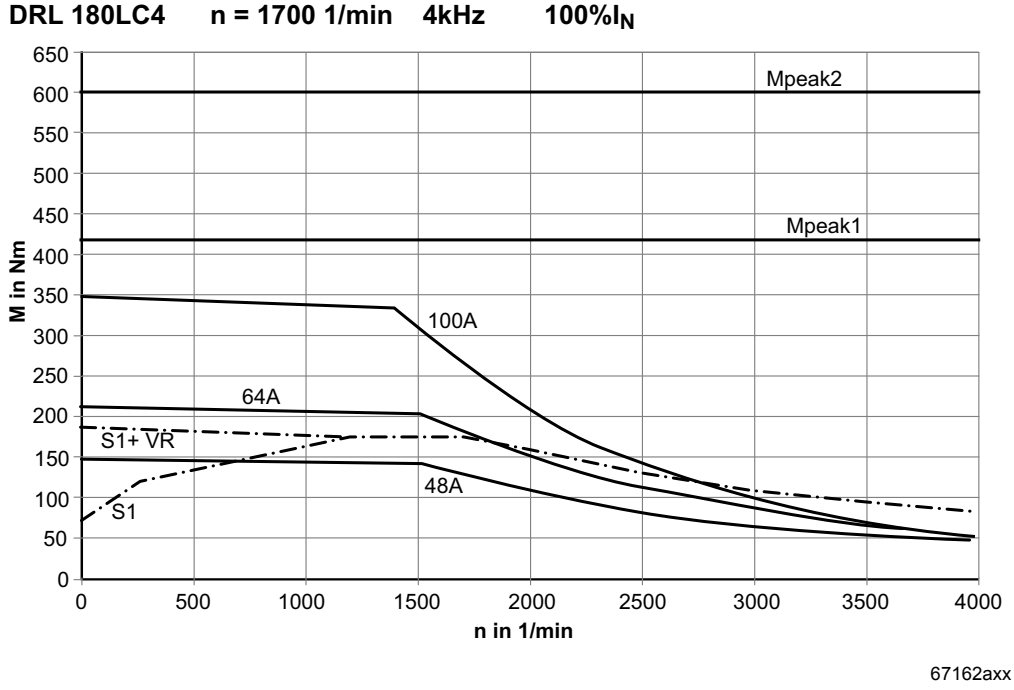
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DRL180LC4, n_N = 1200 1/min, 180% I_N



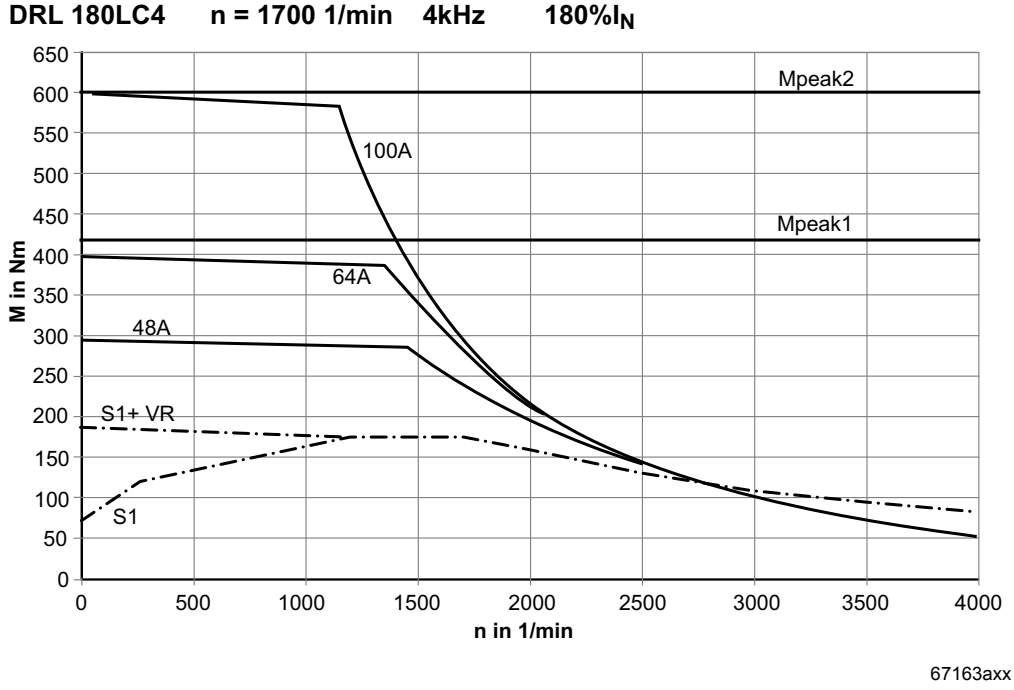
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DRL180LC4, n_N = 1700 1/min, 100% I_N



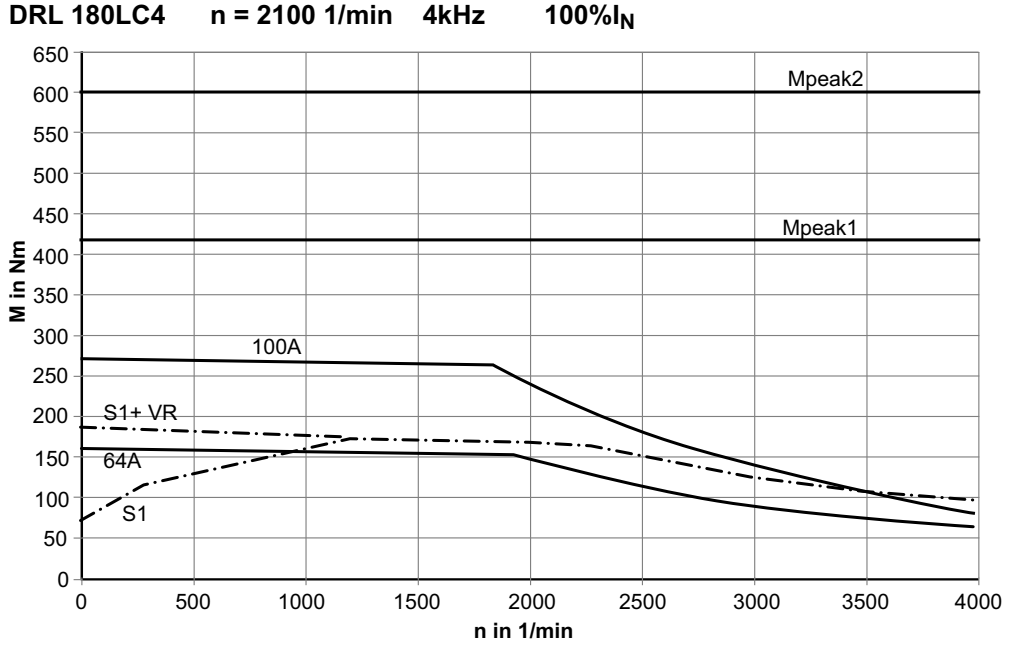
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DRL180LC4, n_N = 1700 1/min, 180% I_N



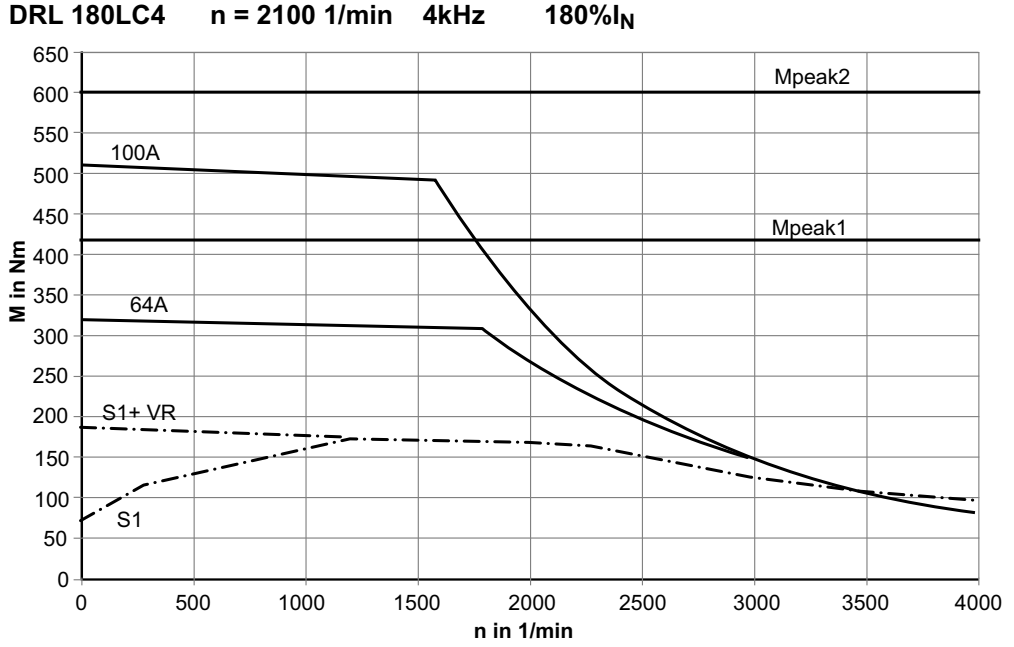
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DRL180LC4, n_N = 2100 1/min, 100% I_N



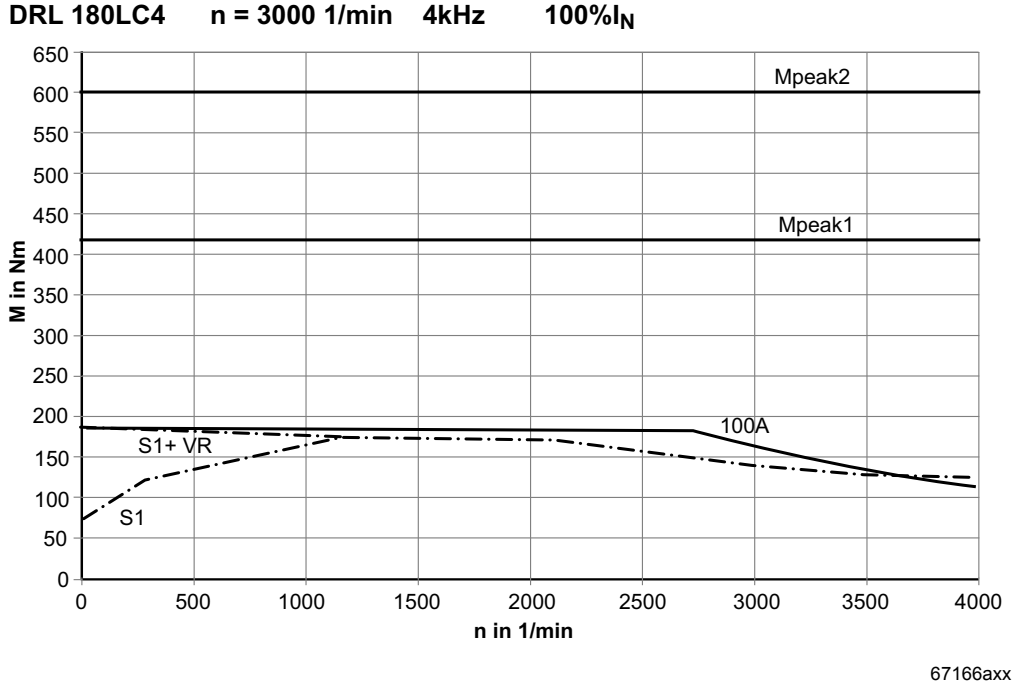
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DRL180LC4, n_N = 2100 1/min, 180% I_N



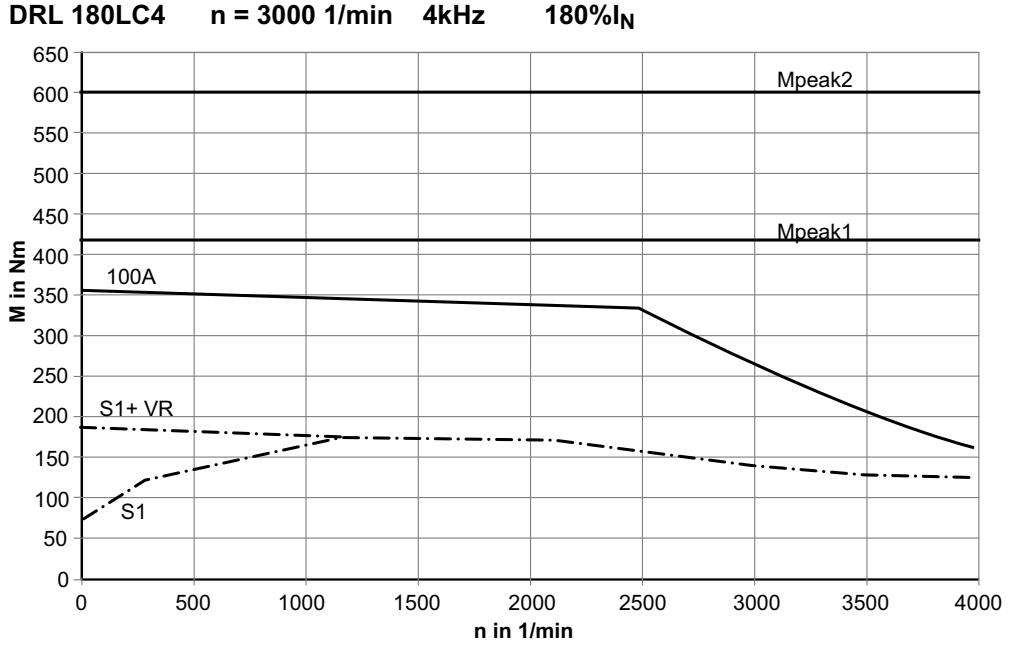
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DRL180LC4, n_N = 3000 1/min, 100% I_N



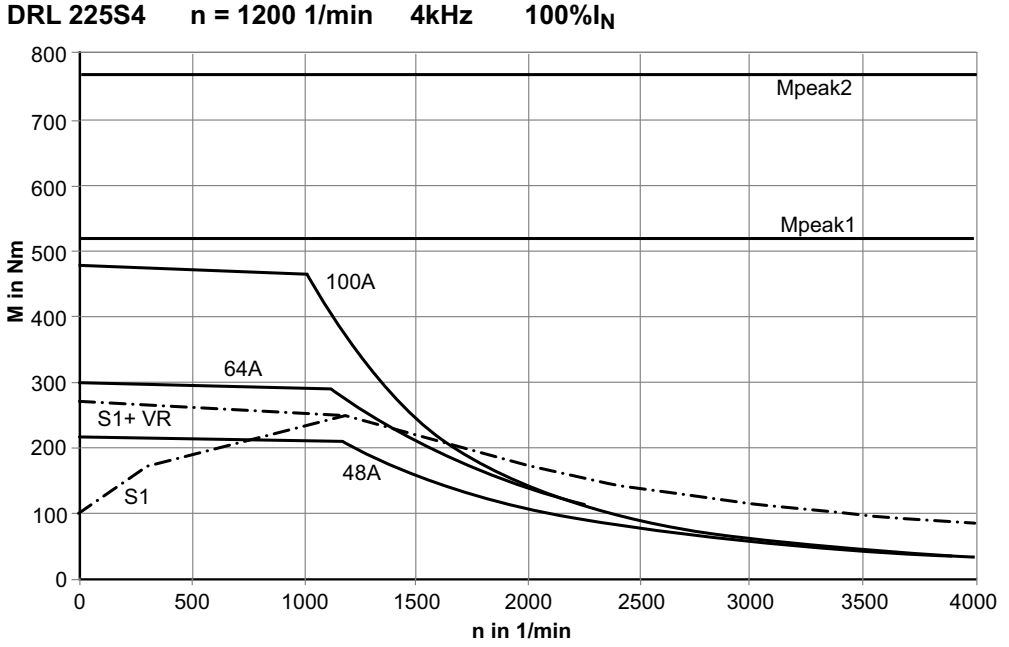
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DRL180LC4, n_N = 3000 1/min, 180% I_N



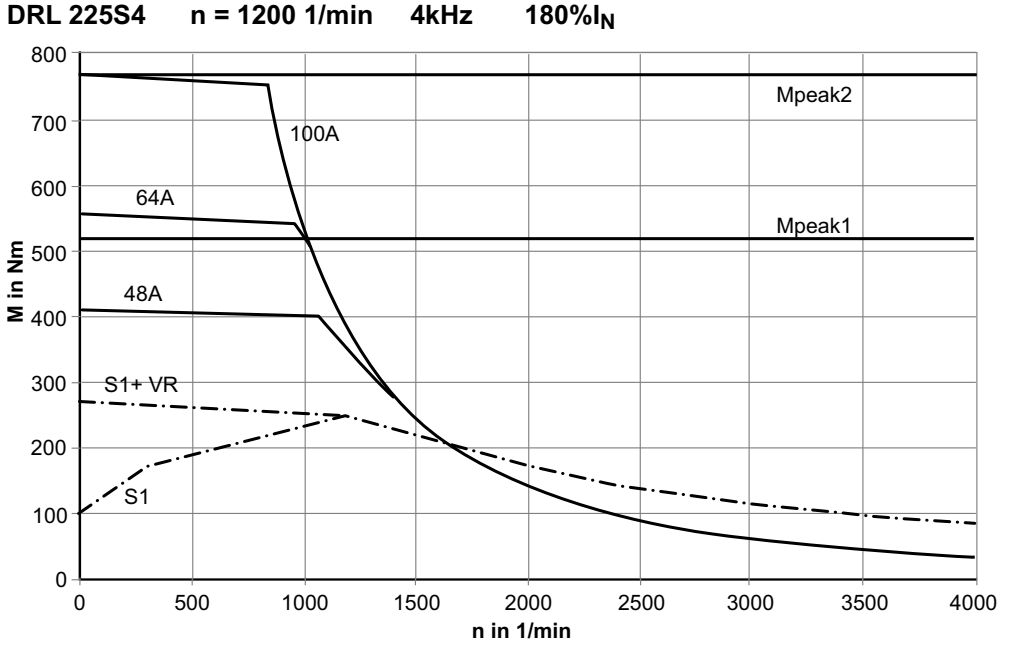
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DRL225S4, n_N = 1200 1/min, 100% I_N



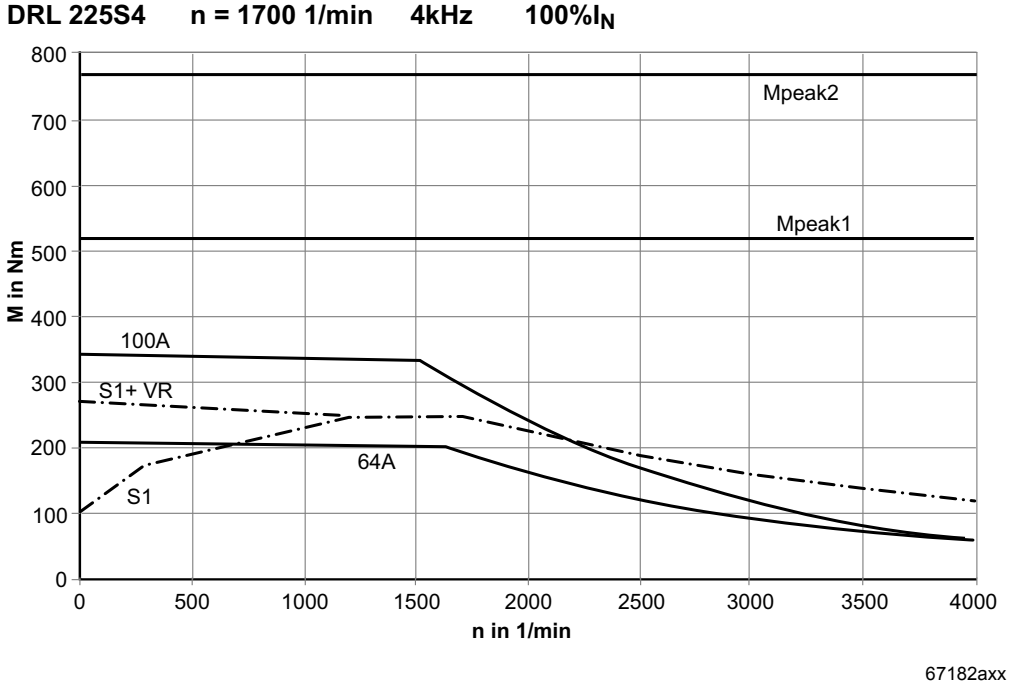
67180axx

DRL225S4, n_N = 1200 1/min, 180% I_N



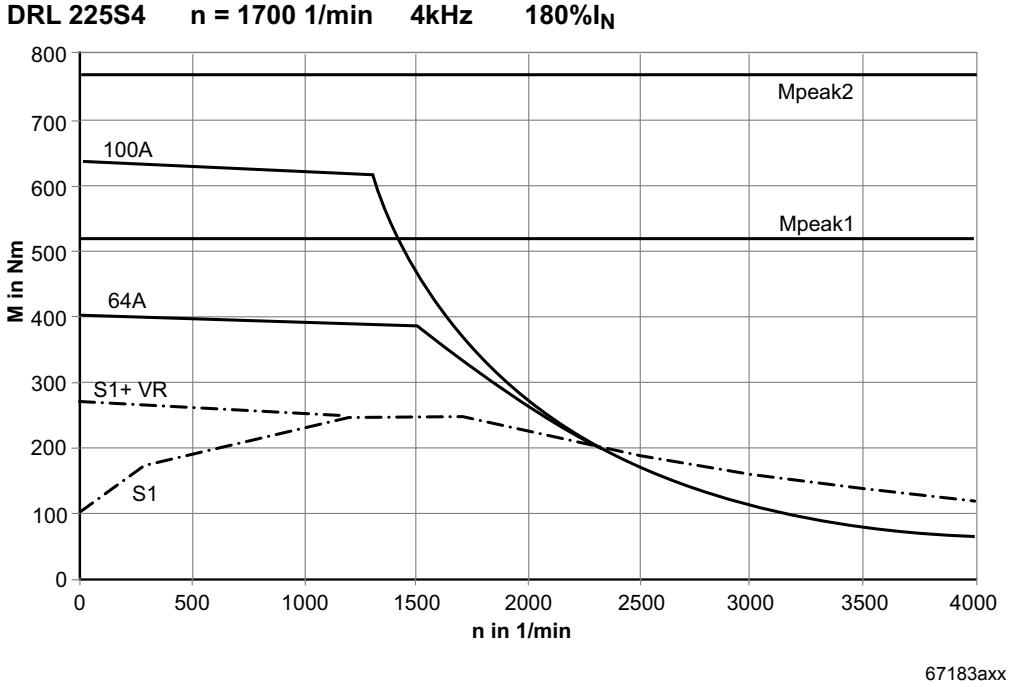
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DRL225S4, n_N = 1700 1/min, 100% I_N



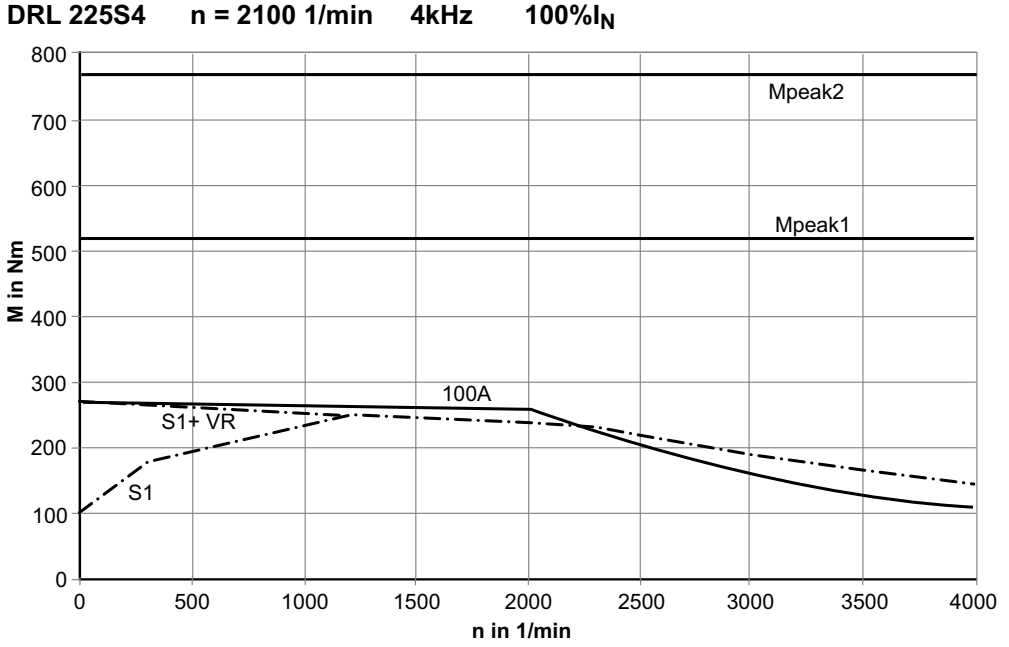
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DRL225S4, n_N = 1700 1/min, 180% I_N



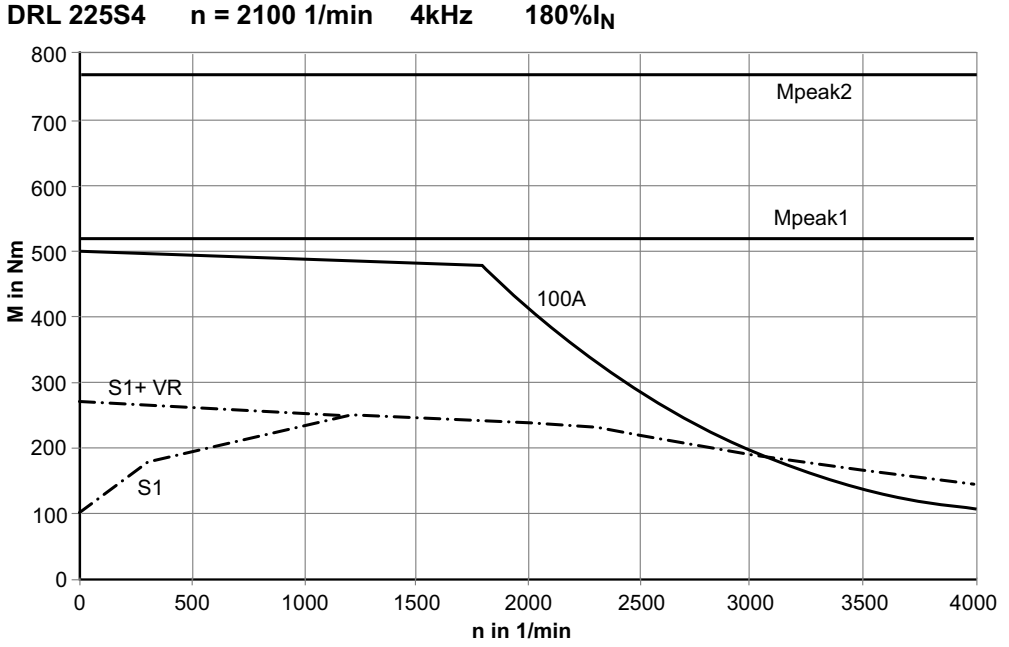
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DRL225S4, n_N = 2100 1/min, 100% I_N



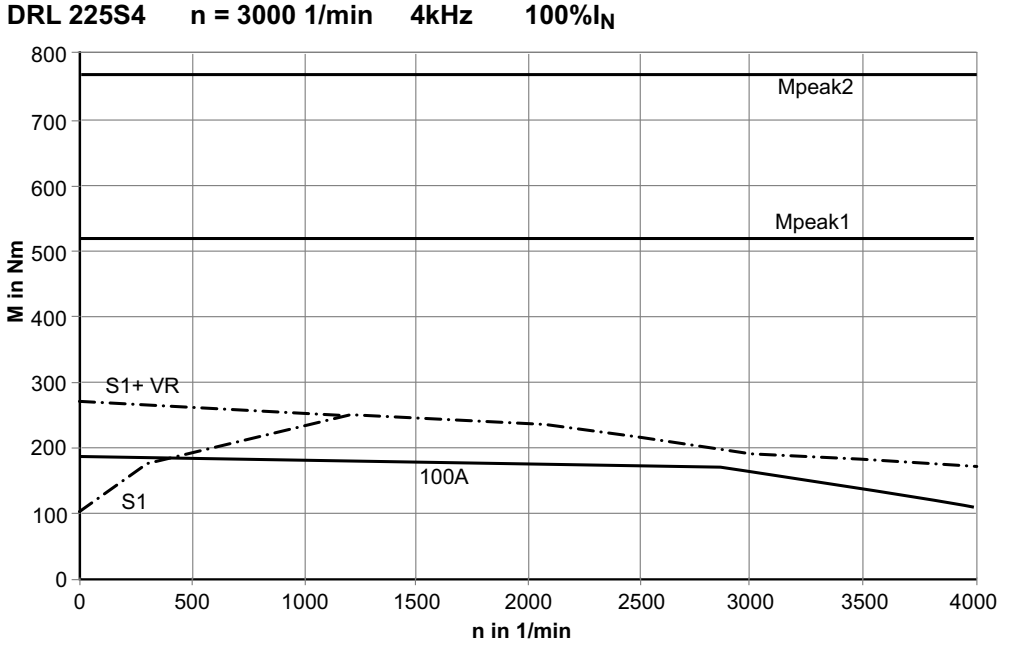
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DRL225S4, n_N = 2100 1/min, 180% I_N

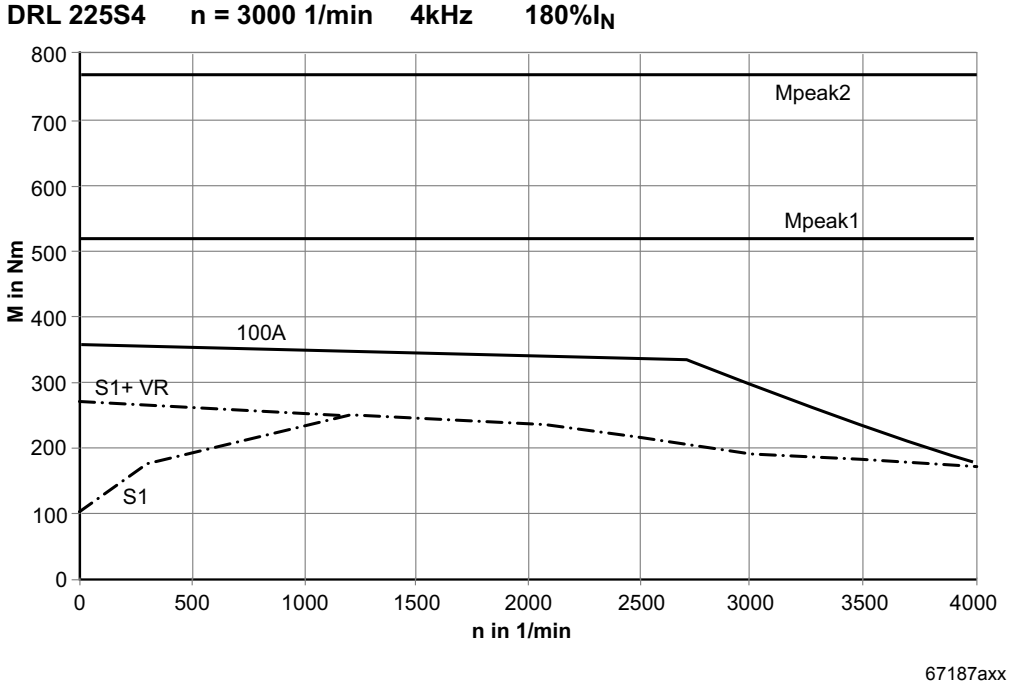


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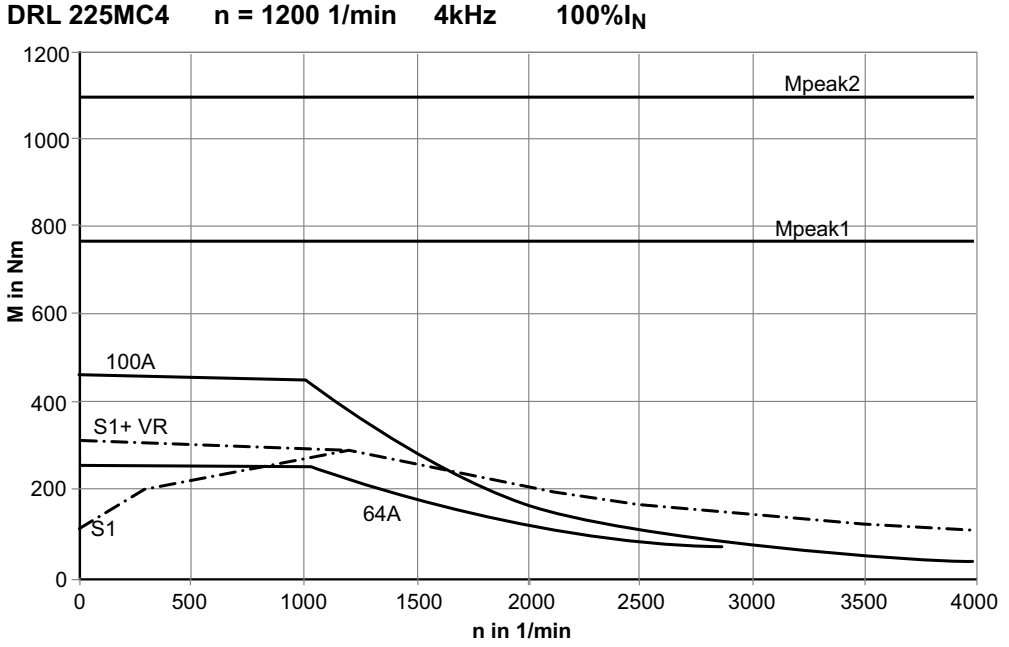
DRL225S4, n_N = 3000 1/min, 100% I_N



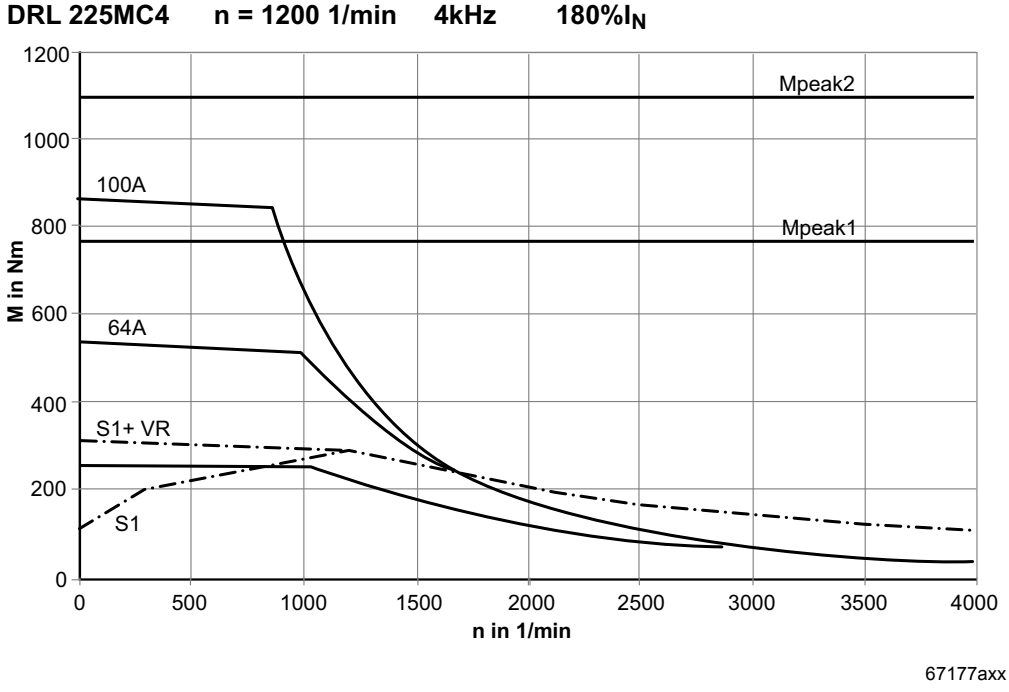
DRL225S4, n_N = 3000 1/min, 180% I_N



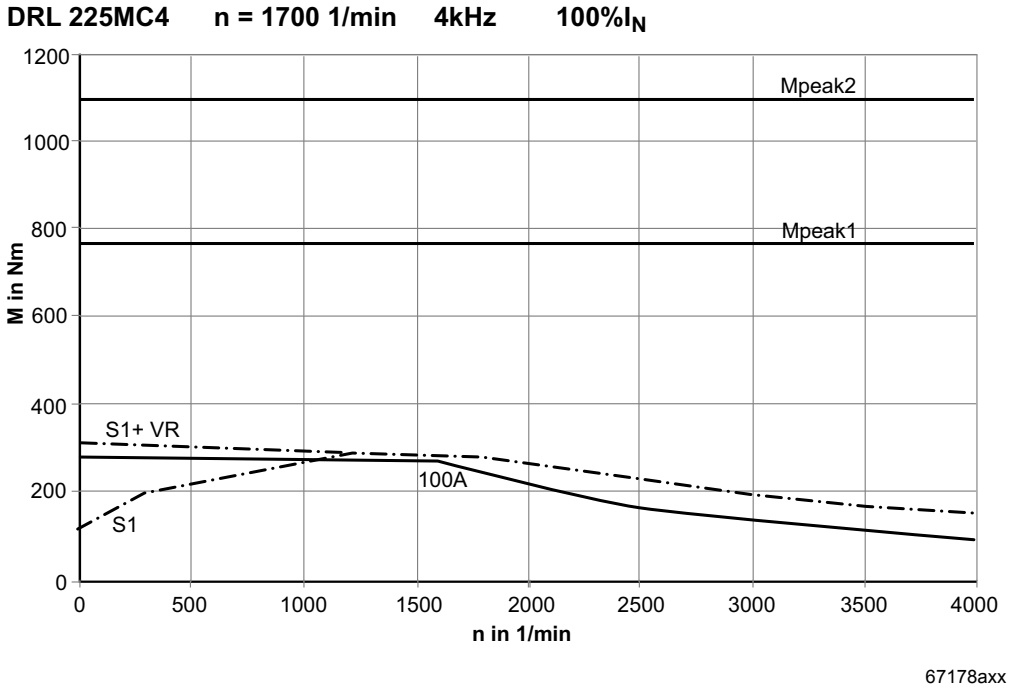
DRL225MC4, n_N = 1200 1/min, 100% I_N



DRL225MC4, n_N = 1200 1/min, 180% I_N

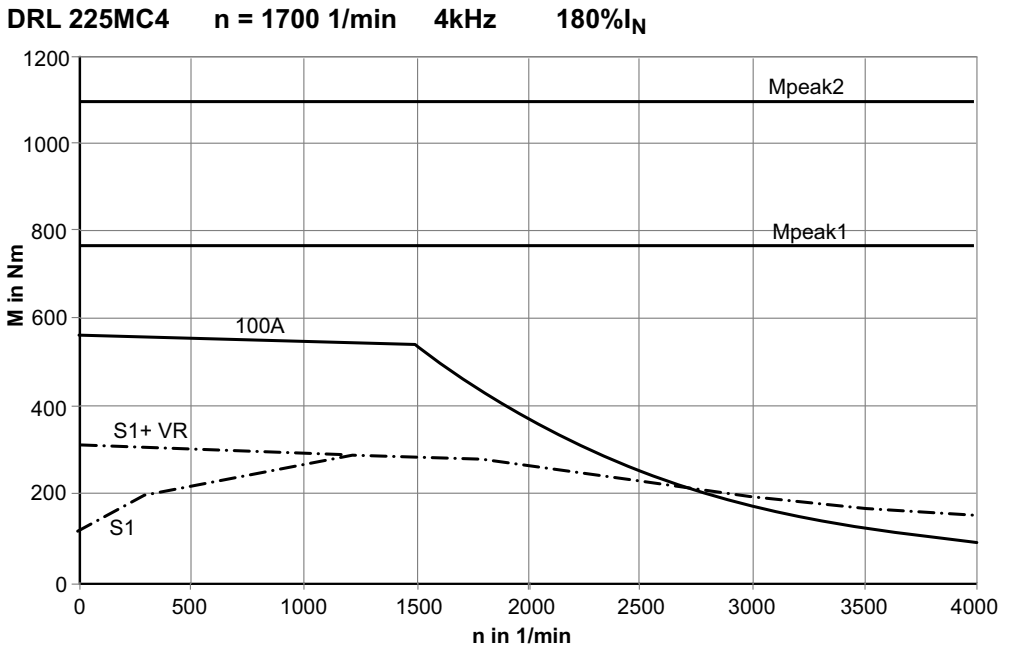


DRL225MC4, n_N = 1700 1/min, 100% I_N



67178axx

DRL225MC4, n_N = 1700 1/min, 180% I_N



67179axx

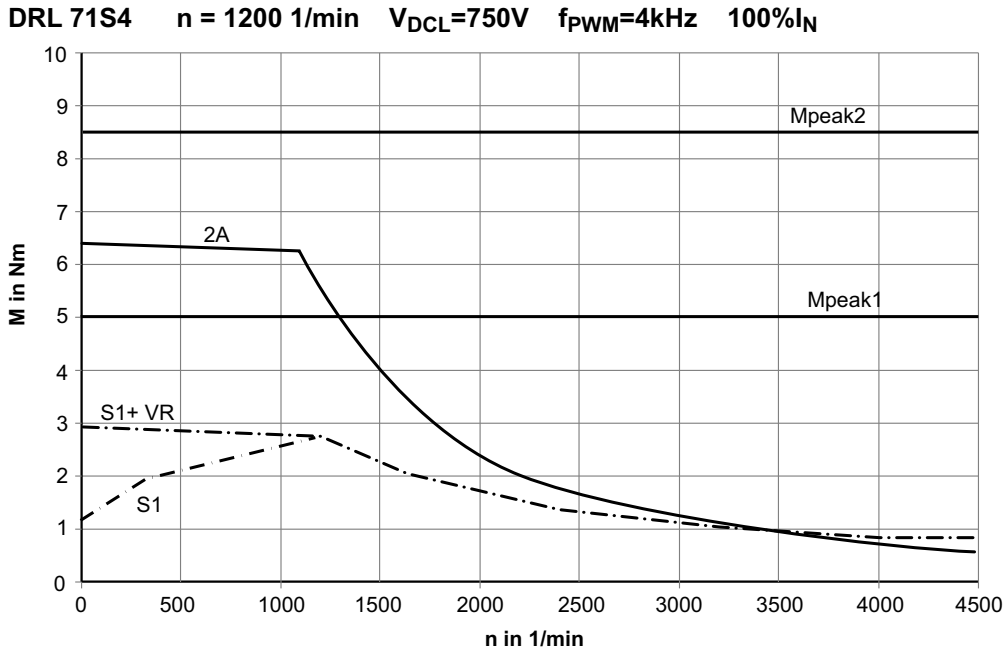
5.3 Limit characteristic curves: DRL – MOVIAXIS®, V_{DCL} = 750 V, PWM = 4 kHz

Key to the dynamic and thermal limit characteristic curves

S1	S1 characteristic curve (thermal limit characteristic curve)
S1+VR	S1 characteristic curve with forced cooling fan (thermal limit characteristic curve)
M_{peak1}	Maximum limit torque of dynamics package 1
M_{peak2}	Maximum limit torque of dynamics package 2
2 A	2 A nominal output current of the axis module
4 A	4 A nominal output current of the axis module
8 A	8 A nominal output current of the axis module
12 A	12 A nominal output current of the axis module
16 A	16 A nominal output current of the axis module
24 A	24 A nominal output current of the axis module
32 A	32 A nominal output current of the axis module
48 A	48 A nominal output current of the axis module
64 A	64 A nominal output current of the axis module
100 A	100 A nominal output current of the axis module

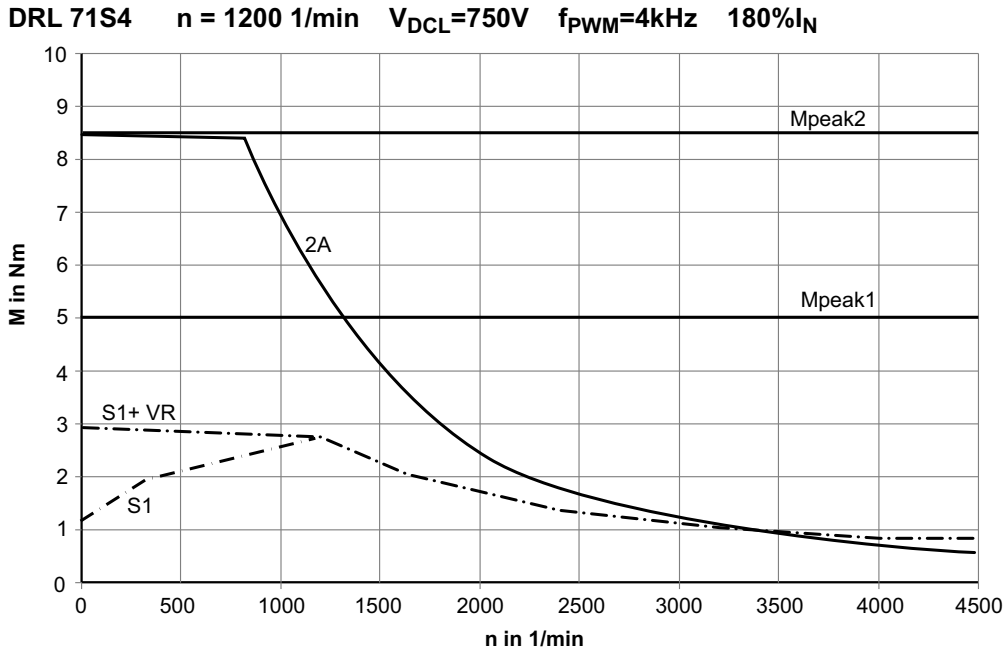
V_{DCL} = DC link voltage

DRL71S4, n_N = 1200 1/min, 100% I_N



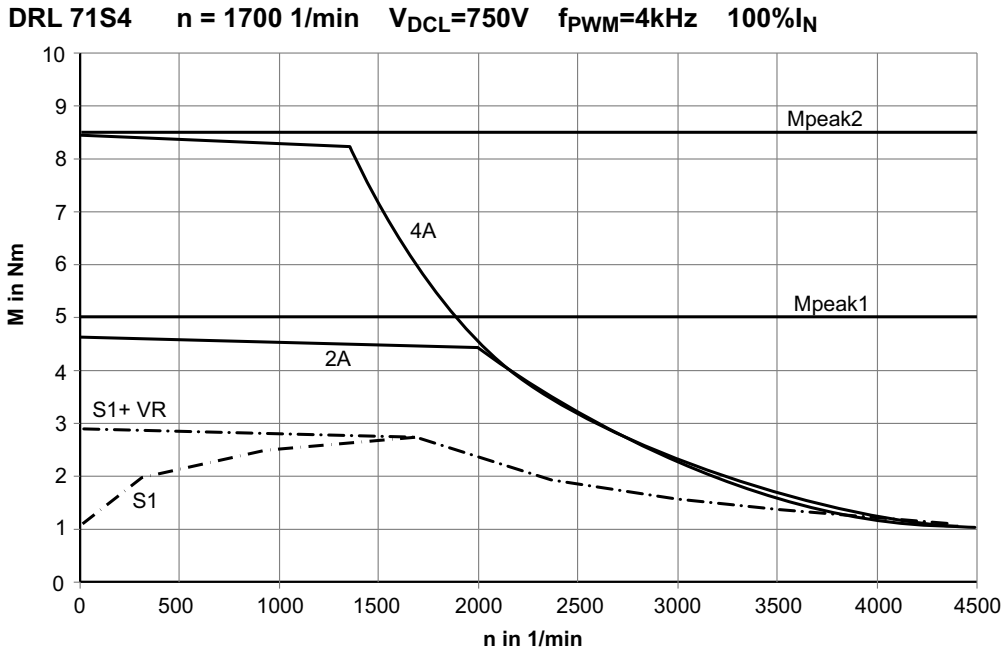
67434axx

DRL71S4, n_N = 1200 1/min, 180% I_N



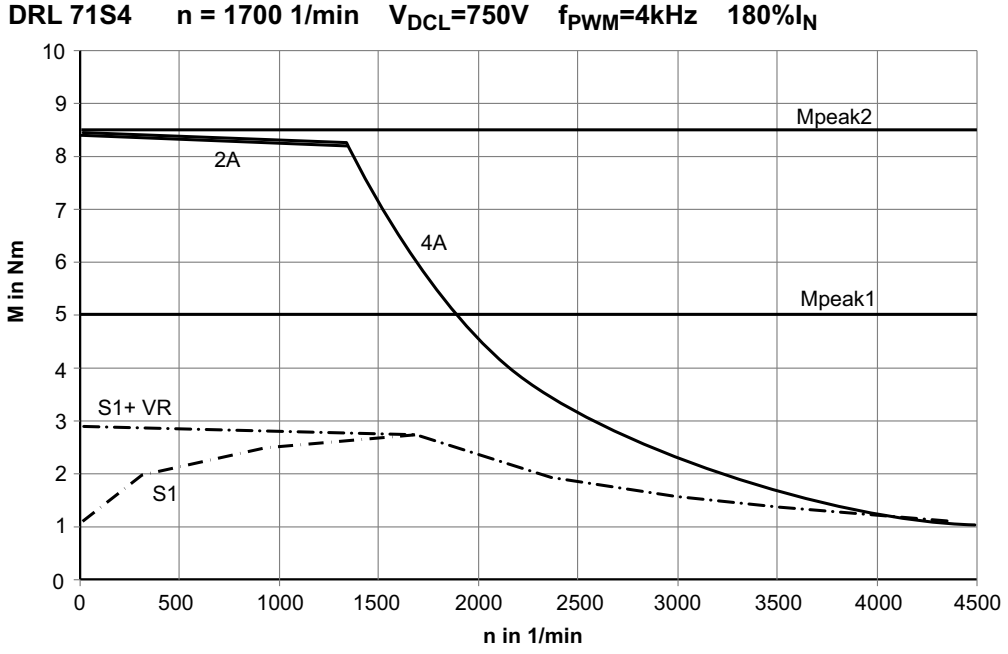
67435axx

DRL71S4, n_N = 1700 1/min, 100% I_N



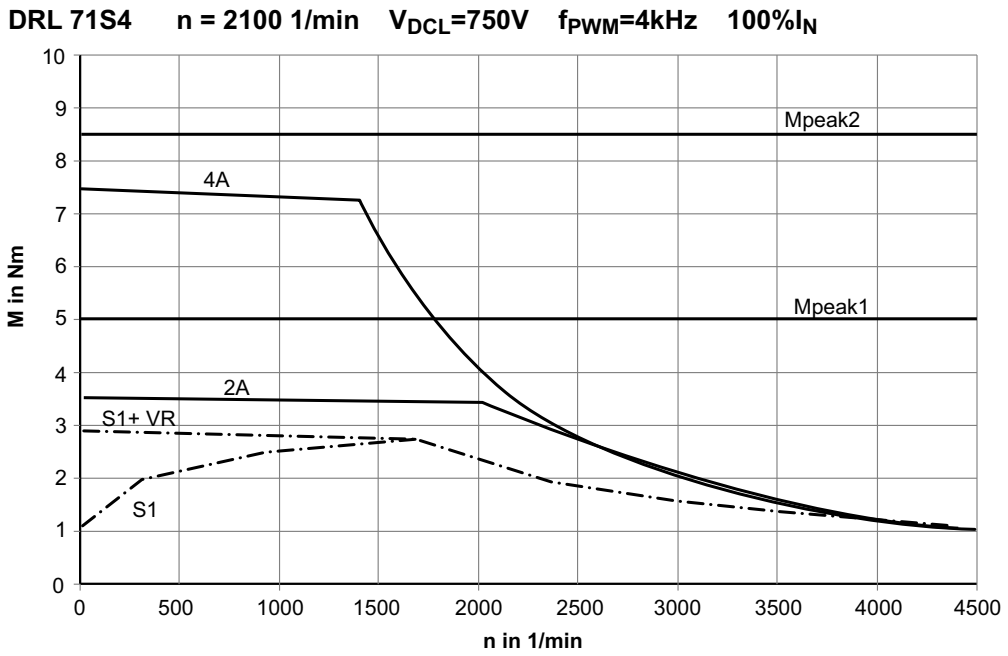
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DRL71S4, n_N = 1700 1/min, 180% I_N



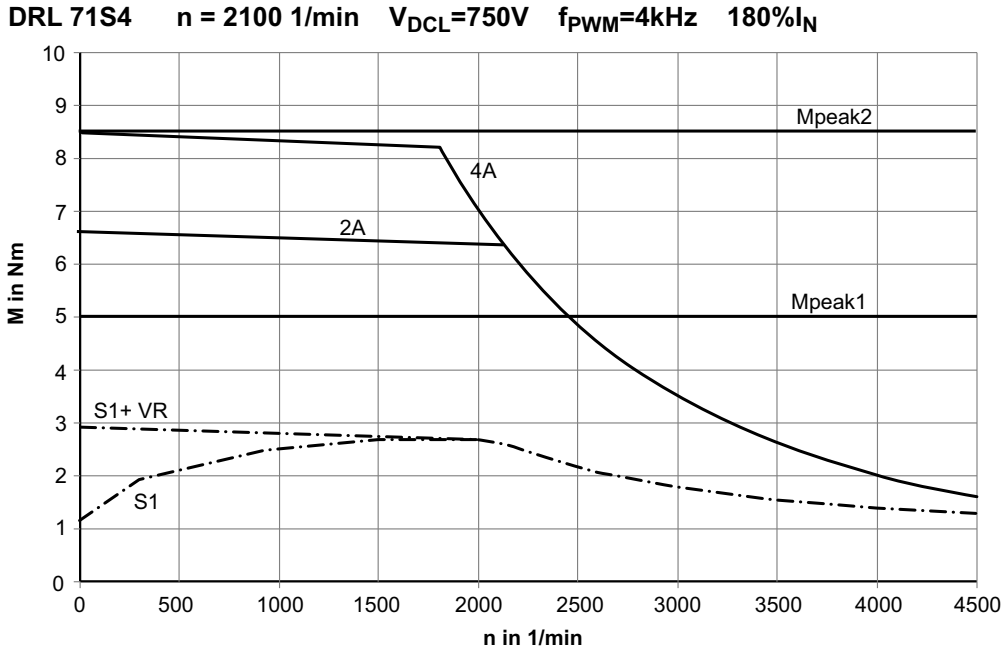
67437axx

DRL71S4, n_N = 2100 1/min, 100% I_N



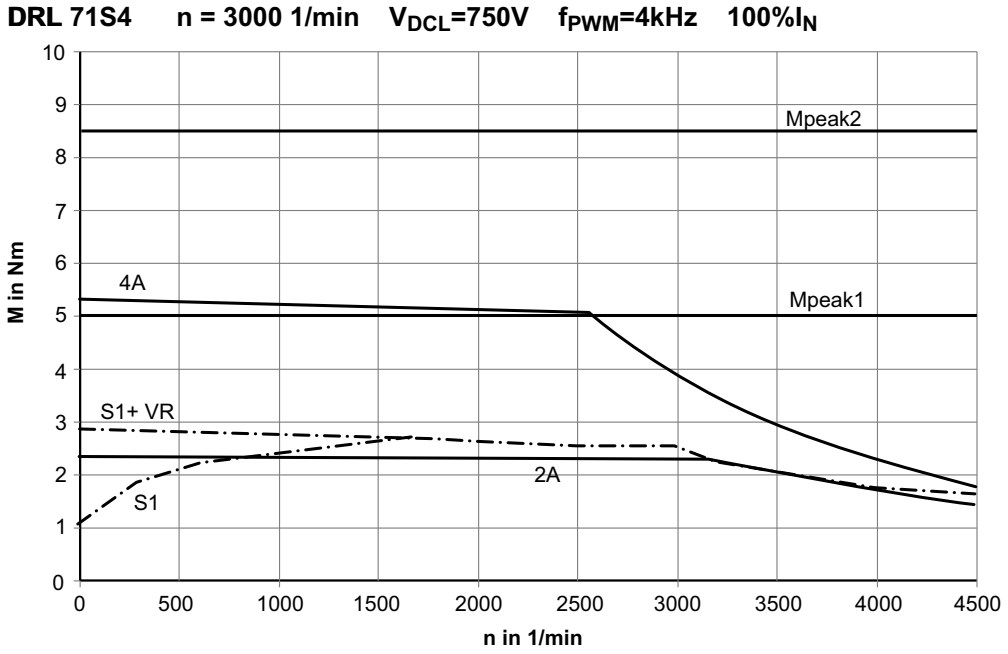
67438axx

DRL71S4, n_N = 2100 1/min, 180% I_N



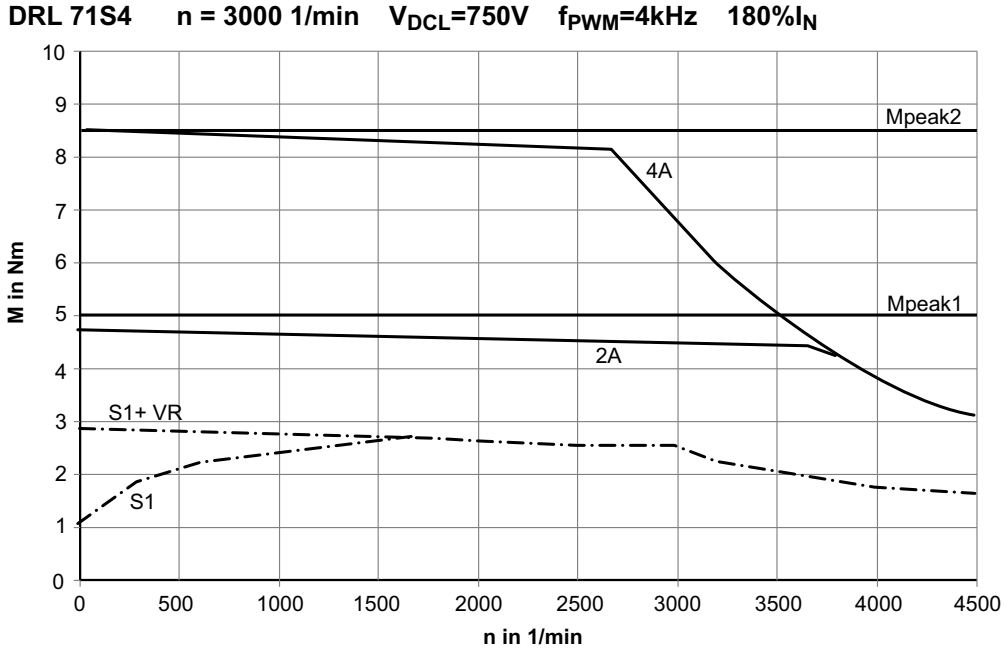
67439axx

DRL71S4, n_N = 3000 1/min, 100% I_N



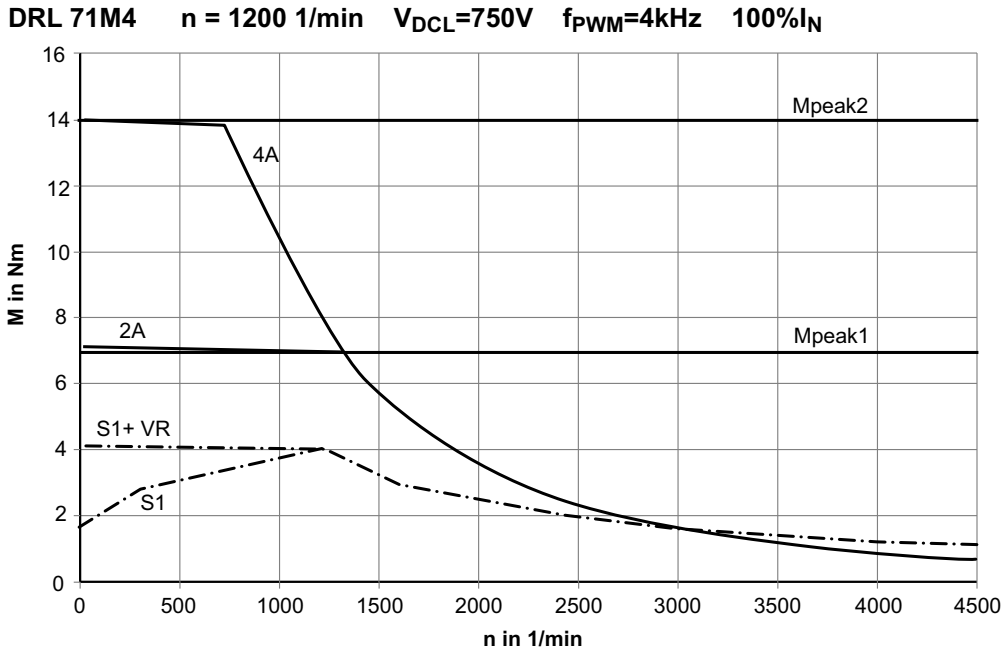
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DRL71S4, n_N = 3000 1/min, 180% I_N



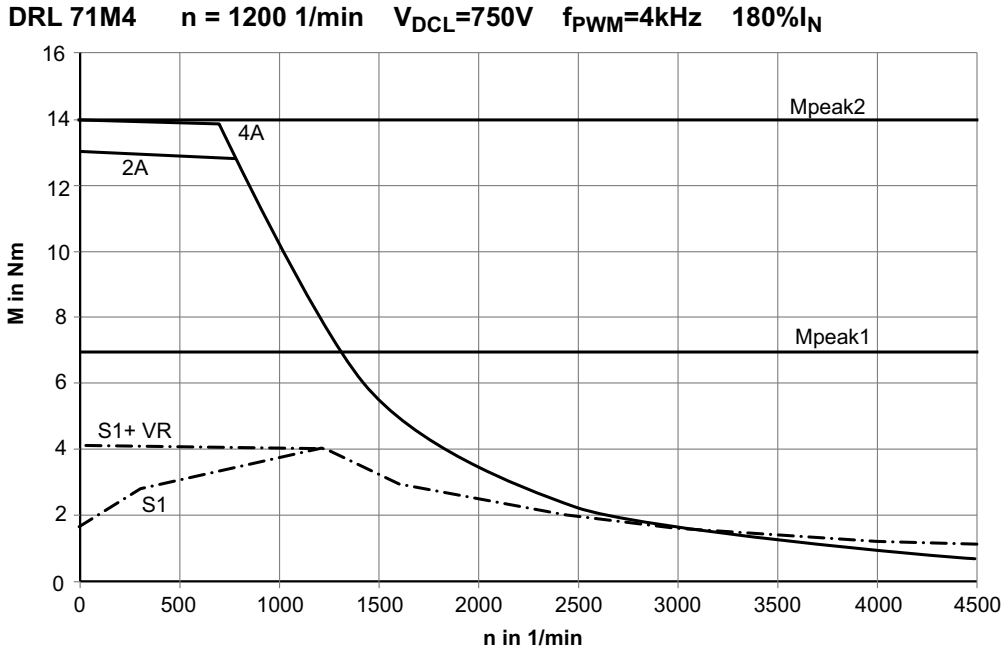
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DRL71M4, n_N = 1200 1/min, 100% I_N



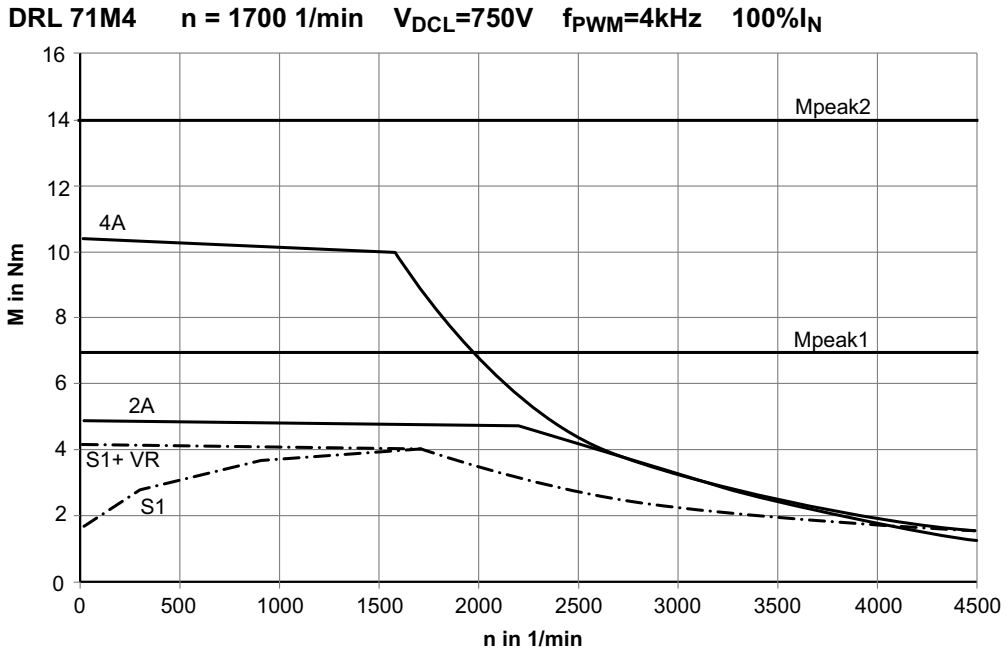
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DRL71M4, n_N = 1200 1/min, 180% I_N



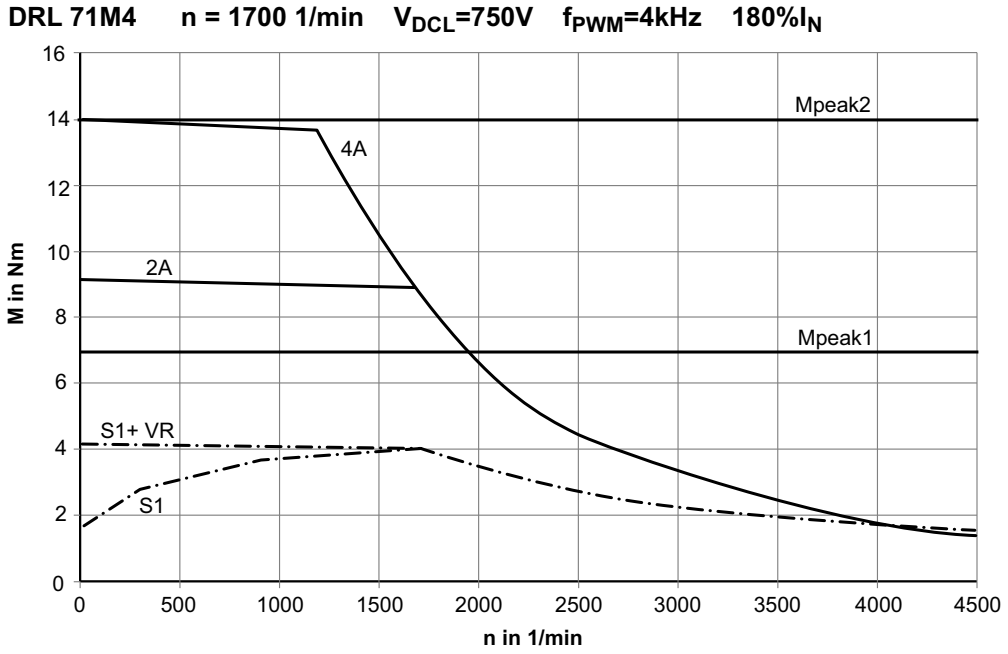
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DRL71M4, n_N = 1700 1/min, 100% I_N



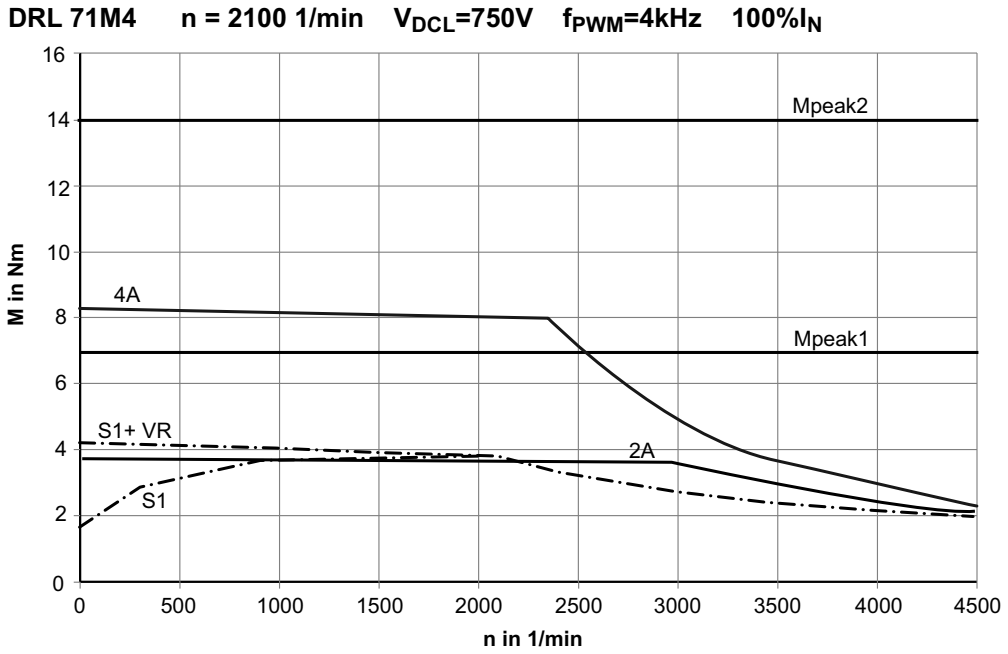
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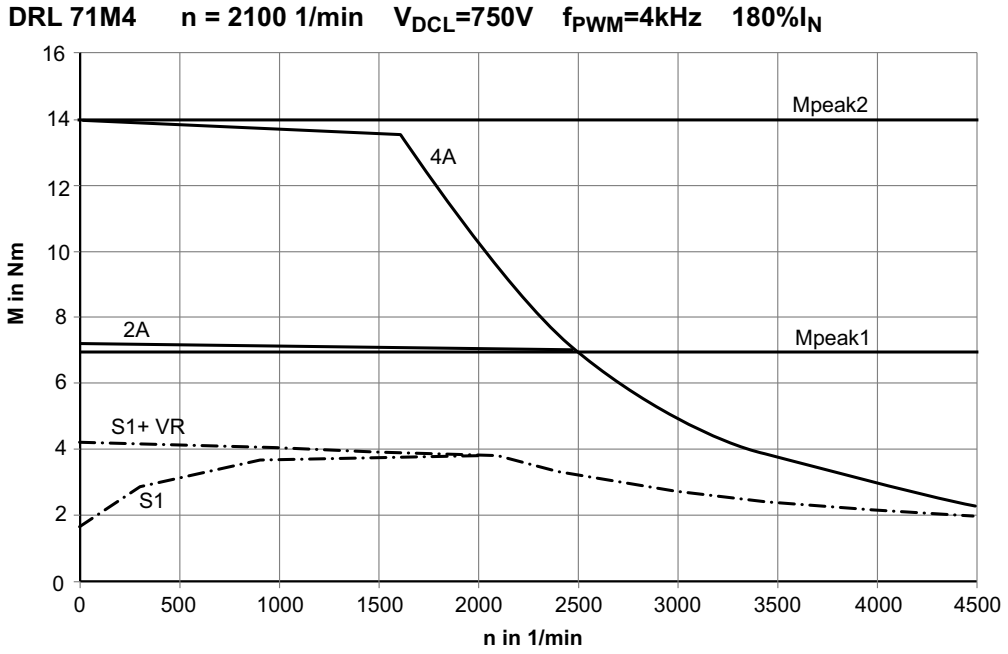
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DRL71M4, n_N = 2100 1/min, 100% I_N



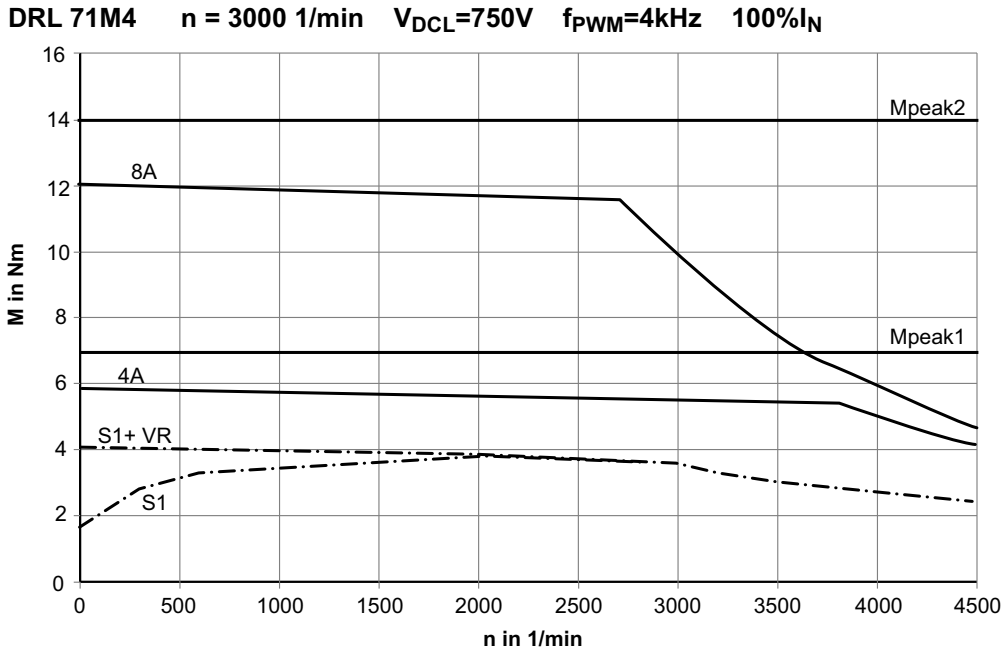
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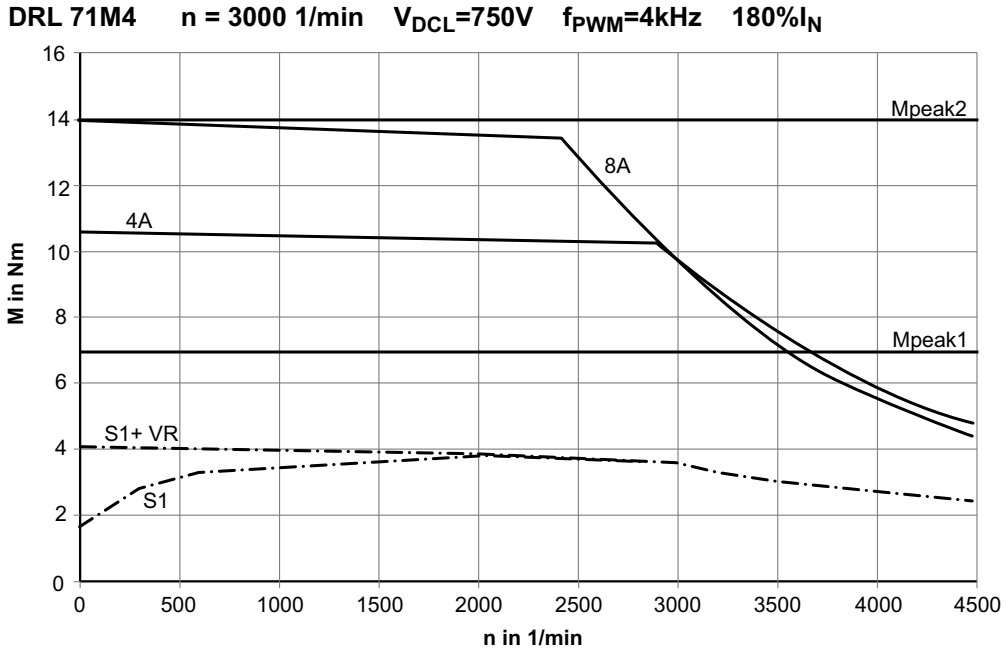
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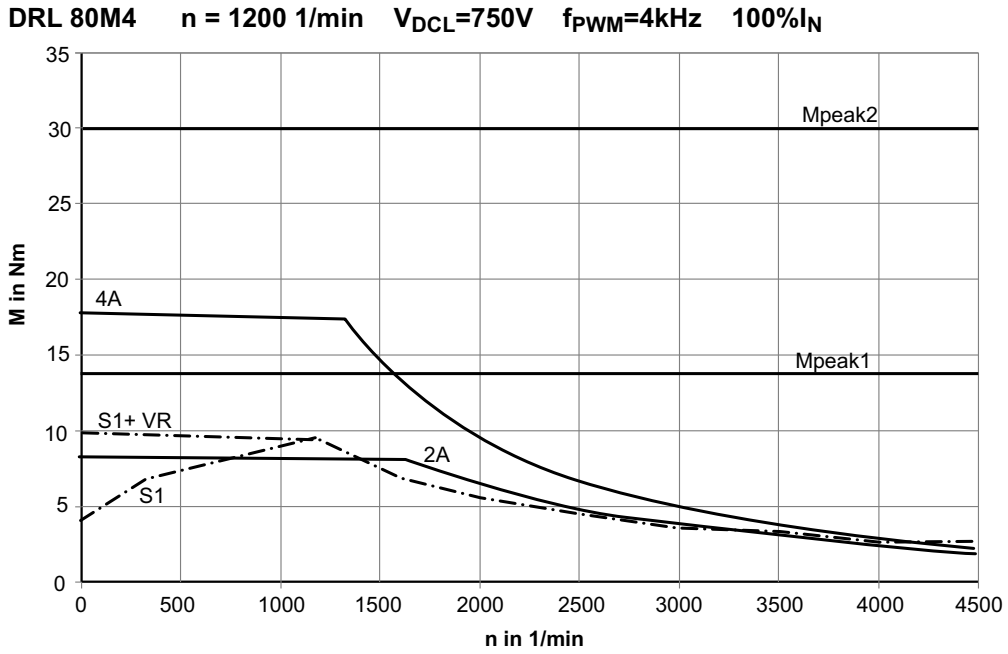
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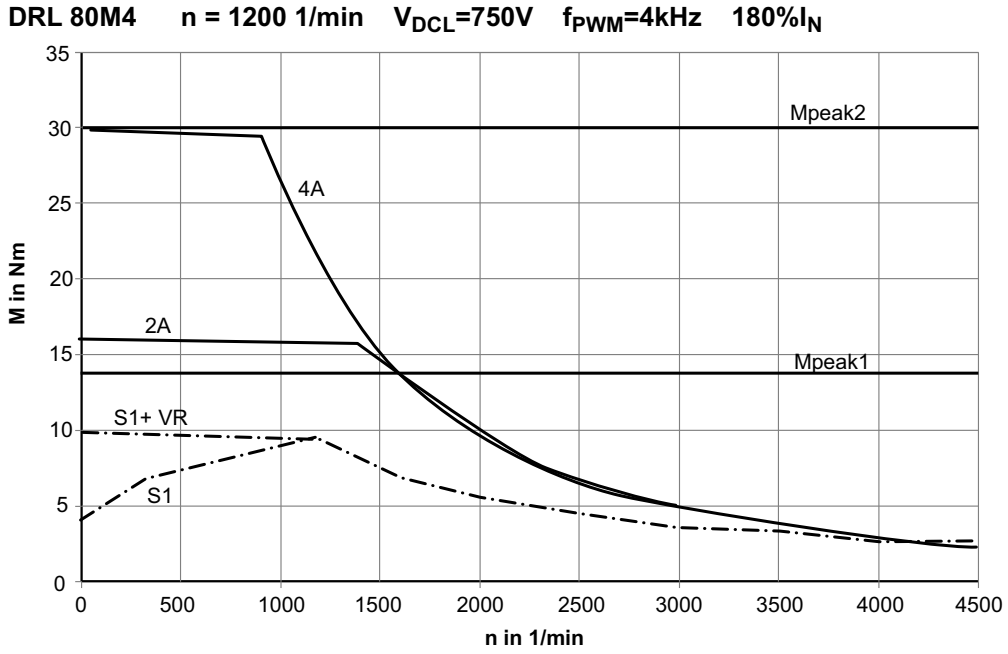
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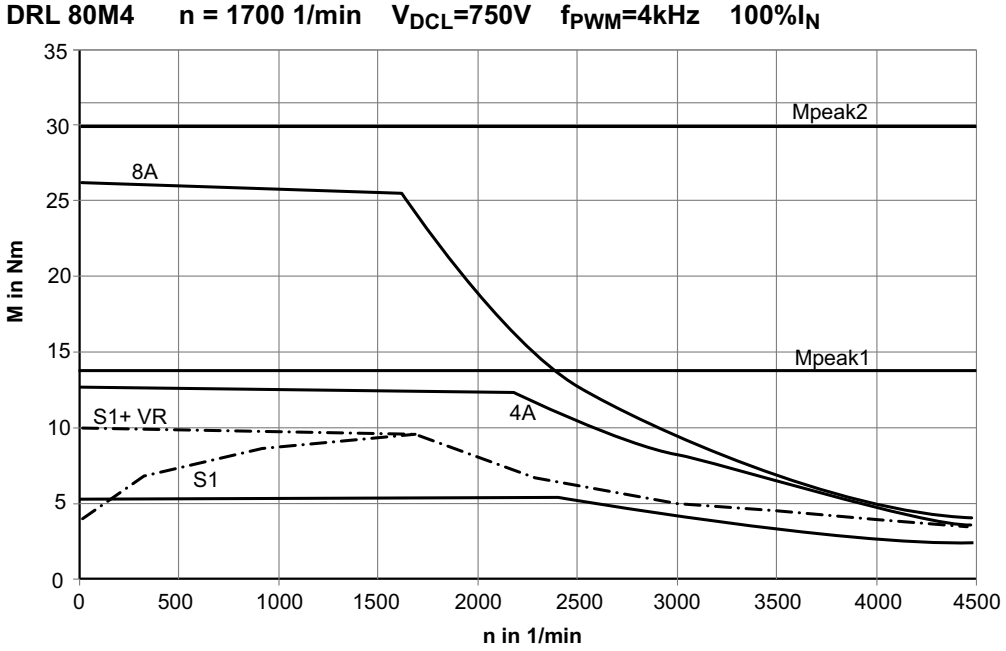
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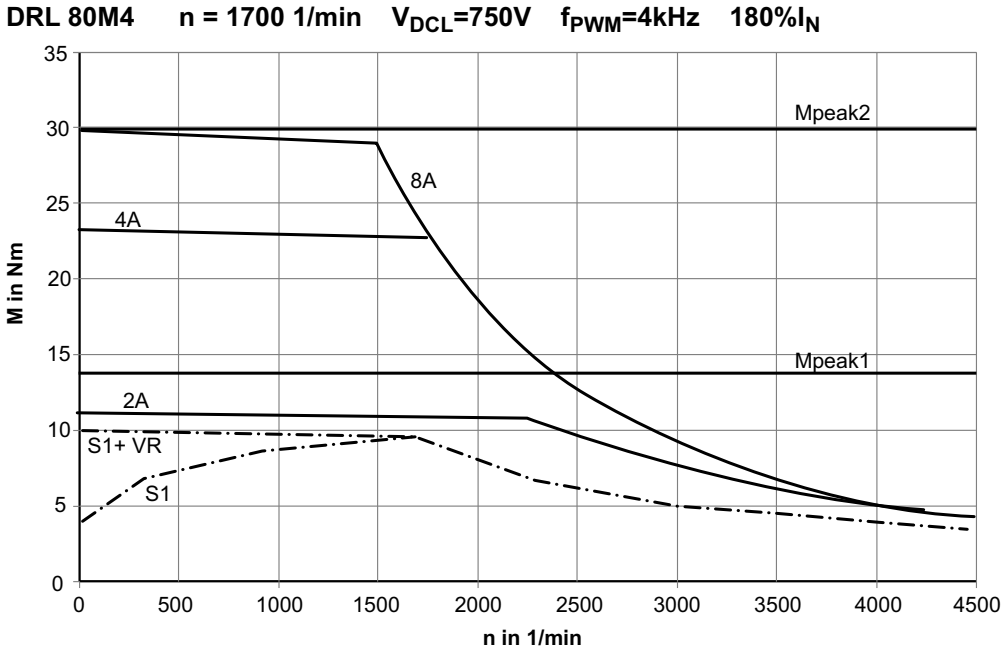
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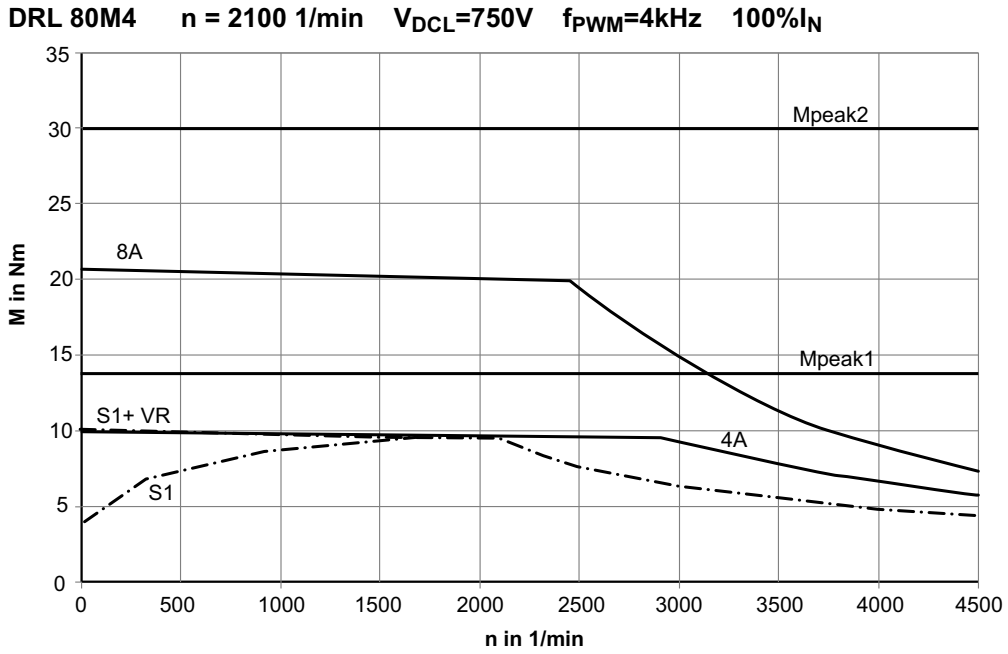
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DRL80M4, n_N = 1700 1/min, 180% I_N



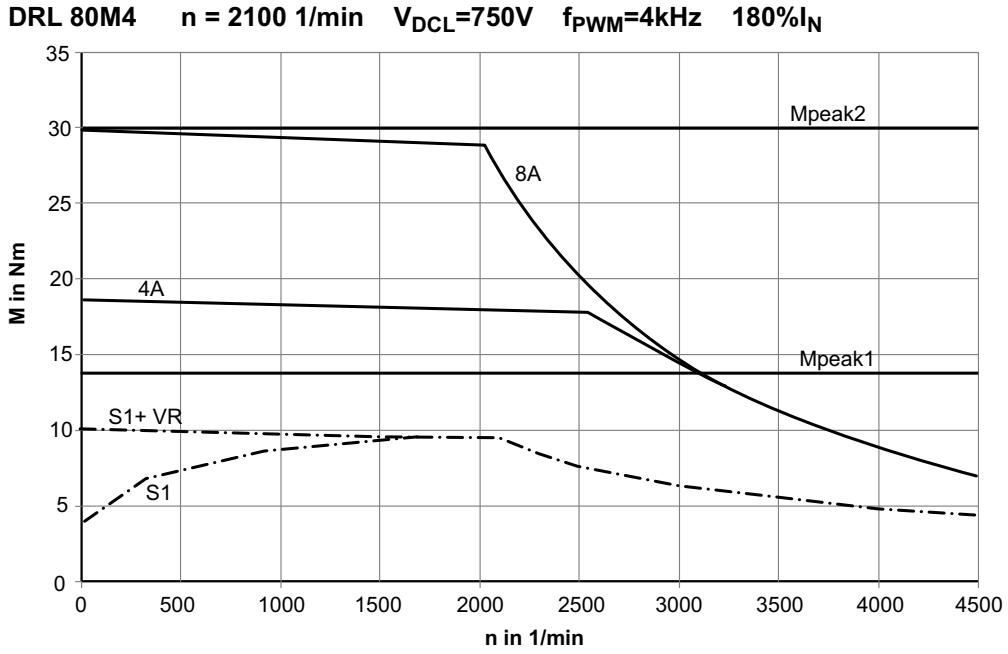
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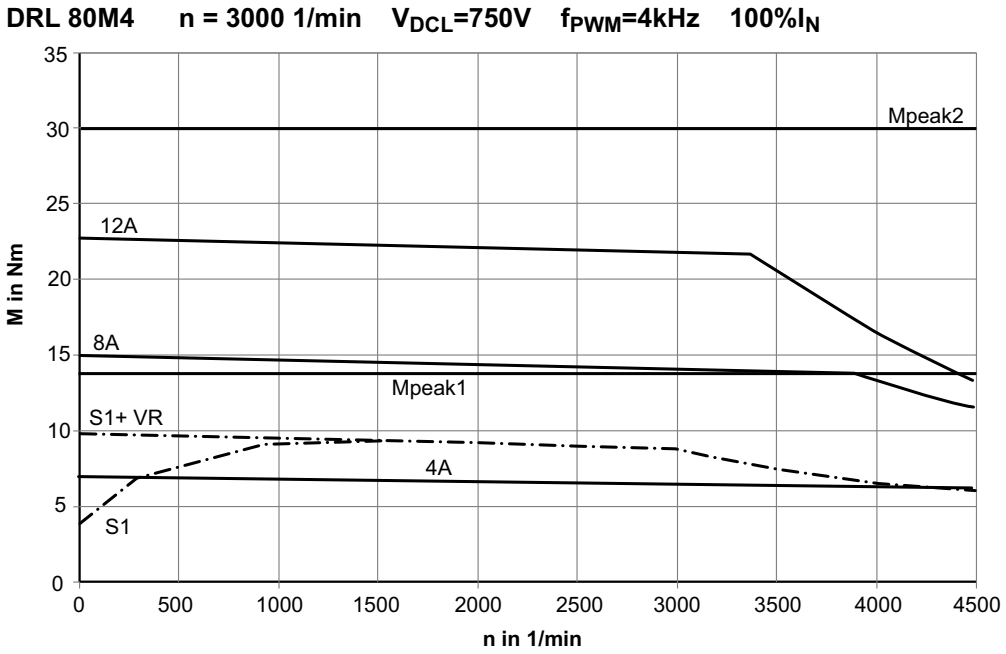
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DRL80M4, n_N = 2100 1/min, 180% I_N



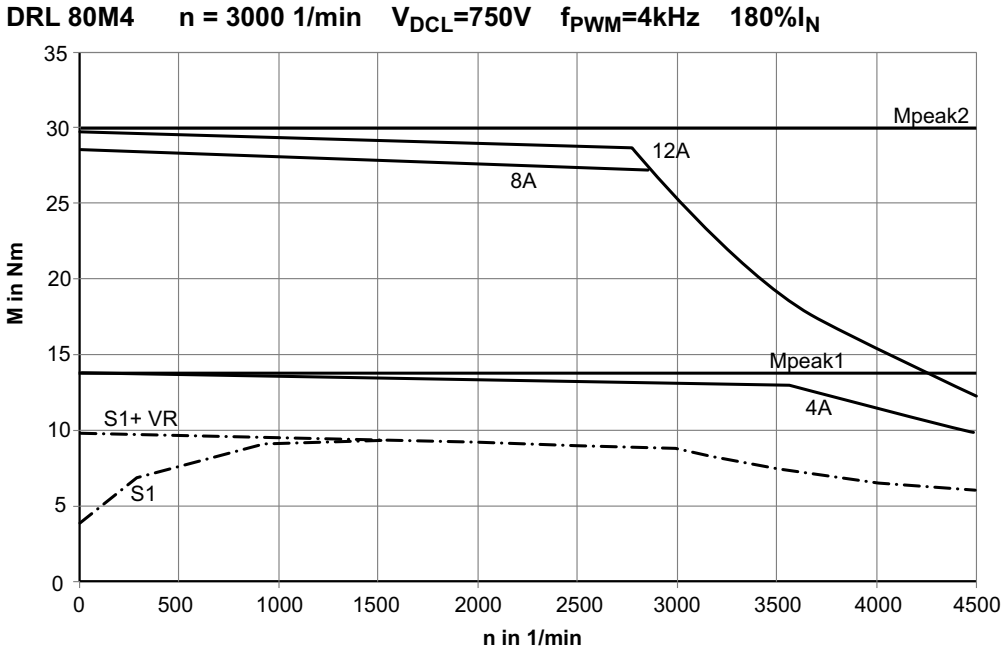
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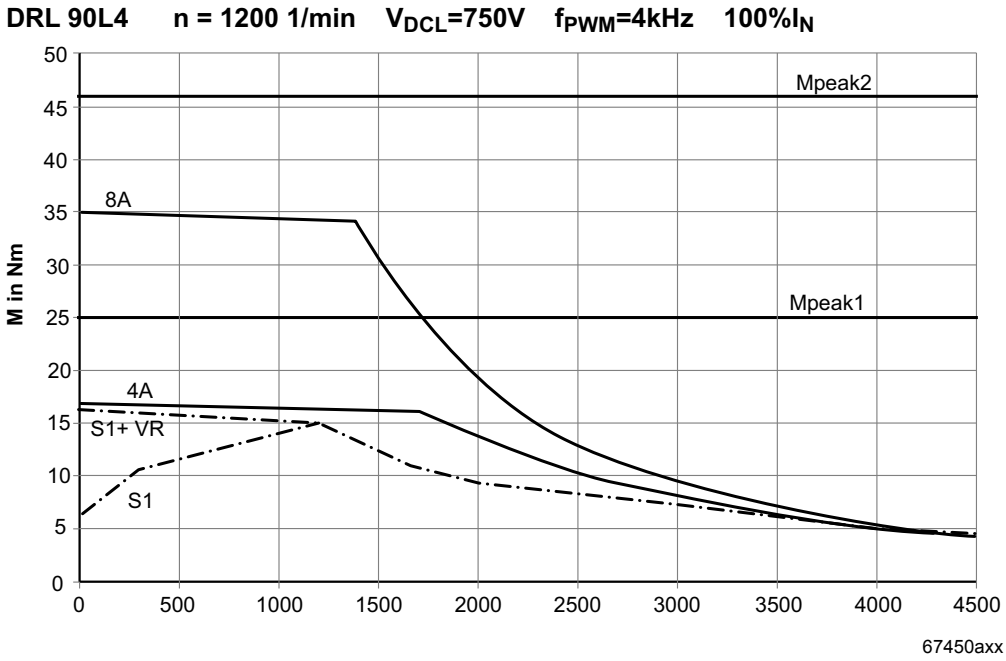
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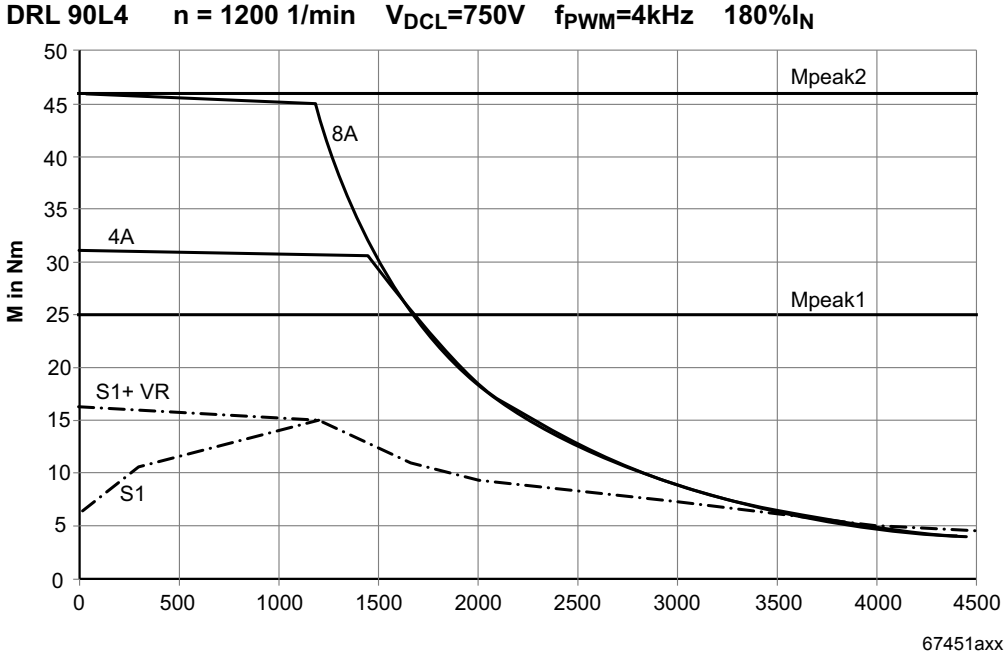


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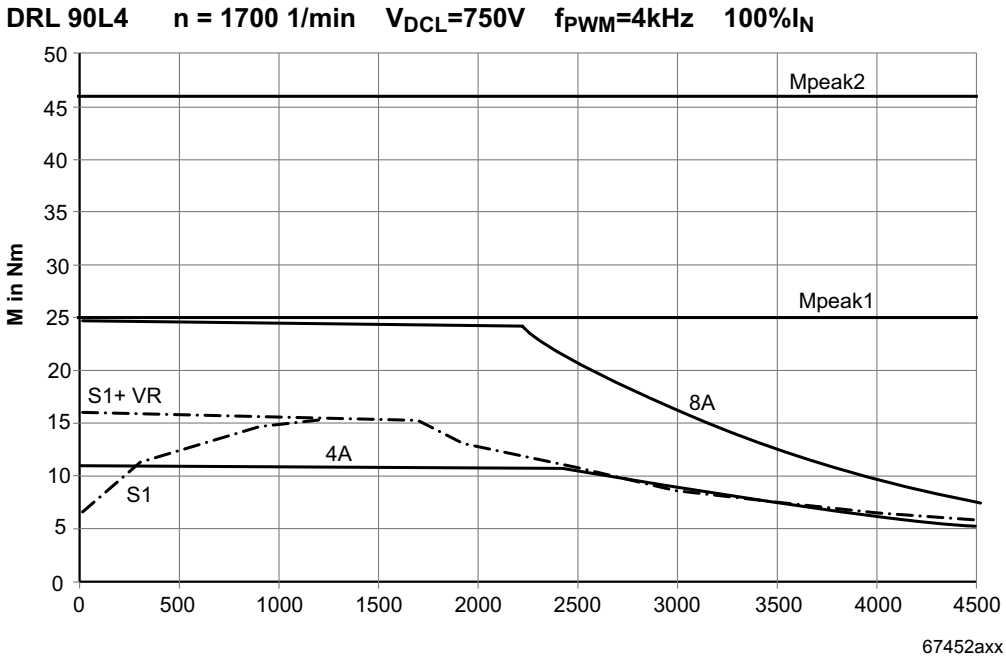
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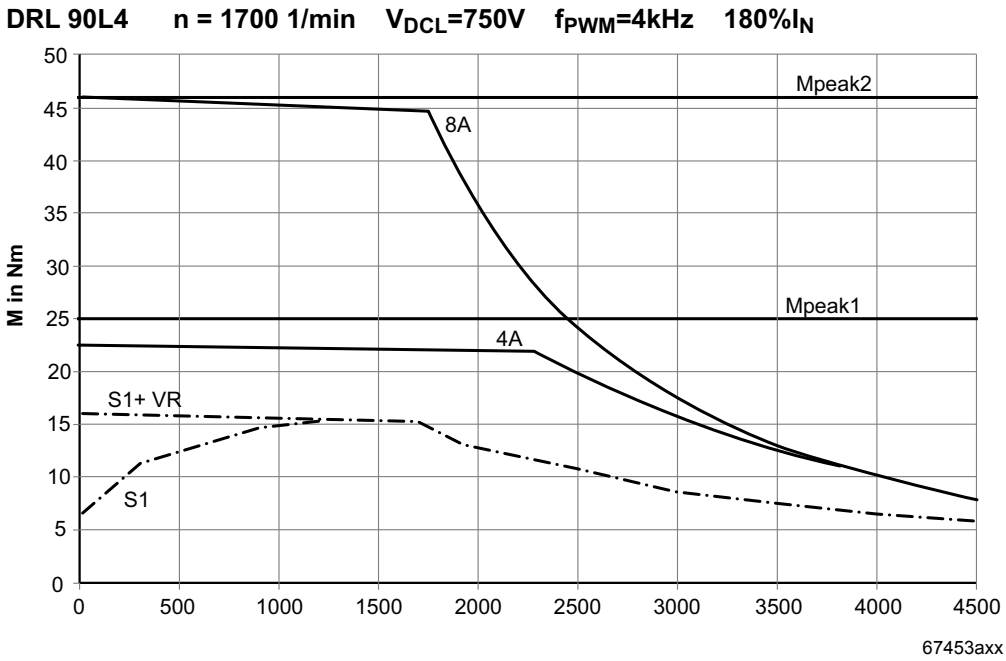
DRL90L4, n_N = 1200 1/min, 180% I_N



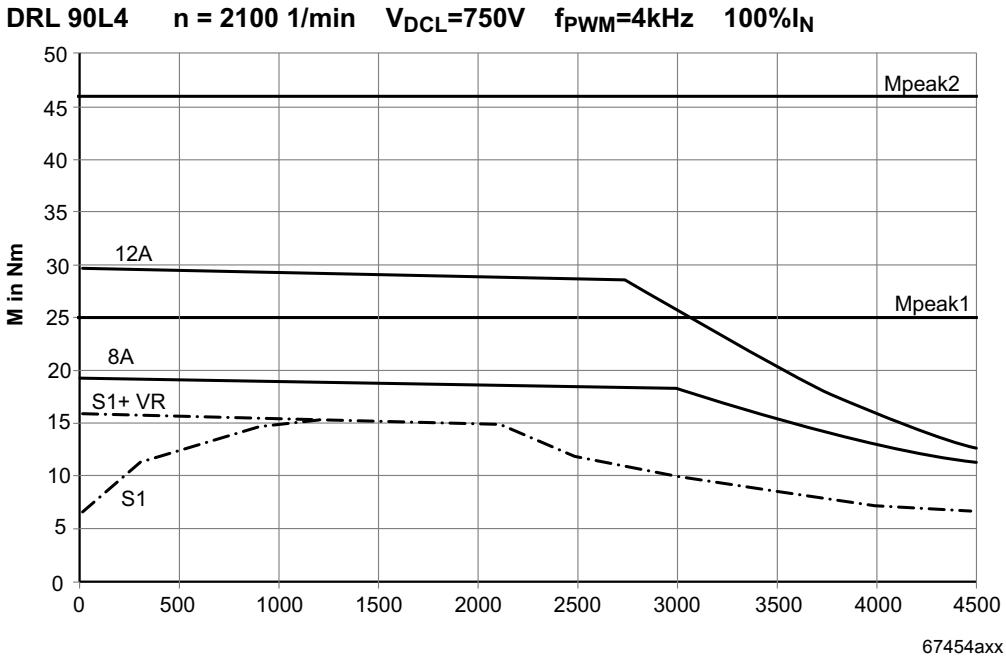
DRL90L4, n_N = 1700 1/min, 100% I_N



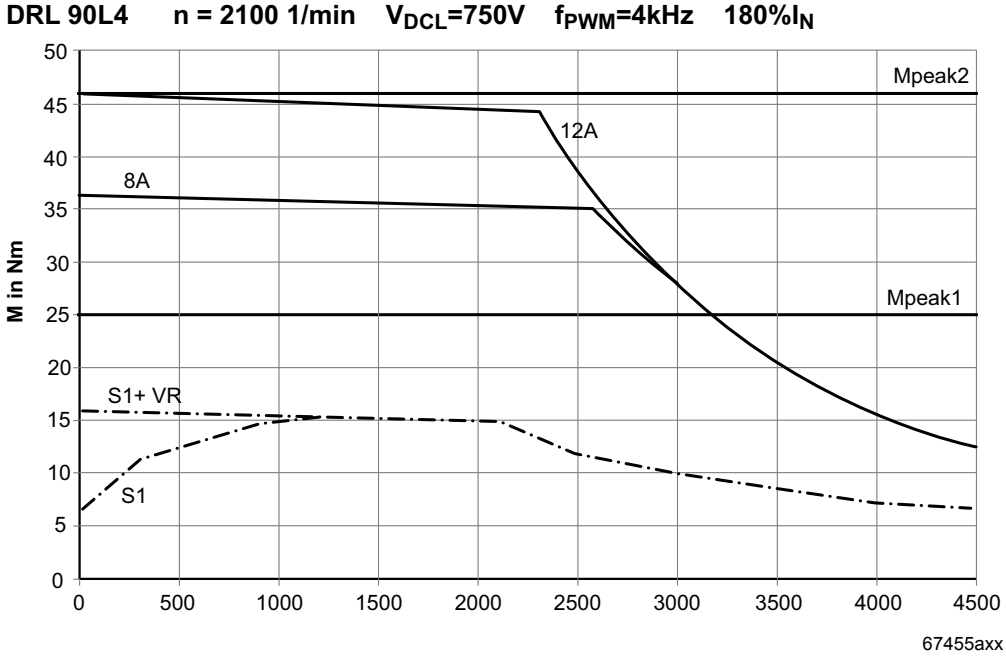
DRL90L4, n_N = 1700 1/min, 180% I_N



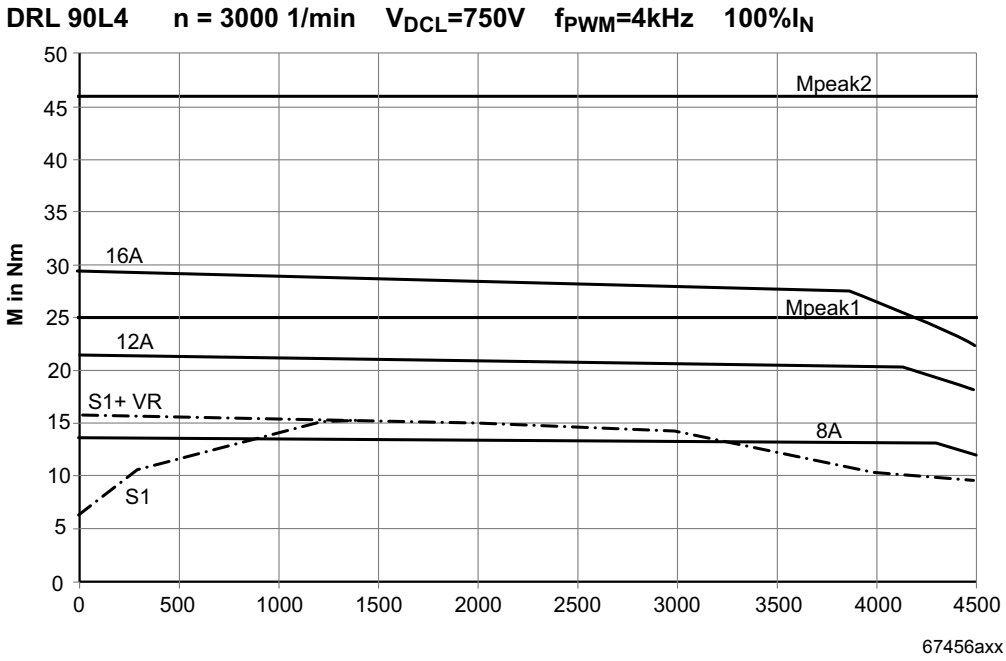
DRL90L4, n_N = 2100 1/min, 100% I_N



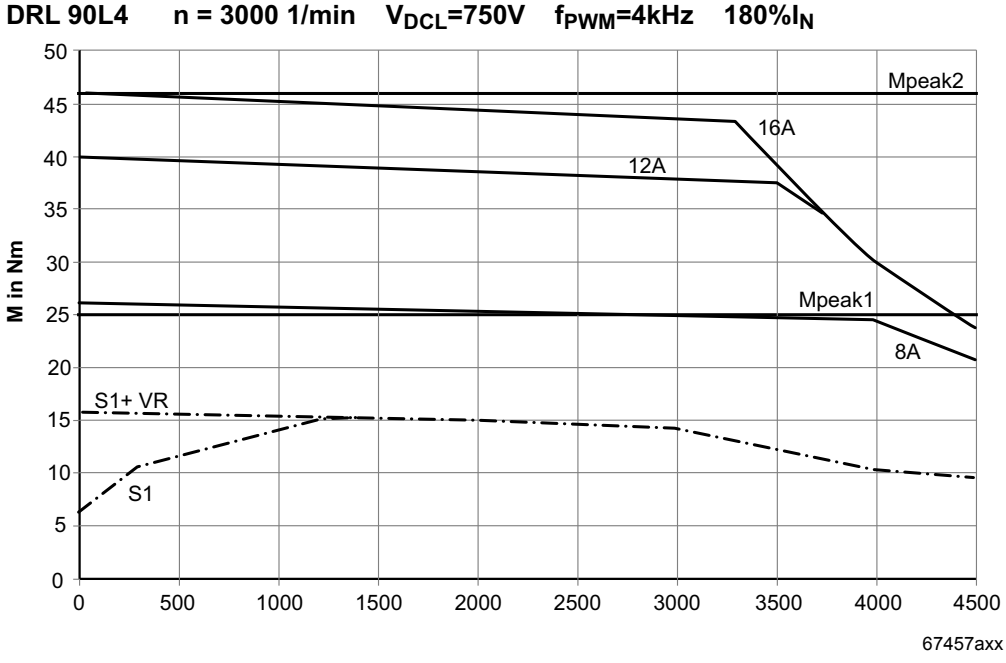
DRL90L4, n_N = 2100 1/min, 180% I_N



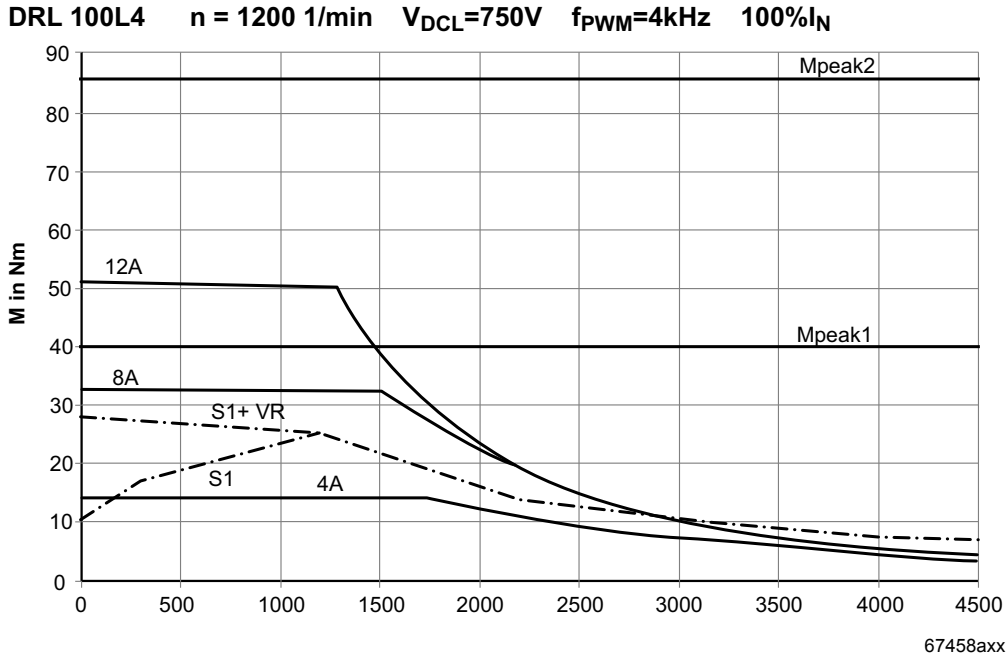
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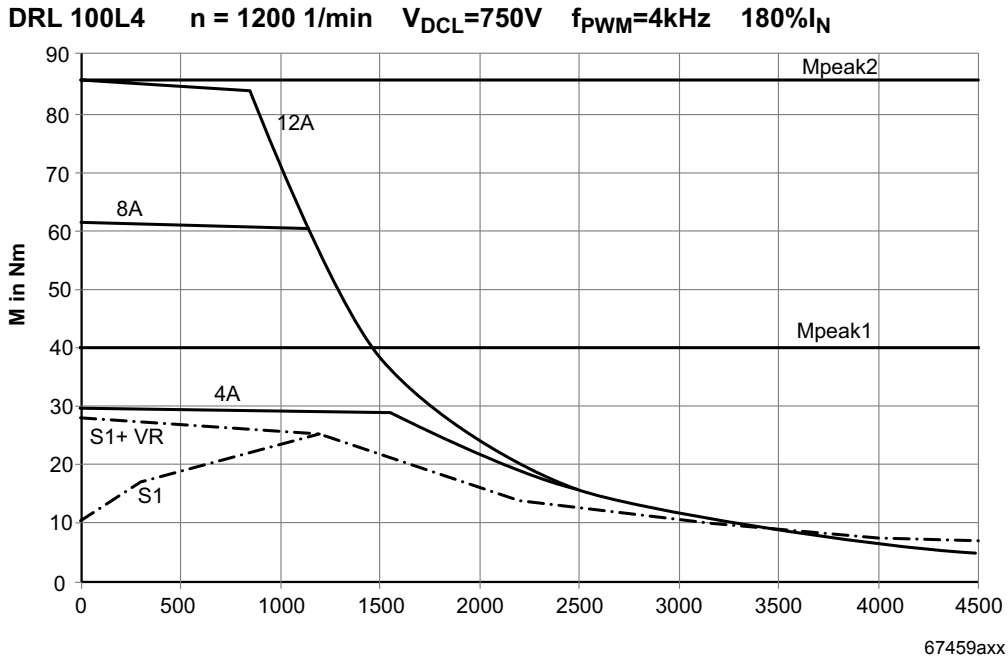
DRL90L4, n_N = 3000 1/min, 180% I_N



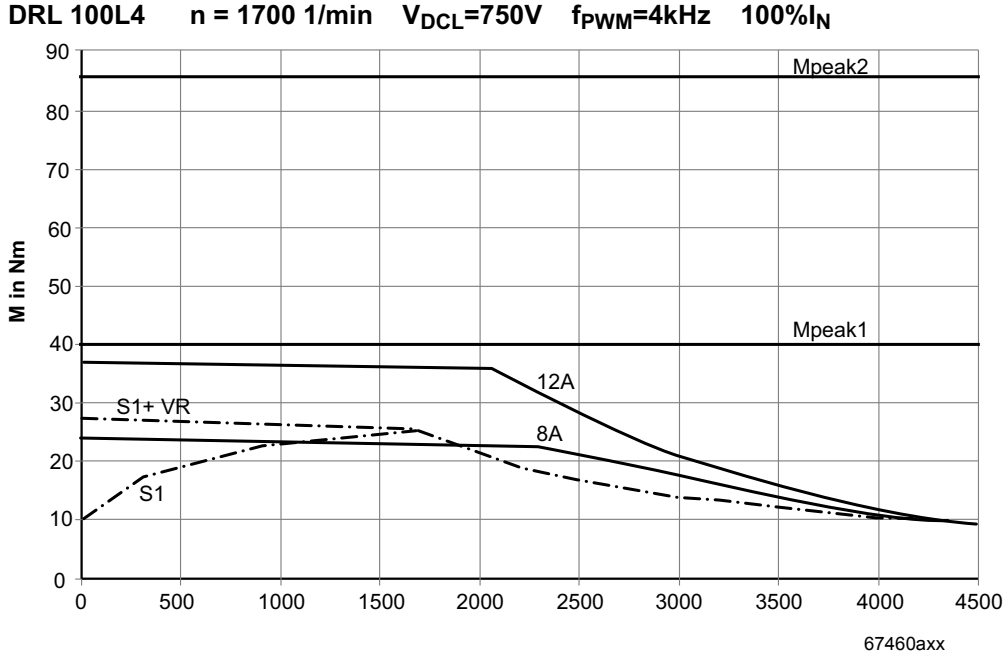
DRL100L4, n_N = 1200 1/min, 100% I_N



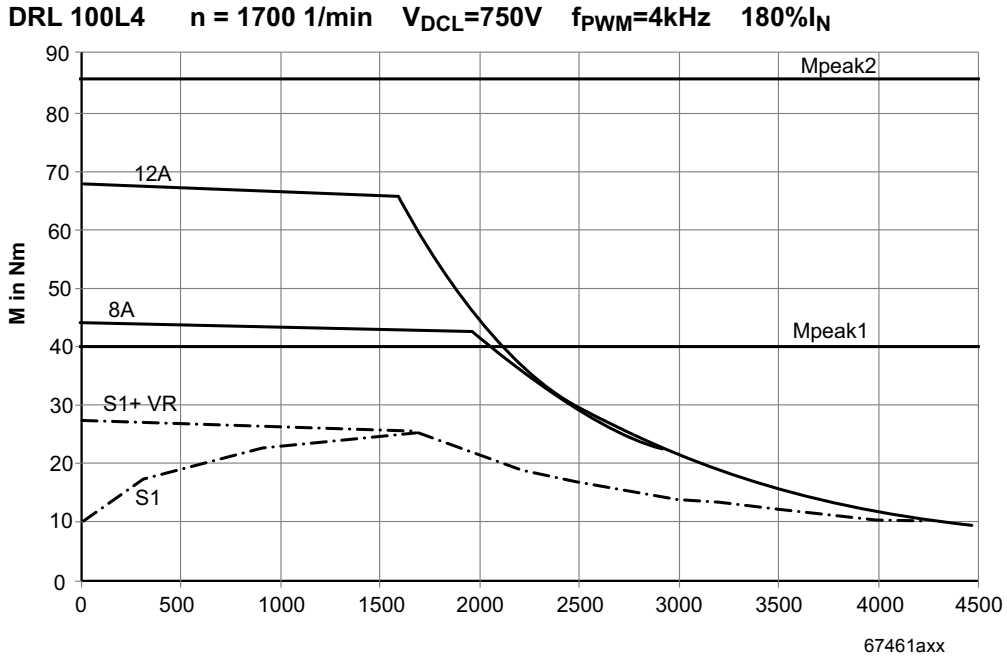
DRL100L4, n_N = 1200 1/min, 180% I_N



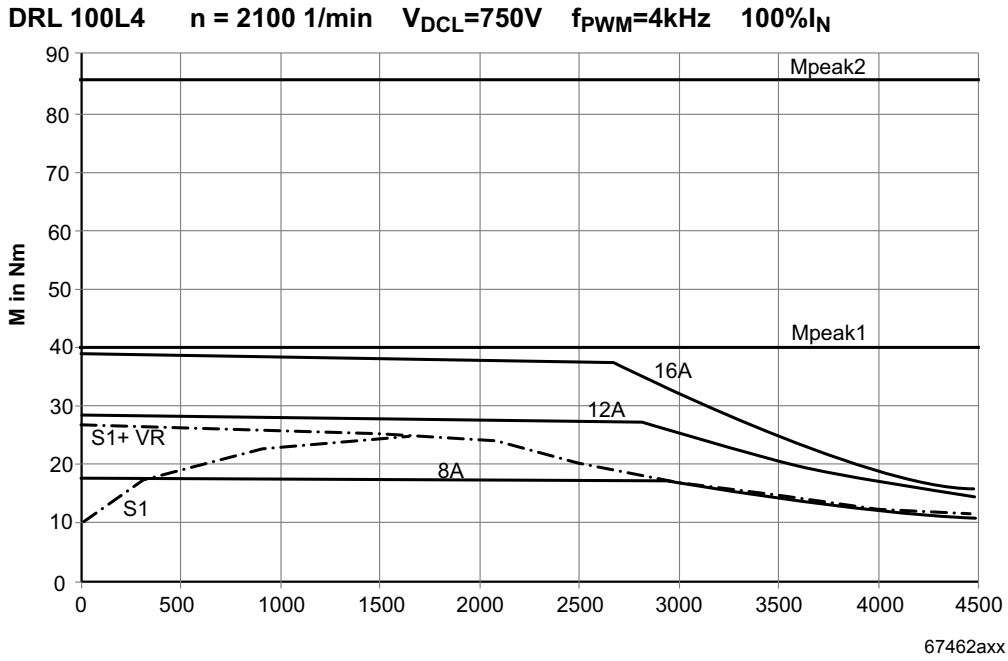
DRL100L4, n_N = 1700 1/min, 100% I_N



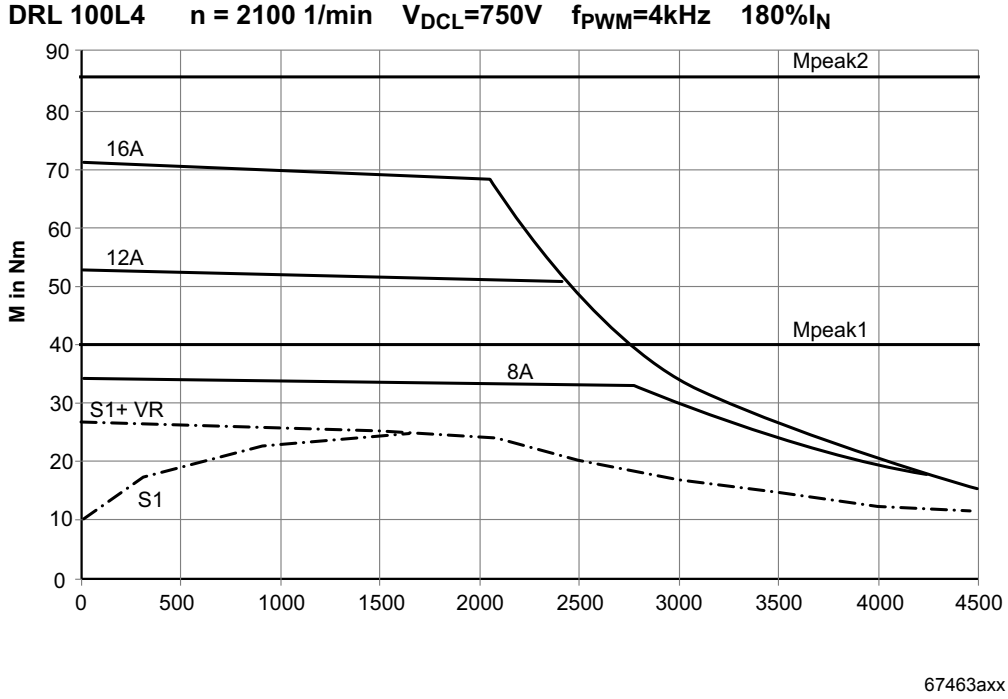
DRL100L4, n_N = 1700 1/min, 180% I_N



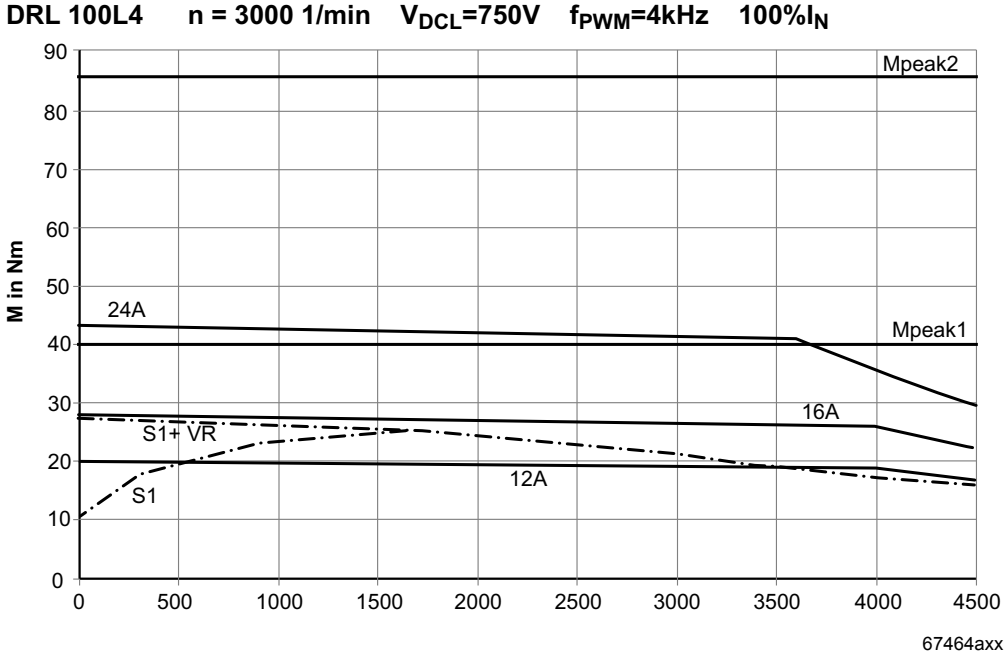
DRL100L4, n_N = 2100 1/min, 100% I_N



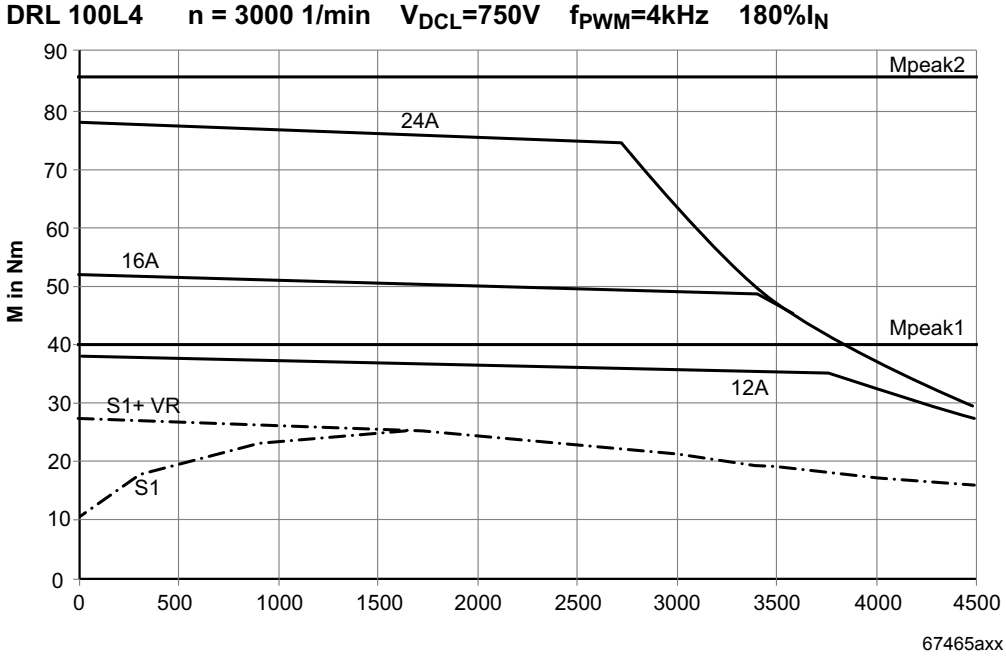
DRL100L4, n_N = 2100 1/min, 180% I_N



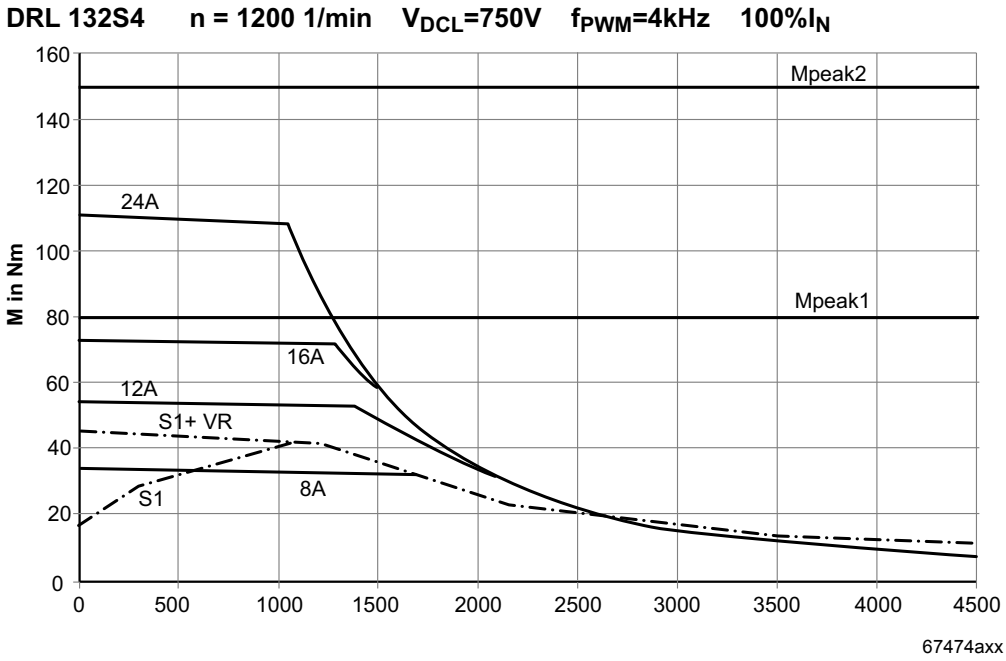
DRL100L4, n_N = 3000 1/min, 100% I_N



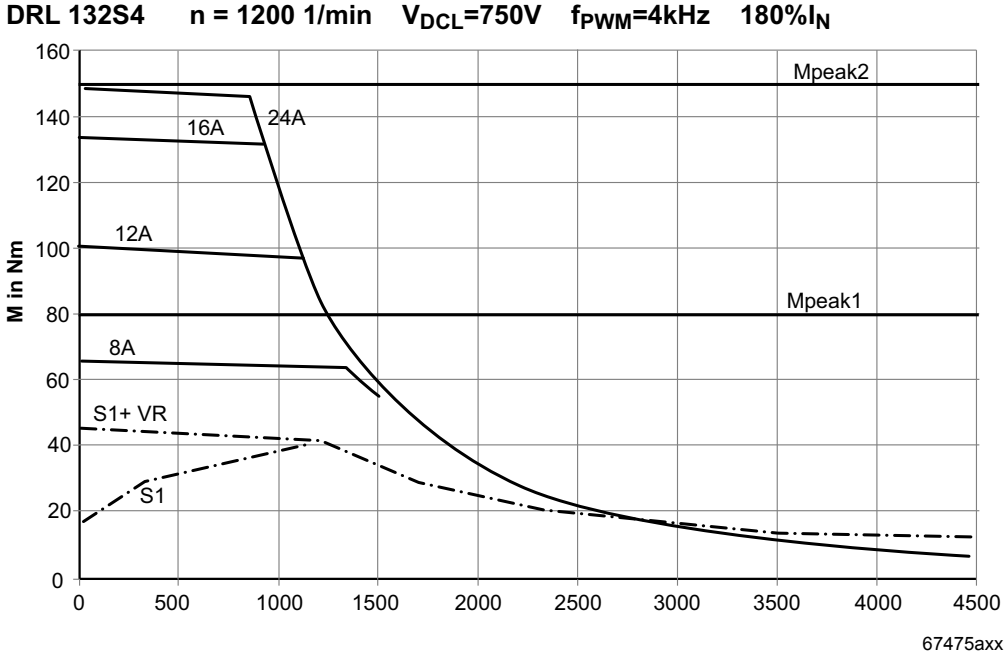
DRL100L4, n_N = 3000 1/min, 180% I_N



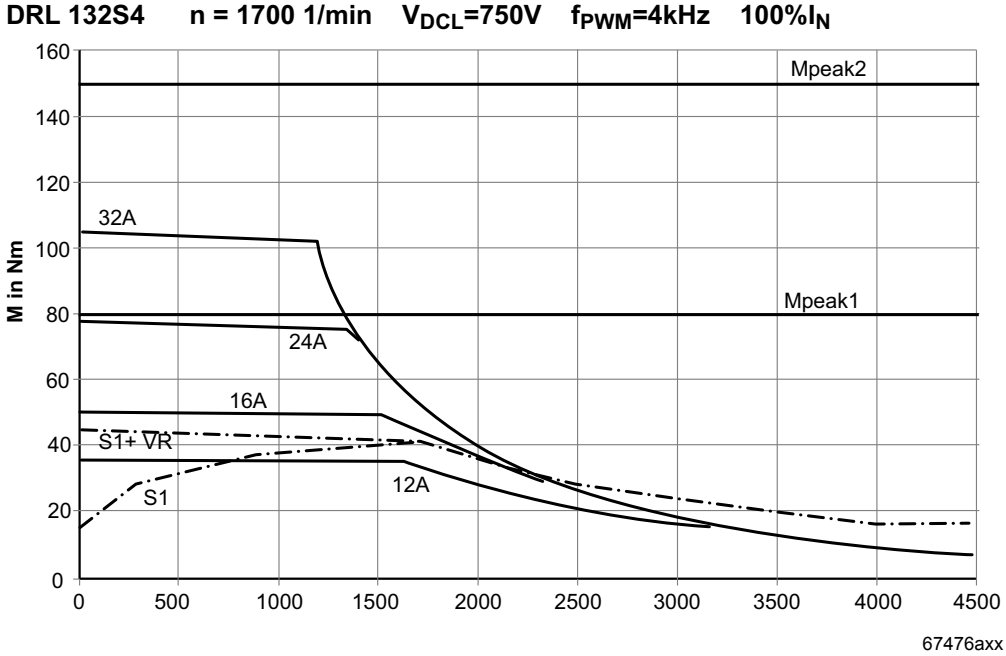
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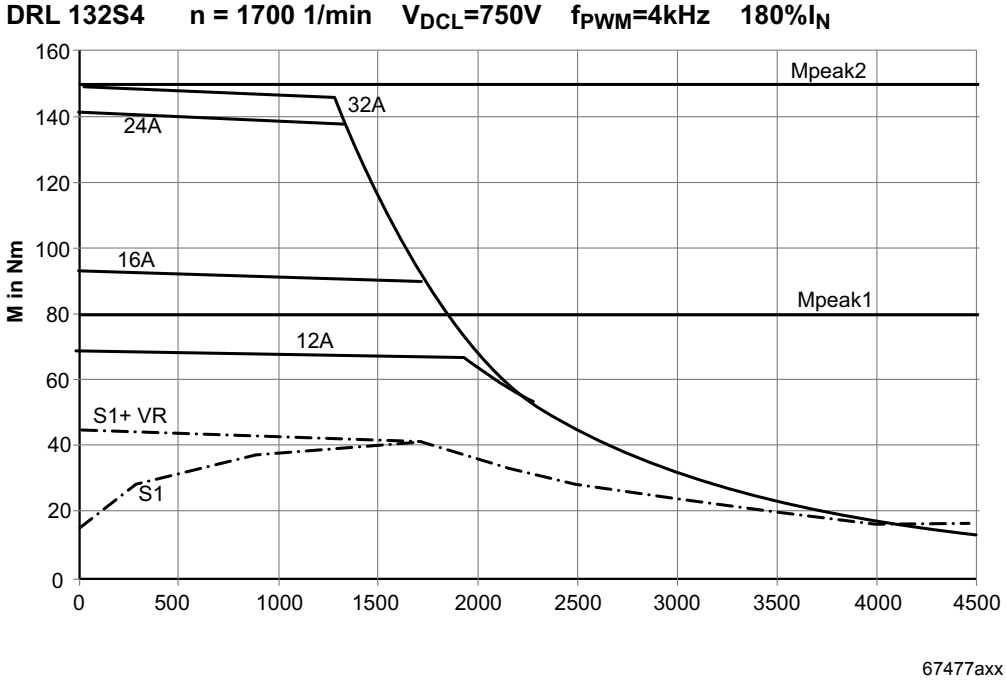
DRL132S4, n_N = 1200 1/min, 180% I_N



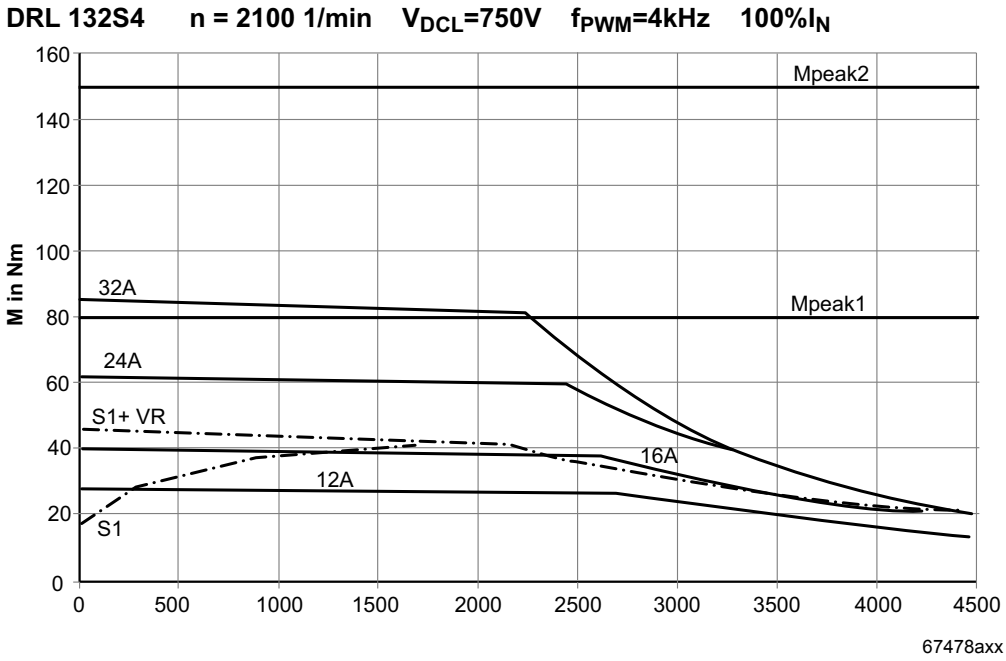
DRL132S4, n_N = 1700 1/min, 100% I_N



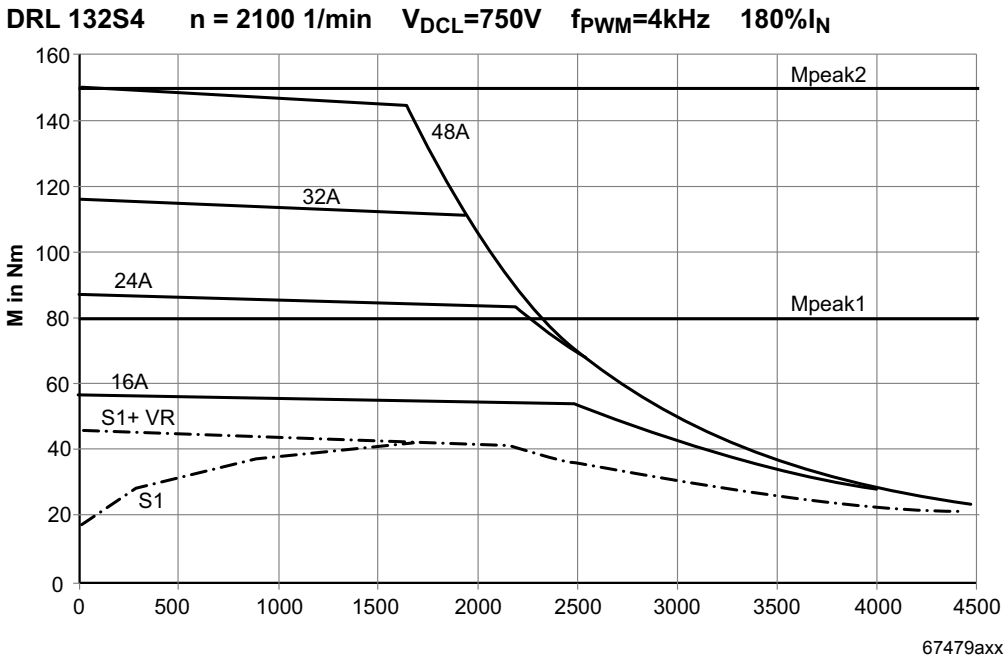
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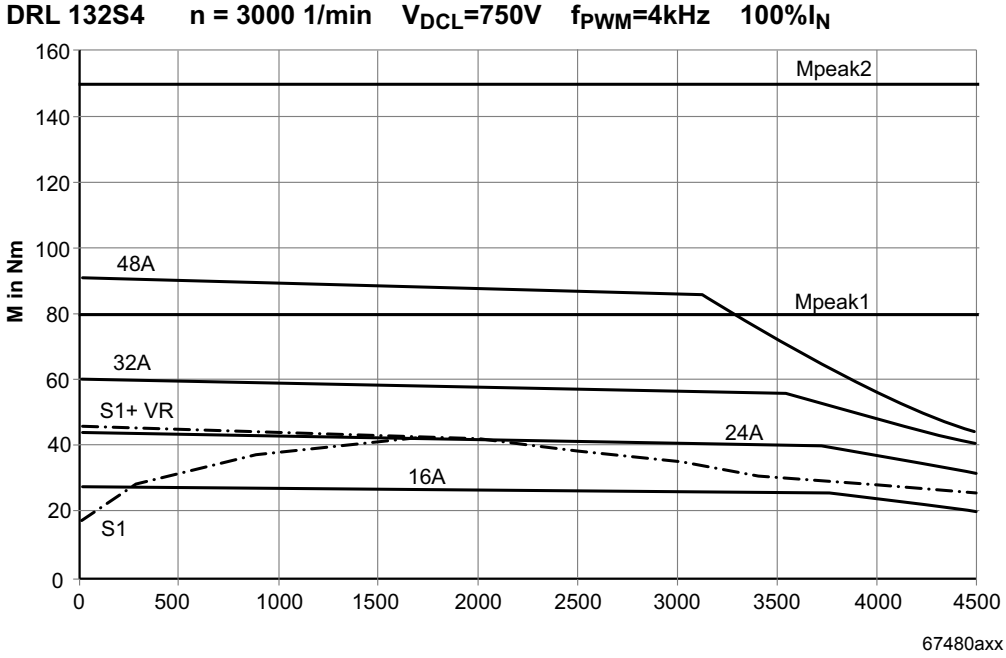
DRL132S4, n_N = 2100 1/min, 100% I_N



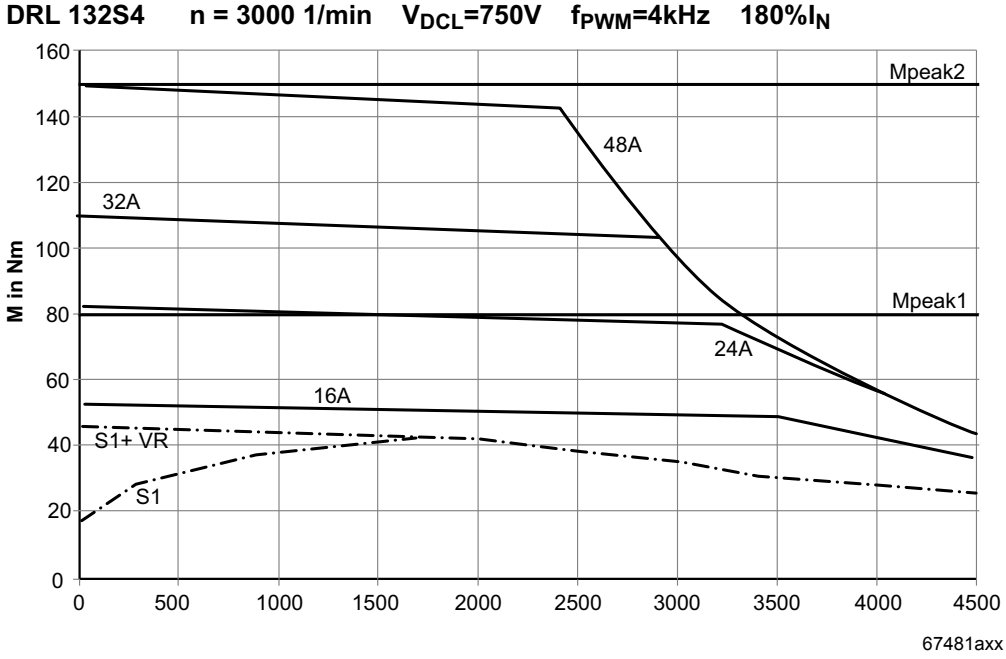
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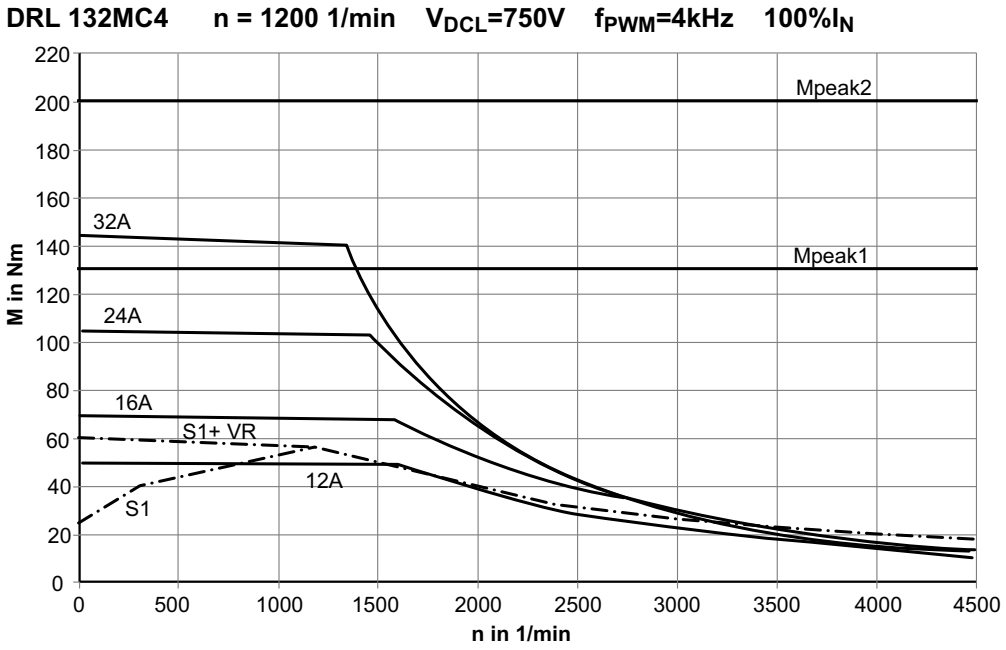
DRL132S4, n_N = 3000 1/min, 100% I_N



DRL132S4, n_N = 3000 1/min, 180% I_N

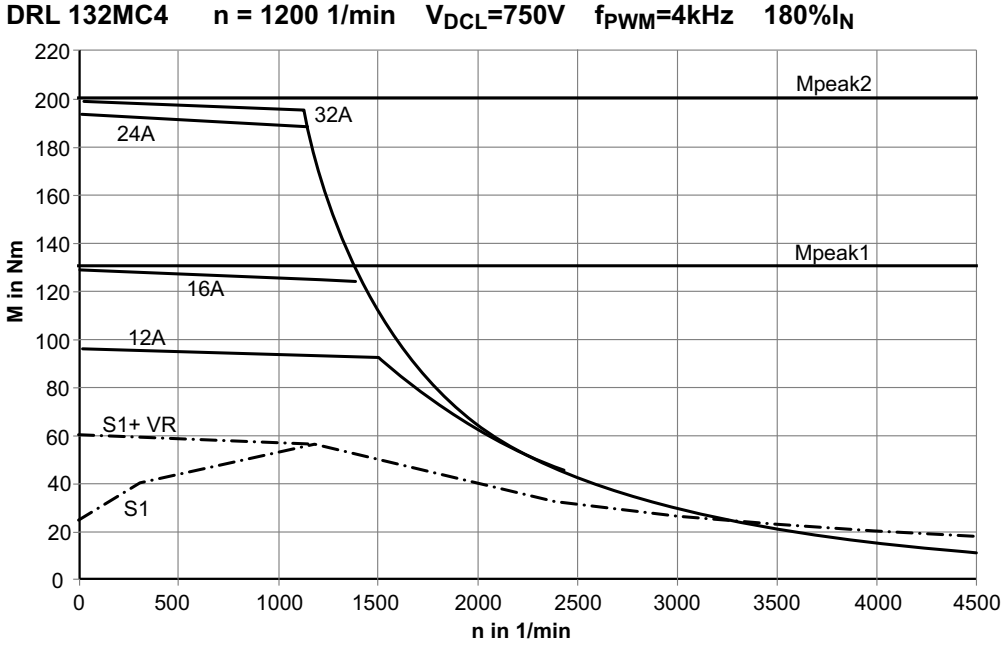


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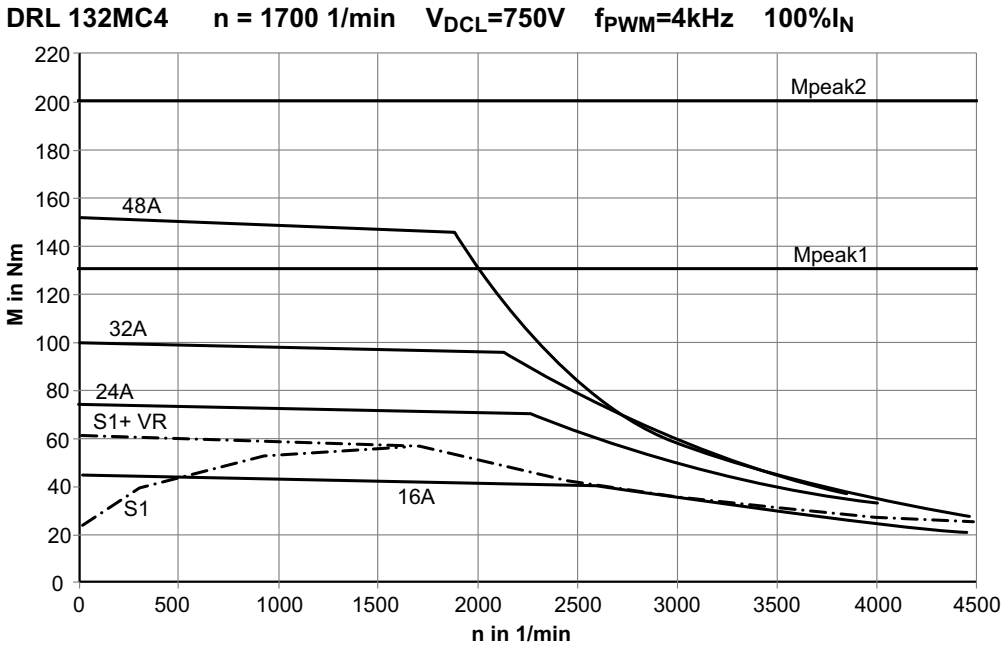
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DRL132MC4, n_N = 1200 1/min, 180% I_N



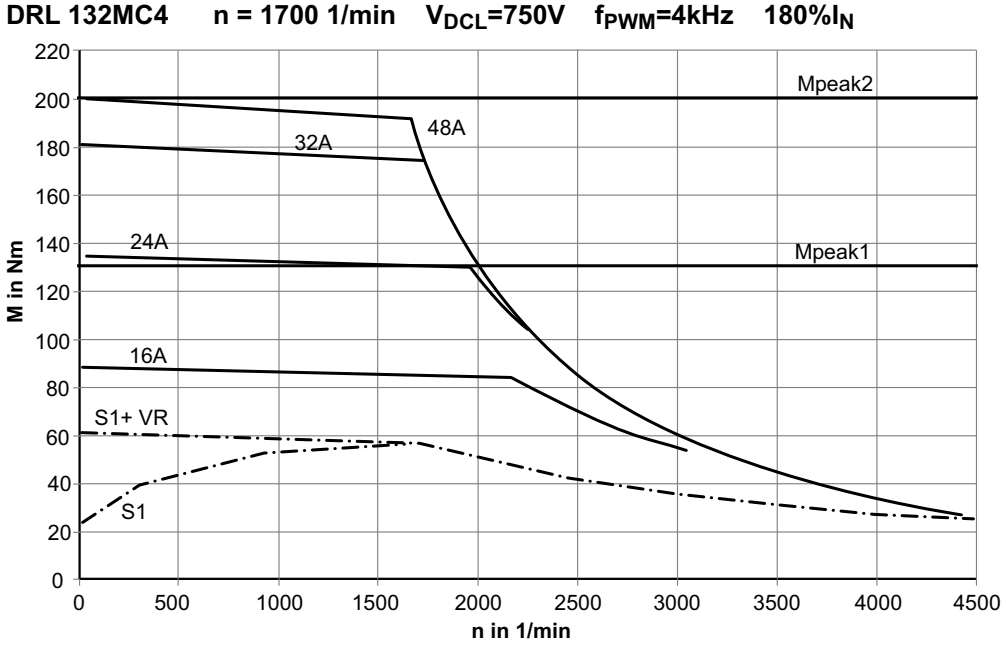
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DRL132MC4, n_N = 1700 1/min, 100% I_N



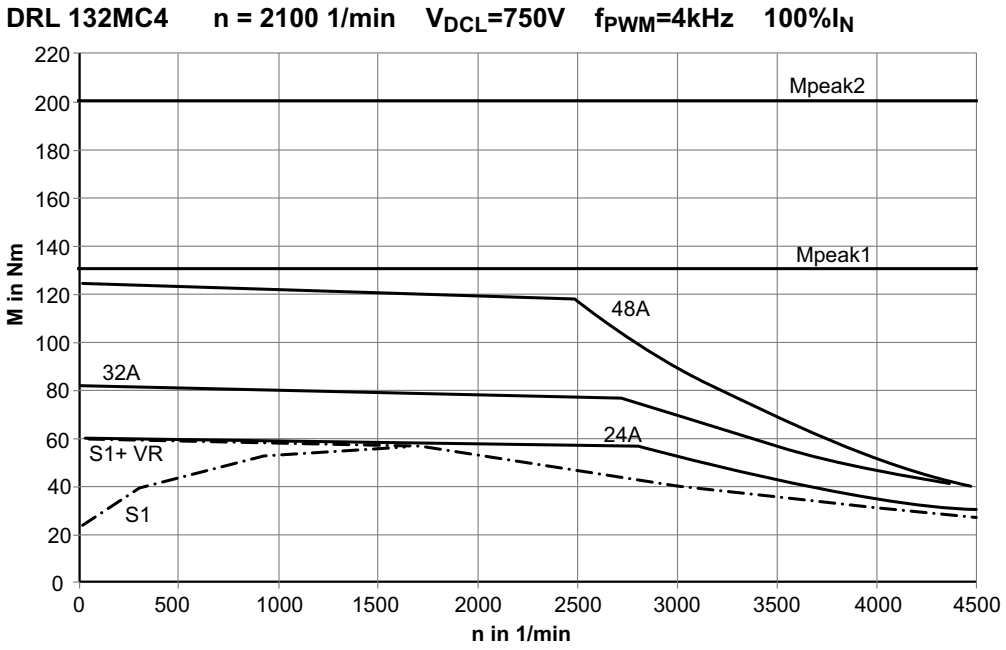
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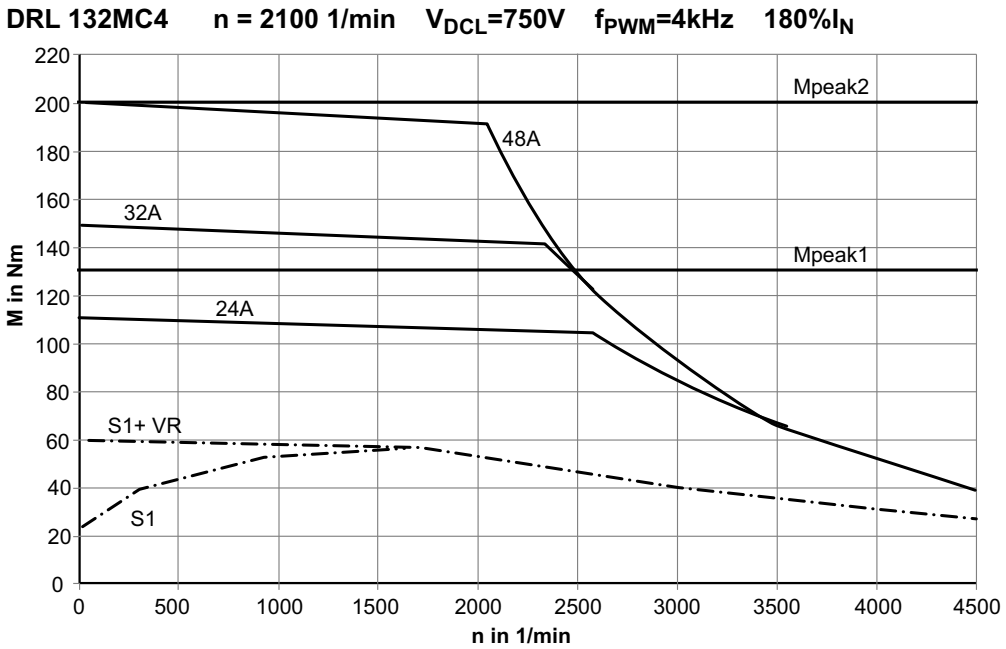
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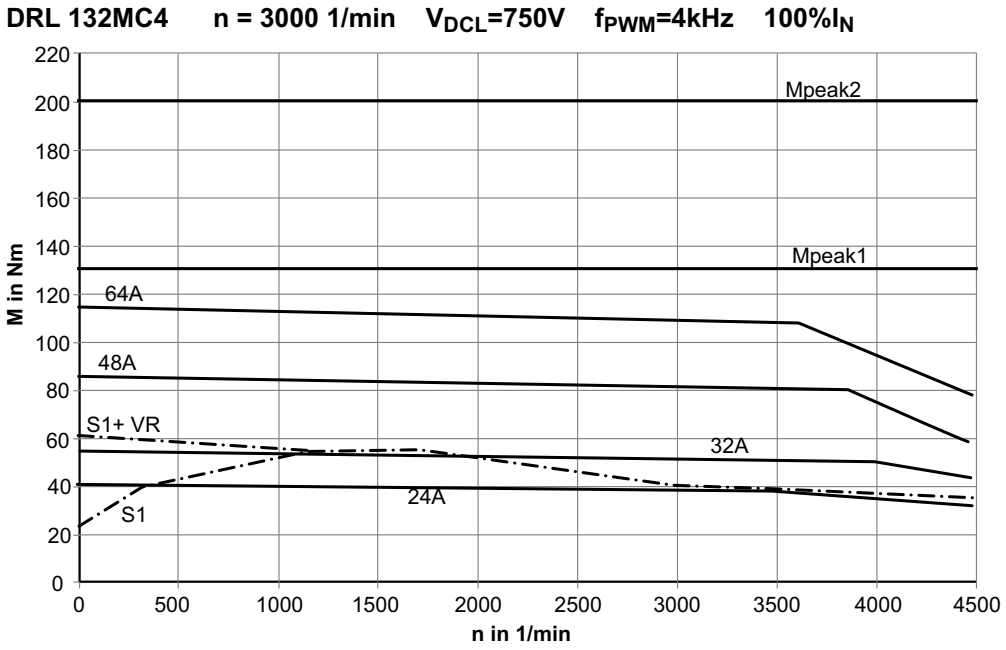
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DRL132MC4, n_N = 2100 1/min, 180% I_N



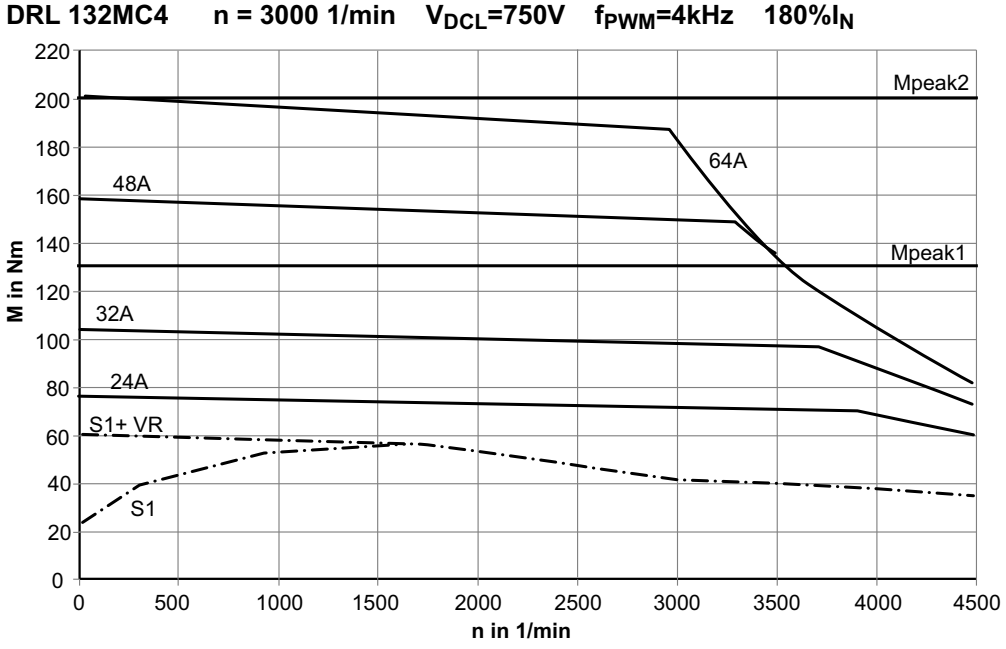
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DRL132MC4, n_N = 3000 1/min, 100% I_N



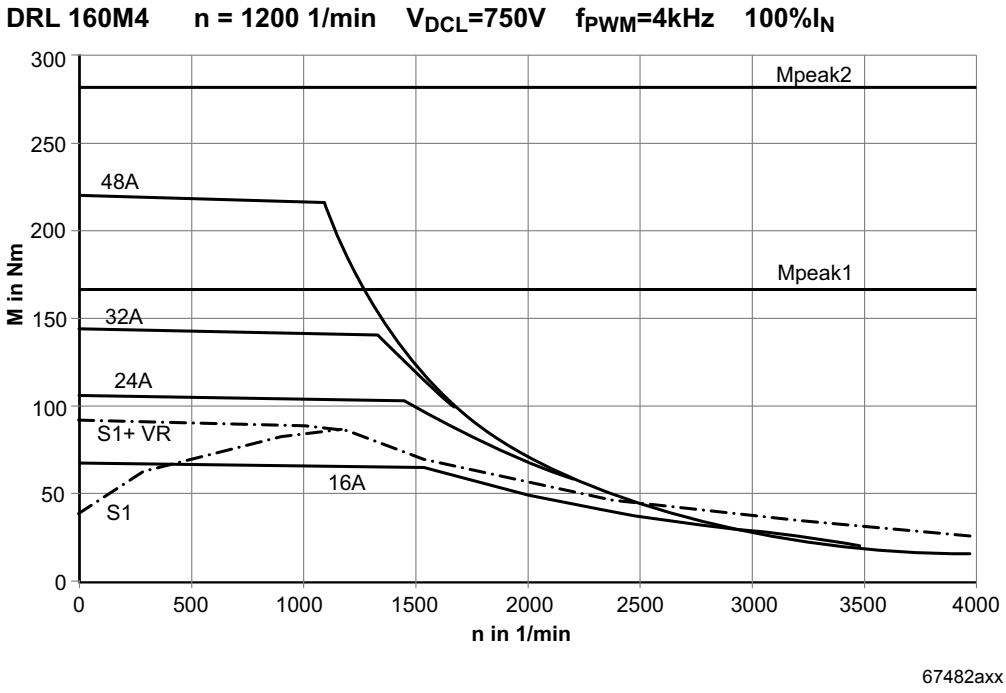
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DRL132MC4, n_N = 3000 1/min, 180% I_N



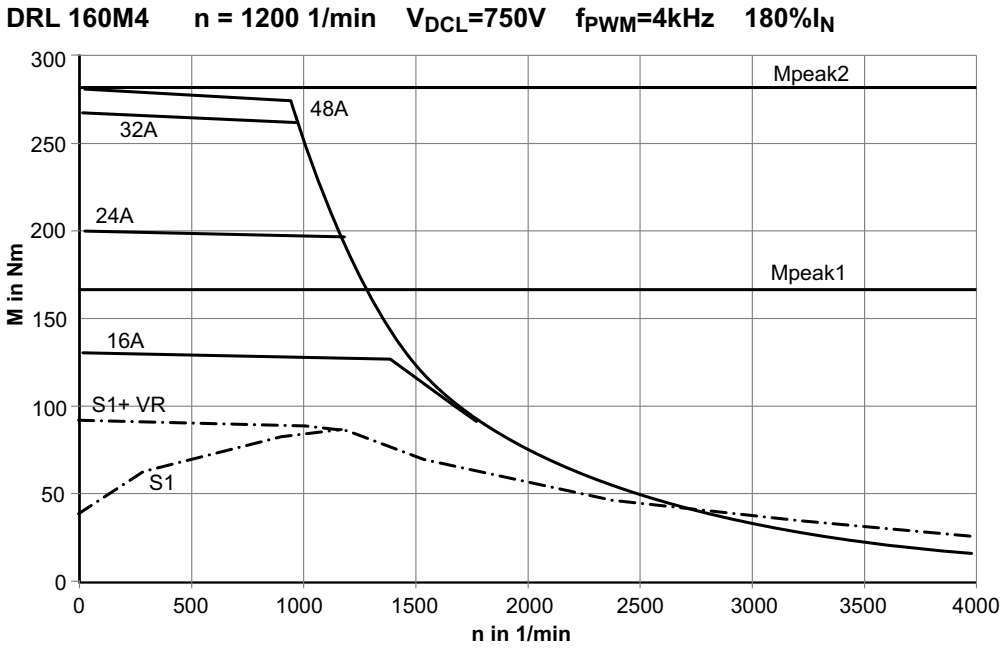
67473axx

DRL160M4, n_N = 1200 1/min, 100% I_N



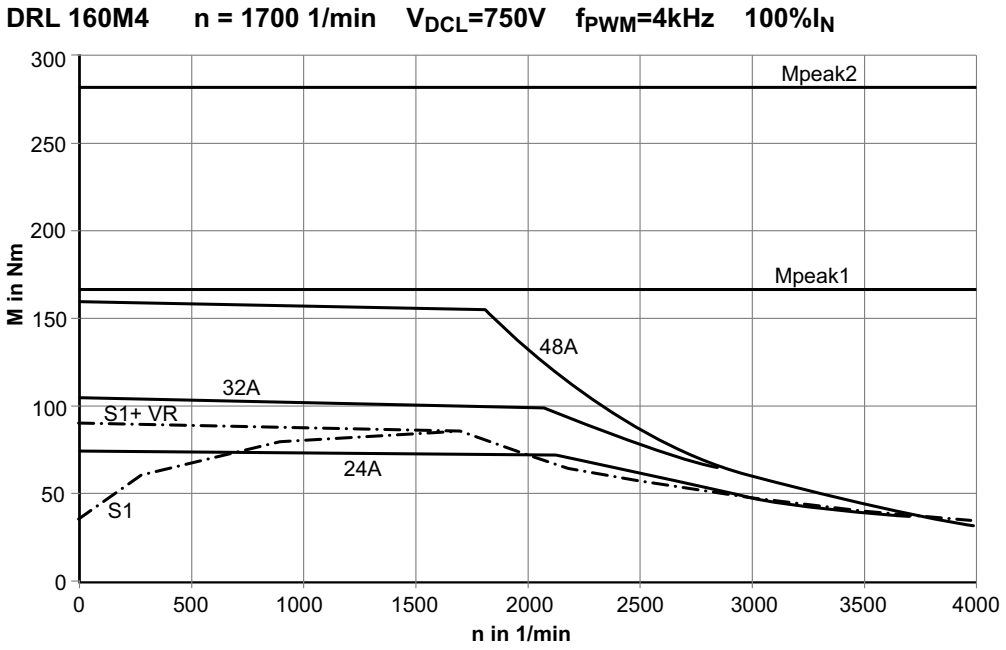
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DRL160M4, n_N = 1200 1/min, 180% I_N



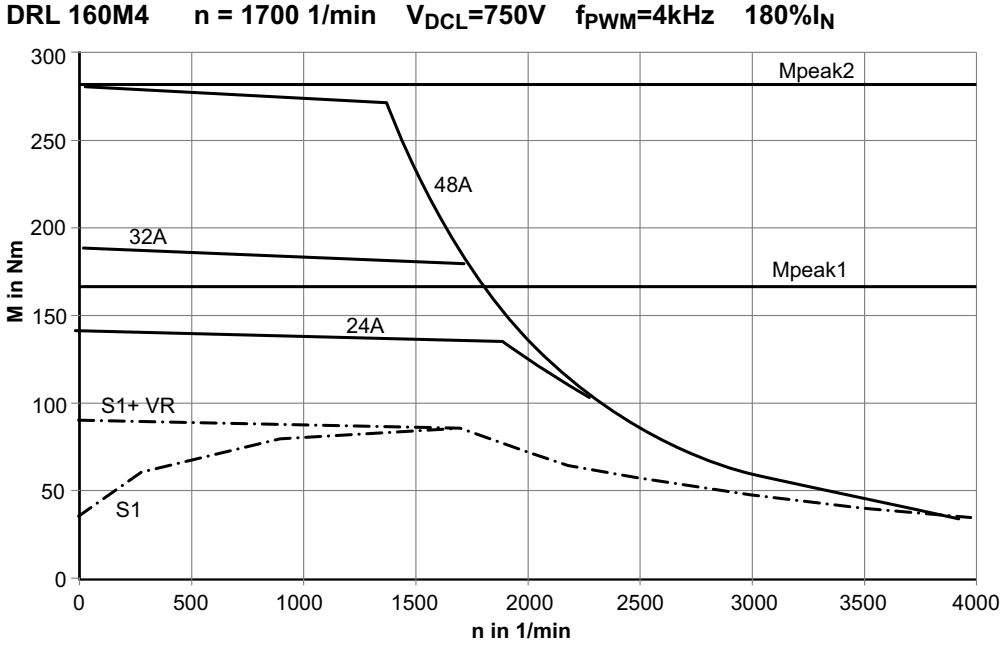
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DRL160M4, n_N = 1700 1/min, 100% I_N



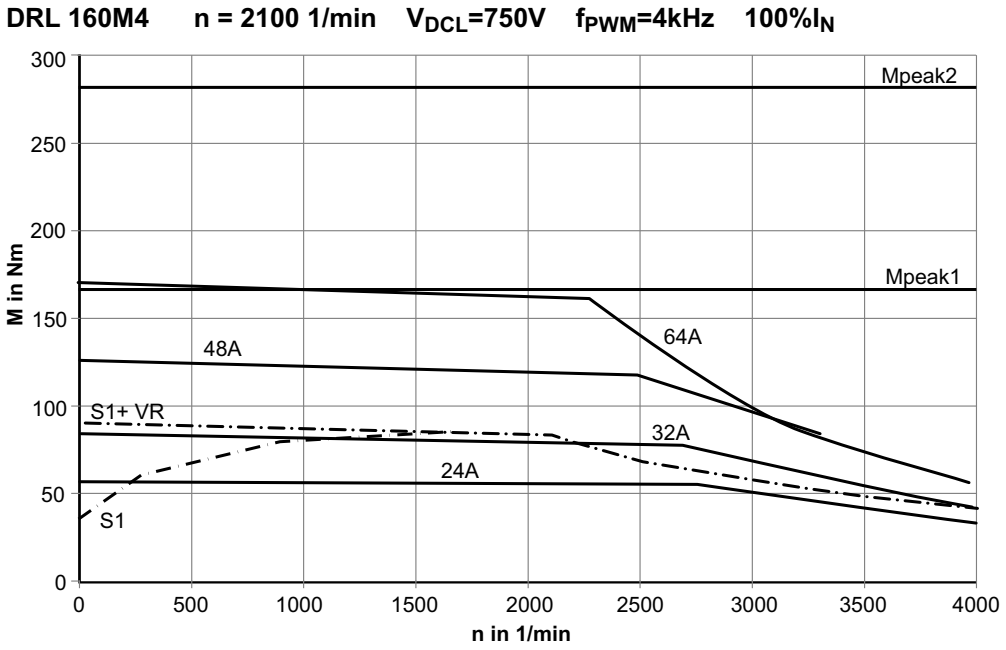
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DRL160M4, n_N = 1700 1/min, 180% I_N



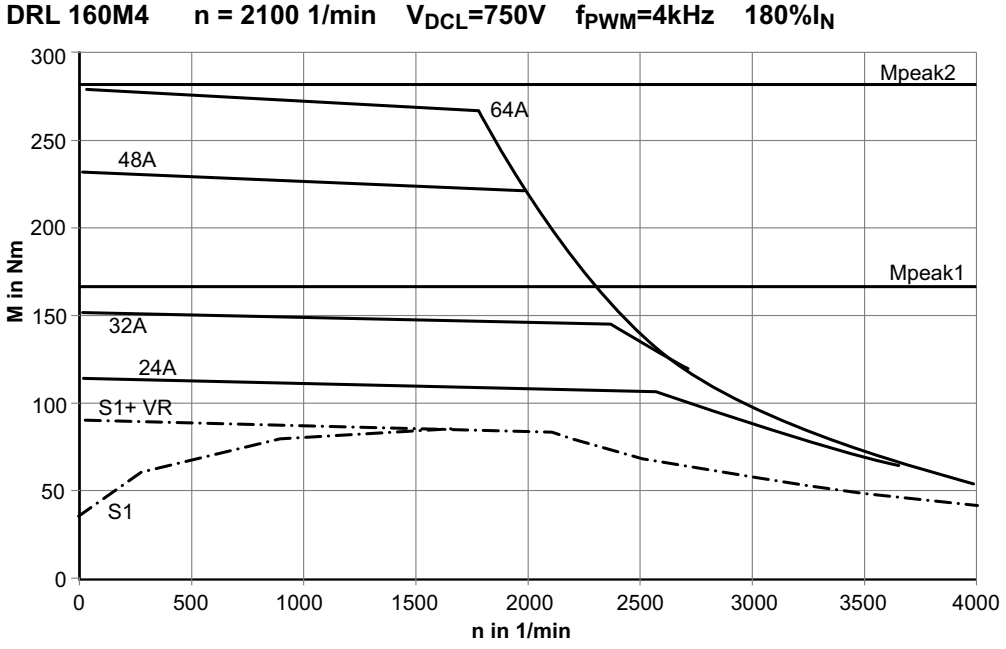
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DRL160M4, n_N = 2100 1/min, 100% I_N



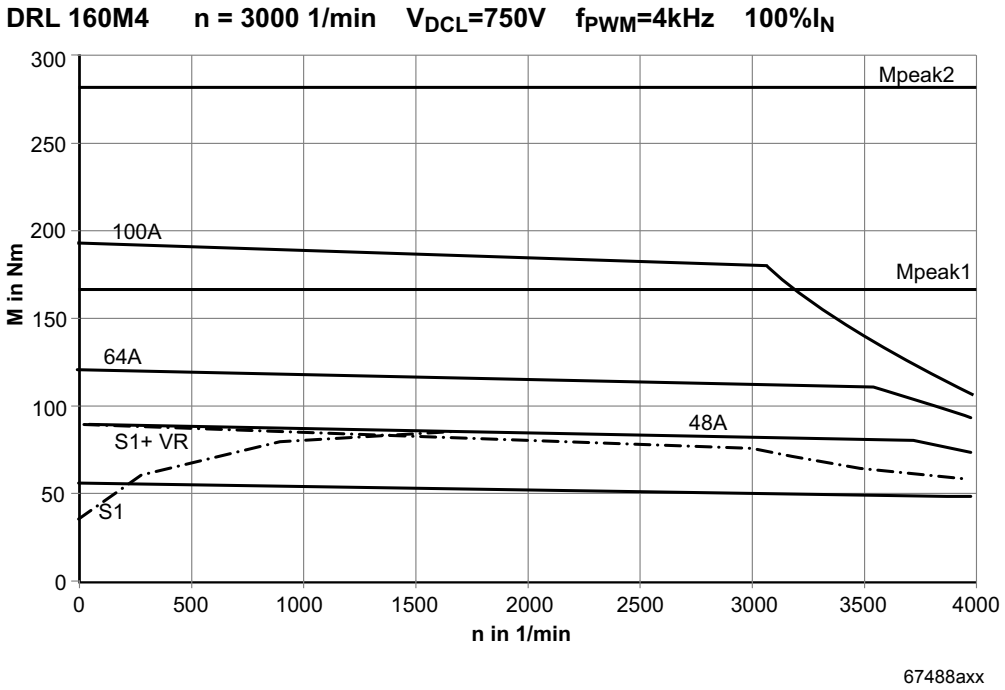
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DRL160M4, n_N = 2100 1/min, 180% I_N



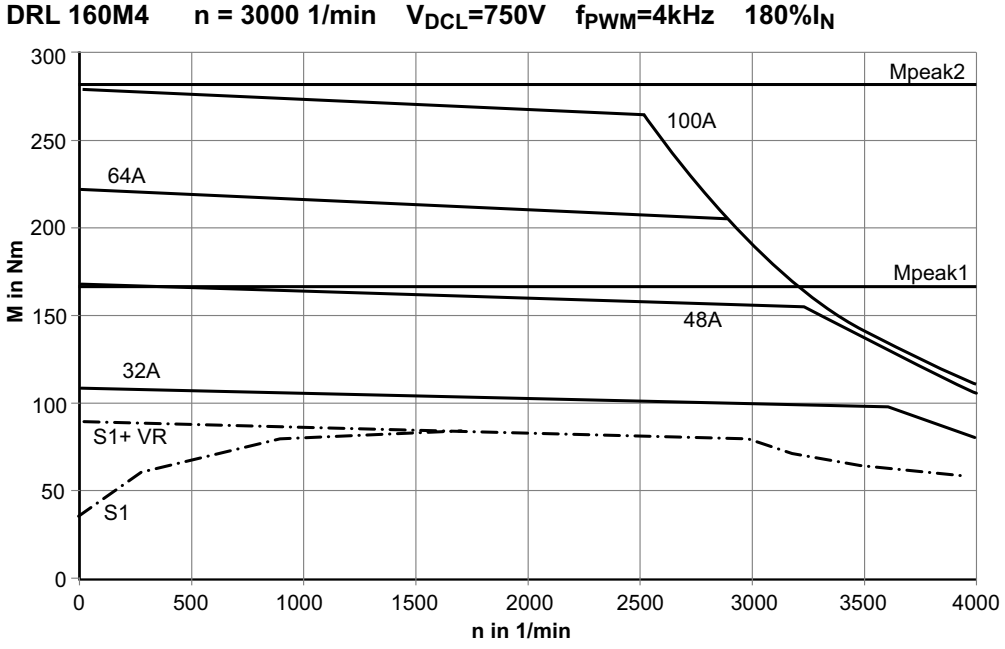
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DRL160M4, n_N = 3000 1/min, 100% I_N



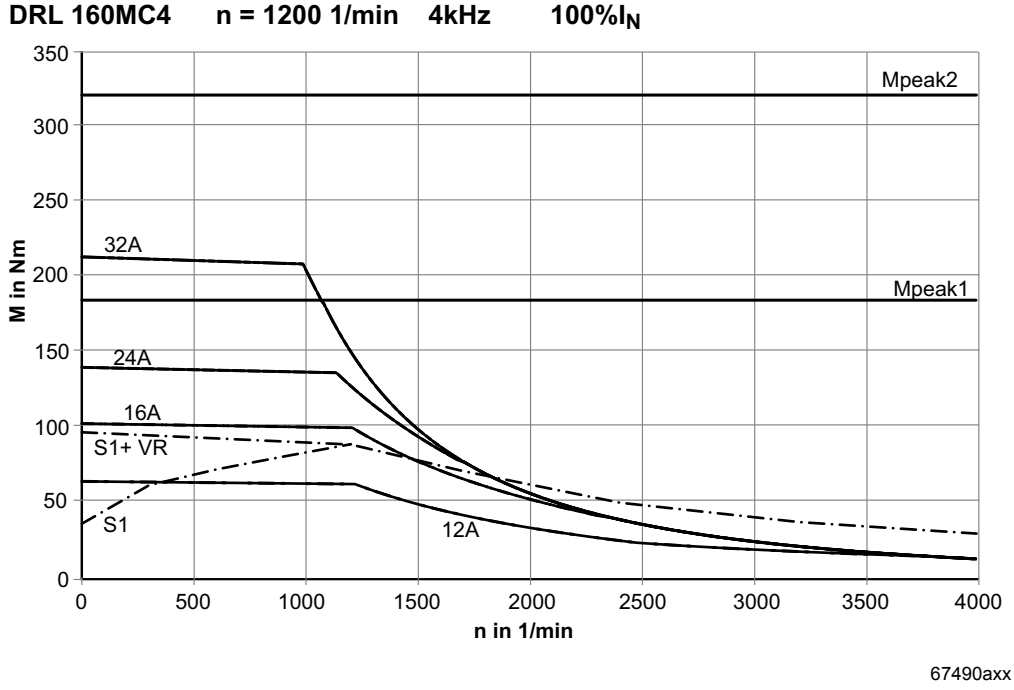
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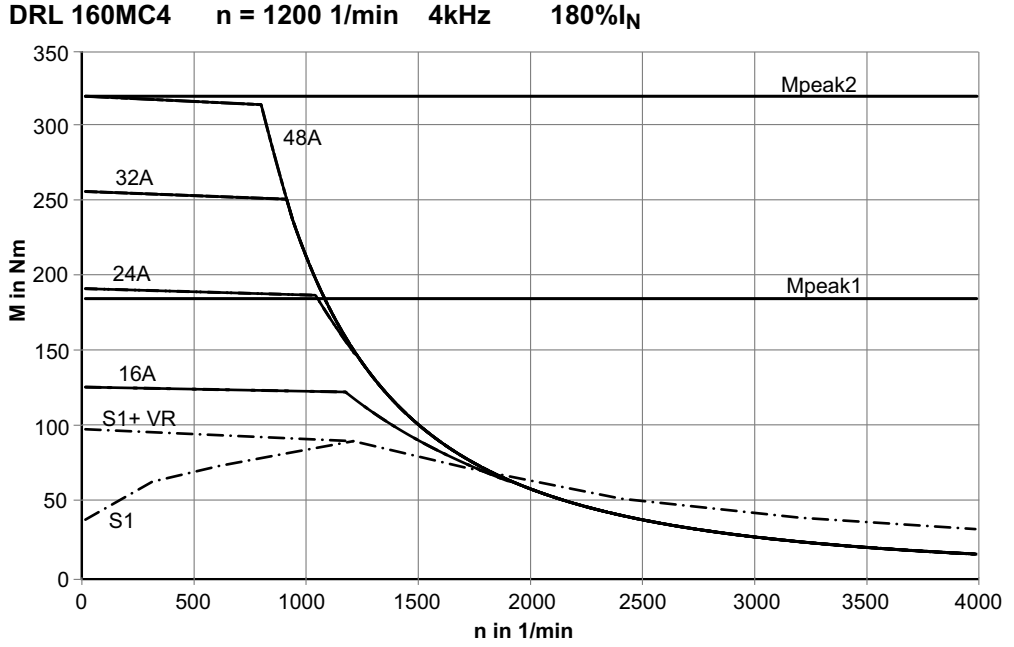
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DRL160MC4, n_N = 1200 1/min, 100% I_N



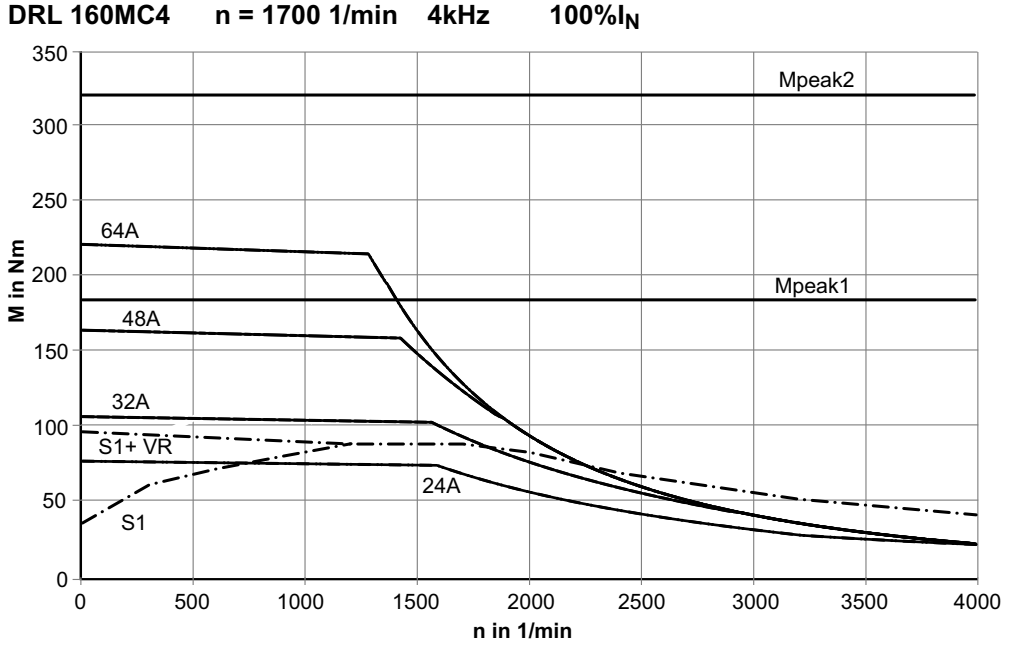
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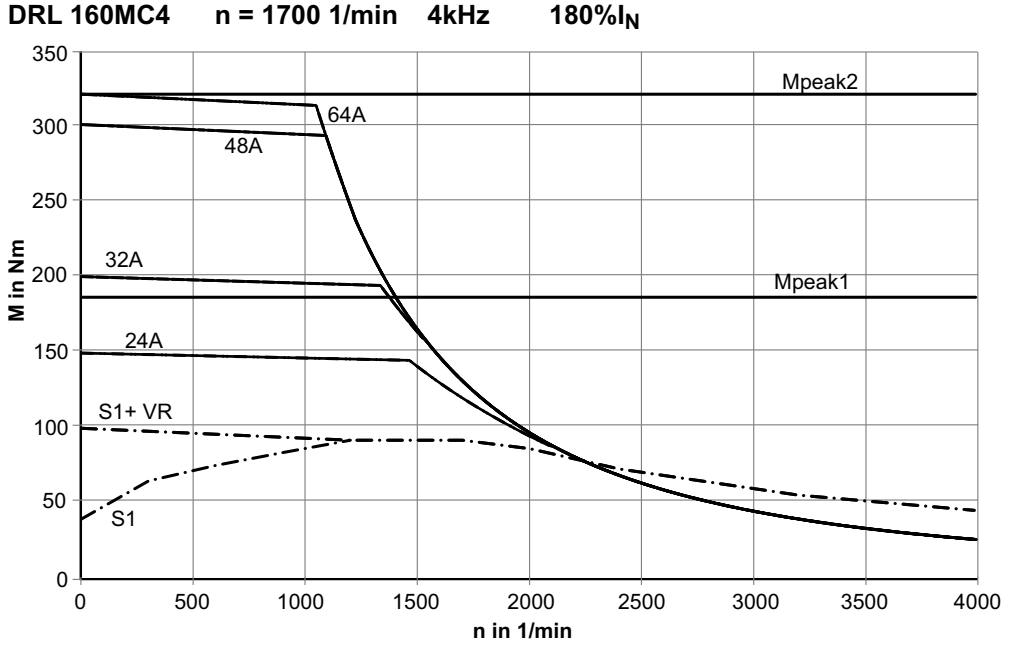
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DRL160MC4, n_N = 1700 1/min, 100% I_N



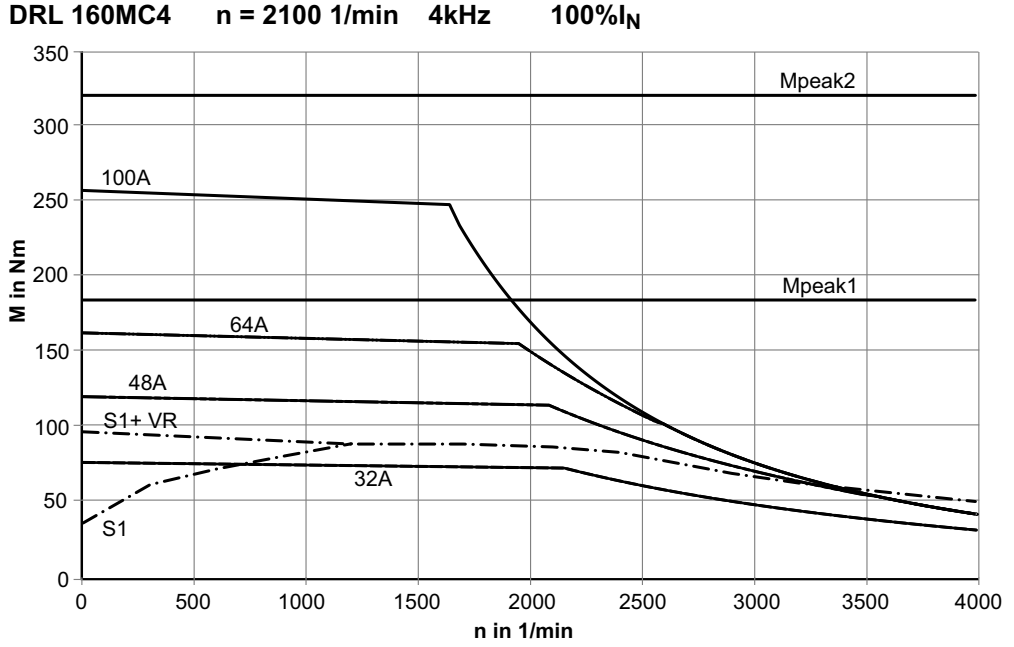
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DRL160MC4, n_N = 1700 1/min, 180% I_N



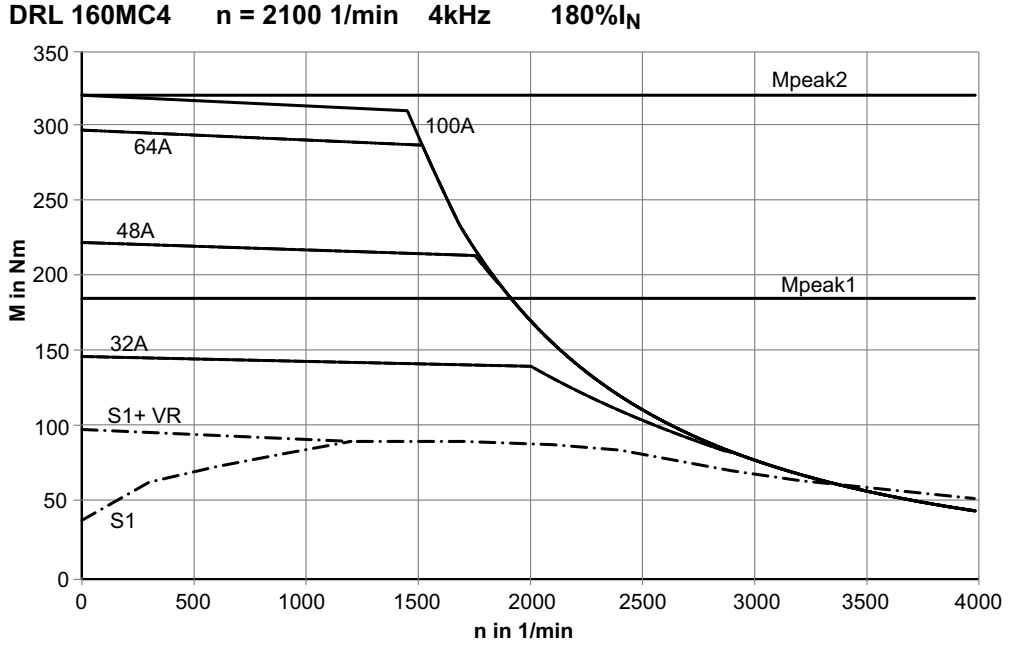
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DRL160MC4, n_N = 2100 1/min, 100% I_N



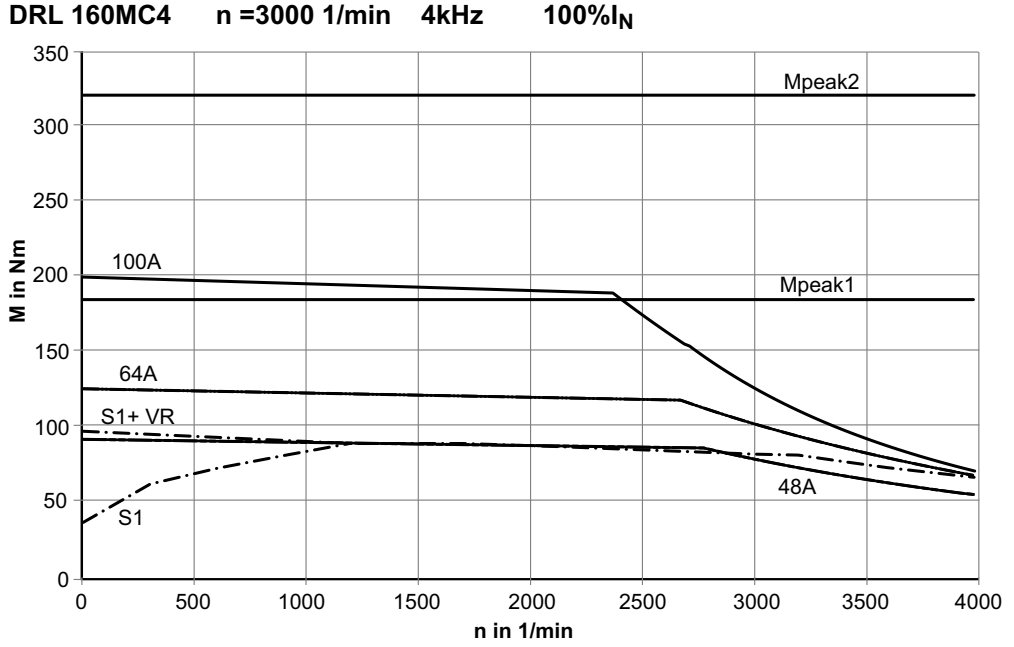
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DRL160MC4, n_N = 2100 1/min, 180% I_N

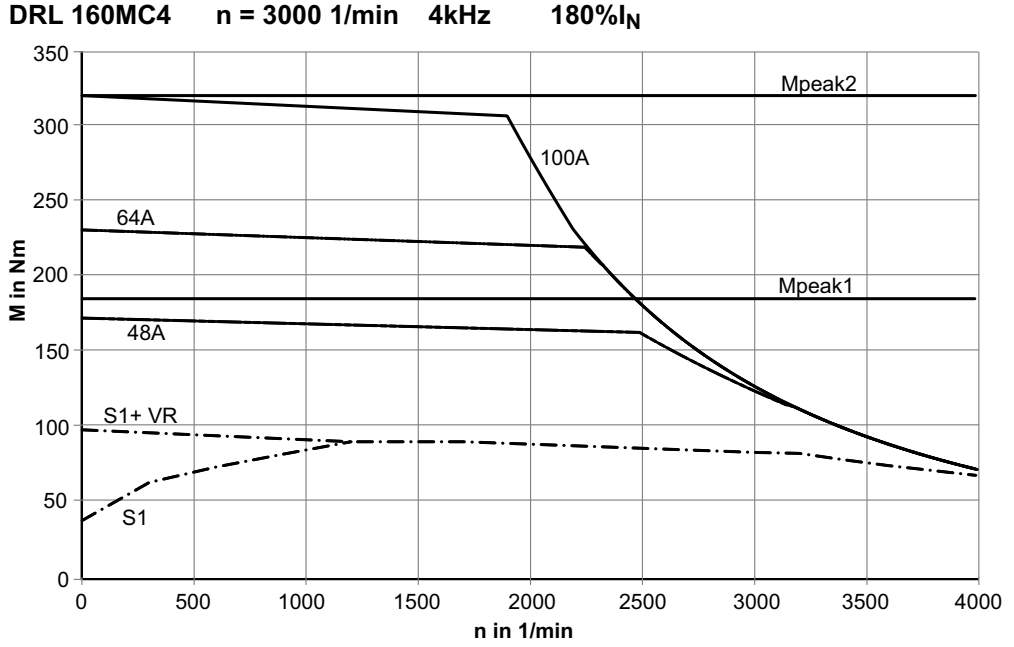


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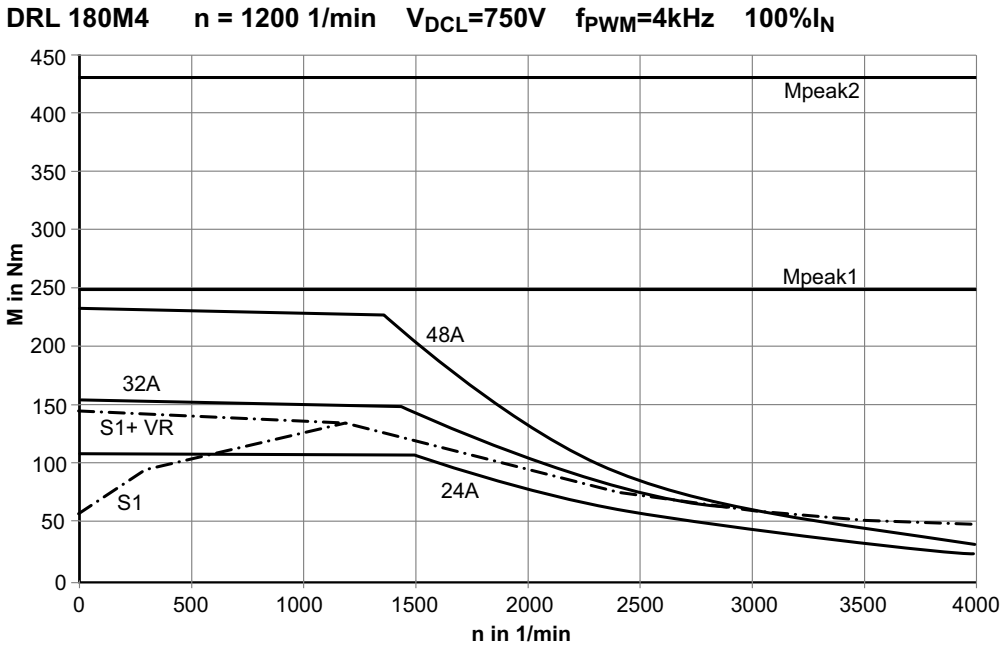
DRL160MC4, n_N = 3000 1/min, 100% I_N



DRL160MC4, n_N = 3000 1/min, 180% I_N

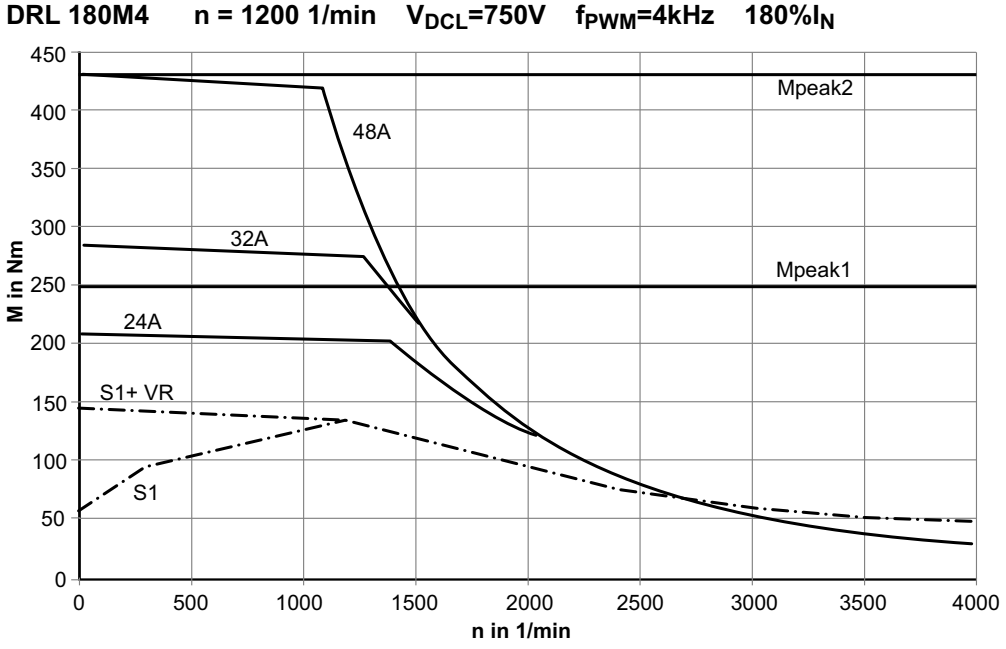


DRL180M4, n_N = 1200 1/min, 100% I_N



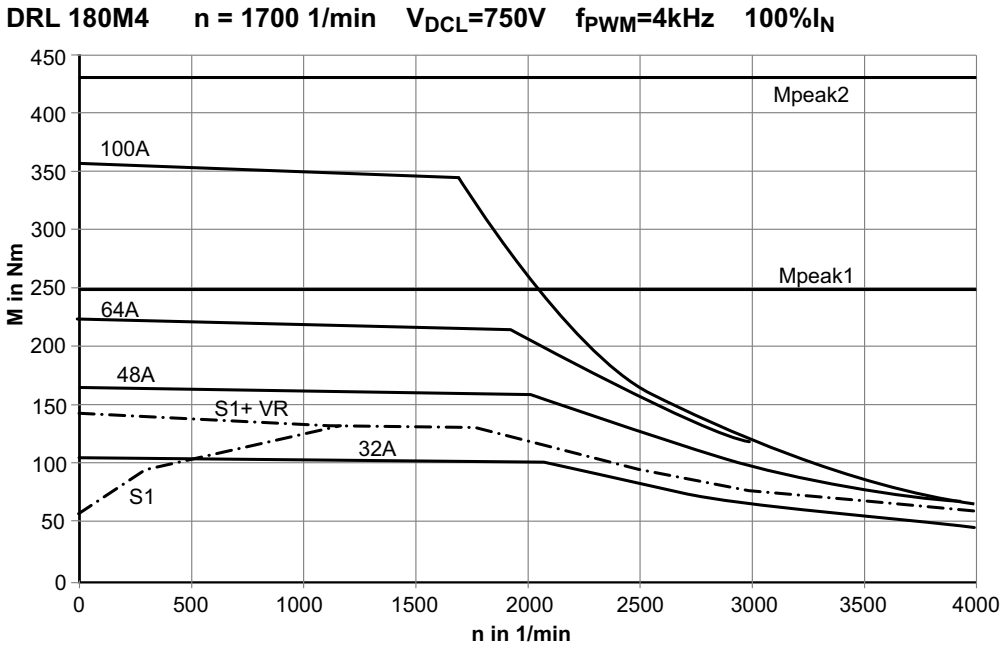
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DRL180M4, n_N = 1200 1/min, 180% I_N



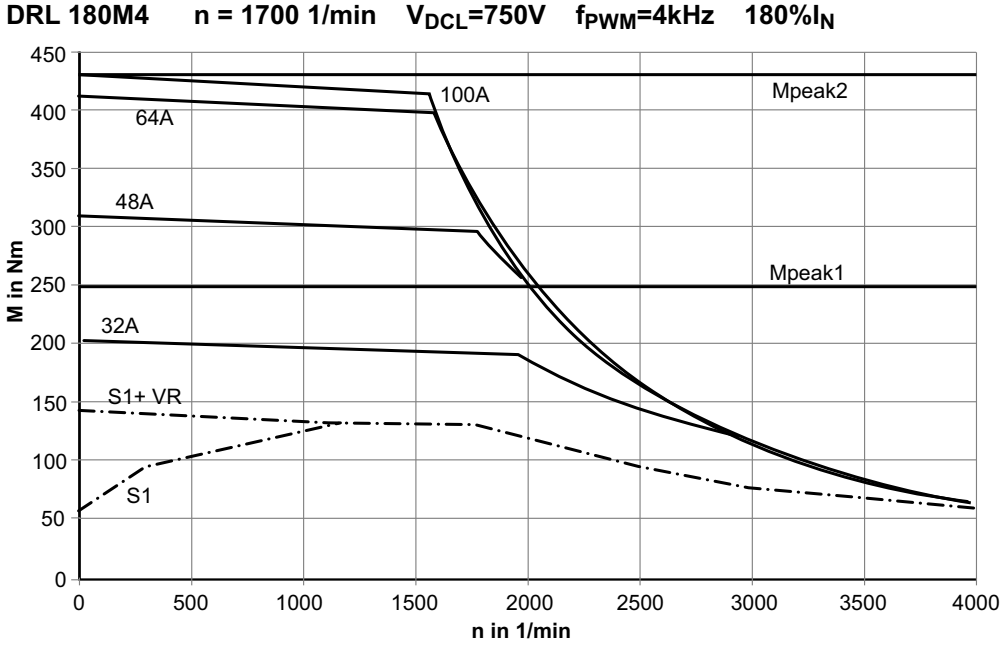
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DRL180M4, n_N = 1700 1/min, 100% I_N



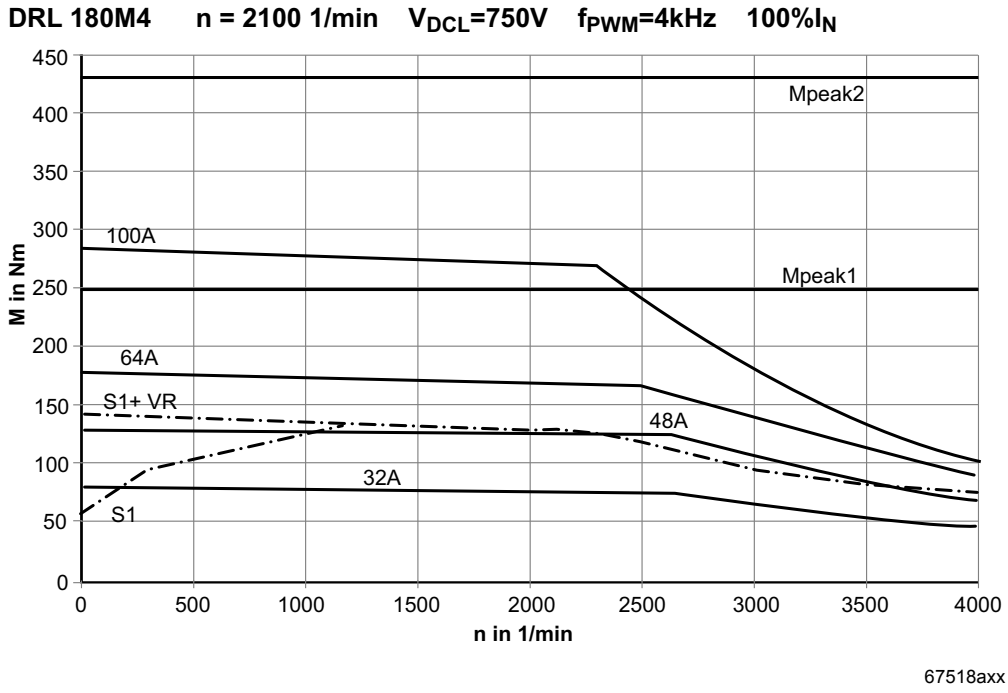
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DRL180M4, n_N = 1700 1/min, 180% I_N



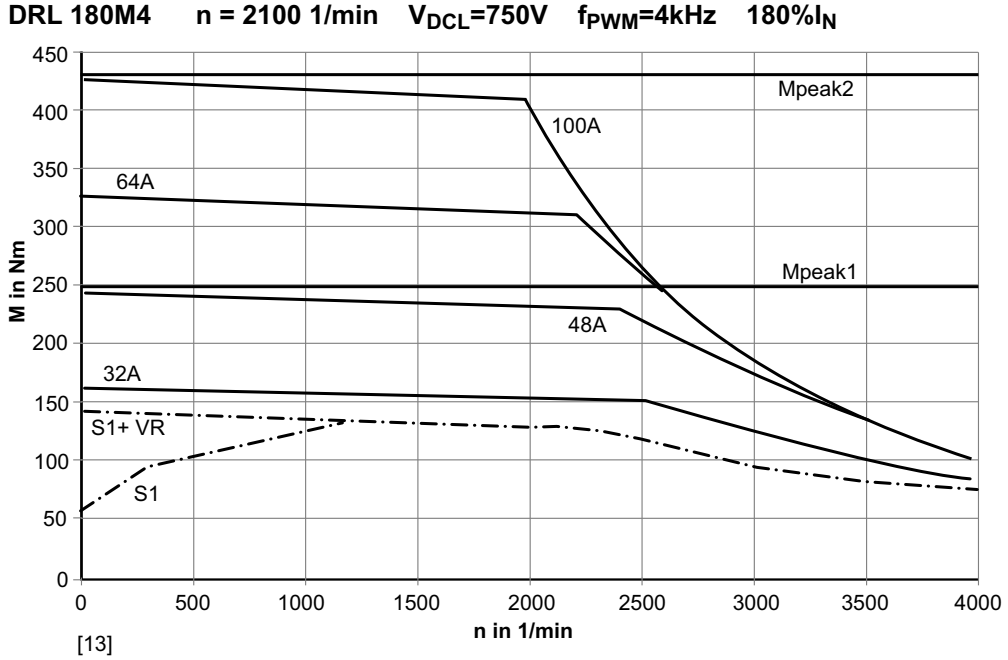
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DRL180M4, n_N = 2100 1/min, 100% I_N



67518axx

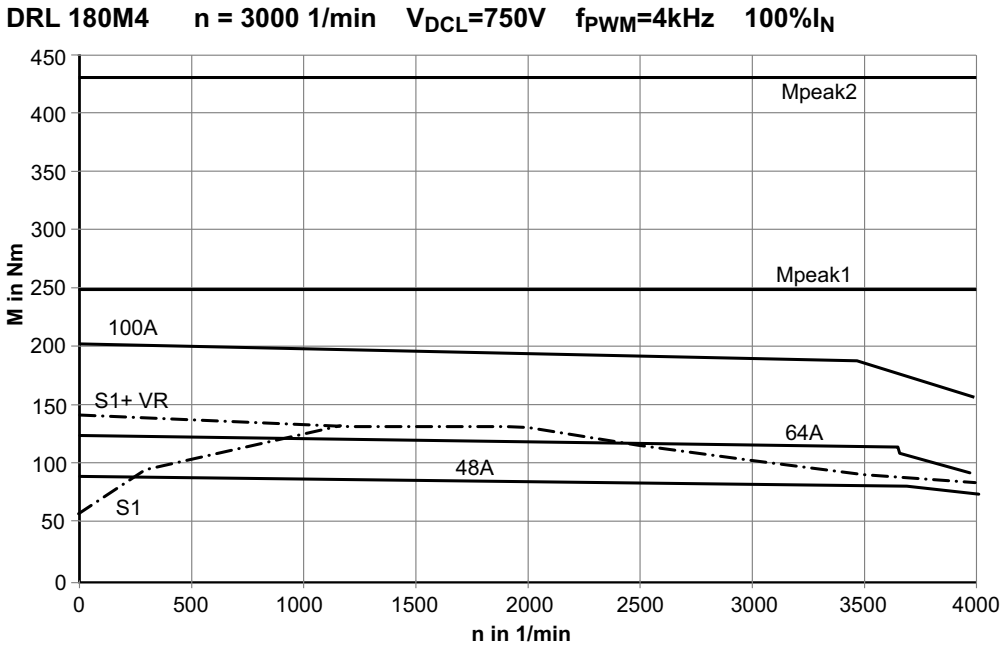
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[13]

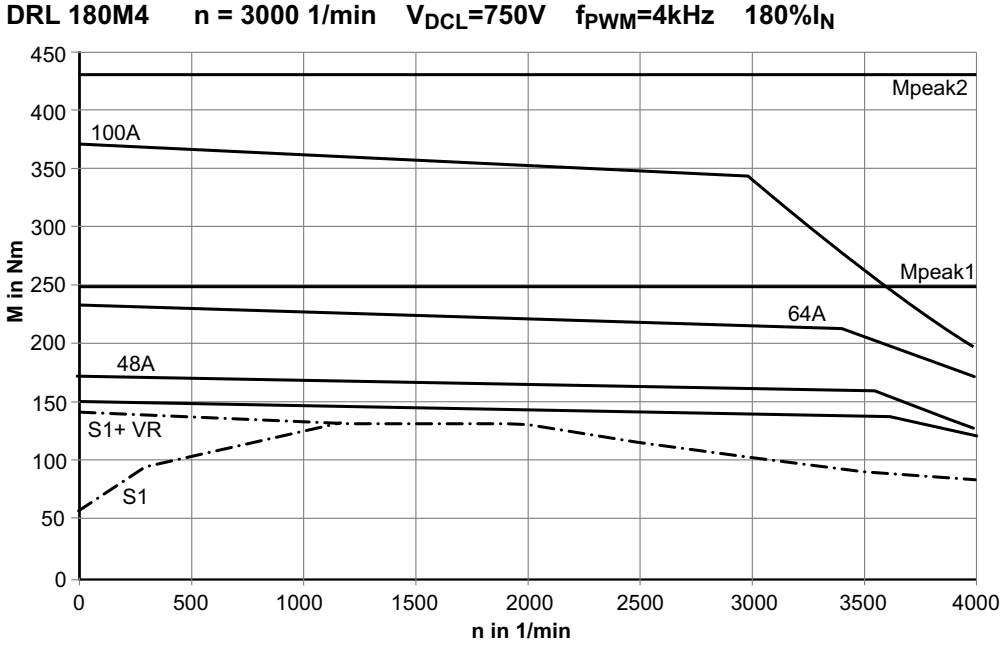
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DRL180M4, n_N = 3000 1/min, 100% I_N



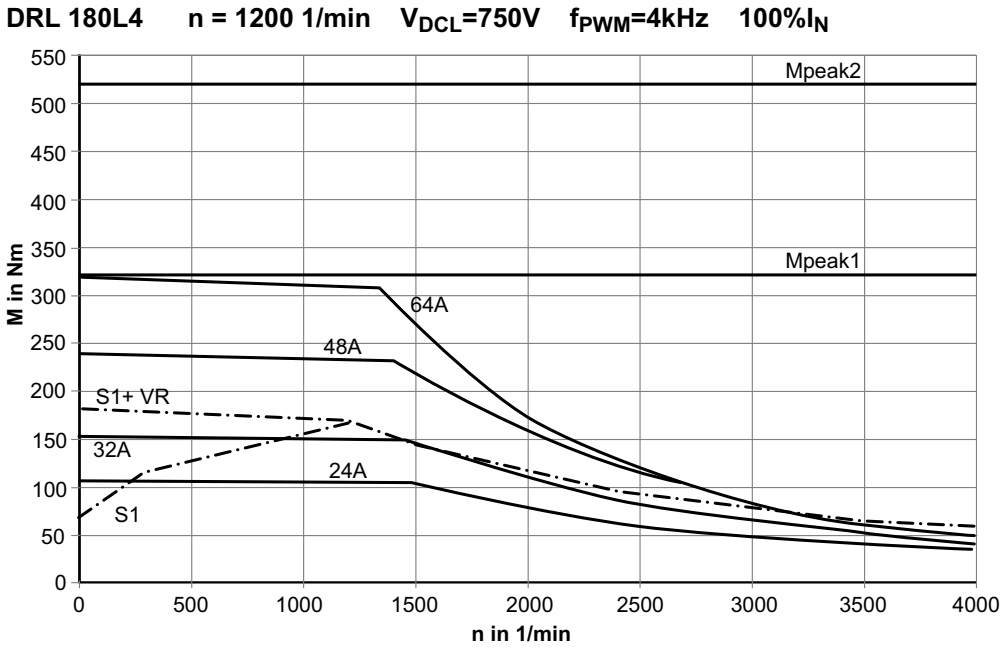
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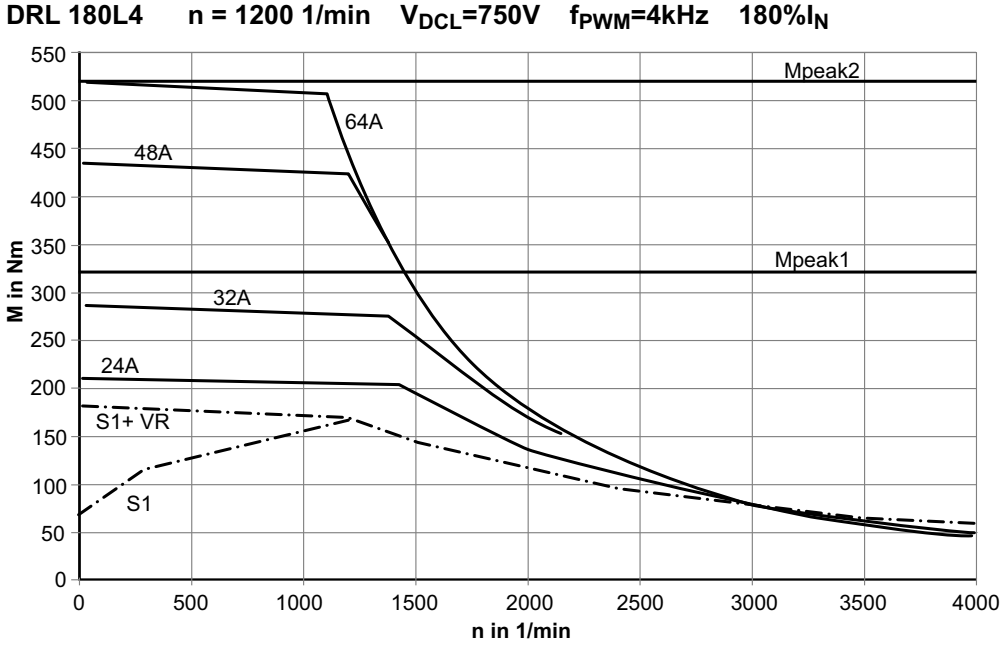
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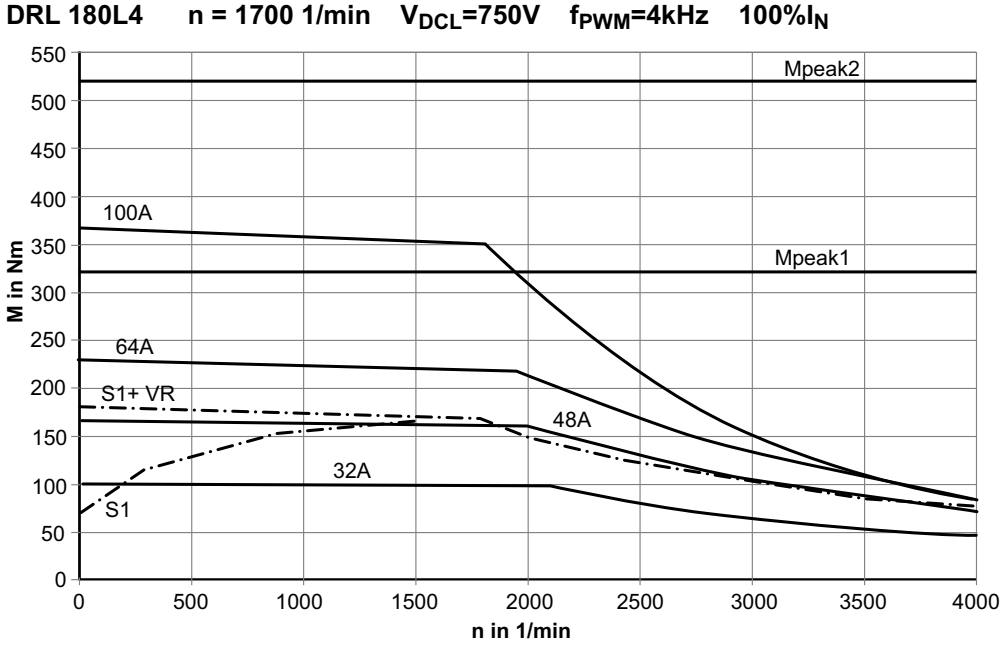
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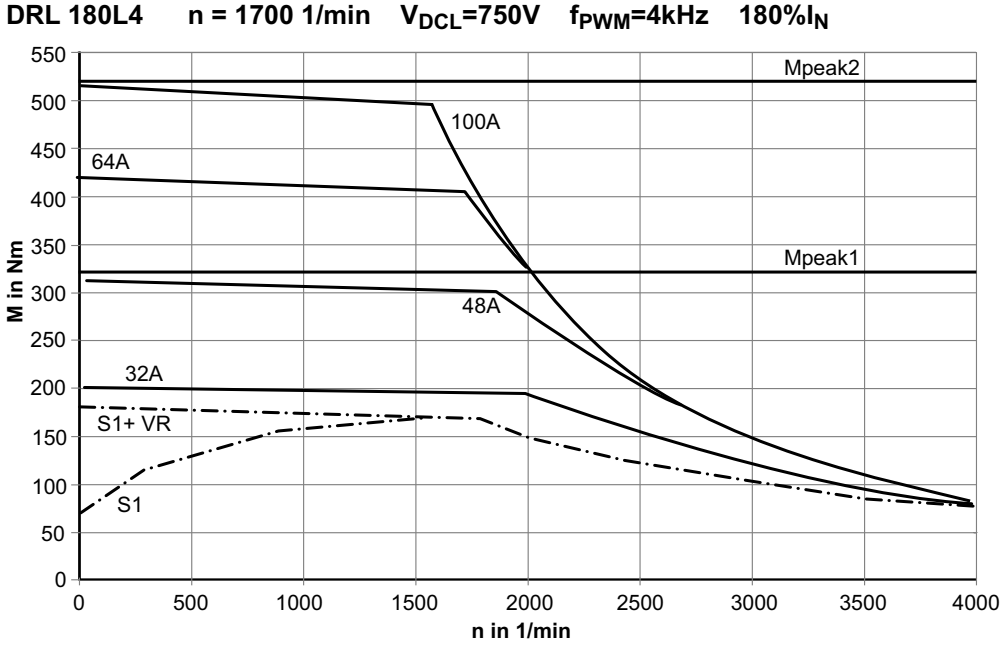
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DRL180L4, n_N = 1700 1/min, 100% I_N



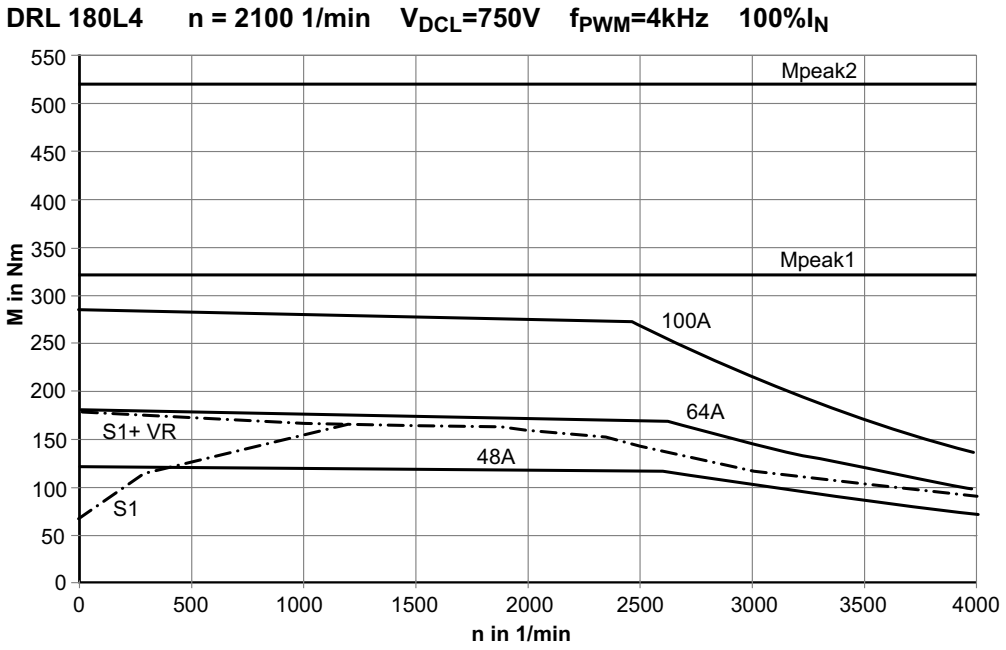
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DRL180L4, n_N = 1700 1/min, 180% I_N



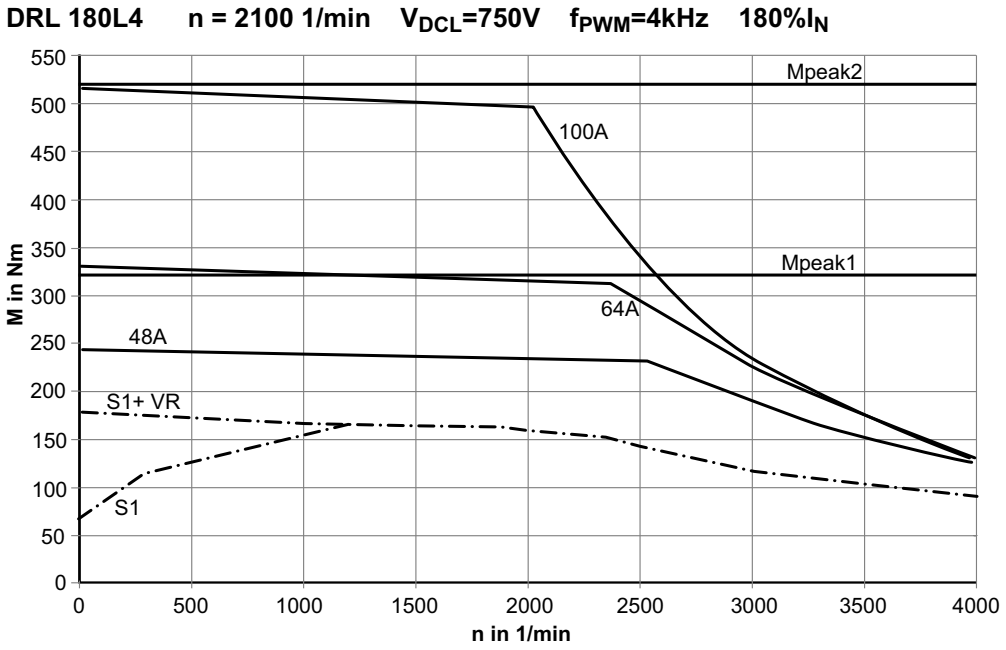
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DRL180L4, n_N = 2100 1/min, 100% I_N



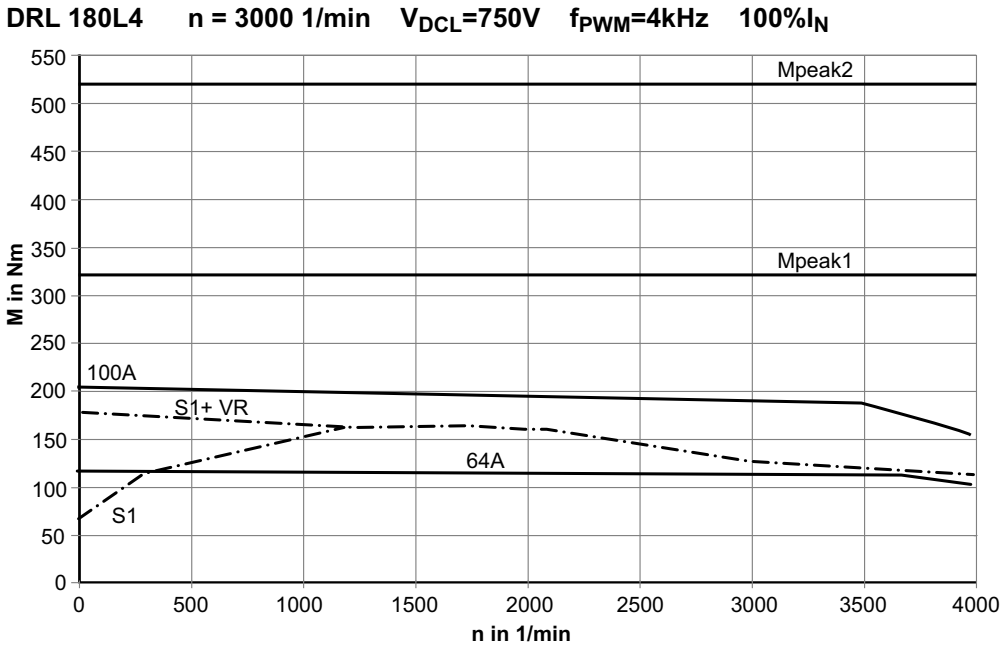
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DRL180L4, n_N = 2100 1/min, 180% I_N



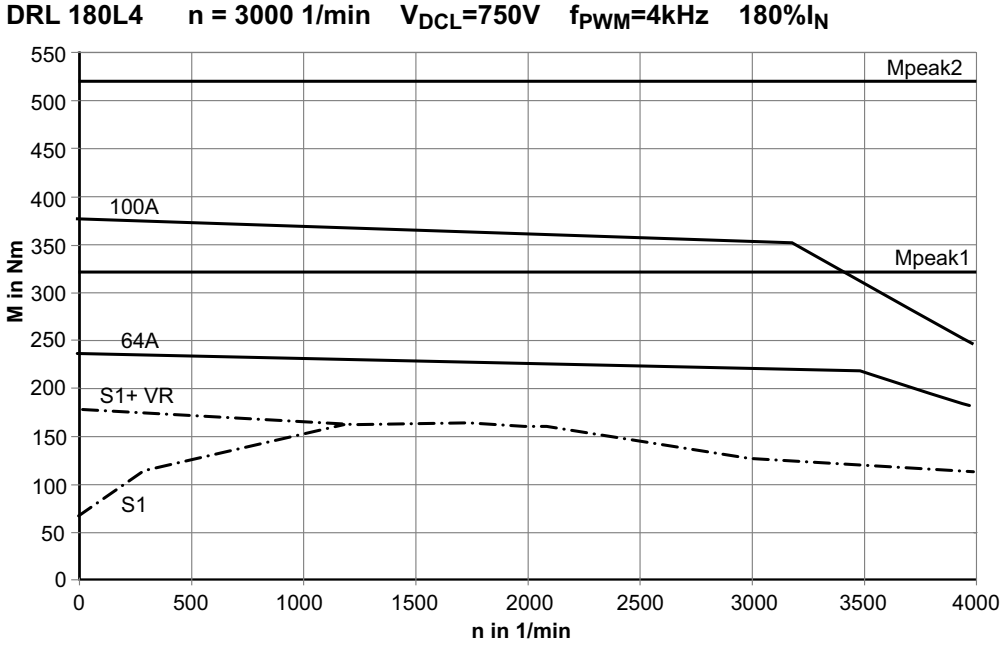
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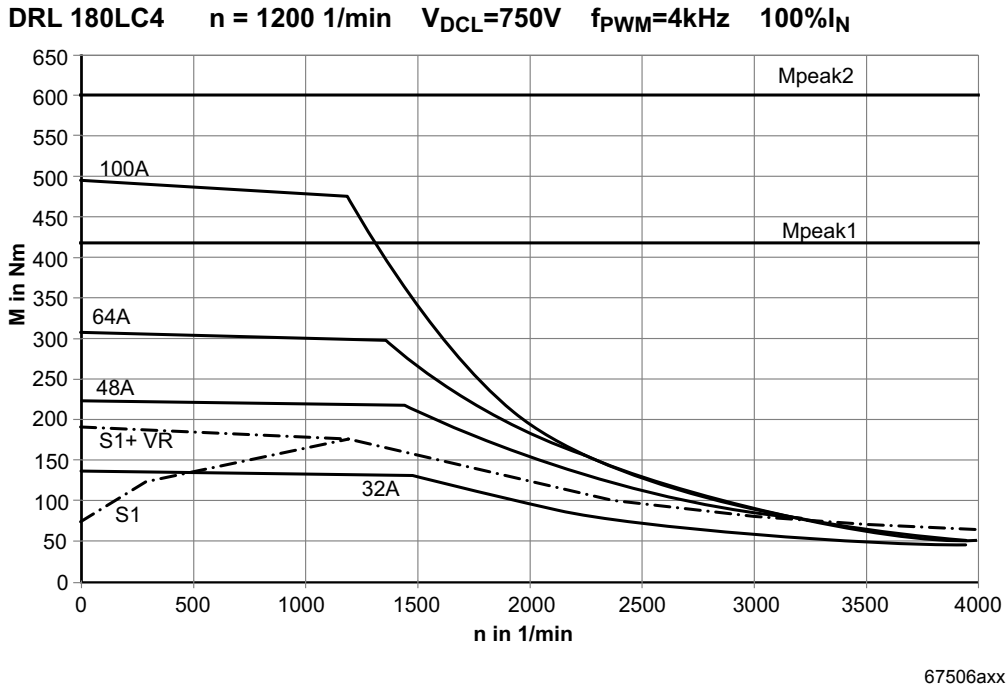
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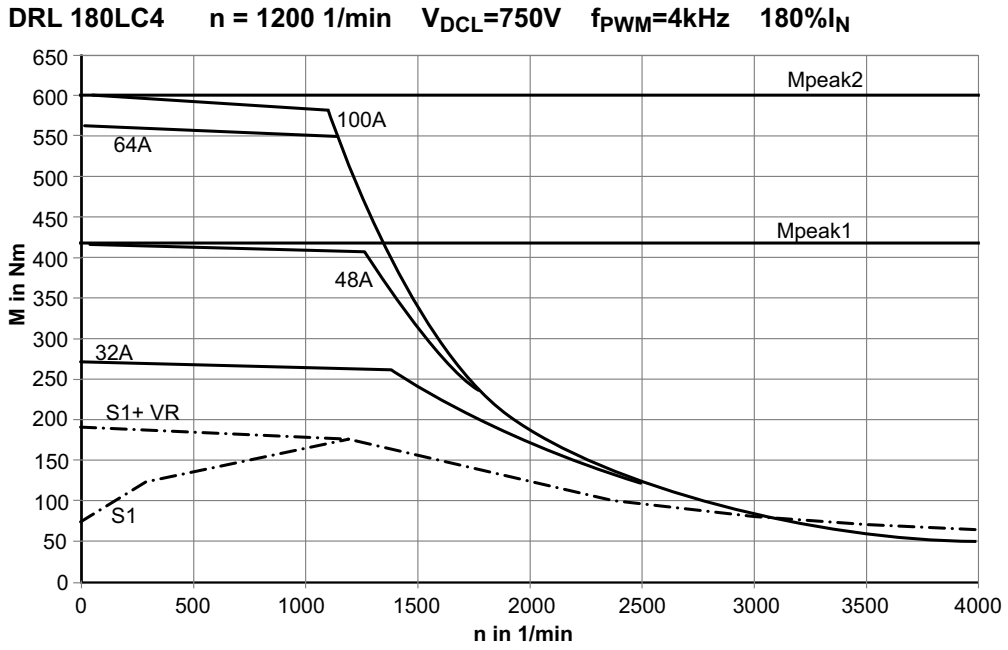
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DRL180LC4, n_N = 1200 1/min, 100% I_N



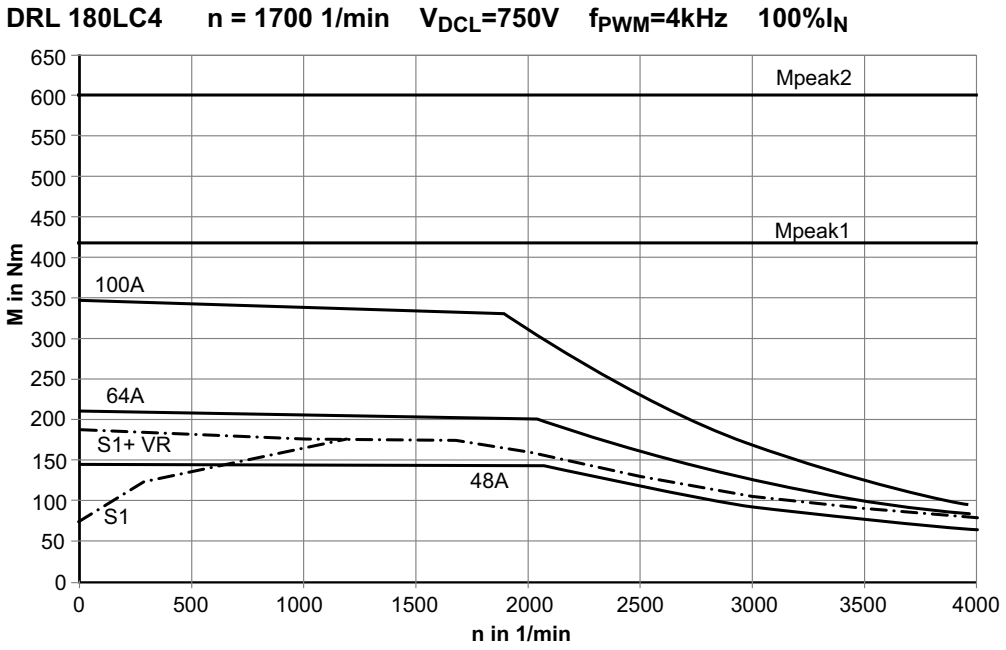
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DRL180LC4, n_N = 1200 1/min, 180% I_N



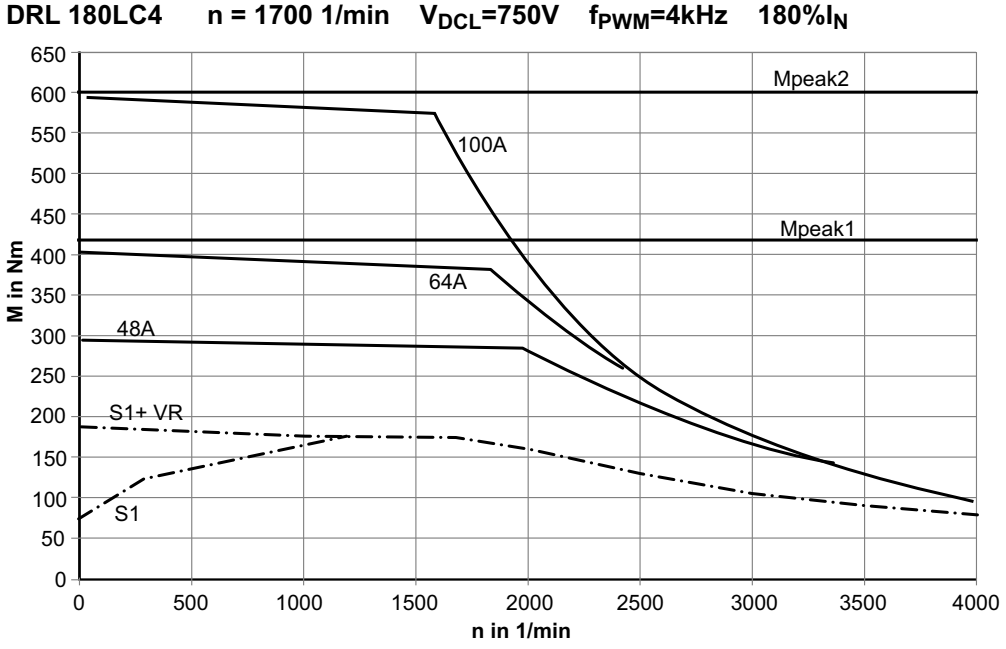
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DRL180LC4, n_N = 1700 1/min, 100% I_N



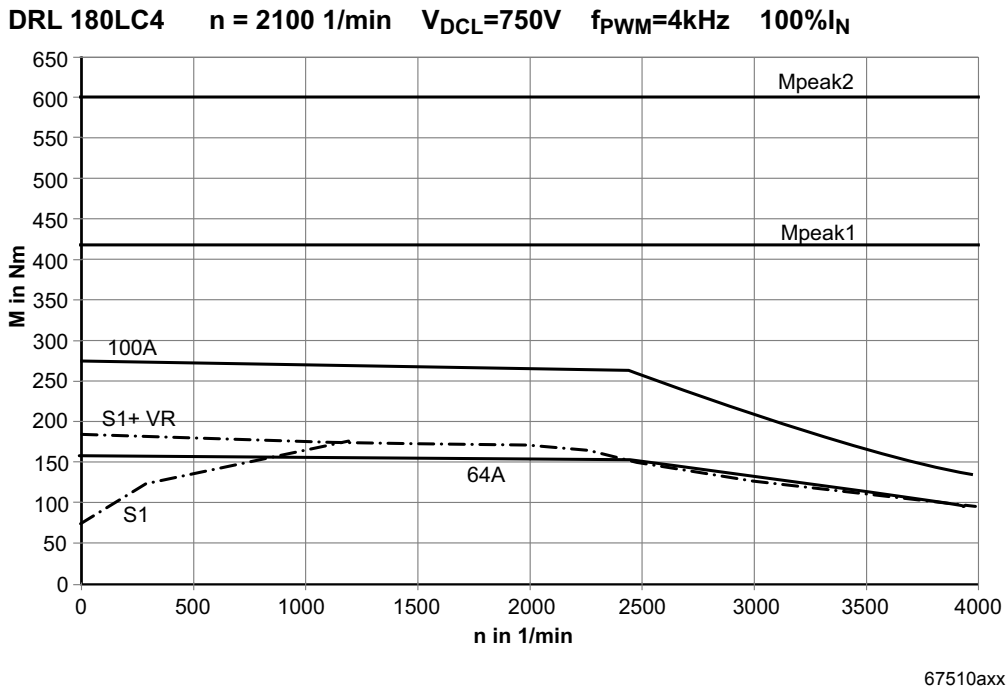
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DRL180LC4, n_N = 1700 1/min, 180% I_N



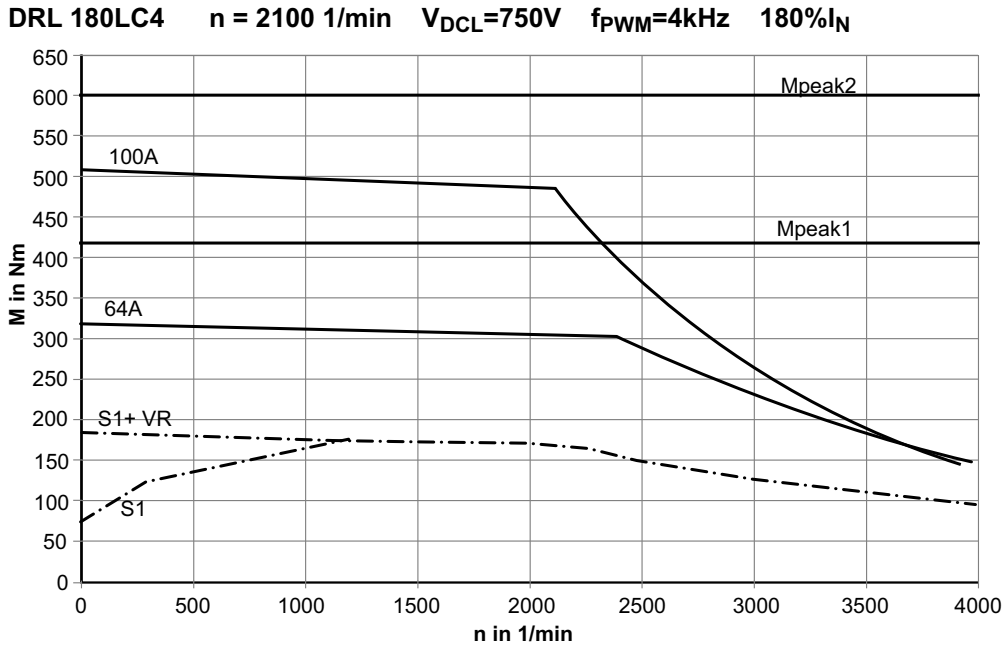
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DRL180LC4, n_N = 2100 1/min, 100% I_N



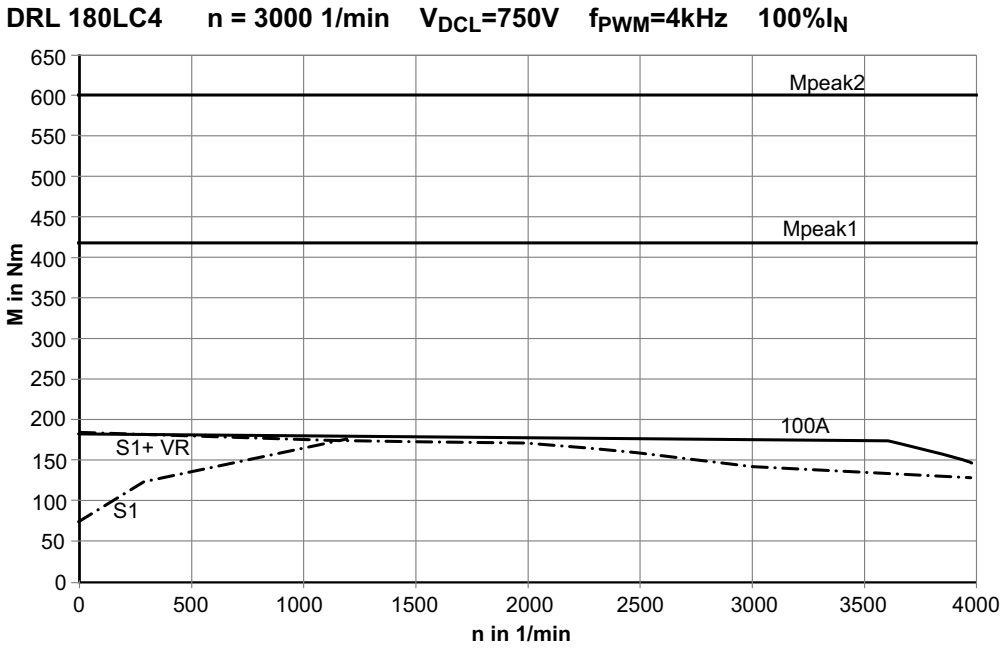
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DRL180LC4, n_N = 2100 1/min, 180% I_N



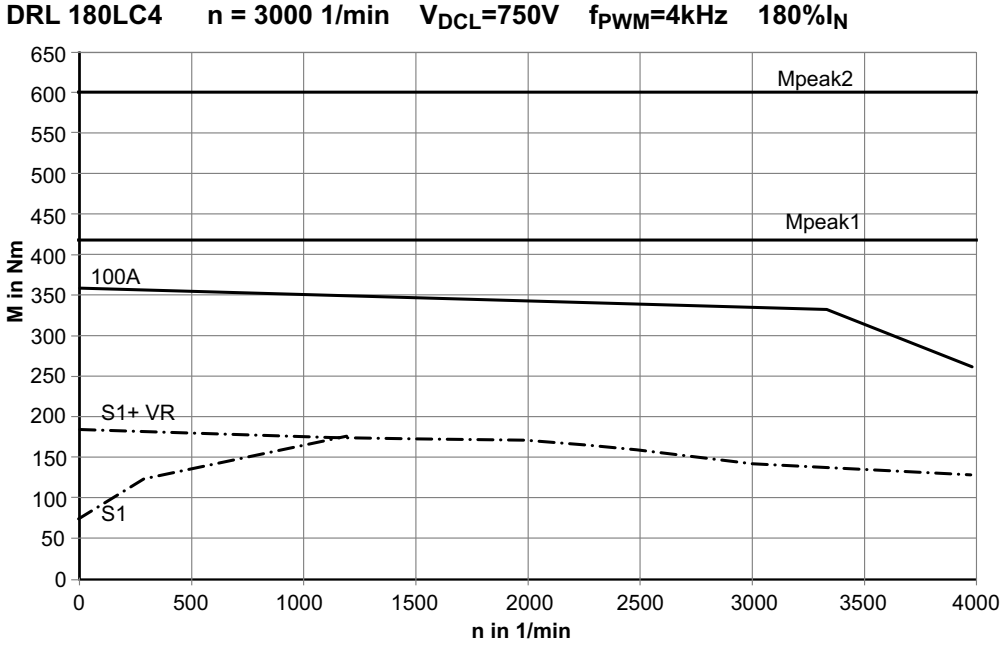
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DRL180LC4, n_N = 3000 1/min, 100% I_N



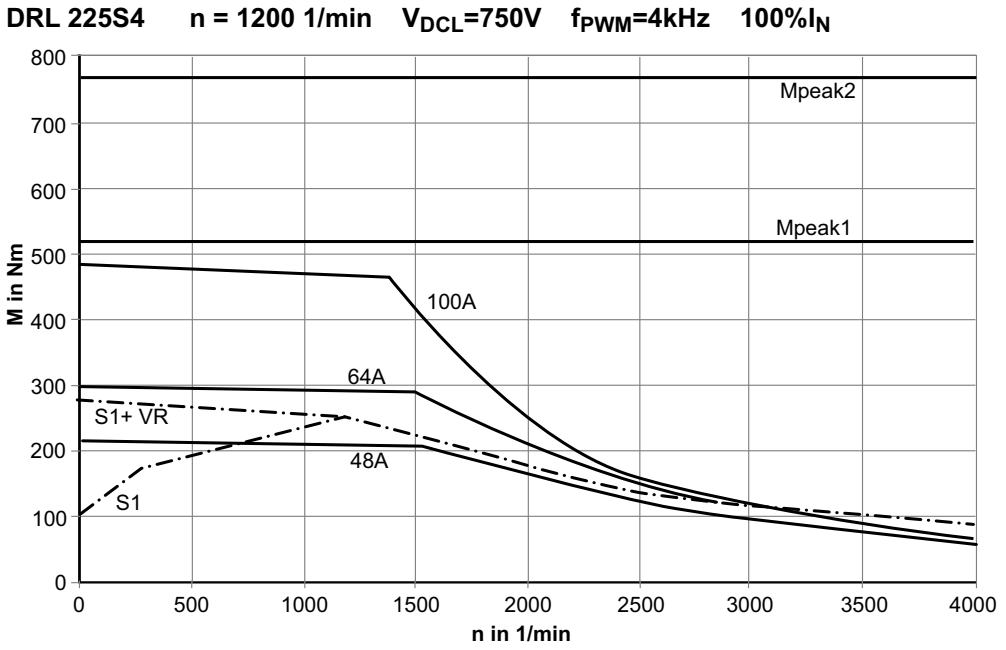
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DRL180LC4, n_N = 3000 1/min, 180% I_N



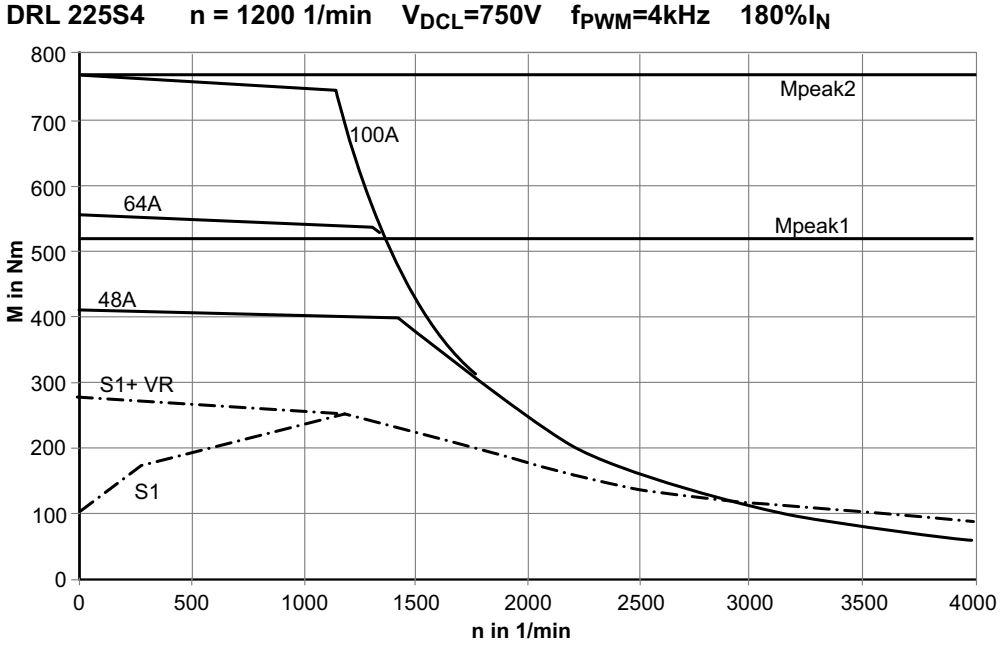
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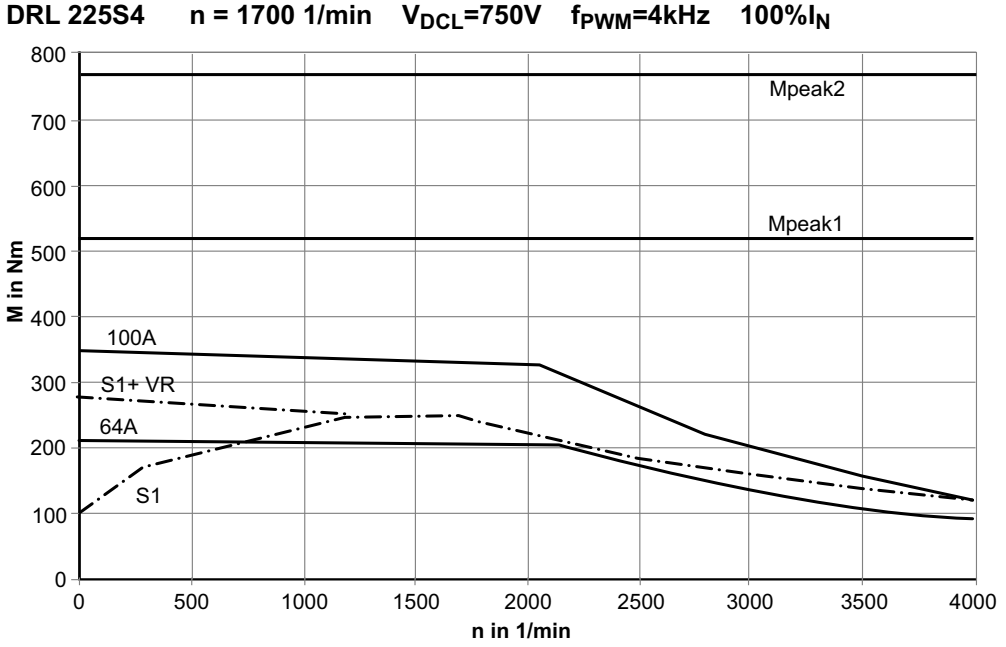
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DRL225S4, n_N = 1200 1/min, 180% I_N



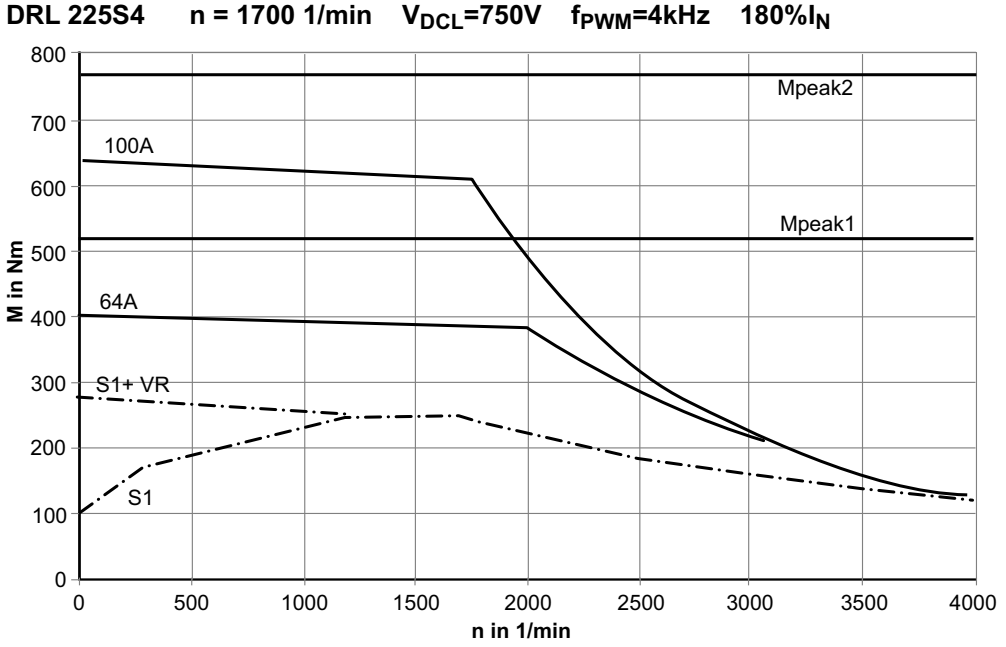
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DRL225S4, n_N = 1700 1/min, 100% I_N



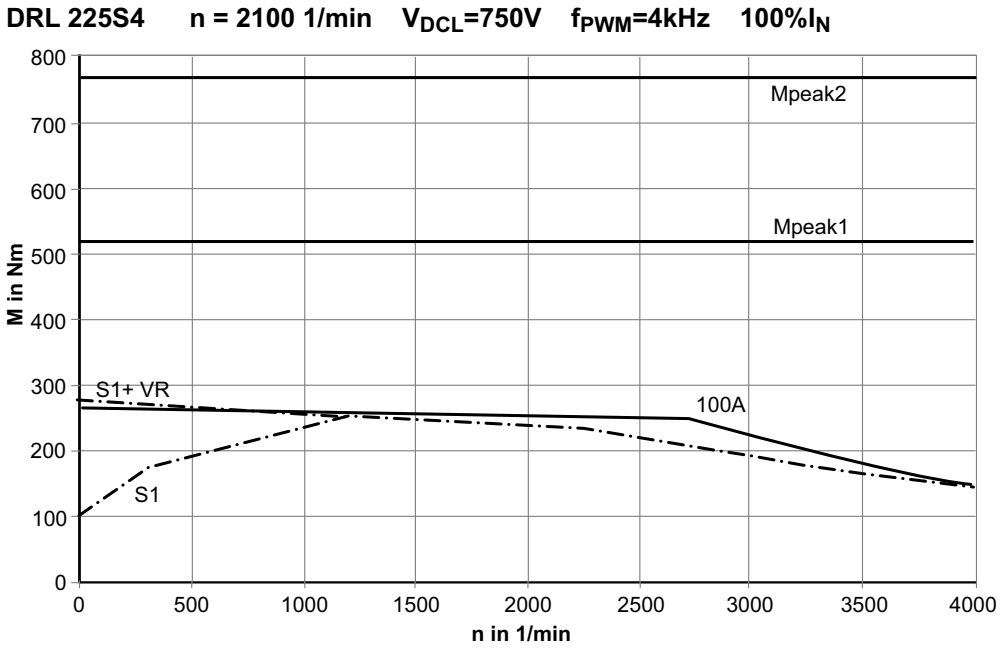
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DRL225S4, n_N = 1700 1/min, 180% I_N



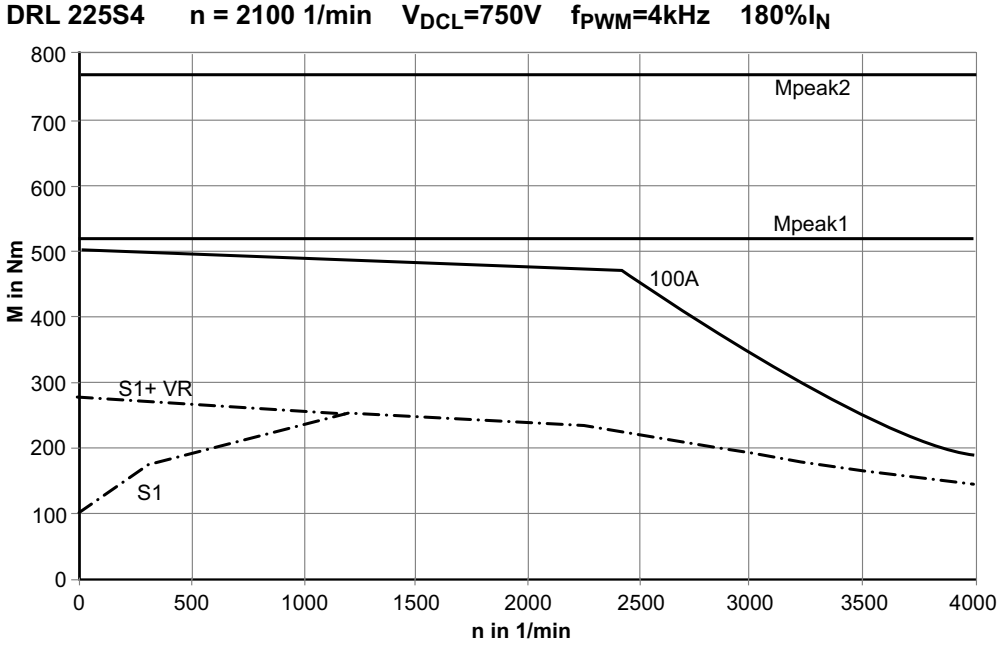
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DRL225S4, n_N = 2100 1/min, 100% I_N



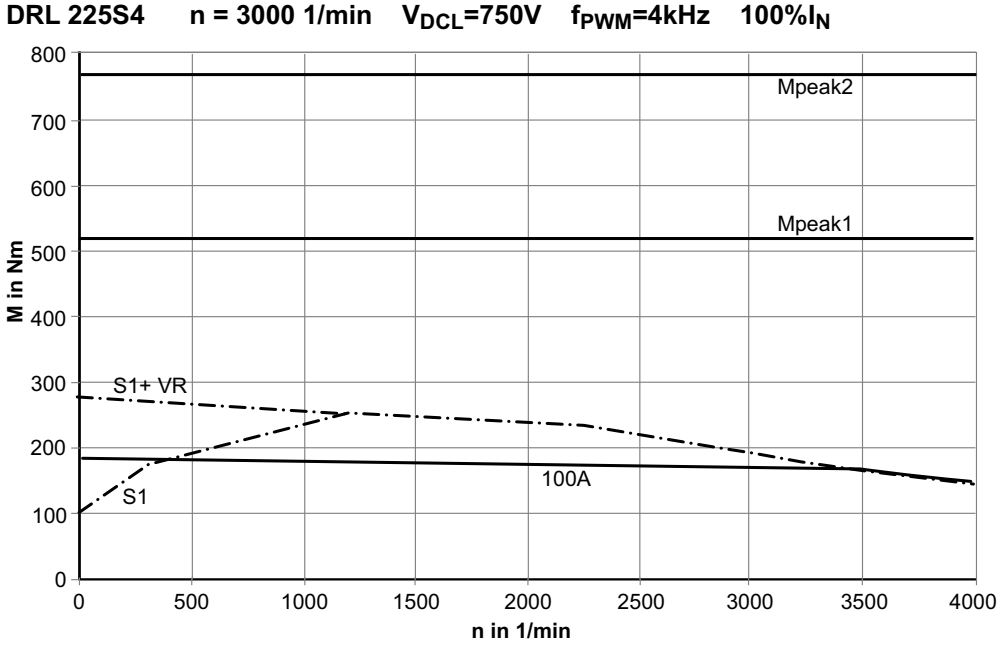
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DRL225S4, n_N = 2100 1/min, 180% I_N



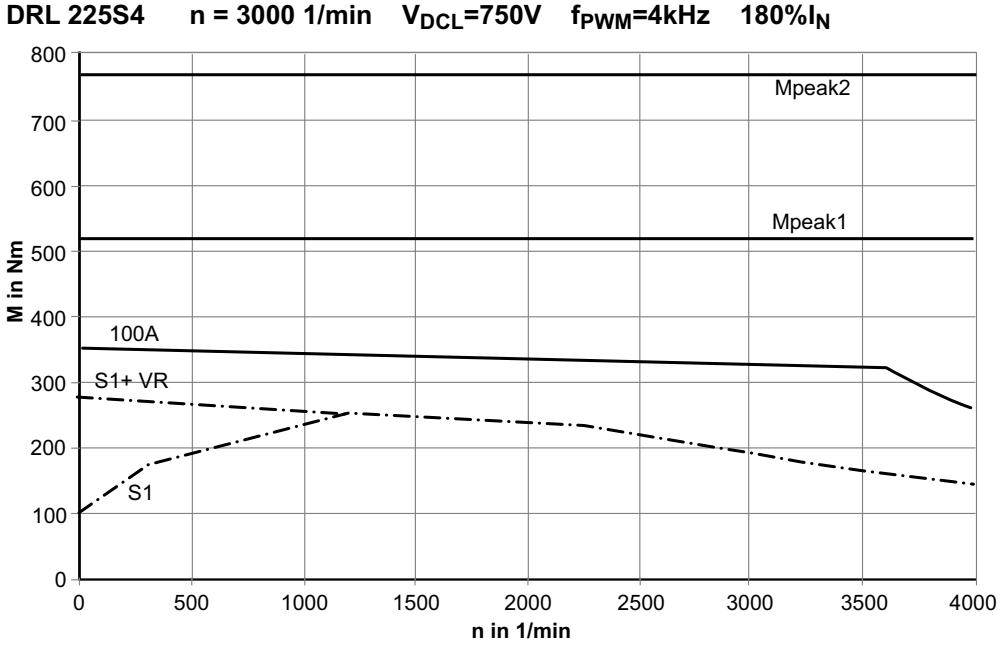
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DRL225S4, n_N = 3000 1/min, 100% I_N



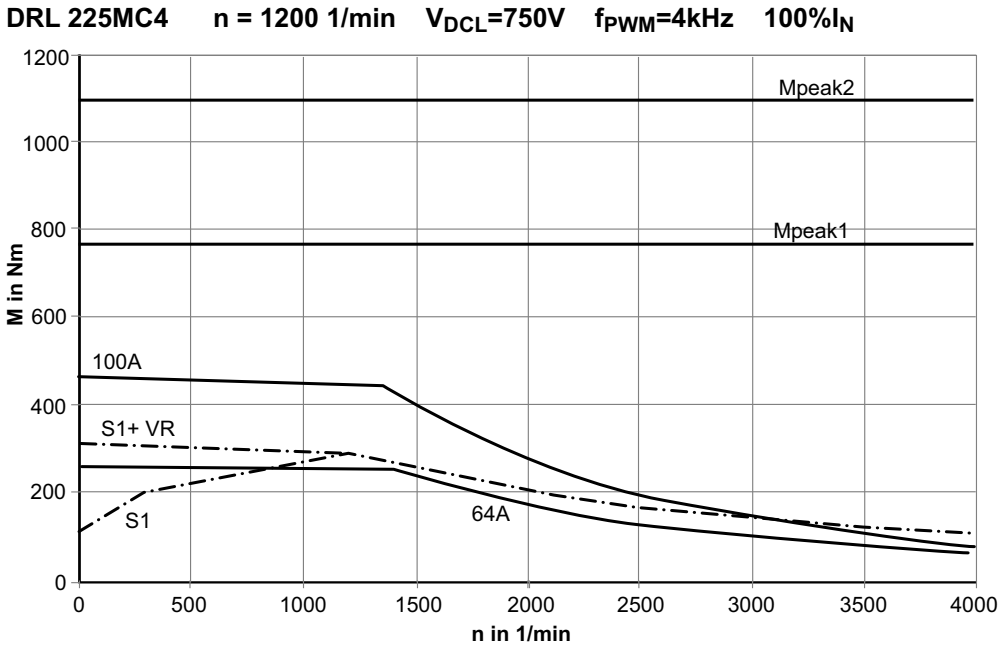
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DRL225S4, n_N = 3000 1/min, 180% I_N



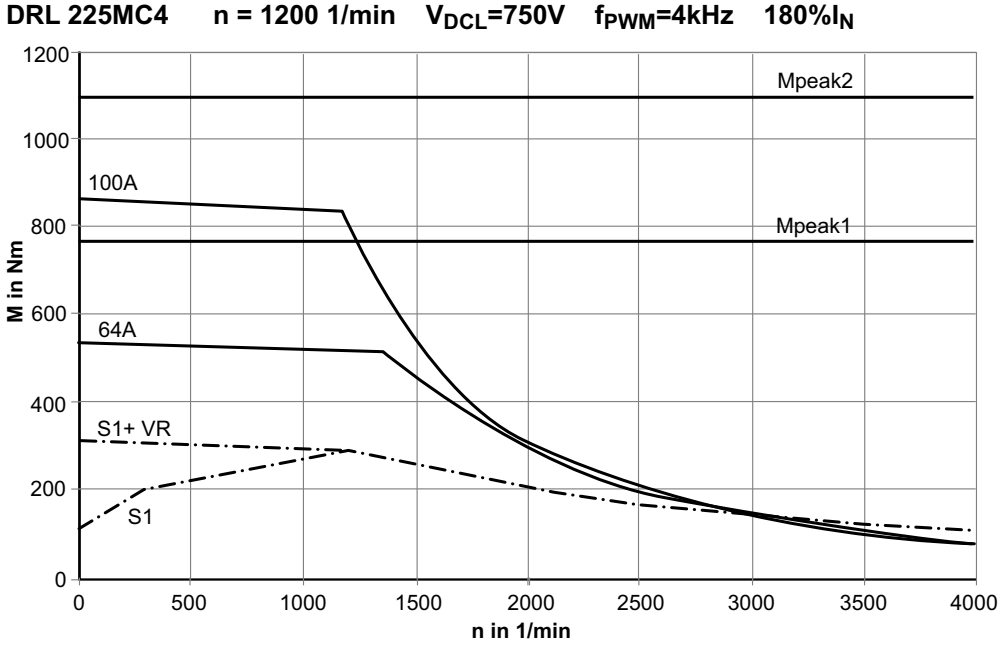
67533axx

DRL225MC4, n_N = 1200 1/min, 100% I_N



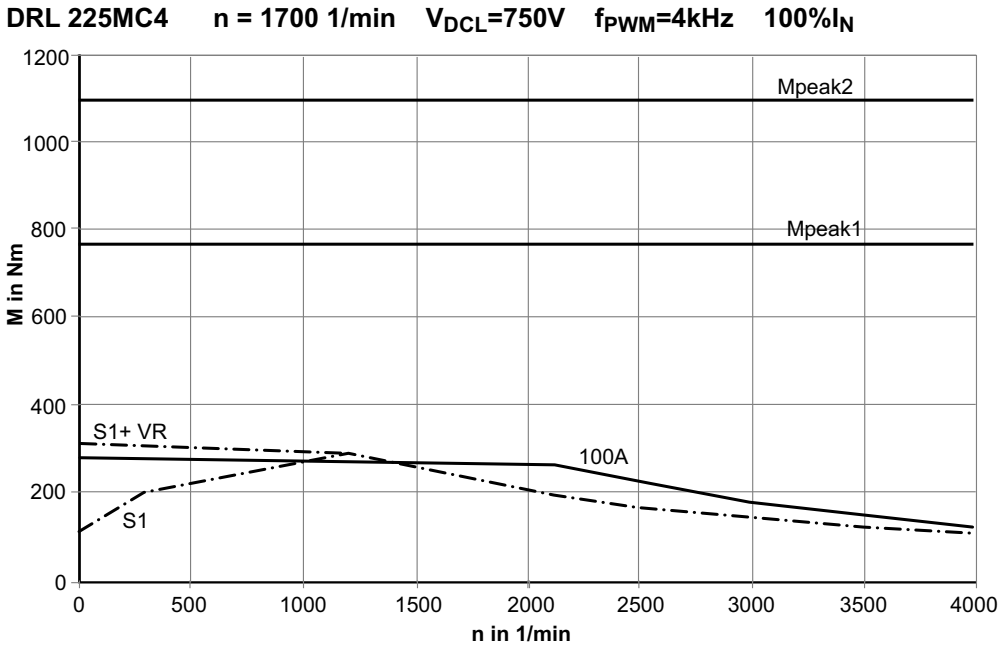
67522axx

DRL225MC4, n_N = 1200 1/min, 180% I_N



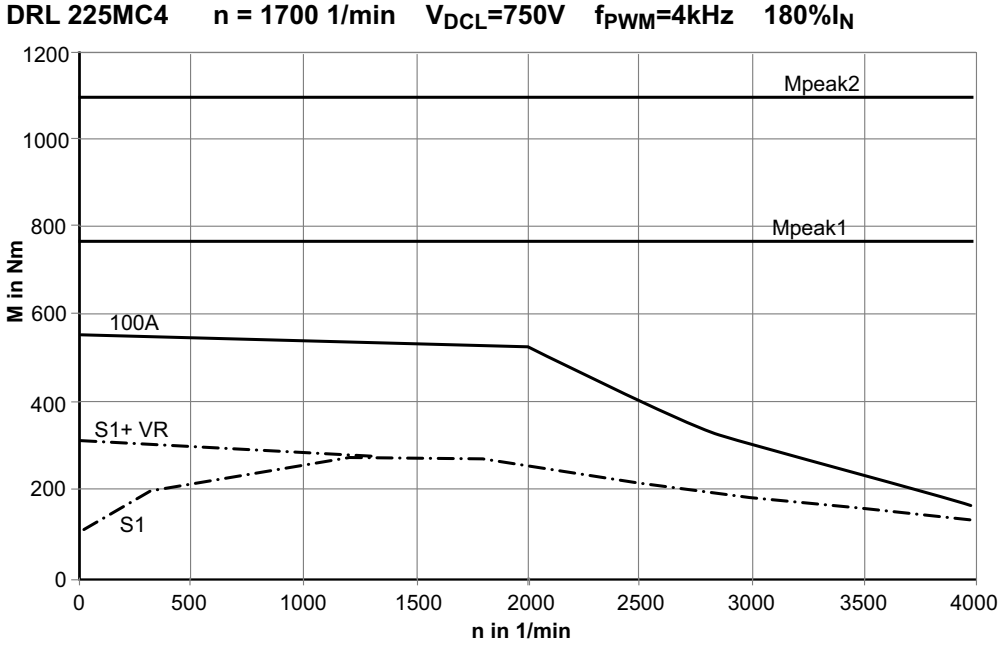
67523axx

DRL225MC4, n_N = 1700 1/min, 100% I_N



67524axx

DRL225MC4, n_N = 1700 1/min, 180% I_N



67525axx

6 CMP Motors – Technical Data

6.1 Key to the data tables

The following table lists the short symbols used in the "Technical Data" table.

n_N	Rated speed
M_0	Standstill torque (thermal continuous torque at low speeds)
I_0	Standstill current
M_{pk}	Maximum limit torque of the servomotors
I_{max}	Maximum permitted motor current
M_{0VR}	Standstill torque with forced cooling fan
I_{0VR}	Standstill current with forced cooling fan
J_{mot}	Mass moment of inertia of the motor
J_{bmot}	Mass moment of inertia of the brakemotor
M_{B1}	Standard braking torque
M_{B2}	Optional braking torque
L_1	Inductivity between connection phase and star point
R_1	Resistance between connection phase and star point
V_{p0} cold	Internal voltage at 1000 1/min

6.2 Synchronous CMP/BP servomotors – technical data

System voltage: 400 V

n_N	Motor	M_0	I_0	M_{pk}	I_{max}	M_{0VR}	I_{0VR}	m	J_{mot}
[1/min]		[Nm]	[A]	[Nm]	[A]	[Nm]	[A]	[kg]	[10^{-4} kgm^2]
3000	**CMP40S**	0.5	1.2	1.9	6.1	-	-	1.3	0.1
	CMP40M	0.8	0.95	3.8	6.0	-	-	1.6	0.15
	CMP50S	1.3	0.96	5.2	5.1	1.7	1.25	2.3	0.42
	CMP50M	2.4	1.68	10.3	9.6	3.5	2.45	3.3	0.67
	CMP50L	3.3	2.2	15.4	13.6	4.8	3.2	4.1	0.92
	CMP63S	2.9	2.15	11.1	12.9	4	3	4.0	1.15
	CMP63M	5.3	3.6	21.4	21.6	7.5	5.1	5.7	1.92
	CMP63L	7.1	4.95	30.4	29.7	10.3	7.2	7.5	2.69
	CMP71S	6.4	4.9	19.2	25	8.7	6.7	7	3.04
	CMP71M	9.4	7.5	30.8	39	13.7	10.9	8.4	4.08
	CMP71L	13.1	9.4	46.9	58	21	15.1	11.4	6.18
	CMP80S	13.4	10	42.1	47	18.5	13.8	12.8	8.78
	CMP80M	18.7	13.4	62.6	69	27	19.3	16.5	11.9
	CMP80L	27.5	18.7	107	107	44	30	21.4	18.1
	CMP100S	25.5	19.6	68.3	73	36	27.5	19.8	19.34
	CMP100M	31	21.8	108	102	47	33	24.8	26.25
	CMP100L	47	32.3	178.8	167	70	48	34.6	40
4500	**CMP40S**	0.5	1.2	1.9	6.1	-	-	1.3	0.1
	CMP40M	0.8	0.95	3.8	6.0	-	-	1.6	0.15
	CMP50S	1.3	1.32	5.2	7.0	1.7	1.7	2.3	0.42
	CMP50M	2.4	2.3	10.3	13.1	3.5	3.35	3.3	0.67
	CMP50L	3.3	3.15	15.4	19.5	4.8	4.6	4.1	0.92
	CMP63S	2.9	3.05	11.1	18.3	4	4.2	4.0	1.15
	CMP63M	5.3	5.4	21.4	32.4	7.5	7.6	5.7	1.92
	CMP63L	7.1	6.9	30.4	41.4	10.3	10	7.5	2.69
	CMP71S	6.4	7.3	19.2	38	8.7	9.9	7	3.04
	CMP71M	9.4	10.9	30.8	57	13.7	15.9	8.4	4.08
	CMP71L	13.1	14.1	46.9	87	21	22.5	11.4	6.18
	CMP80S	13.4	15.3	42.1	73	18.5	21	12.8	8.78
	CMP80M	18.7	20.1	62.6	103	27	29	16.5	11.9
	CMP80L	27.5	27.8	107	159	44	44.5	21.4	18.1
	CMP100S	25.5	30	68.3	111	36	42.5	19.8	19.34
	CMP100M	31	33.1	108	154	-	-	24.8	26.25
	CMP100L	47	48.4	178.8	251	-	-	34.6	40
6000	**CMP40S**	0.5	1.2	1.9	6.1	-	-	1.3	0.1
	CMP40M	0.8	1.1	3.8	6.9	-	-	1.6	0.15
	CMP50S	1.3	1.7	5.2	9.0	1.7	2.2	2.3	0.42
	CMP50M	2.4	3	10.3	17.1	3.5	4.4	3.3	0.67
	CMP50L	3.3	4.2	15.4	26	4.8	6.1	4.1	0.92
	CMP63S	2.9	3.9	11.1	23.4	4	5.4	4.0	1.15
	CMP63M	5.3	6.9	21.4	41.4	7.5	9.8	5.7	1.92
	CMP63L	7.1	9.3	30.4	55.8	10.3	13.5	7.5	2.69
	CMP71S	6.4	9.6	19.2	50	8.7	13.1	7	3.04
	CMP71M	9.4	14.7	30.8	76	13.7	21.5	8.4	4.08
	CMP71L	13.1	18.8	46.9	115	21	30	11.4	6.18
	CMP80S	13.4	20	42.1	95	18.5	27.5	12.8	8.78
	CMP80M	18.7	26.4	62.6	135	27	38	16.5	11.9
	CMP80L	27.5	37.6	107	215	-	-	21.4	18.1



n_N	Motor	L_1	R_1	V_{p0} cold	m_{bmot}	J_{bmot}	M_{B1}	M_{B2}
[1/min]		[mH]	Ω	[V]	[kg]	[10^{-4} kgm^2]	[Nm]	
3000	**CMP40S**	23	11.94	27.5	1.7	0.13	0.95	-
	CMP40M	46	19.93	56	2.0	0.18	0.95	-
	CMP50S	71	22.49	86	2.9	0.48	3.1	4.3
	CMP50M	38.5	9.96	90	3.9	0.73	4.3	3.1
	CMP50L	30.5	7.42	98	4.7	0.98	4.3	3.1
	CMP63S	36.5	6.79	90	5.0	1.49	7	9.3
	CMP63M	22	3.56	100	6.7	2.26	9.3	7
	CMP63L	14.2	2.07	100	8.5	3.03	9.3	7
	CMP71S	15.7	1.48	87.5	9	3.44	7	14
	CMP71M	9.7	0.81	85	10.4	4.5	14	7
	CMP71L	7.3	0.56	96	13.4	6.6	14	7
	CMP80S	7.2	0.54	91	16.8	10.04	16	31
	CMP80M	5	0.345	94	20.5	13.16	31	16
	CMP80L	3.35	0.21	99	24.4	19.36	31	16
	CMP100S	3.9	0.215	88	22.8	21.34	24	47
	CMP100M	3.05	0.142	95.5	27.8	28.25	47	24
	CMP100L	1.9	0.081	98	37.6	42	47	24
4500	**CMP40S**	23	11.94	27.5	1.7	0.13	0.95	-
	CMP40M	46	19.93	56	2.0	0.18	0.95	-
	CMP50S	37	11.61	62	2.9	0.48	3.1	4.3
	CMP50M	20.5	5.28	66	3.9	0.73	4.3	3.1
	CMP50L	14.6	3.57	68	4.7	0.98	4.3	3.1
	CMP63S	18.3	3.34	64	5.0	1.49	7	9.3
	CMP63M	9.8	1.48	67	6.7	2.26	9.3	7
	CMP63L	7.2	1.07	71	8.5	3.03	9.3	7
	CMP71S	7.1	0.72	59	9	3.44	7	14
	CMP71M	4.55	0.385	58	10.4	4.5	14	7
	CMP71L	3.25	0.24	64	13.4	6.6	14	7
	CMP80S	3.05	0.22	59	16.8	10.04	16	31
	CMP80M	2.25	0.148	63	20.5	13.16	31	16
	CMP80L	1.54	0.085	67	24.4	19.36	31	16
	CMP100S	1.68	0.086	58	22.8	21.34	24	47
	CMP100M	1.32	0.058	63	27.8	28.25	47	24
	CMP100L	0.84	0.038	65	37.6	42.82	47	24
6000	**CMP40S**	23	11.94	27.5	1.7	0.13	0.95	-
	CMP40M	34	14.95	48.5	2.0	0.18	0.95	-
	CMP50S	22.5	7.11	48.5	2.9	0.48	3.1	4.3
	CMP50M	12	3.21	50.5	3.9	0.73	4.3	3.1
	CMP50L	8.2	1.91	51	4.7	0.98	4.3	3.1
	CMP63S	11.2	2.1	50	5.0	1.49	7	9.3
	CMP63M	5.9	0.92	52	6.7	2.26	9.3	7
	CMP63L	4	0.62	53	8.5	3.03	9.3	7
	CMP71S	4.15	0.395	45	9	3.44	7	14
	CMP71M	2.55	0.205	43.5	10.4	4.5	14	7
	CMP71L	1.84	0.145	48	13.4	6.6	14	7
	CMP80S	1.8	0.136	46	-	-	-	-
	CMP80M	1.3	0.087	48	-	-	-	-
	CMP80L	0.84	0.051	50	-	-	-	-

6.3 Synchronous CMPZ/BY servomotors – technical data

System voltage: 400 V

n_N	Motor	M_0	I_0	M_{pk}	I_{max}	M_{0VR}	I_{0VR}	m	J_{mot}
[1/min]		[Nm]	[A]	[Nm]	[A]	[Nm]	[A]	[kg]	[10^{-4} kgm^2]
3000	**CMPZ71S**	6.4	4.9	19.2	25	8.7	6.7	8.6	9.32
	CMPZ71M	9.4	7.5	30.8	39	13.7	10.9	10	10.37
	CMPZ71L	13.1	9.4	46.9	58	21	15.1	13	12.47
	CMPZ80S	13.4	10	42.1	47	18.5	13.8	15.8	27.18
	CMPZ80M	18.7	13.4	62.6	69	27	19.3	19.5	30.3
	CMPZ80L	27.5	18.7	107	107	44	30	24.4	36.51
	CMPZ100S	25.5	19.6	68.3	73	36	27.5	24.2	79.76
	CMPZ100M	31	21.8	108	102	47	33	29.2	86.66
	CMPZ100L	47	32.3	178.8	167	70	48	39	100.41
4500	**CMPZ71S**	6.4	7.3	19.2	38	8.7	9.9	8.6	9.32
	CMPZ71M	9.4	10.9	30.8	57	13.7	15.9	10	10.37
	CMPZ71L	13.1	14.1	46.9	87	21	22.5	13	12.47
	CMPZ80S	13.4	15.3	42.1	73	18.5	21	15.8	27.18
	CMPZ80M	18.7	20.1	62.6	103	27	29	19.5	30.3
	CMPZ80L	27.5	27.8	107	159	44	44.5	24.4	36.51
	CMPZ100S	25.5	30	68.3	111	36	42.5	24.2	79.76
	CMPZ100M	31	33.1	108	154	-	-	29.2	86.66
	CMPZ100L	47	48.4	178.8	251	-	-	39	100.41
6000	**CMPZ71S**	6.4	9.6	19.2	50	8.7	13.1	8.6	9.32
	CMPZ71M	9.4	14.7	30.8	76	13.7	21.5	10	10.37
	CMPZ71L	13.1	18.8	46.9	115	21	30	13	12.47
	CMPZ80S	13.4	20	42.1	95	18.5	27.5	15.8	27.18
	CMPZ80M	18.7	26.4	62.6	135	27	38	19.5	30.3
	CMPZ80L	27.5	37.6	107	215	-	-	24.4	36.51



n_N	Motor	L_1	R_1	V_{p0} cold	m_{bmot}	J_{bmot}	M_{B1}	M_{B2}
[1/min]		[mH]	Ω	[V]	[kg]	[10^{-4} kgm^2]	[Nm]	
3000	**CMPZ71S**	15.7	1.48	87.5	11.2	11.04	14	10
	CMPZ71M	9.7	0.81	85	12.6	12.09	20	14
	CMPZ71L	7.3	0.56	96	15.6	14.19	20	14
	CMPZ80S	7.2	0.54	91	20.8	30.95	28	20
	CMPZ80M	5	0.345	94	24.5	34.07	40	28
	CMPZ80L	3.35	0.21	99	29.4	40.28	40	28
	CMPZ100S	3.9	0.215	88	34.7	84.19	55	40
	CMPZ100M	3.05	0.142	95.5	39.7	91.1	80	55
	CMPZ100L	1.9	0.081	98	49.5	104.85	80	55
4500	**CMPZ71S**	7.1	0.72	59	11.2	11.04	14	10
	CMPZ71M	4.55	0.385	58	12.6	12.09	20	14
	CMPZ71L	3.25	0.24	64	15.6	14.19	20	14
	CMPZ80S	3.05	0.22	59	20.8	30.95	28	20
	CMPZ80M	2.25	0.148	63	24.5	34.07	40	28
	CMPZ80L	1.54	0.085	67	29.4	40.28	40	28
	CMPZ100S	1.68	0.086	58	34.7	84.19	55	40
	CMPZ100M	1.32	0.058	63	39.7	91.1	80	55
	CMPZ100L	0.84	0.038	65	49.5	104.85	80	55
6000	**CMPZ71S**	4.15	0.395	45	11.2	11.04	14	10
	CMPZ71M	2.55	0.205	43.5	12.6	12.09	20	14
	CMPZ71L	1.84	0.145	48	15.6	14.19	20	14
	CMPZ80S	1.8	0.136	46	-	-	-	-
	CMPZ80M	1.3	0.087	48	-	-	-	-
	CMPZ80L	0.84	0.051	50	-	-	-	-

7 Combinations: CMP – MOVIDRIVE®

1. Rated speed n_N = 3000 1/min, size 0 - 2:

Motor			MOVIDRIVE® MDX61B...-5_3 in SERVO operating modes (P700)										
			0005	0008	0011	0014	0015	0022	0030	0040	0055	0075	0110
Type	I_N	[A]	2	2,4	3,1	4	4	5,5	7	9,5	12,5	16	24
	I_{max}	[A]	4	4,8	6,2	8	6	8,25	10,5	14,3	18,8	24	36
CMP40S	I_{max}	% I_N	200	200	197		150	111					
	M_{pk}	Nm	1.5	1.7	1.9		1.9	1.9					
CMP40M	I_{max}	% I_N	200	200	194		150						
	M_{pk}	Nm	3.0	3.3	3.8		3.8						
CMP50S	I_{max}	% I_N	200	200	165		128						
	M_{pk}	Nm	4.5	5.0	5.2		5.2						
CMP50M	I_{max}	% I_N	200	200	200	200	150	150	137				
	M_{pk}	Nm	5.4	6.3	7.7	9.3	7.6	9.4	10.3				
CMP50L	I_{max}	% I_N	200	200	200	200	150	150	150	143			
	M_{pk}	Nm	5.9	6.9	8.7	10.7	8.4	11.0	13.1	15.4			
CMP63S	I_{max}	% I_N	200	200	200	200	150	150	150	136			
	M_{pk}	Nm	5.2	6.0	7.3	8.7	7.1	8.8	10.1	11.1			
CMP63M	I_{max}	% I_N	200	200	200	200	150	150	150	150	150	135	
	M_{pk}	Nm	6.0	7.1	8.9	11.1	8.7	11.3	13.7	17.0	20.0	21.4	
CMP63L	I_{max}	% I_N			200	200	150	150	150	150	150	150	124
	M_{pk}	Nm			9.0	11.3	8.7	11.6	14.4	18.6	23.0	27.0	30.4
CMP71S	I_{max}	% I_N			166	166	125	125	125	125	125	123	
	M_{pk}	Nm			6.9	8.6	6.7	8.9	10.9	13.8	16.3	18	
CMP71M	I_{max}	% I_N				166	125	125	125	125	125	125	125
	M_{pk}	Nm				8.4	6.4	8.7	10.9	14.5	18.3	22.0	27.5
CMP71L	I_{max}	% I_N						125	125	125	125	125	125
	M_{pk}	Nm						9.5	12.1	16.3	21.2	26.5	36.3
CMP80S	I_{max}	% I_N						125	125	125	125	125	125
	M_{pk}	Nm						8.9	11.5	15.7	20.6	25.8	34.6
CMP80M	I_{max}	% I_N							125	125	125	125	125
	M_{pk}	Nm							12.3	16.6	21.8	27.6	39.4
CMP80L	I_{max}	% I_N								125	125	125	125
	M_{pk}	Nm								17.4	22.8	29.1	42.8
CMP100S	I_{max}	% I_N									125	125	125
	M_{pk}	Nm									20.4	26.1	38.1
CMP100M	I_{max}	% I_N									125	125	125
	M_{pk}	Nm									22.2	28.5	42.6
CMP100L	I_{max}	% I_N											125
	M_{pk}	Nm											44.0



Sizes 3 - 6

Motor			MOVIDRIVE® MDX61B...-5_3 in SERVO operating modes (P700)									
			0150	0220	0300	0370	0450	0550	0750	0900	1100	1320
Type	I_N	[A]	32	46	60	73	89	105	130	170	200	250
	I_{max}	[A]	48	69	90	109,5	133,5	157,5	195	255	300	375
CMP71L	I_{max}	% I_N	118									
	M_{pk}	Nm	41.2									
CMP80S	I_{max}	% I_N	125									
	M_{pk}	Nm	39.2									
CMP80M	I_{max}	% I_N	125	117								
	M_{pk}	Nm	48.7	57								
CMP80L	I_{max}	% I_N	125	125	125							
	M_{pk}	Nm	55.7	75	89.9							
CMP100S	I_{max}	% I_N	125	125	125	107						
	M_{pk}	Nm	48.3	61.1	68.9	70.3						
CMP100M	I_{max}	% I_N	125	125	125	119						
	M_{pk}	Nm	55.9	76.2	91.7	99.7						
CMP100L	I_{max}	% I_N	125	125	125	125	125	123				
	M_{pk}	Nm	58.4	82.7	104.8	123.1	142	155.8				



2. Rated speed n_N = 4500 1/min, size 0 - 2:

Motor			MOVIDRIVE® MDX61B...-5_3 in SERVO operating modes (P700)										
			0005	0008	0011	0014	0015	0022	0030	0040	0055	0075	0110
Type	I_N	[A]	2	2,4	3,1	4	4	5,5	7	9,5	12,5	16	24
	I_{max}	[A]	4	4,8	6,2	8	6	8,25	10,5	14,3	18,8	24	36
CMP40S	I_{max}	% I_N	200	200	197		150	111					
	M_{pk}	Nm	1.5	1.7	1.9		1.9	1.9					
CMP40M	I_{max}	% I_N	200	200	194		150						
	M_{pk}	Nm	3.0	3.3	3.8		3.8						
CMP50S	I_{max}	% I_N	200	200	200	175	150	127					
	M_{pk}	Nm	3.5	4.1	4.8	5.2	4.7	5.2					
CMP50M	I_{max}	% I_N	200	200	200	200	150	150	150	138			
	M_{pk}	Nm	4.1	4.8	6.0	7.4	5.9	7.6	9.0	10.3			
CMP50L	I_{max}	% I_N	200	200	200	200	150	150	150	150	150	122	
	M_{pk}	Nm	4.2	5.0	6.3	7.9	6.1	8.2	10.0	12.7	15.1	15.4	
CMP63S	I_{max}	% I_N	200	200	200	200	150	150	150	150	146		
	M_{pk}	Nm	3.8	4.5	5.6	6.8	5.4	7.0	8.2	9.9	11.1		
CMP63M	I_{max}	% I_N			200	200	150	150	150	150	150	150	135
	M_{pk}	Nm			6.2	7.8	6.0	8.0	9.9	12.7	15.6	18.3	21.4
CMP63L	I_{max}	% I_N				200	150	150	150	150	150	150	150
	M_{pk}	Nm				8.3	6.4	8.6	10.7	14.1	17.8	21.6	28.2
CMP71S	I_{max}	% I_N				166	125	125	125	125	125	125	122
	M_{pk}	Nm				6.0	4.6	6.2	7.7	10.1	12.6	14.9	18.0
CMP71M	I_{max}	% I_N						125	125	125	125	125	125
	M_{pk}	Nm						6.0	7.6	10.2	13.2	16.4	22.5
CMP71L	I_{max}	% I_N								125	125	125	125
	M_{pk}	Nm								10.9	14.4	18.3	26.5
CMP80S	I_{max}	% I_N								125	125	125	125
	M_{pk}	Nm								10.1	13.5	17.3	25.3
CMP80M	I_{max}	% I_N									125	125	125
	M_{pk}	Nm									14.6	18.7	27.6
CMP80L	I_{max}	% I_N										125	125
	M_{pk}	Nm										19.7	29.3
CMP100S	I_{max}	% I_N										125	125
	M_{pk}	Nm										17.2	25.6
CMP100M	I_{max}	% I_N											125
	M_{pk}	Nm											28.2



Sizes 3 - 6

Motor			MOVIDRIVE® MDX61B...-5_3 in SERVO operating modes (P700)									
			0150	0220	0300	0370	0450	0550	0750	0900	1100	1320
Type	I_N	[A]	32	46	60	73	89	105	130	170	200	250
	I_{max}	[A]	48	69	90	109,5	133,5	157,5	195	255	300	375
CMP63L	I_{max}	% I_N	129									
	M_{pk}	Nm	30.4									
CMP71S	I_{max}	% I_N										
	M_{pk}	Nm										
CMP71M	I_{max}	% I_N	125	95								
	M_{pk}	Nm	26.5	27.5								
CMP71L	I_{max}	% I_N	125	123								
	M_{pk}	Nm	33.5	41.2								
CMP80S	I_{max}	% I_N	125	125	102							
	M_{pk}	Nm	31.7	38.3	39.2							
CMP80M	I_{max}	% I_N	125	125	125	110						
	M_{pk}	Nm	35.7	47.3	55.2	57.0						
CMP80L	I_{max}	% I_N	125	125	125	125	125					
	M_{pk}	Nm	38.7	54.0	67.7	78.7	89.8					
CMP100S	I_{max}	% I_N	125	125	125	125	125	114				
	M_{pk}	Nm	33.7	46.1	55.8	62.4	68.1	70.3				
CMP100M	I_{max}	% I_N	125	125	125	125	125	125	102			
	M_{pk}	Nm	37.5	53.2	67.4	78.8	90.3	99.3	99.7			
CMP100L	I_{max}	% I_N	125	125	125	125	125	125	125	114		
	M_{pk}	Nm	39.1	56.1	72.6	87.1	103.9	119.2	139.6	155.8		



3. Rated speed n_N = 6000 1/min, size 0 - 2:

Motor			MOVIDRIVE® MDX61B...-5_3 in SERVO operating modes (P700)										
			0005	0008	0011	0014	0015	0022	0030	0040	0055	0075	0110
Type	I_N	[A]	2	2,4	3,1	4	4	5,5	7	9,5	12,5	16	24
	I_{max}	[A]	4	4,8	6,2	8	6	8,25	10,5	14,3	18,8	24	36
CMP40S	I_{max}	% I_N	200	200	197		150	111					
	M_{pk}	Nm	1.5	1.7	1.9		1.9	1.9					
CMP40M	I_{max}	% I_N	200	200	200	173	150	125					
	M_{pk}	Nm	2.6	3.0	3.6	3.8	3.5	3.8					
CMP50S	I_{max}	% I_N	200	200	200	200	150	150	129				
	M_{pk}	Nm	2.9	3.3	4.1	4.8	4.0	4.9	5.2				
CMP50M	I_{max}	% I_N	200	200	200	200	150	150	150	150	137		
	M_{pk}	Nm	3.2	3.8	4.8	6.0	4.6	6.1	7.4	9.2	10.3		
CMP50L	I_{max}	% I_N		200	200	200	150	150	150	150	150	150	108
	M_{pk}	Nm		3.8	4.8	6.1	4.7	6.3	7.8	10.2	12.5	14.7	15.4
CMP63S	I_{max}	% I_N	200	200	200	200	150	150	150	150	150	146	
	M_{pk}	Nm	3.1	3.6	4.5	5.6	4.4	5.8	6.9	8.6	10.0	11.1	
CMP63M	I_{max}	% I_N				200	150	150	150	150	150	150	150
	M_{pk}	Nm				6.3	4.8	6.5	8.0	10.4	13.0	15.6	20.0
CMP63L	I_{max}	% I_N						150	150	150	150	150	150
	M_{pk}	Nm						6.5	8.1	10.8	13.8	17.0	23.3
CMP71S	I_{max}	% I_N						125	125	125	125	125	125
	M_{pk}	Nm						4.8	6.0	8.0	10.1	12.3	16.1
CMP71M	I_{max}	% I_N								125	125	125	125
	M_{pk}	Nm								7.7	10.0	12.6	18.0
CMP71L	I_{max}	% I_N								125	125	125	125
	M_{pk}	Nm								8.2	10.8	13.8	20.4
CMP80S	I_{max}	% I_N									125	125	125
	M_{pk}	Nm									10.2	13.2	19.8
CMP80M	I_{max}	% I_N										125	125
	M_{pk}	Nm										14.2	21.3
CMP80L	I_{max}	% I_N											125
	M_{pk}	Nm											21.8

Sizes 3 - 6

Motor			MOVIDRIVE® MDX61B...-5_3 in SERVO operating modes (P700)									
			0150	0220	0300	0370	0450	0550	0750	0900	1100	1320
Type	I_N	[A]	32	46	60	73	89	105	130	170	200	250
	I_{max}	[A]	48	69	90	109,5	133,5	157,5	195	255	300	375
CMP63M	I_{max}	% I_N	129									
	M_{pk}	Nm	21.4									
CMP63L	I_{max}	% I_N	150	121								
	M_{pk}	Nm	28.1	30.4								
CMP71S	I_{max}	% I_N	120									
	M_{pk}	Nm	18.0									
CMP71M	I_{max}	% I_N	125	125	98							
	M_{pk}	Nm	22.3	27.3	27.5							
CMP71L	I_{max}	% I_N	125	125	125	103						
	M_{pk}	Nm	26.5	35.3	41.2	41.2						
CMP80S	I_{max}	% I_N	125	125	125	110						
	M_{pk}	Nm	25.8	33.7	38.3	39.2						
CMP80M	I_{max}	% I_N	125	125	125	125	119					
	M_{pk}	Nm	28.0	38.5	47.1	53.1	57.0					
CMP80L	I_{max}	% I_N	125	125	125	125	125	125	116			
	M_{pk}	Nm	28.9	41.0	52.3	62.1	72.9	82.2	89.8			



8 Combinations: CMP – MOVIAXIS®

1. Rated speed n_N = 3000 1/min

Motor			Assignment to MOVIAXIS® MXA									
	Size		1			2		3		4	5	6
Type	I_N	[A]	2	4	8	12	16	24	32	48	64	100
	I_{max}	[A]	5	10	20	30	40	60	80	120	160	250
CMP40S	I_{max}	% I_N	250	153								
	M_{pk}	Nm	1.7	1.9								
CMP40M	I_{max}	% I_N	250	150								
	M_{pk}	Nm	3.4	3.8								
CMP50S	I_{max}	% I_N	250	128								
	M_{pk}	Nm	5.1	5.2								
CMP50M	I_{max}	% I_N	250	240								
	M_{pk}	Nm	6.5	10.3								
CMP50L	I_{max}	% I_N	250	250	170							
	M_{pk}	Nm	7.2	12.7	15.4							
CMP63S	I_{max}	% I_N	250	250	161							
	M_{pk}	Nm	6.2	9.9	11.1							
CMP63M	I_{max}	% I_N		250	250	180						
	M_{pk}	Nm		13.2	20.6	21.4						
CMP63L	I_{max}	% I_N		250	250	248						
	M_{pk}	Nm		13.8	24	30.4						
CMP71S	I_{max}	% I_N		250	250	212						
	M_{pk}	Nm		12.1	18	19.2						
CMP71M	I_{max}	% I_N			250	250	244					
	M_{pk}	Nm			22	27.5	30.8					
CMP71L	I_{max}	% I_N			250	250	250	241				
	M_{pk}	Nm			26.5	36.3	42.2	46.9				
CMP80S	I_{max}	% I_N			250	250	250	198				
	M_{pk}	Nm			25.8	34.6	39.2	42.1				
CMP80M	I_{max}	% I_N				250	250	250	215			
	M_{pk}	Nm				39.3	48.6	59.4	62.6			
CMP80L	I_{max}	% I_N					250	250	250	224		
	M_{pk}	Nm					55.5	77.2	93	106.9		
CMP100S	I_{max}	% I_N					250	250	228			
	M_{pk}	Nm					48.5	62.7	68.3			
CMP100M	I_{max}	% I_N						250	250	212		
	M_{pk}	Nm						79	95.7	108.2		
CMP100L	I_{max}	% I_N							250	250	250	167
	M_{pk}	Nm							110.8	149.2	174.8	178.8



2. Rated speed n_N = 4500 1/min

Motor			Assignment to MOVIAXIS® MXA									
	Size		1			2		3		4	5	6
Type	I_N	[A]	2	4	8	12	16	24	32	48	64	100
	I_{max}	[A]	5	10	20	30	40	60	80	120	160	250
CMP40S	I_{max}	% I_N	250	153								
	M_{pk}	Nm	1.7	1.9								
CMP40M	I_{max}	% I_N	250	150								
	M_{pk}	Nm	3.4	3.8								
CMP50S	I_{max}	% I_N	250	175								
	M_{pk}	Nm	4.2	5.2								
CMP50M	I_{max}	% I_N	250	250	164							
	M_{pk}	Nm	5	8.7	10.3							
CMP50L	I_{max}	% I_N		250	244							
	M_{pk}	Nm		9.6	15.4							
CMP63S	I_{max}	% I_N		250	229							
	M_{pk}	Nm		8	11.1							
CMP63M	I_{max}	% I_N			250	250	203					
	M_{pk}	Nm			16.3	20.6	21.4					
CMP63L	I_{max}	% I_N			250	250	250	173				
	M_{pk}	Nm			18.7	25.2	29.9	30.4				
CMP71S	I_{max}	% I_N			250	250	237					
	M_{pk}	Nm			14.9	18	19.2					
CMP71M	I_{max}	% I_N				250	250	238				
	M_{pk}	Nm				22.4	26.4	30.8				
CMP71L	I_{max}	% I_N				250	250	250	250	180		
	M_{pk}	Nm				25.6	33.4	42.2	45.8	46.9		
CMP80S	I_{max}	% I_N				250	250	250	227			
	M_{pk}	Nm				25.3	31.7	38.9	42.1			
CMP80M	I_{max}	% I_N					250	250	250	215		
	M_{pk}	Nm					35.7	48.6	56.7	62.6		
CMP80L	I_{max}	% I_N						250	250	250	248	
	M_{pk}	Nm						56.1	71.3	93.6	106.9	
CMP100S	I_{max}	% I_N						250	250	232		
	M_{pk}	Nm						47.9	58.3	68.3		
CMP100M	I_{max}	% I_N							250	250	241	
	M_{pk}	Nm							71.3	95.1	108.1	
CMP100L	I_{max}	% I_N								250	250	250
	M_{pk}	Nm								110.8	138.1	178.5



3. Rated speed n_N = 6000 1/min

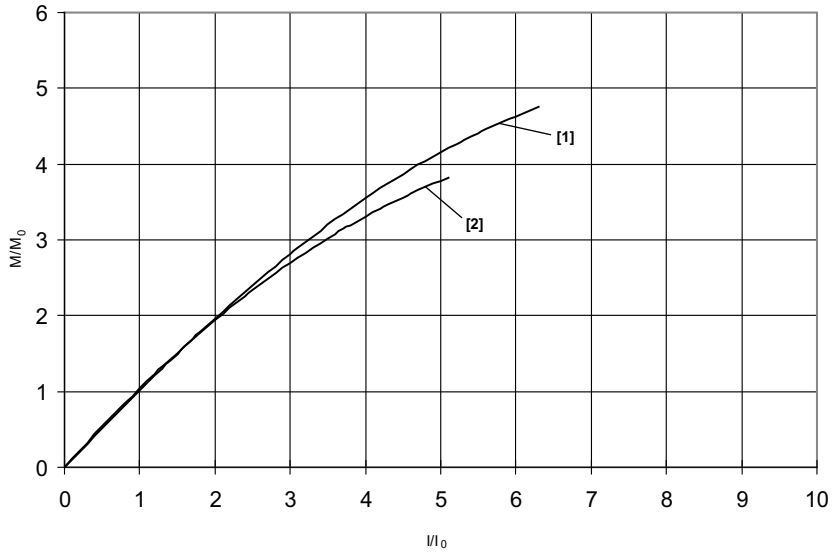
Motor			Assignment to MOVIAXIS® MXA									
	Size		1			2		3		4	5	6
Type	I_N	[A]	2	4	8	12	16	24	32	48	64	100
	I_{max}	[A]	5	10	20	30	40	60	80	120	160	250
CMP40S	I_{max}	% I_N	250	153								
	M_{pk}	Nm	1.7	1.9								
CMP40M	I_{max}	% I_N	250	173								
	M_{pk}	Nm	3.1	3.8								
CMP50S	I_{max}	% I_N	250	225								
	M_{pk}	Nm	3.5	5.2								
CMP50M	I_{max}	% I_N		250	241							
	M_{pk}	Nm		7.2	10.3							
CMP50L	I_{max}	% I_N		250	250	217						
	M_{pk}	Nm		7.5	13.1	15.4						
CMP63S	I_{max}	% I_N		250	250	195						
	M_{pk}	Nm		6.7	10.4	11.1						
CMP63M	I_{max}	% I_N			250	250	250	173				
	M_{pk}	Nm			13.7	18	21	21.4				
CMP63L	I_{max}	% I_N			250	250	250	233				
	M_{pk}	Nm			14.6	20.4	25.1	30.4				
CMP71S	I_{max}	% I_N			250	250	250	207				
	M_{pk}	Nm			12.3	16.1	18.1	19.2				
CMP71M	I_{max}	% I_N				250	250	250	239			
	M_{pk}	Nm				18	22.3	27.7	30.8			
CMP71L	I_{max}	% I_N					250	250	250	241		
	M_{pk}	Nm					26.5	36.3	42.2	46.9		
CMP80S	I_{max}	% I_N					250	250	250	198		
	M_{pk}	Nm					25.8	34.6	39.2	42.1		
CMP80M	I_{max}	% I_N						250	250	250	211	
	M_{pk}	Nm						39.8	49.1	59.8	62.8	
CMP80L	I_{max}	% I_N							250	250	250	215
	M_{pk}	Nm							55.5	77.2	93	106.9

9 Dynamic and Thermal Limit Characteristic Curves: CMP

9.1 CMP torque/speed characteristic curves

The following characteristic curves refer to unventilated motors.

CMP40S/M

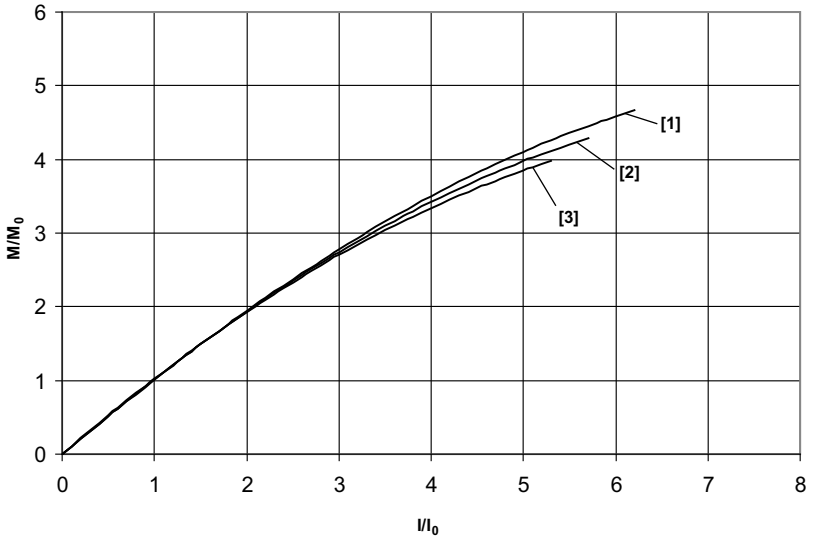


58573AXX

[1] CMP40M

[2] CMP40S

CMP50S / M / L



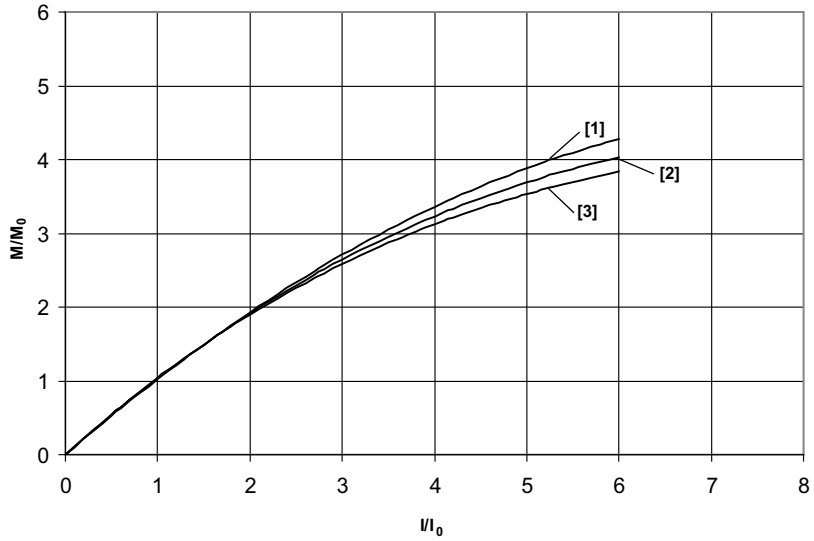
58574AXX

[1] CMP50L

[2] CMP50M

[3] CMP50S

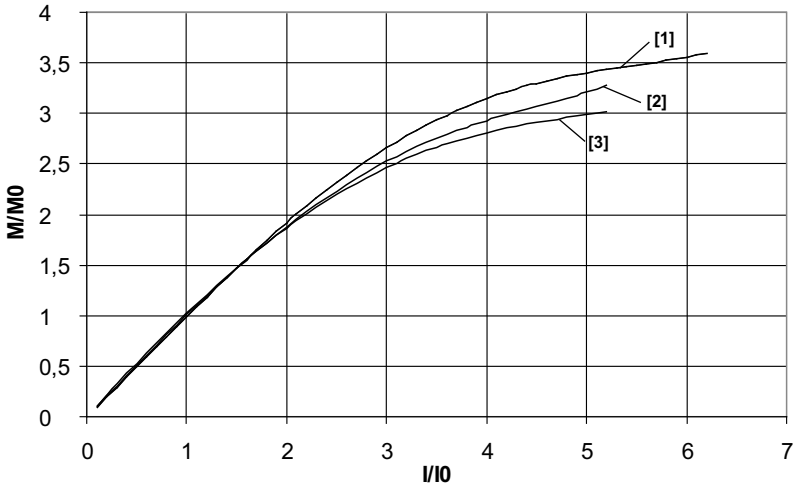
CMP63S / M / L



58575BXX

[1] CMP63L
[2] CMP63M
[3] CMP63S

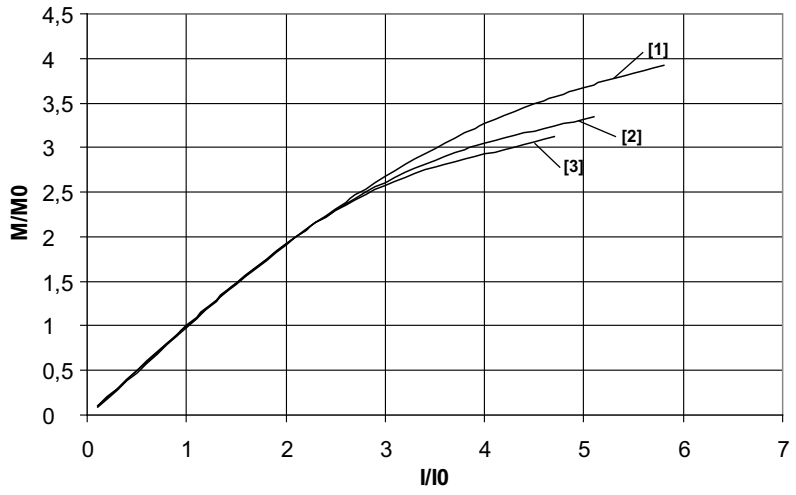
CMP71S / M / L



64101AXX

[1] CMP71L
[2] CMP71M
[3] CMP71S

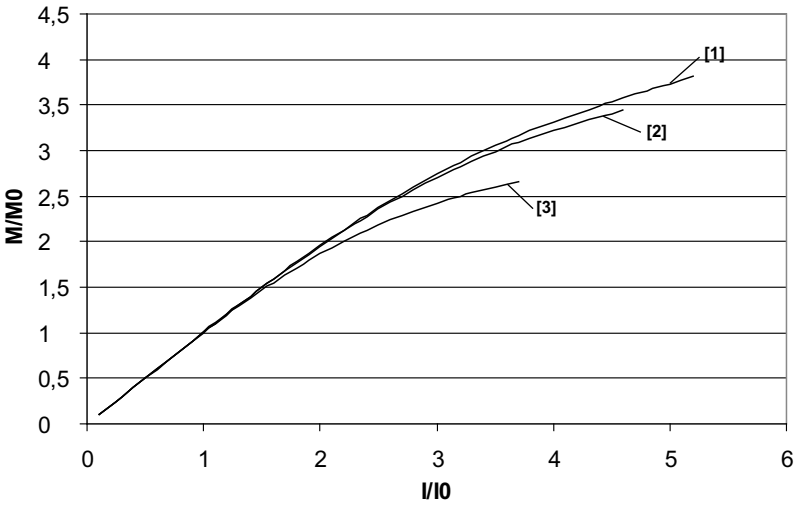
CMP80S/M/L



64102AXX

[1] CMP80L
[2] CMP80M
[3] CMP80S

CMP100S/M/L



64103AXX

[1] CMP100L
[2] CMP100M
[3] CMP100S

9.2 Dynamic and thermal limit characteristic curves: CMP

Definition:

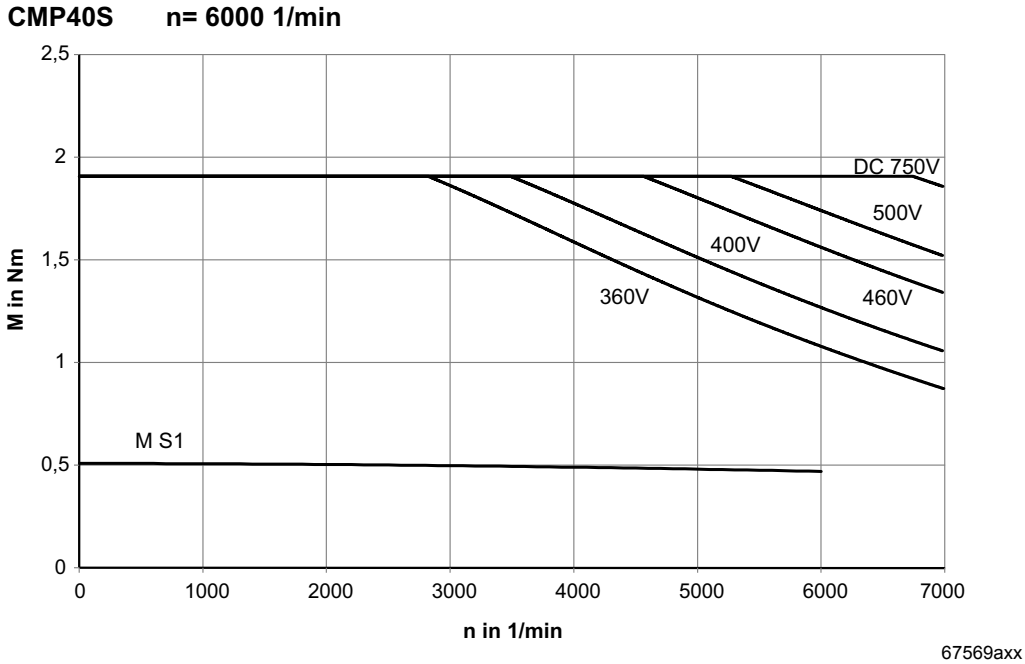
- M = maximum dynamic torque for a maximum sply voltage on the inverter of 360 V, 400 V, 460 V or 500 V,
- M S1 (derating) = thermal limit characteristic curve in S1 - 100% operation,

	INFORMATION
	For the available maximum torque, refer to the combination overview "CMP with MOVIDRIVE®" on page 310 and "CMP with MOVIAXIS®" on page 315.

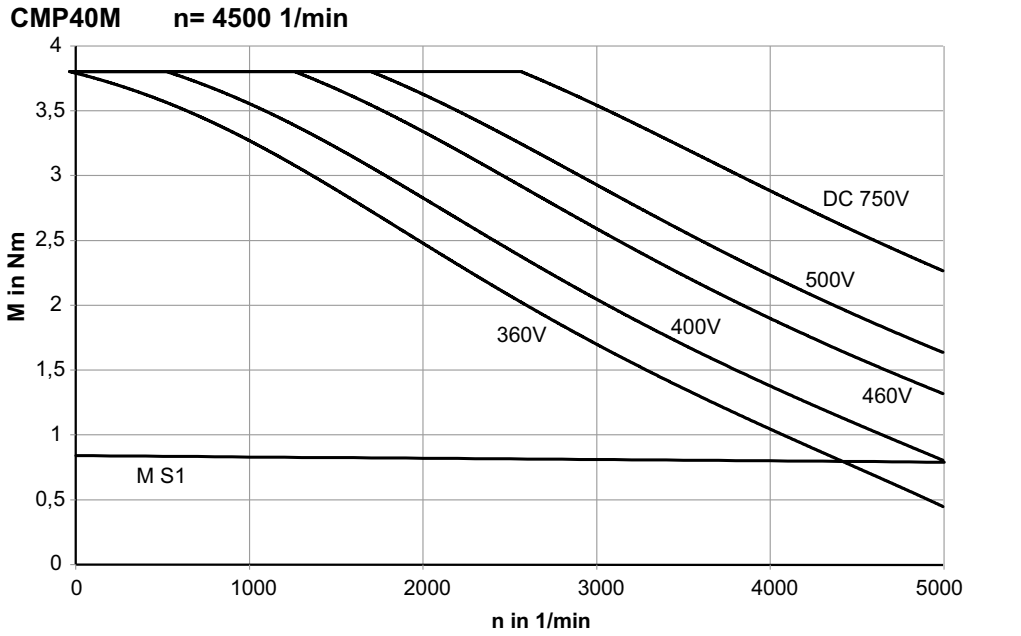
Key

M S1	$M\ S1_{thermal}$ (derating)	460 V	460 V line voltage, non-controlled
DC 750 V	controlled on DC 750 V constant	400 V	400 V line voltage, non-controlled
500 V	500 V line voltage, non-controlled	360 V	360 V line voltage, non-controlled

Dynamic and thermal limit characteristic curve for CMP40S n_N = 3000, 4500, 6000 1/min

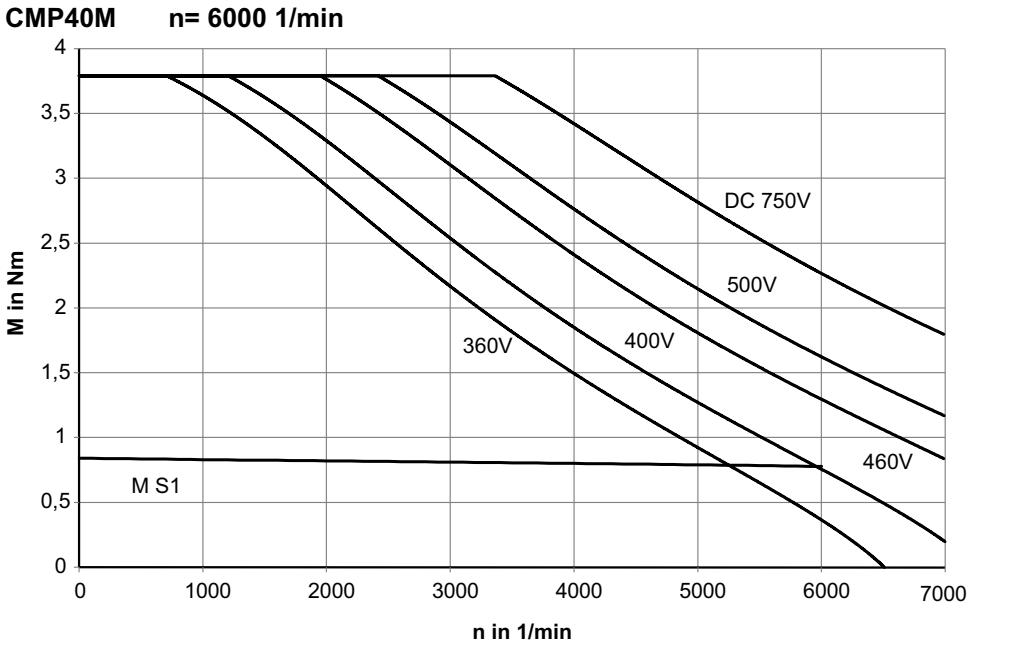


Dynamic and thermal limit characteristic curve for CMP40M n_N = 3000, 4500 1/min



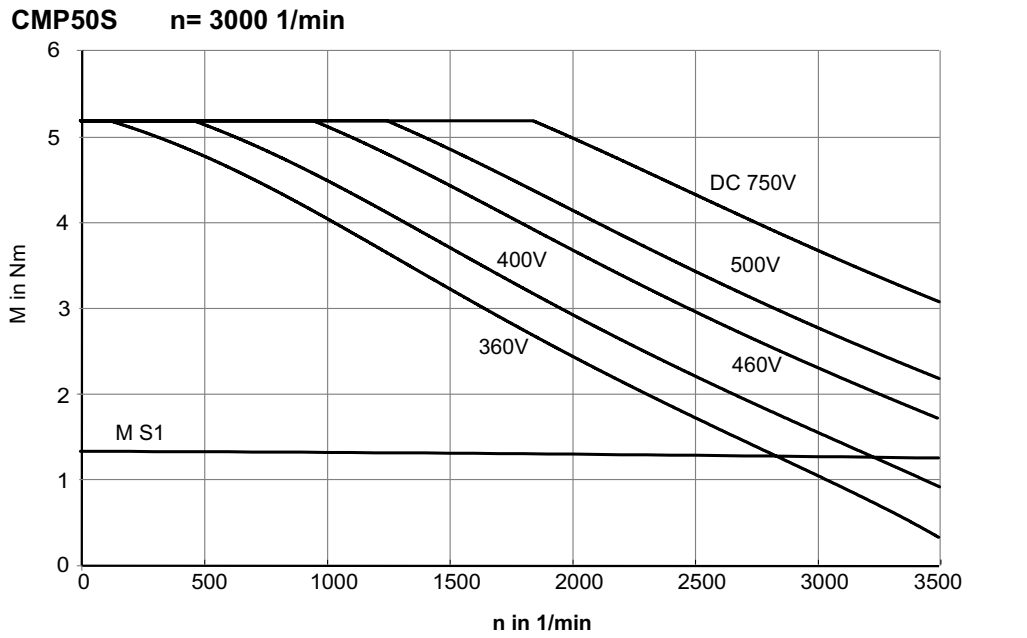
67567axx

Dynamic and thermal limit characteristic curve for CMP40M n_N = 6000 1/min



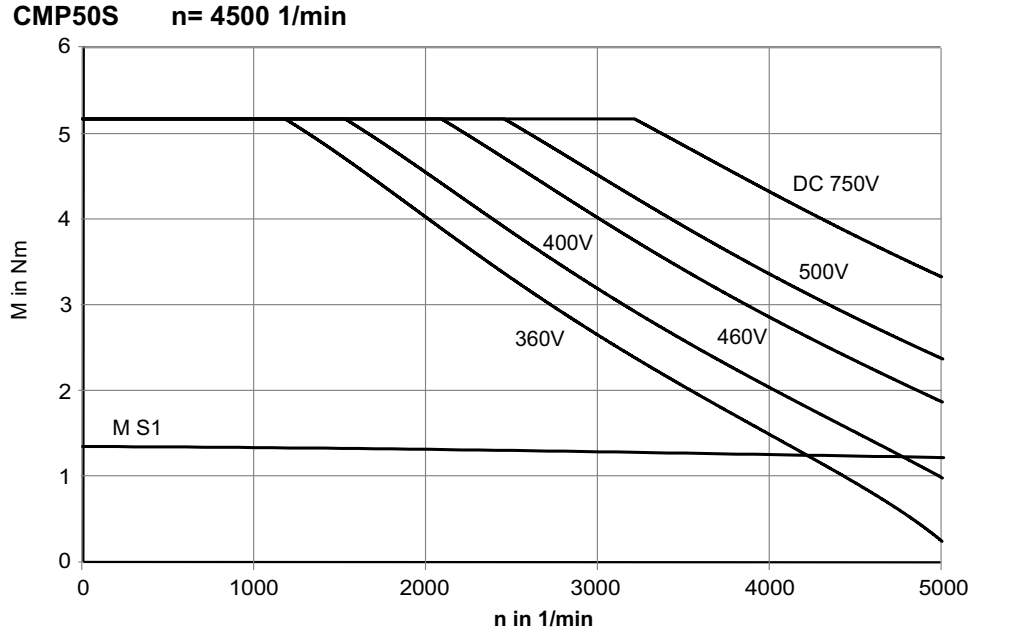
67568axx

Dynamic and thermal limit characteristic curve for CMP50S n_N = 3000 1/min



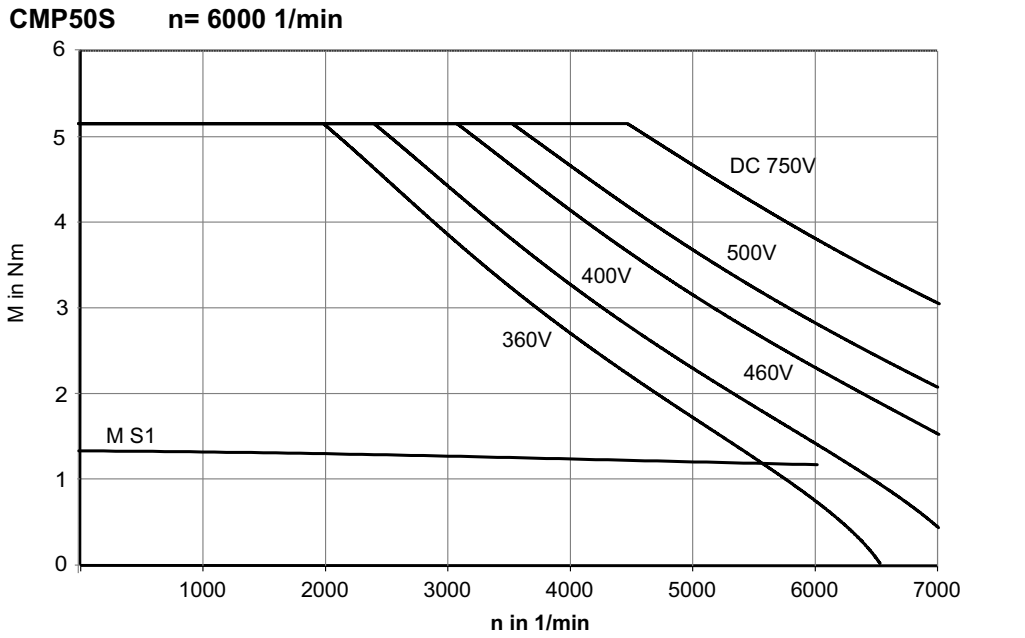
67576axx

Dynamic and thermal limit characteristic curve for CMP50S n_N = 4500 1/min



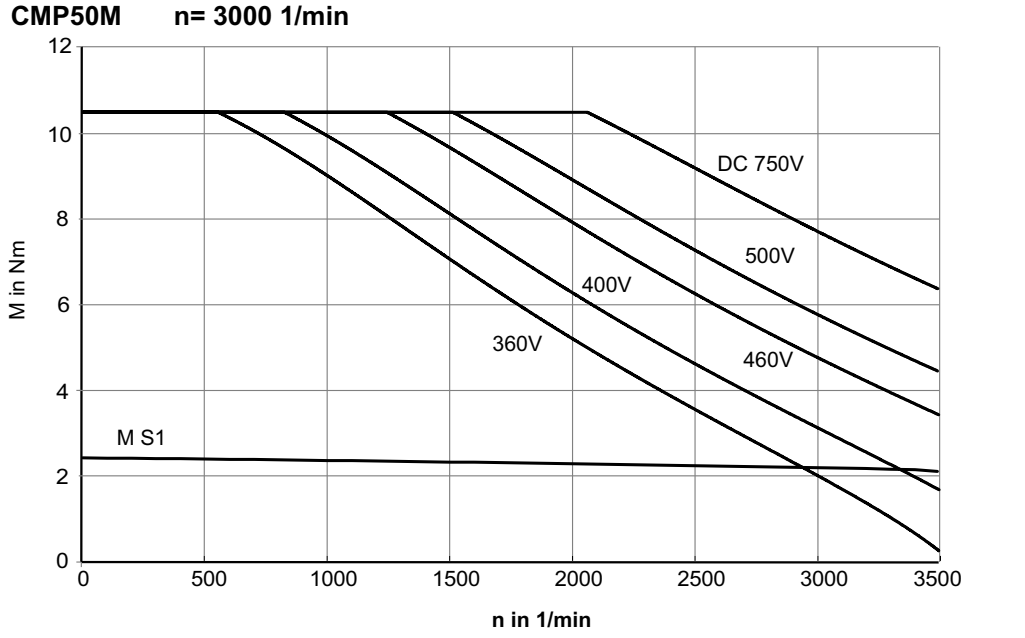
67577axx

Dynamic and thermal limit characteristic curve for CMP50S n_N = 6000 1/min



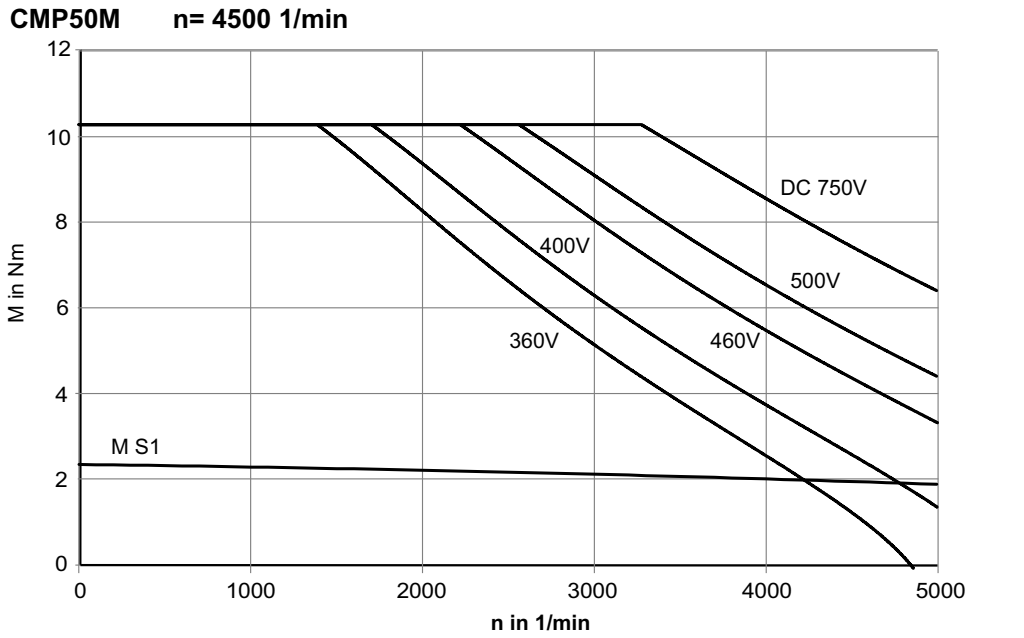
67578axx

Dynamic and thermal limit characteristic curve for CMP50M n_N = 3000 1/min



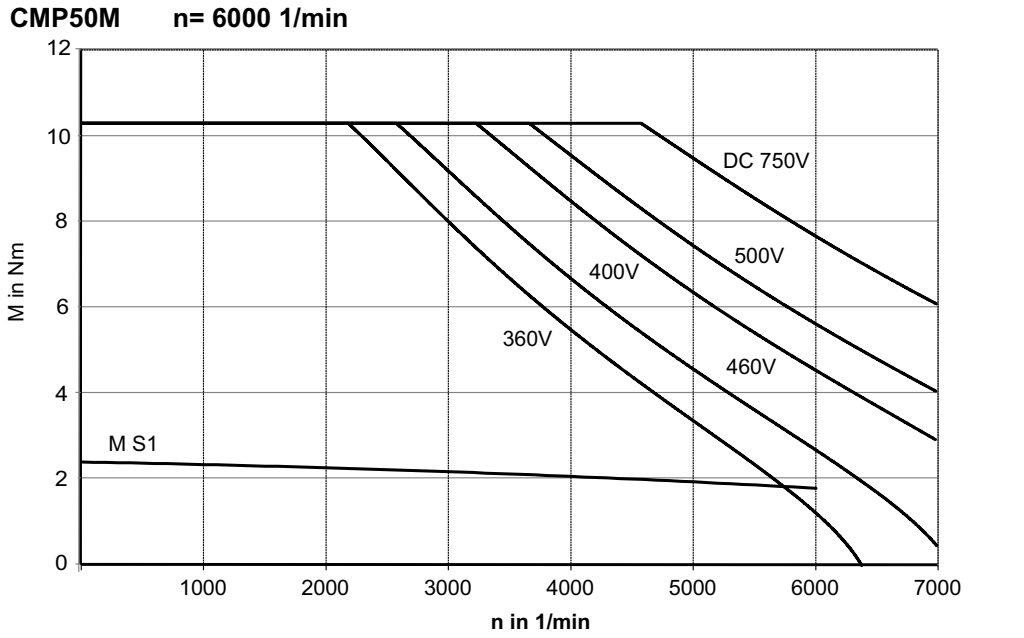
67573axx

Dynamic and thermal limit characteristic curve for CMP50M n_N = 4500 1/min



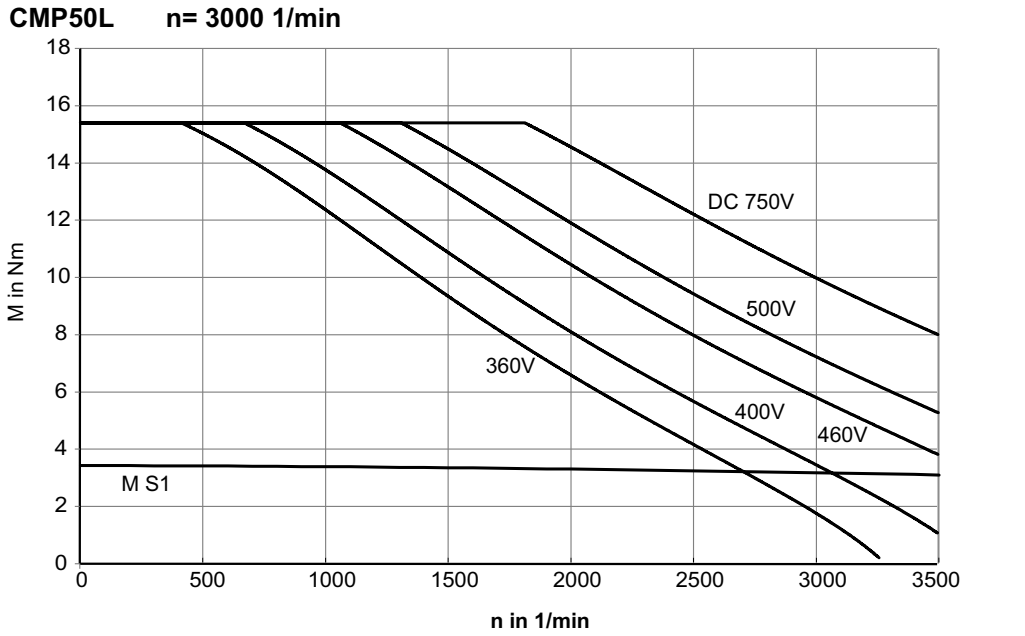
67574axx

Dynamic and thermal limit characteristic curve for CMP50M n_N = 6000 1/min



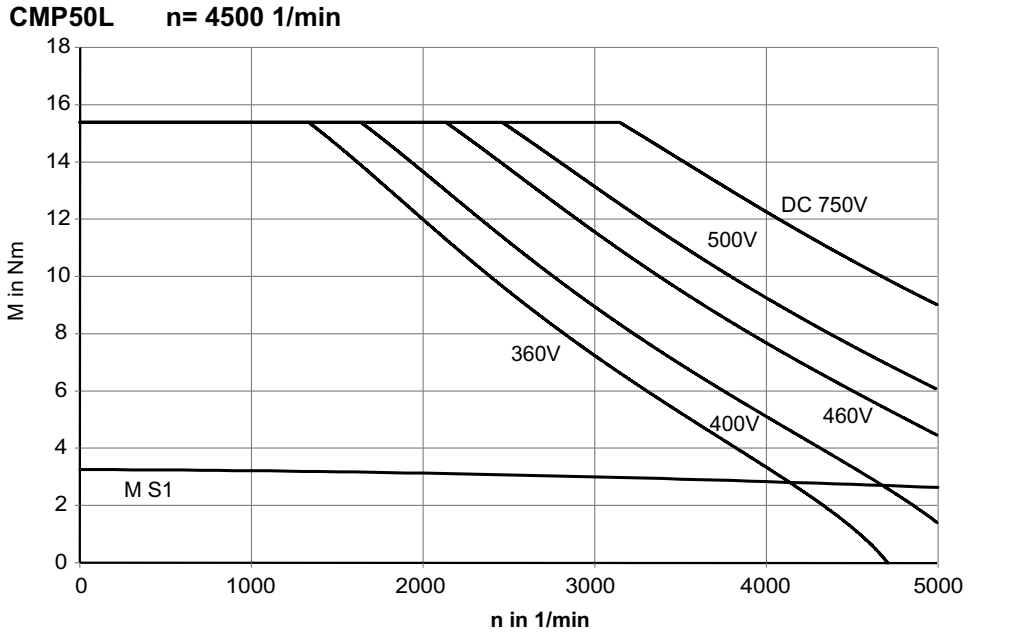
67575axx

Dynamic and thermal limit characteristic curve for CMP50L n_N = 3000 1/min



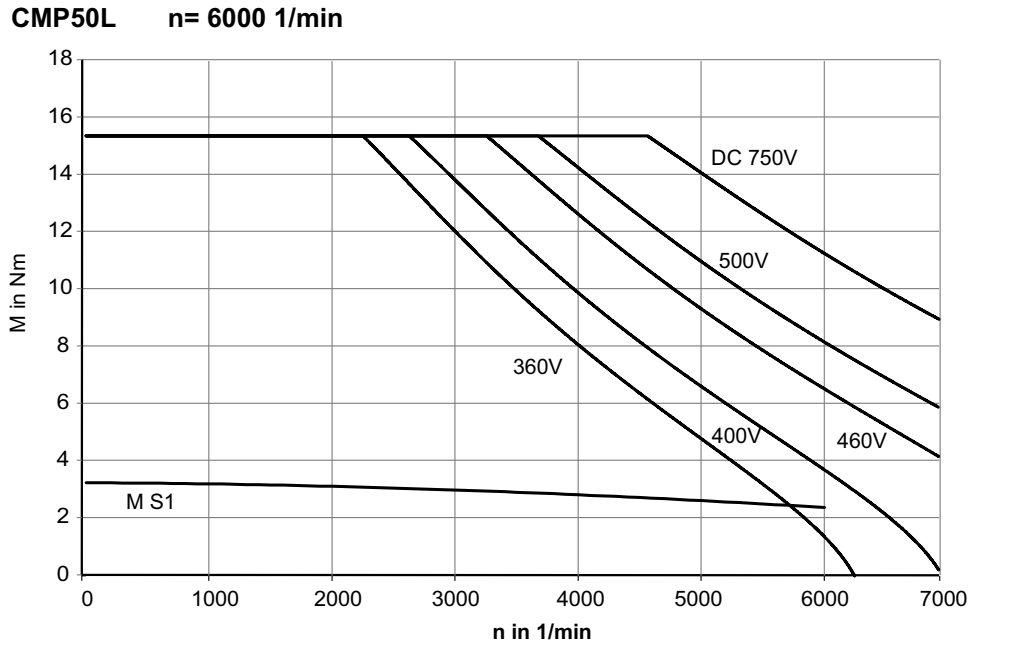
67570axx

Dynamic and thermal limit characteristic curve for CMP50L n_N = 4500 1/min



67571axx

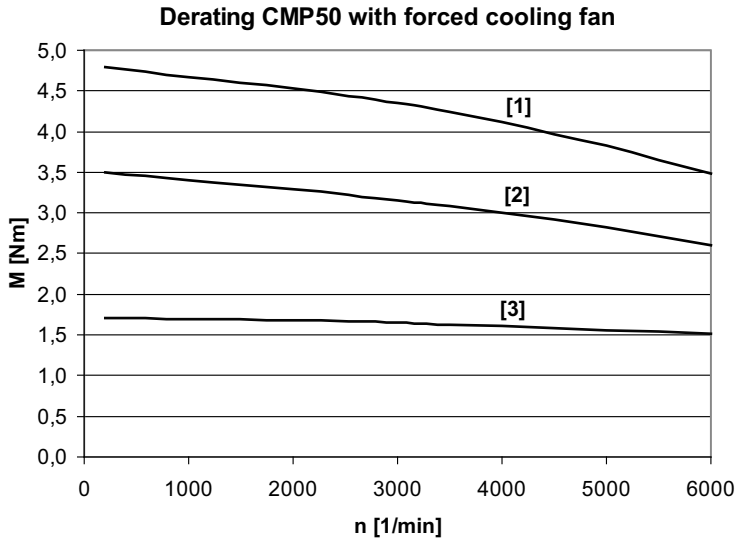
Dynamic and thermal limit characteristic curve for CMP50L n_N = 6000 1/min



67572axx

Thermal limit characteristic curve for CMP50 / VR

ϑ_A = -20 to +40 °C



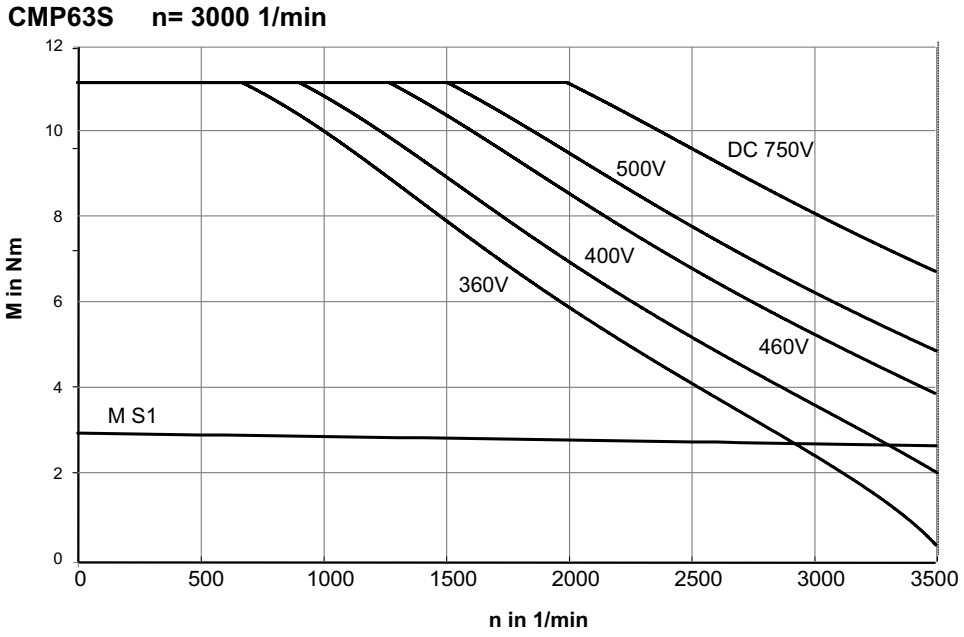
58896axx

[1] CMP50L / VR

[2] CMP50M / VR

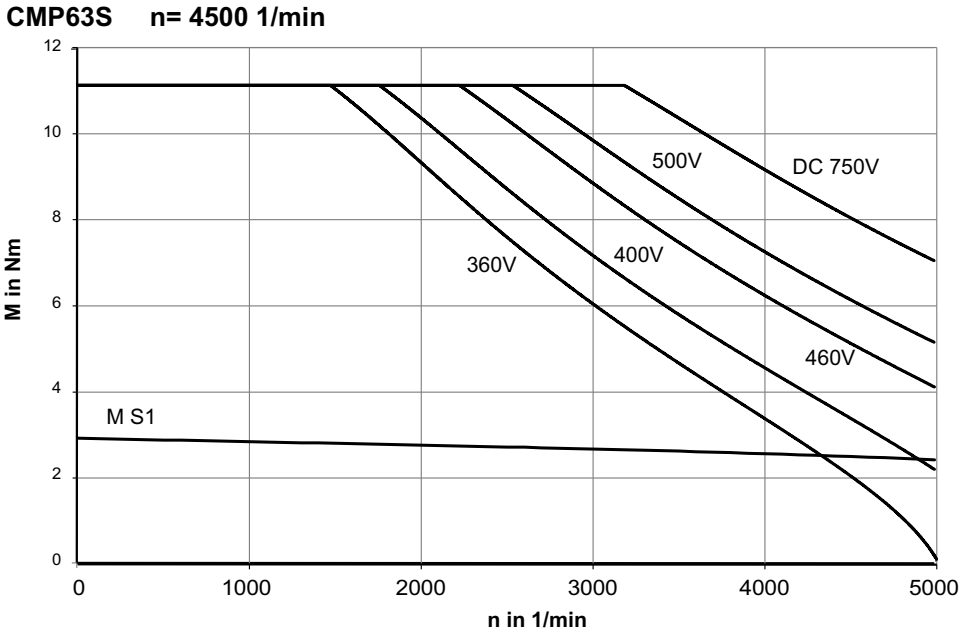
[3] CMP50S / VR

Dynamic and thermal limit characteristic curve for CMP63S n_N = 3000 1/min



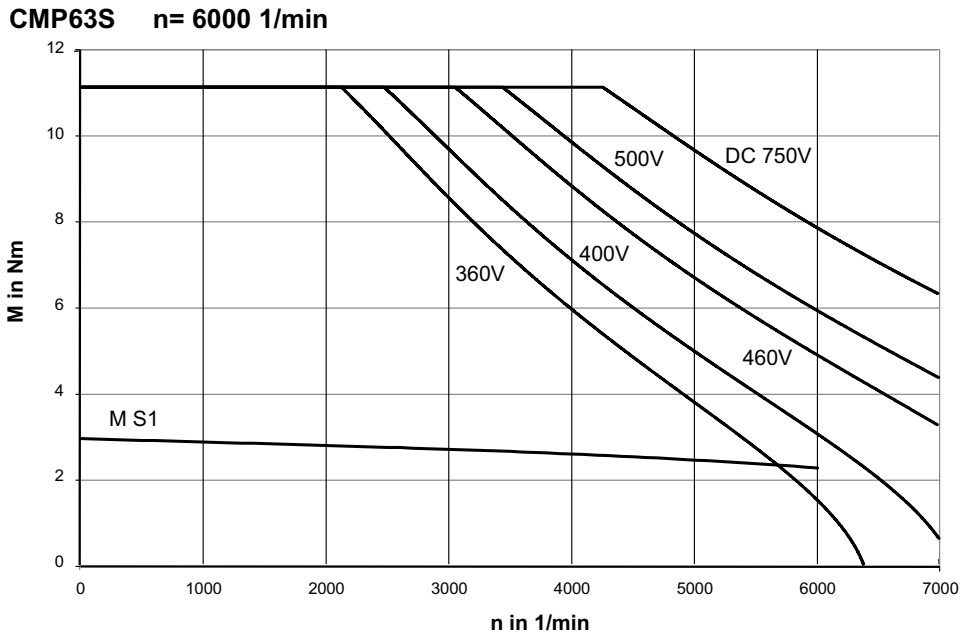
67585axx

Dynamic and thermal limit characteristic curve for CMP63S n_N = 4500 1/min



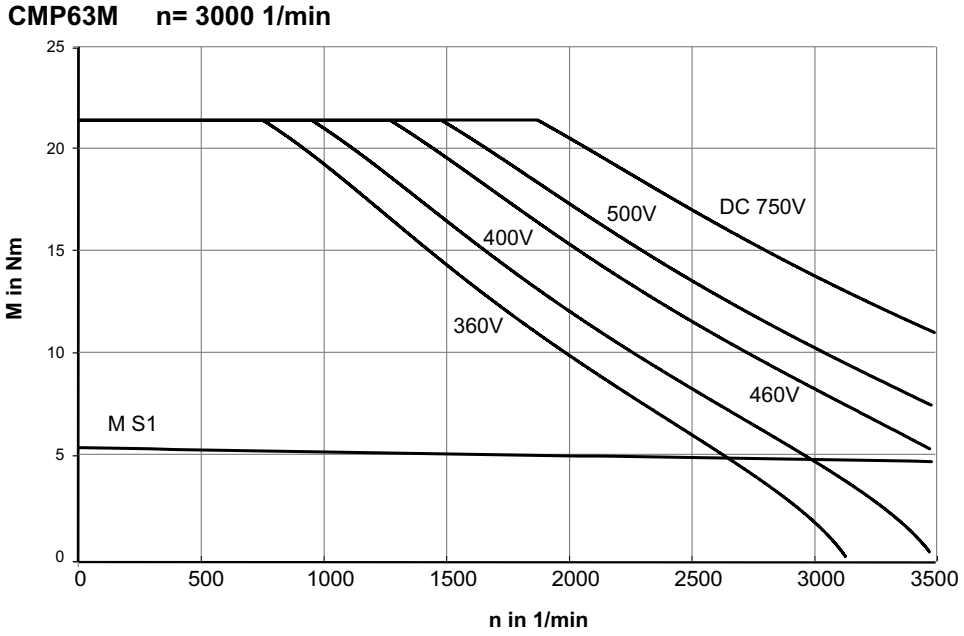
67586axx

Dynamic and thermal limit characteristic curve for CMP63S n_N = 6000 1/min



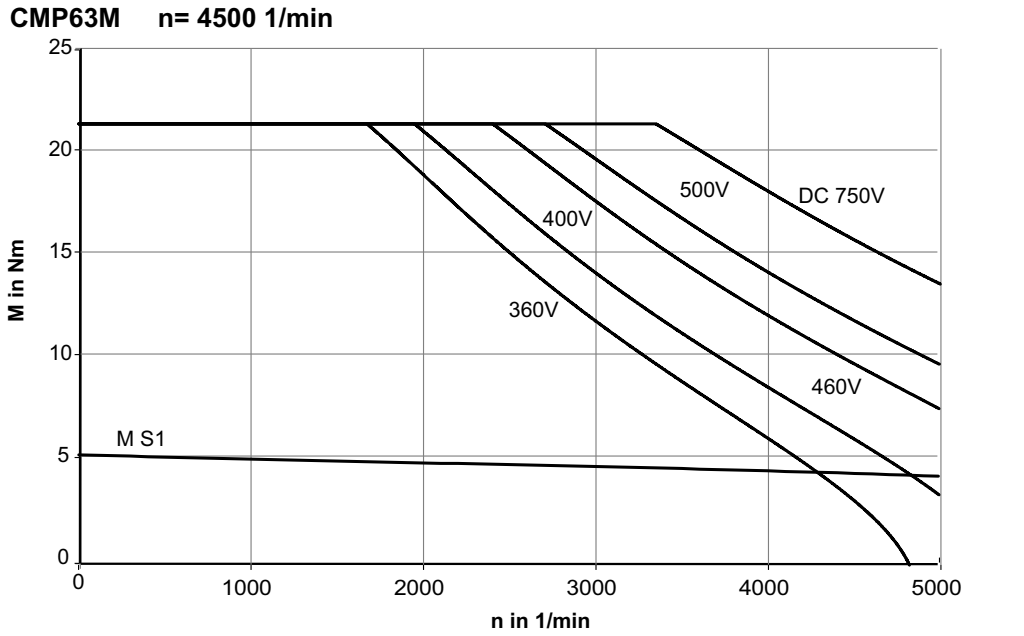
67587axx

Dynamic and thermal limit characteristic curve for CMP63M n_N = 3000 1/min



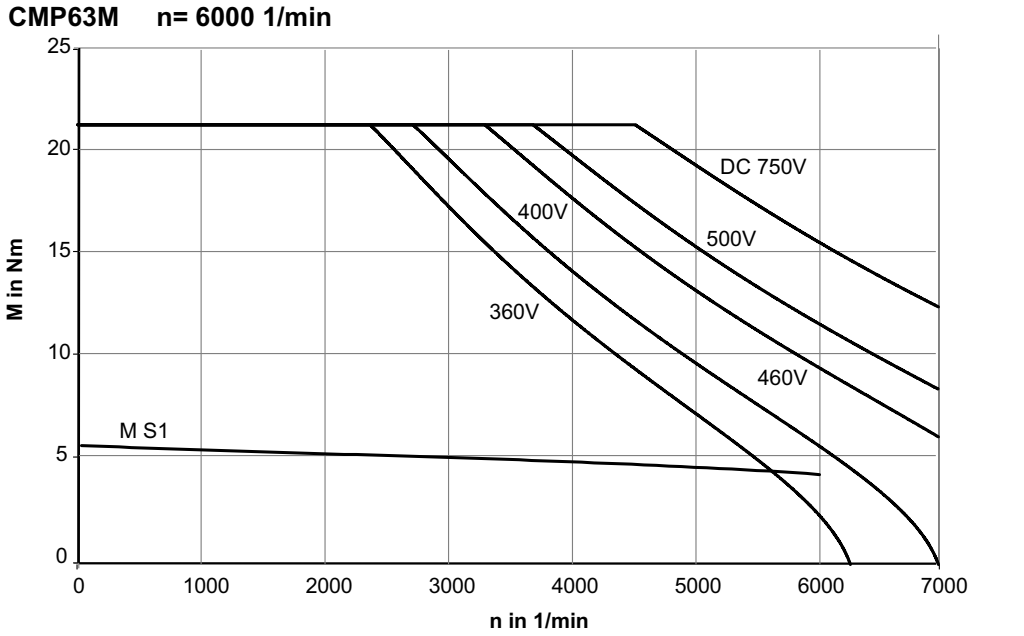
67582axx

Dynamic and thermal limit characteristic curve for CMP63M n_N = 4500 1/min



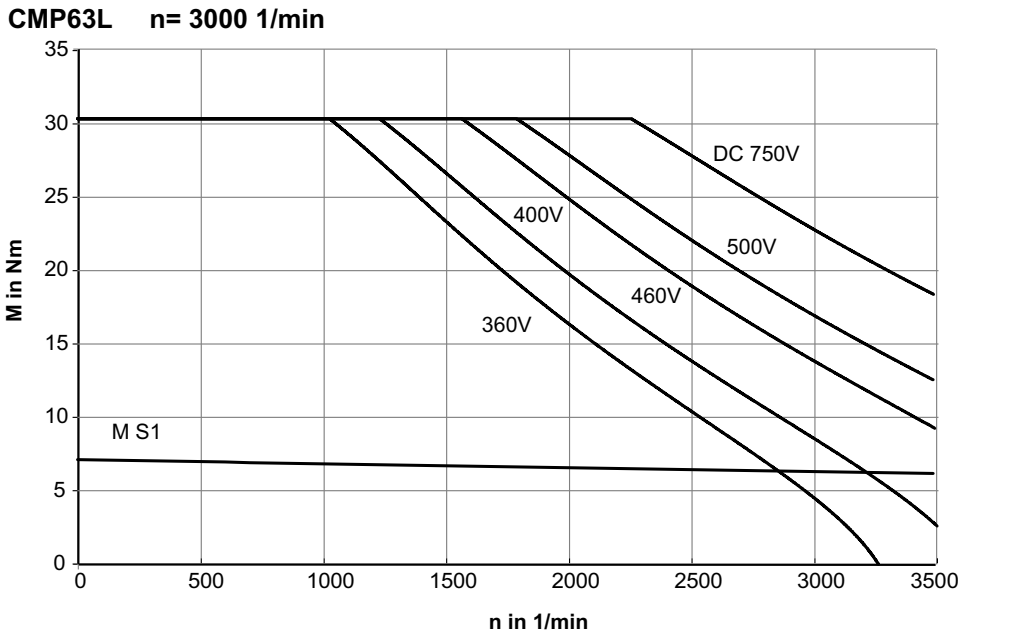
67583axx

Dynamic and thermal limit characteristic curve for CMP63M n_N = 6000 1/min



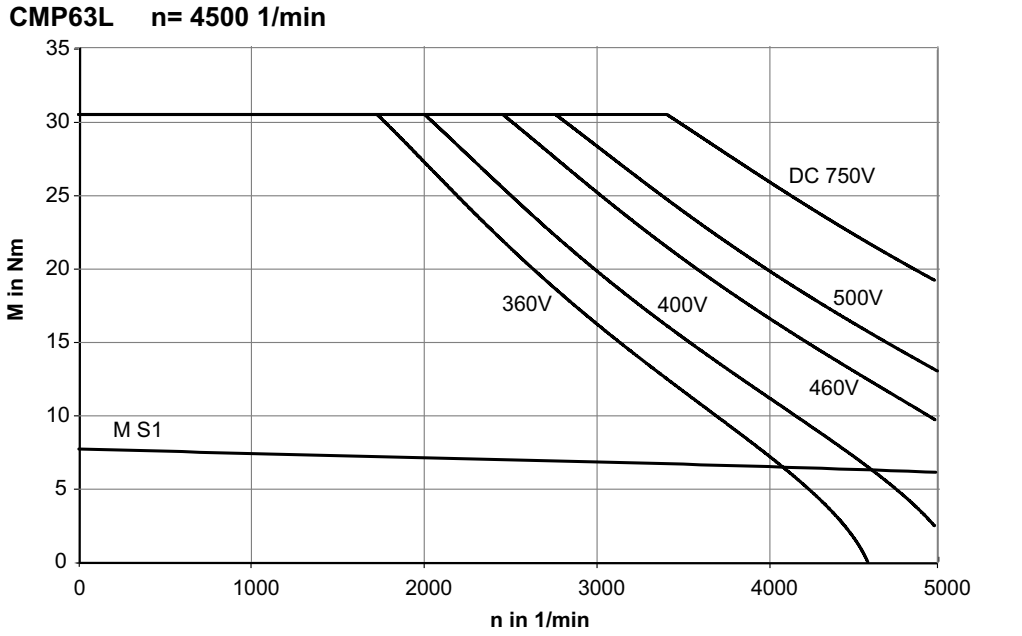
67584axx

Dynamic and thermal limit characteristic curve for CMP63L n_N = 3000 1/min



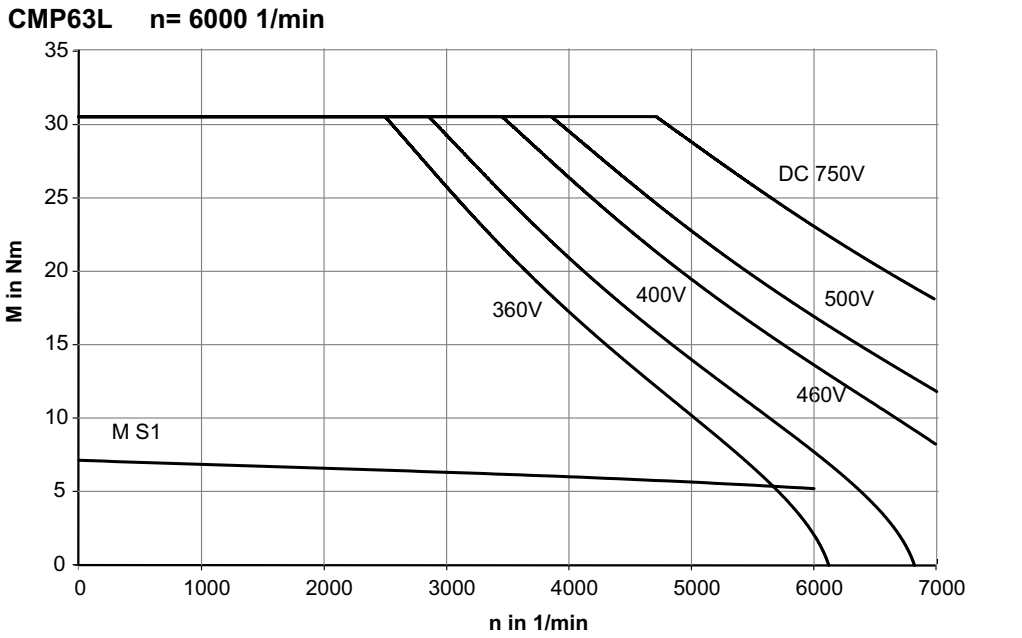
67579axx

Dynamic and thermal limit characteristic curve for CMP63L n_N = 4500 1/min



67580axx

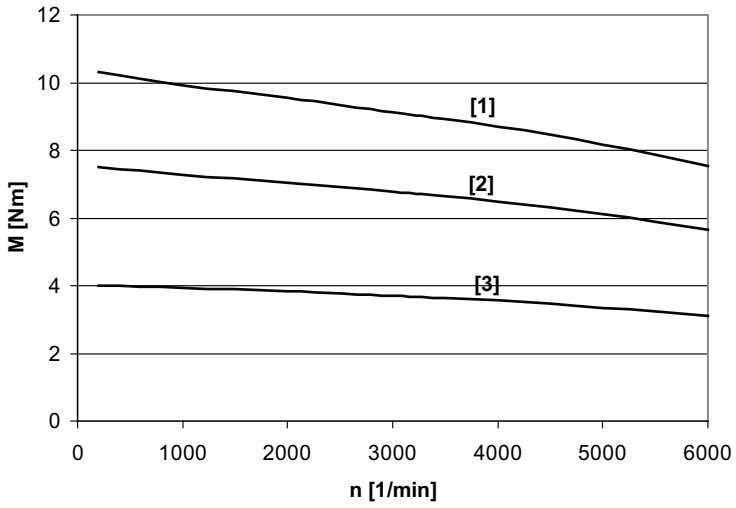
Dynamic and thermal limit characteristic curve for CMP63L n_N = 6000 1/min



67581axx

Thermal limit characteristic curve for CMP63 / VR

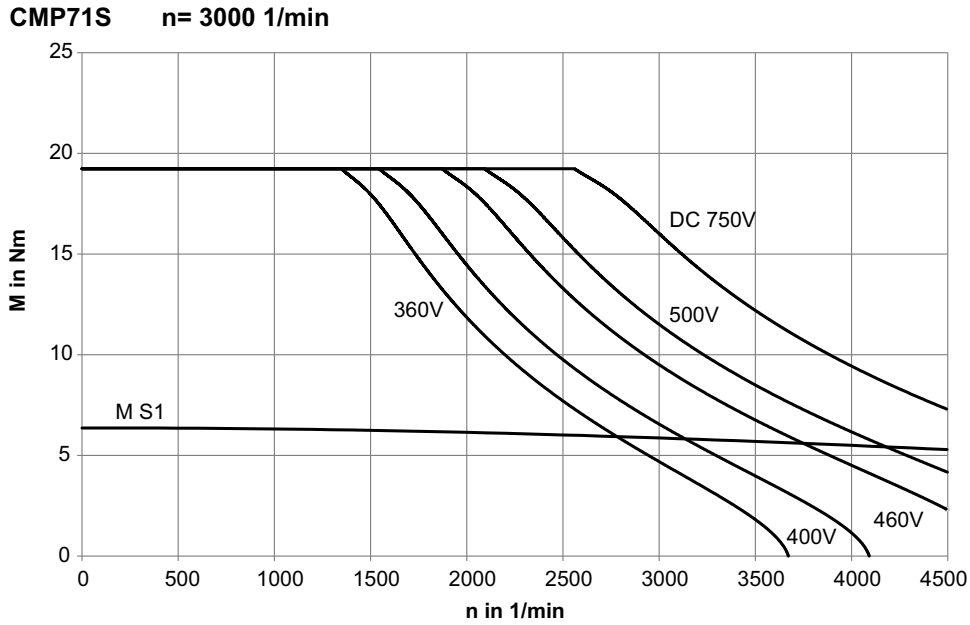
ϑ_A = -20 to +40 °C



58898axx

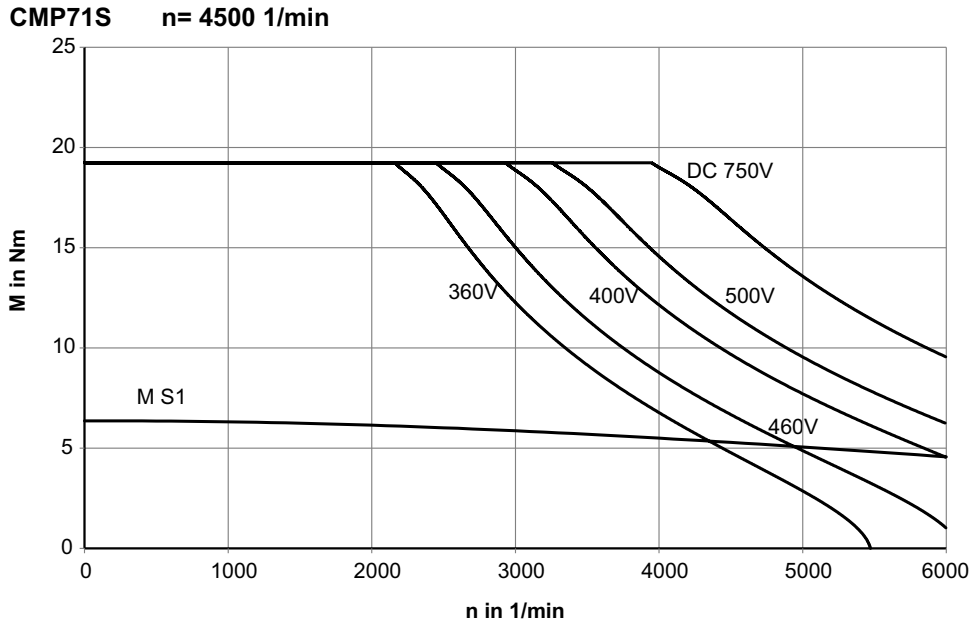
[1] CMP63L / VR
[2] CMP63M / VR
[3] CMP63S / VR

Dynamic and thermal limit characteristic curve for CMP71S n_N = 3000 1/min



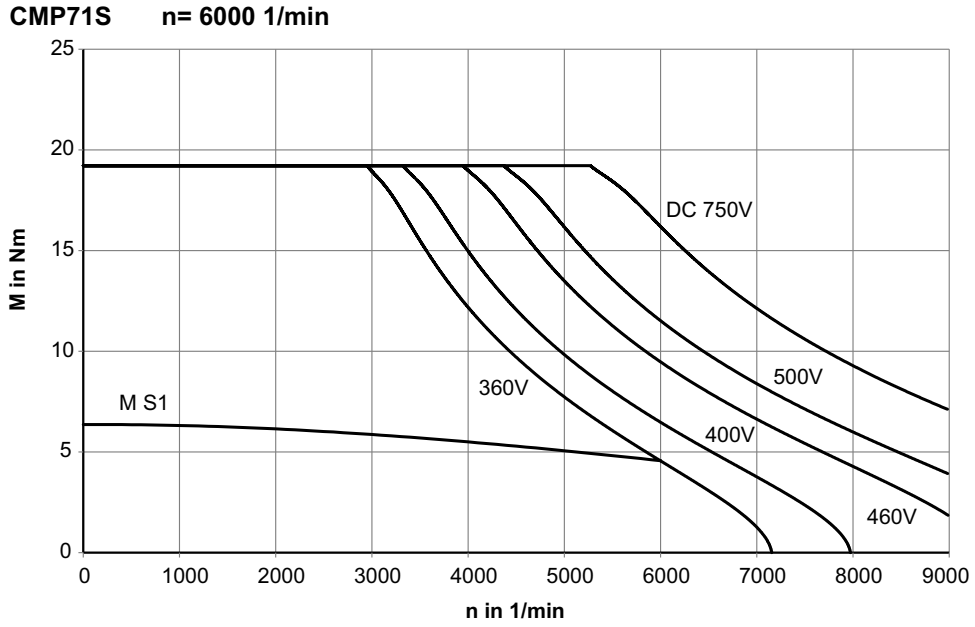
67543axx

Dynamic and thermal limit characteristic curve for CMP71S n_N = 4500 1/min



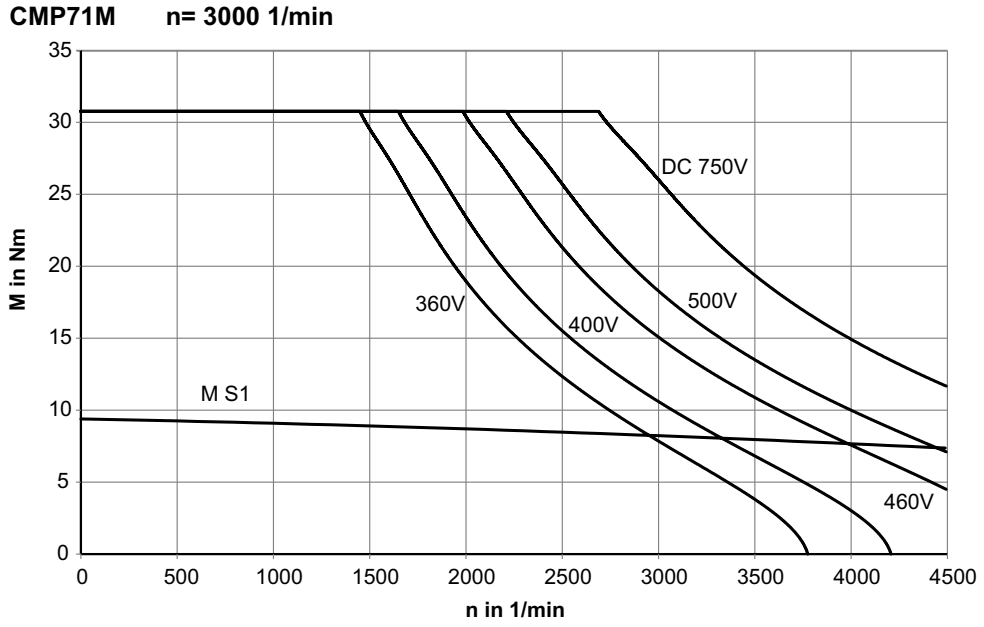
67544axx

Dynamic and thermal limit characteristic curve for CMP71S n_N = 6000 1/min



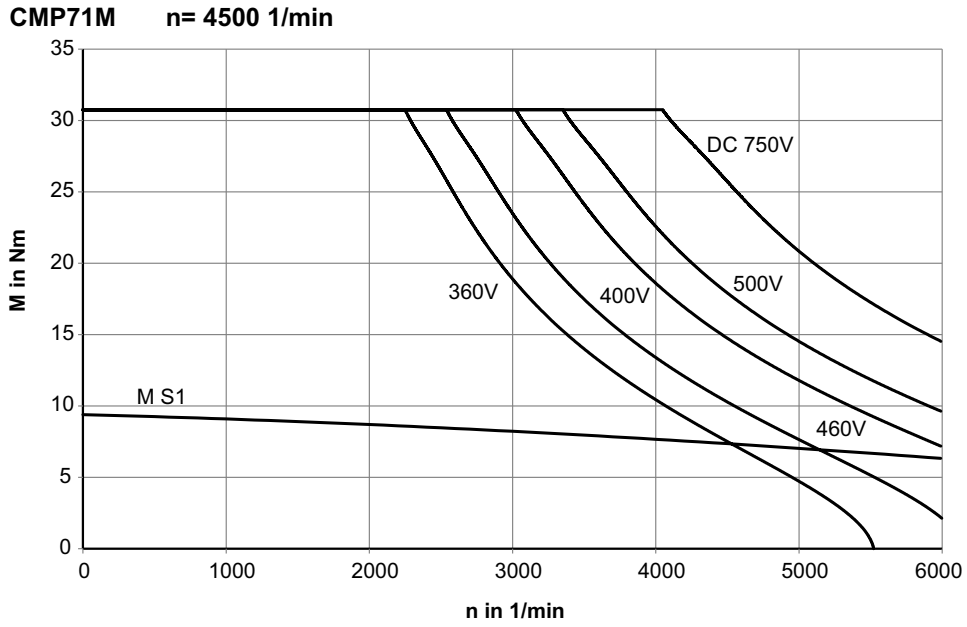
67545axx

Dynamic and thermal limit characteristic curve for CMP71M n_N = 3000 1/min



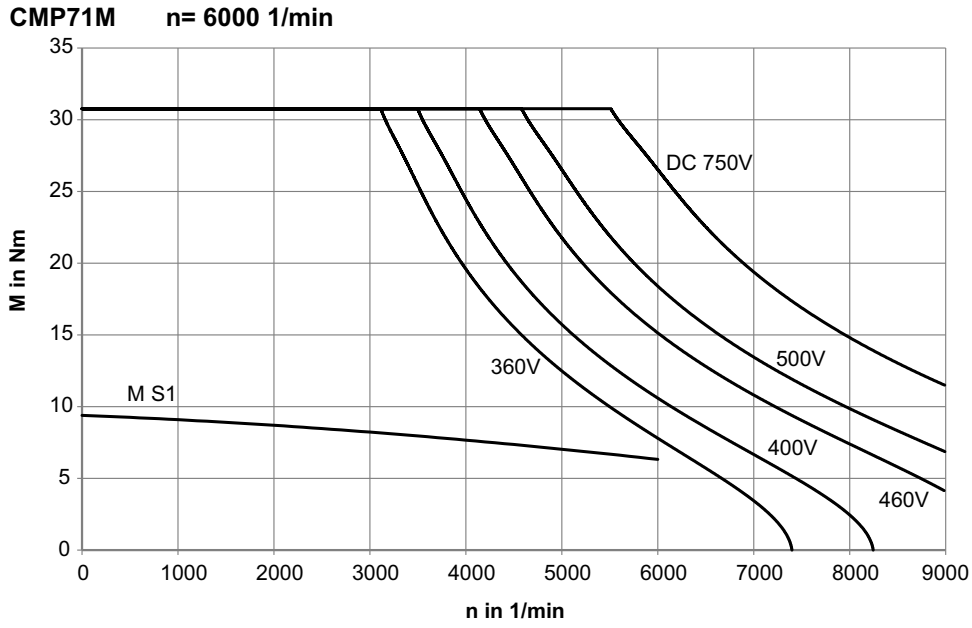
67539axx

Dynamic and thermal limit characteristic curve for CMP71M n_N = 4500 1/min



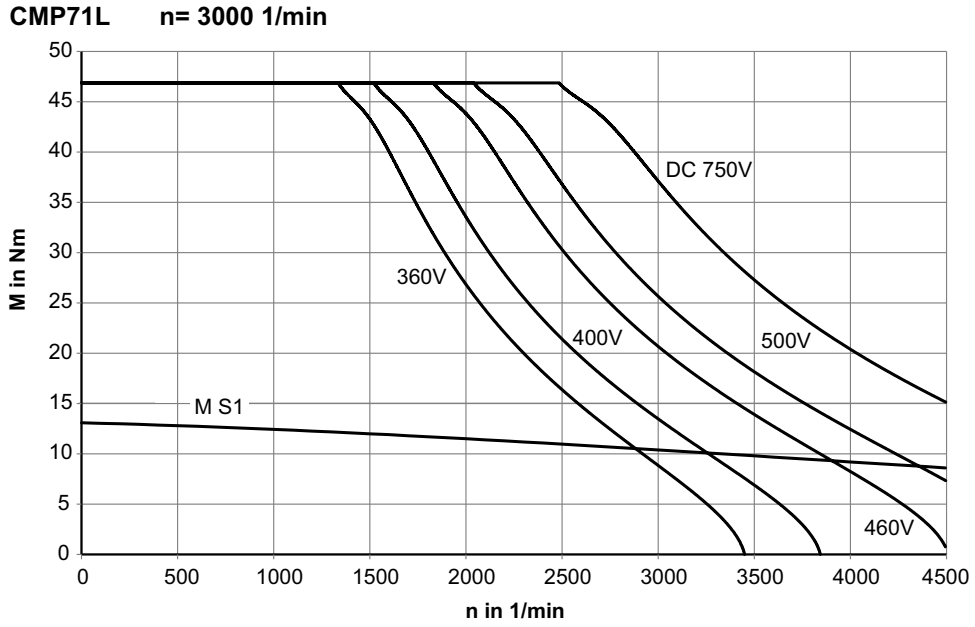
67540axx

Dynamic and thermal limit characteristic curve for CMP71M n_N = 6000 1/min



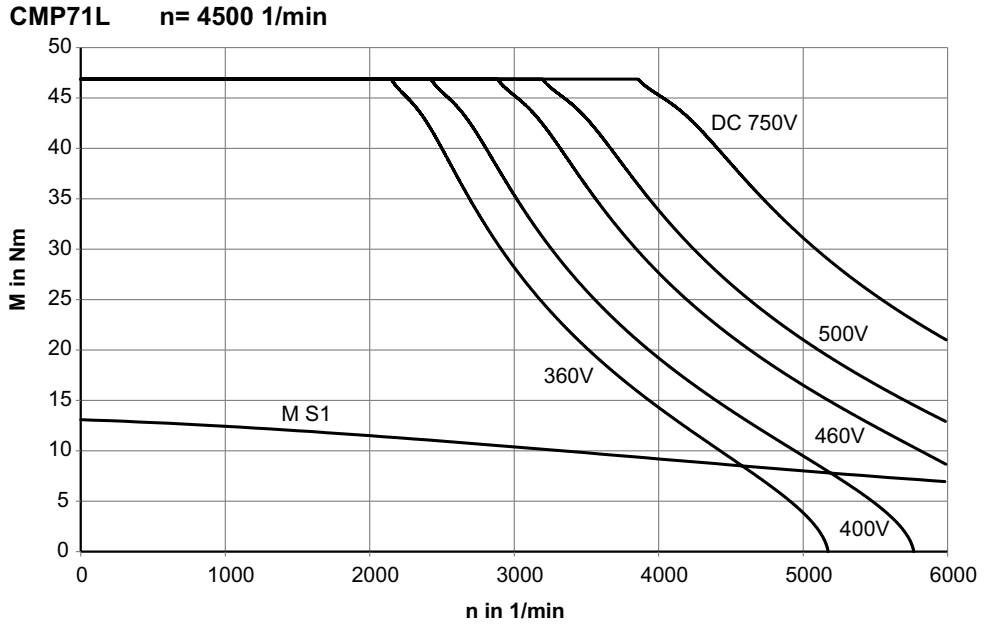
67541axx

Dynamic and thermal limit characteristic curve for CMP71L n_N = 3000 1/min



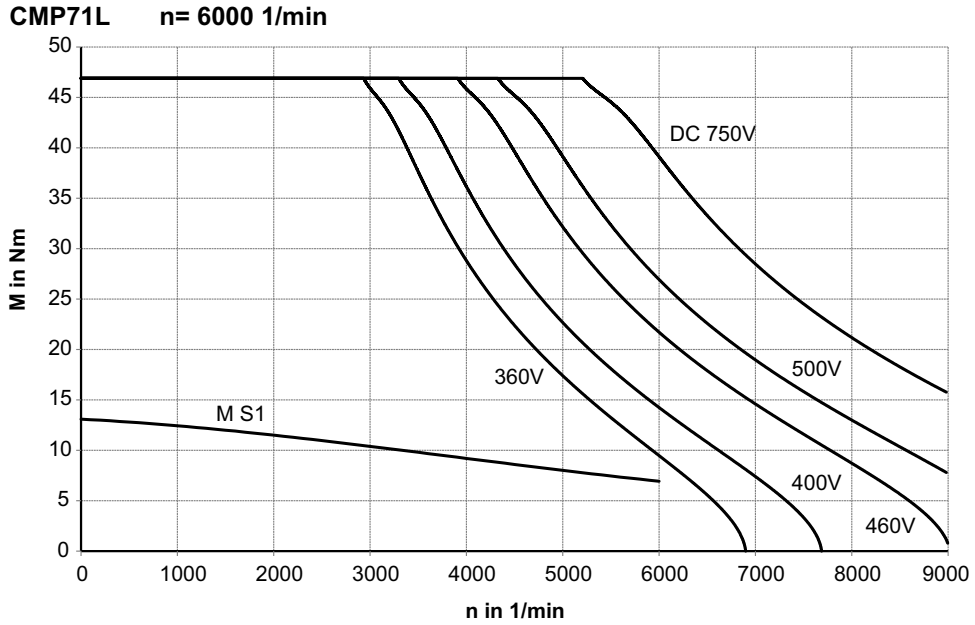
67535axx

Dynamic and thermal limit characteristic curve for CMP71L n_N = 4500 1/min



67536axx

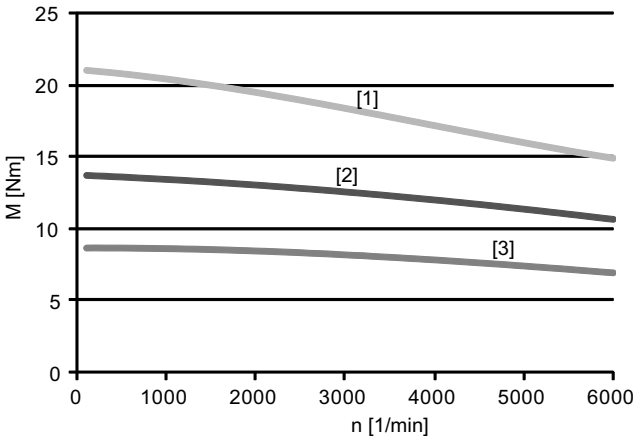
Dynamic and thermal limit characteristic curve for CMP71L n_N = 6000 1/min



67537axx

Thermal limit characteristic curve for CMP71 / VR

ϑ_A = -20 to +40 °C



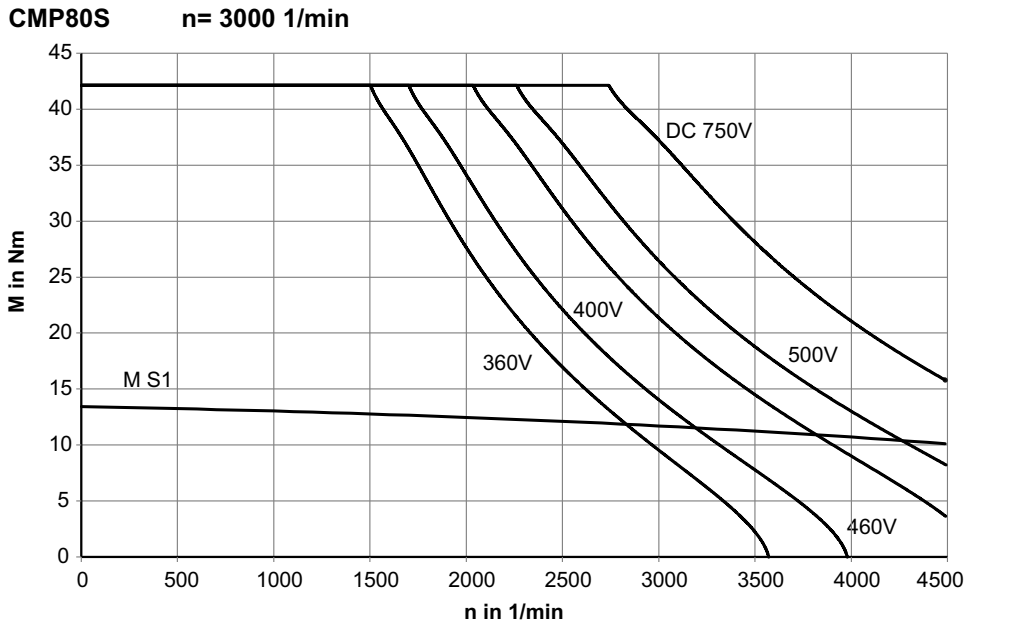
65772axx

[1] CMP71L / VR

[2] CMP71M / VR

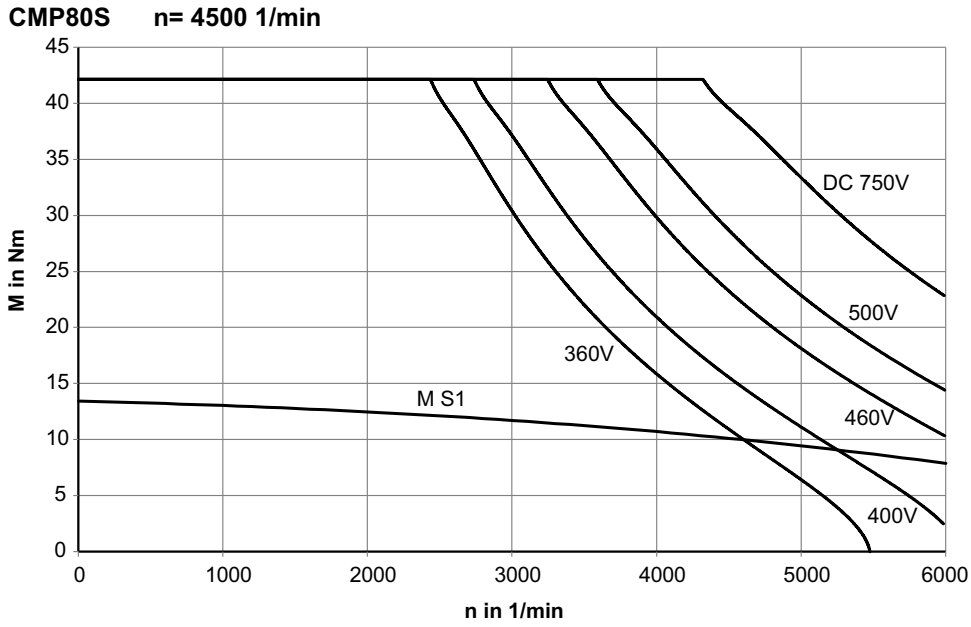
[3] CMP71S / VR

Dynamic and thermal limit characteristic curve for CMP80S n_N = 3000 1/min



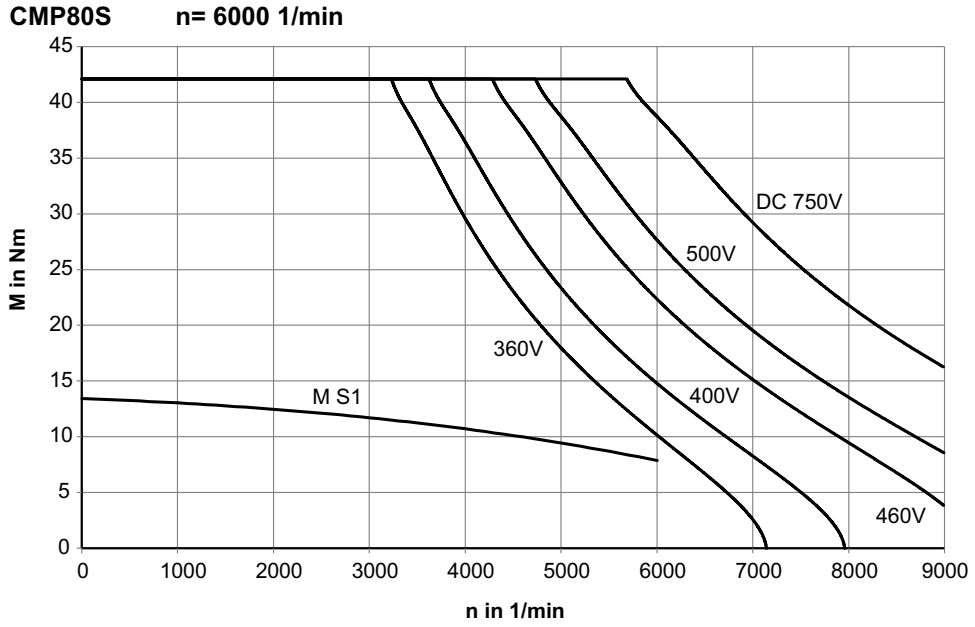
67555axx

Dynamic and thermal limit characteristic curve for CMP80S n_N = 4500 1/min



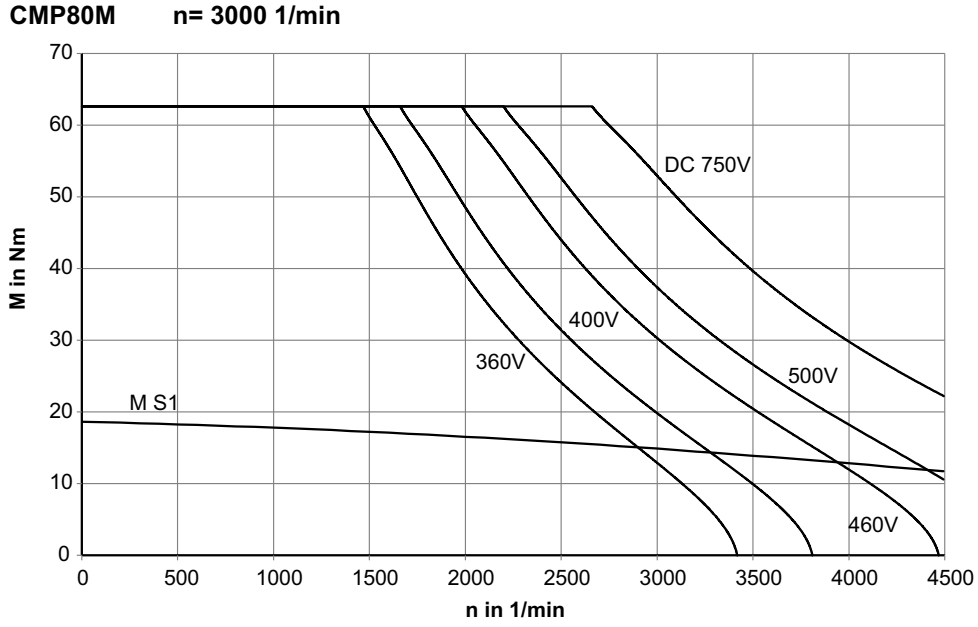
67556axx

Dynamic and thermal limit characteristic curve for CMP80S n_N = 6000 1/min



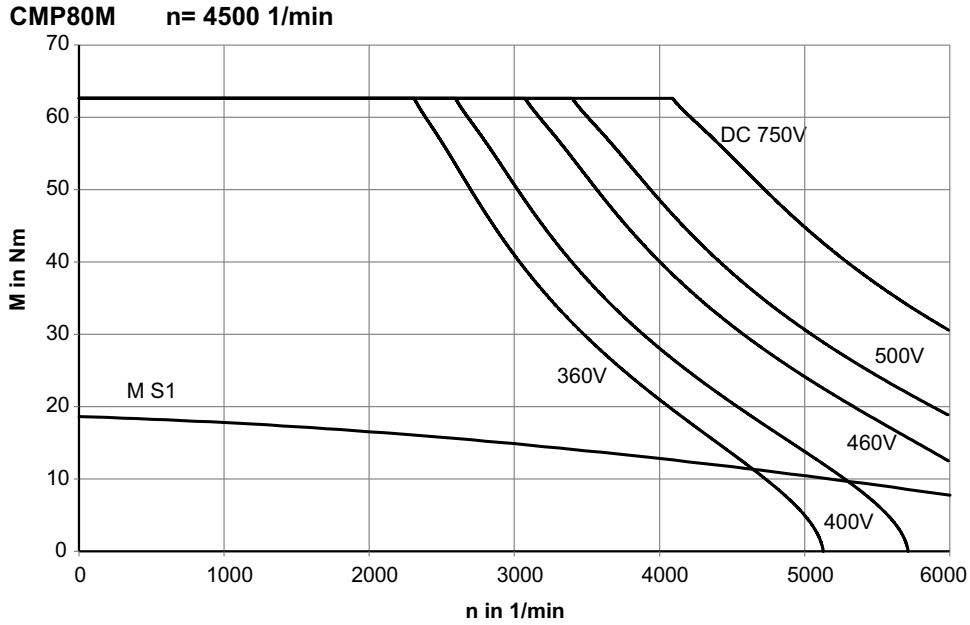
67557axx

Dynamic and thermal limit characteristic curve for CMP80M n_N = 3000 1/min



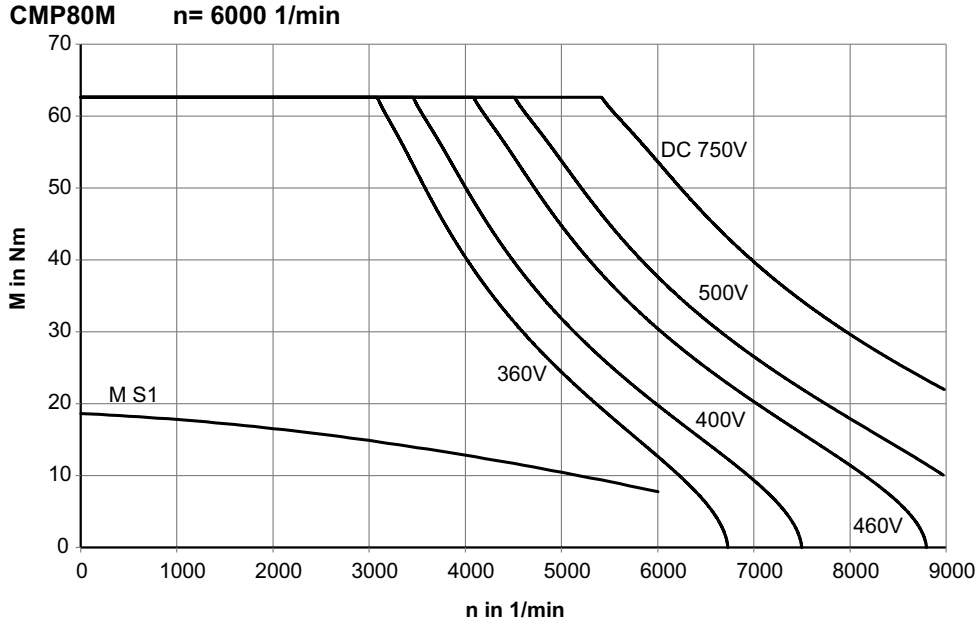
67551axx

Dynamic and thermal limit characteristic curve for CMP80M n_N = 4500 1/min



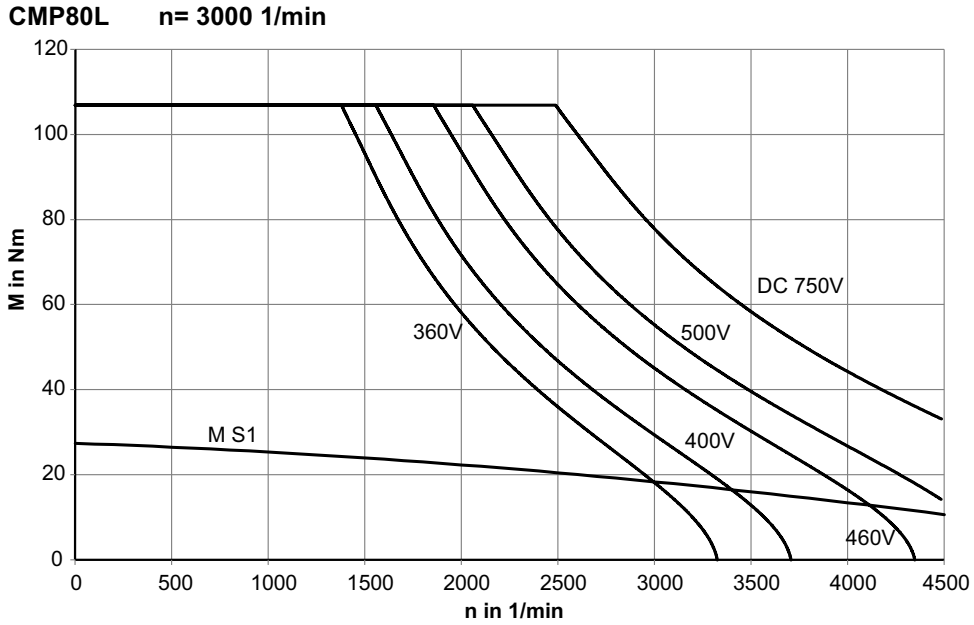
67552axx

Dynamic and thermal limit characteristic curve for CMP80M n_N = 6000 1/min



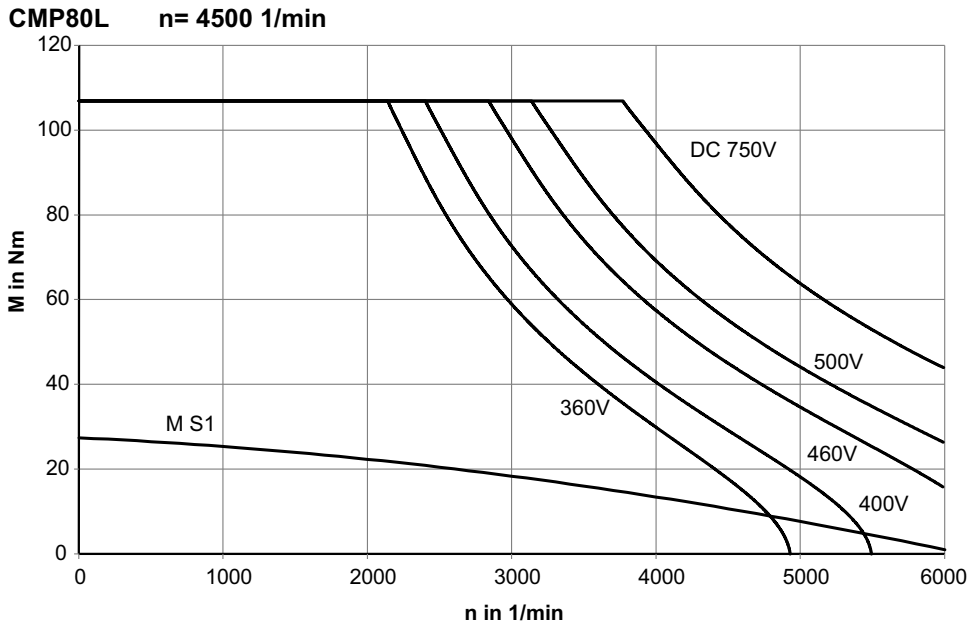
67553axx

Dynamic and thermal limit characteristic curve for CMP80L n_N = 3000 1/min



67547axx

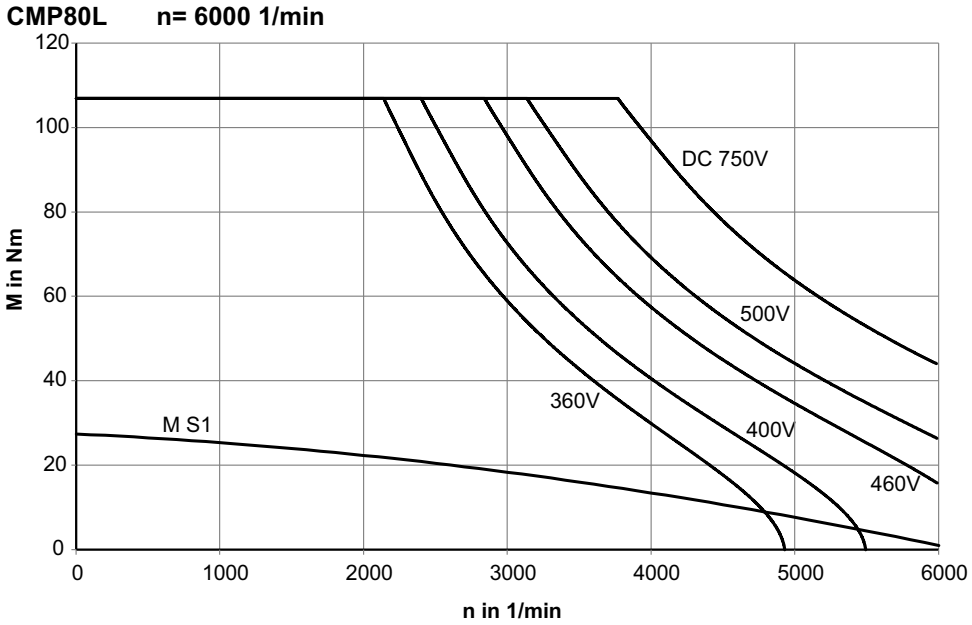
Dynamic and thermal limit characteristic curve for CMP80L n_N = 4500 1/min



67548axx

[1] M $S1_{thermal}$ (derating)
[2] DC 750 V direct voltage, controlled
[3] 500 V line voltage, non-controlled
[4] 460 V line voltage, non-controlled
[5] 400 V line voltage, non-controlled
[6] 360 V line voltage, non-controlled

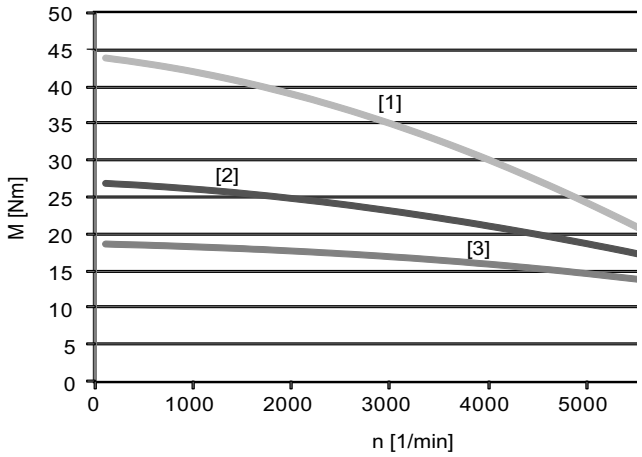
Dynamic and thermal limit characteristic curve for CMP80L n_N = 6000 1/min



67549axx

Thermal limit characteristic curve for CMP80 / VR

ϑ_A = -20 to +40 °C



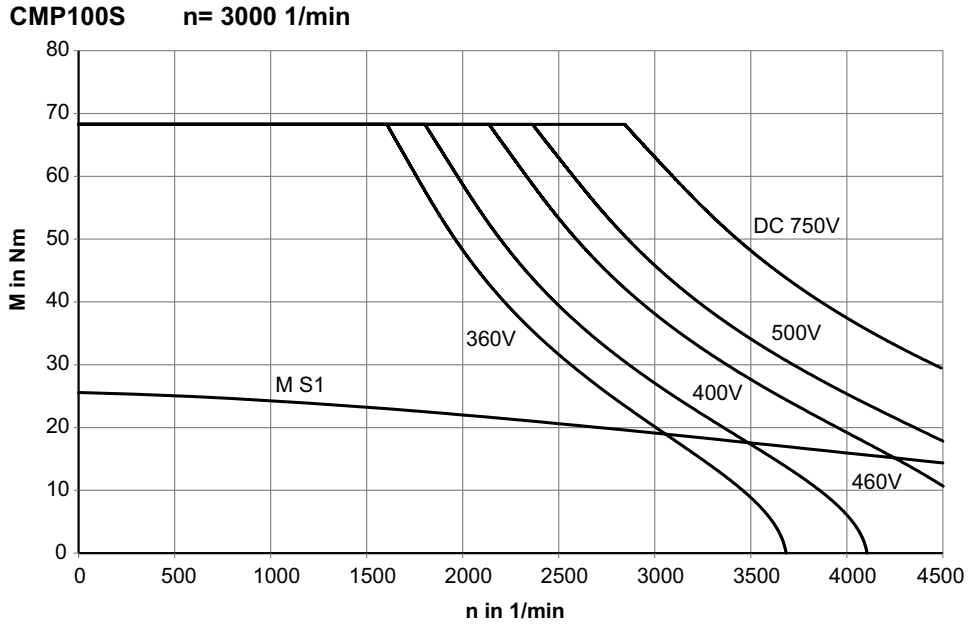
65773axx

[1] CMP80L / VR

[2] CMP80M / VR

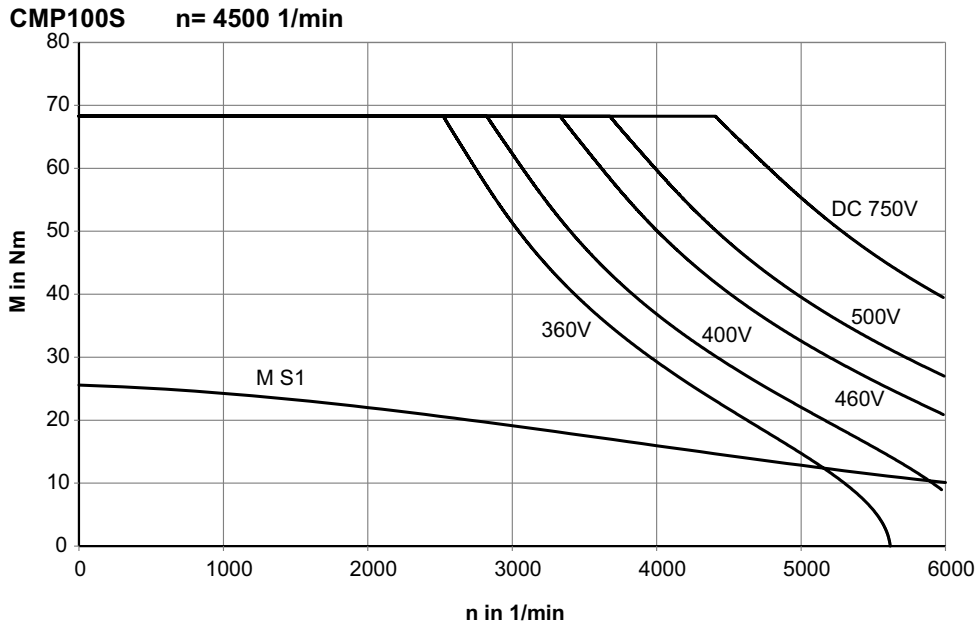
[3] CMP80S / VR

Dynamic and thermal limit characteristic curve for CMP100S n_N = 3000 1/min



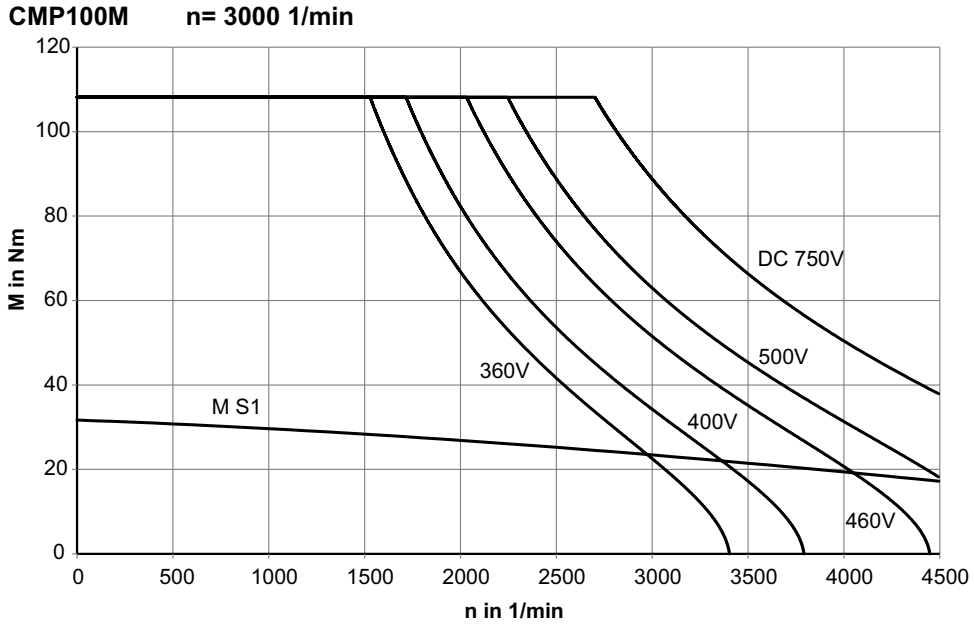
67565axx

Dynamic and thermal limit characteristic curve for CMP100S n_N = 4500 1/min



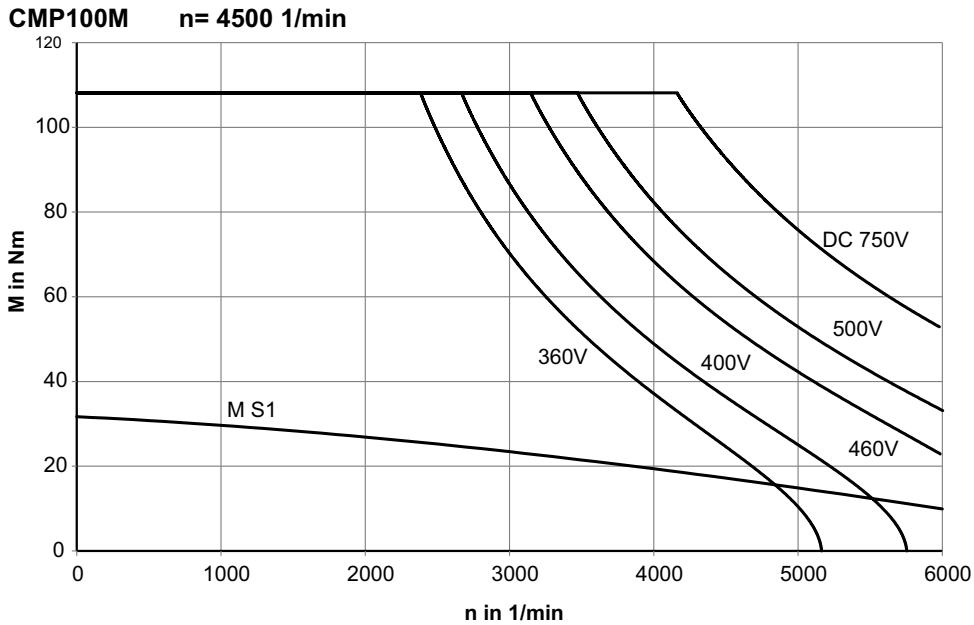
67566axx

Dynamic and thermal limit characteristic curve for CMP100M n_N = 3000 1/min



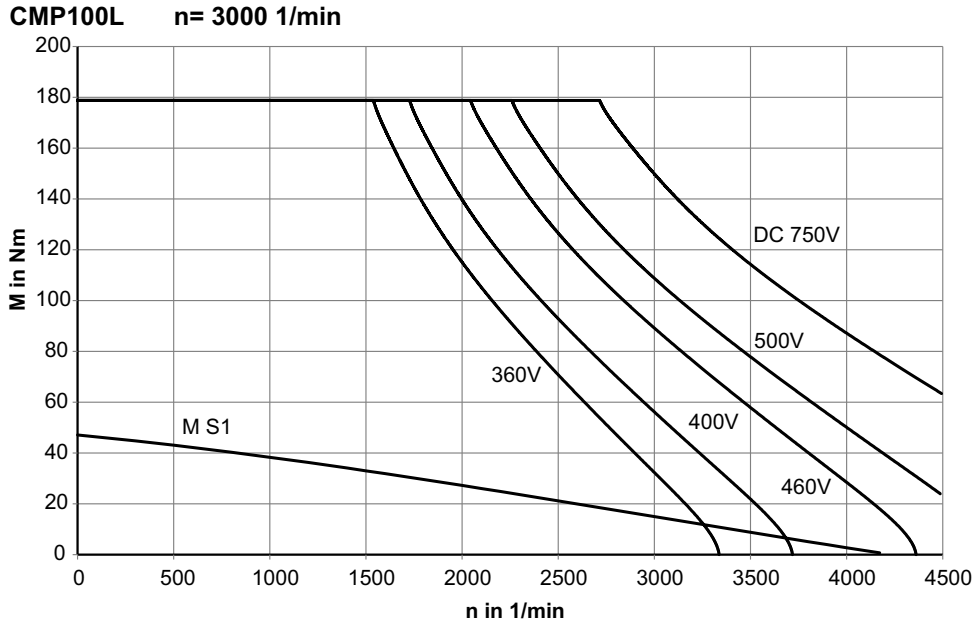
67562axx

Dynamic and thermal limit characteristic curve for CMP100M n_N = 4500 1/min



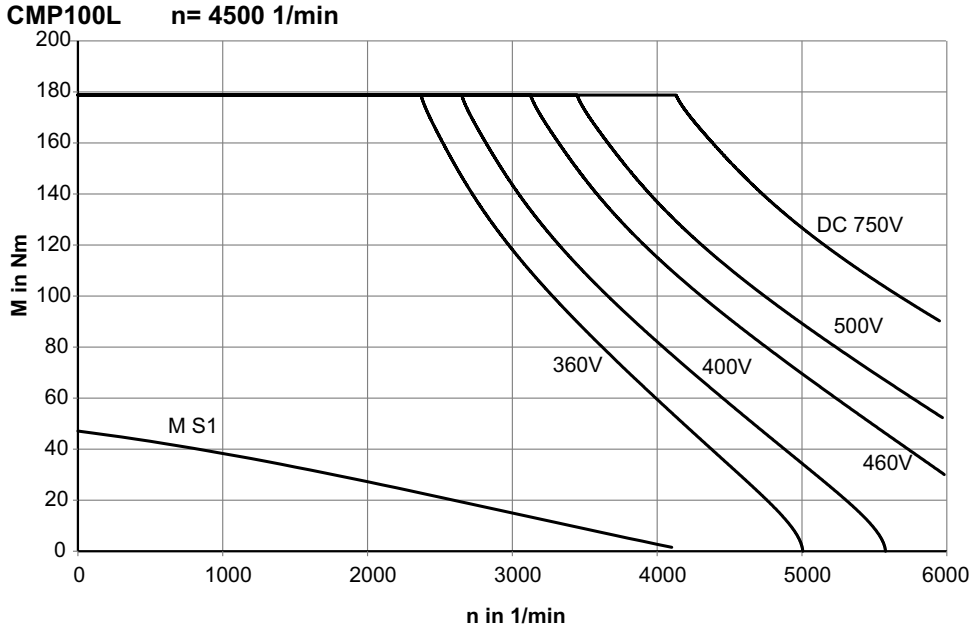
67563axx

Dynamic and thermal limit characteristic curve for CMP100L n_N = 3000 1/min



67559axx

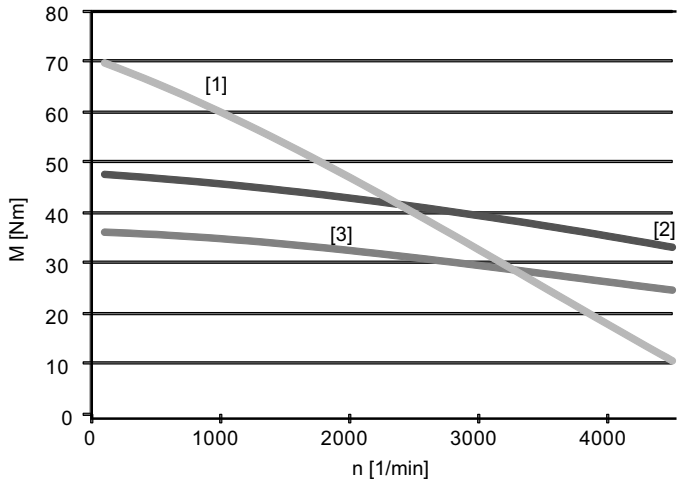
Dynamic and thermal limit characteristic curve for CMP100L n_N = 4500 1/min



67560axx

Thermal limit characteristic curve for CMP100 / VR

ϑ_A = -20 to +40 °C



65774axx

[1] CMP100L / VR

[2] CMP100M / VR

[3] CMP100S / VR

10 CFM Motors – Technical Data

10.1 Key to the data tables

The following table lists the short symbols used in the "Technical Data" table.

n_N	Speed class
M_0	Static torque
I_0	Standstill current
M_{DYN}	Dynamic limit torque of the servomotor
I_{max}	Maximum permitted motor current
M_{0VR}	Static torque with forced cooling fan
I_{0VR}	Standstill current with forced cooling fan
J_{mot}	Mass moment of inertia of the motor
J_{bmot}	Mass moment of inertia of the brake motor
M_{B1}	Standard braking torque
M_{B2}	Reduced braking torque
W_{max1}	Maximum possible braking work with standard braking torque during a maintenance interval
W_{max2}	Maximum possible braking work with reduced braking torque during a maintenance interval
L_1	Inductance of the winding
R_1	Ohmic resistance of the winding
V_{p0}	Internal voltage at 1000 min^{-1}
m_{mot}	Weight of the motor
m_{bmot}	Weight of the brakemotor

10.2 Synchronous CFM servomotors with 400 V system voltage – technical data

n_N	Motor	M_0	I_0	M_{DYN}	I_{max}	M_{0VR}	I_{0VR}	J_{mot}	J_{bmot}	M_{B1}	M_{B2}	W_{max1}	W_{max2}
[1/min]		[Nm]	[A]	[Nm]	[A]	[Nm]	[A]	[10^{-4} kgm^2]		[Nm]		[kJ]	
2000	**CFM71S**	5	2.2	16.5	8.8	7.3	3.2	4.89	6.65	10	5	18	22
	CFM71M	6.5	3	21.5	12	9.4	4.2	6.27	8.03	14	7	15	20
	CFM71L	9.5	4.2	31.4	16.8	13.8	6.1	9.02	10.8	14	10	15	18
	CFM90S	11	4.9	39.6	19.6	16	7.1	17.4	21.2	28	14	17	24
	CFM90M	14.5	6.9	52.2	28	21	10	22.3	26.1	40	20	10.5	19.5
	CFM90L	21	9.9	75.6	40	30.5	14.4	32.1	35.9	40	28	10.5	17
	CFM112S	23.5	10	82.3	40	34	14.5	68.4	84	55	28	32	48
	CFM112M	31	13.5	108.5	54	45	19.6	88.2	104	90	40	18	44
	CFM112L	45	20	157.5	80	65	29	128	143	90	55	18	32
	CFM112H	68	30.5	238.0	122	95	42.5	190	209	90	55	18	32
3000	**CFM71S**	5	3.3	16.5	13.2	7.3	4.8	4.89	6.65	10	5	14	20
	CFM71M	6.5	4.3	21.5	17.2	9.4	6.2	6.27	8.03	14	7	11	18
	CFM71L	9.5	6.2	31.4	25	13.8	9	9.02	10.8	14	10	11	14
	CFM90S	11	7.3	39.6	29	16	10.6	17.4	21.2	28	14	10	20
	CFM90M	14.5	10.1	52.2	40	21	14.6	22.3	26.1	40	20	4.5	15
	CFM90L	21	14.4	75.6	58	30.5	21	32.1	35.9	40	28	4.5	10
	CFM112S	23.5	15	82.3	60	34	22	68.4	84	55	28	18	36
	CFM112M	31	20.5	108.5	82	45	30	88.2	104	90	40	7	32
	CFM112L	45	30	157.5	120	65	44	128	143	90	55	7	18
	CFM112H	68	43	238.0	172	95	60	190	209	90	55	7	18
4500	**CFM71S**	5	4.9	16.5	19.6	7.3	7.2	4.89	6.65	10	5	10	16
	CFM71M	6.5	6.6	21.5	26	9.4	9.6	6.27	8.03	14	7	6	14
	CFM71L	9.5	9.6	31.4	38	13.8	14	9.02	10.8	14	10	6	10
	CFM90S	11	11.1	39.6	44	16	16.2	17.4	21.2	28	14	5	15
	CFM90M	14.5	14.7	52.2	59	21	21.5	22.3	26.1	40	20	3	9
	CFM90L	21	21.6	75.6	86	30.5	31.5	32.1	35.9	40	28	3	5
	CFM112S	23.5	22.5	82.3	90	34	32.5	68.4	84	55	25	11	22
	CFM112M	31	30	108.5	120	45	44	88.2	104	90	40	4	18
	CFM112L	45	46	157.5	184	65	67	128	143	90	55	4	11
	CFM112H	68	66	238.0	264	95	92	190	209	90	55	4	11
6000	**CFM71S**	5	6.5	16.5	26	7.3	9.5	4.89	6.65	-	-	-	-
	CFM71M	6.5	8.6	21.5	34	9.4	12.5	6.27	8.03	-	-	-	-
	CFM71L	9.5	12.5	31.4	50	13.8	18.2	9.02	10.8	-	-	-	-
	CFM90S	11	14.5	39.6	58	16	21	17.4	21.2	-	-	-	-
	CFM90M	14.5	19.8	52.2	79	21	29	22.3	26.1	-	-	-	-
	CFM90L	21	29.5	75.6	118	30.5	43	32.1	35.9	-	-	-	-

n_N	Motor	L_1	R_1	V_{p0}	m_{mot}	m_{bmot}
[1/min]		[mH]	[mΩ]	[V/1000 min^{-1}]	[kg]	
2000	**CFM71S**	52	7090	151	9.5	11.8
	CFM71M	36	4440	148	10.8	13.0
	CFM71L	24	2500	152	13.0	15.3
	CFM90S	18	1910	147	15.7	19.6
	CFM90M	12.1	1180	141	17.8	21.6
	CFM90L	8.4	692	146	21.9	26.5
	CFM112S	10	731	155	26.2	31.8
	CFM112M	7.5	453	153	30.5	36.0
	CFM112L	4.6	240	151	39.3	44.9
	CFM112H	2.6	115	147	54.2	59.8
3000	**CFM71S**	23	3150	101	9.5	11.8
	CFM71M	16	2000	100	10.8	13.0
	CFM71L	11	1120	102	13.0	15.3
	CFM90S	8.1	838	98	15.7	19.6
	CFM90M	5.7	533	96	17.8	21.6
	CFM90L	3.9	324	99	21.9	26.5
	CFM112S	4.6	325	103	26.2	31.8
	CFM112M	3.1	193	99	30.5	36.0
	CFM112L	2	103	101	39.3	44.9
	CFM112H	1.3	57	104	54.2	59.8
4500	**CFM71S**	10	1380	66	9.5	11.8
	CFM71M	6.9	828	64	10.8	13.0
	CFM71L	4.9	446	65	13.0	15.3
	CFM90S	3.45	358	64	15.7	19.6
	CFM90M	2.65	249	65	17.8	21.6
	CFM90L	1.73	148	66	21.9	26.5
	CFM112S	2	149	69	26.2	31.8
	CFM112M	1.5	92	68	30.5	36.0
	CFM112L	0.85	44	66	39.3	44.9
	CFM112H	0.54	24	67	54.2	59.8
6000	**CFM71S**	5.75	780	50	9.5	-
	CFM71M	3.93	493	49	10.8	-
	CFM71L	2.68	277	50	13.0	-
	CFM90S	2.03	212	49	15.7	-
	CFM90M	1.48	136	48	17.8	-
	CFM90L	0.93	77	48	21.9	-

10.3 Synchronous CFM servomotors with 230 V system voltage – technical data

n_N	Motor	M_0	I_0	M_{DYN}	I_{max}	M_{0VR}	I_{0VR}	J_{mot}	J_{bmot}	M_{B1}	M_{B2}	W_{max1}	W_{max2}
[1/min]		[Nm]	[A]	[Nm]	[A]	[Nm]	[A]	[10^{-4} kgm^2]		[Nm]		[kJ]	
2000	**CFM71S**	5	3.95	16.5	15.8	7.3	5.7	4.89	6.65	10	5	18	22
	CFM71M	6.5	5.3	21.5	21	9.4	7.7	6.27	8.03	14	7	15	20
	CFM71L	9.5	7.4	31.4	29.5	13.8	10.7	9.02	10.8	14	10	15	18
	CFM90S	11	8.7	39.6	35	16	12.6	17.4	21.2	28	14	17	24
	CFM90M	14.5	12.1	52.2	48.5	21	17.5	22.3	26.1	40	20	10.5	19.5
	CFM90L	21	17.1	75.6	68	30.5	25	32.1	35.9	40	28	10.5	17
	CFM112S	23.5	18	82.3	72	34	26	68.4	84	55	28	32	48
	CFM112M	31	24.5	108.5	98	45	35.5	88.2	104	90	40	18	44
	CFM112L	45	35.5	157.5	142	65	51	128	143	90	55	18	32
	CFM112H	68	52	238	208	95	73	190	209	90	55	7	18
3000	**CFM71S**	5	5.9	16.5	23.5	7.3	8.6	4.89	6.65	10	5	14	20
	CFM71M	6.5	7.6	21.5	30.5	9.4	11	6.27	8.03	14	7	11	18
	CFM71L	9.5	11.1	31.4	44.5	13.8	16.1	9.02	10.8	14	10	11	14
	CFM90S	11	12.7	39.6	51	16	18.4	17.4	21.2	28	14	10	20
	CFM90M	14.5	17.4	52.2	70	21	25	22.3	26.1	40	20	4.5	15
	CFM90L	21	25.5	75.6	102	30.5	37	32.1	35.9	40	28	4.5	10
	CFM112S	23.5	27	82.3	108	34	39	68.4	84	55	28	18	36
	CFM112M	31	35	108.5	140	45	51	88.2	104	90	40	7	32
	CFM112L	45	48	157.5	192	65	70	128	143	90	55	7	18
	CFM112H	68	73	238	292	95	102	190	209	90	55	7	18
4500	**CFM71S**	5	8.5	16.5	34	7.3	12.3	4.89	6.65	10	5	10	16
	CFM71M	6.5	11.3	21.5	45	9.4	16.4	6.27	8.03	14	7	6	14
	CFM71L	9.5	17.1	31.4	68	13.8	25	9.02	10.8	14	10	6	10
	CFM90S	11	18.9	39.6	76	16	27.5	17.4	21.2	28	14	5	15
	CFM90M	14.5	26	52.2	104	21	37.5	22.3	26.1	40	20	3	9
	CFM90L	21	39	75.6	156	30.5	57	32.1	35.9	40	28	3	5
	CFM112S	23.5	38.5	82.3	154	34	56	68.4	84	55	25	11	22
	CFM112M	31	54	108.5	216	45	78	88.2	104	90	40	4	18
6000	**CFM71S**	5	11.6	16.5	46.5	7.3	16.8	4.89	6.65	-	-	-	-
	CFM71M	6.5	14.1	21.5	56	9.4	20.5	6.27	8.03	-	-	-	-
	CFM71L	9.5	21.5	31.4	86	13.8	31	9.02	10.8	-	-	-	-
	CFM90S	11	23.5	39.6	94	16	34	17.4	21.2	-	-	-	-
	CFM90M	14.5	37	52.2	148	21	54	22.3	26.1	-	-	-	-
	CFM90L	21	51	75.6	204	30.5	74	32.1	35.9	-	-	-	-

n_N	Motor	L_1	R_1	V_{p0}	m_{mot}	m_{bmot}
[1/min]		[mH]	[mΩ]	[V/1000 min^{-1}]	[kg]	
2000	**CFM71S**	16.3	2188	85	9.5	11.8
	CFM71M	11.4	1394	83	10.8	13.0
	CFM71L	7.7	802	86	13.0	15.3
	CFM90S	5.7	593	83	15.7	19.6
	CFM90M	3.95	382	81	17.8	21.6
	CFM90L	2.80	236	85	21.9	26.5
	CFM112S	3.10	225	86	26.2	31.8
	CFM112M	2.25	127	84	30.5	36.0
	CFM112L	1.46	76	85	39.3	44.9
	CFM112H	0.88	38	86	54.2	59.8
3000	**CFM71S**	7.2	973	57	9.5	11.8
	CFM71M	5.2	642	57	10.8	13.0
	CFM71L	3.45	347	57	13.0	15.3
	CFM90S	2.7	271	57	15.7	19.6
	CFM90M	1.91	182	56	17.8	21.6
	CFM90L	1.24	105	56	21.9	26.5
	CFM112S	1.42	100	57	26.2	31.8
	CFM112M	1.08	67	58	30.5	36.0
	CFM112L	0.78	35	63	39.3	44.9
	CFM112H	0.45	20	61	54.2	59.8
4500	**CFM71S**	3.30	449	38	9.5	11.8
	CFM71M	2.35	278	37.5	10.8	13.0
	CFM71L	1.55	149	36.5	13.0	15.3
	CFM90S	1.19	124	37.5	15.7	19.6
	CFM90M	0.84	81	36.5	17.8	21.6
	CFM90L	0.53	48	36.5	21.9	26.5
	CFM112S	0.68	50	40.5	26.2	31.8
	CFM112M	0.465	28	38	30.5	36.0
6000	**CFM71S**	1.80	243	28	9.5	-
	CFM71M	1.47	175	30	10.8	-
	CFM71L	0.91	89	29	13.0	-
	CFM90S	0.77	78	30	15.7	-
	CFM90M	0.42	42	25.5	17.8	-
	CFM90L	0.31	26	28	21.9	-

11 Combinations, Characteristic Curves: CFM – MOVIDRIVE®

11.1 Combination overview: CFM to MOVIDRIVE®, 400 V system voltage

Combination overview of synchronous servomotors / servo controllers for 400 V system voltage, peak torque in Nm

1. Rated speed n_N = 2000 1/min:

Motor		MOVIDRIVE® MDX61B...-5_3 (AC 400/500 V units) in SERVO operating modes (P700)															
		0005	0008	0011	0014	0015	0022	0030	0040	0055	0075	0110	0150	0220	0300	0370	0450
CM71S	M_{max} Nm	8.9	10.5	13.1	15.6	12.7	15.9	16.5									
CM71M	M_{max} Nm	8.6	10.3	13.1	16.2	12.7	16.7	19.8	21.5								
CM71L	M_{max} Nm		10.8	13.9	17.7	13.5	18.2	22.5	28.4	31.4							
CM90S	M_{max} Nm			13.9	17.8	13.4	18.4	23.2	30.6	38.2	39.4						
CM90M	M_{max} Nm				16.8	12.6	17.3	21.9	29.5	38.0	46.9	52.5					
CM90L	M_{max} Nm						17.5	22.2	30.1	39.3	49.6	70.3	75.8				
CM112S	M_{max} Nm						19.3	24.6	33.4	43.6	54.8	76.2	81.9				
CM112M	M_{max} Nm							23.9	32.6	42.9	54.7	79.3	99.6	108.0			
CM112L	M_{max} Nm									42.0	53.9	80.3	104.9	141.5	156.8		
CM112H	M_{max} Nm										53.2	80.1	106.5	150.3	189.2	220.1	237.0

2. Rated speed n_N = 3000 1/min:

Motor		MOVIDRIVE® MDX61B...-5_3 (AC 400/500 V units) in SERVO operating modes (P700)								
		0005	0008	0011	0014	0015	0022	0030	0040	0055
CM71S	M_{max} Nm	6.0	7.2	9.2	11.6	8.9	11.9	14.3	16.5	
CM71M	M_{max} Nm		7.2	9.3	11.9	9.0	12.2	15.1	19.1	21.5
CM71L	M_{max} Nm			9.5	12.2	9.2	12.6	15.9	21.0	26.2
CM90S	M_{max} Nm				12.0	9.0	12.4	15.7	21.2	27.4
CM90M	M_{max} Nm						11.8	15.0	20.4	26.6
CM90L	M_{max} Nm								20.7	27.3
CM112S	M_{max} Nm								22.2	29.3
CM112M	M_{max} Nm									28.2



Motor		MOVIDRIVE® MDX61B...-5_3 (AC 400/500 V units) in SERVO operating modes (P700)								
		0075	0110	0150	0220	0300	0370	0450	0550	0750
CM71L	M_{max} Nm	30.8	31.5							
CM90S	M_{max} Nm	34.0	39.2							
CM90M	M_{max} Nm	33.7	47.8	51.6						
CM90L	M_{max} Nm	34.7	51.1	65.6	75.6					
CM112S	M_{max} Nm	37.4	54.8	69.8	81.9					
CM112M	M_{max} Nm	36.2	54.0	70.7	95.7	108.0				
CM112L	M_{max} Nm	35.8	53.9	71.6	101.0	126.9	147.4	156.8		
CM112H	M_{max} Nm		56.6	75.7	108.6	139.9	167.0	197.1	223.2	237.0

3. Rated speed n_N = 4500 1/min:

Motor		MOVIDRIVE® MDX61B...-5_3 (AC 400/500 V units) in SERVO operating modes (P700)							
		0005	0008	0011	0014	0015	0022	0030	0040
CM71S	M_{max} Nm			6.3	8.1	6.1	8.3	10.4	13.4
CM71M	M_{max} Nm				7.9	5.9	8.1	10.2	13.6
CM71L	M_{max} Nm						8.2	10.4	14.0
CM90S	M_{max} Nm							10.4	14.1
CM90M	M_{max} Nm								14.0

Motor		MOVIDRIVE® MDX61B...-5_3 (AC 400/500 V units) in SERVO operating modes (P700)											
		0055	0075	0110	0150	0220	0300	0370	0450	0550	0750	0900	1100
CM71S	M_{max} Nm	16.1	16.5										
CM71M	M_{max} Nm	17.1	20.3	21.3									
CM71L	M_{max} Nm	18.1	22.5	30.3	31.2								
CM90S	M_{max} Nm	18.4	23.4	33.6	39.2								
CM90M	M_{max} Nm	18.4	23.5	34.6	44.5	52.1							
CM90L	M_{max} Nm	18.2	23.3	34.7	45.8	63.4	75.0						
CM112S	M_{max} Nm	19.5	25.0	37.4	49.2	67.5	81.9						
CM112M	M_{max} Nm		24.6	37.1	49.4	69.6	87.4	101.5	108.0				
CM112L	M_{max} Nm			35	46.8	67.2	86.9	104.1	123.5	140.7	156.8		
CM112H	M_{max} Nm					70.9	92.5	112.1	135.5	157.7	189.4	231.6	237.0

4. Rated speed n_N = 6000 1/min:

Motor		MOVIDRIVE® MDX61B...-5_3 (AC 400/500 V units) in SERVO operating modes (P700)															
		0005	0008	0011	0014	0015	0022	0030	0040	0055	0075	0110	0150	0220	0300	0370	0450
CM71S	M_{max} Nm				6.1	4.6	6.3	8.0	10.6	13.3	15.8	16.5					
CM71M	M_{max} Nm						6.2	7.9	10.6	13.7	16.8	21.3					
CM71L	M_{max} Nm							8.0	10.8	14.1	17.9	25.2	30.7	31.4			
CM90S	M_{max} Nm								10.8	14.2	18.1	26.6	34.2	39.4			
CM90M	M_{max} Nm									13.7	17.5	26.1	34.3	46.9	51.9		
CM90L	M_{max} Nm										17.1	25.6	33.9	48.0	60.9	71.3	75.2



11.2 Combination overview: CFM to MOVIDRIVE®, 230 V system voltage

Combination overview of synchronous servomotors / servo controllers for 230 V system voltage, peak torque in Nm

1. Rated speed n_N = 2000 1/min:

Motor		MOVIDRIVE® MDX61B...-2_3 (AC 230 V units) in SERVO operating modes (P700)								
		0015	0022	0037	0055	0075	0110	0150	0220	0300
CM71S	M_{max} Nm	12.9	14.6	16.5						
CM71M	M_{max} Nm	13.1	15.1	21.4						
CM71L	M_{max} Nm	14.0	16.3	25.6	31.3					
CM90S	M_{max} Nm	13.8	16.2	26.8	38.0	39.6				
CM90M	M_{max} Nm	13.1	15.4	25.8	38.2	48.1	52.0			
CM90L	M_{max} Nm		15.8	26.6	40.0	51.9	70.9	74.9		
CM112S	M_{max} Nm			28.3	42.7	55.1	74.7	81.9		
CM112M	M_{max} Nm			27.4	41.6	54.6	76.8	94.4	108.0	
CM112L	M_{max} Nm				41.7	55.0	79.2	100.2	139.3	156.8
CM112H	M_{max} Nm					56.6	82.2	105.5	153	177.9

2. Rated speed n_N = 3000 1/min:

Motor		MOVIDRIVE® MDX61B...-2_3 (AC 230 V units) in SERVO operating modes (P700)								
		0015	0022	0037	0055	0075	0110	0150	0220	0300
CM71S	M_{max} Nm	9.1	10.6	15.8	16.5					
CM71M	M_{max} Nm	9.3	10.9	17.2	21.5					
CM71L	M_{max} Nm	9.4	11.0	18.2	25.8	31.0	31.4			
CM90S	M_{max} Nm	9.5	11.2	18.7	27.7	35.1	39.5			
CM90M	M_{max} Nm			18.1	27.2	35.3	48.4	52.2		
CM90L	M_{max} Nm			17.9	27.1	35.5	50.5	63.1	75.2	
CM112S	M_{max} Nm			18.8	28.7	37.7	53.4	66.3	81.9	
CM112M	M_{max} Nm				29.1	38.4	55.3	69.9	97.0	108.0
CM112L	M_{max} Nm					40.6	58.9	75.4	108.8	125.9
CM112H	M_{max} Nm						58.4	75.3	111.1	131.1

3. Rated speed n_N = 4500 1/min:

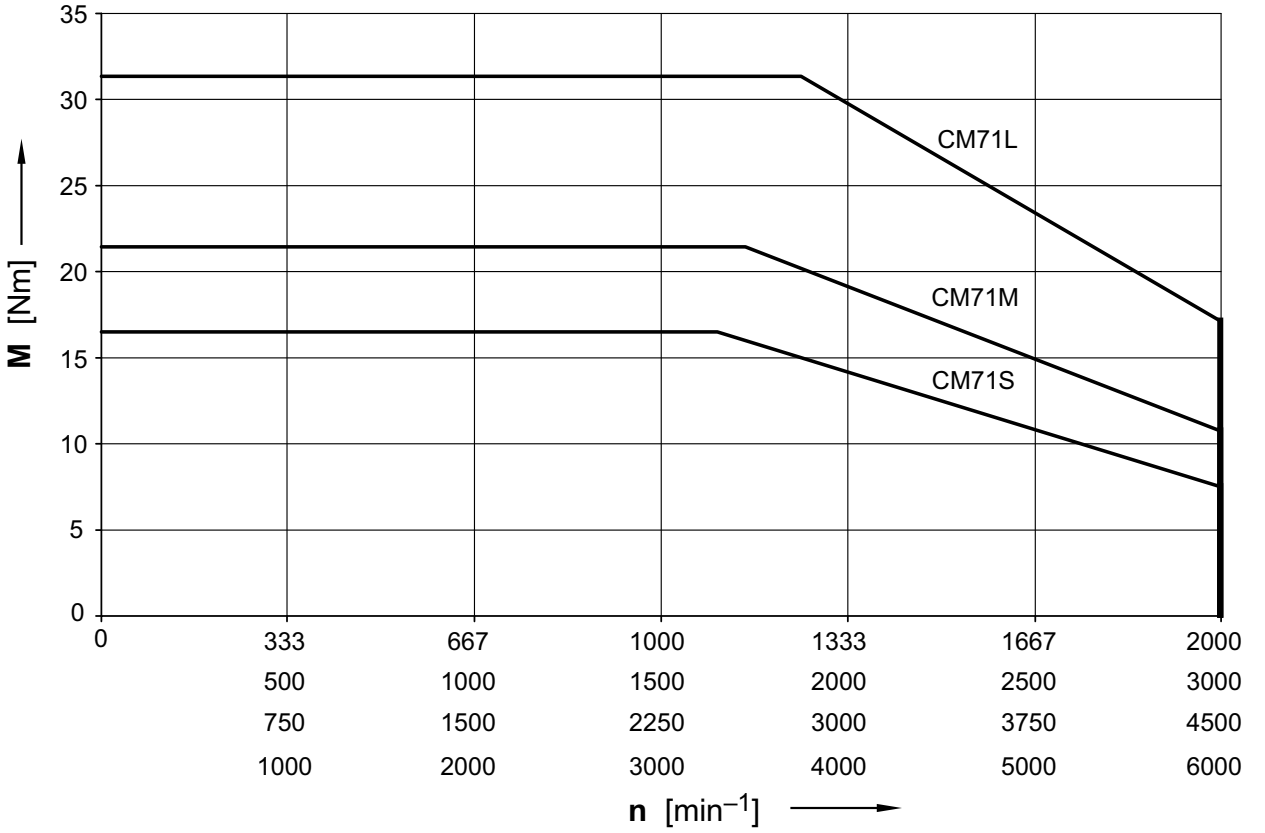
Motor		MOVIDRIVE® MDX61B...-2_3 (AC 230 V units) in SERVO operating modes (P700)								
		0015	0022	0037	0055	0075	0110	0150	0220	0300
CM71S	M_{max} Nm	6.4	7.5	12.1	16.3	16.5				
CM71M	M_{max} Nm	6.3	7.4	12.2	17.4	21.0	21.4			
CM71L	M_{max} Nm		7.2	12.1	17.9	22.8	29.9	31.3		
CM90S	M_{max} Nm			12.6	19.0	24.8	34.4	39.6		
CM90M	M_{max} Nm			12.1	18.3	24.1	34.3	42.8	52.0	
CM90L	M_{max} Nm				17.7	23.4	33.7	42.9	61.4	70.5
CM112S	M_{max} Nm				20.0	26.5	38.2	48.6	68.3	77.7
CM112M	M_{max} Nm					24.8	36.1	46.3	67.4	78.5

4. Rated speed n_N = 6000 1/min:

Motor		MOVIDRIVE® MDX61B...-2_3 (AC 230 V units) in SERVO operating modes (P700)								
		0015	0022	0037	0055	0075	0110	0150	0220	0300
CM71S	M_{max} Nm	4.7	5.6	9.2	13.2	15.9	16.6			
CM71M	M_{max} Nm	5.0	5.9	9.9	14.6	18.2	21.4			
CM71L	M_{max} Nm			9.6	14.5	18.7	25.6	30.3	31.4	
CM90S	M_{max} Nm			10.2	15.4	20.1	28.5	35.3	39.4	
CM90M	M_{max} Nm				12.9	17.0	24.5	31.2	44.3	50.6
CM90L	M_{max} Nm					17.9	25.9	33.1	48.3	56.5

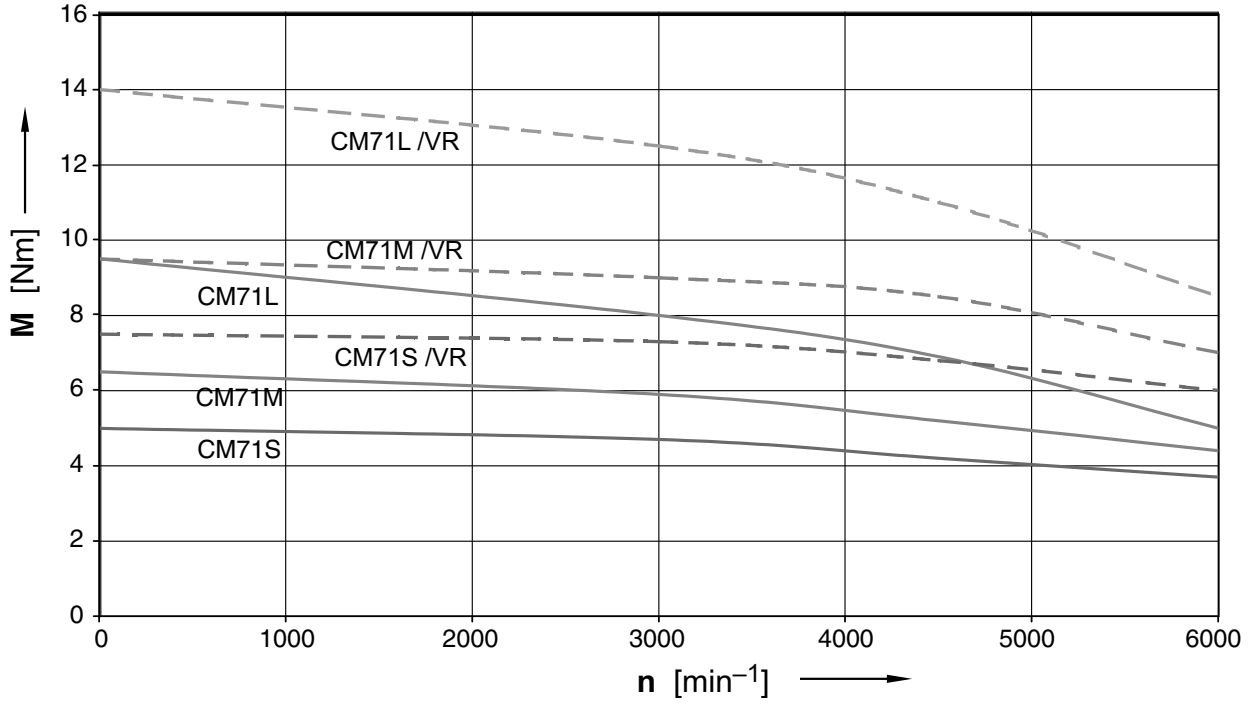
11.3 Dynamic and thermal limit characteristic curves

CFM71 Dynamic limit torques



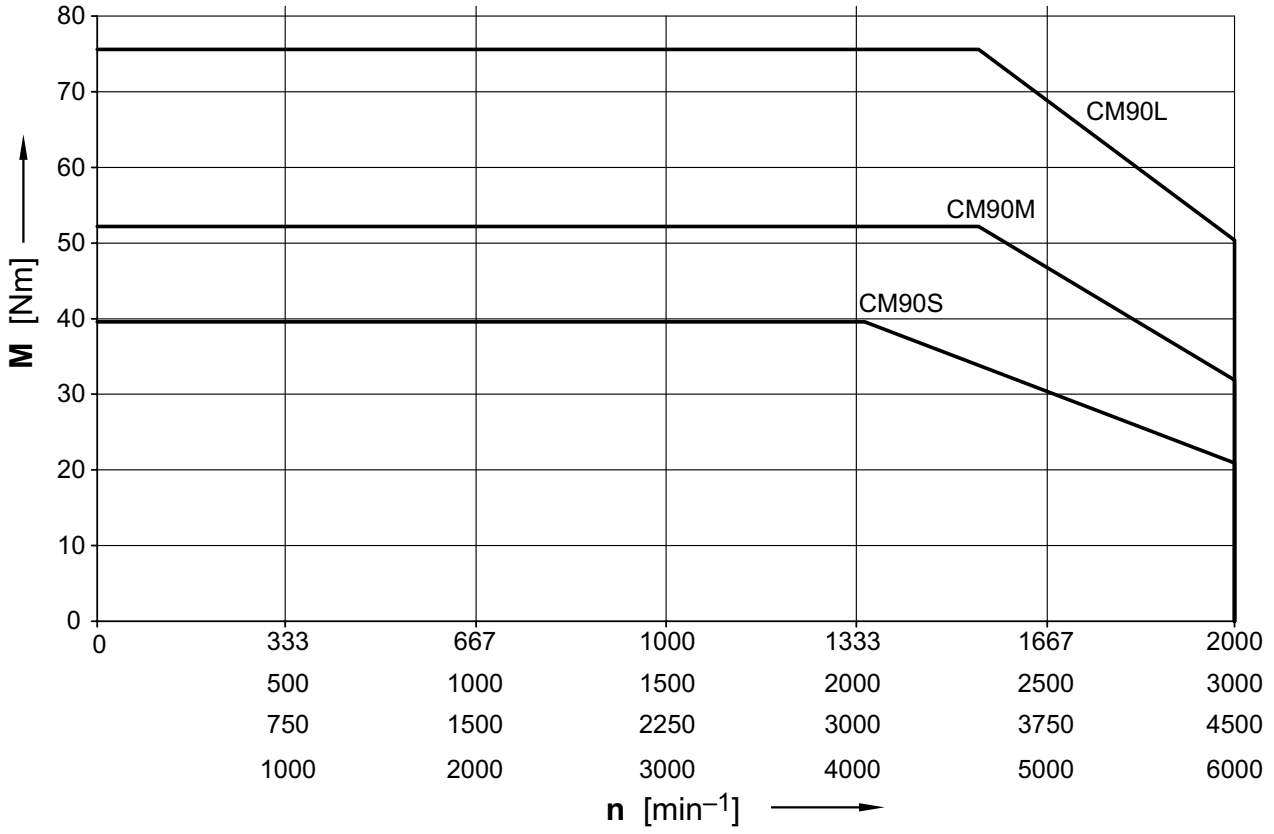
50439AXX

Thermal limit torques



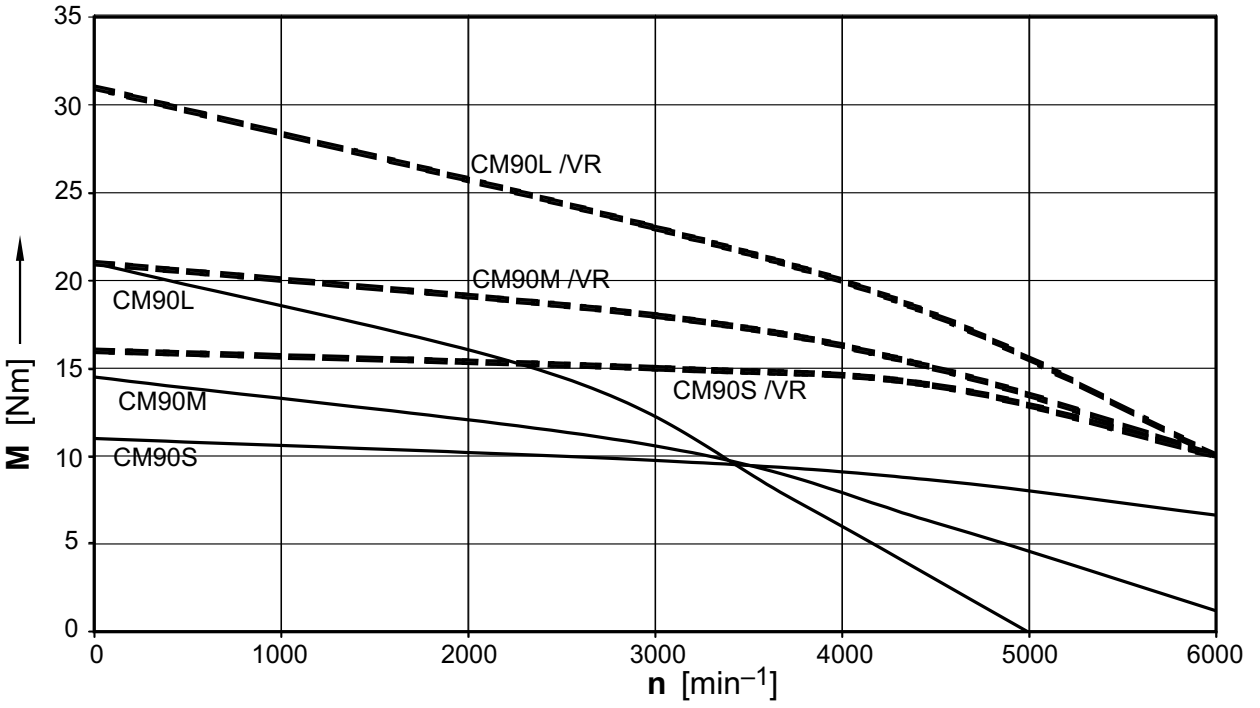
50438BXX

CFM90 Dynamic limit torques



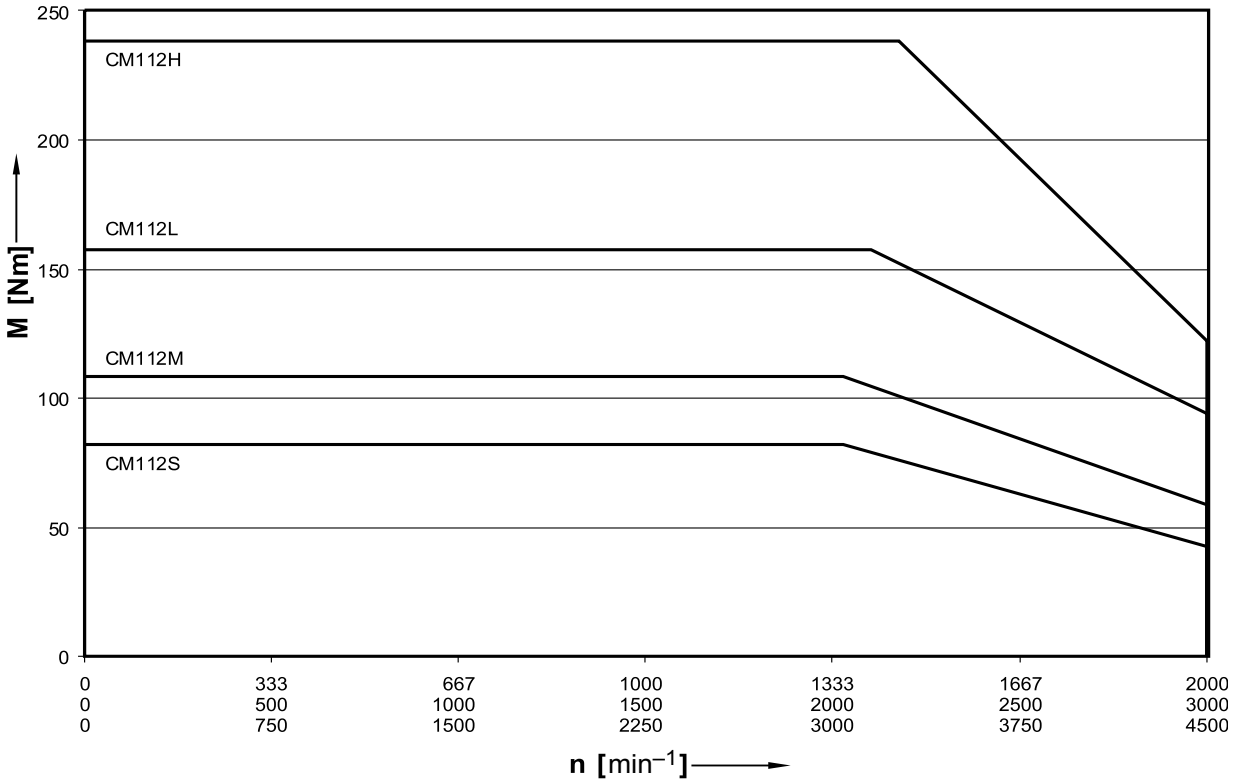
50441BXX

Thermal limit torques



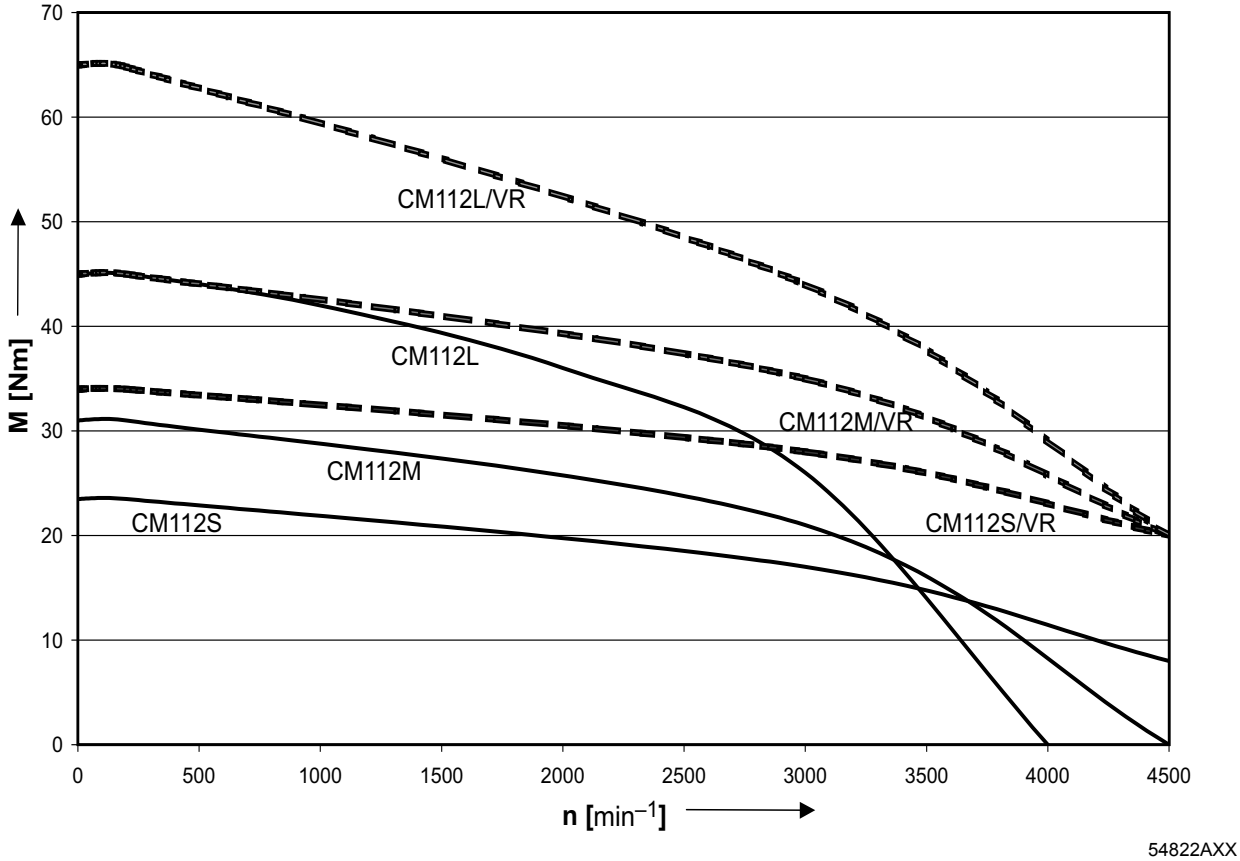
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CFM112 Dynamic limit torques



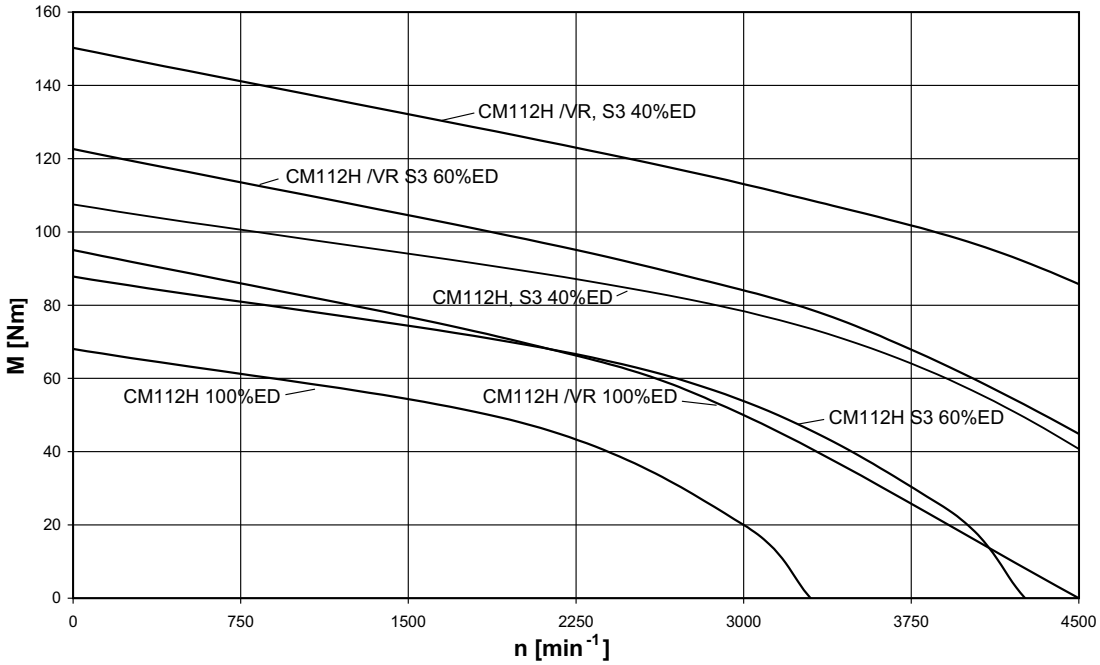
06159AXX

Thermal limit torques for CM112S-L



54822AXX

Thermal limit torques for CM112H



54960AXX



12 Combinations, Characteristic Curves: CFM – MOVIAXIS®

12.1 Combination overview: CFM to MOVIAXIS®, 400 V system voltage

Combination overview of synchronous servomotors / servo controllers for 400 V system voltage, peak torque in Nm

1 Rated speed n_N = 2000 1/min

Motor			Assignment to MOVIAXIS® MXA size									
			1			2		3		4	5	6
Type	I_N	[A]	2	4	8	12	16	24	32	48	64	100
	I_{max}	[A]	5	10	20	30	40	60	80	120	160	250
CM71S	I_{max}	% I_N	250	220								
	M_{max}	Nm	10.9	16.5								
CM71M	I_{max}	% I_N		250	150							
	M_{max}	Nm		19.2	21.5							
CM71L	I_{max}	% I_N		250	210							
	M_{max}	Nm		21.6	31.4							
CM90S	I_{max}	% I_N		250	245							
	M_{max}	Nm		22.1	39.4							
CM90M	I_{max}	% I_N			250	229						
	M_{max}	Nm			40.3	51.8						
CM90L	I_{max}	% I_N			250	250	247					
	M_{max}	Nm			41.8	60.6	75.1					
CM112S	I_{max}	% I_N			250	250	250					
	M_{max}	Nm			46.3	66.3	81.9					
CM112M	I_{max}	% I_N				250	250	225				
	M_{max}	Nm				67.4	86.6	108.0				
CM112L	I_{max}	% I_N					250	250	250			
	M_{max}	Nm					88.7	126.9	156.8			
CM112H	I_{max}	% I_N						250	250	250	191	
	M_{max}	Nm						132.0	171.4	234.4	237.0	



2 Rated speed n_N = 3000 1/min

Motor			Assignment to MOVIAXIS® MXA size									
			1			2		3		4	5	6
Type	I_N	[A]	2	4	8	12	16	24	32	48	64	100
	I_{max}	[A]	5	10	20	30	40	60	80	120	160	250
CM71S	I_{max}	% I_N		250	165							
	M_{max}	Nm		13.8	16.5							
CM71M	I_{max}	% I_N		250	215							
	M_{max}	Nm		14.5	21.5							
CM71L	I_{max}	% I_N			250	208						
	M_{max}	Nm			27.4	31.5						
CM90S	I_{max}	% I_N			250	242						
	M_{max}	Nm			29.1	39.2						
CM90M	I_{max}	% I_N			250	250	250	169				
	M_{max}	Nm			28.3	41.1	51.6	52.0				
CM90L	I_{max}	% I_N				250	250	242				
	M_{max}	Nm				43.1	56.2	75.6				
CM112S	I_{max}	% I_N				250	250	250				
	M_{max}	Nm				46.3	60.1	81.9				
CM112M	I_{max}	% I_N					250	250	250	171		
	M_{max}	Nm					59.7	85.7	106.3	108.0		
CM112L	I_{max}	% I_N						250	250	250		
	M_{max}	Nm						88.7	115.0	156.8		
CM112H	I_{max}	% I_N								250	250	172
	M_{max}	Nm								180.7	225.7	237.0

3 Rated speed n_N = 4500 1/min

Motor			Assignment to MOVIAXIS® MXA size									
			1			2		3		4	5	6
Type	I_N	[A]	2	4	8	12	16	24	32	48	64	100
	I_{max}	[A]	5	10	20	30	40	60	80	120	160	250
CM71S	I_{max}	% I_N		250	245							
	M_{max}	Nm		9.9	16.5							
CM71M	I_{max}	% I_N			250	221						
	M_{max}	Nm			17.9	21.5						
CM71L	I_{max}	% I_N			250	250	241					
	M_{max}	Nm			19.2	26.8	31.5					
CM90S	I_{max}	% I_N				250	250	185				
	M_{max}	Nm				28.7	36.5	39.5				
CM90M	I_{max}	% I_N				250	250	246				
	M_{max}	Nm				29.2	38.1	52.1				
CM90L	I_{max}	% I_N						250	250	179		
	M_{max}	Nm						56.4	71.5	75.2		
CM112S	I_{max}	% I_N						250	250	188		
	M_{max}	Nm						60.1	75.5	81.9		
CM112M	I_{max}	% I_N						250	250	250		
	M_{max}	Nm						61.1	79.3	108.0		
CM112L	I_{max}	% I_N								250	250	184
	M_{max}	Nm								112.9	142.3	156.8
CM112H	I_{max}	% I_N									250	250
	M_{max}	Nm									160.0	228.5

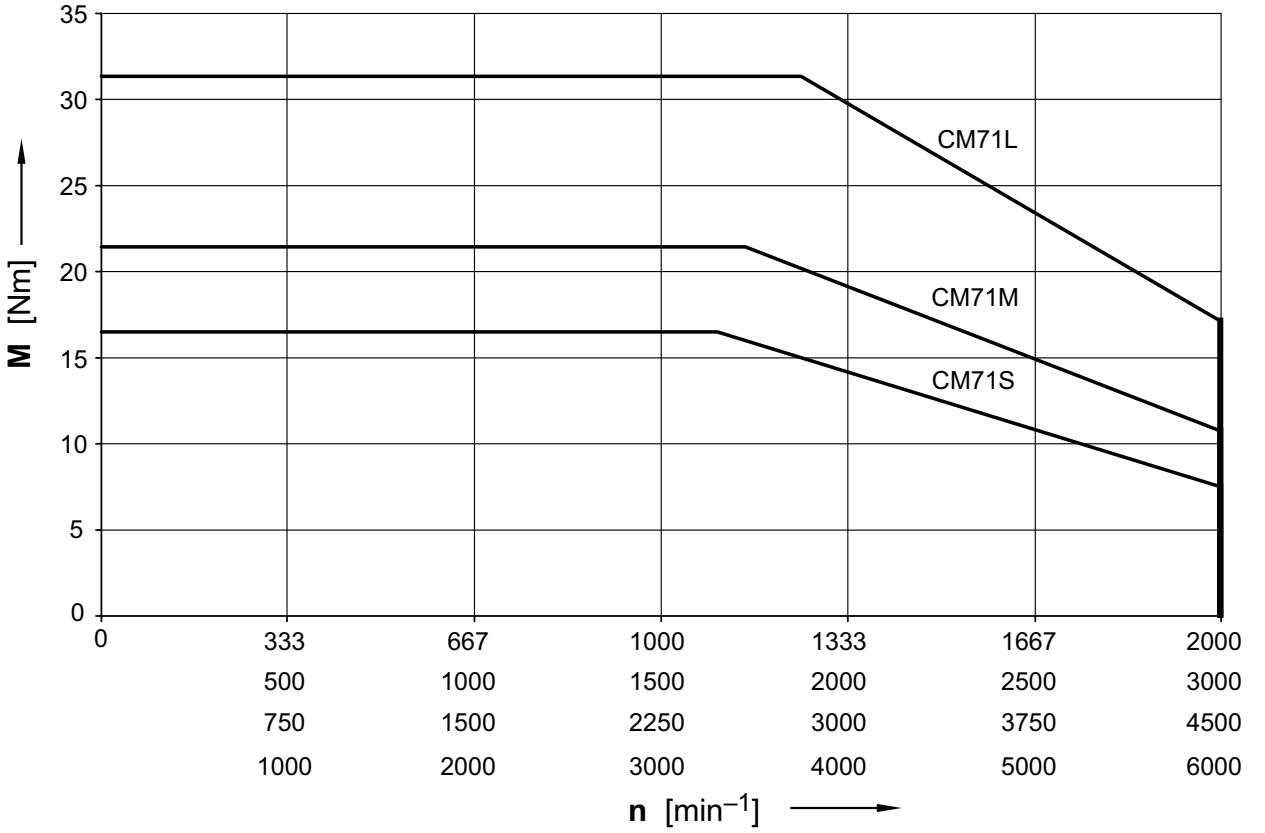


4 Rated speed n_N = 6000 1/min

Motor			Assignment to MOVIAXIS® MXA size									
			1			2		3		4	5	6
Type	I_N	[A]	2	4	8	12	16	24	32	48	64	100
	I_{max}	[A]	5	10	20	30	40	60	80	120	160	250
CM71S	I_{max}	% I_N			250	217						
	M_{max}	Nm			14.0	16.5						
CM71M	I_{max}	% I_N			250	250	216					
	M_{max}	Nm			14.5	19.8	21.5					
CM71L	I_{max}	% I_N				250	250	208				
	M_{max}	Nm				21.8	27.3	31.4				
CM90S	I_{max}	% I_N				250	250	242				
	M_{max}	Nm				22.4	29.2	39.4				
CM90M	I_{max}	% I_N					250	250	247			
	M_{max}	Nm					28.9	41.8	51.9			
CM90L	I_{max}	% I_N						250	250	246		
	M_{max}	Nm						42.1	55.0	75.2		

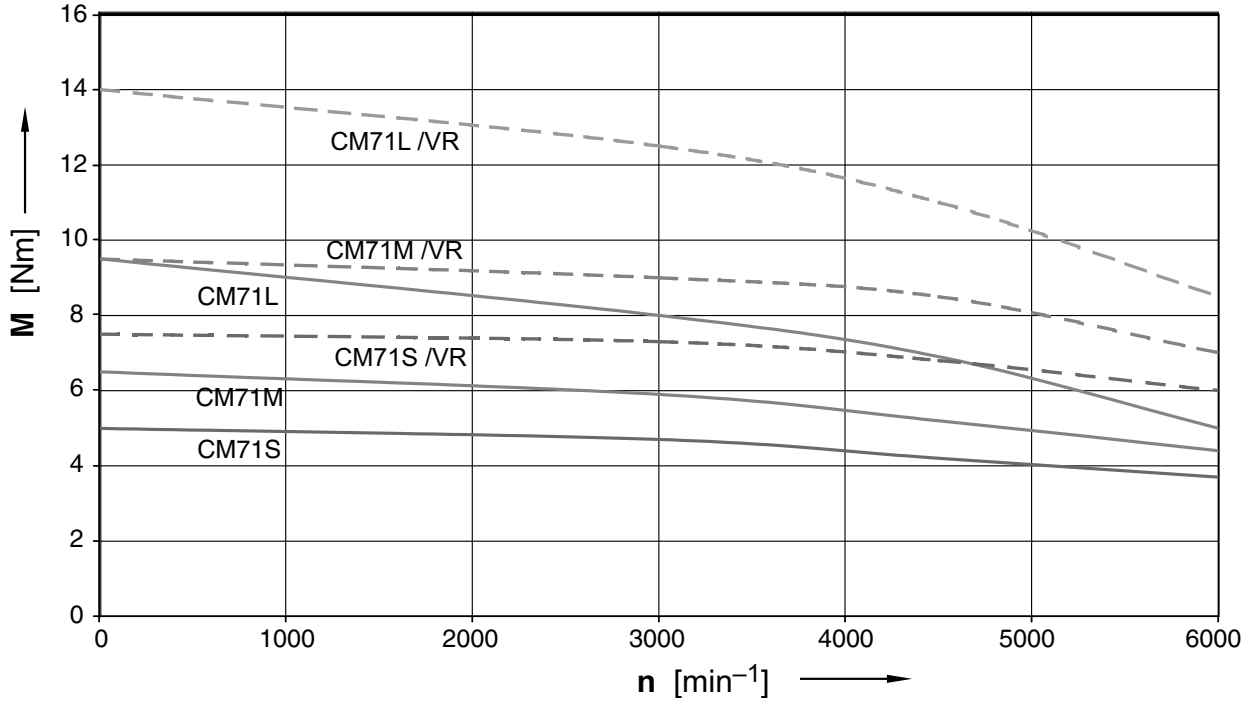
12.2 Dynamic and thermal limit characteristic curves

CFM71 Dynamic limit torques



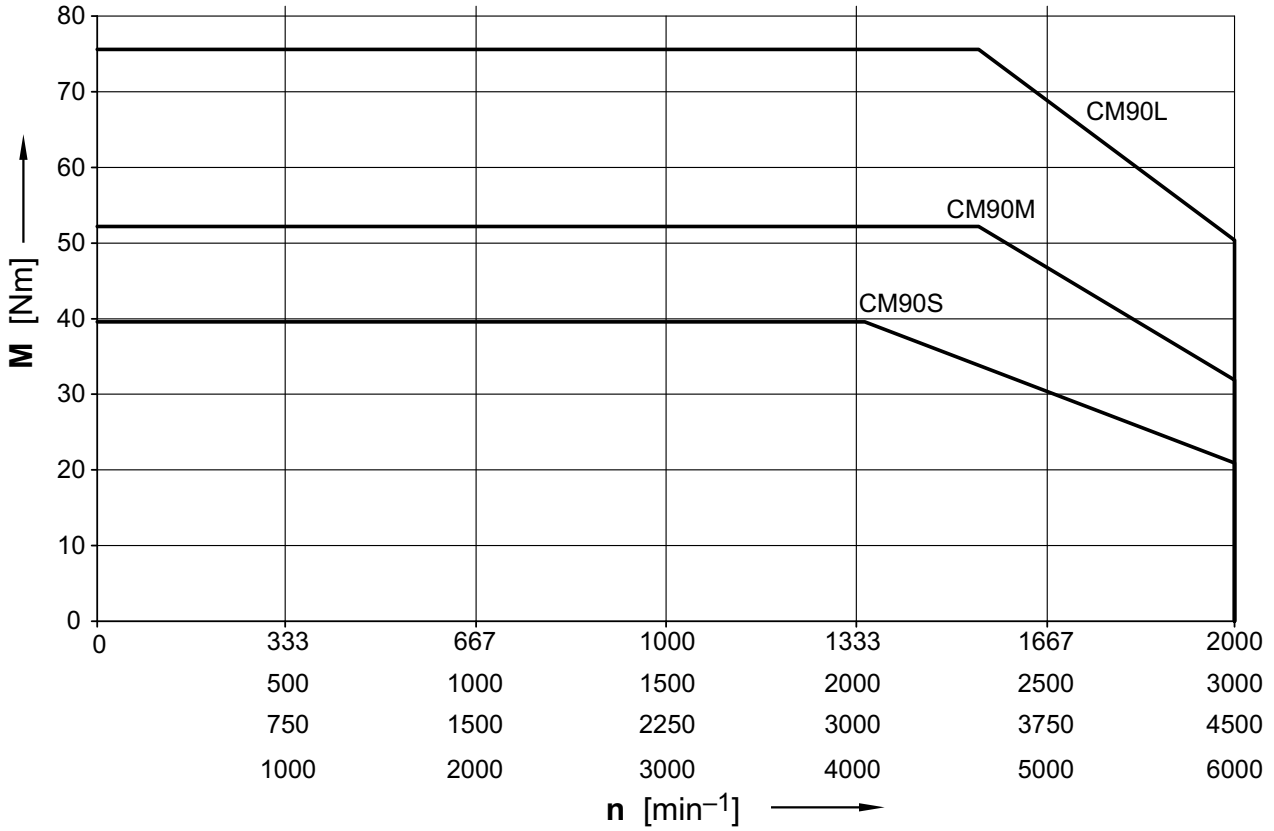
50439AXX

Thermal limit torques



50438BXX

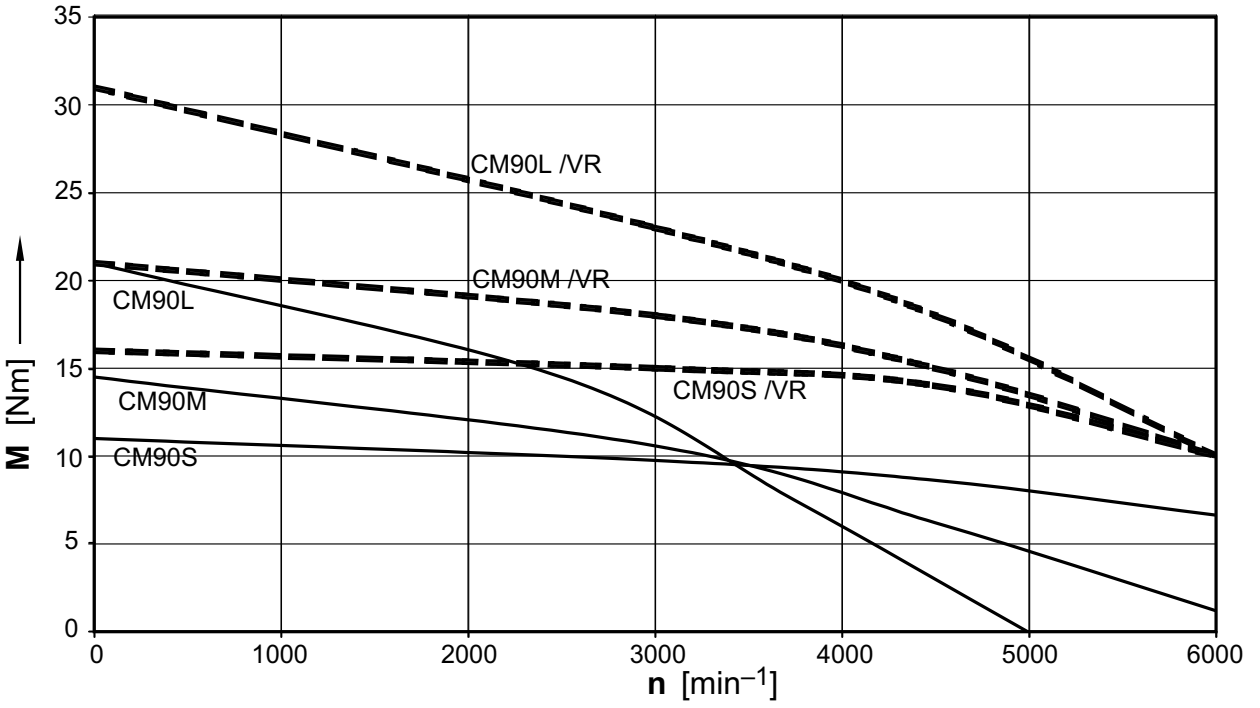
CFM90 Dynamic limit torques



50441BXX

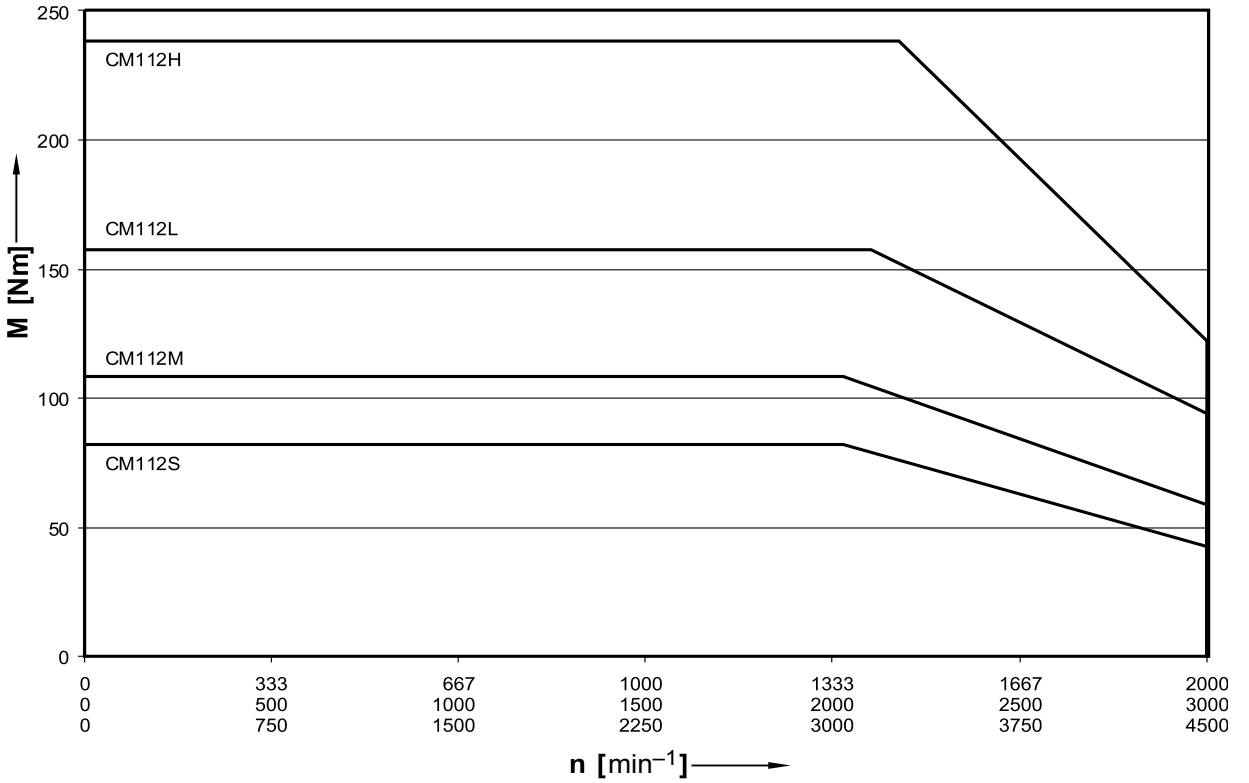
12

Thermal limit torques



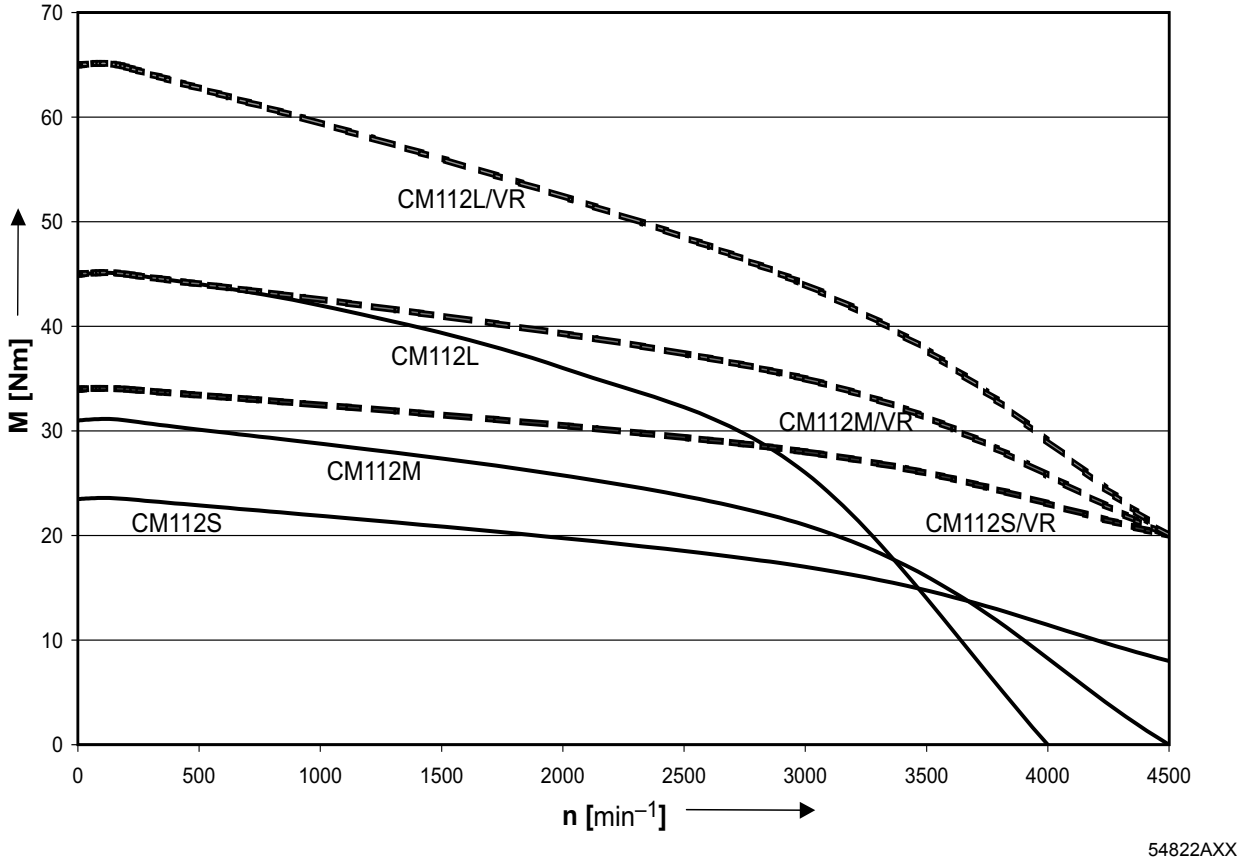
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CFM112 Dynamic limit torques



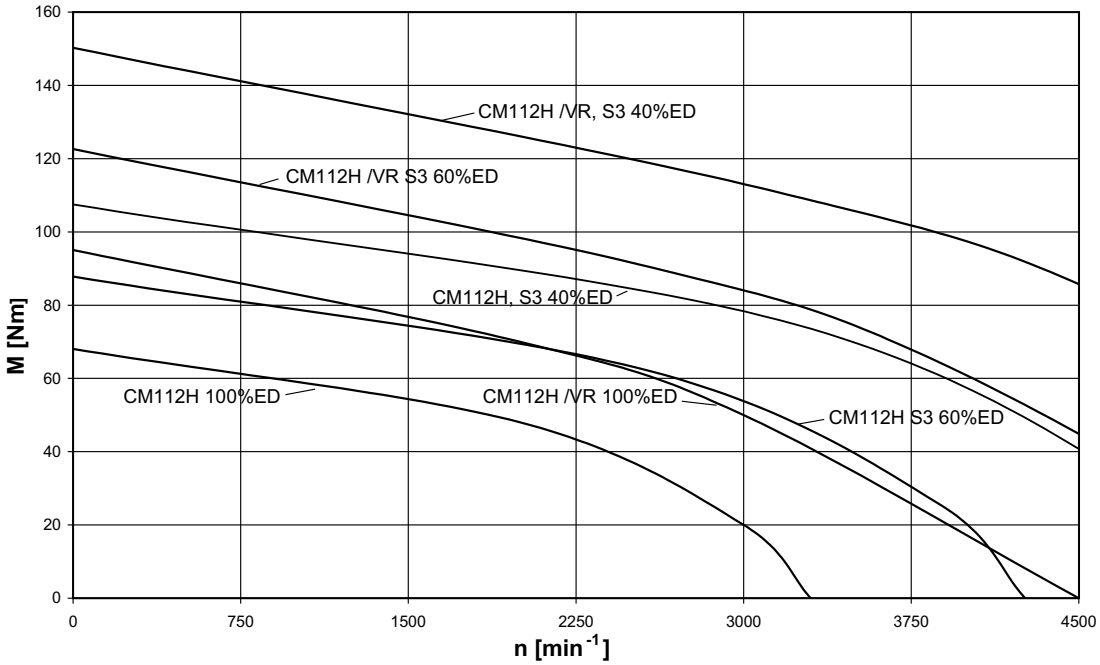
06159AXX

Thermal limit torques for CM112S-L



54822AXX

Thermal limit torques for CM112H



54960AXX










SEW-EURODRIVE
Driving the world

SEW-EURODRIVE GmbH & Co KG
P.O. Box 3023
76642 Bruchsal/Germany
Phone +49 7251 75-0
Fax +49 7251 75-1970
sew@sew-eurodrive.com
→ www.sew-eurodrive.com