



Addendum to the Operating Instructions



DRE..., DRN..., DRU..., EDRE..., EDRN.. AC motors

Technical Information according to Regulation (EU) 2019/1781 and Statutory Instruments (S.I.) 2021 No. 745



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1 Introduction

1.1 Content of this document

This document contains the technical data of 2-, 4-, 6-, and 8-pole DRE.., DRN.., DRU.., EDRE.., and EDRN.. motors according to the specifications of regulation (EU) 2019/1781 and Statutory Instruments (S.I.) 2021 No. 745.

1.2 DR.. series AC motors

The DR.. series AC motors have been released worldwide by SEW-EURODRIVE on January 1, 2008.

In addition to standard and energy-efficient motors, further variants of this series are offered.

- Asynchronous servomotors
- Torque motors
- Single-phase motors with running capacitor
- Explosion-protected motors

The motors are offered for direct mounting to gear units or as stand-alone motor in foot-mounted and/or flange-mounted design in size 56 to 355.

In addition to the length designation K, S, M, and L, there are also the power designations R, Q, P, I, B, and 2 rotor variants which are shown in the type designation:

- C indicates a die-cast copper of the rotor cage: MC and LC
- Permanent magnets in addition to the aluminum rotor cage in the motor with LSPM technology are indicated by the letter "J": SJ, MJ, and LJ.
- The 2nd generation is indicated by the number "2" after "DR" in the type designation.

A great number of design types and options allows for individually designed DR.. series AC motors.

1.2.1 Motor types of the DR.. motor series

The DR.. motor series comprises the following motors:

- **DR.. motor:** 2-, 4-, 6-, and 8-pole energy-efficient motors, each in the DRS.., DR2S.. classes, correspond to International Efficiency class IE1.
 - DRE.. motors correspond to International Efficiency class IE2.
 - DRN.. motors correspond to International Efficiency class IE3.
 - DRU.. motors correspond to International Efficiency class IE4.
- **DR..J motor:** 4-pole motors with LSPM technology in the DRE.. and DRU.. classes. For detailed information on motors with LSPM technology, refer to the "AC Motors DR..71.J DR..100.J with LSPM Technology" catalog.
- **DRL.., DR2L.. motor:** 4-pole asynchronous servomotors
- **EDR.. motor:** 4-pole explosion-protected EDRS.., EDRE.., and EDRN.. motors according to
 - European Directive 2014/34/EU (ATEX): Category 2 and 3
 - International IECEx agreement: EPL b and c
 - North American HazLoc-NA® classification: Class I and class II in division 2
- **DRK.. motor:** 4-pole single-phase motors with running capacitor
- **DRM.., DR2M.. motor:** 8- and 12-pole torque motors
- **DRS.., DR2S.. motor:** 4/2-, 8/4-, 8/2-, and 12/2-pole DRS.., DR2S.. standard motors with 2 nominal speeds

1.2.2 The global motor

Due to the large number of regulations, standards, and laws regarding the efficiency of an AC asynchronous motor which must be observed in the international competition, SEW-EURODRIVE offers a standardized variant which complies with these comprehensive guidelines. This way, SEW-EURODRIVE reduce the materials management of the customers and allows them to completely rely on SEW-EURODRIVE regarding conformity and currentness.

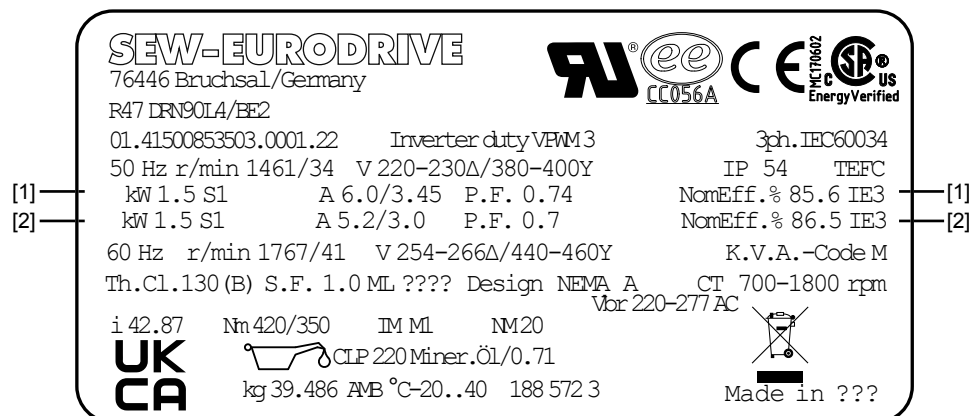
The characteristic feature of the global motor is that the nameplate displays both 50 Hz and 60 Hz specifications as well as marking required by national law in the specific country.

Global motor nameplate

The nameplate of a global motor provides all the information and marking required for use in the specific country. The following nameplate shows a motor that can be used in the following countries:

- Countries of the European Union
- USA
- Canada
- Great Britain
- Countries without further specific requirements

Due to the size of the nameplate and the plenty of information provided on the nameplate, the nominal efficiency at full nominal load (η) and nominal voltage (U_N) is specified (according to regulation (EU) 2019/1781 and S.I. 2021 No. 745). Refer to the catalog for information on the meaning of the other nameplate data.



9007223788991755

Line	Details
[1]	Specified for 50 Hz: • Rated power, operating mode • Rated current • Nominal efficiency • IE class
[2]	Specified for 60 Hz: • Rated power, operating mode • Rated current • Nominal efficiency • IE class

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1.2.3 Type designation of AC motors

The following table shows an example structure of a type designation:

DRN71MSR8/BE03HR/FI/TF	
DR	Product family
N	Labeling of the product line
71MS	Size
R	Power designation
8	Number of poles
/BE03	Brake
HR	Manual brake release
/FI	Output option
/TF	Thermal motor protection

Designation of the motors

Designation	
DRE..	Asynchronous motor, efficiency IE2
EDRE..	Asynchronous motor, explosion-protected, efficiency IE2
EDRN..	Asynchronous motor, explosion-protected, efficiency IE3
DRN..	Asynchronous motor, efficiency IE3
DRU..	Asynchronous motor, efficiency IE4
63 – 355	Nominal sizes: 63, 71, 80, 90, 100, 112, 132, 160, 180, 200, 225, 250, 280, 315, 355
K, S, MK, MS, M, ML, MC, ME, LS, LM, L, LC, H	Lengths
R, Q P, I B	Power designation (identification of motors with the same size but with different power)
2, 4, 6, 8, 4/2, 8/4, 8/2, 12/2	Number of poles

2 Information according to (EU) 2019/1781 and S.I. 2021 No. 745

2.1 IEC motor nameplate

[1]	SEW-EURODRIVE	CE	[1]
[2]	76646 Bruchsal/Germany		[2]
[3]	DRN90L4/FF		[3]
[4]	01.41500853504.0001.21	Inverter duty VFWM3~IEC60034	[4]
[5]	Hz 50 r/min 1461	V 230/400Δ/Y	[5]
[6]	kW 1.5 S1	A 5.9/3.4 IE3	[6]
[7]	Cos φ 0.74	IP 54	[7]
[8]	Th.Kl. 130 (B)	UKCA	[8]
[9]	FF FF 165 D200	WE 24X50	[9]
[10]	IM B3	Jahr 2022	[10]
[11]	kg 22.826	°C -20...40 188 684 3	[11]
		Made in ???	
		9007233245790219	

Line	Information
[1]	- Manufacturer, address - CE marking
[2]	Type designation
[3]	- Serial number - Suitability for inverter operation - Number of phases and underlying rating and performance standards (IEC 60034-X and/or equivalent national standard)
[4]	- Rated frequency - Rated speed - Nominal voltage
[5]	- Rated power, operating mode - Rated current - IE class
[6]	- Power factor for AC motors - Degree of protection according to IEC 60034-5
[7]	- Thermal class - Rated efficiency for motors included in the scope of the IEC 60034-30-1 standard - UKCA marking
[8]	Year of manufacture
[9]	- Foot or flange dimensions - Shaft end - WEEE marking
[10]	Mounting position
[11]	- Mass - Ambient temperature - Part number nameplate - Country of manufacture

The address of SEW-EURODRIVE is printed on the nameplate. You find a detailed address list in chapter "Appendix" (→ 52).

2.2 Year of manufacture

The year of manufacture is part of the serial number [3] on the nameplate.

01.	74290390	09.	0001.	21
Sales Organization	Order number (8-digit)	Order item (2-digit)	Sequence number of the quantity (4-digit)	Final digits of the year of manufacture (2-digit)

In this case, the year of manufacture is 2021.

2.3 Operating conditions

The technical data printed on the nameplate and in the following tables are based on the following definitions:

- Installation altitude: Maximum 1000 m above sea level
- Ambient air temperature: -20 °C to +40 °C
- Maximum operating temperature: According to thermal class 130 (B), exception DRN355M.4 (according to thermal class 150 (F))
- Potentially explosive atmospheres: only EDRE.. and EDRN

3 Technical motor data according to (EU) 2019/1781 and S.I. 2021 No. 745

3.1 Key to the motor data

The data is numbered consecutively from 1 to 13 in accordance with annex 1, paragraph 2 of regulation (EU) 2019/1781 and S.I. 2021 No. 745. The technical data of therefore numbered in the following tables.

- | | |
|--------|--|
| No. 1 | Efficiency levels at 100%, 75%, 50% nominal load, nominal voltage |
| No. 2 | IE class |
| No. 3 | Manufacturer name and address |
| No. 4 | Demo unit number |
| No. 5 | Number of poles |
| No. 6 | Output power |
| No. 7 | Input frequency |
| No. 8 | Nominal voltage |
| No. 9 | Nominal speed |
| No. 10 | Phases |
| No. 11 | Operating conditions: <ul style="list-style-type: none"> • a) Height above sea level • b) Minimum and maximum ambient temperature • c) Temperature of cooling liquid at the inlet • d) Maximum operating temperature • e) Potentially explosive atmospheres |
| No. 12 | If necessary, reason for exception from the efficiency regulation (see chapter "Excluded motors according to article 2 paragraph 2" (→ 51)) |

From July 1, 2022:

- | | |
|--------|---|
| No. 13 | <p>Power losses must also be specified as a percentage (%) of the nominal output for the following operating points (rotational speed vs. torque):</p> <p>(25;25) (25;100) (50;25) (50;50) (50;100) (90;50) (90;100), determined for an ambient reference temperature of 25 °C, rounded to the first decimal place;</p> <p>If the motor is not suitable for operation at any of the above-mentioned operating points (rotational speed vs. torque), "n. a." or "not applicable" must be indicated for these points.</p> |
|--------|---|

3.2 Voltages

The specifications in the technical data of no. 1 and 9 are shown with a reference to this table in this chapter.

The following voltage designs are available.

Voltage	Frequency
230 V / 400 V	50 Hz
400 V / 690 V	50 Hz
220 V – 240 V / 380 V – 420 V	50 Hz
380 V – 420 V / 660 V – 720 V	50 Hz
230 V / 380 V	60 Hz
254 V / 440 V	60 Hz
266 V / 460 V	60 Hz
380 V / –	60 Hz
440 V / –	60 Hz
460 V / –	60 Hz
220 V – 240 V / 380 V – 420 V	50 Hz
254 V – 277 V / 440 V – 480 V	60 Hz
380 V – 420 V / 660 V – 720 V	50 Hz
440 V – 480 V / ---	60 Hz

3.3 IE2 motors

3.3.1 4-pole motors in 50 Hz

No. 1				No. 2	No. 3	No. 4	No. 5	No. 6	No. 7	No. 8	No. 9	No. 10	No. 11
$\eta_{100\%}$	$\eta_{75\%}$	$\eta_{50\%}$											
%	%	%	V					kW	Hz	V	min ⁻¹		
76.7	76.0	71.9	¹⁾	IE2	²⁾	DRE 80S 4	4	0.25	¹⁾	¹⁾	1440	3~	³⁾
78.8	78.5	76.5	¹⁾	IE2	²⁾	DRE 80S 4	4	0.37	¹⁾	¹⁾	1435	3~	³⁾
82.3	82.0	79.7	¹⁾	IE2	²⁾	DRE 80M 4	4	0.55	¹⁾	¹⁾	1445	3~	³⁾

1) See chapter 3.2

2) See chapter 2.1

3) See chapter 2.3

No. 13: Power losses in %

Motor	Nominal power	25;25	25;100	50;25	50;50	50;100	90;50	90;100
	kW							
DRE 80S 4	0.25	16.7	35.6	19.7	23.7	39	31.3	47.6
DRE 80S 4	0.37	13.6	30.4	15.6	19.2	32.8	24.5	38.9
DRE 80M 4	0.55	10.7	24.2	12.3	15.3	26.2	19.3	30.7

3.3.2 4-pole motors in 60 Hz

No. 1				No. 2	No. 3	No. 4	No. 5	No. 6	No. 7	No. 8	No. 9	No. 10	No. 11
$\eta_{100\%}$	$\eta_{75\%}$	$\eta_{50\%}$	V					kW	Hz	V	min ⁻¹		
%	%	%											
76.9	75.1	71.0	¹⁾	IE2	²⁾	DRE 80S 4	4	0.25	¹⁾	¹⁾	1750	3~	³⁾
80.0	78.6	76.6	¹⁾	IE2	²⁾	DRE 80S 4	4	0.37	¹⁾	¹⁾	1750	3~	³⁾
83.4	82.5	79.9	¹⁾	IE2	²⁾	DRE 80M 4	4	0.55	¹⁾	¹⁾	1750	3~	³⁾

1) See chapter 3.2

2) See chapter 2.1

3) See chapter 2.3

No. 13: Power losses in %

Motor	Nominal power	25;25	25;100	50;25	50;50	50;100	90;50	90;100
	kW							
DRE 80S 4	0.25	16.9	31	20.8	24	35.6	35	47.6
DRE 80S 4	0.37	14.1	27.2	16.9	19.7	30.5	27.2	38.9
DRE 80M 4	0.55	10.8	22.2	12.9	15.3	24.7	20.7	30.7

3.3.3 4-pole global motors in 50/60 Hz

No. 1				No. 2	No. 3	No. 4	No. 5	No. 6	No. 7	No. 8	No. 9	No. 10	No. 11
$\eta_{100\%}$	$\eta_{75\%}$	$\eta_{50\%}$	V					kW	Hz	V	min ⁻¹		
%	%	%											
78.8	78.5	76.5	¹⁾	IE2	²⁾	DRE 80S 4	4	0.37	¹⁾	¹⁾	1435	3~	³⁾
80.5	80.2	78.2									1740		
82.3	82.0	79.7	¹⁾	IE2	²⁾	DRE 80M 4	4	0.55	¹⁾	¹⁾	1445	3~	³⁾
83.4	82.2	80.1									1755		

1) See chapter 3.2

2) See chapter 2.1

3) See chapter 2.3

No. 13: Power losses in % for 50 Hz

Motor	Nominal power	25;25	25;100	50;25	50;50	50;100	90;50	90;100
	kW							
DRE 80S 4	0.37	13.5	30.9	15.4	19.1	33.3	24	38.9
DRE 80M 4	0.55	10.7	24.3	12.3	15.3	26.2	19.2	30.7

No. 13: Power losses in % for 60 Hz

Motor	Nominal power	25;25	25;100	50;25	50;50	50;100	90;50	90;100
	kW							
DRE 80S 4	0.37	8.9	28	11.3	15.4	31	22.1	38.9
DRE 80M 4	0.55	6.9	22.1	8.9	12.1	24.6	17.3	30.7

3.3.4 6-pole motors in 50 Hz

No. 1				No. 2	No. 3	No. 4	No. 5	No. 6	No. 7	No. 8	No. 9	No. 10	No. 11
$\eta_{100\%}$	$\eta_{75\%}$	$\eta_{50\%}$	V					kW	Hz	V	min ⁻¹		
%	%	%											
68.8	70.0	64.8	¹⁾	IE2	²⁾	DRE 71M 6	6	0.25	¹⁾	¹⁾	910	3~	³⁾
71.5	71.2	67.2	¹⁾	IE2	²⁾	DRE 80S 6	6	0.37	¹⁾	¹⁾	935	3~	³⁾
74.0	74.0	70.5	¹⁾	IE2	²⁾	DRE 80M 6	6	0.55	¹⁾	¹⁾	935	3~	³⁾

1) See chapter 3.2

2) See chapter 2.1

3) See chapter 2.3

No. 13: Power losses in %

Motor	Nominal power	25;25	25;100	50;25	50;50	50;100	90;50	90;100
	kW							
DRE 71M 6	0.25	29	56.6	31	36.6	58.8	42	64.5
DRE 80S 6	0.37	19.3	44.7	20.6	25.7	46.1	29.1	49.6
DRE 80M 6	0.55	19	35.7	20	23.4	36.8	25.7	39.3

3.3.5 6-pole global motors in 50/60 Hz

No. 1				No. 2	No. 3	No. 4	No. 5	No. 6	No. 7	No. 8	No. 9	No. 10	No. 11
$\eta_{100\%}$	$\eta_{75\%}$	$\eta_{50\%}$	V					kW	Hz	V	min ⁻¹		
%	%	%											
68.8 72.0	70.0 71.0	64.8 66.0	¹⁾	IE2	²⁾	DRE 71M 6	6	0.25	¹⁾	¹⁾	910 1130	3~	³⁾
71.5 74.5	71.2 73.0	67.2 69.0	¹⁾	IE2	²⁾	DRE 80S 6	6	0.37	¹⁾	¹⁾	935 1145	3~	³⁾
74.0 77.0	74.0 76.5	70.5 73.0	¹⁾	IE2	²⁾	DRE 80M 6	6	0.55	¹⁾	¹⁾	935 1145	3~	³⁾

1) See chapter 3.2

2) See chapter 2.1

3) See chapter 2.3

No. 13: Power losses in % for 50 Hz

Motor	Nominal power	25;25	25;100	50;25	50;50	50;100	90;50	90;100
	kW							
DRE 71M 6	0.25	29	56.6	31	36.6	58.8	42	64.5
DRE 80S 6	0.37	19.3	44.7	20.6	25.7	46.1	29.1	49.6
DRE 80M 6	0.55	19	35.7	20	23.4	36.8	25.7	39.3

No. 13: Power losses in % for 60 Hz

Motor	Nominal power	25;25	25;100	50;25	50;50	50;100	90;50	90;100
	kW							
DRE 71M 6	0.25	30.9	53.5	33.9	38.4	56.6	45.9	64.5
DRE 80S 6	0.37	21.4	42	23.5	27.6	44.1	33	49.6
DRE 80M 6	0.55	18.2	33	19.6	22.6	34.5	26	38.1

3.3.6 Explosion-protected motors

2G, 2GD in 50 Hz

No. 1				No. 2	No. 3	No. 4	No. 5	No. 6	No. 7	No. 8	No. 9	No. 10	No. 11
$\eta_{100\%}$	$\eta_{75\%}$	$\eta_{50\%}$	V										
%	%	%	V					kW	Hz	V	min ⁻¹		
81.9	81.2	77.7	1)	IE2	2)	EDRE 80M 4	4	0.55	1)	1)	1450	3~	3)
81.0	81.3	79.2	1)	IE2	2)	EDRE 80M 4	4	0.75	1)	1)	1435	3~	3)
82.4	83.5	82.5	1)	IE2	2)	EDRE 90M 4	4	1.1	1)	1)	1420	3~	3)
84.0	84.7	83.5	1)	IE2	2)	EDRE 90L 4	4	1.5	1)	1)	1430	3~	3)
85.4	86.7	86.3	1)	IE2	2)	EDRE 100M 4	4	2.2	1)	1)	1425	3~	3)
87.1	87.5	85.8	1)	IE2	2)	EDRE 100L 4	4	2.2	1)	1)	1435	3~	3)
86.3	87.1	86.3	1)	IE2	2)	EDRE 100LC 4	4	3	1)	1)	1455	3~	3)
86.5	87.4	87.7	1)	IE2	2)	EDRE 112M 4	4	3	1)	1)	1455	3~	3)
87.4	88.2	87.6	1)	IE2	2)	EDRE 132S 4	4	4	1)	1)	1460	3~	3)
88.5	89.6	89.8	1)	IE2	2)	EDRE 132M 4	4	5.5	1)	1)	1455	3~	3)
89.3	90.3	90.3	1)	IE2	2)	EDRE 160S 4	4	7.5	1)	1)	1460	3~	3)
90.0	90.7	90.4	1)	IE2	2)	EDRE 160M 4	4	9.2	1)	1)	1470	3~	3)
90.2	90.4	89.5	1)	IE2	2)	EDRE 180S 4	4	11	1)	1)	1470	3~	3)
91.0	91.5	90.9	1)	IE2	2)	EDRE 180M 4	4	15	1)	1)	1470	3~	3)
91.7	92.0	91.4	1)	IE2	2)	EDRE 180L 4	4	18.5	1)	1)	1475	3~	3)
92.6	92.8	92.0	1)	IE2	2)	EDRE 200L 4	4	22	1)	1)	1480	3~	3)
93.1	93.5	93.1	1)	IE2	2)	EDRE 225S 4	4	30	1)	1)	1480	3~	3)
93.0	93.5	93.3	1)	IE2	2)	EDRE 225M 4	4	37	1)	1)	1480	3~	3)

1) See chapter 3.2

2) See chapter 2.1

3) See chapter 2.3

No. 13: Power losses in %

Motor	Nominal power	25;25	25;100	50;25	50;50	50;100	90;50	90;100
	kW							
EDRE 80M 4	0.55	11.7	23.8	13.5	16.2	25.8	20.5	30.7
EDRE 80M 4	0.75	8.5	21.7	9.7	12.4	23.2	15.2	26.5
EDRE 90M 4	1.1	6	19.8	6.8	9.6	20.9	11.9	23.6
EDRE 90L 4	1.5	5.8	18	6.6	9.1	19	11.1	21.5
EDRE 100M 4	2.2	5.1	17.7	5.8	8.4	18.6	10.1	20.8
EDRE 100L 4	2.2	5.6	15.9	6.4	8.6	17	10.4	19.3
EDRE 100LC 4	3	5	14.6	5.7	7.7	15.5	9.2	17.6
EDRE 112M 4	3	4.1	14.3	4.7	6.8	15.3	8.2	17.6
EDRE 132S 4	4	3.9	12.4	4.7	6.4	13.5	8.1	16
EDRE 132M 4	5.5	3	11.2	3.6	5.2	12.2	6.7	14.5
EDRE 160S 4	7.5	2.8	10.3	3.3	4.8	11.2	6.3	13.3
EDRE 160M 4	9.2	3.1	9.3	3.6	4.9	10.2	6.3	12.4
EDRE 180S 4	11	2.7	8.3	3.4	4.5	9.3	6.5	11.8
EDRE 180M 4	15	2.4	7.8	2.9	4	8.6	5.6	10.7
EDRE 180L 4	18.5	2.1	7.4	2.7	3.7	8.1	5.1	10
EDRE 200L 4	22	2.4	6.6	3	3.8	7.4	5.4	9.5
EDRE 225S 4	30	2	6.1	2.4	3.3	6.8	4.5	8.6
EDRE 225M 4	37	2	5.8	2.4	3.2	6.5	4.3	8.2

2G, 2GD in 60 Hz

No. 1				No. 2	No. 3	No. 4	No. 5	No. 6	No. 7	No. 8	No. 9	No. 10	No. 11
$\eta_{100\%}$	$\eta_{75\%}$	$\eta_{50\%}$	V										
%	%	%						kW	Hz	V	min ⁻¹		
82.9	82.0	78.6	¹⁾	IE2	²⁾	EDRE 80M 4	4	0.55	¹⁾	¹⁾	1750	3~	³⁾
83.5	83.3	80.8	¹⁾	IE2	²⁾	EDRE 80M 4	4	0.75	¹⁾	¹⁾	1735	3~	³⁾
84.0	83.4	80.5	¹⁾	IE2	²⁾	EDRE 90M 4	4	1.1	¹⁾	¹⁾	1720	3~	³⁾
86.4	86.5	85.2	¹⁾	IE2	²⁾	EDRE 90L 4	4	1.5	¹⁾	¹⁾	1730	3~	³⁾
88.3	88.8	87.9	¹⁾	IE2	²⁾	EDRE 100L 4	4	2.2	¹⁾	¹⁾	1735	3~	³⁾
88.0	88.5	87.3	¹⁾	IE2	²⁾	EDRE 100LC 4	4	3	¹⁾	¹⁾	1755	3~	³⁾
88.3	88.6	88.0	¹⁾	IE2	²⁾	EDRE 112M 4	4	3	¹⁾	¹⁾	1755	3~	³⁾
88.3	88.5	87.9	¹⁾	IE2	²⁾	EDRE 132S 4	4	4	¹⁾	¹⁾	1760	3~	³⁾
89.9	89.9	90.0	¹⁾	IE2	²⁾	EDRE 132M 4	4	5.5	¹⁾	¹⁾	1755	3~	³⁾
90.0	90.5	89.8	¹⁾	IE2	²⁾	EDRE 160S 4	4	7.5	¹⁾	¹⁾	1760	3~	³⁾
90.6	91.1	90.7	¹⁾	IE2	²⁾	EDRE 160M 4	4	9.2	¹⁾	¹⁾	1770	3~	³⁾
91.6	91.5	90.2	¹⁾	IE2	²⁾	EDRE 180S 4	4	11	¹⁾	¹⁾	1770	3~	³⁾
92.3	92.4	91.5	¹⁾	IE2	²⁾	EDRE 180M 4	4	15	¹⁾	¹⁾	1770	3~	³⁾
93.0	92.9	91.8	¹⁾	IE2	²⁾	EDRE 180L 4	4	18.5	¹⁾	¹⁾	1775	3~	³⁾
92.8	92.3	90.7	¹⁾	IE2	²⁾	EDRE 200L 4	4	22	¹⁾	¹⁾	1780	3~	³⁾
93.4	93.5	92.6	¹⁾	IE2	²⁾	EDRE 225S 4	4	30	¹⁾	¹⁾	1780	3~	³⁾
93.4	93.5	92.8	¹⁾	IE2	²⁾	EDRE 225M 4	4	37	¹⁾	¹⁾	1780	3~	³⁾

1) See chapter 3.2

2) See chapter 2.1

3) See chapter 2.3

No. 13: Power losses in %

Motor	Nominal power	25;25	25;100	50;25	50;50	50;100	90;50	90;100
	kW							
EDRE 80M 4	0.55	11.6	21.9	13.8	16	24.4	21.7	30.7
EDRE 80M 4	0.75	8.6	20.2	10.1	12.6	22.1	16.4	26.5
EDRE 90M 4	1.1	6.1	18.4	7.2	9.8	19.8	12.9	23.6
EDRE 90L 4	1.5	5.8	16.7	6.9	9.1	18.1	11.9	21.5
EDRE 100L 4	2.2	5.9	15.1	6.9	8.8	16.4	11.2	19.3
EDRE 100LC 4	3	5.2	13.8	6	7.9	15	9.8	17.6
EDRE 112M 4	3	4.2	13.5	5	6.9	14.7	8.8	17.6
EDRE 132S 4	4	4.1	11.6	5	6.6	12.9	8.7	16
EDRE 132M 4	5.5	3.3	10.4	4	5.4	11.6	7.3	14.5
EDRE 160S 4	7.5	2.8	9.3	3.5	4.8	10.4	6.8	13.2
EDRE 160M 4	9.2	3.1	8.5	3.8	5	9.6	6.8	12.4
EDRE 180S 4	11	2.8	7.3	3.6	4.6	8.5	7.2	11.8
EDRE 180M 4	15	2.5	7	3.2	4.1	8	6.2	10.7
EDRE 180L 4	18.5	2.3	6.5	2.9	3.8	7.5	5.7	10
EDRE 200L 4	22	2.5	5.9	3.2	3.9	6.9	5.9	9.5
EDRE 225S 4	30	2.1	5.4	2.7	3.4	6.3	5	8.6
EDRE 225M 4	37	2.1	5.3	2.6	3.3	6.1	4.7	8.2

2D in 50 Hz

No. 1				No. 2	No. 3	No. 4	No. 5	No. 6	No. 7	No. 8	No. 9	No. 10	No. 11
$\eta_{100\%}$	$\eta_{75\%}$	$\eta_{50\%}$	V										
%	%	%											
81.9	81.2	77.7	¹⁾	IE2	²⁾	EDRE 80M 4	4	0.55	¹⁾	¹⁾	1450	3~	³⁾

1) See chapter 3.2

2) See chapter 2.1

3) See chapter 2.3

No. 13: Power losses in %

Motor	Nominal power	25;25	25;100	50;25	50;50	50;100	90;50	90;100
	kW							
EDRE 80M 4	0.55	11.7	23.8	13.5	16.2	25.8	20.5	30.7

2D in 60 Hz

No. 1				No. 2	No. 3	No. 4	No. 5	No. 6	No. 7	No. 8	No. 9	No. 10	No. 11
$\eta_{100\%}$	$\eta_{75\%}$	$\eta_{50\%}$	V										
%	%	%											
82.9	82.0	78.6	¹⁾	IE2	²⁾	EDRE 80M 4	4	0.55	¹⁾	¹⁾	1750	3~	³⁾

1) See chapter 3.2

2) See chapter 2.1

3) See chapter 2.3

No. 13: Power losses in %

Motor	Nominal power	25;25	25;100	50;25	50;50	50;100	90;50	90;100
	kW							
EDRE 80M 4	0.55	11.6	21.9	13.8	16	24.4	21.7	30.7

3G, 3GD, 3D in 50 Hz

No. 1				No. 2	No. 3	No. 4	No. 5	No. 6	No. 7	No. 8	No. 9	No. 10	No. 11
$\eta_{100\%}$	$\eta_{75\%}$	$\eta_{50\%}$	V										
%	%	%											
81.9	81.2	77.7	¹⁾	IE2	²⁾	EDRE 80M 4	4	0.55	¹⁾	¹⁾	1450	3~	³⁾

1) See chapter 3.2

2) See chapter 2.1

3) See chapter 2.3

No. 13: Power losses in %

Motor	Nominal power	25;25	25;100	50;25	50;50	50;100	90;50	90;100
	kW							
EDRE 80M 4	0.55	11.7	23.8	13.5	16.2	25.8	20.5	30.7

3G, 3GD, 3D in 60 Hz

No. 1				No. 2	No. 3	No. 4	No. 5	No. 6	No. 7	No. 8	No. 9	No. 10	No. 11
$\eta_{100\%}$	$\eta_{75\%}$	$\eta_{50\%}$	V										
%	%	%						kW	Hz	V	min ⁻¹		
82.9	82.0	78.6	¹⁾	IE2	²⁾	EDRE 80M 4	4	0.55	¹⁾	¹⁾	1750	3~	³⁾

1) See chapter 3.2

2) See chapter 2.1

3) See chapter 2.3

No. 13: Power losses in %

Motor	Nominal power	25;25	25;100	50;25	50;50	50;100	90;50	90;100
	kW							
EDRE 80M 4	0.55	11.6	21.9	13.8	16	24.4	21.7	30.7

3.4 IE3 motors

3.4.1 2-pole motors in 50 Hz

No. 1				No. 2	No. 3	No. 4	No. 5	No. 6	No. 7	No. 8	No. 9	No. 10	No. 11
$\eta_{100\%}$	$\eta_{75\%}$	$\eta_{50\%}$	V					kW	Hz	V	min ⁻¹		
%	%	%											
65.9	66.2	62.7	1)	IE3	2)	DRN 63MS 2	2	0.18	1)	1)	2725	3~	3)
69.7	70.9	69.2	1)	IE3	2)	DRN 63M 2	2	0.25	1)	1)	2755	3~	3)
69.7	69.3	66.1	1)	IE3	2)	DRN 71MS 2	2	0.25	1)	1)	2834	3~	3)
73.8	73.8	70.7	1)	IE3	2)	DRN 71MS 2	2	0.37	1)	1)	2810	3~	3)
77.8	78.0	75.7	1)	IE3	2)	DRN 71M 2	2	0.55	1)	1)	2825	3~	3)
81.4	82.0	80.2	1)	IE3	2)	DRN 80MS 2	2	0.75	1)	1)	2855	3~	3)
83.0	84.1	83.1	1)	IE3	2)	DRN 80M 2	2	1.1	1)	1)	2860	3~	3)
84.2	85.0	83.7	1)	IE3	2)	DRN 90S 2	2	1.5	1)	1)	2886	3~	3)
85.9	86.7	86.1	1)	IE3	2)	DRN 90L 2	2	2.2	1)	1)	2905	3~	3)
87.2	88.7	88.9	1)	IE3	2)	DRN 100LM 2	2	3	1)	1)	2894	3~	3)
88.1	88.7	88.1	1)	IE3	2)	DRN 112M 2	2	4	1)	1)	2948	3~	3)
89.2	90.2	90.3	1)	IE3	2)	DRN 132S 2	2	5.5	1)	1)	2935	3~	3)
90.1	90.8	90.6	1)	IE3	2)	DRN 132S 2	2	7.5	1)	1)	2936	3~	3)

1) See chapter 3.2

2) See chapter 2.1

3) See chapter 2.3

No. 13: Power losses in %

Motor	Nominal power	25;25	25;100	50;25	50;50	50;100	90;50	90;100
	kW							
DRN 63MS 2	0.18	15	44.1	16.9	22.9	46.6	28.6	53.6
DRN 63M 2	0.25	10.9	36.9	12.5	17.9	39.1	22.5	45
DRN 71MS 2	0.25	14.7	34.7	17.5	21.7	37.9	28	45
DRN 71MS 2	0.37	11.6	30.1	13.4	17.2	32.2	21.2	36.7
DRN 71M 2	0.55	8.5	23.4	10.1	13.2	25.3	16.9	29.5
DRN 80MS 2	0.75	6.3	20.2	7.4	10.2	21.5	12.8	24.8
DRN 80M 2	1.1	5.7	17.8	6.6	9.1	19	11.2	21.7
DRN 90S 2	1.5	5	15.9	5.8	8.1	16.9	10.1	19.5
DRN 90L 2	2.2	4.3	14	5	7	15	8.7	17.3
DRN 100LM 2	3	3.8	12.4	4.4	6.2	13.3	7.7	15.5
DRN 112M 2	4	3.2	9.8	3.8	5.2	10.9	6.9	14
DRN 132S 2	5.5	2.5	9.2	3	4.4	10.1	5.9	12.5
DRN 132S 2	7.5	2.8	9.6	3.2	4.6	10.3	5.7	12.3

3.4.2 2-pole motors in 60 Hz

No. 1				No. 2	No. 3	No. 4	No. 5	No. 6	No. 7	No. 8	No. 9	No. 10	No. 11
$\eta_{100\%}$	$\eta_{75\%}$	$\eta_{50\%}$	V					kW	Hz	V	min ⁻¹		
%	%	%											
66.0	65.1	60.9	¹⁾	IE3	²⁾	DRN 63MS 2	2	0.18	¹⁾	¹⁾	3370	3	³⁾
70.0	69.8	67.0	¹⁾	IE3	²⁾	DRN 63M 2	2	0.25	¹⁾	¹⁾	3395	3	³⁾
74.0	73.1	69.4	¹⁾	IE3	²⁾	DRN 71MS 2	2	0.37	¹⁾	¹⁾	3440	3	³⁾
77.0	76.4	73.3	¹⁾	IE3	²⁾	DRN 71M 2	2	0.55	¹⁾	¹⁾	3455	3	³⁾
82.5	84.8	79.7	¹⁾	IE3	²⁾	DRN 80MS 2	2	0.75	¹⁾	¹⁾	3476	3	³⁾
84.0	84.1	82.3	¹⁾	IE3	²⁾	DRN 80M 2	2	1.1	¹⁾	¹⁾	3485	3	³⁾
85.5	85.6	83.7	¹⁾	IE3	²⁾	DRN 90S 2	2	1.5	¹⁾	¹⁾	3505	3	³⁾
86.5	86.4	84.7	¹⁾	IE3	²⁾	DRN 90L 2	2	2.2	¹⁾	¹⁾	3525	3	³⁾
88.5	89.1	88.0	¹⁾	IE3	²⁾	DRN 100LM 2	2	3	¹⁾	¹⁾	3517	3	³⁾
88.5	89.1	88.6	¹⁾	IE3	²⁾	DRN 100L 2	2	3.7	¹⁾	¹⁾	3508	3	³⁾
88.5	88.6	87.4	¹⁾	IE3	²⁾	DRN 112M 2	2	4	¹⁾	¹⁾	3552	3	³⁾
89.5	89.7	89.0	¹⁾	IE3	²⁾	DRN 132S 2	2	5.5	¹⁾	¹⁾	3544	3	³⁾
90.2	90.4	89.6	¹⁾	IE3	²⁾	DRN 132S 2	2	7.5	¹⁾	¹⁾	3545	3	³⁾

1) See chapter 3.2

2) See chapter 2.1

3) See chapter 2.3

No. 13: Power losses in %

Motor	Nominal power	25;25	25;100	50;25	50;50	50;100	90;50	90;100
	kW							
DRN 63MS 2	0.18	16.2	38.6	19.3	24.2	42.6	33.7	53.6
DRN 63M 2	0.25	12.1	32.6	14.6	19	35.8	26.7	45
DRN 71MS 2	0.37	12.4	27.3	14.9	18	30.1	23.9	36.7
DRN 71M 2	0.55	9.2	20.9	11.4	13.8	23.4	19.3	29.5
DRN 80MS 2	0.75	6.7	18	8.2	10.6	19.9	14.6	24.8
DRN 80M 2	1.1	6	16	7.3	9.4	17.6	12.7	21.7
DRN 90S 2	1.5	5.3	14	6.5	8.4	15.5	11.5	19.4
DRN 90L 2	2.2	4.4	12.4	5.4	7	13.7	9.5	17
DRN 100LM 2	3	4.3	11.1	5.3	6.7	12.3	9	15.3
DRN 100L 2	3.7	3.1	10.1	3.8	5.2	11.3	7.1	14.4
DRN 112M 2	4	3	8.4	3.8	5	9.9	7.4	14
DRN 132S 2	5.5	2.7	8.2	3.4	4.6	9.3	6.7	12.5
DRN 132S 2	7.5	2.5	7.9	3.1	4.2	8.8	5.8	11.4

3.4.3 2-pole global motors in 50/60 Hz

No. 1				No. 2	No. 3	No. 4	No. 5	No. 6	No. 7	No. 8	No. 9	No. 10	No. 11
$\eta_{100\%}$	$\eta_{75\%}$	$\eta_{50\%}$	V					kW	Hz	V	min ⁻¹		
%	%	%											
65.9 66.0	66.2 65.1	62.7 60.9	¹⁾	IE3	²⁾	DRN 63MS 2	2	0.18	¹⁾	¹⁾	2725 3370	3~	³⁾
69.7 70.0	70.9 69.8	69.2 67.0	¹⁾	IE3	²⁾	DRN 63M 2	2	0.25	¹⁾	¹⁾	2755 3395	3~	³⁾
69.7 70.0	69.3 68.5	66.1 64.4	¹⁾	IE3	²⁾	DRN 71MS 2	2	0.25	¹⁾	¹⁾	2834 3460	3~	³⁾
73.8 74.0	73.8 73.1	70.7 69.4	¹⁾	IE3	²⁾	DRN 71MS 2	2	0.37	¹⁾	¹⁾	2810 3440	3~	³⁾
77.8 77.0	78.0 76.4	75.7 73.3	¹⁾	IE3	²⁾	DRN 71M 2	2	0.55	¹⁾	¹⁾	2825 3455	3~	³⁾
81.4 82.5	82.0 84.8	80.2 79.7	¹⁾	IE3	²⁾	DRN 80MS 2	2	0.75	¹⁾	¹⁾	2855 3476	3~	³⁾
83.0 84.0	84.1 84.1	83.1 82.3	¹⁾	IE3	²⁾	DRN 80M 2	2	1.1	¹⁾	¹⁾	2860 3485	3~	³⁾
84.2 85.5	85.0 85.6	83.7 83.7	¹⁾	IE3	²⁾	DRN 90S 2	2	1.5	¹⁾	¹⁾	2886 3505	3~	³⁾
85.9 86.5	86.7 86.4	86.1 84.7	¹⁾	IE3	²⁾	DRN 90L 2	2	2.2	¹⁾	¹⁾	2905 3525	3~	³⁾
87.2 88.5	88.7 89.1	88.9 88.0	¹⁾	IE3	²⁾	DRN 100LM 2	2	3	¹⁾	¹⁾	2894 3517	3~	³⁾
88.1 88.7	88.7 88.8	88.1 87.6	¹⁾	IE3	²⁾	DRN 112M 2	2	4	¹⁾	¹⁾	2948 3552	3~	³⁾
89.2 89.5	90.2 89.7	90.3 89.0	¹⁾	IE3	²⁾	DRN 132S 2	2	5.5	¹⁾	¹⁾	2935 3544	3~	³⁾
90.1 90.2	90.8 90.4	90.6 89.6	¹⁾	IE3	²⁾	DRN 132S 2	2	7.5	¹⁾	¹⁾	2936 3545	3~	³⁾

1) See chapter 3.2

2) See chapter 2.1

3) See chapter 2.3

No. 13: Power losses in % for 50 Hz

Motor	Nominal power	25;25	25;100	50;25	50;50	50;100	90;50	90;100
	kW							
DRN 63MS 2	0.18	15	44.1	16.9	22.9	46.6	28.6	53.6
DRN 63M 2	0.25	10.9	37	12.5	17.9	39.3	22.4	45
DRN 71MS 2	0.25	14.7	34.7	17.5	21.7	37.9	28	45
DRN 71MS 2	0.37	11.6	30.1	13.3	17.2	32.2	21.1	36.7
DRN 71M 2	0.55	8.5	23.5	10.1	13.2	25.3	16.9	29.5
DRN 80MS 2	0.75	6.3	20.2	7.4	10.2	21.5	12.8	24.8
DRN 80M 2	1.1	5.7	17.8	6.6	9.1	19	11.2	21.7
DRN 90S 2	1.5	5	15.9	5.8	8.1	16.9	10.1	19.5
DRN 90L 2	2.2	4.3	14	5	7	15	8.7	17.3
DRN 100LM 2	3	3.8	12.4	4.4	6.2	13.3	7.7	15.5
DRN 112M 2	4	3.2	9.8	3.8	5.2	10.9	6.9	14
DRN 132S 2	5.5	2.4	9.2	3	4.4	10.2	5.9	12.5
DRN 132S 2	7.5	2.8	9.6	3.2	4.6	10.3	5.7	12.3

No. 13: Power losses in % for 60 Hz

Motor	Nominal power	25;25	25;100	50;25	50;50	50;100	90;50	90;100
	kW							
DRN 63MS 2	0.18	8	37.1	10.9	17	41.2	26.1	53.6
DRN 63M 2	0.25	5.7	32.2	7.8	13.4	35.4	20.4	45
DRN 71MS 2	0.25	8.6	31.5	12	16.8	35.5	25	45
DRN 71MS 2	0.37	6.5	27.8	8.6	13	30.5	18.3	36.7

Motor	Nominal power	25;25	25;100	50;25	50;50	50;100	90;50	90;100
	kW							
DRN 71M 2	0.55	4.6	21.3	6.5	9.9	23.7	14.8	29.5
DRN 80MS 2	0.75	3.2	18.1	4.5	7.6	19.9	11.4	24.8
DRN 80M 2	1.1	2.9	16.1	4	6.7	17.7	9.7	21.7
DRN 90S 2	1.5	2.3	14.1	3.3	5.7	15.6	8.6	19.4
DRN 90L 2	2.2	1.8	12.3	2.7	4.8	13.6	7.1	17
DRN 100LM 2	3	1.6	11	2.4	4.3	12.2	6.3	15.3
DRN 112M 2	4	0.9	7.9	1.6	3	9.4	5.4	14
DRN 132S 2	5.5	0.9	8	1.5	3	9.2	5	12.5
DRN 132S 2	7.5	0.8	7.8	1.3	2.7	8.8	4.2	11.5

3.4.4 4-pole motors in 50 Hz

No. 1				No. 2	No. 3	No. 4	No. 5	No. 6	No. 7	No. 8	No. 9	No. 10	No. 11
$\eta_{100\%}$	$\eta_{75\%}$	$\eta_{50\%}$	V										
%	%	%						kW	Hz	V	min ⁻¹		
64.8	63.9	58.3	1)	IE3	2)	DRN 63MS 4	4	0.12	1)	1)	1380	3~	3)
69.9	69.4	65.1	1)	IE3	2)	DRN 63M 4	4	0.18	1)	1)	1375	3~	3)
69.9	67.1	61.1	1)	IE3	2)	DRN 71MS 4	4	0.18	1)	1)	1440	3~	3)
73.5	73.5	70.1	1)	IE3	2)	DRN 71MS 4	4	0.25	1)	1)	1405	3~	3)
77.3	77.3	74.3	1)	IE3	2)	DRN 71M 4	4	0.37	1)	1)	1415	3~	3)
80.8	81.0	78.6	1)	IE3	2)	DRN 80MK 4	4	0.55	1)	1)	1435	3~	3)
82.9	82.9	80.7	1)	IE3	2)	DRN 80M 4	4	0.75	1)	1)	1440	3~	3)
84.5	85.0	83.5	1)	IE3	2)	DRN 90S 4	4	1.1	1)	1)	1455	3~	3)
85.6	86.1	84.6	1)	IE3	2)	DRN 90L 4	4	1.5	1)	1)	1461	3~	3)
86.9	87.5	86.4	1)	IE3	2)	DRN 100LS 4	4	2.2	1)	1)	1450	3~	3)
87.8	88.3	87.3	1)	IE3	2)	DRN 100L 4	4	3	1)	1)	1456	3~	3)
88.7	89.4	88.6	1)	IE3	2)	DRN 112M 4	4	4	1)	1)	1464	3~	3)
89.6	90.6	90.6	1)	IE3	2)	DRN 132S 4	4	5.5	1)	1)	1461	3~	3)
90.4	91.1	90.8	1)	IE3	2)	DRN 132M 4	4	7.5	1)	1)	1468	3~	3)
91.0	91.6	90.8	1)	IE3	2)	DRN 132L 4	4	9.2	1)	1)	1470	3~	3)
91.4	91.7	91.1	1)	IE3	2)	DRN 160M 4	4	11	1)	1)	1473	3~	3)
92.1	92.5	91.9	1)	IE3	2)	DRN 160L 4	4	15	1)	1)	1474	3~	3)
92.6	93.1	92.8	1)	IE3	2)	DRN 180M 4	4	18.5	1)	1)	1478	3~	3)
93.0	93.6	93.4	1)	IE3	2)	DRN 180L 4	4	22	1)	1)	1477	3~	3)
93.6	93.9	93.3	1)	IE3	2)	DRN 200L 4	4	30	1)	1)	1480	3~	3)
93.9	94.4	94.3	1)	IE3	2)	DRN 225S 4	4	37	1)	1)	1482	3~	3)
94.2	94.5	94.1	1)	IE3	2)	DRN 225M 4	4	45	1)	1)	1482	3~	3)
94.6	94.8	94.4	1)	IE3	2)	DRN 250M 4	4	55	1)	1)	1482	3~	3)
95.0	95.3	94.9	1)	IE3	2)	DRN 280S 4	4	75	1)	1)	1482	3~	3)
95.2	95.6	95.4	1)	IE3	2)	DRN 280M 4	4	90	1)	1)	1481	3~	3)
95.5	95.7	95.4	1)	IE3	2)	DRN 315S 4	4	110	1)	1)	1488	3~	3)
95.6	95.9	95.6	1)	IE3	2)	DRN 315M 4	4	132	1)	1)	1487	3~	3)
95.9	96.1	95.9	1)	IE3	2)	DRN 315L 4	4	160	1)	1)	1486	3~	3)
96.0	96.0	95.4	1)	IE3	2)	DRN 315H 4	4	200	1)	1)	1489	3~	3)
96.0	96.0	95.5	1)	IE3	2)	DRN 355MS 4	4	250	1)	1)	1492	3~	3)
96.0	96.1	95.6	1)	IE3	2)	DRN 355M 4	4	315	1)	1)	1492	3~	3)
96.0	96.0	95.6	1)	IE3	2)	DRN 355ML 4	4	355	1)	1)	1492	3~	3)

1) See chapter 3.2

2) See chapter 2.1

3) See chapter 2.3

No. 13: Power losses in %

Motor	Nominal power	25;25	25;100	50;25	50;50	50;100	90;50	90;100
	kW							
DRN 63MS 4	0.12	25.2	50.7	26.5	31.8	52.3	35.2	56.2
DRN 63M 4	0.18	19.2	40.3	20.3	24.7	41.6	27.3	44.8
DRN 71MS 4	0.18	24	38	25.8	28.9	40.1	32.9	44.6
DRN 71MS 4	0.25	15.1	32.9	16.2	19.9	34.3	22.3	37.3
DRN 71M 4	0.37	12.2	26.9	13.1	16.2	28.1	18.3	30.7
DRN 80MK 4	0.55	8.9	22	9.6	12.3	23	14.1	25.1
DRN 80M 4	0.75	7.6	18.6	8.5	10.8	19.7	12.7	22
DRN 90S 4	1.1	6.6	16.2	7.5	9.4	17.2	11.4	19.6
DRN 90L 4	1.5	6.1	15.2	6.8	8.7	16	10.2	17.8
DRN 100LS 4	2.2	5	13.6	5.6	7.4	14.3	8.6	15.9
DRN 100L 4	3	4.5	12.2	5.1	6.7	12.9	7.9	14.5
DRN 112M 4	4	3.8	10.8	4.5	5.9	11.6	7.4	13.7

Motor	Nominal power	25;25	25;100	50;25	50;50	50;100	90;50	90;100
	kW							
DRN 132S 4	5.5	3.1	10	3.6	5.1	10.8	6.3	12.6
DRN 132M 4	7.5	2.7	8.8	3.1	4.4	9.5	5.5	11.2
DRN 132L 4	9.2	3.3	8.2	3.7	4.8	8.8	5.9	10.4
DRN 160M 4	11	2.6	7.4	3.1	4.1	8.1	5.3	9.7
DRN 160L 4	15	2.4	6.7	2.9	3.8	7.3	4.9	8.9
DRN 180M 4	18.5	1.9	6.2	2.3	3.2	6.8	4.2	8.3
DRN 180L 4	22	1.7	5.9	2.1	2.9	6.5	3.9	8
DRN 200L 4	30	1.5	5.9	1.8	2.7	6.4	3.6	7.7
DRN 225S 4	37	1.5	5	1.8	2.5	5.6	3.3	6.8
DRN 225M 4	45	1.6	4.7	1.9	2.5	5.2	3.3	6.4
DRN 250M 4	55	1.3	4.4	1.6	2.2	4.8	3	5.9
DRN 280S 4	75	1.6	4.1	1.9	2.4	4.5	3.2	5.6
DRN 280M 4	90	1.1	4.9	1.3	2.1	5.3	2.7	6.3
DRN 315S 4	110	1.1	3.8	1.4	2	4.2	2.9	5.4
DRN 315M 4	132	1.1	3.6	1.3	1.8	4	2.6	5.2
DRN 315L 4	160	1	3.6	1.3	1.8	3.9	2.5	4.9
DRN 315H 4	200	1.2	3.2	1.5	1.9	3.6	2.7	4.7
DRN 355MS 4	250	1.5	3.3	1.8	2.2	3.7	3	4.7
DRN 355M 4	315	1.5	3.3	1.8	2.2	3.7	3	4.7
DRN 355ML 4	355	1.5	3.2	1.8	2.2	3.7	3	4.7

3.4.5 4-pole motors in 60 Hz

No. 1				No. 2	No. 3	No. 4	No. 5	No. 6	No. 7	No. 8	No. 9	No. 10	No. 11
$\eta_{100\%}$	$\eta_{75\%}$	$\eta_{50\%}$	V					kW	Hz	V	min ⁻¹		
%	%	%											
66.0	63.7	57.7	¹⁾	IE3	²⁾	DRN 63MS 4	4	0.12	¹⁾	¹⁾	1700	3~	³⁾
70.0	68.5	63.5	¹⁾	IE3	²⁾	DRN 63M 4	4	0.18	¹⁾	¹⁾	1695	3~	³⁾
74.0	73.1	69.2	¹⁾	IE3	²⁾	DRN 71MS 4	4	0.25	¹⁾	¹⁾	1720	3~	³⁾
78.5	77.7	74.3	¹⁾	IE3	²⁾	DRN 71M 4	4	0.37	¹⁾	¹⁾	1730	3~	³⁾
81.5	81.0	78.1	¹⁾	IE3	²⁾	DRN 80MK 4	4	0.55	¹⁾	¹⁾	1745	3~	³⁾
85.5	84.9	82.0	¹⁾	IE3	²⁾	DRN 80M 4	4	0.75	¹⁾	¹⁾	1751	3~	³⁾
86.5	86.1	83.5	¹⁾	IE3	²⁾	DRN 90S 4	4	1.1	¹⁾	¹⁾	1762	3~	³⁾
86.5	86.1	83.8	¹⁾	IE3	²⁾	DRN 90L 4	4	1.5	¹⁾	¹⁾	1767	3~	³⁾
89.5	89.5	88.1	¹⁾	IE3	²⁾	DRN 100LM 4	4	2.2	¹⁾	¹⁾	1762	3~	³⁾
89.5	89.2	87.5	¹⁾	IE3	²⁾	DRN 100L 4	4	2.2	¹⁾	¹⁾	1765	3~	³⁾
89.5	89.3	87.6	¹⁾	IE3	²⁾	DRN 100L 4	4	3	¹⁾	¹⁾	1763	3~	³⁾
89.5	89.4	87.8	¹⁾	IE3	²⁾	DRN 100L 4	4	3.7	¹⁾	¹⁾	1758	3~	³⁾
89.5	89.6	88.5	¹⁾	IE3	²⁾	DRN 112M 4	4	4	¹⁾	¹⁾	1769	3~	³⁾
91.7	91.8	90.9	¹⁾	IE3	²⁾	DRN 132S 4	4	5.5	¹⁾	¹⁾	1768	3~	³⁾
91.7	91.9	91.1	¹⁾	IE3	²⁾	DRN 132M 4	4	7.5	¹⁾	¹⁾	1774	3~	³⁾
91.7	91.9	91.0	¹⁾	IE3	²⁾	DRN 132L 4	4	9.2	¹⁾	¹⁾	1775	3~	³⁾
92.4	92.3	91.2	¹⁾	IE3	²⁾	DRN 160M 4	4	11	¹⁾	¹⁾	1776	3~	³⁾
93.0	93.3	92.3	¹⁾	IE3	²⁾	DRN 160L 4	4	15	¹⁾	¹⁾	1777	3~	³⁾
93.6	93.6	92.7	¹⁾	IE3	²⁾	DRN 180M 4	4	18.5	¹⁾	¹⁾	1781	3~	³⁾
93.6	93.8	93.2	¹⁾	IE3	²⁾	DRN 180L 4	4	22	¹⁾	¹⁾	1781	3~	³⁾
94.1	94.0	93.0	¹⁾	IE3	²⁾	DRN 200L 4	4	30	¹⁾	¹⁾	1783	3~	³⁾
94.5	94.7	94.2	¹⁾	IE3	²⁾	DRN 225S 4	4	37	¹⁾	¹⁾	1785	3~	³⁾
95.0	95.1	94.5	¹⁾	IE3	²⁾	DRN 225M 4	4	45	¹⁾	¹⁾	1785	3~	³⁾
95.4	95.2	94.3	¹⁾	IE3	²⁾	DRN 250ME 4	4	55	¹⁾	¹⁾	1785	3~	³⁾
95.4	95.3	94.6	¹⁾	IE3	²⁾	DRN 280S 4	4	75	¹⁾	¹⁾	1785	3~	³⁾
95.4	95.4	94.8	¹⁾	IE3	²⁾	DRN 280M 4	4	90	¹⁾	¹⁾	1784	3~	³⁾
95.8	95.7	95.1	¹⁾	IE3	²⁾	DRN 315S 4	4	110	¹⁾	¹⁾	1788	3~	³⁾
96.2	96.4	95.8	¹⁾	IE3	²⁾	DRN 315ME 4	4	132	¹⁾	¹⁾	1790	3~	³⁾
96.2	96.3	95.9	¹⁾	IE3	²⁾	DRN 315L 4	4	160	¹⁾	¹⁾	1787	3~	³⁾
96.2	96.0	95.2	¹⁾	IE3	²⁾	DRN 315H 4	4	200	¹⁾	¹⁾	1790	3~	³⁾
96.2	96.0	95.3	¹⁾	IE3	²⁾	DRN 355MS 4	4	260	¹⁾	¹⁾	1792	3~	³⁾
96.2	96.0	95.2	¹⁾	IE3	²⁾	DRN 355MR 4	4	300	¹⁾	¹⁾	1792	3~	³⁾
96.2	96.1	95.4	¹⁾	IE3	²⁾	DRN 355M 4	4	335	¹⁾	¹⁾	1791	3~	³⁾
96.2	96.1	95.5	¹⁾	IE3	²⁾	DRN 355ML 4	4	375	¹⁾	¹⁾	1792	3~	³⁾

1) See chapter 3.2

2) See chapter 2.1

3) See chapter 2.3

No. 13: Power losses in %

Motor	Nominal power	25;25	25;100	50;25	50;50	50;100	90;50	90;100
	kW							
DRN 63MS 4	0.12	27.9	47.7	29.8	34.1	50.1	39.4	56.2
DRN 63M 4	0.18	21.3	37.8	22.9	26.4	39.7	30.7	44.6
DRN 71MS 4	0.25	16.5	31.1	18.1	21.1	33	24.8	37.3
DRN 71M 4	0.37	13	25.1	14.2	16.8	26.7	19.9	30.4
DRN 80MK 4	0.55	9.3	20.1	10.4	12.7	21.5	15.4	24.6
DRN 80M 4	0.75	8.2	17.5	9.4	11.4	18.9	14.1	22
DRN 90S 4	1.1	7	14.9	8.2	9.9	16.2	12.8	19.6
DRN 90L 4	1.5	6.4	14.3	7.4	9	15.4	11.1	17.8
DRN 100LM 4	2.2	4.9	12.7	5.7	7.4	13.7	9	15.9
DRN 100L 4	2.2	5.4	12	6.3	7.8	13.2	10	15.9

Motor	Nominal power	25;25	25;100	50;25	50;50	50;100	90;50	90;100
	kW							
DRN 100L 4	3	4.7	11.3	5.5	6.9	12.3	8.7	14.5
DRN 100L 4	3.7	4.4	10.7	5.1	6.4	11.6	8	13.6
DRN 112M 4	4	3.8	9.5	4.6	5.8	10.6	7.8	13.3
DRN 132S 4	5.5	3.4	8.6	4.1	5.3	9.6	7	12
DRN 132M 4	7.5	3.2	7.8	3.9	4.8	8.7	6.5	11
DRN 132L 4	9.2	2.9	7.4	3.5	4.4	8.2	5.8	10.2
DRN 160M 4	11	2.8	6.7	3.5	4.4	7.6	6	9.7
DRN 160L 4	15	2.6	6.1	3.2	4	6.9	5.4	8.9
DRN 180M 4	18.5	2	5.6	2.5	3.3	6.3	4.7	8.3
DRN 180L 4	22	1.9	5.1	2.3	3	5.9	4.3	7.8
DRN 200L 4	30	1.6	4.7	2	2.7	5.4	3.9	7.1
DRN 225S 4	37	1.7	4.4	2.2	2.7	5	3.9	6.7
DRN 225M 4	45	1.6	4.2	2	2.5	4.8	3.5	6.4
DRN 250ME 4	55	1.5	3.8	1.9	2.4	4.4	3.6	5.9
DRN 280S 4	75	1.5	3.6	1.9	2.4	4.1	3.4	5.4
DRN 280M 4	90	1.2	3.6	1.5	2	4	2.9	5.2
DRN 315S 4	110	1.2	3.2	1.7	2.1	3.8	3.4	5.4
DRN 315ME 4	132	1.3	3	1.8	2.2	3.6	3.4	5.2
DRN 315L 4	160	1.1	3.1	1.5	1.9	3.6	2.9	4.9
DRN 315H 4	200	1.3	2.8	1.7	2	3.3	3.1	4.7
DRN 355MS 4	260	1.5	3.2	1.8	2.2	3.6	3.1	4.7
DRN 355MR 4	300	1.5	2.9	2	2.3	3.4	3.4	4.7
DRN 355M 4	335	1.5	3	1.9	2.2	3.5	3.2	4.7
DRN 355ML 4	375	1.5	3	1.9	2.2	3.5	3.2	4.7

3.4.6 4-pole global motors in 50/60 Hz

No. 1				No. 2	No. 3	No. 4	No. 5	No. 6	No. 7	No. 8	No. 9	No. 10	No. 11
$\eta_{100\%}$	$\eta_{75\%}$	$\eta_{50\%}$	V					kW	Hz	V	min ⁻¹		
%	%	%											
64.8 66.0	63.9 63.7	58.3 57.7	¹⁾	IE3	²⁾	DRN 63MS 4	4	0.12	¹⁾	¹⁾	1380 1700	3~	³⁾
69.9 70.0	69.4 68.5	65.1 63.5	¹⁾	IE3	²⁾	DRN 63M 4	4	0.18	¹⁾	¹⁾	1375 1695	3~	³⁾
69.9 70.0	67.1 67.4	61.1 61.6	¹⁾	IE3	²⁾	DRN 71MS 4	4	0.18	¹⁾	¹⁾	1440 1750	3~	³⁾
73.5 74.0	73.5 73.1	70.1 69.2	¹⁾	IE3	²⁾	DRN 71MS 4	4	0.25	¹⁾	¹⁾	1405 1720	3~	³⁾
77.3 78.5	77.3 77.7	74.3 74.3	¹⁾	IE3	²⁾	DRN 71M 4	4	0.37	¹⁾	¹⁾	1415 1730	3~	³⁾
80.8 81.5	81.0 81.0	78.6 78.1	¹⁾	IE3	²⁾	DRN 80MK 4	4	0.55	¹⁾	¹⁾	1435 1745	3~	³⁾
82.9 85.5	82.9 84.9	80.7 82.0	¹⁾	IE3	²⁾	DRN 80M 4	4	0.75	¹⁾	¹⁾	1440 1751	3~	³⁾
84.5 86.5	85.0 85.8	83.5 83.5	¹⁾	IE3	²⁾	DRN 90S 4	4	1.1	¹⁾	¹⁾	1455 1762	3~	³⁾
85.6 86.5	86.1 85.9	84.6 83.5	¹⁾	IE3	²⁾	DRN 90L 4	4	1.5	¹⁾	¹⁾	1461 1767	3~	³⁾
86.7 89.5	87.3 89.5	86.4 88.1	¹⁾	IE3	²⁾	DRN 100LM 4	4	2.2	¹⁾	¹⁾	1456 1762	3~	³⁾
86.9 89.5	87.2 89.2	86.2 87.5	¹⁾	IE3	²⁾	DRN 100L 4	4	2.2	¹⁾	¹⁾	1459 1765	3~	³⁾
87.8 89.5	88.3 89.3	87.3 87.6	¹⁾	IE3	²⁾	DRN 100L 4	4	3	¹⁾	¹⁾	1456 1763	3~	³⁾
88.7 89.5	89.4 89.6	88.6 88.5	¹⁾	IE3	²⁾	DRN 112M 4	4	4	¹⁾	¹⁾	1464 1769	3~	³⁾
89.6 91.7	90.4 91.8	90.1 90.9	¹⁾	IE3	²⁾	DRN 132S 4	4	5.5	¹⁾	¹⁾	1464 1768	3~	³⁾
90.4 91.7	91.1 91.9	90.8 91.1	¹⁾	IE3	²⁾	DRN 132M 4	4	7.5	¹⁾	¹⁾	1468 1774	3~	³⁾
91.0 91.7	91.6 91.9	90.8 91.0	¹⁾	IE3	²⁾	DRN 132L 4	4	9.2	¹⁾	¹⁾	1470 1775	3~	³⁾
91.4 92.4	91.7 92.3	91.1 91.2	¹⁾	IE3	²⁾	DRN 160M 4	4	11	¹⁾	¹⁾	1473 1776	3~	³⁾
92.1 93.0	92.5 93.3	91.9 92.3	¹⁾	IE3	²⁾	DRN 160L 4	4	15	¹⁾	¹⁾	1474 1777	3~	³⁾
92.6 93.6	93.1 93.6	92.8 92.7	¹⁾	IE3	²⁾	DRN 180M 4	4	18.5	¹⁾	¹⁾	1478 1781	3~	³⁾
93.0 93.6	93.6 93.8	93.4 93.2	¹⁾	IE3	²⁾	DRN 180L 4	4	22	¹⁾	¹⁾	1477 1781	3~	³⁾
93.6 94.1	93.9 94.0	93.3 93.0	¹⁾	IE3	²⁾	DRN 200L 4	4	30	¹⁾	¹⁾	1480 1783	3~	³⁾
93.9 94.5	94.4 94.7	94.3 94.2	¹⁾	IE3	²⁾	DRN 225S 4	4	37	¹⁾	¹⁾	1482 1785	3~	³⁾
94.2 95.0	94.5 95.1	94.1 94.5	¹⁾	IE3	²⁾	DRN 225M 4	4	45	¹⁾	¹⁾	1482 1785	3~	³⁾
94.6 95.4	94.8 95.2	94.3 94.3	¹⁾	IE3	²⁾	DRN 250ME 4	4	55	¹⁾	¹⁾	1483 1785	3~	³⁾
95.0 95.4	95.3 95.3	94.9 94.6	¹⁾	IE3	²⁾	DRN 280S 4	4	75	¹⁾	¹⁾	1482 1785	3~	³⁾
95.2 95.4	95.6 95.4	95.4 94.8	¹⁾	IE3	²⁾	DRN 280M 4	4	90	¹⁾	¹⁾	1481 1784	3~	³⁾
95.5 95.8	95.7 95.0	95.4 95.0	¹⁾	IE3	²⁾	DRN 315S 4	4	110	¹⁾	¹⁾	1488 1790	3~	³⁾
95.6 96.2	95.7 95.4	95.3 95.4	¹⁾	IE3	²⁾	DRN 315ME 4	4	132	¹⁾	¹⁾	1489 1791	3~	³⁾
95.9 96.2	96.1 95.7	95.9 95.7	¹⁾	IE3	²⁾	DRN 315L 4	4	160	¹⁾	¹⁾	1486 1788	3~	³⁾

No. 1				No. 2	No. 3	No. 4	No. 5	No. 6	No. 7	No. 8	No. 9	No. 10	No. 11
$\eta_{100\%}$	$\eta_{75\%}$	$\eta_{50\%}$	V										
%	%	%						kW	Hz	V	min ⁻¹		
96.0 96.2	96.0 95.1	95.4 95.1	¹⁾	IE3	²⁾	DRN 315H 4	4	200	¹⁾	¹⁾	1489 1791	3~	³⁾
96.0 96.2	96.0 95.4	95.5 95.4	¹⁾	IE3	²⁾	DRN 355MS 4	4	250 260	¹⁾	¹⁾	1492 1793	3~	³⁾
96.0 96.2	96.1 95.5	95.6 95.5	¹⁾	IE3	²⁾	DRN 355M 4	4	315 335	¹⁾	¹⁾	1492 1792	3~	³⁾
96.0 96.2	96.0 95.5	95.6 95.5	¹⁾	IE3	²⁾	DRN 355ML 4	4	355 375	¹⁾	¹⁾	1492 1793	3~	³⁾

1) See chapter 3.2

2) See chapter 2.1

3) See chapter 2.3

No. 13: Power losses in % for 50 Hz

Motor	Nominal power kW	25;25	25;100	50;25	50;50	50;100	90;50	90;100
DRN 63MS 4	0.12	25.1	50.7	26.4	31.7	52.3	35	56.2
DRN 63M 4	0.18	19.5	40.9	20.6	25	42.3	27.7	45.6
DRN 71MS 4	0.18	24	37.9	25.8	28.8	39.9	32.8	44.6
DRN 71MS 4	0.25	15.1	33	16.2	19.9	34.3	22.3	37.3
DRN 71M 4	0.37	12.4	27.4	13.3	16.4	28.5	18.5	31.2
DRN 80MK 4	0.55	9	22.4	9.7	12.5	23.3	14.3	25.5
DRN 80M 4	0.75	7.6	18.6	8.5	10.8	19.7	12.7	22
DRN 90S 4	1.1	6.6	16.2	7.5	9.4	17.2	11.5	19.6
DRN 90L 4	1.5	6.1	15.2	6.8	8.7	16	10.2	17.8
DRN 100LM 4	2.2	4.6	13.6	5.2	7	14.3	8.2	15.9
DRN 100L 4	2.2	4.9	13	5.6	7.3	13.9	8.9	15.9
DRN 100L 4	3	4.5	12.2	5.1	6.7	12.9	7.9	14.5
DRN 112M 4	4	3.8	10.8	4.5	5.9	11.6	7.4	13.7
DRN 132S 4	5.5	3.1	9.5	3.7	5	10.3	6.2	12.1
DRN 132M 4	7.5	2.7	8.9	3.2	4.4	9.6	5.5	11.3
DRN 132L 4	9.2	3.3	8.3	3.8	4.8	9	5.9	10.5
DRN 160M 4	11	2.5	7.4	3.1	4.1	8.1	5.3	9.7
DRN 160L 4	15	2.4	6.7	2.9	3.8	7.4	4.9	8.9
DRN 180M 4	18.5	1.9	6.2	2.3	3.1	6.8	4.2	8.3
DRN 180L 4	22	1.7	6	2.1	3	6.6	3.9	8.1
DRN 200L 4	30	1.5	5.9	1.8	2.7	6.4	3.6	7.7
DRN 225S 4	37	1.5	5.1	1.8	2.5	5.6	3.3	6.9
DRN 225M 4	45	1.6	4.7	1.9	2.5	5.2	3.3	6.4
DRN 250ME 4	55	1.3	4.3	1.6	2.2	4.8	3	5.9
DRN 280S 4	75	1.6	4.1	1.9	2.4	4.5	3.2	5.6
DRN 280M 4	90	1.1	5	1.3	2.1	5.4	2.7	6.3
DRN 315S 4	110	1.1	3.8	1.4	2	4.2	2.9	5.4
DRN 315ME 4	132	1.2	3.5	1.6	2	4	3	5.2
DRN 315L 4	160	1	3.6	1.3	1.8	3.9	2.5	4.9
DRN 315H 4	200	1.2	3.2	1.5	1.9	3.6	2.7	4.7
DRN 355MS 4	250	1.5	3.3	1.8	2.2	3.7	3	4.7
DRN 355M 4	315	1.5	3.3	1.8	2.2	3.7	3	4.7
DRN 355ML 4	355	1.5	3.2	1.8	2.2	3.7	3	4.7

No. 13: Power losses in % for 60 Hz

Motor	Nominal power kW	25;25	25;100	50;25	50;50	50;100	90;50	90;100
DRN 63MS 4	0.12	20.1	47.2	21.9	27.5	49.5	32.6	56.2

Motor	Nominal power	25;25	25;100	50;25	50;50	50;100	90;50	90;100
	kW							
DRN 63M 4	0.18	15	37.4	16.4	21.1	39.3	25	44.6
DRN 71MS 4	0.18	17.3	35	19.6	23.4	37.8	29.2	44.6
DRN 71MS 4	0.25	10.7	31.2	12	16.3	33	19.5	37.3
DRN 71M 4	0.37	8.1	25.3	9.2	12.8	26.8	15.4	30.4
DRN 80MK 4	0.55	5.9	20.5	6.8	9.8	21.7	12.1	24.6
DRN 80M 4	0.75	5.1	17.7	6.1	8.7	19	11.1	22
DRN 90S 4	1.1	4.2	15	5.2	7.4	16.3	10.1	19.6
DRN 90L 4	1.5	3.9	14.4	4.7	6.9	15.5	8.8	17.8
DRN 100LM 4	2.2	2.8	12.9	3.4	5.5	13.8	6.9	15.9
DRN 100L 4	2.2	3	12.2	3.8	5.8	13.3	7.8	15.9
DRN 100L 4	3	2.8	11.5	3.4	5.2	12.4	6.8	14.5
DRN 112M 4	4	1.8	9.4	2.5	4.1	10.5	5.9	13.3
DRN 132S 4	5.5	1.6	8.6	2.2	3.6	9.6	5.2	12
DRN 132M 4	7.5	1.2	7.8	1.6	3	8.7	4.3	11
DRN 132L 4	9.2	1.4	7.2	1.9	3.1	8.1	4.4	10.2
DRN 160M 4	11	1.2	6.8	1.8	2.9	7.6	4.4	9.7
DRN 160L 4	15	1.1	6	1.7	2.7	6.9	4.1	8.9
DRN 180M 4	18.5	0.8	5.5	1.2	2.2	6.3	3.5	8.3
DRN 180L 4	22	0.7	5.1	1	2	5.8	3.1	7.8
DRN 200L 4	30	0.6	5.3	1	1.9	5.9	3.1	7.7
DRN 225S 4	37	0.6	4.4	0.9	1.6	5	2.6	6.7
DRN 225M 4	45	0.6	4.1	0.9	1.6	4.7	2.6	6.4
DRN 250ME 4	55	0.6	3.8	0.9	1.5	4.4	2.6	5.9
DRN 280S 4	75	0.6	3.5	1	1.6	4.1	2.6	5.4
DRN 280M 4	90	0.5	4.6	0.7	1.5	5.1	2.3	6.5
DRN 315S 4	110	0.4	3.2	0.8	1.3	3.8	2.5	5.4
DRN 315ME 4	132	0.5	2.9	0.9	1.4	3.5	2.6	5.2
DRN 315L 4	160	0.4	3.1	0.7	1.2	3.6	2.1	4.9
DRN 315H 4	200	0.5	2.7	0.8	1.3	3.2	2.3	4.7
DRN 355MS 4	260	1.5	3.2	1.8	2.2	3.6	3.1	4.7
DRN 355M 4	335	1.5	3	1.9	2.2	3.5	3.2	4.7
DRN 355ML 4	375	1.5	3	1.9	2.2	3.5	3.2	4.7

3.4.7 6-pole motors in 50 Hz

No. 1				No. 2	No. 3	No. 4	No. 5	No. 6	No. 7	No. 8	No. 9	No. 10	No. 11
$\eta_{100\%}$	$\eta_{75\%}$	$\eta_{50\%}$	V										
%	%	%						kW	Hz	V	min ⁻¹		
55.0	51.7	44.3	¹⁾	-	²⁾	DRN 63MR 6	6	0.09	¹⁾	¹⁾	920	3~	³⁾
57.7	57.5	51.9	¹⁾	IE3	²⁾	DRN 63M 6	6	0.12	¹⁾	¹⁾	870	3~	³⁾
63.9	63.7	59.4	¹⁾	IE3	²⁾	DRN 71MS 6	6	0.18	¹⁾	¹⁾	915	3~	³⁾
68.6	68.2	63.5	¹⁾	IE3	²⁾	DRN 71M 6	6	0.25	¹⁾	¹⁾	915	3~	³⁾
73.5	73.8	70.8	¹⁾	IE3	²⁾	DRN 80MK 6	6	0.37	¹⁾	¹⁾	935	3~	³⁾
77.2	76.7	73.5	¹⁾	IE3	²⁾	DRN 90SR 6	6	0.55	¹⁾	¹⁾	966	3~	³⁾
78.9	79.8	77.4	¹⁾	IE3	²⁾	DRN 90S 6	6	0.75	¹⁾	¹⁾	957	3~	³⁾
81.0	81.3	78.8	¹⁾	IE3	²⁾	DRN 90L 6	6	1.1	¹⁾	¹⁾	957	3~	³⁾
82.5	82.8	80.7	¹⁾	IE3	²⁾	DRN 100L 6	6	1.5	¹⁾	¹⁾	961	3~	³⁾
84.3	85.0	83.6	¹⁾	IE3	²⁾	DRN 112M 6	6	2.2	¹⁾	¹⁾	973	3~	³⁾
85.6	86.0	84.8	¹⁾	IE3	²⁾	DRN 132S 6	6	3	¹⁾	¹⁾	974	3~	³⁾
86.8	87.5	86.4	¹⁾	IE3	²⁾	DRN 132S 6	6	4	¹⁾	¹⁾	968	3~	³⁾
88.0	88.3	86.9	¹⁾	IE3	²⁾	DRN 132L 6	6	5.5	¹⁾	¹⁾	975	3~	³⁾
89.1	89.4	88.4	¹⁾	IE3	²⁾	DRN 160M 6	6	7.5	¹⁾	¹⁾	979	3~	³⁾

1) See chapter 3.2

2) See chapter 2.1

3) See chapter 2.3

No. 13: Power losses in %

Motor	Nominal power	25;25	25;100	50;25	50;50	50;100	90;50	90;100
	kW							
DRN 63M 6	0.12	30.6	65.4	31.7	38.8	66.5	41.1	75.9
DRN 71MS 6	0.18	24.7	53.5	25.8	32	55	34.8	58.5
DRN 71M 6	0.25	20.2	43.5	21.2	26.2	44.7	28.5	47.4
DRN 80MK 6	0.37	14.6	34.1	15.4	19.4	35.1	21.2	37.3
DRN 90SR 6	0.55	13.7	27.3	14.5	17.4	28.3	19.3	30.6
DRN 90S 6	0.75	11	25.2	11.6	14.6	26	15.9	27.7
DRN 90L 6	1.1	10.2	23	10.9	13.5	23.8	14.8	25.4
DRN 100L 6	1.5	8.2	19.5	8.9	11.1	20.3	12.5	22
DRN 112M 6	2.2	7.2	16.5	7.9	9.8	17.4	11.2	19.3
DRN 132S 6	3	6.1	14.7	6.8	8.5	15.6	10	17.4
DRN 132S 6	4	5.1	14	5.7	7.4	14.7	8.5	16.2
DRN 132L 6	5.5	4.9	12.2	5.4	6.9	12.8	7.9	14.1
DRN 160M 6	7.5	3.9	9.4	4.7	5.8	10.5	7.4	12.7

3.4.8 6-pole motors in 60 Hz

No. 1				No. 2	No. 3	No. 4	No. 5	No. 6	No. 7	No. 8	No. 9	No. 10	No. 11
$\eta_{100\%}$	$\eta_{75\%}$	$\eta_{50\%}$	V										
%	%	%						kW	Hz	V	min ⁻¹		
61.5	57.3	49.2	¹⁾	-	²⁾	DRN 63MR 6	6	0.09	¹⁾	¹⁾	1135	3~	³⁾
64.0	61.6	54.9	¹⁾	IE3	²⁾	DRN 63M 6	6	0.12	¹⁾	¹⁾	1105	3~	³⁾
68.0	66.6	61.7	¹⁾	IE3	²⁾	DRN 71MS 6	6	0.18	¹⁾	¹⁾	1130	3~	³⁾
72.0	70.3	64.8	¹⁾	IE3	²⁾	DRN 71M 6	6	0.25	¹⁾	¹⁾	1135	3~	³⁾
75.5	74.8	71.2	¹⁾	IE3	²⁾	DRN 80MK 6	6	0.37	¹⁾	¹⁾	1150	3~	³⁾
81.7	80.5	76.6	¹⁾	IE3	²⁾	DRN 90SR 6	6	0.55	¹⁾	¹⁾	1172	3~	³⁾
82.5	82.6	79.1	¹⁾	IE3	²⁾	DRN 90S 6	6	0.75	¹⁾	¹⁾	1165	3~	³⁾
87.5	86.9	84.6	¹⁾	IE3	²⁾	DRN 112M 6	6	1.1	¹⁾	¹⁾	1183	3~	³⁾
88.5	88.2	86.1	¹⁾	IE3	²⁾	DRN 112M 6	6	1.5	¹⁾	¹⁾	1181	3~	³⁾
89.5	89.2	87.2	¹⁾	IE3	²⁾	DRN 132S 6	6	2.2	¹⁾	¹⁾	1179	3~	³⁾
89.5	89.4	87.6	¹⁾	IE3	²⁾	DRN 132S 6	6	3	¹⁾	¹⁾	1178	3~	³⁾
89.5	89.0	86.8	¹⁾	IE3	²⁾	DRN 132M 6	6	3.7	¹⁾	¹⁾	1182	3~	³⁾
89.5	89.2	87.4	¹⁾	IE3	²⁾	DRN 132M 6	6	4	¹⁾	¹⁾	1181	3~	³⁾
91.0	90.4	88.4	¹⁾	IE3	²⁾	DRN 160M 6	6	5.5	¹⁾	¹⁾	1185	3~	³⁾
91.0	90.8	89.2	¹⁾	IE3	²⁾	DRN 160M 6	6	7.5	¹⁾	¹⁾	1182	3~	³⁾

1) See chapter 3.2

2) See chapter 2.1

3) See chapter 2.3

No. 13: Power losses in %

Motor	Nominal power	25;25	25;100	50;25	50;50	50;100	90;50	90;100
	kW							
DRN 63M 6	0.12	40.4	68.9	42.3	48.3	71.1	52.8	75.9
DRN 71MS 6	0.18	27.6	51.4	29.5	34.7	53.6	39	58.5
DRN 71M 6	0.25	23	41.2	24.7	28.7	43.1	32.4	47.4
DRN 80MK 6	0.37	16.7	32.6	17.9	21.2	34	24.1	37.3
DRN 90SR 6	0.55	14.5	26	15.6	18	27.3	20.9	30.6
DRN 90S 6	0.75	12.1	24.1	13	15.5	25.2	17.6	27.7
DRN 112M 6	1.1	10.9	18.6	12.4	14.1	20.4	17.4	24.3
DRN 112M 6	1.5	9.2	17.2	10.4	12.1	18.7	14.7	22
DRN 132S 6	2.2	7.4	15	8.5	10.1	16.4	12.5	19.3
DRN 132S 6	3	6.8	13.8	7.8	9.2	15	11.2	17.4
DRN 132M 6	3.7	6.4	12.9	7.3	8.6	13.9	10.4	16.2
DRN 132M 6	4	5.9	12.7	6.6	8	13.7	9.7	15.7
DRN 160M 6	5.5	5.2	9.3	6.4	7.3	10.8	9.9	14.1
DRN 160M 6	7.5	4.1	8.7	5	6	9.9	7.9	12.7

3.4.9 6-pole global motors in 50/60 Hz

No. 1				No. 2	No. 3	No. 4	No. 5	No. 6	No. 7	No. 8	No. 9	No. 10	No. 11
$\eta_{100\%}$	$\eta_{75\%}$	$\eta_{50\%}$	V					kW	Hz	V	min ⁻¹		
%	%	%											
55.0 61.5	51.7 57.3	44.3 49.2	¹⁾	-	²⁾	DRN 63MR 6	6	0.09	¹⁾	¹⁾	920 1135	3~	³⁾
57.7 64.0	57.5 61.6	51.9 54.9	¹⁾	IE3	²⁾	DRN 63M 6	6	0.12	¹⁾	¹⁾	870 1105	3~	³⁾
63.9 68.0	63.7 66.6	59.4 61.7	¹⁾	IE3	²⁾	DRN 71MS 6	6	0.18	¹⁾	¹⁾	915 1130	3~	³⁾
68.6 72.0	68.2 70.3	63.5 64.8	¹⁾	IE3	²⁾	DRN 71M 6	6	0.25	¹⁾	¹⁾	915 1135	3~	³⁾
73.5 75.5	73.8 74.8	70.8 71.2	¹⁾	IE3	²⁾	DRN 80MK 6	6	0.37	¹⁾	¹⁾	935 1150	3~	³⁾
77.2 81.7	76.7 80.5	73.5 76.6	¹⁾	IE3	²⁾	DRN 90SR 6	6	0.55	¹⁾	¹⁾	966 1172	3~	³⁾
78.9 82.5	79.8 82.6	77.4 79.1	¹⁾	IE3	²⁾	DRN 90S 6	6	0.75	¹⁾	¹⁾	957 1165	3~	³⁾
86.0 87.5	85.9 86.9	83.9 84.6	¹⁾	IE3	²⁾	DRN 112M 6	6	1.1	¹⁾	¹⁾	981 1183	3~	³⁾
85.5 88.5	85.6 88.2	83.9 86.1	¹⁾	IE3	²⁾	DRN 112M 6	6	1.5	¹⁾	¹⁾	977 1181	3~	³⁾
84.3 89.5	84.6 89.2	83.3 87.2	¹⁾	IE3	²⁾	DRN 132S 6	6	2.2	¹⁾	¹⁾	976 1179	3~	³⁾
85.6 89.5	86.0 89.4	84.8 87.6	¹⁾	IE3	²⁾	DRN 132S 6	6	3	¹⁾	¹⁾	974 1178	3~	³⁾
86.8 89.5	86.9 89.2	85.4 87.4	¹⁾	IE3	²⁾	DRN 132M 6	6	4	¹⁾	¹⁾	977 1181	3~	³⁾
88.0 91.0	88.0 90.4	86.7 88.4	¹⁾	IE3	²⁾	DRN 160M 6	6	5.5	¹⁾	¹⁾	982 1185	3~	³⁾
89.1 91.0	89.4 90.8	88.4 89.2	¹⁾	IE3	²⁾	DRN 160M 6	6	7.5	¹⁾	¹⁾	979 1182	3~	³⁾

1) See chapter 3.2

2) See chapter 2.1

3) See chapter 2.3

No. 13: Power losses in % for 50 Hz

Motor	Nominal power	25;25	25;100	50;25	50;50	50;100	90;50	90;100
	kW							
DRN 63M 6	0.12	30.4	65.3	31.3	38.5	66.5	40.8	77.7
DRN 71MS 6	0.18	24.5	53.4	25.7	31.9	54.9	34.6	58.5
DRN 71M 6	0.25	20.2	43.5	21.1	26.1	44.6	28.3	47.4
DRN 80MK 6	0.37	14.6	34.1	15.4	19.3	35.1	21.2	37.3
DRN 90SR 6	0.55	13.7	27.3	14.5	17.4	28.3	19.3	30.6
DRN 90S 6	0.75	11	25.2	11.6	14.6	26	15.9	27.7
DRN 112M 6	1.1	10.1	19.8	11.3	13.4	21.3	15.8	24.3
DRN 112M 6	1.5	8.5	18.3	9.5	11.5	19.5	13.4	22
DRN 132S 6	2.2	6.9	16	7.7	9.6	17.1	11.4	19.3
DRN 132S 6	3	6.1	14.7	6.8	8.6	15.6	10	17.4
DRN 132M 6	4	5.5	13.4	6.1	7.7	14.2	8.9	15.7
DRN 160M 6	5.5	4.7	10.2	5.7	6.8	11.4	8.9	14.1
DRN 160M 6	7.5	3.9	9.4	4.7	5.8	10.5	7.4	12.7

No. 13: Power losses in % for 60 Hz

Motor	Nominal power	25;25	25;100	50;25	50;50	50;100	90;50	90;100
	kW							
DRN 63M 6	0.12	31.3	66.1	32.8	40	67.9	43.9	75.9
DRN 71MS 6	0.18	20.3	51	21.8	28.4	53	32.2	58.5
DRN 71M 6	0.25	16.3	41.2	17.6	23	42.9	26	47.4

Motor	Nominal power	25;25	25;100	50;25	50;50	50;100	90;50	90;100
	kW							
DRN 80MK 6	0.37	11.1	32.9	12.1	16.6	34.2	19	37.3
DRN 90SR 6	0.55	10.4	26.1	11.4	14.7	27.4	17.3	30.6
DRN 90S 6	0.75	8.4	24.4	9.1	12.4	25.4	14.2	27.7
DRN 112M 6	1.1	6.8	18.5	8.2	10.7	20.3	13.7	24.3
DRN 112M 6	1.5	5.7	17.3	6.7	9.1	18.7	11.4	22
DRN 132S 6	2.2	4.4	15.2	5.4	7.5	16.4	9.6	19.3
DRN 132S 6	3	3.9	14	4.6	6.7	15	8.4	17.4
DRN 132M 6	4	3.6	12.9	4.2	6	13.7	7.4	15.7
DRN 160M 6	5.5	2.4	8.9	3.5	4.9	10.5	7.4	14.1
DRN 160M 6	7.5	2	8.4	2.8	4.1	9.7	6	12.7

3.4.10 8-pole motors in 50 Hz

No. 1				No. 2	No. 3	No. 4	No. 5	No. 6	No. 7	No. 8	No. 9	No. 10	No. 11
$\eta_{100\%}$	$\eta_{75\%}$	$\eta_{50\%}$	V										
%	%	%						kW	Hz	V	min ⁻¹		
50.7	46.7	39.0	1)	-	2)	DRN 71MSR 8	8	0.09	1)	1)	695	3~	3)
53.5	52.4	46.2	1)	IE3	2)	DRN 71MS 8	8	0.12	1)	1)	665	3~	3)
58.7	56.1	49.4	1)	IE3	2)	DRN 80MK 8	8	0.18	1)	1)	705	3~	3)
64.1	62.0	55.8	1)	IE3	2)	DRN 80M 8	8	0.25	1)	1)	702	3~	3)
69.3	67.5	61.9	1)	IE3	2)	DRN 90S 8	8	0.37	1)	1)	716	3~	3)
73.0	72.7	69.0	1)	IE3	2)	DRN 90L 8	8	0.55	1)	1)	710	3~	3)
75.0	75.2	72.2	1)	IE3	2)	DRN 100LS 8	8	0.75	1)	1)	708	3~	3)
77.7	77.2	73.5	1)	IE3	2)	DRN 100L 8	8	1.1	1)	1)	710	3~	3)
79.7	80.4	78.7	1)	IE3	2)	DRN 112M 8	8	1.5	1)	1)	715	3~	3)
81.9	82.9	81.6	1)	IE3	2)	DRN 132S 8	8	2.2	1)	1)	715	3~	3)
83.5	83.3	80.9	1)	IE3	2)	DRN 132M 8	8	3	1)	1)	726	3~	3)
84.8	85.1	83.6	1)	IE3	2)	DRN 132L 8	8	4	1)	1)	722	3~	3)
86.2	86.5	85.1	1)	IE3	2)	DRN 160M 8	8	5.5	1)	1)	729	3~	3)
87.3	87.7	86.8	1)	IE3	2)	DRN 160L 8	8	7.5	1)	1)	729	3~	3)
88.6	89.0	88.2	1)	IE3	2)	DRN 180L 8	8	11	1)	1)	733	3~	3)

1) See chapter 3.2

2) See chapter 2.1

3) See chapter 2.3

No. 13: Power losses in %

Motor	Nominal power	25;25	25;100	50;25	50;50	50;100	90;50	90;100
	kW							
DRN 71MS 8	0.12	49.3	92.2	50.9	60.2	94.2	63.7	100.6
DRN 80MK 8	0.18	41.9	66	43.6	48.7	68.1	52.7	72.8
DRN 80M 8	0.25	32.8	52.9	34.1	38.4	54.5	41.3	58
DRN 90S 8	0.37	24.4	41.3	25.6	29.2	42.7	31.8	45.9
DRN 90L 8	0.55	17.1	34.6	18	21.6	35.7	23.6	38.3
DRN 100LS 8	0.75	14.3	30.7	15.2	18.5	31.9	20.4	34.5
DRN 100L 8	1.1	13.4	26.6	14.2	16.9	27.6	18.6	29.7
DRN 112M 8	1.5	9.5	22.8	10.3	12.9	23.9	14.6	26.4
DRN 132S 8	2.2	7.6	19.7	8.3	10.6	20.7	12.1	22.9
DRN 132M 8	3	8	16.9	8.9	10.7	18.1	12.6	20.5
DRN 132L 8	4	6.3	15.6	7.1	8.8	16.5	10.3	18.6
DRN 160M 8	5.5	5.6	13.4	6.3	7.8	14.4	9.4	16.6
DRN 160L 8	7.5	5.2	12.1	5.9	7.3	13	8.8	15.1
DRN 180L 8	11	4.2	11.4	4.6	6	12	6.9	13.3

3.4.11 8-pole motors in 60 Hz

No. 1				No. 2	No. 3	No. 4	No. 5	No. 6	No. 7	No. 8	No. 9	No. 10	No. 11
$\eta_{100\%}$	$\eta_{75\%}$	$\eta_{50\%}$	V										
%	%	%						kW	Hz	V	min ⁻¹		
57.5	52.6	43.9	1)	-	2)	DRN 71MSR 8	8	0.09	1)	1)	856	3~	3)
59.5	56.5	49.3	1)	IE3	2)	DRN 71MS 8	8	0.12	1)	1)	835	3~	3)
64.0	60.5	53.3	1)	IE3	2)	DRN 80MK 8	8	0.18	1)	1)	863	3~	3)
68.0	65.0	58.2	1)	IE3	2)	DRN 80M 8	8	0.25	1)	1)	861	3~	3)
72.0	69.6	63.7	1)	IE3	2)	DRN 90S 8	8	0.37	1)	1)	870	3~	3)
74.0	72.8	68.5	1)	IE3	2)	DRN 90L 8	8	0.55	1)	1)	868	3~	3)
75.5	74.7	71.2	1)	IE3	2)	DRN 100LS 8	8	0.75	1)	1)	866	3~	3)
78.5	77.3	73.3	1)	IE3	2)	DRN 100L 8	8	1.1	1)	1)	868	3~	3)
84.0	83.8	81.4	1)	IE3	2)	DRN 112M 8	8	1.5	1)	1)	872	3~	3)
85.5	85.6	83.7	1)	IE3	2)	DRN 132S 8	8	2.2	1)	1)	871	3~	3)
86.5	85.8	83.0	1)	IE3	2)	DRN 132M 8	8	3	1)	1)	880	3~	3)
86.5	86.3	84.3	1)	IE3	2)	DRN 132L 8	8	4	1)	1)	877	3~	3)
86.5	86.3	84.4	1)	IE3	2)	DRN 160M 8	8	5.5	1)	1)	883	3~	3)
89.5	89.4	87.9	1)	IE3	2)	DRN 160L 8	8	7.5	1)	1)	882	3~	3)
89.5	89.5	88.3	1)	IE3	2)	DRN 180L 8	8	11	1)	1)	885	3~	3)

1) See chapter 3.2

2) See chapter 2.1

3) See chapter 2.3

No. 13: Power losses in %

Motor	Nominal power	25;25	25;100	50;25	50;50	50;100	90;50	90;100
	kW							
DRN 71MS 8	0.12	57.9	90.9	60.5	67.9	94	73.7	100.6
DRN 80MK 8	0.18	44.7	63.3	47.1	51.1	66.1	57	72.8
DRN 80M 8	0.25	35.3	51.1	37.2	40.6	53.2	44.8	58
DRN 90S 8	0.37	25.9	39.4	27.5	30.4	41.3	34.3	45.9
DRN 90L 8	0.55	19	33	20.3	23.3	34.6	26.3	38.3
DRN 100LS 8	0.75	15.4	29.2	16.6	19.5	30.8	22.4	34.5
DRN 100L 8	1.1	14.5	25.4	15.6	17.8	26.7	20.3	29.7
DRN 112M 8	1.5	10.5	21.5	11.6	13.8	23	16.3	26.4
DRN 132S 8	2.2	8.4	18.5	9.4	11.4	19.9	13.5	22.9
DRN 132M 8	3	8.7	15.8	9.9	11.4	17.3	13.9	20.5
DRN 132L 8	4	6.9	14.6	7.9	9.4	15.9	11.4	18.6
DRN 160M 8	5.5	6.6	12.3	7.6	8.8	13.6	11	16.6
DRN 160L 8	7.5	5.5	11.3	6.4	7.6	12.5	9.5	15.1
DRN 180L 8	11	4.4	10.7	4.9	6.2	11.5	7.5	13.3

3.4.12 8-pole global motors in 50/60 Hz

No. 1				No. 2	No. 3	No. 4	No. 5	No. 6	No. 7	No. 8	No. 9	No. 10	No. 11
$\eta_{100\%}$	$\eta_{75\%}$	$\eta_{50\%}$	V					kW	Hz	V	min ⁻¹		
%	%	%											
50.7 57.5	46.7 52.6	39.0 43.9	¹⁾	-	²⁾	DRN 71MSR 8	8	0.09	¹⁾	¹⁾	695 856	3~	³⁾
53.5 59.5	52.4 56.5	46.2 49.3	¹⁾	IE3	²⁾	DRN 71MS 8	8	0.12	¹⁾	¹⁾	665 835	3~	³⁾
58.7 64.0	56.1 60.5	49.4 53.3	¹⁾	IE3	²⁾	DRN 80MK 8	8	0.18	¹⁾	¹⁾	705 863	3~	³⁾
64.1 68.0	62.0 65.0	55.8 58.2	¹⁾	IE3	²⁾	DRN 80M 8	8	0.25	¹⁾	¹⁾	702 861	3~	³⁾
69.3 72.0	67.5 69.6	61.9 63.7	¹⁾	IE3	²⁾	DRN 90S 8	8	0.37	¹⁾	¹⁾	716 870	3~	³⁾
73.0 74.0	72.7 72.8	69.0 68.5	¹⁾	IE3	²⁾	DRN 90L 8	8	0.55	¹⁾	¹⁾	710 868	3~	³⁾
75.0 75.5	75.2 74.7	72.2 71.2	¹⁾	IE3	²⁾	DRN 100LS 8	8	0.75	¹⁾	¹⁾	708 866	3~	³⁾
77.7 78.5	77.2 77.3	73.5 73.3	¹⁾	IE3	²⁾	DRN 100L 8	8	1.1	¹⁾	¹⁾	710 868	3~	³⁾
79.7 84.0	80.4 83.8	78.7 81.4	¹⁾	IE3	²⁾	DRN 112M 8	8	1.5	¹⁾	¹⁾	715 872	3~	³⁾
81.9 85.5	82.9 85.6	81.6 83.7	¹⁾	IE3	²⁾	DRN 132S 8	8	2.2	¹⁾	¹⁾	715 871	3~	3~
83.5 86.5	83.3 85.8	80.9 83.0	¹⁾	IE3	²⁾	DRN 132M 8	8	3	¹⁾	¹⁾	726 880	3~	3~
84.8 86.5	85.1 86.3	83.6 84.3	¹⁾	IE3	²⁾	DRN 132L 8	8	4	¹⁾	¹⁾	722 877	3~	3~
86.2 86.5	86.5 86.3	85.1 84.4	¹⁾	IE3	²⁾	DRN 160M 8	8	5.5	¹⁾	¹⁾	729 883	3~	3~
87.3 89.5	87.7 89.4	86.8 87.9	¹⁾	IE3	²⁾	DRN 160L 8	8	7.5	¹⁾	¹⁾	729 882	3~	3~
88.6 89.5	89.0 89.5	88.2 88.3	¹⁾	IE3	²⁾	DRN 180L 8	8	11	¹⁾	¹⁾	733 885	3~	3~

1) See chapter 3.2

2) See chapter 2.1

3) See chapter 2.3

No. 13: Power losses in % for 50 Hz

Motor	Nominal power	25;25	25;100	50;25	50;50	50;100	90;50	90;100
	kW							
DRN 71MS 8	0.12	49.3	92.2	50.9	60.2	94.2	63.7	100.6
DRN 80MK 8	0.18	41.9	66.1	43.6	48.7	68.1	52.6	72.8
DRN 80M 8	0.25	32.8	53	34.1	38.4	54.6	41.3	58
DRN 90S 8	0.37	24.4	41.4	25.6	29.1	42.7	31.7	45.9
DRN 90L 8	0.55	17.1	34.8	18	21.7	35.9	23.7	38.5
DRN 100LS 8	0.75	14.3	30.7	15.2	18.5	31.9	20.4	34.5
DRN 100L 8	1.1	13.6	27	14.4	17.1	28	18.8	30.1
DRN 112M 8	1.5	9.5	22.9	10.3	12.9	24	14.6	26.4
DRN 132S 8	2.2	7.6	19.7	8.3	10.6	20.7	12.1	22.9
DRN 132M 8	3	8	17	8.9	10.7	18.1	12.5	20.5
DRN 132L 8	4	6.3	15.6	7.1	8.8	16.6	10.3	18.6
DRN 160M 8	5.5	5.6	13.4	6.3	7.8	14.4	9.4	16.6
DRN 160L 8	7.5	5.2	12.1	5.9	7.3	13	8.8	15.1
DRN 180L 8	11	4.2	11.4	4.6	6	12	6.9	13.3

No. 13: Power losses in % for 60 Hz

Motor	Nominal power	25;25	25;100	50;25	50;50	50;100	90;50	90;100
	kW							
DRN 71MS 8	0.12	45.8	89.4	48	57.7	92.3	62.9	100.6
DRN 80MK 8	0.18	35.4	63	37.6	43.5	65.9	49.2	72.8
DRN 80M 8	0.25	27.3	51	28.9	34	53.2	37.9	58
DRN 90S 8	0.37	19.6	39.5	21	25.2	41.3	28.8	45.9
DRN 90L 8	0.55	13.1	33.3	14.1	18.2	34.7	20.8	38.3
DRN 100LS 8	0.75	10.5	29.3	11.5	15.2	30.8	17.8	34.5
DRN 100L 8	1.1	10.2	25.6	11.1	14.2	26.9	16.3	29.7
DRN 112M 8	1.5	6.4	21.7	7.2	10.2	23.1	12.2	26.4
DRN 132S 8	2.2	4.9	18.7	5.5	8.2	19.9	9.9	22.9
DRN 132M 8	3	5.2	16	6.2	8.3	17.4	10.5	20.5
DRN 132L 8	4	4	14.8	4.7	6.7	16	8.4	18.6
DRN 160M 8	5.5	3.3	12.3	4.1	5.8	13.6	7.6	16.6
DRN 160L 8	7.5	3.1	11.3	3.9	5.5	12.4	7.2	15.1
DRN 180L 8	11	2.5	10.9	2.9	4.4	11.6	5.5	13.3

3.4.13 Explosion-protected motors

2G, 2GD in 50 Hz

No. 1				No. 2	No. 3	No. 4	No. 5	No. 6	No. 7	No. 8	No. 9	No. 10	No. 11
$\eta_{100\%}$	$\eta_{75\%}$	$\eta_{50\%}$	V					kW	Hz	V	min ⁻¹		
%	%	%											
64.8	63.9	58.3	1)	IE3	2)	EDRN 63MS 4	4	0.12	1)	1)	1360	3~	3)
69.9	69.4	65.1	1)	IE3	2)	EDRN 63M 4	4	0.18	1)	1)	1375	3~	3)
73.5	73.5	70.1	1)	IE3	2)	EDRN 71MS 4	4	0.25	1)	1)	1400	3~	3)
77.3	77.3	74.3	1)	IE3	2)	EDRN 71M 4	4	0.37	1)	1)	1405	3~	3)
80.8	81.0	78.6	1)	IE3	2)	EDRN 80MK 4	4	0.55	1)	1)	1430	3~	3)
82.9	82.9	80.7	1)	IE3	2)	EDRN 80M 4	4	0.75	1)	1)	1440	3~	3)
84.5	85.0	83.5	1)	IE3	2)	EDRN 90S 4	4	1.1	1)	1)	1455	3~	3)
85.6	86.1	84.6	1)	IE3	2)	EDRN 90L 4	4	1.5	1)	1)	1461	3~	3)
86.9	87.5	86.4	1)	IE3	2)	EDRN 100LS 4	4	2.2	1)	1)	1450	3~	3)
87.8	88.3	87.3	1)	IE3	2)	EDRN 100L 4	4	3	1)	1)	1456	3~	3)
88.7	89.4	88.6	1)	IE3	2)	EDRN 112M 4	4	4	1)	1)	1464	3~	3)
89.6	90.6	90.6	1)	IE3	2)	EDRN 132S 4	4	5.5	1)	1)	1461	3~	3)
90.4	91.1	90.8	1)	IE3	2)	EDRN 132M 4	4	7.5	1)	1)	1468	3~	3)
91.0	91.6	90.8	1)	IE3	2)	EDRN 132L 4	4	9.2	1)	1)	1470	3~	3)
91.4	91.7	91.1	1)	IE3	2)	EDRN 160M 4	4	11	1)	1)	1473	3~	3)
92.1	92.5	91.9	1)	IE3	2)	EDRN 160L 4	4	15	1)	1)	1474	3~	3)
92.6	93.3	93.2	1)	IE3	2)	EDRN 180L 4	4	17.5	1)	1)	1474	3~	3)
93.2	93.6	93.1	1)	IE3	2)	EDRN 200L 4	4	24	1)	1)	1478	3~	3)
93.6	93.8	93.4	1)	IE3	2)	EDRN 250M 4	4	30	1)	1)	1482	3~	3)
93.9	94.2	93.9	1)	IE3	2)	EDRN 280S 4	4	36	1)	1)	1479	3~	3)
94.2	94.7	94.7	1)	IE3	2)	EDRN 280M 4	4	44	1)	1)	1476	3~	3)
94.8	94.5	93.8	1)	IE3	2)	EDRN 315S 4	4	58	1)	1)	1490	3~	3)
95.0	95.2	94.9	1)	IE3	2)	EDRN 315S 4	4	70	1)	1)	1487	3~	3)
95.2	95.7	95.5	1)	IE3	2)	EDRN 315M 4	4	84	1)	1)	1484	3~	3)
95.5	95.5	95.1	1)	IE3	2)	EDRN 315H 4	4	110	1)	1)	1486	3~	3)

1) See chapter 3.2

2) See chapter 2.1

3) See chapter 2.3

No. 13: Power losses in %

Motor	Nominal power	25;25	25;100	50;25	50;50	50;100	90;50	90;100
	kW							
EDRN 63MS 4	0.12	24.6	50.9	25.7	31.2	52.4	34.2	56.2
EDRN 63M 4	0.18	19.7	41.6	20.8	25.3	43	28	46.3
EDRN 71MS 4	0.25	15.6	34.6	16.6	20.5	35.9	22.8	38.9
EDRN 71M 4	0.37	12.8	28.9	13.7	17.1	30.1	19.1	32.7
EDRN 80MK 4	0.55	9.1	22.8	9.8	12.7	23.8	14.5	26
EDRN 80M 4	0.75	7.6	18.6	8.5	10.8	19.7	12.7	22
EDRN 90S 4	1.1	6.6	16.2	7.5	9.4	17.2	11.4	19.6
EDRN 90L 4	1.5	6.1	15.2	6.8	8.7	16	10.2	17.8
EDRN 100LS 4	2.2	5	13.6	5.6	7.4	14.3	8.6	15.9
EDRN 100L 4	3	4.5	12.2	5.1	6.7	12.9	7.9	14.5
EDRN 112M 4	4	3.8	10.8	4.5	5.9	11.6	7.4	13.7
EDRN 132S 4	5.5	3.1	9.5	3.7	5	10.3	6.2	12.1
EDRN 132M 4	7.5	2.9	8.6	3.3	4.5	9.3	5.6	11
EDRN 132L 4	9.2	2.9	8.3	3.3	4.4	8.9	5.5	10.5
EDRN 160M 4	11	2.6	7.4	3.1	4.1	8.1	5.3	9.7
EDRN 160L 4	15	2.4	6.7	2.9	3.8	7.3	4.9	8.9
EDRN 180L 4	17.5	1.8	6.1	2.2	3.1	6.7	4.1	8.4
EDRN 200L 4	24	1.6	5.6	2	2.8	6.2	3.9	7.7

Motor	Nominal power	25;25	25;100	50;25	50;50	50;100	90;50	90;100
	kW							
EDRN 250M 4	30	1.5	4.9	1.9	2.6	5.5	3.8	7.1
EDRN 280S 4	36	1.3	4.8	1.6	2.3	5.3	3.3	6.7
EDRN 280M 4	44	1.2	4.7	1.5	2.2	5.1	3	6.4
EDRN 315S 4	58	1.2	3.6	1.7	2.2	4.2	3.6	5.9
EDRN 315S 4	70	1	3.7	1.4	1.9	4.2	3	5.6
EDRN 315M 4	84	1	3.8	1.3	1.8	4.3	2.7	5.6
EDRN 315H 4	110	1	3.6	1.3	1.8	4.1	2.7	5.4

2G, 2GD in 60 Hz

No. 1				No. 2	No. 3	No. 4	No. 5	No. 6	No. 7	No. 8	No. 9	No. 10	No. 11
$\eta_{100\%}$	$\eta_{75\%}$	$\eta_{50\%}$	V										
%	%	%						kW	Hz	V	min ⁻¹		
66.0	63.7	57.7	¹⁾	IE3	²⁾	EDRN 63MS 4	4	0.12	¹⁾	¹⁾	1660	3~	³⁾
70.0	68.5	63.5	¹⁾	IE3	²⁾	EDRN 63M 4	4	0.18	¹⁾	¹⁾	1675	3~	³⁾
74.0	73.1	69.2	¹⁾	IE3	²⁾	EDRN 71MS 4	4	0.25	¹⁾	¹⁾	1700	3~	³⁾
78.5	77.7	74.3	¹⁾	IE3	²⁾	EDRN 71M 4	4	0.37	¹⁾	¹⁾	1705	3~	³⁾
81.5	81.0	78.1	¹⁾	IE3	²⁾	EDRN 80MK 4	4	0.55	¹⁾	¹⁾	1730	3~	³⁾
85.5	84.9	82.0	¹⁾	IE3	²⁾	EDRN 80M 4	4	0.75	¹⁾	¹⁾	1740	3~	³⁾
86.5	86.0	83.5	¹⁾	IE3	²⁾	EDRN 90S 4	4	1.1	¹⁾	¹⁾	1755	3~	³⁾
86.5	86.1	83.8	¹⁾	IE3	²⁾	EDRN 90L 4	4	1.5	¹⁾	¹⁾	1761	3~	³⁾
89.5	89.5	88.1	¹⁾	IE3	²⁾	EDRN 100LM 4	4	2.2	¹⁾	¹⁾	1757	3~	³⁾
89.5	89.3	87.6	¹⁾	IE3	²⁾	EDRN 100L 4	4	3	¹⁾	¹⁾	1756	3~	³⁾
89.5	89.6	88.4	¹⁾	IE3	²⁾	EDRN 112M 4	4	4	¹⁾	¹⁾	1764	3~	³⁾
91.7	91.8	90.9	¹⁾	IE3	²⁾	EDRN 132S 4	4	5.5	¹⁾	¹⁾	1761	3~	³⁾
91.7	91.9	91.1	¹⁾	IE3	²⁾	EDRN 132M 4	4	7.5	¹⁾	¹⁾	1768	3~	³⁾
91.7	91.9	91.0	¹⁾	IE3	²⁾	EDRN 132L 4	4	9.2	¹⁾	¹⁾	1770	3~	³⁾
92.4	92.3	91.2	¹⁾	IE3	²⁾	EDRN 160M 4	4	11	¹⁾	¹⁾	1773	3~	³⁾
93.0	93.3	92.3	¹⁾	IE3	²⁾	EDRN 160L 4	4	15	¹⁾	¹⁾	1774	3~	³⁾
93.6	93.9	93.5	¹⁾	IE3	²⁾	EDRN 180L 4	4	17.5	¹⁾	¹⁾	1774	3~	³⁾
93.8	93.8	92.8	¹⁾	IE3	²⁾	EDRN 200L 4	4	24	¹⁾	¹⁾	1778	3~	³⁾
94.1	93.8	92.7	¹⁾	IE3	²⁾	EDRN 250ME 4	4	30	¹⁾	¹⁾	1785	3~	³⁾
94.5	94.5	93.6	¹⁾	IE3	²⁾	EDRN 280S 4	4	36	¹⁾	¹⁾	1779	3~	³⁾
95.0	95.1	94.6	¹⁾	IE3	²⁾	EDRN 280M 4	4	44	¹⁾	¹⁾	1776	3~	³⁾
95.4	94.5	93.3	¹⁾	IE3	²⁾	EDRN 315S 4	4	58	¹⁾	¹⁾	1790	3~	³⁾
95.4	95.1	94.2	¹⁾	IE3	²⁾	EDRN 315S 4	4	70	¹⁾	¹⁾	1787	3~	³⁾
95.4	95.3	94.6	¹⁾	IE3	²⁾	EDRN 315ME 4	4	84	¹⁾	¹⁾	1786	3~	³⁾
95.8	95.4	94.6	¹⁾	IE3	²⁾	EDRN 315H 4	4	110	¹⁾	¹⁾	1786	3~	³⁾

1) See chapter 3.2

2) See chapter 2.1

3) See chapter 2.3

No. 13: Power losses in %

Motor	Nominal power	25;25	25;100	50;25	50;50	50;100	90;50	90;100
	kW							
EDRN 63MS 4	0.12	25.3	48.3	27	31.9	50.5	36.7	56.2
EDRN 63M 4	0.18	19.5	38	21	24.9	39.8	28.9	44.6
EDRN 71MS 4	0.25	15.2	31.5	16.5	20	33.2	23.2	37.3
EDRN 71M 4	0.37	11.8	25.5	12.9	15.8	27	18.6	30.4
EDRN 80MK 4	0.55	8.7	20.4	9.7	12.1	21.6	14.6	24.6
EDRN 80M 4	0.75	7.6	17.6	8.8	10.9	19	13.4	22
EDRN 90S 4	1.1	6.4	15	7.6	9.4	16.3	12.2	19.6
EDRN 90L 4	1.5	6	14.3	6.9	8.7	15.4	10.7	17.8
EDRN 100LM 4	2.2	4.7	12.8	5.4	7.1	13.8	8.7	15.9
EDRN 100L 4	3	4.5	11.4	5.3	6.7	12.4	8.4	14.5
EDRN 112M 4	4	3.6	9.5	4.4	5.6	10.6	7.6	13.3
EDRN 132S 4	5.5	3.2	8.7	3.9	5	9.7	6.7	12
EDRN 132M 4	7.5	2.9	7.9	3.4	4.5	8.8	5.9	11
EDRN 132L 4	9.2	2.8	7.4	3.4	4.3	8.2	5.7	10.2
EDRN 160M 4	11	2.7	6.9	3.3	4.2	7.7	5.7	9.7
EDRN 160L 4	15	2.5	6.2	3.1	3.9	7	5.3	8.9
EDRN 180L 4	17.5	1.9	5.5	2.4	3.2	6.3	4.6	8.4
EDRN 200L 4	24	1.7	5	2.2	2.9	5.7	4.4	7.7
EDRN 250ME 4	30	1.6	4.1	2.2	2.7	4.9	4.5	7.1

Motor	Nominal power	25;25	25;100	50;25	50;50	50;100	90;50	90;100
	kW							
EDRN 280S 4	36	1.4	4.3	1.8	2.4	4.9	3.7	6.7
EDRN 280M 4	44	1.4	4	1.8	2.4	4.7	3.7	6.4
EDRN 315S 4	58	1.2	3	1.8	2.2	3.7	4	5.9
EDRN 315S 4	70	1.1	3.2	1.5	1.9	3.8	3.3	5.6
EDRN 315ME 4	84	1.1	3.1	1.5	1.9	3.7	3.2	5.3
EDRN 315H 4	110	1.1	3.2	1.4	1.9	3.7	3	5.4

2D in 50 Hz

No. 1				No. 2	No. 3	No. 4	No. 5	No. 6	No. 7	No. 8	No. 9	No. 10	No. 11
$\eta_{100\%}$	$\eta_{75\%}$	$\eta_{50\%}$	V										
%	%	%						kW	Hz	V	min ⁻¹		
64.8	63.9	58.3	1)	IE3	2)	EDRN 63MS 4	4	0.12	1)	1)	1360	3~	3)
69.9	69.4	65.1	1)	IE3	2)	EDRN 63M 4	4	0.18	1)	1)	1375	3~	3)
73.5	73.5	70.1	1)	IE3	2)	EDRN 71MS 4	4	0.25	1)	1)	1400	3~	3)
77.3	77.3	74.3	1)	IE3	2)	EDRN 71M 4	4	0.37	1)	1)	1405	3~	3)
80.8	81.0	78.6	1)	IE3	2)	EDRN 80MK 4	4	0.55	1)	1)	1430	3~	3)
82.9	82.9	80.7	1)	IE3	2)	EDRN 80M 4	4	0.75	1)	1)	1440	3~	3)
84.5	85.0	83.5	1)	IE3	2)	EDRN 90S 4	4	1.1	1)	1)	1455	3~	3)
85.6	86.1	84.6	1)	IE3	2)	EDRN 90L 4	4	1.5	1)	1)	1461	3~	3)
86.9	87.5	86.4	1)	IE3	2)	EDRN 100LS 4	4	2.2	1)	1)	1450	3~	3)
87.8	88.3	87.3	1)	IE3	2)	EDRN 100L 4	4	3	1)	1)	1456	3~	3)
88.7	89.4	88.6	1)	IE3	2)	EDRN 112M 4	4	4	1)	1)	1464	3~	3)
89.6	90.6	90.6	1)	IE3	2)	EDRN 132S 4	4	5.5	1)	1)	1461	3~	3)
90.4	91.1	90.8	1)	IE3	2)	EDRN 132M 4	4	7.5	1)	1)	1468	3~	3)
91.0	91.6	90.8	1)	IE3	2)	EDRN 132L 4	4	9.2	1)	1)	1470	3~	3)
91.4	91.7	91.1	1)	IE3	2)	EDRN 160M 4	4	11	1)	1)	1473	3~	3)
92.1	92.5	91.9	1)	IE3	2)	EDRN 160L 4	4	15	1)	1)	1474	3~	3)
92.6	93.1	92.8	1)	IE3	2)	EDRN 180M 4	4	18.5	1)	1)	1478	3~	3)
93.0	93.6	93.4	1)	IE3	2)	EDRN 180L 4	4	22	1)	1)	1477	3~	3)
93.6	93.9	93.3	1)	IE3	2)	EDRN 200L 4	4	30	1)	1)	1480	3~	3)
93.9	94.4	94.3	1)	IE3	2)	EDRN 225S 4	4	37	1)	1)	1482	3~	3)
94.2	94.5	94.1	1)	IE3	2)	EDRN 225M 4	4	45	1)	1)	1483	3~	3)
94.6	94.8	94.4	1)	IE3	2)	EDRN 250M 4	4	55	1)	1)	1482	3~	3)
95.0	95.3	94.9	1)	IE3	2)	EDRN 280S 4	4	75	1)	1)	1482	3~	3)
95.2	95.6	95.4	1)	IE3	2)	EDRN 280M 4	4	90	1)	1)	1481	3~	3)
95.5	95.7	95.4	1)	IE3	2)	EDRN 315S 4	4	110	1)	1)	1488	3~	3)
95.6	95.9	95.6	1)	IE3	2)	EDRN 315M 4	4	132	1)	1)	1487	3~	3)
95.9	96.1	95.9	1)	IE3	2)	EDRN 315L 4	4	160	1)	1)	1486	3~	3)
96.0	96.0	95.4	1)	IE3	2)	EDRN 315H 4	4	200	1)	1)	1489	3~	3)

1) See chapter 3.2

2) See chapter 2.1

3) See chapter 2.3

No. 13: Power losses in %

Motor	Nominal power	25;25	25;100	50;25	50;50	50;100	90;50	90;100
	kW							
EDRN 63MS 4	0.12	24.6	50.9	25.7	31.2	52.4	34.2	56.2
EDRN 63M 4	0.18	19.7	41.6	20.8	25.3	43	28	46.3
EDRN 71MS 4	0.25	15.6	34.6	16.6	20.5	35.9	22.8	38.9
EDRN 71M 4	0.37	12.8	28.9	13.7	17.1	30.1	19.1	32.7
EDRN 80MK 4	0.55	9.1	22.8	9.8	12.7	23.8	14.5	26
EDRN 80M 4	0.75	7.6	18.6	8.5	10.8	19.7	12.7	22
EDRN 90S 4	1.1	6.6	16.2	7.5	9.4	17.2	11.4	19.6
EDRN 90L 4	1.5	6.1	15.2	6.8	8.7	16	10.2	17.8
EDRN 100LS 4	2.2	5	13.6	5.6	7.4	14.3	8.6	15.9
EDRN 100L 4	3	4.5	12.2	5.1	6.7	12.9	7.9	14.5
EDRN 112M 4	4	3.8	10.8	4.5	5.9	11.6	7.4	13.7
EDRN 132S 4	5.5	3.1	9.5	3.7	5	10.3	6.2	12.1
EDRN 132M 4	7.5	2.9	8.6	3.3	4.5	9.3	5.6	11
EDRN 132L 4	9.2	2.9	8.3	3.3	4.4	8.9	5.5	10.5
EDRN 160M 4	11	2.6	7.4	3.1	4.1	8.1	5.3	9.7
EDRN 160L 4	15	2.4	6.7	2.9	3.8	7.3	4.9	8.9

Motor	Nominal power	25;25	25;100	50;25	50;50	50;100	90;50	90;100
	kW							
EDRN 180M 4	18.5	1.9	6.2	2.3	3.2	6.8	4.2	8.3
EDRN 180L 4	22	1.7	5.9	2.1	2.9	6.5	3.9	8
EDRN 200L 4	30	1.6	5.3	1.9	2.7	5.8	3.7	7.1
EDRN 225S 4	37	1.5	5	1.8	2.5	5.5	3.3	6.8
EDRN 225M 4	45	1.6	4.7	1.9	2.5	5.2	3.3	6.4
EDRN 250M 4	55	1.5	4.3	1.9	2.4	4.8	3.3	5.9
EDRN 280S 4	75	1.6	4.1	1.9	2.4	4.6	3.2	5.6
EDRN 280M 4	90	1.1	4.1	1.4	2	4.5	2.6	5.4
EDRN 315S 4	110	1.1	3.8	1.4	2	4.2	2.8	5.4
EDRN 315M 4	132	1.1	3.6	1.3	1.8	4	2.6	5.2
EDRN 315L 4	160	1	3.6	1.3	1.8	3.9	2.5	4.9
EDRN 315H 4	200	1.2	3.2	1.5	1.9	3.6	2.7	4.7

2D in 60 Hz

No. 1				No. 2	No. 3	No. 4	No. 5	No. 6	No. 7	No. 8	No. 9	No. 10	No. 11
$\eta_{100\%}$	$\eta_{75\%}$	$\eta_{50\%}$	V										
%	%	%						kW	Hz	V	min ⁻¹		
66.0	63.7	57.7	1)	IE3	2)	EDRN 63MS 4	4	0.12	1)	1)	1660	3~	3)
70.0	68.5	63.5	1)	IE3	2)	EDRN 63M 4	4	0.18	1)	1)	1675	3~	3)
74.0	73.1	69.2	1)	IE3	2)	EDRN 71MS 4	4	0.25	1)	1)	1700	3~	3)
78.5	77.7	74.3	1)	IE3	2)	EDRN 71M 4	4	0.37	1)	1)	1705	3~	3)
81.5	81.0	78.1	1)	IE3	2)	EDRN 80MK 4	4	0.55	1)	1)	1730	3~	3)
85.5	84.9	82.0	1)	IE3	2)	EDRN 80M 4	4	0.75	1)	1)	1740	3~	3)
86.5	86.0	83.5	1)	IE3	2)	EDRN 90S 4	4	1.1	1)	1)	1755	3~	3)
86.5	86.1	83.8	1)	IE3	2)	EDRN 90L 4	4	1.5	1)	1)	1761	3~	3)
89.5	89.5	88.1	1)	IE3	2)	EDRN 100LM 4	4	2.2	1)	1)	1757	3~	3)
89.5	89.3	87.6	1)	IE3	2)	EDRN 100L 4	4	3	1)	1)	1756	3~	3)
89.5	89.6	88.4	1)	IE3	2)	EDRN 112M 4	4	4	1)	1)	1764	3~	3)
91.7	91.8	90.9	1)	IE3	2)	EDRN 132S 4	4	5.5	1)	1)	1761	3~	3)
91.7	91.9	91.1	1)	IE3	2)	EDRN 132M 4	4	7.5	1)	1)	1768	3~	3)
91.7	91.9	91.0	1)	IE3	2)	EDRN 132L 4	4	9.2	1)	1)	1770	3~	3)
92.4	92.3	91.2	1)	IE3	2)	EDRN 160M 4	4	11	1)	1)	1773	3~	3)
93.0	93.3	92.3	1)	IE3	2)	EDRN 160L 4	4	15	1)	1)	1774	3~	3)
93.6	93.8	93.3	1)	IE3	2)	EDRN 180M 4	4	18.5	1)	1)	1779	3~	3)
93.6	93.9	93.6	1)	IE3	2)	EDRN 180L 4	4	22	1)	1)	1779	3~	3)
94.1	94.1	93.4	1)	IE3	2)	EDRN 200L 4	4	30	1)	1)	1781	3~	3)
94.5	94.8	94.5	1)	IE3	2)	EDRN 225S 4	4	37	1)	1)	1782	3~	3)
95.0	95.2	94.8	1)	IE3	2)	EDRN 225M 4	4	45	1)	1)	1783	3~	3)
95.4	95.3	94.6	1)	IE3	2)	EDRN 250ME 4	4	55	1)	1)	1783	3~	3)
95.4	95.4	94.9	1)	IE3	2)	EDRN 280S 4	4	75	1)	1)	1782	3~	3)
95.4	95.5	95.0	1)	IE3	2)	EDRN 280M 4	4	90	1)	1)	1783	3~	3)
95.8	95.8	95.2	1)	IE3	2)	EDRN 315S 4	4	110	1)	1)	1788	3~	3)
96.2	96.1	95.5	1)	IE3	2)	EDRN 315ME 4	4	132	1)	1)	1789	3~	3)
96.2	96.3	95.9	1)	IE3	2)	EDRN 315L 4	4	160	1)	1)	1786	3~	3)
96.2	96.0	95.2	1)	IE3	2)	EDRN 315H 4	4	200	1)	1)	1789	3~	3)

1) See chapter 3.2

2) See chapter 2.1

3) See chapter 2.3

No. 13: Power losses in %

Motor	Nominal power	25;25	25;100	50;25	50;50	50;100	90;50	90;100
	kW							
EDRN 63MS 4	0.12	25.3	48.3	27	31.9	50.5	36.7	56.2
EDRN 63M 4	0.18	19.5	38	21	24.9	39.8	28.9	44.6
EDRN 71MS 4	0.25	15.2	31.5	16.5	20	33.2	23.2	37.3
EDRN 71M 4	0.37	11.8	25.5	12.9	15.8	27	18.6	30.4
EDRN 80MK 4	0.55	8.7	20.4	9.7	12.1	21.6	14.6	24.6
EDRN 80M 4	0.75	7.6	17.6	8.8	10.9	19	13.4	22
EDRN 90S 4	1.1	6.4	15	7.6	9.4	16.3	12.2	19.6
EDRN 90L 4	1.5	6	14.3	6.9	8.7	15.4	10.7	17.8
EDRN 100LM 4	2.2	4.7	12.8	5.4	7.1	13.8	8.7	15.9
EDRN 100L 4	3	4.5	11.4	5.3	6.7	12.4	8.4	14.5
EDRN 112M 4	4	3.6	9.5	4.4	5.6	10.6	7.6	13.3
EDRN 132S 4	5.5	3.2	8.7	3.9	5	9.7	6.7	12
EDRN 132M 4	7.5	2.9	7.9	3.4	4.5	8.8	5.9	11
EDRN 132L 4	9.2	2.8	7.4	3.4	4.3	8.2	5.7	10.2
EDRN 160M 4	11	2.7	6.9	3.3	4.2	7.7	5.7	9.7
EDRN 160L 4	15	2.5	6.2	3.1	3.9	7	5.3	8.9

Motor	Nominal power	25;25	25;100	50;25	50;50	50;100	90;50	90;100
	kW							
EDRN 180M 4	18.5	1.9	5.6	2.4	3.2	6.3	4.6	8.3
EDRN 180L 4	22	1.8	5.2	2.2	2.9	5.9	4.2	7.8
EDRN 200L 4	30	1.6	4.7	2.1	2.7	5.4	4	7.1
EDRN 225S 4	37	1.6	4.4	2	2.6	5.1	3.6	6.7
EDRN 225M 4	45	1.6	4.2	2	2.6	4.8	3.6	6.4
EDRN 250ME 4	55	1.3	3.9	1.7	2.2	4.4	3.3	5.9
EDRN 280S 4	75	1.3	3.7	1.6	2.1	4.2	3	5.4
EDRN 280M 4	90	1.2	3.6	1.5	2	4	2.8	5.2
EDRN 315S 4	110	1.2	3.3	1.6	2	3.8	3.2	5.4
EDRN 315ME 4	132	1.3	3.1	1.7	2.1	3.7	3.3	5.2
EDRN 315L 4	160	1.1	3.2	1.4	1.8	3.6	2.8	4.9
EDRN 315H 4	200	1.2	2.8	1.6	1.9	3.3	3	4.7

3G, 3GD, 3D in 50 Hz

No. 1				No. 2	No. 3	No. 4	No. 5	No. 6	No. 7	No. 8	No. 9	No. 10	No. 11
$\eta_{100\%}$	$\eta_{75\%}$	$\eta_{50\%}$	V										
%	%	%						kW	Hz	V	min ⁻¹		
64.8	63.9	58.3	1)	IE3	2)	EDRN 63MS 4	4	0.12	1)	1)	1360	3~	3)
69.9	69.4	65.1	1)	IE3	2)	EDRN 63M 4	4	0.18	1)	1)	1375	3~	3)
73.5	73.5	70.1	1)	IE3	2)	EDRN 71MS 4	4	0.25	1)	1)	1400	3~	3)
77.3	77.3	74.3	1)	IE3	2)	EDRN 71M 4	4	0.37	1)	1)	1405	3~	3)
80.8	81.0	78.6	1)	IE3	2)	EDRN 80MK 4	4	0.55	1)	1)	1430	3~	3)
82.9	82.9	80.7	1)	IE3	2)	EDRN 80M 4	4	0.75	1)	1)	1440	3~	3)
84.5	85.0	83.5	1)	IE3	2)	EDRN 90S 4	4	1.1	1)	1)	1455	3~	3)
85.6	86.1	84.6	1)	IE3	2)	EDRN 90L 4	4	1.5	1)	1)	1461	3~	3)
86.9	87.5	86.4	1)	IE3	2)	EDRN 100LS 4	4	2.2	1)	1)	1450	3~	3)
87.8	88.3	87.3	1)	IE3	2)	EDRN 100L 4	4	3	1)	1)	1456	3~	3)
88.7	89.4	88.6	1)	IE3	2)	EDRN 112M 4	4	4	1)	1)	1464	3~	3)
89.6	90.6	90.6	1)	IE3	2)	EDRN 132S 4	4	5.5	1)	1)	1461	3~	3)
90.4	91.1	90.8	1)	IE3	2)	EDRN 132M 4	4	7.5	1)	1)	1468	3~	3)
91.0	91.6	90.8	1)	IE3	2)	EDRN 132L 4	4	9.2	1)	1)	1470	3~	3)
91.4	91.7	91.1	1)	IE3	2)	EDRN 160M 4	4	11	1)	1)	1473	3~	3)
92.1	92.5	91.9	1)	IE3	2)	EDRN 160L 4	4	15	1)	1)	1474	3~	3)
92.6	93.1	92.8	1)	IE3	2)	EDRN 180M 4	4	18.5	1)	1)	1478	3~	3)
93.0	93.6	93.4	1)	IE3	2)	EDRN 180L 4	4	22	1)	1)	1477	3~	3)
93.6	93.9	93.3	1)	IE3	2)	EDRN 200L 4	4	30	1)	1)	1480	3~	3)
93.9	94.4	94.3	1)	IE3	2)	EDRN 225S 4	4	37	1)	1)	1482	3~	3)
94.2	94.5	94.1	1)	IE3	2)	EDRN 225M 4	4	45	1)	1)	1482	3~	3)
94.6	94.8	94.4	1)	IE3	2)	EDRN 250M 4	4	55	1)	1)	1482	3~	3)
95.0	95.3	94.9	1)	IE3	2)	EDRN 280S 4	4	75	1)	1)	1482	3~	3)
95.2	95.6	95.4	1)	IE3	2)	EDRN 280M 4	4	90	1)	1)	1481	3~	3)
95.5	95.7	95.4	1)	IE3	2)	EDRN 315S 4	4	110	1)	1)	1488	3~	3)
95.6	95.9	95.6	1)	IE3	2)	EDRN 315M 4	4	132	1)	1)	1487	3~	3)
95.9	96.1	95.9	1)	IE3	2)	EDRN 315L 4	4	160	1)	1)	1486	3~	3)
96.0	96.0	95.4	1)	IE3	2)	EDRN 315H 4	4	200	1)	1)	1489	3~	3)

1) See chapter 3.2

2) See chapter 2.1

3) See chapter 2.3

No. 13: Power losses in %

Motor	Nominal power	25;25	25;100	50;25	50;50	50;100	90;50	90;100
	kW							
EDRN 63MS 4	0.12	24.6	50.9	25.7	31.2	52.4	34.2	56.2
EDRN 63M 4	0.18	19.7	41.6	20.8	25.3	43	28	46.3
EDRN 71MS 4	0.25	15.6	34.6	16.6	20.5	35.9	22.8	38.9
EDRN 71M 4	0.37	12.8	28.9	13.7	17.1	30.1	19.1	32.7
EDRN 80MK 4	0.55	9.1	22.8	9.8	12.7	23.8	14.5	26
EDRN 80M 4	0.75	7.6	18.6	8.5	10.8	19.7	12.7	22
EDRN 90S 4	1.1	6.6	16.2	7.5	9.4	17.2	11.4	19.6
EDRN 90L 4	1.5	6.1	15.2	6.8	8.7	16	10.2	17.8
EDRN 100LS 4	2.2	5	13.6	5.6	7.4	14.3	8.6	15.9
EDRN 100L 4	3	4.5	12.2	5.1	6.7	12.9	7.9	14.5
EDRN 112M 4	4	3.8	10.8	4.5	5.9	11.6	7.4	13.7
EDRN 132S 4	5.5	3.1	9.5	3.7	5	10.3	6.2	12.1
EDRN 132M 4	7.5	2.9	8.6	3.3	4.5	9.3	5.6	11
EDRN 132L 4	9.2	2.9	8.3	3.3	4.4	8.9	5.5	10.5
EDRN 160M 4	11	2.6	7.4	3.1	4.1	8.1	5.3	9.7
EDRN 160L 4	15	2.4	6.7	2.9	3.8	7.3	4.9	8.9

Motor	Nominal power	25;25	25;100	50;25	50;50	50;100	90;50	90;100
	kW							
EDRN 180M 4	18.5	1.9	6.2	2.3	3.2	6.8	4.2	8.3
EDRN 180L 4	22	1.7	5.9	2.1	2.9	6.5	3.9	8
EDRN 200L 4	30	1.6	5.3	1.9	2.7	5.8	3.7	7.1
EDRN 225S 4	37	1.5	5	1.8	2.5	5.5	3.3	6.8
EDRN 225M 4	45	1.6	4.7	1.9	2.5	5.2	3.3	6.4
EDRN 250M 4	55	1.5	4.3	1.9	2.4	4.8	3.3	5.9
EDRN 280S 4	75	1.6	4.1	1.9	2.4	4.6	3.2	5.6
EDRN 280M 4	90	1.1	4.1	1.4	2	4.5	2.6	5.4
EDRN 315S 4	110	1.1	3.8	1.4	2	4.2	2.8	5.4
EDRN 315M 4	132	1.1	3.6	1.3	1.8	4	2.6	5.2
EDRN 315L 4	160	1	3.6	1.3	1.8	3.9	2.5	4.9
EDRN 315H 4	200	1.2	3.2	1.5	1.9	3.6	2.7	4.7

3G, 3GD, 3D in 60 Hz

No. 1				No. 2	No. 3	No. 4	No. 5	No. 6	No. 7	No. 8	No. 9	No. 10	No. 11
$\eta_{100\%}$	$\eta_{75\%}$	$\eta_{50\%}$	V										
%	%	%						kW	Hz	V	min ⁻¹		
66.0	63.7	57.7	¹⁾	IE3	²⁾	EDRN 63MS 4	4	0.12	¹⁾	¹⁾	1660	3~	³⁾
70.0	68.5	63.5	¹⁾	IE3	²⁾	EDRN 63M 4	4	0.18	¹⁾	¹⁾	1675	3~	³⁾
74.0	73.1	69.2	¹⁾	IE3	²⁾	EDRN 71MS 4	4	0.25	¹⁾	¹⁾	1700	3~	³⁾
78.5	77.7	74.3	¹⁾	IE3	²⁾	EDRN 71M 4	4	0.37	¹⁾	¹⁾	1705	3~	³⁾
81.5	81.0	78.1	¹⁾	IE3	²⁾	EDRN 80MK 4	4	0.55	¹⁾	¹⁾	1730	3~	³⁾
85.5	85.2	82.8	¹⁾	IE3	²⁾	EDRN 80M 4	4	0.75	¹⁾	¹⁾	1746	3~	³⁾
86.5	86.5	84.4	¹⁾	IE3	²⁾	EDRN 90S 4	4	1.1	¹⁾	¹⁾	1757	3~	³⁾
86.5	86.5	84.6	¹⁾	IE3	²⁾	EDRN 90L 4	4	1.5	¹⁾	¹⁾	1763	3~	³⁾
89.5	89.8	88.6	¹⁾	IE3	²⁾	EDRN 100LM 4	4	2.2	¹⁾	¹⁾	1757	3~	³⁾
89.5	89.6	88.4	¹⁾	IE3	²⁾	EDRN 100L 4	4	3	¹⁾	¹⁾	1759	3~	³⁾
89.5	89.1	89.1	¹⁾	IE3	²⁾	EDRN 112M 4	4	4	¹⁾	¹⁾	1766	3~	³⁾
91.7	92.3	91.4	¹⁾	IE3	²⁾	EDRN 132S 4	4	5.5	¹⁾	¹⁾	1765	3~	³⁾
91.7	92.1	91.6	¹⁾	IE3	²⁾	EDRN 132M 4	4	7.5	¹⁾	¹⁾	1770	3~	³⁾
91.7	92.1	91.4	¹⁾	IE3	²⁾	EDRN 132L 4	4	9.2	¹⁾	¹⁾	1772	3~	³⁾
92.4	92.5	91.5	¹⁾	IE3	²⁾	EDRN 160M 4	4	11	¹⁾	¹⁾	1774	3~	³⁾
93.0	93.3	92.5	¹⁾	IE3	²⁾	EDRN 160L 4	4	15	¹⁾	¹⁾	1774	3~	³⁾
93.6	93.8	93.3	¹⁾	IE3	²⁾	EDRN 180M 4	4	18.5	¹⁾	¹⁾	1779	3~	³⁾
93.6	93.9	93.6	¹⁾	IE3	²⁾	EDRN 180L 4	4	22	¹⁾	¹⁾	1779	3~	³⁾
94.1	94.1	93.4	¹⁾	IE3	²⁾	EDRN 200L 4	4	30	¹⁾	¹⁾	1781	3~	³⁾
94.5	94.8	94.5	¹⁾	IE3	²⁾	EDRN 225S 4	4	37	¹⁾	¹⁾	1784	3~	³⁾
95.0	95.2	94.8	¹⁾	IE3	²⁾	EDRN 225M 4	4	45	¹⁾	¹⁾	1784	3~	³⁾
95.4	95.3	94.6	¹⁾	IE3	²⁾	EDRN 250ME 4	4	55	¹⁾	¹⁾	1786	3~	³⁾
95.4	95.4	94.9	¹⁾	IE3	²⁾	EDRN 280S 4	4	75	¹⁾	¹⁾	1784	3~	³⁾
95.4	95.5	95.0	¹⁾	IE3	²⁾	EDRN 280M 4	4	90	¹⁾	¹⁾	1783	3~	³⁾

1) See chapter 3.2

2) See chapter 2.1

3) See chapter 2.3

No. 13: Power losses in %

Motor	Nominal power	25;25	25;100	50;25	50;50	50;100	90;50	90;100
	kW							
EDRN 63MS 4	0.12	25.3	48.3	27	31.9	50.5	36.7	56.2
EDRN 63M 4	0.18	19.5	38	21	24.9	39.8	28.9	44.6
EDRN 71MS 4	0.25	15.2	31.5	16.5	20	33.2	23.2	37.3
EDRN 71M 4	0.37	11.8	25.5	12.9	15.8	27	18.6	30.4
EDRN 80MK 4	0.55	8.7	20.4	9.7	12.1	21.6	14.6	24.6
EDRN 80M 4	0.75	7.7	17.6	8.8	10.9	19	13.5	22
EDRN 90S 4	1.1	6.4	15	7.6	9.4	16.3	12.2	19.6
EDRN 90L 4	1.5	6	14.3	6.9	8.7	15.4	10.7	17.8
EDRN 100LM 4	2.2	4.7	12.8	5.4	7.1	13.8	8.7	15.9
EDRN 100L 4	3	4.5	11.4	5.3	6.7	12.4	8.4	14.5
EDRN 112M 4	4	3.6	9.5	4.4	5.6	10.6	7.6	13.3
EDRN 132S 4	5.5	3.2	8.7	3.9	5.1	9.7	6.7	12
EDRN 132M 4	7.5	2.9	7.9	3.4	4.5	8.7	6	11
EDRN 132L 4	9.2	2.9	7.4	3.4	4.3	8.2	5.7	10.2
EDRN 160M 4	11	2.7	6.8	3.3	4.2	7.7	5.7	9.7
EDRN 160L 4	15	2.5	6.1	3.1	3.9	7	5.3	8.9
EDRN 180M 4	18.5	1.9	5.6	2.4	3.2	6.3	4.6	8.3
EDRN 180L 4	22	1.8	5.2	2.2	2.9	5.9	4.2	7.8
EDRN 200L 4	30	1.6	4.7	2.1	2.7	5.4	4	7.1
EDRN 225S 4	37	1.6	4.4	2	2.6	5.1	3.7	6.7

Motor	Nominal power	25;25	25;100	50;25	50;50	50;100	90;50	90;100
	kW							
EDRN 225M 4	45	1.6	4.2	2	2.6	4.8	3.6	6.4
EDRN 250ME 4	55	1.3	3.9	1.7	2.3	4.4	3.4	5.9
EDRN 280S 4	75	1.3	3.7	1.6	2.1	4.2	3	5.4
EDRN 280M 4	90	1.2	3.6	1.5	2	4	2.8	5.2

3.5 IE4 motors

3.5.1 4-pole motors in 50 Hz

No. 1				No. 2	No. 3	No. 4	No. 5	No. 6	No. 7	No. 8	No. 9	No. 10	No. 11
$\eta_{100\%}$	$\eta_{75\%}$	$\eta_{50\%}$	V					kW	Hz	V	min ⁻¹		
%	%	%											
85.7	85.1	82.3	1)	IE4	2)	DRU.. 90S 4	4	0.75	1)	1)	1470	3~	3)
87.2	86.7	84.6	1)	IE4	2)	DRU.. 100LSR 4	4	1.1	1)	1)	1470	3~	3)
88.2	88.2	86.6	1)	IE4	2)	DRU.. 100LS 4	4	1.5	1)	1)	1463	3~	3)
89.5	89.7	88.4	1)	IE4	2)	DRU.. 100L 4	4	2.2	1)	1)	1464	3~	3)
90.4	90.8	90.2	1)	IE4	2)	DRU.. 112M 4	4	3	1)	1)	1470	3~	3)
91.1	91.6	91.0	1)	IE4	2)	DRU.. 132S 4	4	4	1)	1)	1472	3~	3)
91.9	92.0	91.1	1)	IE4	2)	DRU.. 132M 4	4	5.5	1)	1)	1477	3~	3)
92.6	92.6	91.4	1)	IE4	2)	DRU.. 160M 4	4	7.5	1)	1)	1480	3~	3)
93.0	93.0	92.1	1)	IE4	2)	DRU.. 160LR 4	4	9.2	1)	1)	1481	3~	3)
93.3	93.5	92.6	1)	IE4	2)	DRU.. 160L 4	4	11	1)	1)	1479	3~	3)
93.9	94.1	93.6	1)	IE4	2)	DRU.. 180L 4	4	15	1)	1)	1483	3~	3)
94.2	94.3	93.7	1)	IE4	2)	DRU.. 200LR 4	4	18.5	1)	1)	1485	3~	3)
94.5	94.5	93.9	1)	IE4	2)	DRU.. 200L 4	4	22	1)	1)	1484	3~	3)
94.9	95.1	94.6	1)	IE4	2)	DRU.. 225S 4	4	30	1)	1)	1487	3~	3)
95.2	95.4	95.0	1)	IE4	2)	DRU.. 225ME 4	4	37	1)	1)	1486	3~	3)
95.4	95.5	94.9	1)	IE4	2)	DRU.. 250M 4	4	45	1)	1)	1485	3~	3)
95.7	95.7	95.0	1)	IE4	2)	DRU.. 250ME 4	4	55	1)	1)	1487	3~	3)
96.0	96.1	95.6	1)	IE4	2)	DRU.. 280MR 4	4	75	1)	1)	1486	3~	3)
96.1	96.3	96.1	1)	IE4	2)	DRU.. 315SR 4	4	90	1)	1)	1488	3~	3)
96.3	96.5	96.3	1)	IE4	2)	DRU.. 315S 4	4	110	1)	1)	1488	3~	3)
96.4	96.6	96.4	1)	IE4	2)	DRU.. 315M 4	4	132	1)	1)	1488	3~	3)
96.6	96.8	96.7	1)	IE4	2)	DRU.. 315HR 4	4	160	1)	1)	1488	3~	3)
96.7	96.7	96.3	1)	IE4	2)	DRU.. 315H 4	4	200	1)	1)	1490	3~	3)
96.7	96.7	96.3	1)	IE4	2)	DRU.. 355MR 4	4	250	1)	1)	1490	3~	3)
96.7	96.7	96.3	1)	IE4	2)	DRU.. 355M 4	4	315	1)	1)	1492	3~	3)
96.7	96.7	96.3	1)	IE4	2)	DRU.. 355ML 4	4	355	1)	1)	1492	3~	3)

1) See chapter 3.2

2) See chapter 2.1

3) See chapter 2.3

No. 13: Power losses in %

Motor	Nominal power	25;25	25;100	50;25	50;50	50;100	90;50	90;100
	kW							
DRU.. 90S 4	0.75	6.8	14.3	7.9	9.5	15.5	12.1	18.4
DRU.. 100LSR 4	1.1	6.1	12	7	8.3	13	10.2	15.2
DRU.. 100LS 4	1.5	5.3	12	6	7.4	12.9	8.9	14.6
DRU.. 100L 4	2.2	4.3	10.7	5	6.4	11.6	7.8	13.4
DRU.. 112M 4	3	3.6	9.7	4.3	5.5	10.6	7.2	12.9
DRU.. 132S 4	4	3.2	8.4	3.8	4.9	9.3	6.3	11.2
DRU.. 132M 4	5.5	2.9	7.3	3.5	4.4	8	5.7	9.8
DRU.. 160M 4	7.5	2.5	6	3.1	3.8	6.7	5.1	8.4
DRU.. 160LR 4	9.2	2.4	5.4	3	3.6	6.1	5	7.8
DRU.. 160L 4	11	2.3	5.6	2.8	3.5	6.3	4.7	7.8
DRU.. 180L 4	15	1.8	4.8	2.3	2.9	5.4	4.1	7.1
DRU.. 200LR 4	18.5	1.6	4.8	2	2.7	5.4	3.9	6.9
DRU.. 200L 4	22	1.8	4.3	2.3	2.8	4.9	4.1	6.4
DRU.. 225S 4	30	1.5	4	1.9	2.4	4.6	3.4	5.9
DRU.. 225ME 4	37	1.2	3.8	1.6	2.1	4.2	2.9	5.2
DRU.. 250M 4	45	1.4	3.8	1.7	2.2	4.2	3.1	5.4

Motor	Nominal power	25;25	25;100	50;25	50;50	50;100	90;50	90;100
	kW							
DRU.. 250ME 4	55	1.5	3.5	1.9	2.3	4	3.2	5.2
DRU.. 280MR 4	75	1.1	4	1.4	2	4.4	2.7	5.4
DRU.. 315SR 4	90	0.9	3	1.2	1.6	3.4	2.4	4.5
DRU.. 315S 4	110	0.9	3	1.1	1.6	3.4	2.3	4.4
DRU.. 315M 4	132	1	3.3	1.2	1.7	3.6	2.4	4.7
DRU.. 315HR 4	160	1	3.1	1.3	1.7	3.5	2.5	4.6
DRU.. 315H 4	200	1.1	2.9	1.4	1.7	3.3	2.5	4.3
DRU.. 355MR 4	250	1.2	2.8	1.4	1.8	3.1	2.4	3.8
DRU.. 355M 4	315	1.2	2.7	1.5	1.8	3.1	2.5	3.9
DRU.. 355ML 4	355	1.2	2.7	1.5	1.8	3	2.5	3.8

3.5.2 4-pole motors in 60 Hz

No. 1				No. 2	No. 3	No. 4	No. 5	No. 6	No. 7	No. 8	No. 9	No. 10	No. 11
η _{100%}	η _{75%}	η _{50%}	V										
%	%	%						kW	Hz	V	min ⁻¹		
85.5	84.5	81.5	1)	IE4	2)	DRU.. 90S 4	4	0.75	1)	1)	1773	3~	3)
87.5	87.0	84.8	1)	IE4	2)	DRU.. 90L 4	4	1.1	1)	1)	1768	3~	3)
88.5	88.3	86.6	1)	IE4	2)	DRU.. 100LS 4	4	1.5	1)	1)	1764	3~	3)
91.0	90.9	89.7	1)	IE4	2)	DRU.. 112MR 4	4	2.2	1)	1)	1773	3~	3)
91.0	91.3	90.5	1)	IE4	2)	DRU.. 112M 4	4	3	1)	1)	1770	3~	3)
91.0	91.3	90.6	1)	IE4	2)	DRU.. 132S 4	4	4	1)	1)	1771	3~	3)
92.4	92.4	91.3	1)	IE4	2)	DRU.. 132M 4	4	5.5	1)	1)	1775	3~	3)
92.4	92.0	90.5	1)	IE4	2)	DRU.. 160M 4	4	7.5	1)	1)	1782	3~	3)
93.0	92.8	91.5	1)	IE4	2)	DRU.. 160MP 4	4	9.2	1)	1)	1779	3~	3)
93.6	93.3	91.9	1)	IE4	2)	DRU.. 160L 4	4	11	1)	1)	1780	3~	3)
94.1	94.3	93.8	1)	IE4	2)	DRU.. 180M 4	4	15	1)	1)	1781	3~	3)
94.5	94.3	93.3	1)	IE4	2)	DRU.. 200LR 4	4	18.5	1)	1)	1787	3~	3)
94.5	94.3	93.2	1)	IE4	2)	DRU.. 200L 4	4	22	1)	1)	1786	3~	3)
95.0	95.1	94.5	1)	IE4	2)	DRU.. 225S 4	4	30	1)	1)	1786	3~	3)
95.4	95.5	95.2	1)	IE4	2)	DRU.. 225ME 4	4	37	1)	1)	1785	3~	3)
95.4	95.3	94.5	1)	IE4	2)	DRU.. 250M 4	4	45	1)	1)	1786	3~	3)
95.8	95.7	95.0	1)	IE4	2)	DRU.. 250ME 4	4	55	1)	1)	1786	3~	3)
96.2	96.1	95.5	1)	IE4	2)	DRU.. 280MR 4	4	75	1)	1)	1786	3~	3)
96.2	96.2	95.6	1)	IE4	2)	DRU.. 315SR 4	4	90	1)	1)	1790	3~	3)
96.2	96.2	95.6	1)	IE4	2)	DRU.. 315S 4	4	110	1)	1)	1789	3~	3)
96.5	96.5	96.0	1)	IE4	2)	DRU.. 315M 4	4	132	1)	1)	1789	3~	3)
96.5	96.5	96.1	1)	IE4	2)	DRU.. 315L 4	4	160	1)	1)	1787	3~	3)
96.5	96.7	96.5	1)	IE4	2)	DRU.. 315H 4	4	200	1)	1)	1786	3~	3)
96.8	96.7	95.9	1)	IE4	2)	DRU.. 355MS 4	4	260	1)	1)	1792	3~	3)
96.8	96.8	96.1	1)	IE4	2)	DRU.. 355M 4	4	335	1)	1)	1791	3~	3)
96.8	96.7	96.1	1)	IE4	2)	DRU.. 355ML 4	4	375	1)	1)	1792	3~	3)

1) See chapter 3.2

2) See chapter 2.1

3) See chapter 2.3

No. 13: Power losses in %

Motor	Nominal power	25;25	25;100	50;25	50;50	50;100	90;50	90;100
	kW							
DRU.. 90S 4	0.75	6.3	12.2	7.6	8.8	13.6	12.1	17.3
DRU.. 90L 4	1.1	5.5	11.7	6.4	7.7	12.7	9.9	15.2
DRU.. 100LS 4	1.5	5	10.7	5.9	7	11.6	8.9	13.8
DRU.. 112MR 4	2.2	3.5	8	4.4	5.4	9.2	7.8	12.3
DRU.. 112M 4	3	3.3	8.4	4.1	5.2	9.5	7.2	12.2

Motor	Nominal power	25;25	25;100	50;25	50;50	50;100	90;50	90;100
	kW							
DRU.. 132S 4	4	3.1	7.3	3.7	4.7	8.2	6.4	10.5
DRU.. 132M 4	5.5	2.8	6.3	3.5	4.2	7.2	5.9	9.3
DRU.. 160M 4	7.5	2.5	5.4	3.3	3.9	6.3	5.5	8.3
DRU.. 160MP 4	9.2	2.4	5.3	3.1	3.7	6.1	5.2	8
DRU.. 160L 4	11	2.3	4.9	2.9	3.5	5.7	4.9	7.5
DRU.. 180M 4	15	1.8	4.4	2.2	2.8	5.1	4.2	6.9
DRU.. 200LR 4	18.5	1.7	4.1	2.3	2.8	4.8	4.5	6.8
DRU.. 200L 4	22	1.7	3.8	2.3	2.7	4.5	4.3	6.4
DRU.. 225S 4	30	1.6	3.7	2	2.5	4.3	3.6	5.9
DRU.. 225ME 4	37	1.2	3.6	1.6	2.1	4.1	3	5.2
DRU.. 250M 4	45	1.3	3.3	1.7	2.2	3.9	3.4	5.4
DRU.. 250ME 4	55	1.4	3.1	1.9	2.3	3.7	3.4	5.1
DRU.. 280MR 4	75	1.2	3	1.6	2	3.5	2.9	4.7
DRU.. 315SR 4	90	1	2.5	1.3	1.7	3	2.8	4.4
DRU.. 315S 4	110	1	2.6	1.3	1.6	3	2.7	4.3
DRU.. 315M 4	132	1	2.7	1.4	1.7	3.2	2.7	4.5
DRU.. 315L 4	160	1	2.7	1.3	1.6	3.1	2.5	4.2
DRU.. 315H 4	200	1	3.1	1.3	1.7	3.6	2.6	4.9
DRU.. 355MS 4	260	1.2	2.6	1.5	1.8	3	2.5	3.8
DRU.. 355M 4	335	1.2	2.5	1.5	1.8	2.9	2.6	3.8
DRU.. 355ML 4	375	1.2	2.5	1.5	1.8	2.9	2.6	3.8

4 Excluded motors according to article 2 paragraph 2

The following table lists reasons why motors are excluded from the efficiency requirement according to article 2 paragraph 2 of the regulation (EU) 2019/1781.

(EU) 2019/1781 and S.I. 2021 No. 745	SEW-EURODRIVE motors	Reason
d) Specially dimensioned motors that are exclusively specified for the following operating conditions	Example: Ambient temperature °C -40 – -31	SEW motors with specific operating conditions or extreme temperatures. The specifically designed ambient temperature is listed on the nameplate (see table row 10 in chapter "IEC motor nameplate" (→ 8)).
l) Totally Enclosed Non-Ventilated (TENV) motors	DAS	Non-ventilated motor (TENV type of cooling)
	/U	Without fan (TENV type of cooling)
	/OL	Closed B-side (TENV type of cooling)
m) Motors placed on the market before July 1, 2029, which are replacements and are specifically marketed as such for identical motors integrated into products placed on the market before July 1, 2021 for motors related to Annex I.1 (a), and before July 1, 2023 for motors related to Annex I.1 (b).	All motors from SEW-EURODRIVE that have been placed on the market before July 1, 2021, for example: DT../DV..; DRS..	Motors are marked as replacement motors. Figure similar: Spare part exclusively for: 01.8123667801.0001.22 [EU 2019/1781] [S.I. 2021 No.745] 21021708
n) Motors with multiple speeds, i.e. motors with multiple windings or with switchable windings that have a different number of poles and different speeds	Example: DR2S80M4/2	SEW motors with two nominal speeds. Numbers of poles are listed in chapter "Designation of the motors" (→ 7).

5 Appendix

5.1 Address directory SEW-EURODRIVE

Argentina			
Assembly Sales	Buenos Aires	SEW EURODRIVE ARGENTINA S.A. Ruta Panamericana Km 37.5, Lote 35 (B1619IEA) Centro Industrial Garín Prov. de Buenos Aires	Tel. +54 3327 4572-84 Fax +54 3327 4572-21 http://www.sew-eurodrive.com.ar sewar@sew-eurodrive.com.ar
	Córdoba	SEW EURODRIVE ARGENTINA S.A. Ruta Nacional 19, Manzana 97, Lote 5 (X5125) Malvinas Argentinas Prov. de Córdoba	Tel. +54 351-490-0010 http://www.sew-eurodrive.com.ar sewcor@sew-eurodrive.com.ar
	Santa Fe	SEW EURODRIVE ARGENTINA S.A. Ruta Prov. 21 Km 7, Lote 41 Parque Industrial Alvear (2126) Gral. Alvear Prov. de Santa Fe	Tel. +54 341-317-7277 http://www.sew-eurodrive.com.ar sewsfe@sew-eurodrive.com.ar
Service	Mendoza	SEW EURODRIVE ARGENTINA S.A. Francisco Gabrielli (ex Urquiza) 2060-Zona Industrial- Guaymallen- CP 5521	Tel. +54 261-4214150 http://www.sew-eurodrive.com.ar sewmen@sew-eurodrive.com.ar
Technical Offices	Tucumán	SEW EURODRIVE ARGENTINA S.A. Balcarce 609 (T4000IAM) S.M. de Tucumán Prov. de Tucumán	Tel. +54 381-400-4569 http://www.sew-eurodrive.com.ar sewtuc@sew-eurodrive.com.ar
	Bahía Blanca	SEW EURODRIVE ARGENTINA S.A. O'Higgins 95, 1er Piso A (B8000IVA) Bahía Blanca Prov. de Buenos Aires	Tel. +54 291-451-7345 http://www.sew-eurodrive.com.ar sewbb@sew-eurodrive.com.ar
	Neuquén	SEW EURODRIVE ARGENTINA S.A.	Tel. +549 299 588 7950 http://www.sew-eurodrive.com.ar sewnqn@sew-eurodrive.com.ar
Australia			
Assembly Sales Service	Melbourne	SEW-EURODRIVE PTY. LTD. 27 Beverage Drive Tullamarine, Victoria 3043	Tel. +61 3 9933-1000 Fax +61 3 9933-1003 http://www.sew-eurodrive.com.au enquires@sew-eurodrive.com.au
	Sydney	SEW-EURODRIVE PTY. LTD. 9, Sleigh Place, Wetherill Park New South Wales, 2164	Tel. +61 2 9725-9900 Fax +61 2 9725-9905 enquires@sew-eurodrive.com.au
Sales Service	Adelaide	SEW-EURODRIVE PTY. LTD. 9C Park Way Mawson Lakes, SA 5095	Tel. +61 8 8161 4000 Fax +61 8 8161 4002 enquires@sew-eurodrive.com.au
	Brisbane	SEW-EURODRIVE PTY. LTD. 1 /34 Collinsvale St Rocklea, Queensland, 4106	Tel. +61 7 3276 5100 Fax +61 7 3276 5102 enquires@sew-eurodrive.com.au
	Perth	SEW-EURODRIVE PTY. LTD. 10 Colin Jamieson Drive Welshpool, WA 6106	Tel. +61 8 9251-4900 Fax +61 8 9251-4903 enquires@sew-eurodrive.com.au
Sales	Townsville	SEW-EURODRIVE PTY. LTD. 12 Leyland Street Garbutt, QLD 4814	Tel. +61 7 4779 4333 Fax +61 7 4779 5333 enquires@sew-eurodrive.com.au
Austria			
Assembly Sales Service	Vienna	SEW-EURODRIVE Ges.m.b.H. Richard-Strauss-Straße 24 1230 Wien	Tel. +43 1 617 55 00-0 Fax +43 1 617 55 00-30 http://www.sew-eurodrive.at sew@sew-eurodrive.at
Technical Offices	Linz	SEW-EURODRIVE Ges.m.b.H. Jaxstraße 2-4 4020 Linz	Tel. +43 732 655 109-0 Fax +43 732 655 109-20 tb-linz@sew-eurodrive.at
	Graz	SEW-EURODRIVE Ges.m.b.H. Hagenbuchstraße 1 8054 Seiersberg-Pirka	Tel. +43 316 685 756-0 Fax +43 316 685 756-20 tb-graz@sew-eurodrive.at

Dornbirn	SEW-EURODRIVE Ges.m.b.H. Milleniumpark 15/B2 6890 Lustenau	Tel. +43 5577 86026-0 Fax +43 5577 86026-20 tb-dornbirn@sew-eurodrive.at
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Bangladesh

Sales	Bangladesh	SEW-EURODRIVE INDIA PRIVATE LIMITED 345 DIT Road East Rampura Dhaka-1219, Bangladesh	Tel. +88 01729 097309 salesdhaka@seweurodrivebangladesh.com
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Belarus

Sales	Minsk	Foreign unitary production enterprise SEW-EURODRIVE Novodvorskiy village council 145 223016, Minsk region	Tel. +375 17 319 47 56 / +375 17 378 47 58 Fax +375 17 378 47 54 http://www.sew-eurodrive.by sew@sew-eurodrive.by
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Belgium

Assembly Sales Service	Brussels	SEW-EURODRIVE n.v./s.a. Researchpark Haasrode 1060 Evenementenlaan 7 3001 Leuven	Tel. +32 16 386-311 Fax +32 16 386-336 http://www.sew-eurodrive.be info@sew-eurodrive.be
Service Competence Center	Industrial Gears	SEW-EURODRIVE n.v./s.a. Rue du Parc Industriel, 31 6900 Marche-en-Famenne	Tel. +32 84 219-878 Fax +32 84 219-879 http://www.sew-eurodrive.be info@sew.be

Brazil

Production Sales Service	São Paulo	SEW-EURODRIVE Brasil Ltda. Estrada Municipal José Rubim, 205 – Rodovia Santos Dumont Km 49 Indaiatuba – 13347-510 – SP	Tel. +55 19 3835-8000 sew@sew.com.br
Assembly Sales Service	Rio Claro	SEW-EURODRIVE Brasil Ltda. Rodovia Washington Luiz, Km 172 Condomínio Industrial Conpark Caixa Postal: 327 13501-600 – Rio Claro / SP	Tel. +55 19 3522-3100 Fax +55 19 3524-6653 montadora.rc@sew.com.br
	Joinville	SEW-EURODRIVE Brasil Ltda. Jvl / Ind Rua Dona Francisca, 12.346 – Pirabeiraba 89239-270 – Joinville / SC	Tel. +55 47 3027-6886 Fax +55 47 3027-6888 filial.sc@sew.com.br

Bulgaria

Sales	Sofia	BEVER-DRIVE GmbH Bogdanovetz Str.1 1606 Sofia	Tel. +359 2 9151160 Fax +359 2 9151166 bever@bever.bg
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Cameroon

Sales	Douala	SEW-EURODRIVE SARLU Ancienne Route Bonabéri P.O. Box B.P 8674 Douala-Cameroun	Tel. +237 233 39 12 35 Fax +237 233 39 02 10 www.sew-eurodrive.ci/ info@sew-eurodrive.cm
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Canada

Assembly Sales Service	Toronto	SEW-EURODRIVE CO. OF CANADA LTD. 210 Walker Drive Bramalea, ON L6T 3W1	Tel. +1 905 791-1553 Fax +1 905 791-2999 http://www.sew-eurodrive.ca l.watson@sew-eurodrive.ca
	Vancouver	SEW-EURODRIVE CO. OF CANADA LTD. Tilbury Industrial Park 7188 Honeyman Street Delta, BC V4G 1G1	Tel. +1 604 946-5535 Fax +1 604 946-2513 b.wake@sew-eurodrive.ca
	Montreal	SEW-EURODRIVE CO. OF CANADA LTD. 2001 Ch. de l'Aviation Dorval Quebec H9P 2X6	Tel. +1 514 367-1124 Fax +1 514 367-3677 n.paradis@sew-eurodrive.ca

Chile			
Assembly Sales Service	Santiago de Chile	SEW-EURODRIVE CHILE LTDA Las Encinas 1295 Parque Industrial Valle Grande LAMP Santiago de Chile P.O. Box Casilla 23 Correo Quilicura - Santiago - Chile	Tel. +56 2 2757 7000 Fax +56 2 2757 7001 http://www.sew-eurodrive.cl ventas@sew-eurodrive.cl
China			
Production Assembly Sales Service	Tianjin	SEW-EURODRIVE (Tianjin) Co., Ltd. No. 78, 13th Avenue, TEDA Tianjin 300457	Tel. +86 22 25322612 Fax +86 22 25323273 http://www.sew-eurodrive.cn info@sew-eurodrive.cn
Assembly Sales Service	Suzhou	SEW-EURODRIVE (Suzhou) Co., Ltd. 333, Suhong Middle Road Suzhou Industrial Park Jiangsu Province, 215021	Tel. +86 512 62581781 Fax +86 512 62581783 suzhou@sew-eurodrive.cn
	Guangzhou	SEW-EURODRIVE (Guangzhou) Co., Ltd. No. 9, JunDa Road East Section of GETDD Guangzhou 510530	Tel. +86 20 82267890 Fax +86 20 82267922 guangzhou@sew-eurodrive.cn
	Shenyang	SEW-EURODRIVE (Shenyang) Co., Ltd. 10A-2, 6th Road Shenyang Economic Technological Development Area Shenyang, 110141	Tel. +86 24 25382538 Fax +86 24 25382580 shenyang@sew-eurodrive.cn
	Taiyuan	SEW-EURODRIVE (Taiyuan) Co., Ltd. No.3, HuaZhang Street, TaiYuan Economic & Technical Development Zone ShanXi, 030032	Tel. +86-351-7117520 Fax +86-351-7117522 taiyuan@sew-eurodrive.cn
	Wuhan	SEW-EURODRIVE (Wuhan) Co., Ltd. 10A-2, 6th Road No. 59, the 4th Quanli Road, WEDA 430056 Wuhan	Tel. +86 27 84478388 Fax +86 27 84478389 wuhan@sew-eurodrive.cn
	Xi'An	SEW-EURODRIVE (Xi'An) Co., Ltd. No. 12 Jinye 2nd Road Xi'An High-Technology Industrial Development Zone Xi'An 710065	Tel. +86 29 68686262 Fax +86 29 68686311 xian@sew-eurodrive.cn
Sales Service	Hong Kong	SEW-EURODRIVE LTD. Unit No. 801-806, 8th Floor Hong Leong Industrial Complex No. 4, Wang Kwong Road Kowloon, Hong Kong	Tel. +852 36902200 Fax +852 36902211 contact@sew-eurodrive.hk
Colombia			
Assembly Sales Service	Bogota	SEW-EURODRIVE COLOMBIA LTDA. Calle 17 No. 132-18 Interior 2 Bodega 6, Manzana B Santafé de Bogotá	Tel. +57 1 54750-50 Fax +57 1 54750-44 http://www.sew-eurodrive.com.co sew@sew-eurodrive.com.co
Croatia			
Sales Service	Zagreb	KOMPEKS d. o. o. Zeleni dol 10 10 000 Zagreb	Tel. +385 1 4613-158 Fax +385 1 4613-158 kompeks@inet.hr
Czech Republic			
Assembly Sales Service	Hostivice	SEW-EURODRIVE CZ s.r.o. Floriánova 2459 253 01 Hostivice	Tel. +420 255 709 601 Fax +420 235 350 613 http://www.sew-eurodrive.cz sew@sew-eurodrive.cz
Assembly Service	Plzeň	SEW-EURODRIVE CZ s.r.o. Areal KRPA a.s. Zahradni 173/2 326 00 Plzeň	Tel. +420 378 775 320 Fax +420 377 970 710 sew@sew-eurodrive.cz

Technical Offices	Brno	SEW-EURODRIVE CZ s.r.o. Křenová 52 60200 Brno	Tel. +420 543 254 174 Fax +420 543 256 845 ilona.cermakova@sew-eurodrive.cz
	Hradec Králové	SEW-EURODRIVE CZ s.r.o. Čechova 498 50202 Hradec Králové	Tel. +420 495 510 141 Fax +420 495 521 313 miroslav.moravec@sew-eurodrive.cz
	Ostrava	SEW-EURODRIVE CZ s.r.o. Studentská 6202/17 708 00 Ostrava-Poruba	Tel. +420 597 329 044 david.kenkus@sew-eurodrive.cz
	Klatovy	SEW-EURODRIVE CZ s.r.o. Videňská 841 33901 Klatovy	Tel. +420 376 331 634 Fax +420 376 331 634 viktor.kubernat@sew-eurodrive.cz
Service	Přerov	SEW-EURODRIVE CZ s.r.o. Areál STS Přerov a.s. ul. 9. května 2452 750 02 Přerov I – Město	Tel. +420 581 224 374 Fax +420 581 224 374 servis@sew-eurodrive.cz

Denmark

Assembly Sales Service	Copenhagen	SEW-EURODRIVE A/S Geminivej 28-30 2670 Greve	Tel. +45 43 95 8500 Fax +45 43 9585-09 http://www.sew-eurodrive.dk sew@sew-eurodrive.dk
Service	Vejle	SEW-EURODRIVE A/S Bødkervej 2 7100 Vejle	Tel. +45 43 9585 00 http://www.sew-eurodrive.dk sew@sew-eurodrive.dk

Egypt

Technical Office	Cairo	SEW-EURODRIVE Representative Office in Egypt 47 Office Building, Section 1, City Centre, New Cairo Cairo	Tel. +20 2 2503 2807 Fax +20 2 2503 2801 info@sew-eurodrive.eg
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Estonia

Sales	Tallin	ALAS-KUUL AS Loomäe tee 1, Lehmja küla 75306 Rae vald Harjumaa	Tel. +372 6593230 Fax +372 6593231 http://www.alas-kuul.ee info@alas-kuul.ee
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Finland

Assembly Sales Service	Hollola	SEW-EURODRIVE OY Vesimäentie 4 15860 Hollola	Tel. +358 201 589-300 Fax +358 3 780-6211 http://www.sew-eurodrive.fi sew@sew.fi
Service	Hollola	SEW-EURODRIVE OY Keskikankaantie 21 15860 Hollola	Tel. +358 201 589-300 Fax +358 3 780-6211 http://www.sew-eurodrive.fi sew@sew.fi
	Tornio	SEW-EURODRIVE Oy Lossirannankatu 5 95420 Tornio	Tel. +358 201 589 300 Fax +358 3 780 6211 http://www.sew-eurodrive.fi sew@sew.fi
Production Assembly	Karkkila	SEW Industrial Gears Oy Santasalonkatu 6, PL 8 03620 Karkkila, 03601 Karkkila	Tel. +358 201 589-300 Fax +358 201 589-310 http://www.sew-eurodrive.fi sew@sew.fi
Technical Offices	Helsinki	SEW-EURODRIVE OY Luutnantintie 5 00410 Helsinki	Tel. +358 201 589-300 sew@sew.fi
	Oulu	SEW Industrial Gears Oy Paulaharjuntie 22 90530 Oulu	Tel. +358 201 589 300 sew@sew.fi
	Vaasa	SEW Industrial Gears Oy Asemakatu 7 65100 Vaasa	Tel. +358 201 589-300 sew@sew.fi
	Kuopio	SEW Industrial Gears Oy Leväsentie 23 70780 Kuopio	Tel. +358 201 589-300 sew@sew.fi

Tampere	SEW Industrial Gears Oy Kampusareena Korkeakoulunkatu 7, 7.krs 33720 Tampere	Tel. +358 201 589-300 sew@sew.fi
Kotka	SEW Industrial Gears Oy Heikinkatu 7 48100 Kotka	Tel. +358 201 589 300 sew@sew.fi

France

Production Sales	Haguenau	SEW USOCOME 48-54 route de Soufflenheim B. P. 20185 67506 Haguenau Cedex	Tel. +33 3 88 73 67 00 http://www.usocomme.com sew@usocomme.com
Production	Forbach	SEW USOCOME Zone industrielle Technopôle Forbach Sud B. P. 30269 57604 Forbach Cedex	Tel. +33 3 87 29 38 00
	Brumath	SEW USOCOME 1 Rue de Bruxelles 67670 Mommenheim Cedex	Tel. +33 3 88 37 48 00
Assembly Sales Service	Bordeaux	SEW USOCOME Parc d'activités de Magellan 62 avenue de Magellan – B. P. 182 33607 Pessac Cedex	Tel. +33 5 57 26 39 00 dtcbordeaux@usocomme.com
	Haguenau	SEW USOCOME 48-54 route de Soufflenheim B. P. 20185 67506 Haguenau Cedex	Tel. +33 3 88 73 67 00 dtchaguenau@usocomme.com
	Lyon	SEW USOCOME 75 rue Antoine Condorcet 38090 Vaulx-Milieu	Tel. +33 4 74 99 60 00 dtclyon@usocomme.com
	Nantes	SEW USOCOME Parc d'activités de la forêt 4 rue des Fontenelles 44140 Le Bignon	Tel. +33 2 40 78 42 00 dtcnantes@usocomme.com
	Paris	SEW USOCOME Zone industrielle 2 rue Denis Papin 77390 Verneuil l'Étang	Tel. +33 1 64 42 40 80 dtcparis@usocomme.com

Gabon

Representation: Cameroon

Germany

Headquarters Production Sales	Bruchsal	SEW-EURODRIVE GmbH & Co KG Ernst-Blickle-Straße 42 76646 Bruchsal	Tel. +49 7251 75-0 Fax +49 7251 75-1970 http://www.sew-eurodrive.de sew@sew-eurodrive.de
Production / Industrial Gears	Bruchsal	SEW-EURODRIVE GmbH & Co KG Christian-Pähr-Str. 10 76646 Bruchsal	Tel. +49 7251 75-0 Fax +49 7251 75-2970
Production / Precision Gear Units	Bruchsal	SEW-EURODRIVE GmbH & Co KG Ernst-Blickle-Straße 42 76646 Bruchsal	Tel. +49 7251 75-0 Fax +49 7251 75-1970 sew@sew-eurodrive.de
Production	Graben	SEW-EURODRIVE GmbH & Co KG Ernst-Blickle-Straße 1 76676 Graben-Neudorf	Tel. +49 7251 75-0 Fax +49 7251-2970
Service Competence Center	Mechanics / Mechatronics	SEW-EURODRIVE GmbH & Co KG Ernst-Blickle-Straße 1 76676 Graben-Neudorf	Tel. +49 7251 75-1710 Fax +49 7251 75-1711 scc-mechanik@sew-eurodrive.de
	Electronics	SEW-EURODRIVE GmbH & Co KG Christian-Pähr-Straße 12 76646 Bruchsal	Tel. +49 7251 75-1780 Fax +49 7251 75-1769 scc-elektronik@sew-eurodrive.de
	MAXOLU- TION® Factory Automation	SEW-EURODRIVE GmbH & Co KG Eisenbahnstraße 11 76646 Bruchsal	Tel. +49 7251 75-0 Fax +49 7251 75-1970 sew@sew-eurodrive.de

Germany			
Drive Technology Center	North	SEW-EURODRIVE GmbH & Co KG Alte Ricklinger Straße 43 30823 Garbsen (Hannover)	Tel. +49 5137 8798-30 Fax +49 5137 8798-55 dtc-nord@sew-eurodrive.de
	East	SEW-EURODRIVE GmbH & Co KG Dänkritzer Weg 1 08393 Meerane (Zwickau)	Tel. +49 3764 7606-0 Fax +49 3764 7606-20 dtc-ost@sew-eurodrive.de
	South	SEW-EURODRIVE GmbH & Co KG Domagkstraße 5 85551 Kirchheim (München)	Tel. +49 89 909551-21 Fax +49 89 909551-50 dtc-sued@sew-eurodrive.de
	West	SEW-EURODRIVE GmbH & Co KG Siemensstraße 1 40764 Langenfeld (Düsseldorf)	Tel. +49 2173 8507-10 Fax +49 2173 8507-50 dtc-west@sew-eurodrive.de
Drive Center	Berlin	SEW-EURODRIVE GmbH & Co KG Melitta-Schiller-Straße 8 12526 Berlin	Tel. +49 306331131-30 Fax +49 306331131-36 dc-berlin@sew-eurodrive.de
	Bremen	SEW-EURODRIVE GmbH & Co KG Allerkai 4 28309 Bremen	Tel. +49 421 33918-10 Fax +49 421 33918-22 tb-bremen@sew-eurodrive.de
	Hamburg	SEW-EURODRIVE GmbH & Co KG Hasselbinnen 11 22869 Schenefeld	Tel. +49 40298109-60 Fax +49 40298109-70 dc-hamburg@sew-eurodrive.de
	Saarland	SEW-EURODRIVE GmbH & Co KG Gottlieb-Daimler-Straße 4 66773 Schwalbach Saar – Hülzweiler	Tel. +49 6831 48946 10 Fax +49 6831 48946 13 dc-saarland@sew-eurodrive.de
	Ulm	SEW-EURODRIVE GmbH & Co KG Dieselstraße 18 89160 Dornstadt	Tel. +49 7348 9885-0 Fax +49 7348 9885-90 dc-ulm@sew-eurodrive.de
	Würzburg	SEW-EURODRIVE GmbH & Co KG Nürnbergerstraße 118 97076 Würzburg-Lengfeld	Tel. +49 931 27886-60 Fax +49 931 27886-66 dc-wuerzburg@sew-eurodrive.de
Drive Service Hotline / 24 Hour Service			0 800 SEWHELP 0 800 7394357
Technical Offices	Augsburg	SEW-EURODRIVE GmbH & Co KG August-Wessels-Straße 29 86156 Augsburg	Tel. +49 821 22779-10 Fax +49 821 22779-50 tb-augsburg@sew-eurodrive.de
	Lake Con- stance	SEW-EURODRIVE GmbH & Co KG Dornierstraße 4 88677 Markdorf	Tel. +49 7544 96590-90 Fax +49 7544 96590-99 tb-bodensee@sew-eurodrive.de
	Dortmund	SEW-EURODRIVE GmbH & Co KG Hildastraße 8 44145 Dortmund	Tel. +49 231 229028-10 Fax +49 231 229028-20 tb-dortmund@sew-eurodrive.de
	Dresden	SEW-EURODRIVE GmbH & Co KG Hauptstraße 32 01445 Radebeul	Tel. +49 351 26338-0 Fax +49 351 26338-38 tb-dresden@sew-eurodrive.de
	Erfurt	SEW-EURODRIVE GmbH & Co KG Dubliner Straße 12 99091 Erfurt	Tel. +49 361 21709-70 Fax +49 361 21709-79 tb-erfurt@sew-eurodrive.de
	Güstrow	SEW-EURODRIVE GmbH & Co KG Glasewitzer Chaussee 33 B 18273 Güstrow P.O. Box Postfach 1216 – D-18262 Güstrow	Tel. +49 3843 8557-80 Fax +49 3843 8557-88 tb-guestrow@sew-eurodrive.de
	Hamburg	SEW-EURODRIVE GmbH & Co KG Hasselbinnen 11 22869 Schenefeld	Tel. +49 40298109-60 Fax +49 40298109-70 dc-hamburg@sew-eurodrive.de
	Hannover / Garbsen	SEW-EURODRIVE GmbH & Co KG Alte Ricklinger Str.40-42 30823 Garbsen	Tel. +49 5137 8798-10 Fax +49 5137 8798-50 tb-hannover@sew-eurodrive.de
	Heilbronn	SEW-EURODRIVE GmbH & Co KG Franz-Lutz-Straße 18 74391 Erligheim	Tel. +49 7143 8738-0 Fax +49 7143 8738-25 tb-heilbronn@sew-eurodrive.de
	Herford	SEW-EURODRIVE GmbH & Co KG Goebenstraße 3 – 7 32052 Herford	Tel. +49 5221 9141-0 Fax +49 5221 9141-20 tb-herford@sew-eurodrive.de

Karlsruhe	SEW-EURODRIVE GmbH & Co KG Ettlinger Weg 2 76467 Bietigheim P.O. Box Postfach 43 – D-76463 Bietigheim	Tel. +49 7245 9190-10 Fax +49 7245 9190-20 tb-karlsruhe@sew-eurodrive.de
Kassel	SEW-EURODRIVE GmbH & Co KG Sonnenweg 3 34260 Kaufungen	Tel. +49 561 95144-80 Fax +49 561 95144-90 tb-kassel@sew-eurodrive.de
Koblenz	SEW-EURODRIVE GmbH & Co KG Carl-Benz-Straße 8 56218 Mülheim-Kärlich	Tel. +49 2630 91930-10 Fax +49 2630 91930-90 tb-koblenz@sew-eurodrive.de
Lahr	SEW-EURODRIVE GmbH & Co KG Europastraße 3/1 77933 Lahr / Schwarzwald	Tel. +49 7821 90999-60 Fax +49 7821 90999-79 tb-lahr@sew-eurodrive.de
Langenfeld	SEW-EURODRIVE GmbH & Co KG Siemensstraße 1 40764 Langenfeld	Tel. +49 2173 8507-10 Fax +49 2173 8507-50 tb-langenfeld@sew-eurodrive.de
Ludwigshafen	SEW-EURODRIVE GmbH & Co KG Edisonstrasse 15 // Halle 7 68623 Lampertheim	Tel. +49 7251 75 3764 Fax +49 7251 75 503715 tb-ludwigshafen@sew-eurodrive.de
Magdeburg	SEW-EURODRIVE GmbH & Co KG Breiteweg 53 39179 Barleben	Tel. +49 39203 7577-1 Fax +49 39203 7577-9 tb-magdeburg@sew-eurodrive.de
Mannheim	SEW-EURODRIVE GmbH & Co KG Besselstraße 26 68219 Mannheim	Tel. +49 621 71683-10 Fax +49 621 71683-22 tb-mannheim@sew-eurodrive.de
München	SEW-EURODRIVE GmbH & Co KG Domagkstraße 5 85551 Kirchheim	Tel. +49 89 90955-110 Fax +49 89 90955-150 tb-muenchen@sew-eurodrive.de
Münster	SEW-EURODRIVE GmbH & Co KG Hafenplatz 4 48155 Münster	Tel. +49 251 41475-11 Fax +49 251 41475-50 tb-muenster@sew-eurodrive.de
Nuremberg	SEW-EURODRIVE GmbH & Co KG Lina-Ammon-Straße 22 90471 Nürnberg	Tel. +49 911 98884-50 Fax +49 911 98884-60 tb-nuernberg@sew-eurodrive.de
Regensburg	SEW-EURODRIVE GmbH & Co KG Im Gewerbepark A15 93059 Regensburg	Tel. +49 941 46668-68 Fax +49 941 46668-66 tb-regensburg@sew-eurodrive.de
Rhine-Main	SEW-EURODRIVE GmbH & Co KG Niederstedter Weg 5 61348 Bad Homburg	Tel. +49 6172 9617-0 Fax +49 6172 9617-50 tb-rheinmain@sew-eurodrive.de
Stuttgart	SEW-EURODRIVE GmbH & Co KG Friedrich-List-Straße 46 70771 Leinfelden-Echterdingen	Tel. +49 711 16072-0 Fax +49 711 16072-72 tb-stuttgart@sew-eurodrive.de
Zwickau / Meerane	SEW-EURODRIVE GmbH & Co KG Dankritzer Weg1 08393 Meerane	Tel. +49 3764 7606-0 Fax +49 3764 7606-20 tb-zwickau@sew-eurodrive.de

Great Britain

Assembly Sales Service	Normanton	SEW-EURODRIVE Ltd. DeVilliers Way Trident Park Normanton West Yorkshire WF6 1GX	Tel. +44 1924 893-855 Fax +44 1924 893-702 http://www.sew-eurodrive.co.uk info@sew-eurodrive.co.uk
Service Competence Center	Southern Eng- land	SEW-EURODRIVE Ltd. Unit 41 Easter Park Benyon Road Silchester Reading Berkshire RG7 2PQ	Tel. +44 1189 701-699 Fax +44 1189 701-021

Technical Offices	Midlands	SEW-EURODRIVE Ltd. 5 Sugar Brook court Aston Road Bromsgrove Worcs. B60 3EX	Tel. +44 1527 877-319 Fax +44 1527 575-245
	Northern Ire- land	Heyn Engineering (NI) Ltd. 1 Corry Place, Belfast, BT3 9AH	Tel. +44 02890350022 Fax +44 02890350012 http://www.heyne.co.uk info@heyne.co.uk
Drive Center	Scotland	SEW-EURODRIVE Ltd. 133-135 Deerdrykes View Cumbernauld G68 9HF	Tel. +44 17 8647-8730
Greece			
Sales	Athens	Christ. Boznos & Son S.A. 12, K. Mavromichali Street P.O. Box 80136 18545 Piraeus	Tel. +30 2 1042 251-34 Fax +30 2 1042 251-59 http://www.boznos.gr info@boznos.gr
Technical Office	Thessaloniki	Christ. Boznos & Son S.A. Asklipiou 26 562 24 Evosmos, Thessaloniki	Tel. +30 2 310 7054-00 Fax +30 2 310 7055-15 info@boznos.gr
Hungary			
Sales Service	Budapest	SEW-EURODRIVE Kft. Csillaghegyi út 13. 1037 Budapest	Tel. +36 1 437 06-58 Fax +36 1 437 06-50 http://www.sew-eurodrive.hu office@sew-eurodrive.hu
Iceland			
Sales	Reykjavik	Varma & Vélaverk ehf. Knarrarvogi 4 104 Reykjavik	Tel. +354 585 1070 Fax +354 585)1071 https://vov.is/ vov@vov.is
India			
Registered Office Assembly Sales Service	Vadodara	SEW-EURODRIVE India Private Limited 302, NOTUS IT PARK, Sarabhai Campus, Beside Notus Pride, Genda Circle, Vadodara 390023 Gujarat	Tel. +91 265 3045200 Fax +91 265 3045300 https://www.seweurodriveindia.com salesvadodara@seweurodriveindia.com
Assembly Sales Service	Chennai	SEW-EURODRIVE India Private Limited Plot No. K3/1, Sipcot Industrial Park Phase II Mambakkam Village Sriperumbudur - 602105 Kancheepuram Dist, Tamil Nadu	Tel. +91 44 37188888 Fax +91 44 37188811 saleschennai@seweurodriveindia.com
	Pune	SEW-EURODRIVE India Private Limited Plant: Plot No. D236/1, Chakan Industrial Area Phase- II, Warale, Tal- Khed, Pune-410501, Maharashtra	Tel. +91 21 35 628700 Fax +91 21 35 628715 salespune@seweurodriveindia.com
	Tapukara	SEW-EURODRIVE India Private Limited Plot No SP-6-46, Tapukara, Karoli Industrial Area, No. 1, district : Alwar , Rajasthan - 301707	Tel. +91 265 3045200 Fax +91 265 3045300 tapukara.plant@seweurodriveindia.com
Sales	Gurgaon	SEW-EURODRIVE India Private Limited Global Business Park, Sector -26, M.G. Road, Sikanderpur Unit No. 205, 2nd Floor, Tower – D Gurugram 122002, Haryana	Tel. +91 9958376669 salesgurgaon@seweurodriveindia.com
Technical Offices	Ahmedabad	SEW-EURODRIVE India Private Limited 306, Shaan office complex, Behind Sakar-IV, Ellisebridge, Ashram Road Ahmedabad – 380006, Gujarat	Tel. +91 79 40072067 / 68 Fax +91 79 40072069 salesahmedabad@seweurodriveindia.com

Aurangabad	SEW-EURODRIVE India Private Limited Flat.No.403 , Prism Appt. The Venus Housing Society. Beed Bypass Road, Behind Nishant Park Hotel, Aurangabad – 431005, Maharashtra.	Tel. +91 86000 12333 salesaurangabad@seweurodriveindia.com
Bangalore	SEW-EURODRIVE India Private Limited Sy.no:41-P3, Peenya1, Phase 1A, Peenya Vil- lage, Yeswanthapura Hobli, Bangalore North Taluk, Bangalore - 560058, Karnataka	Tel. +91 80 28370664 Fax +91 80 28370665 salesbangalore@seweurodriveindia.com
Bangalore	SEW-EURODRIVE India Private Limited # C-104, 3rd Block, KSSIDC Complex, Electronic City. Bangalore – 560100, Karnataka	Tel. +91 80 28522662 / 28522663 salesbangalore@seweurodriveindia.com
Bellary	SEW-EURODRIVE India Private Limited Door no-56/279 Ward No-15, Sindhigi compound, Near Raghavendra talkies, Bellary-583101, Karnataka	Tel. +91 77609 88668 salesbellary@seweurodriveindia.com
Chandigarh	SEW-EURODRIVE India Private Limited #5358/59, Gali No.-4, SBS Nagar, Adjoining Utsav Palace, Rupnagar - 140001 Ropar, Punjab	Tel. +91 81462 67606 saleschandigarh@seweurodriveindia.com
Chennai	SEW-EURODRIVE India Private Limited 2nd Floor, Josmans Complex, No. 5, McNichols Road, Chetpet Chennai - 600031, Tamil Nadu	Tel. +91 44 42849812 / 13 / 14 / 15 Fax +91 44 42849816 saleschennai@seweurodriveindia.com
Coimbatore	SEW-EURODRIVE India Private Limited JK Center No.55, offc No.1, I Floor Sowripalayam Pirivu Road, Opp.Kannapiran Mills Coimbatore - 641028, Tamil Nadu	Tel. +91 422 2322420 Fax +91 422 2323988 salescoimbatore@seweurodriveindia.com
Cuttack	SEW-EURODRIVE India Private Limited Sekhar Galaxy Flat No-302, 3rd Floor GGP Colony,Bhubaneswar Dist-Khordha State-Odisha-751025	Tel. +91 9937446333 salescuttack@seweurodriveindia.com
Dhaka	SEW-EURODRIVE India Private Limited ROSE DALE 653, 6Th Floor,Flat-6E Jahan Box Lane, Gabtola, Moghbazar, Ramna 1217 Bangladesh	Tel. +88 01729 097309 salesdhaka@seweurodrivebangladesh.com
Faridabad	SEW-EURODRIVE India Private Limited H.No.-1172 ,Sector-9 , Near St Anthony School Faridabad 121006	Tel. +91 99580 09275 salesfaridabad@seweurodriveindia.com
Gandhinagar	SEW-EURODRIVE India Private Limited D-603, Vrundavan Trade Centre (VTC) Opp. Kanam Green Party Plot Kudasan Gandhinagar – 382421, Gujarat	Tel. +91 787 8601656 salesgandhinagar@seweurodriveindia.com
Secunderabad	SEW-EURODRIVE India Private Limited 408, 4th Floor, Meridian Place Green Park Road, Amerpet Hyderabad - 500016, Telangana	Tel. +91 40 23414698 Fax +91 40 23413884 saleshyderabad@seweurodriveindia.com
Jaipur	SEW-EURODRIVE India Private Limited E-54, Roop Vihar, Near vivek vihar metro station, New sanganer Road Jaipur 302019, Rajasthan.	Tel. +91 7728896489 salesjaipur@seweurodriveindia.com
Jamshedpur	SEW-EURODRIVE India Private Limited Flat no. I/3 B.S. Tower, N.ROAD, Bistupur Jamshedpur – 831001 Jharkhand	Tel. +91 99341 23671 salesjamshedpur@seweurodriveindia.com

Kochi	SEW-EURODRIVE India Private Limited Door No: 28/2655,8B Aster Avenue, South Ponneth Road Elamkulam Cochin – 682020, Kerala	Tel. +91 98951 30375 salescochin@seweurodriveindia.com
Kolhapur	SEW-EURODRIVE India Private Limited C/O. Mr.S.V.Pawar.461/37, Abhideep Resid- ency, Opp-Shriram Petrol Pump, Kasaba Bawada, Kolhapur - 416 122, Maharashtra	Tel. +91 86000 20846 saleskolhapur@seweurodriveindia.com
Kolkata	SEW-EURODRIVE India Private Limited 1st Floor, Room No : 09, Chowringhee Court 55, Chowringhee Road Kolkata - 700 071, West Bengal	Tel. +91 22- 62399968 Fax +91 33 22894204 saleskolkata@seweurodriveindia.com
Lucknow	SEW-EURODRIVE India Private Limited 69, Shiv Vihar Colony Vikas Nagar – Sector 5 Lucknow - 226022, Uttar Pradesh	Tel. +91 97936 27333 saleslucknow@seweurodriveindia.com
Ludhiana	SEW-EURODRIVE India Private Limited B-31, 605/24 Street No 1, Sukhdev Nagar, Bhamian Road Focal Point Ludhiana, Pin Code - 141010, Punjab	Tel. +91 9878746730
Mumbai	SEW-EURODRIVE India Private Limited 312 A, 3rd Floor, Acme Plaza, J.B. Nagar, Andheri Kurla Road, Andheri (E) Mumbai - 400059, Maharashtra	Tel. +91 22 28348440 Fax +91 22 28217858 salesmumbai@seweurodriveindia.com
Nagpur	SEW-EURODRIVE India Private Limited Plot No 49, New Kailash Nager, Samta colony, Nagpur-440027, Maharashtra	Tel. +91 95610 89525 salesnagpur@seweurodriveindia.com
Nashik	SEW-EURODRIVE India Private Limited F Road , Mahatma Nagar Flat No 1, Plot No: 144, SHAMBHAVI Appt, Nashik – 422 007, Maharashtra	Tel. +91 96657 52978 salesnashik@seweurodriveindia.com
New Delhi	SEW-EURODRIVE India Private Limited # B-206 DLF Towers-B District Centre Jasola New Delhi -110044	Tel. +91 11 6357422406 Fax +91 11 26944467 salesdelhi@seweurodriveindia.com
Navi Mumbai	SEW-EURODRIVE India Private Limited No.202, Shivam Yeshoram Plot No. 262/257, Sector 19 Kopar Khairane, Navi Mumbai - 400 709, Maharashtra	Tel. +91 99677 21324 salesnavimumbai@seweurodriveindia.com
Pune	SEW-EURODRIVE India Private Limited Plot No. 7,"Shri Shantadurga Niwas" Shivaji Co –operative Housing Society Ltd., Behind J.W. Marriot. Off Senapati Bapat Marg. Pune –411 016, Maharashtra	Tel. +91 20 27290180 salespune@seweurodriveindia.com
Pune	SEW-EURODRIVE India Private Limited Jai Tulajabhavani Complex. Office No:- 15 First Floor, Opp. Century Enka Company, MIDC Bhosari , Pune 411 026	Tel. +91 20-65118890 / 91 Fax +91 20 25380721 salespune@seweurodriveindia.com
Raipur	SEW-EURODRIVE India Private Limited Shop No. 204, 2nd Floor, Lalganga Business Park, Pachpedi Naka, NH -43 Dhamtari Road, Raipur 492 001 - Chhattisgarh	Tel. +91 771 4090765 Fax +91 771 4090765 salesraipur@seweurodriveindia.com
Rajkot	SEW-EURODRIVE India Private Limited Block No:64, Ajanta Park, Sadhu Vaswani Marg, University Road Rajkot 360005 - Gujarat	Tel. +91 8511149383 Fax +91 8511149383
Tiruchirappalli	SEW-EURODRIVE India Pvt.Ltd. V.S.Residency, 2nd floor, Flat no B-3 Elango Adigal street, Anna nagar, Near Thillai nagar, Thenur, 620017 Tamil Nadu	Tel. +91 97899 79855 salestrichy@seweurodriveindia.com

Vadodara	SEW-EURODRIVE India Private Limited Unit No. 301, Savorite Bldg, Plot No. 143, Vinayak Society, off old Padra Road, Vadodara - 390 007, Gujarat	Tel. +91 265 2325258 / 6560482 salesvadodara@seweurodriveindia.com
Vellore	SEW-EURODRIVE India Private Limited 23/2, 3rd Main road, Vani Vidyalaya School Road, Bharathi Nagar Extension, Katpadi Vellore - 632007, Tamilnadu	Tel. +91 96000 02247 salesvellore@seweurodriveindia.com

Indonesia

Registered Office Sales Service	Jakarta	PT SEW EURODRIVE INDONESIA Palma Tower, 16th Floor, Unit H & I, Jl R.A. Kartini II-S Kav 06 Pondok Pinang, Kebayoran Lama Jakarta Selatan 12310	Tel. +62 21 7593 0272 Fax +62 21 7593 0273 sales.indonesia@sew-eurodrive.com https://www.sew-eurodrive.com.sg
Sales	Medan	PT. Serumpun Indah Lestari Jl.Pulau Solor no. 8, Kawasan Industri Medan II Medan 20252	Tel. +62 61 687 1221 Fax +62 61 6871429 / +62 61 6871458 / +62 61 30008041 sil@serumpunindah.com serumpunindah@yahoo.com http://www.serumpunindah.com
	Jakarta	PT. Cahaya Sukses Abadi Komplek Rukan Puri Mutiara Blok A no 99, Sunter Jakarta 14350	Tel. +62 21 65310599 Fax +62 21 65310600 csajkt@cbn.net.id
	Jakarta	PT. Agrindo Putra Lestari Jl.Pantai Indah Selatan, Komplek Sentra In- dustri Terpadu, Pantai indah Kapuk Tahap III, Blok E No. 27 Jakarta 14470	Tel. +62 21 2921-8899 Fax +62 21 2921-8988 aplindo@indosat.net.id http://www.aplindo.com
	Surabaya	PT. TRIAGRI JAYA ABADI Jl. Sukosemolo No. 63, Galaxi Bumi Permai G6 No. 11 Surabaya 60111	Tel. +62 31 5990128 Fax +62 31 5962666 sales@triagri.co.id http://www.triagri.co.id
	Surabaya	CV. Multi Mas Jl. Raden Saleh 43A Kav. 18 Surabaya 60174	Tel. +62 31 5458589 Fax +62 31 5317220 sianhwa@sby.centrin.net.id http://www.cvmultimas.com

Ireland

Sales Service	Dublin	Alpert Engineering Ltd. 48 Moyle Road Dublin Industrial Estate Glasnevin, Dublin 11	Tel. +353 1 830-6277 Fax +353 1 830-6458 http://www.alperton.ie info@alperton.ie
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Israel

Sales	Tel Aviv	Liraz Handasa Ltd. Ahofer Str 34B / 228 58858 Holon	Tel. +972 3 5599511 Fax +972 3 5599512 http://www.liraz-handasa.co.il office@liraz-handasa.co.il
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Italy

Assembly Sales Service	Milan	SEW-EURODRIVE S.a.s. di SEW S.r.l. & Co. Via Bernini,12 20033 Solaro (Milano)	Tel. +39 02 96 980229 Fax +39 02 96 980 999 http://www.sew-eurodrive.it milano@sew-eurodrive.it
Drive Technology Center	Caserta	SEW-EURODRIVE S.a.s. di SEW S.r.l. & Co. Strada Consortile, Zona Industriale ASI 81032 Carinaro (Caserta)	Tel. +39 0823 219011 Fax +39 02 96 980 599 caserta@sew-eurodrive.it
Drive Center	Bologna	SEW-EURODRIVE S.a.s. di SEW S.r.l. & Co. Via della Grafica, 47 40064 Ozzano dell'Emilia (Bo)	Tel. +39 051 65-23-801 Fax +39 02 96 980 499 bologna@sew-eurodrive.it
	Pescara	SEW-EURODRIVE S.a.s. di SEW S.r.l. & Co. Viale Europa,132 65010 Villa Raspa di Spoltore (PE)	Tel. +39 085 41-59-427 Fax +39 02 96 980 699 pescara@sew-eurodrive.it

Turin	SEW-EURODRIVE S.a.s. di SEW S.r.l. & Co. Filiale Torino c.so Unione Sovietica 612/15 - int. C 10135 Torino	Tel. +39 011 3473780 Fax +39 02 96 980 799 torino@sew-eurodrive.it
Verona	SEW-EURODRIVE S.a.s. di SEW S.r.l. & Co. Via Antonio Meucci, 5 37042 - Caldiero (VR)	Tel. +39 045 89-239-11 Fax +39 02 96 980 814 verona@sew-eurodrive.it

Ivory Coast

Sales	Abidjan	SEW-EURODRIVE SARL Ivory Coast Rue des Pêcheurs, Zone 3 26 BP 916 Abidjan 26	Tel. +225 27 21 21 81 05 Fax +225 27 21 25 30 47 info@sew-eurodrive.ci http://www.sew-eurodrive.ci
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Japan

Assembly Sales Service	Iwata	SEW-EURODRIVE JAPAN CO., LTD 250-1, Shimoman-no, Iwata Shizuoka 438-0818	Tel. +81 538 373811 Fax +81 538 373814 http://www.sew-eurodrive.co.jp sewjapan@sew-eurodrive.co.jp
Technical Offices	Kyoto	SEW-EURODRIVE JAPAN CO., LTD Kyoto Operation Center 9-1-11 Seikadai, Seika-cho, Souraku-gun, Kyoto 619-0238	Tel. +81 774 98-2750 Fax +81 774 93-2100 kyoto@sew-eurodrive.co.jp
	Tokio	SEW-EURODRIVE JAPAN CO., LTD Renai Partire Shiodome 5th floor 2-18-3 Higashi-Shinbashi, Minato-Ku, Tokyo 105-0021	Tel. +81 3 5408-0521 Fax +81 3 5408-7550 tokyo@sew-eurodrive.co.jp
	Nagoya	SEW-EURODRIVE JAPAN CO., LTD Nagoya Toho building, 1-2-7, Sakae, Naka-ku Nagoya 460-0008, Aichi	Tel. +81 52-228-8608 Fax +81 52-203-2820 nagoya@sew-eurodrive.co.jp
	Osaka	SEW-EURODRIVE JAPAN CO., LTD Higobashi Shimizu Bldg. 10th floor 1-3-7 Tosabori, Nishi-ku Osaka, 550-0001	Tel. +81 6 6444--8330 Fax +81 6 6444--8338 osaka@sew-eurodrive.co.jp
	Fukuoka	SEW-EURODRIVE JAPAN CO., LTD 8th-floor, Imon-Hakata-Bldg.-East. 2-2-1, Sumiyoshi, Hakata-ku Fukuoka, 812-0018	Tel. +81 92 291-3600 Fax +81 92 291-3602 fukuoka@sew-eurodrive.co.jp

Kazakhstan

Sales Service	Almaty	SEW-EURODRIVE LLP 291-291A, Tole bi street 050031, Almaty	Tel. +7 (727) 350 5156 Fax +7 (727) 350 5156 http://www.sew-eurodrive.com kazakhstan@sew-eurodrive.com
	Tashkent	Representative Office SEW-EURODRIVE Representative office in Uzbekistan 95A Amir Temur ave, office 401/3 100084 Tashkent	Tel. +998 97 134 01 99 http://www.sew-eurodrive.uz sew@sew-eurodrive.uz
	Ulaanbaatar	IM Trading LLC Olympic street 28B/3 Sukhbaatar district, Ulaanbaatar 14230, MN	Tel. +976-77109997 Fax +976-77109997 imt@imt.mn
Technical Offices	Karagandy	SEW-EURODRIVE LLP 82, Molokov Street 100004, Karagandy	Tel. +7 (7212) 955 956 Fax +7 (7212) 955 956 karagandy@sew-eurodrive.com
	Oskemen	SEW-EURODRIVE LLP Gorkiy str. 21, office 200 B 070000, Ust-Kamenogorsk	Tel. +7 (723) 291 37 48 (ext 760) Fax +7 (727) 350 5156 (ext 709) ust-Kamenogorsk@sew-eurodrive.com
	Aktobe	SEW-EURODRIVE LLP 52/1 Marat Ospanov str., office 11 030000, Aktobe	Tel. +7 (771) 993 0915 aktobe@sew-eurodrive.com
	Pavlodar	SEW-EURODRIVE LLP 6/2, Lunacharsky str., office 46 140000, Pavlodar	Tel. +7 (771) 993 09 16 pavlodar@sew-eurodrive.com

Latvia			
Sales	Riga	SIA Alas-Kuul Katlakalna 11C 1073 Riga	Tel. +371 6 7139253 Fax +371 6 7139386 http://www.alas-kuul.lv info@alas-kuul.com
Lebanon			
Sales (Lebanon)	Beirut	Gabriel Acar & Fils sarl B. P. 80484 Bourj Hammoud, Beirut	Tel. +961 1 510 532 Fax +961 1 494 971 ssacar@inco.com.lb
Sales (Jordan, Kuwait , Beirut Saudi Arabia, Syria)		Middle East Drives S.A.L. (offshore) Sin El Fil. B. P. 55-378 Beirut	Tel. +961 1 494 786 Fax +961 1 494 971 http://www.medrives.com info@medrives.com
Lithuania			
Sales	Alytus	UAB Irseva Statybininku 106C 63431 Alytus	Tel. +370 315 79204 Fax +370 315 56175 http://www.irseva.lt irmantas@irseva.lt
Luxembourg			
Representation: Belgium			
Macedonia			
Sales	Skopje	Boznos DOOEL Dime Anicin 2A/7A 1000 Skopje	Tel. +389 23256553 Fax +389 23256554 http://www.boznos.mk
Malaysia			
Assembly Sales Service	Johor	SEW-EURODRIVE SDN BHD No. 95, Jalan Seroja 39, Taman Johor Jaya 81000 Johor Bahru, Johor West Malaysia	Tel. +60 7 3549409 Fax +60 7 3541404 sales@sew-eurodrive.com.my
Technical Offices	Kuala Lumpur	SEW-EURODRIVE SDN BHD No. 2, Jalan Anggerik Mokara 31/46 Kota Kemuning Seksyen 31 40460 Shah Alam Selangor Darul Ehsan West Malaysia	Tel. +60 3 51229633 Fax +60 3 51229622 sewsa@sew-eurodrive.com.my
	Penang	SEW-EURODRIVE SDN BHD No. 38, Jalan Bawal Kimsar Garden 13700 Prai, Penang West Malaysia	Tel. +60 4 3999349 Fax +60 4 3999348 sewpg@sew-eurodrive.com.my
	Kuching	SEW-EURODRIVE SDN BHD No. 69, Lot 10899 1st Floor, Jalan Tun Jugah 93350 Kuching Sarawak East Malaysia	Tel. +60 82 572780 Fax +60 82 571780 sewswk@sew-eurodrive.com.my
	Kota Kinabalu	SEW-EURODRIVE SDN BHD East Malaysia	Tel. +60 19 7539395 sales@sew-eurodrive.com.my
	Ipoh	SEW-EURODRIVE SDN BHD West Malaysia	Tel. +60 19 7177366 sewsa@sew-eurodrive.com.my
Mexico			
Assembly Sales Service	Quéretaro	SEW-EURODRIVE MEXICO S.A. de C.V. SEM-981118-M93 Tequisquiapan No. 102 Parque Industrial Quéretaro C.P. 76220 Querétaro, México	Tel. +52 442 1030-300 Fax +52 442 1030-301 http://www.sew-eurodrive.com.mx scmexico@seweurodrive.com.mx
Sales Service	Puebla	SEW-EURODRIVE MEXICO S.A. de C.V. Calzada Zavaleta No. 3922 Piso 2 Local 6 Col. Santa Cruz Buenavista C.P. 72154 Puebla, México	Tel. +52 (222) 221 248 http://www.sew-eurodrive.com.mx scmexico@seweurodrive.com.mx

Mongolia			
Technical Office	Ulaanbaatar	IM Trading LLC Olympic street 28B/3 Sukhbaatar district, Ulaanbaatar 14230, MN	Tel. +976-77109997 Tel. +976-99070395 Fax +976-77109997 http://imt.mn/ imt@imt.mn
Morocco			
Sales Service Assembly	Bouskoura	SEW-EURODRIVE Morocco SARL Parc Industriel CFCIM, Lot. 55/59 27182 Bouskoura Grand Casablanca	Tel. +212 522 88 85 00 Fax +212 522 88 84 50 http://www.sew-eurodrive.ma sew@sew-eurodrive.ma
Namibia			
Sales	Swakopmund	DB MINING & INDUSTRIAL SUPPLIES CC Einstein Street Strauss Industrial Park Unit1 Swakopmund	Tel. +264 64 462 738 Fax +264 64 462 734 anton@dbminingnam.com
Netherlands			
Assembly Sales Service	Rotterdam	SEW-EURODRIVE B.V. Industrieweg 175 3044 AS Rotterdam Postbus 10085 3004 AB Rotterdam	Tel. +31 10 4463-700 Fax +31 10 4155-552 Service: 0800-SEWHELP http://www.sew-eurodrive.nl info@sew-eurodrive.nl
New Zealand			
Assembly Sales Service	Auckland	SEW-EURODRIVE NEW ZEALAND LTD. P.O. Box 58-428 82 Greenmount drive East Tamaki Auckland	Tel. +64 9 2745627 Fax +64 9 2740165 http://www.sew-eurodrive.co.nz sales@sew-eurodrive.co.nz
	Christchurch	SEW-EURODRIVE NEW ZEALAND LTD. 30 Lodestar Avenue, Wigram Christchurch	Tel. +64 3 384-6251 Fax +64 3 384-6455 sales@sew-eurodrive.co.nz
Technical Office	Palmerston North	SEW-EURODRIVE NEW ZEALAND LTD. C/-Grant Shearman, RD 5, Aronui Road Palmerston North	Tel. +64 6 355-2165 Fax +64 6 355-2316 sales@sew-eurodrive.co.nz
Nigeria			
Sales	Lagos	Greenpeg Nig. Ltd 64C Toyin Street Opebi-Allen Ikeja Lagos-Nigeria	Tel. +234-701-821-9200-1 http://www.greenpeg ltd.com sales@greenpeg ltd.com
Norway			
Assembly Sales Service	Moss	SEW-EURODRIVE A/S Hornebergvegen 11 B 7038 Trondheim	Tel. +47 69 24 10 20 Fax +47 69 24 10 40 http://www.sew-eurodrive.no sew@sew-eurodrive.no
Pakistan			
Sales	Karachi	Industrial Power Drives Al-Fatah Chamber A/3, 1st Floor Central Com- mercial Area, Sultan Ahmed Shah Road, Block 7/8, Karachi	Tel. +92 21 452 9369 Fax +92-21-454 7365 sew eurodrive@cyber.net.pk
Paraguay			
Sales	Fernando de la Mora	SEW-EURODRIVE PARAGUAY S.R.L Nu Guazu No. 642 casi Campo Esperanza Santisima Trinidad Asuncion	Tel. +595 991 519695 Fax +595 21 3285539 sewpy@sew-eurodrive.com.py
Peru			
Assembly Sales Service	Lima	SEW EURODRIVE DEL PERU S.A.C. Los Calderos, 120-124 Urbanizacion Industrial Vulcano, ATE, Lima	Tel. +51 1 3495280 Fax +51 1 3493002 http://www.sew-eurodrive.com.pe sewperu@sew-eurodrive.com.pe

Philippines			
Sales	Makati	P.T. Cerna Corporation 4137 Ponte St., Brgy. Sta. Cruz Makati City 1205	Tel. +63 2 519 6214 Fax +63 2 890 2802 mech_drive_sys@ptcerna.com http://www.ptcerna.com
Poland			
Assembly Sales Service	Łódź	SEW-EURODRIVE Polska Sp.z.o.o. ul. Techniczna 5 92-518 Łódź	Tel. +48 42 293 00 00 Fax +48 42 293 00 49 http://www.sew-eurodrive.pl sew@sew-eurodrive.pl
	Service	Tel. +48 42 293 0030 Fax +48 42 293 0043	24 Hour Service Tel. +48 602 739 739 (+48 602 SEW SEW) serwis@sew-eurodrive.pl
Technical Offices	Tychy	SEW-EURODRIVE Polska Sp.z.o.o. ul. Strzelecka 66 43-109 Tychy	Tel. +48 32 32 32 610 Fax +48 32 32 32 648 tychy@sew-eurodrive.pl
	Bydgoszcz	SEW-EURODRIVE Polska Sp.z.o.o. ul. Fordońska 246 85-766 Bydgoszcz	Tel. +48 52 567 30 00 Fax +48 52 567 30 09 bydgoszcz@sew-eurodrive.pl
	Gdansk	SEW-EURODRIVE Polska Sp.z.o.o. ul. Galaktyczna 30A 80-299 Gdańsk	Tel. +48 58 762 70 00 Fax +48 58 762 70 09
	Posen	SEW-EURODRIVE Polska Sp.z.o.o. ul. Wschodnia 7B 62-080 Swadzim k. Poznania	Tel. +48 61 6465500 Fax +48 61 6465519
	Radom	SEW-EURODRIVE Polska Sp.z.o.o. ul. Wrocławska 10, biuro nr 7 26-600 Radom	Tel. +48 48 679 47 00 Fax +48 48 679 47 09 radom@sew-eurodrive.pl
	Rzeszów	SEW-EURODRIVE Polska Sp.z.o.o. ul. Armii Krajowej 80 35-307 Rzeszów	Tel. +48 17 784 27 00 Fax +48 17 784 27 09 rzeszow@sew-eurodrive.pl
Portugal			
Assembly Sales Service	Coimbra	SEW-EURODRIVE, LDA. Av. da Fonte Nova, n.º 86 3050-379 Mealhada	Tel. +351 231 20 9670 Fax +351 231 20 3685 http://www.sew-eurodrive.pt infosew@sew-eurodrive.pt
Service Competence Center	Lisbon	SEW-EURODRIVE, LDA. Núcleo Empresarial I de São Julião do Tojal Rua de Entremuros, 54 Fracção I 2660-533 São Julião do Tojal	Tel. +351 21 958-0198 / +351 939 598 717 Fax +351 21 958-0245 esc.lisboa@sew-eurodrive.pt
Technical Office	Porto	SEW-EURODRIVE, LDA. Rua Monte da Bela, N.º 191, Fração X 4445-294 Ermesinde	Tel. +351 229 350 383 / +351 932 559 110 Fax +351 229 350 384 esc.porto@sew-eurodrive.pt
Romania			
Sales Service	Bucharest	Sialco Trading SRL str. Brazilia nr. 36 011783 Bucuresti	Tel. +40 21 230-1328 Fax +40 21 230-1770 http://www.sialco.ro sialco@sialco.ro
Zambia			
Representation: South Africa			
Senegal			
Sales	Dakar	SENEMECA Mécanique Générale Km 8, Route de Rufisque B.P. 3251, Dakar	Tel. +221 338 494 770 Fax +221 338 494 771 http://www.senemeca.com senemeca@senemeca.sn
Serbia			
Sales	Belgrade	DIPAR d.o.o. Ustanicka 128a PC Košum, IV floor 11000 Beograd	Tel. +381 11 347 3244 / +381 11 288 0393 Fax +381 11 347 1337 office@dipar.rs

Singapore			
Assembly Sales Service	Singapore	SEW-EURODRIVE PTE. LTD. 9, Tuas Drive 2 Singapore 638644	Tel. +65 68621701 Fax +65 68612827 http://www.sew-eurodrive.com.sg sewsingapore@sew-eurodrive.com
Slovakia			
Sales	Bernolákovo	SEW-Eurodrive SK s.r.o. Priemyselná ulica 6267/7 900 27 Bernolákovo	Tel. +421 2 48 212 800 http://www.sew-eurodrive.sk sew@sew-eurodrive.sk
Slovenia			
Sales Service	Celje	Pakman - Pogonska Tehnika d.o.o. Ul. XIV. divizije 14 3000 Celje	Tel. +386 3 490 83-20 Fax +386 3 490 83-21 pakman@siol.net
South Africa			
Assembly Sales Service	Johannesburg	SEW-EURODRIVE (PROPRIETARY) LIMITED 32 O'Connor Place Eurodrive House Aeroton Johannesburg 2190 P.O.Box 90004 Bertsham 2013	Tel. +27 11 248-7000 Fax +27 11 248-7289 http://www.sew.co.za info@sew.co.za
	Cape Town	SEW-EURODRIVE (PROPRIETARY) LIMITED Rainbow Park Cnr. Racecourse & Omuramba Road Montague Gardens Cape Town P.O.Box 36556 Chempet 7442	Tel. +27 21 552-9820 Fax +27 21 552-9830 Telex 576 062 bgriffiths@sew.co.za
	Durban	SEW-EURODRIVE (PROPRIETARY) LIMITED 48 Prospecton Road Isipingo Durban P.O. Box 10433, Ashwood 3605	Tel. +27 31 902 3815 Fax +27 31 902 3826 cdejager@sew.co.za
	Nelspruit	SEW-EURODRIVE (PROPRIETARY) LIMITED 7 Christie Crescent Vintonia P.O.Box 1942 Nelspruit 1200	Tel. +27 13 752-8007 Fax +27 13 752-8008 robermeyer@sew.co.za
	Port Elizabeth	SEW-EURODRIVE (PROPRIETARY) LIMITED 8 Ruan Access Park Old Cape Road Greenbushes 6000 Port Elizabeth	Tel. +27 41 3722246 Fax +27 41 3722247 http://www.sew.co.za fsieberhagen@sew-co-za
South Korea			
Assembly Sales Service	Ansan	SEW-EURODRIVE Korea Co., Ltd. 7, Dangjaengi-ro, Danwon-gu, Ansan-si, Gyeonggi-do, Zip 425-839	Tel. +82 31 492-8051 Fax +82 31 492-8056 http://www.sew-eurodrive.kr master.korea@sew-eurodrive.com
	Busan	SEW-EURODRIVE Korea Co., Ltd. 28, Noksansandan 262-ro 50beon-gil, Gangseo-gu, Busan, Zip 618-820	Tel. +82 51 832-0204 Fax +82 51 832-0230
Assembly Service	Siheung	SEW-EURODRIVE Korea Co., Ltd. 35, Emtibeui 26-ro 58beon-gil, Siheung-si, Gyeonggi-do	http://www.sew-eurodrive.kr
Technical Offices	Daegu	SEW-EURODRIVE Korea Co., Ltd. No.303 Sungan officetel, 1834, Dalgubeol-daero, Dalseo-gu, Daegu, Zip 704-712	Tel. +82 53 650-7111 Fax +82 53 650-7112
	Daejeon	SEW-EURODRIVE Korea Co., Ltd. No.302 Hongin officetel, 28, Daehak-ro, Yuseong-gu, Daejeon, Zip 305-710	Tel. +82 42 828-6461 Fax +82 42 828-6463

Gwangju	SEW-EURODRIVE Korea Co., Ltd. 5fl., Hyundai B/D B, 40, Bungmun-daero, Buk-gu, Gwangju, Zip 500-855	Tel. +82 62 511-9172 Fax +82 62 511-9174
Seoul	SEW-EURODRIVE Korea Co., Ltd. No.1804 Ace Hiend Tower 8th, 84, Gasam digital 1-ro, Geumcheon-gu, Seoul, Zip 153-797	Tel. +82 2 862-8051 Fax +82 2 862-8199

Spain

Assembly Sales Service	Bilbao	SEW-EURODRIVE ESPAÑA, S.L. Parque Tecnológico, Edificio, 302 48170 Zamudio (Vizcaya)	Tel. +34 94 43184-70 http://www.sew-eurodrive.es sew.spain@sew-eurodrive.es
Technical Offices	Barcelona	SEW-EURODRIVE ESPAÑA, S.L. Avda. Francesc Macià, 60 – Planta 12, porta 3 Eix Macià – “Torre Milenium” 08208 Sabadell (Barcelona)	Tel. +34 93 7162200
	Madrid	SEW-EURODRIVE ESPAÑA, S.L. Gran Via. 48-2° A-D 28220 Majadahonda (Madrid)	Tel. +34 91 6342250

Sri Lanka

Sales	Colombo	SM International (Pte) Ltd 254, Galle Raod Colombo 4, Sri Lanka	Tel. +94 1 2584887 Fax +94 1 2582981
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Swaziland

Sales	Manzini	C G Trading Co. (Pty) Ltd Simunye street Matsapha, Manzini	Tel. +268 7602 0790 Fax +268 2 518 5033 charles@cgtrading.co.sz www.cgtradingswaziland.com
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Sweden

Assembly Sales Service	Jönköping	SEW-EURODRIVE AB Gnejsvägen 6-8 553 03 Jönköping Box 3100 S-550 03 Jönköping	Tel. +46 36 34 42 00 Fax +46 36 34 42 80 http://www.sew-eurodrive.se jonkoping@sew.se
Sales	Gothemburg	SEW-EURODRIVE AB Stora Ävägen 21 436 34 Askim	Tel. +46 31 709 68 80 Fax +46 31 709 68 93 goteborg@sew.se
	Stockholm	SEW-EURODRIVE AB Björkholmsvägen 10 141 46 Huddinge	Tel. +46 8 449 86 80 Fax +46 8 449 86 93 stockholm@sew.se
	Malmö	SEW-EURODRIVE AB Borrgatan 5 211 24 Malmö	Tel. +46 40 680 64 80 Fax +46 40 680 64 93 malmö@sew.se
	Skellefteå	SEW-EURODRIVE AB Trädgårdsgatan 8 931 31 Skellefteå	Tel. +46 910 71 53 80 Fax +46 910 71 53 93 skelleftea@sew.se

Switzerland

Assembly Sales Service	Basel	Alfred Imhof A.G. Jurastrasse 10 4142 Münchenstein bei Basel	Tel. +41 61 417 1717 Fax +41 61 417 1700 http://www.imhof-sew.ch info@imhof-sew.ch
Technical Offices	Rhaetian Switzerland	Ivan Grumelli Z.I. Moulin du choc C 1122 Romanel-sur-Morges, VD	Tel. +41 79 725 4499 Fax +41 61 417 1700
	Bern / Solo- thurn	Rudolf Bühler Muntersweg 5 2540 Grenchen	Tel. +41 32 652 2339 Fax +41 32 652 2331
	Central Switzerland, Aargau	Armin Pfister Stierenweid 4950 Huttwil, BE	Tel. +41 62 962 54 55 Fax +41 62 962 54 56
	Zürich, Ticino	Gian-Michele Muletta Fischerstrasse 61 8132 Egg bei Zürich	Tel. +41 44 994 81 15 Fax +41 44 994 81 16

Lake Con- stance and East Switzer- land	Markus Künzle Eichweg 4 9403 Goldach	Tel. +41 71 845 2808 Fax +41 71 845 2809
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Taiwan

Sales	Taipei	Ting Shou Trading Co., Ltd. 6F-3, No. 267, Sec. 2 Tung Huw S. Road Taipei	Tel. +886 2 27383535 Fax +886 2 27368268 Telex 27 245 sewtwn@ms63.hinet.net http://www.tingshou.com.tw
	Nan Tou	Ting Shou Trading Co., Ltd. No. 55 Kung Yeh N. Road Industrial District Nan Tou 540	Tel. +886 49 255353 Fax +886 49 257878 sewtwn@ms63.hinet.net http://www.tingshou.com.tw

Tanzania

Sales	Daressalam	SEW-EURODRIVE PTY LIMITED TANZANIA Plot 52, Regent Estate PO Box 106274 Dar Es Salaam	Tel. +255 0 22 277 5780 Fax +255 0 22 277 5788 http://www.sew-eurodrive.co.tz info@sew.co.tz
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Thailand

Assembly Sales Service	Chonburi	SEW-EURODRIVE (Thailand) Ltd. 700/456, Moo.7, Donhuaroh Muang Chonburi 20000	Tel. +66 38 454281 Fax +66 38 454288 sewthailand@sew-eurodrive.com https://www.sew-eurodrive.co.th
Technical Offices	Bangkok	SEW-EURODRIVE (Thailand) Ltd. 6th floor, TPS Building 1023, Phattanakarn Road Suanluang Bangkok, 10250	Tel. +66 2 7178149 Fax +66 2 7178152 sewthailand@sew-eurodrive.com
	Hat Yai	SEW-EURODRIVE (Thailand) Ltd. Hadyai Country Home Condominium 59/101 Soi.17/1 Rachas-Utid Road. Hadyai, Songkhla 90110	Tel. +66 74 359441 Fax +66 74 359442 sewthailand@sew-eurodrive.com
	Khon Kaen	SEW-EURODRIVE (Thailand) Ltd. 4th Floor, Kaow-U-HA MOTOR Bldg, 359/2, Mitraphab Road. Muang District Khonkaen 40000	Tel. +66 43 225745 Fax +66 43 324871 sewthailand@sew-eurodrive.com
	Surat Thani	SEW-EURODRIVE (Thailand) Ltd. 66/58 Moo.4, Wat Pradu Muang district Surat Thani 84000	Tel. +66 80 928 9463 sewthailand@sew-eurodrive.com

Tunisia

Sales	Tunis	T. M.S. Technic Marketing Service Zone Industrielle Mghira 2 Lot No. 39 2082 Fouchana	Tel. +216 79 40 88 77 Fax +216 79 40 88 66 http://www.tms.com.tn tms@tms.com.tn
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Turkey

Assembly Sales Service	Kocaeli-Gebze	SEW-EURODRIVE Ana Merkez Gebze Organize Sanayi Böl. 400 Sok No. 401 41480 Gebze Kocaeli	Tel. +90 262 9991000 04 Fax +90 262 9991009 http://www.sew-eurodrive.com.tr sew@sew-eurodrive.com.tr
Technical Offices		SEW-EURODRIVE Home Ofis	Tel. +90 533 491 81 77 / +90 542 660 34 89
	Ankara	SEW-EURODRIVE Ankara Ofis 1368.Cadde Eminel İş Merkezi No: 18/68 İvedik OSB/Yenimahalle/Ankara	Tel. +90 312 385 33 90
	Bursa	SEW-EURODRIVE Bursa Ofis Beşevler Mah. Yıldırım Cd. No: 254 Karya Güçlü İş Merkezi B Blok Kat:5 No: 28 Nilüfer/Bursa	Tel. +90 224 443 45 60

Istanbul	SEW-EURODRIVE İstanbul Ofis Yakuplu Merkez Mh. Hürriyet Bulvarı Skyport Residence No:1 D:66 Beylikdüzü/İSTANBUL	Tel. +90 212 438 41 62-63
Izmir	SEW-EURODRIVE İzmir Ofis IAOSB Küçük Parseller Grubu Sosyal Tesis merkezi 1030 Sokak No: 16 / 110 Kara Hasan Atlı İş Merkezi Kat:6 Çiğli/İzmir	Tel. +90 232 469 62 64

United Arab Emirates

Drive Technology Center	Dubai	SEW-EURODRIVE FZE PO Box 263835 Jebel Ali Free Zone – South, P.O. Box Dubai, United Arab Emirates	Tel. +971 (0)4 8806461 Fax +971 (0)4 8806464 info@sew-eurodrive.ae
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Ukraine

Assembly Sales Service	Dnipropetrovsk	SEW-EURODRIVE, LLC Robochya str., bld. 23-B, office 409 49008 Dnipro	Tel. +380 56 370 3211 Fax +380 56 372 2078 http://www.sew-eurodrive.ua sew@sew-eurodrive.ua
Sales	Kiev	SEW-EURODRIVE, LLC Velyka Vasylkivska street, 77-A 03150 Kiev	Tel. +380 44 503 95 77 Fax +380 44 503 95 78 kso@sew-eurodrive.ua
	Ivano-Frankivsk	SEW-EURODRIVE, LLC Symona Petlyury Str. 27 76018 Ivano-Frankivsk	Tel. +380 342 725 190 Fax +380 342 725 191 ifso@sew-eurodrive.ua

Uruguay

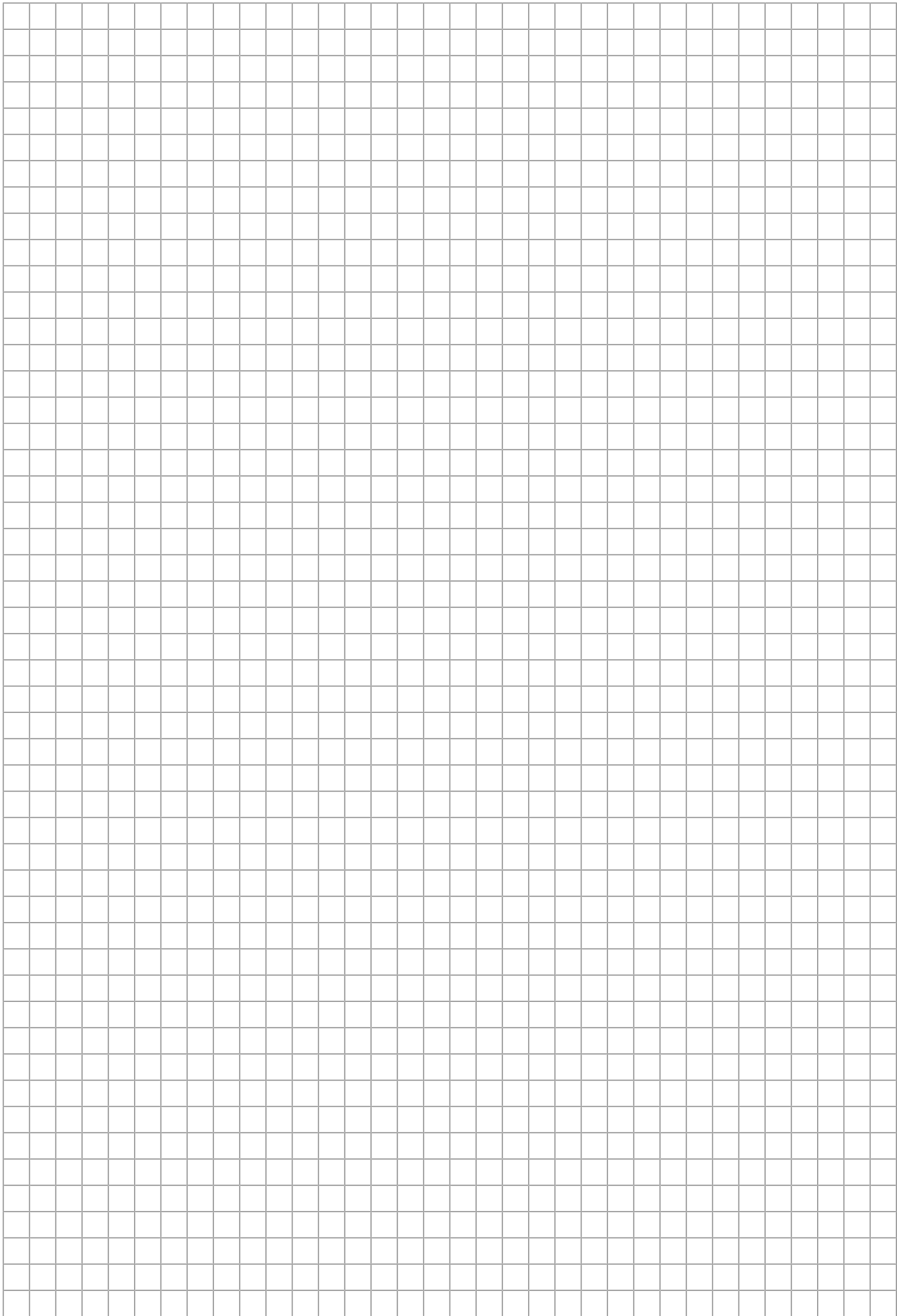
Assembly Sales	Montevideo	SEW-EURODRIVE Uruguay, S. A. Jose Serrato 3569 Esquina Corumbe CP 12000 Montevideo	Tel. +598 2 21181-89 Fax +598 2 21181-90 sewuy@sew-eurodrive.com.uy
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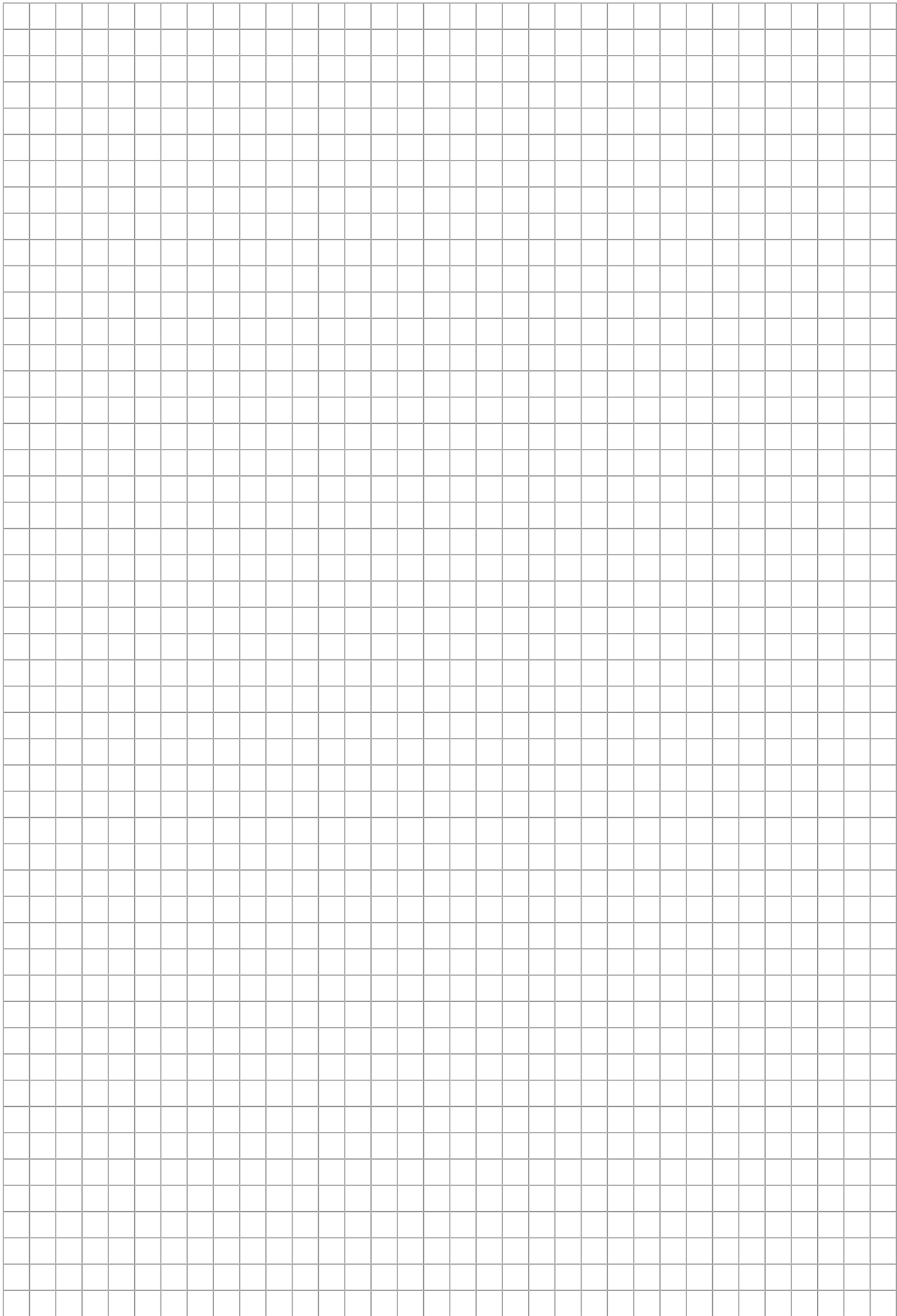
USA

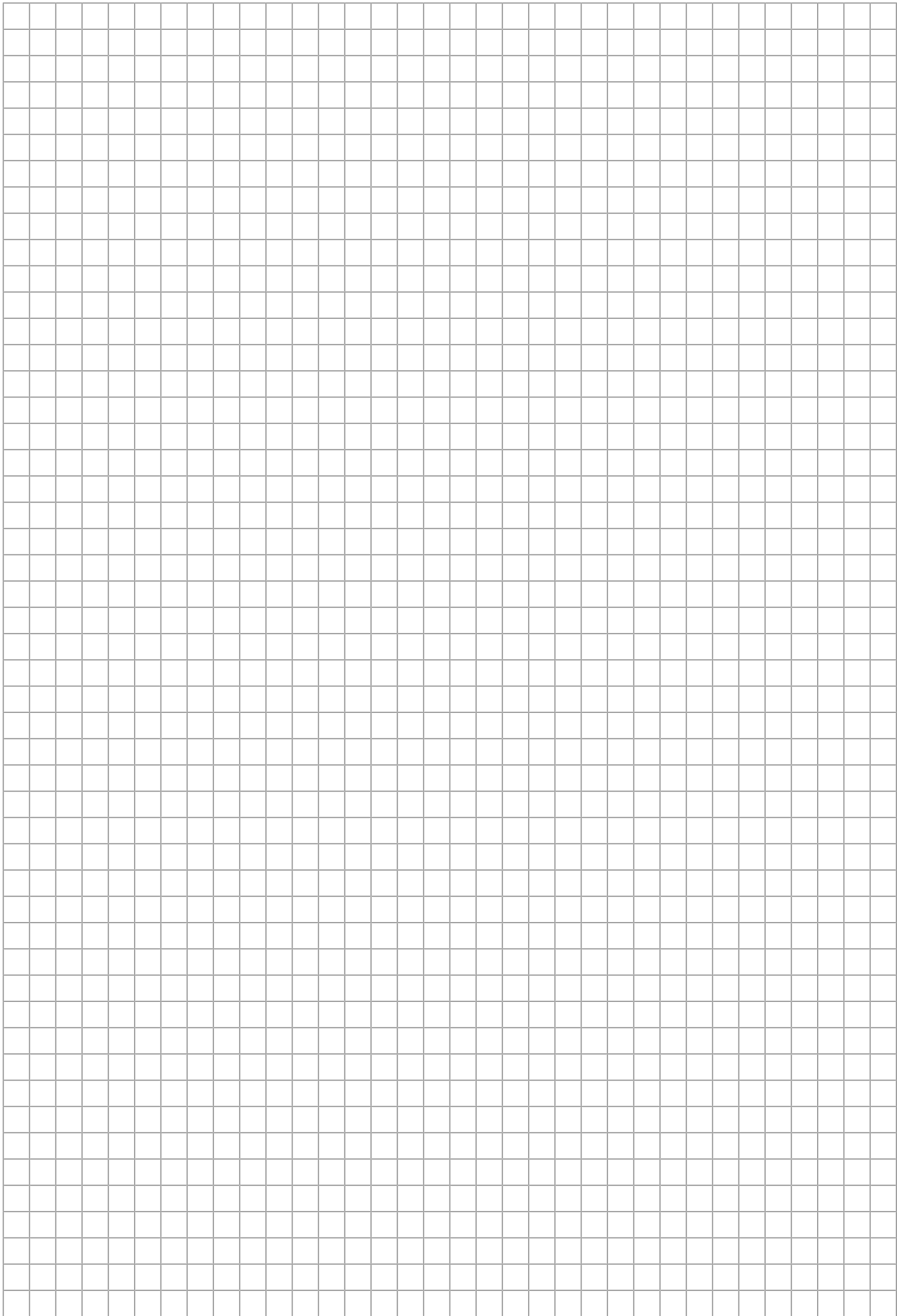
Production Sales Service	Southeast Region	SEW-EURODRIVE INC. 1295 Old Spartanburg Highway P.O. Box 518 Lyman, S.C. 29365	Tel. +1 864 439-7537 Fax Sales +1 864 439-7830 Fax Production +1 864 439-9948 Fax Assembly +1 864 439-0566 Fax Confidential/HR +1 864 949-5557 http://www.seweurodrive.com cslyman@seweurodrive.com
Assembly Sales Service	Northeast Region	SEW-EURODRIVE INC. Pureland Ind. Complex 2107 High Hill Road, P.O. Box 481 Bridgeport, New Jersey 08014	Tel. +1 856 467-2277 Fax +1 856 845-3179 csbridgeport@seweurodrive.com
	Midwest Region	SEW-EURODRIVE INC. 2001 West Main Street Troy, Ohio 45373	Tel. +1 937 335-0036 Fax +1 937 332-0038 cstroy@seweurodrive.com
	Southwest Region	SEW-EURODRIVE INC. 202 W. Danieldale Rd. DeSoto, TX 75115	Tel. +1 214 330-4824 Fax +1 214 330-4724 csdallas@seweurodrive.com
	Western Region	SEW-EURODRIVE INC. 30599 San Antonio St. Hayward, CA 94544	Tel. +1 510 487-3560 Fax +1 510 487-6433 cshayward@seweurodrive.com
	Wellford	SEW-EURODRIVE INC. 148/150 Finch Rd. Wellford, S.C. 29385 SEW-EURODRIVE INC. 220 Finch Rd. Wellford, S.C. 29385-9630	Tel. +1 864 439-7537 Fax +1 864 661 1167 IGOrders@seweurodrive.com

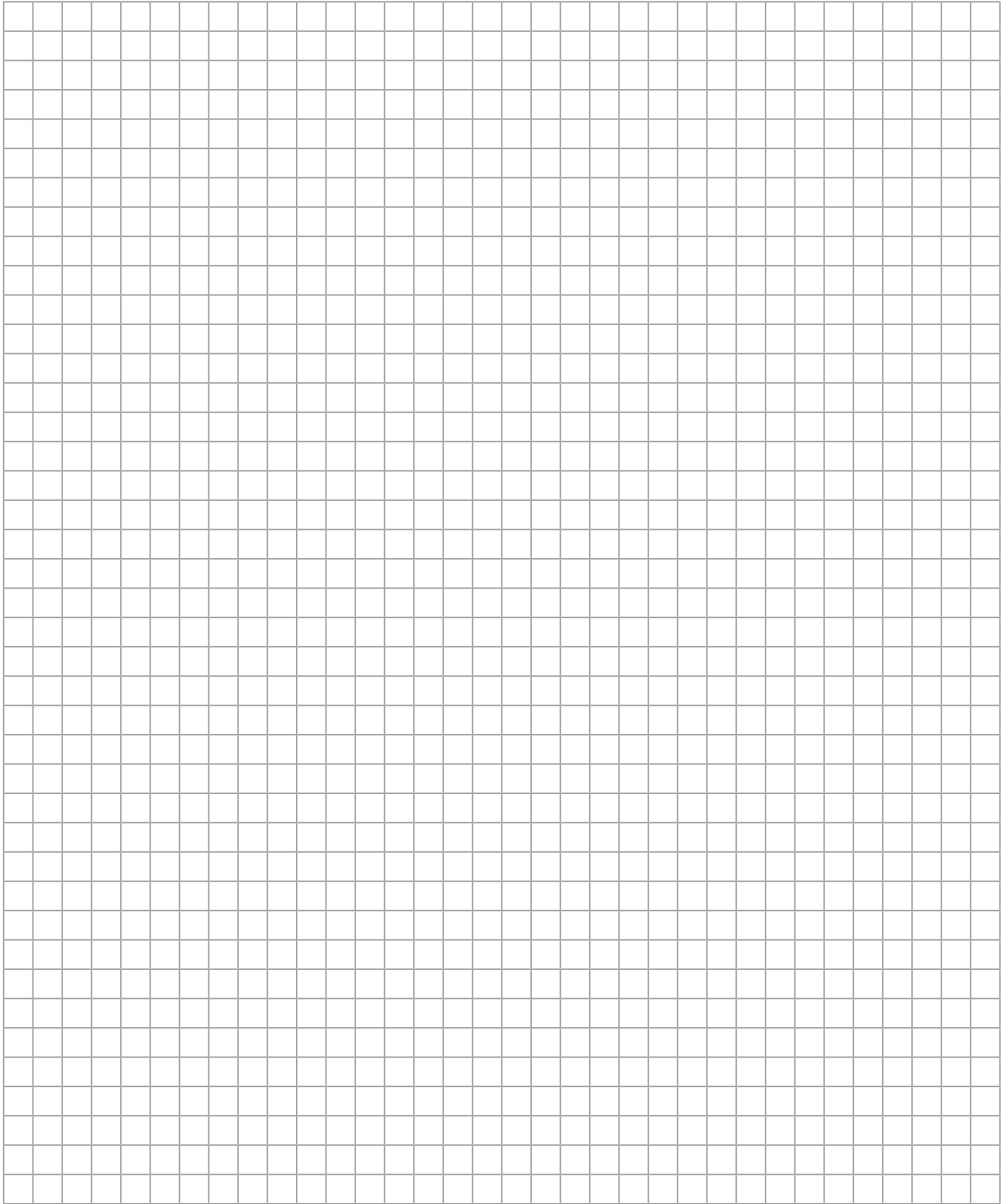
Additional addresses for service provided on request!

Vietnam			
Sales	Ho Chi Minh City	SEW-EURODRIVE PTE. LTD. RO at Hochiminh City Floor 8, KV I, Loyal building, 151-151 Bis Vo Thi Sau street, ward 6, District 3, Ho Chi Minh City, Vietnam	Tel. +84 937 299 700 huytam.phan@sew-eurodrive.com
	Hanoi	MICO LTD Quảng Trị - North Vietnam / All sectors except Construction Materials 8th Floor, Ocean Park Building, 01 Dao Duy Anh St, Ha Noi, Viet Nam	Tel. +84 4 39386666 Fax +84 4 3938 6888 nam_ph@micogroup.com.vn http://www.micogroup.com.vn











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