

7 Explosion-Proof Drives

7.1 Explosion-proof MOVIMOT® drives



NOTES

- This section contains a short overview on MOVIMOT® drives in category 3D and permitted options.
- It is essential that you observe the project planning notes and limitations in the "Explosion-Proof Gearmotors" catalog and the "Explosion-Proof MOVIMOT® Drives of Category 3D" operating instructions.

7.1.1 MOVIMOT® in category II3D



57917AXX

280 – 1400 1/min $\curvearrowright$ 3 x 400 – 500 V (400 V)

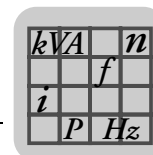
Type	P _N [kW]	M _n [Nm]	M _a /M _n	n _n [1/min]	I _{n1} [A]	cos φ	J _{mot}		M _{Bmax} [Nm]
							[10 ⁻⁴ kgm ²] without brake	[10 ⁻⁴ kgm ²] with brake	
DT71D4/.../MM03/II3D ¹⁾	0.25	1.7	1.8	1400	1.0	0.99	4.61	5.51	5
DT80K4/.../MM05/II3D ¹⁾	0.37	2.5	1.8	1400	1.3	0.99	6.55	7.45	10
DT80N4/.../MM07/II3D ¹⁾	0.55	3.7	1.8	1400	1.6	0.99	8.7	9.6	10
DT90S4/.../MM11/II3D ¹⁾	0.75	5.1	1.8	1400	1.9	0.99	25	30.4	20
DT90L4/.../MM15/II3D ¹⁾	1.1	7.5	1.8	1400	2.4	0.99	34	39.4	20
DV100M4/.../MM22/II3D ¹⁾	1.5	10.2	1.8	1400	3.5	0.99	53	59	40
DV100L4/.../MM30/II3D ¹⁾	2.2	15	1.8	1400	5.0	0.99	65	71	40

1) Optional with integrated fieldbus interface

290 – 2900 1/min $\triangle$ 3 x 400 – 500 V (400 V)

Type	P _N [kW]	M _n [Nm]	M _a /M _n	n _n [1/min]	I _{n1} [A]	cos φ	J _{mot}		M _{Bmax} [Nm]
							[10 ⁻⁴ kgm ²] without brake	[10 ⁻⁴ kgm ²] with brake	
DT71D4/.../MM05/II3D ¹⁾	0.37	1.2	1.8	2900	1.3	0.99	4.61	5.51	5
DT80K4/.../MM07/II3D ¹⁾	0.55	1.8	1.8	2900	1.6	0.99	6.55	7.45	10
DT80N4/.../MM11/II3D ¹⁾	0.75	2.5	1.8	2900	1.9	0.99	8.7	9.6	10
DT90S4/.../MM15/II3D ¹⁾	1.1	3.6	1.8	2900	2.4	0.99	25	30.4	20
DT90L4/.../MM22/II3D ¹⁾	1.5	4.9	1.8	2900	3.5	0.99	34	39.4	20
DV100M4/.../MM30/II3D ¹⁾	2.2	7.2	1.8	2900	5.0	0.99	53	59	40
DV100L4/.../MM3X/II3D ¹⁾	3.0	9.9	1.8	2900	6.7	0.99	65	71	40

1) Optional with integrated fieldbus interface



7.1.2 MOVIMOT® in category II3D with gear protection (GP) function

Version with reduced power

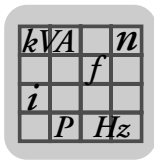


57917AXX

60 – 2900 1/min Δ 3 x 400 – 500 V (400 V)

Type	P _N [kW]	M _N [Nm]	M _{switch-off} / M _N	n _n [1/min]	I _{n1} [A]	cosφ	J _{mot}		M _{Bmax} [Nm]
							[10 ⁻⁴ kgm ²] without brake	[10 ⁻⁴ kgm ²] with brake	
DT71D4/.../MM03C-GP ¹⁾	0.3	1.00	1.25	2900	0.95	0.99	4.61	5.51	5
DT80K4/.../MM05C-GP ¹⁾	0.4	1.4	1.24	2900	1.1	0.99	6.55	7.45	10
DT80N4/.../MM07C-GP ¹⁾	0.6	2.1	1.21	2900	1.3	0.99	8.7	9.6	10
DT90L4/.../MM15C-GP ¹⁾	1.3	4.3	1.18	2900	2.5	0.99	34	39.4	20
DV100L4/.../MM30C-GP ¹⁾	2.6	8.5	1.2	2900	5.0	0.99	65	71	40

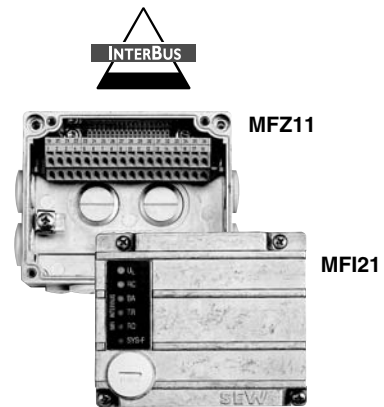
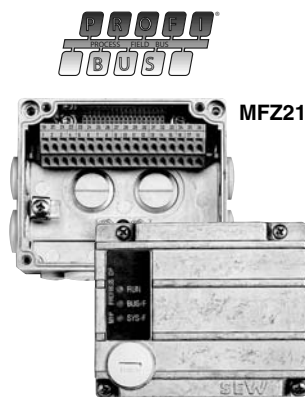
1) Optional with integrated fieldbus interface



Explosion-Proof Drives

Explosion-proof MOVIMOT® drives

7.1.3 Fieldbus interfaces in category II3D (zone 22)¹⁾



57141AXX

Variants



Fieldbus interface + module terminal box	MFP21D/Z21D/II3D
Part number	0 823 680 1
Connection technology Sensors / actuators	Terminals
Digital inputs	4
Digital outputs	2

Variants



Fieldbus interface + module terminal box	MFI21A/Z11A/II3D
Part number	0 823 681 X
Connection technology Sensors / actuators	Terminals
Digital inputs	4
Digital outputs	2

7.1.4 Setpoint converter MLA12A in category II3D

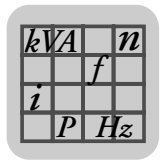


57821AXX

The setpoint converter MLA12A in category II3D is available mounted to the MOVIMOT® terminal box only.

Setpoint converter	MLA12A/II3D
Part number	0 823 234 2

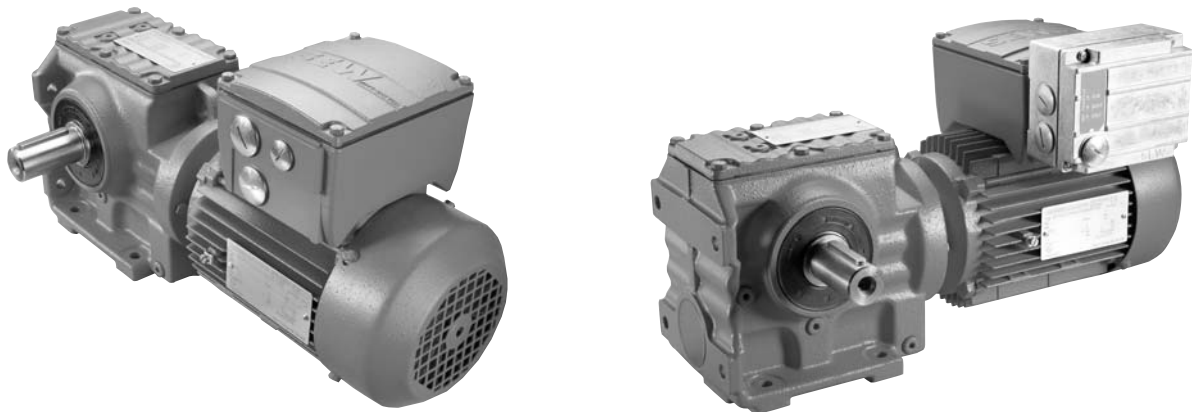
1) In combination with MOVIMOT® in category II3D (zone 22)



7.2 Explosion-proof MOVI-SWITCH® drives

i	NOTES
	- The following section contains only a short overview on MOVI-SWITCH® AC motors in category 3D and permitted options. - It is essential that you observe the project planning notes and limitations in the "Explosion-Proof Gearmotors" catalog and the "Explosion-Proof MOVI-SWITCH® Drives of Category 3D" operating instructions.

7.2.1 MOVI-SWITCH® in category II3D (zone 22)



57139AXX

1500 1/min

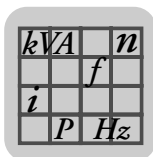
Motor type	P _N [kW]	n _N [1/min]	M _N [Nm]	I _N 400 V [A]	cosφ	I _A /I _N	M _A /M _N M _H /M _N	J _{Mot} 1) 2) [10 ⁻⁴ kgm ²]		Z ₀ 3) [1/h]	M _{Bmax} [Nm]
DT71D4/.../MSW ⁴⁾	0.37	1380	2.56	1.15	0.76	3.0	1.8 1.7	4.6	5.5	1900	5
DT80K4/.../MSW ⁴⁾	0.55	1360	3.86	1.75	0.72	3.4	2.1 1.8	6.6	7.5	2200	10
DT80N4/.../MSW ⁴⁾	0.75	1380	5.19	2.1	0.73	3.8	2.2 2.0	8.7	9.6	2800	10
DT90S4/.../MSW ⁴⁾	1.1	1400	7.50	2.8	0.77	4.3	2.0 1.9	25	31	1260	20
DT90L4/.../MSW ⁴⁾	1.5	1410	10.2	3.55	0.78	5.3	2.6 2.3	34	40	1500	20
DV100M4/.../MSW ⁴⁾	2.2	1410	14.9	4.7	0.83	5.9	2.7 2.3	53	59	1700	40
DV100L4/.../MSW ⁴⁾	3	1400	20.5	6.3	0.83	5.6	2.7 2.2	65	71	1500	40

1) Without brake

2) With brake

3) With BGW brake control

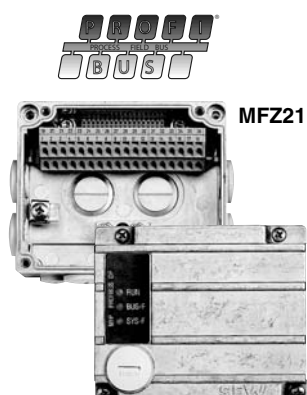
4) Optional with integrated fieldbus interface



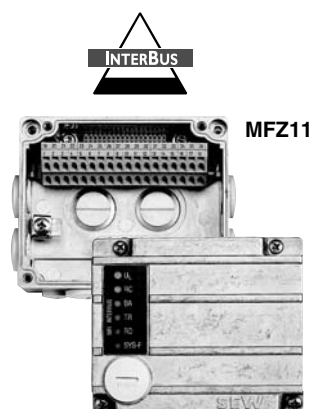
Explosion-Proof Drives

Explosion-proof MOVI-SWITCH® drives

7.2.2 Fieldbus interfaces in category II3D (zone 22)¹⁾



MFP21



MFI21

57141AXX

Variants



Fieldbus interface + module terminal box	MFP21D/Z21D/II3D
Part number	0 823 680 1
Connection technology	Terminals
Sensors / actuators	
Digital inputs	4
Digital outputs	2

Variants



Fieldbus interface + module terminal box	MFI21A/Z11A/II3D
Part number	0 823 681 X
Connection technology	Terminals
Sensors / actuators	
Digital inputs	4
Digital outputs	2

1) In combination with MOVI-SWITCH® in category II3D (zone 22)