

1. Technical data

ELEKTROMATEN Series		SE 5.24		SE 5.24 WS		SE 9.15		SE 9.20		SE 9.24		SE 9.24 WS	
		KG50	KG50	SG50	SG50E	SG50	SG50E	SG50	SG50E	SG50	SG50E	SG50	SG50E
Output torque	Nm	50	50	90	90	90	90	90	90	90	90	90	90
Output speed	rpm	24	24	15	15	20	20	24	24	24	24	24	24
Hollow-shaft Ø ¹	mm	25,4	25,4	25,4	25,4	25,4	25,4	25,4	25,4	25,4	25,4	25,4	25,4
Holding torque M _{stat} ²	Nm	200	200	450	450	450	450	450	450	450	450	450	450
Max. door weighth	N	2500	2500	4000	4000	4000	4000	4000	4000	4000	4000	4000	4000
Permitted OPEN / CLOSE output speed in frequency-inverter operating mode ³	rpm	42 / 30	--	26 / 26	26 / 26	36 / 30	36 / 30	42 / 30	42 / 30	42 / 30	42 / 30	--	--
Motor power	kW	0,30	0,37	0,30	0,30	0,30	0,30	0,37	0,37	0,37	0,37	0,45	0,45
Supply voltage	V	3~230 / 400V	1N~230V	3~230 / 400V	3~230 / 400V	3~230 / 400V	3~230 / 400V	3~230 / 400V	3~230 / 400V	3~230 / 400V	3~230 / 400V	1N~230V	1N~230V
Frequency	Hz	50	50	50	50	50	50	50	50	50	50	50	50
Nominal current ⁴	A	1,9 / 1,1	3,5	2,6 / 1,5	2,6 / 1,5	2,6 / 1,5	2,6 / 1,5	2,1 / 1,2	2,1 / 1,2	2,1 / 1,2	2,1 / 1,2	3,9	3,9
Max. movements per hour ⁵		12	12	20	20	20	20	20	20	20	20	16	16
Supply side wiring / fusing (delayed action)		5x1,5 ² / 10A	3x1,5 ² / 10A	5x1,5 ² / 10A	5x1,5 ² / 10A	5x1,5 ² / 10A	5x1,5 ² / 10A	5x1,5 ² / 10A	5x1,5 ² / 10A	5x1,5 ² / 10A	5x1,5 ² / 10A	3x1,5 ² / 10A	3x1,5 ² / 10A
Limit switch range ⁶		20	20	20	20	20	20	20	20	20	20	20	20
ELEKTROMATEN-weight	kg	15	15	15	15	15	15	15	15	15	15	16	16
Spare parts: Catalogue page		9.081	9.081	9.083 9.085 (ER)	9.083 9.085 (ER)	9.084 9.086 (ER)	9.084 9.086 (ER)	9.083 9.085 (ER)	9.083 9.085 (ER)	9.083 9.085 (ER)	9.083 9.085 (ER)	9.083 9.085 (ER)	9.083 9.085 (ER)
Part no. installation drawing (dxf, dwg)		50001339	50001339	50000563 50000872 (ER)	50000563 50000872 (ER)	50000563 50000872 (ER)	50000563 50000872 (ER)	50000563 50000872 (ER)	50000563 50000872 (ER)	50000563 50000872 (ER)	50000563 50000872 (ER)	50000853 50001092 (ER)	50000853 50001092 (ER)
Part no. ELEKTROMATEN		10003375	10003424	10003277 10003376 (ER)	10003277 10003376 (ER)	10003152 10003157 (ER)	10003152 10003157 (ER)	10002188 10002748 (ER)	10002188 10002748 (ER)	10002188 10002748 (ER)	10002188 10002748 (ER)	1002237 10002763 (ER)	1002237 10002763 (ER)

ELEKTROMATEN Series		SE 9.30		SE 14.15		SE 14.21		SE 6.65 DU		SE 6.80 FI		SE 14.80 FI	
		SG50	SG50E	SG50	SG50E	SG50	SG50E	SG50	SG50E	SG50	SG50E	SG50	SG50E
Output torque	Nm	90	140	140	140	140	60	60	60	60	60	140	140
Output speed OPEN CLOSE to a max. heights of 2,5m CLOSE bellow 2,5m heights ⁷	min ⁻¹	30	15	21	21	21	20-65 20-30 20-30	20-65 20-30 20-30	15-80 15-30 15-30	15-80 15-30 15-30	15-80 15-30 15-30	10-80 10-30 10-30	10-80 10-30 10-30
Hollow-shaft Ø ¹	mm	25,4	25,4 / 31,75	25,4 / 31,75	25,4 / 31,75	25,4 / 31,75	25,4 / 31,75	25,4 / 31,75	25,4 / 31,75	25,4 / 31,75	25,4 / 31,75	25,4 / 31,75	25,4 / 31,75
Holding torque M _{stat} ²	Nm	450	600	600	600	600	450	450	450	450	450	600	600
Max. door weighth	N	4000	6000	6000	6000	6000	3000	3000	3000	3000	3000	6000	6000
Permitted OPEN / CLOSE output speed in frequency-inverter operating mode ³	min ⁻¹	52 / 30	26 / 26	36 / 30	36 / 30	36 / 30	--	--	--	--	--	--	--
Motor power	kW	0,37	0,35	0,45	0,45	0,45	0,45	0,45	0,40	0,40	0,40	0,85	0,85
Supply voltage	V	3~230 / 400V	3~230 / 400V	3~230 / 400V	3~230 / 400V	3~230 / 400V	3~400V	3~400V	1N~230V	1N~230V	1N~230V	1N~230V	1N~230V
Frequency	Hz	50	50	50	50	50	50	50	50 / 60	50 / 60	50 / 60	50 / 60	50 / 60
Nominal current ⁴	A	2,1 / 1,2	3,3 / 1,9	4,5 / 2,6	4,5 / 2,6	4,5 / 2,6	0,8	0,8	-	-	-	-	-
Max. movements per hour ⁵		20	16	16	16	16	20	20	40	40	40	40	40
Supply side wiring / fusing (delayed action)		5x1,5 ² / 10A	5x1,5 ² / 10A	5x1,5 ² / 10A	5x1,5 ² / 10A	5x1,5 ² / 10A	5x1,5 ² / 10A	5x1,5 ² / 10A	3x1,5 ² / 10A	3x1,5 ² / 10A	3x1,5 ² / 10A	3x1,5 ² / 10A	3x1,5 ² / 10A
Limit switch range ⁶		20	20 (14)	20 (14)	20 (14)	20 (14)	20 (14)	20 (14)	20 (14)	20 (14)	20 (14)	20 (14)	20 (14)
ELEKTROMATEN-weight	kg	15	17	16	16	16	16	16	15	15	15	23	23
Spare parts: Catalogue page		9.084 9.086 (ER)	9.084 9.086 (ER)	9.084 9.086 (ER)	9.084 9.086 (ER)	9.084 9.086 (ER)	9.084 9.086 (ER)	9.084 9.086 (ER)	9.084 9.086 (ER)	9.084 9.086 (ER)	9.084 9.086 (ER)	9.084 9.086 (ER)	9.084 9.086 (ER)
Part no. installation drawing (dxf, dwg)		50000563 50000872 (ER)	50000846 50001076 (ER)	50000846 50001076 (ER)	50000846 50001076 (ER)	50000846 50001076 (ER)	50001313 50001314 (ER)	50001313 50001314 (ER)	50001603 50001604 (ER)	50001603 50001604 (ER)	50001603 50001604 (ER)	50001544 50001545 (ER)	50001544 50001545 (ER)
Part no. ELEKTROMATEN		Ø25,4 10002195 Ø25,4 ER 10002738	Ø25,4 10002516 Ø25,4 ER 10003377 Ø31,75 10002621	Ø25,4 10002204 Ø25,4 ER 10002758 Ø31,75 10002206	Ø25,4 10002204 Ø25,4 ER 10002758 Ø31,75 10002206	Ø25,4 10003393 Ø25,4 ER 10003346 Ø31,75 10003378	Ø25,4 10004106 Ø25,4 ER 10004201 Ø31,75 10004200	Ø25,4 10004106 Ø25,4 ER 10004201 Ø31,75 10004200	Ø25,4 10004106 Ø25,4 ER 10004201 Ø31,75 10004200	Ø25,4 10004106 Ø25,4 ER 10004201 Ø31,75 10004200	Ø25,4 10004106 Ø25,4 ER 10004201 Ø31,75 10004200	Ø25,4 10004010 Ø25,4 ER 10004013 Ø31,75 10004011	Ø25,4 10004010 Ø25,4 ER 10004013 Ø31,75 10004011

Generally applies: Protection class IP65 (combined with WS 900: IP54), permissible temperature range +5°C to +40°C (standard ELEKTROMATEN + DU), +5°C to +40°C (ELEKTROMATEN FI with built-on frequency inverter), operating sound pressure level SPL <70 dB(A)

1 Additional hollow shafts-Ø on request - 2 See 2.5 - 3 We recommend the selection of a special ELEKTROMATEN (enquire) for use with frequency inverter, OPEN drive speed at 87 Hz (not valid for SE 6.80 FI/14.80 FI), see 2.7 and 2.8 - 4 The operating current in door drives can reach up to 4x the rated current for limited periods, see 2.6 and 2.7

5 See 2.2 - 6 Maximum revolutions of hollow shaft: limit switch range 14 turns with a Ø 31,75 mm hollow shaft - 7 See 2.7

ELEKTROMATEN® SE

Sectional-door-drive

For driving:
Counterbalanced sectional doors

Series KG50
SE 5.24 / SE 5.24 WS

Series SG50 / SG50E
SE 9.15 - 14.21
SE 6.65 DU
SE 6.80 FI / SE 14.80 FI

ELEKTROMATEN SE are special drives for counterbalanced sectional doors. The drive unit is normally directly fitted to the door shaft. ELEKTROMATEN SE comprises of:

Worm gear with hollow shaft, emergency manual operator, integrated limit switches and electrical motor respectively electrical motor with built-on direct inverter (SE 6.65 DU) or frequency inverter (SE 6.80 FI / SE 14.80 FI)

Built-on direct inverter (SE 6.65 DU) or frequency inverter (SE 6.80 FI / SE 14.80 FI) to be used with control panels TS 970, TS 971 or TS 981

- Individual adjustable output speed ¹
- The speed appears directly into the display – extra work to evaluate frequency and speed is not required
- Soft start and soft stop
- Automatic optimising of acceleration and deceleration speed
- Adjustable distance for acceleration and deceleration speed
- Individual adjustment and programming of all functions from the ground by a rotary switch and display

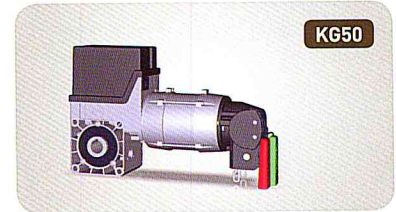
Approvals and certificates

ELEKTROMATEN and FI-motors

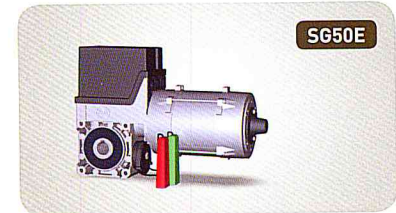
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DIN EN 60335-1
DIN EN 60335-2-103
TÜV NORD CERT GmbH



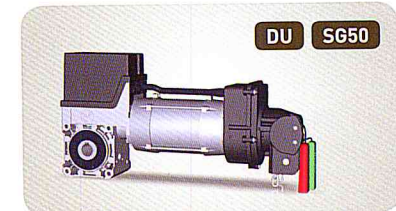
Holding torque
Examination of the static holding torque
Test report 630900
TÜV SÜD Industrieservice GmbH



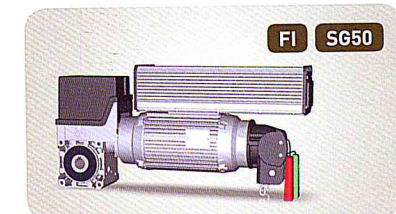
KG50



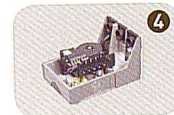
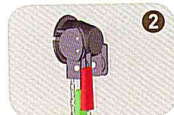
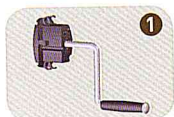
SG50E



DU SG50



FI SG50



Emergency manual operation

- Hand crank NHK
- Rapid hand chain operator SK
- Gear release ER

Limit switches

Mechanical limit NES ²

- 2 operating, 2 emergency- and 2 auxiliary limit switches

Digital limit DES

- Absolute encoder, after a power failure, re-adjustment is not required

Mounting

- Fitting thread 8xM8 (standard fitting)
- Torque mount
- Flange bracket

¹ See 2.7
² Not for SE 6.65 DU / SE 6.80 FI / 14.80 FI

Special versions

- ① ■ Increase of movements per hour
- ② ■ Higher protection class
- ③ ■ Other voltages and frequencies
- Explosion-proof according to ATEX (page 6.031)

Control panels

- ④ ■ Simple connection to the limit switch by means of non-interchangeable plug connections allowing simple exchange with other GfA control panels
- Control voltage: 24V
- Frequency: 50 / 60 Hz
- ⑤ ■ Supply voltage: 1N~230V, 3~230V, 3N~400V, 3~400V

Details of all GfA control panels can be found in section 8.