

Product Catalog

Frequency Converters





Discover the unlimited possibilities of Rexroth's automation systems. They integrate all control and drive components to provide optimum automation solutions: state-of-the-art, ultra-efficient, and highly future-proof.

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Rexroth frequency converters



Comprehensive basic functions support you in implementing ventilation and air-conditioning technology applications.



With vector control, you can configure dynamic pump drives for energy-efficient operation of hydraulic or cooling lubricant assemblies on machine tools.



You can use variable frequency drives (VFD) for straightforward and cost-effective automation of conveyor systems, while ensuring a demand-oriented material supply.



Rexroth frequency converters have all interfaces needed for simple integration into production facilities in a wide range of industries.

Rexroth frequency converters

Straightforward, scalable, cost-effective

- ▶ Easy, fast commissioning via the integrated operating panel
- ▶ Minimal installation effort, simple installation
- ▶ Scalable output and functions for a wide range of applications
- ▶ Cost-effective through energy-efficient operation of variable frequency drives (VFD)



With its variable frequency drives (VFD), Rexroth offers both economical and easy-to-handle solutions for a wide variety of applications where energy-efficiency is a top priority. Variable frequency drives (VFD) help to reduce operating

expenses and minimize CO₂ emissions. These VFDs with a power range from 0.4 kW to 160 kW offer an excellent price-performance ratio, simple operation, and comprehensive basic functions.

EFC 3600

Compact, cost-efficient, and energy-efficient drive solution for U/f operation for the power range from 0.4 kW to 4 kW. Simple commissioning and installation for a wide range of applications

- ▶ Ventilation and air-conditioning technology
- ▶ Environment and process technology
- ▶ Food and beverage industry
- ▶ Pumps and fans
- ▶ Conveyor technology and logistics
- ▶ Machine tools and packaging systems

Frequency Converter Fv

Optimized drive solution for automation in the power range from 0.4 kW to 90 kW. The different control modes voltage/frequency (U/f), sensorless vector control or field-oriented vector control enable use in

- ▶ Material transport
- ▶ Hydraulics applications
- ▶ Rubber and plastics processing machines
- ▶ Paper, printing, and converting machines
- ▶ Textile machines

Frequency Converter Fe

Cost-effective converter solution for U/f operation for the power range from 0.75 kW to 160 kW. Typical applications include use in

- ▶ Ventilation and air-conditioning technology
- ▶ Pumps and fans
- ▶ Transport, storage, and conveyor technology
- ▶ Machine tools
- ▶ Paper, printing, and converting machines



EFC 3600 –
technical data



- Highlights**
 - ▶ Load-dependent adaptation of the Voltage frequency graph
 - ▶ Maximized energy efficiency and minimized motor noises through continuously adjustable pulse frequency
 - ▶ Integrated brake chopper and mains filter
 - ▶ Integrated operating panel for simple and quick commissioning
 - ▶ Simple installation via to plug-in I/O connecting terminals

Frequency converter EFC 3600 –
type code

EFC3600-0K40-1P2-MDA-7P-NNNN

Continuous output
E.g. 0K40 = 0.4 kW

Mains connection
1P2 = 1 AC 200 ... 240 V
3P4 = 3 AC 380 ... 480 V

EFC 3600 communication module
M = Modbus
P = PROFIBUS

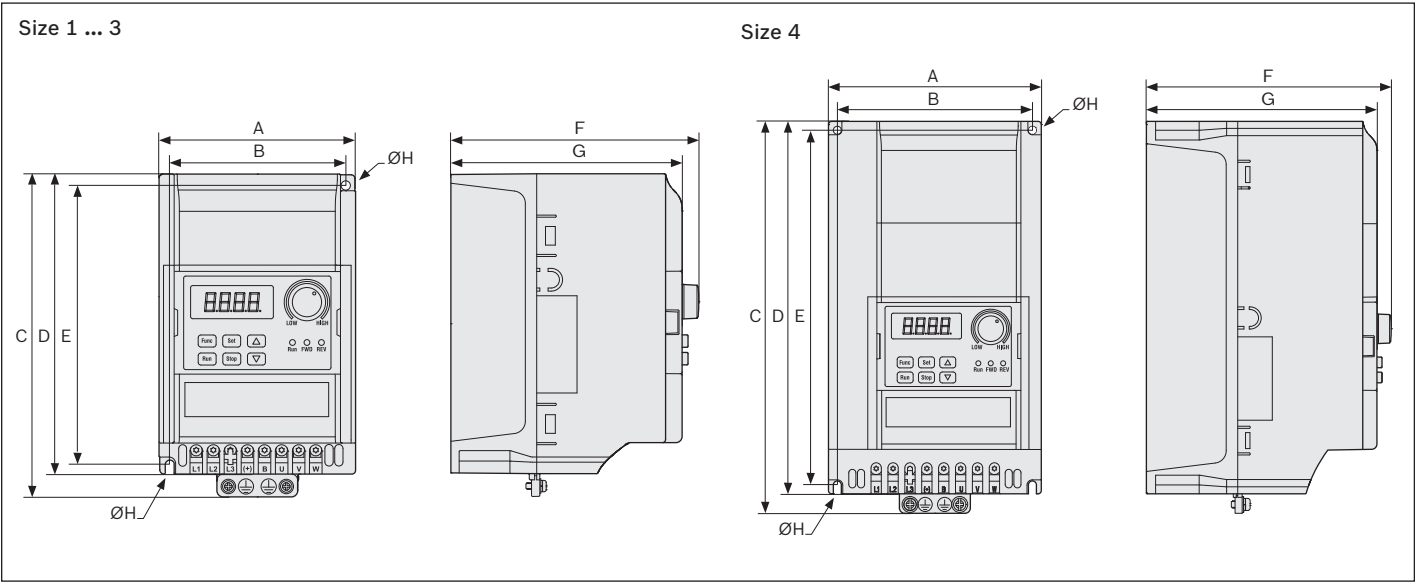
Protection category
A = IP20

EMC protection class
D = Class C3 – industrial use

Type		EFC 3600								
		0K40-1P2-MDA-7P	0K75-1P2-MDA-7P	1K50-1P2-MDA-7P	2K20-1P2-MDA-7P	0K40-3P4-MDA-7P	0K75-3P4-MDA-7P	1K50-3P4-MDA-7P	2K20-3P4-MDA-7P	4K00-3P4-MDA-7P
Functions										
Control technology		U/f								
Pulse width modulation (PWM) for converters with 0.4...4kW		1 ... 15 kHz, adjustable in 1 kHz increments								
Modulation type		Magnetic flux PWM modulation => SVPWM								

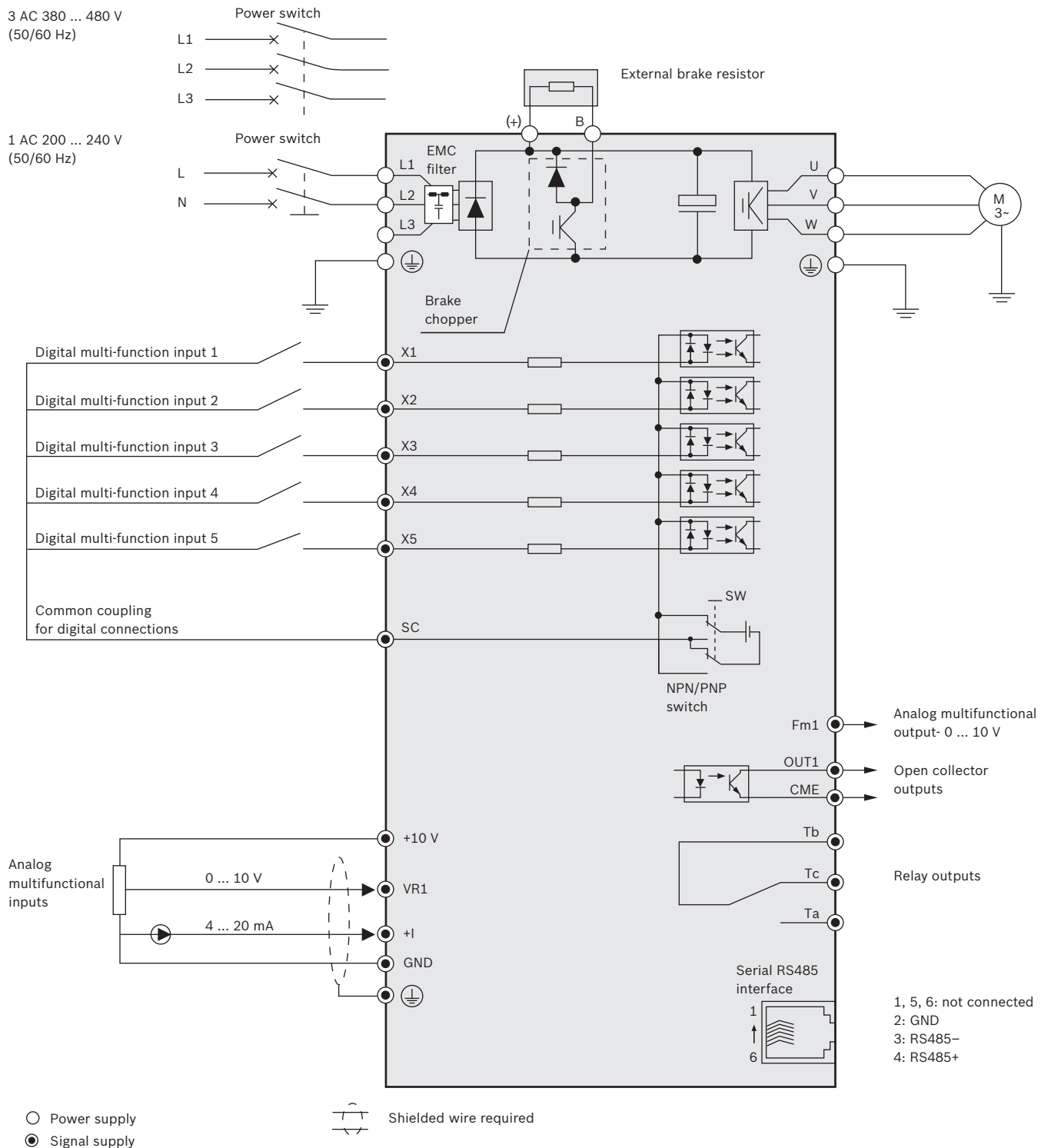
Type		EFC 3600								
		0K40-1P2-MDA-7P	0K75-1P2-MDA-7P	1K50-1P2-MDA-7P	2K20-1P2-MDA-7P	0K40-3P4-MDA-7P	0K75-3P4-MDA-7P	1K50-3P4-MDA-7P	2K20-3P4-MDA-7P	4K00-3P4-MDA-7P
Speed control range	Without pulse encoder	1:50								
	With pulse encoder	Not available								
Start-up torque	U/f	100% at 1.5 Hz; 150% at 3 Hz								
Frequency resolution	Digital	0.01 Hz								
	Analog	Maximum frequency x 0.1%								
U/f curve		Freely definable								
Ramps		Linear, S-curve								
DC brake	Start frequency	0 ... 50 Hz								
	Braking time	0 ... 20 s								
Automatic energy saving function		Load-dependent adaptation of U/f curve								
Automatic PWM frequency adaptation		Load-dependent adaptation of PWM frequency								
Integrated controller		Integrated step switching mechanism								
Frequency setting accuracy	Analog	0.1%								
	Digital	0.01%								
Controller		PID								
Bus systems		Modbus								
		PROFIBUS (optional)								
Status messages via digital outputs		Mode, target value reached, etc.								
Display		4-digit LED: frequency, output voltage, output current, etc.								
Status LED		Rotation direction and operating status								
Performance data										
Mains connection voltage	V	1 AC 200 ... 240 (-10%/+10%)				3 AC 380 ... 480 (-15%/+10%)				
Supply frequency	Hz	50 ... 60 (±5%)								
Nominal motor voltage	V	3-phase, 0 V ... mains connection voltage								
Rated motor power	kW	0.4	0.75	1.5	2.2	0.4	0.75	1.5	2.2	4
Rated continuous current	A	2.3	3.9	7	9.7	1.2	2.1	3.7	5.1	8.8
Output voltage	V	0 V ... mains connection voltage								
Output frequency	Hz	0 ... 400								
Overload capacity		200% In for 1 s or 150% In for 1 min								
Brake										
Brake chopper		Internal								
Brake resistor		External								
Motor cable length										
Internal mains filter C3	m	15								
External mains filter C3	m	30								
External mains filter C1	m	5								
Ambient conditions										
Ambient temperature		-10 ... +50°C								
Max. installation height		From 1,000 m derating (1% of the output rating per 100 m)								
Relative humidity		< 90%								
Protection category		IP20								

EFC 3600 –
device dimensions



Type		EFC 3600								
		0K40-1P2-MDA-7P	0K75-1P2-MDA-7P	1K50-1P2-MDA-7P	2K20-1P2-MDA-7P	0K40-3P4-MDA-7P	0K75-3P4-MDA-7P	1K50-3P4-MDA-7P	2K20-3P4-MDA-7P	4K00-3P4-MDA-7P
Dimensions										
System size		1	2	3	4	2	2	3	4	4
A	mm	90	95	95	120	95	95	95	120	120
B	mm	80	85	85	110	85	85	85	110	110
C	mm	146	156	196	221	156	156	196	221	221
D	mm	135	145	185	210	145	145	185	210	210
E	mm	125	135	175	200	135	135	175	200	200
F	mm	113	128	133	138	128	128	133	138	138
G	mm	105	120	125	130	120	120	125	130	130
ØH	mm	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Weight	kg	0.96	1.24	1.61	2.35	1.18	1.26	1.52	2.25	2.36

Block diagram



EFC 3600 – ordering information

Description	Type code	Material number
EFC 3600 0.4 kW, 1 AC 200 ... 240 V, 50/60 Hz, 2.3 A	EFC 3600-0K40-1P2-MDA-7P-NNNN	R912003758
EFC 3600 0.75 kW, 1 AC 200 ... 240 V, 50/60 Hz, 3.9 A	EFC 3600-0K75-1P2-MDA-7P-NNNN	R912003759
EFC 3600 1.5 kW, 1 AC 200 ... 240 V, 50/60 Hz, 7.0 A	EFC 3600-1K50-1P2-MDA-7P-NNNN	R912003760
EFC 3600 2.2 kW, 1 AC 200 ... 240 V, 50/60 Hz, 1.2 A	EFC 3600-2K20-1P2-MDA-7P-NNNN	R912003761
EFC 3600 0.4 kW, 3 AC 380 ... 480 V, 50/60 Hz, 1.2 A	EFC 3600-0K40-3P4-MDA-7P-NNNN	R912003762
EFC 3600 0.75 kW, 3 AC 380 ... 480 V, 50/60 Hz, 2.1 A	EFC 3600-0K75-3P4-MDA-7P-NNNN	R912003763
EFC 3600 1.5 kW, 3 AC 380 ... 480 V, 50/60 Hz, 3.7 A	EFC 3600-1K50-3P4-MDA-7P-NNNN	R912003764
EFC 3600 2.2 kW, 3 AC 380 ... 480 V, 50/60 Hz, 5.1 A	EFC 3600-2K20-3P4-MDA-7P-NNNN	R912003765
EFC 3600 4.0 kW, 3 AC 380 ... 480 V, 50/60 Hz, 8.8 A	EFC 3600-4K00-3P4-MDA-7P-NNNN	R912003766
EFC 3600 0,4 kW, 1 AC 200 ... 240 V, 50/60 Hz, 2,3 A, Profibus	EFC 3600-0K40-1P2-PDA-7P-NNNN	R912005065
EFC 3600 0,75 kW, 1 AC 200 ... 240 V, 50/60 Hz, 3,9 A, Profibus	EFC 3600-0K75-1P2-PDA-7P-NNNN	R912005066
EFC 3600 1,5 kW, 1 AC 200 ... 240 V, 50/60 Hz, 7,0 A, Profibus	EFC 3600-1K50-1P2-PDA-7P-NNNN	R912005067
EFC 3600 2,2 kW, 1 AC 200 ... 240 V, 50/60 Hz, 1,2 A, Profibus	EFC 3600-2K20-1P2-PDA-7P-NNNN	R912005068
EFC 3600 0,4 kW, 3 AC 380 ... 480 V, 50/60 Hz, 1,2 A, Profibus	EFC 3600-0K40-3P4-PDA-7P-NNNN	R912005069
EFC 3600 0,75 kW, 3 AC 380 ... 480 V, 50/60 Hz, 2,1 A, Profibus	EFC 3600-0K75-3P4-PDA-7P-NNNN	R912005070
EFC 3600 1,5 kW, 3 AC 380 ... 480 V, 50/60 Hz, 3,7 A, Profibus	EFC 3600-1K50-3P4-PDA-7P-NNNN	R912005071
EFC 3600 2,2 kW, 3 AC 380 ... 480 V, 50/60 Hz, 5,1 A, Profibus	EFC 3600-2K20-3P4-PDA-7P-NNNN	R912005072
EFC 3600 4,0 kW, 3 AC 380 ... 480 V, 50/60 Hz, 8,8 A, Profibus	EFC 3600-4K00-3P4-PDA-7P-NNNN	R912005073

Accessories

Description	Type code	Material number
Accessories for frequency converter assembly		
Shielding connector	FEAM01.1-EFC-SHIELDING-CONNECTOR	R912004815
Accessories for adapter assembly		
RS232/RS485 adapter	FEAA01.1-RS485-RS232-NNNN-NN	R912001656
Connection cable frequency converter to adapter, 5 m	FRKB0002 005,0	R912001757
Accessories for operating panel assembly		
Operating panel IP20	FPCC01.1-EBNN-7P-NNNN	R912003767

Frequency Converter Fv – technical data



Highlights

- ▶ Several operating modes for different applications
- ▶ Easy to operate and service (detachable fan, LCD operating panel with copy function)
- ▶ Advanced functions and high performance
- ▶ Integrated mains filter
- ▶ Parameterization and start-up with PC software
- ▶ Worldwide availability and service

Frequency Converter Fv –
type code

FVCA01.2-0K40-3P4-MDA-LP-NNNN-01V01

Continuous output
E.g. 0K40 = 0.4 kW

Mains connection
3P4 = 3 AC 380 ... 480 V

Bus systems Fv
M = Modbus

Firmware

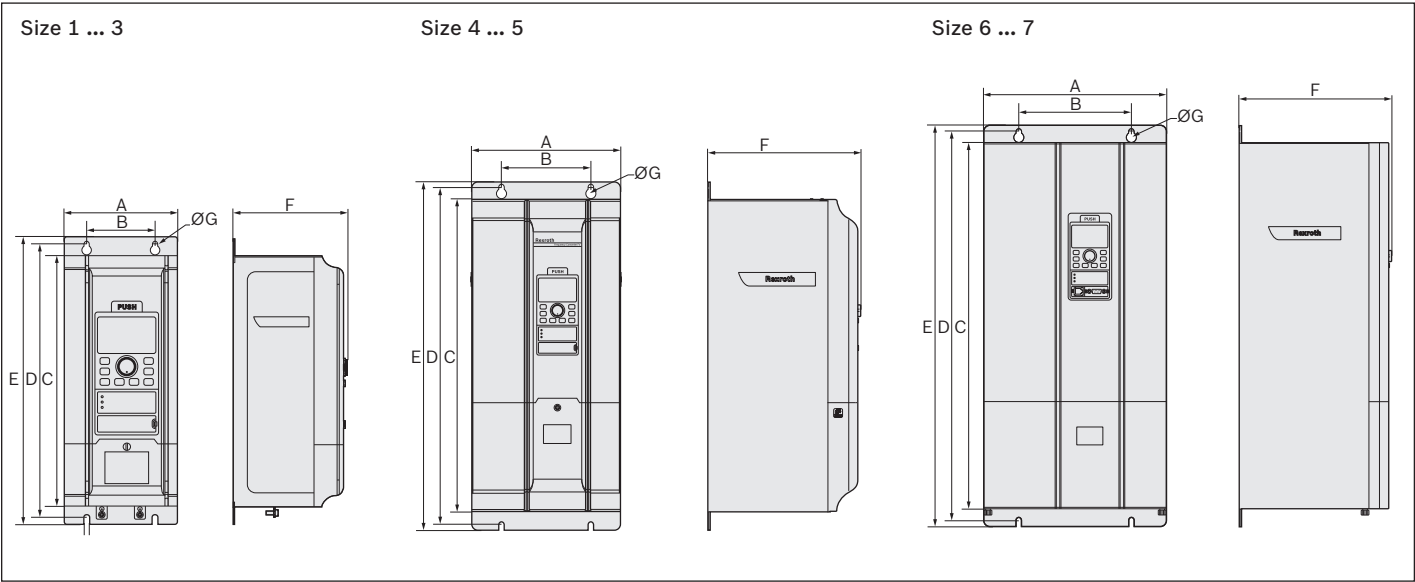
Protection category
A = IP20

EMC protection class
D = Class C3 – industrial use

Type		FVCA01.2															
		0K40-3P4-MDA	0K75-3P4-MDA	1K50-3P4-MDA	2K20-3P4-MDA	4K00-3P4-MDA	5K50-3P4-MDA	7K50-3P4-MDA	11K0-3P4-MDA	15K0-3P4-MDA	18K5-3P4-MDA	22K0-3P4-MDA	30K0-3P4-MDA	37K0-3P4-MDA	45K0-3P4-MDA	55K0-3P4-MDA	75K0-3P4-MDA
Functions																	
Control technology		U/f, SVC, FOC															
Pulse width modulation (PWM) for converters with	0.4 ... 7.5 kW	1 ... 15 kHz, continuously adjustable															
	11 ... 22 kW	1 ... 12 kHz, continuously adjustable															
	30 ... 37 kW	1 ... 8 kHz, continuously adjustable															
	45 kW	1 ... 4 kHz, continuously adjustable															
	55 ... 90 kW	1 ... 4 kHz, continuously adjustable															
Integrated brake chopper		Standard up to 15 kW															
Modulation type		Magnetic flux PWM modulation => SVPWM															

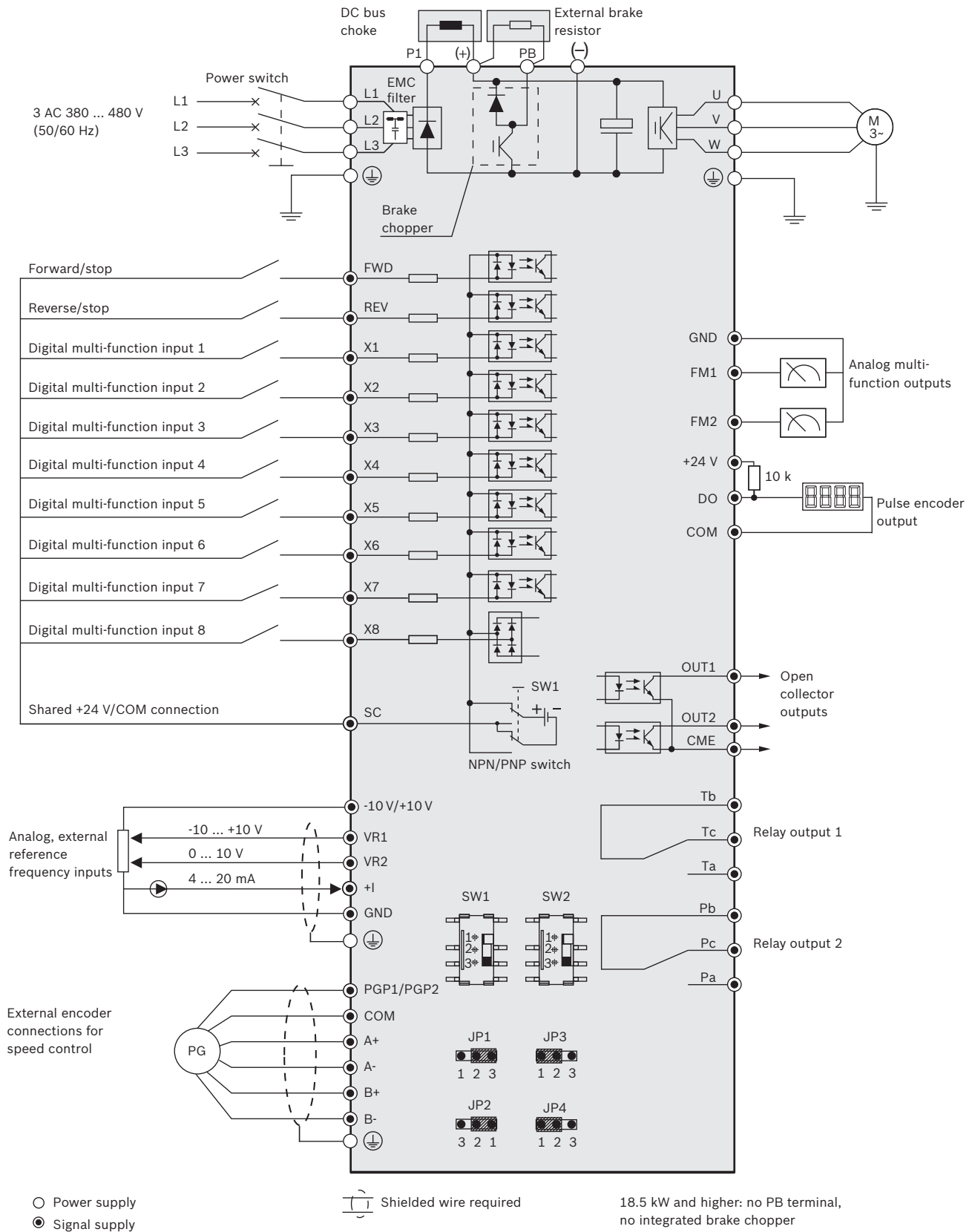
Type		FVCA01.2																	
		0K40-3P4-MDA	0K75-3P4-MDA	1K50-3P4-MDA	2K20-3P4-MDA	4K00-3P4-MDA	5K50-3P4-MDA	7K50-3P4-MDA	11K0-3P4-MDA	15K0-3P4-MDA	18K5-3P4-MDA	22K0-3P4-MDA	30K0-3P4-MDA	37K0-3P4-MDA	45K0-3P4-MDA	55K0-3P4-MDA	75K0-3P4-MDA	90K0-3P4-MDA	
Speed control range	Without pulse encoder	Vector control: 1:100																	
	With pulse encoder	Vector control: 1:1000																	
Start-up torque	U/f	Max. start-up torque 150% at 5 Hz																	
	SVC	Max. start-up torque 150% at 0.5 Hz																	
	FOC	Max. start-up torque 200% at 0 Hz																	
Frequency resolution	Digital	0.01 Hz																	
	Analog	Maximum frequency x 0.05%																	
U/f curve		Freely definable																	
Ramps		Linear, S-curve																	
DC brake	Start frequency	0 ... 10 Hz																	
	Braking time	0 ... 20 s																	
Automatic energy saving function		Load-dependent adaptation of U/f curve																	
Automatic PWM frequency adaptation		Load-dependent adaptation of PWM frequency																	
Integrated controller		Integrated step switching mechanism																	
Frequency setting accuracy	Analog	0.05%																	
	Digital	0.01%																	
Frequency control accuracy	SVC	0.5% x maximum frequency																	
	FOC	0.05% x maximum frequency																	
Controller		PID																	
Bus systems		Modbus																	
		PROFIBUS (optional)																	
Status messages via digital outputs		Mode, target value reached, etc.																	
Display		LCD: frequency, output voltage, output current, etc.																	
Status LED		Rotation direction and operating status																	
Performance data																			
Mains connection voltage	V	3 AC 380 ... 480 (-15%/+10%)																	
Supply frequency	Hz	50 ... 60 (±5%)																	
Nominal motor voltage	V	3-phase, 0 V ... mains connection voltage																	
Rated motor power	kW	0.4	0.75	1.5	2.2	4	5.5	7.5	11	15	18.5	22	30	37	45	55	75	90	
Rated continuous current	A	1.3	2.5	4	5.5	10	13	17	24	33	39	44	60	75	95	110	152	183	
Output voltage	V	0 V ... mains connection voltage																	
Output frequency	Hz	0 ... 400																	
Overload capacity		180% In for 10 s or 150% In for 1 min																	
Brake																			
Brake chopper		Internal										External							
Brake resistor		External																	
Motor cable length																			
Internal mains filter C3	m	5										10							
External mains filter C3	m	50								75									
Ambient conditions																			
Ambient temperature		-10 ... +40°C																	
Max. installation height		From 1,000 m derating (1% of the output rating per 100 m)																	
Relative humidity		< 90%																	
Protection category		IP20																	

Frequency Converter Fv –
 device dimensions



Type		FVCA01.2																															
		0K40-3P4-MDA		0K75-3P4-MDA		1K50-3P4-MDA		2K20-3P4-MDA		4K00-3P4-MDA		5K50-3P4-MDA		7K50-3P4-MDA		11K0-3P4-MDA		15K0-3P4-MDA		18K5-3P4-MDA		22K0-3P4-MDA		30K0-3P4-MDA		37K0-3P4-MDA		45K0-3P4-MDA		55K0-3P4-MDA		75K0-3P4-MDA	
Dimensions																																	
System size		1				2				3				4				5				6				7							
A	mm	125				150				175				225				250				325				450							
B	mm	75				100				100				125				150				200				300							
C	mm	275				330				398				440				525				650				700							
D	mm	300				365				432				482				567				690				754							
E	mm	315				380				448				500				585				712.5				779							
F	mm	127				162				204				232				256.5				270				307							
ØG	mm	5.5				6.5				6.5				8.5				8.5				9				11							
Weight	kg	2.7	2.7	2.7	2.8	4.8	4.9	4.9	8.8	9	16.5	16.5	22	22	37	39	56.7	58															

Block diagram



Frequency Converter Fv – ordering information

Description	Type code	Material number
Frequency Converter Fv 0.4 kW 3 AC 380 ... 480 V, 50/60 Hz, 1.3 A	FVCA01.2-0K40-3P4-MDA-LP-NNNN-02VRS	R912005329
Frequency Converter Fv 0.75 kW 3 AC 380 ... 480 V, 50/60 Hz, 2.5 A	FVCA01.2-0K75-3P4-MDA-LP-NNNN-02VRS	R912005330
Frequency Converter Fv 1.5 kW 3 AC 380 ... 480 V, 50/60 Hz, 4 A	FVCA01.2-1K50-3P4-MDA-LP-NNNN-02VRS	R912005331
Frequency Converter Fv 2.2 kW 3 AC 380 ... 480 V, 50/60 Hz, 5.5 A	FVCA01.2-2K20-3P4-MDA-LP-NNNN-02VRS	R912005332
Frequency Converter Fv 4 kW 3 AC 380 ... 480 V, 50/60 Hz, 10 A	FVCA01.2-4K00-3P4-MDA-LP-NNNN-02VRS	R912005333
Frequency Converter Fv 5.5 kW 3 AC 380 ... 480 V, 50/60 Hz, 13 A	FVCA01.2-5K50-3P4-MDA-LP-NNNN-02VRS	R912005334
Frequency Converter Fv 7.5 kW 3 AC 380 ... 480 V, 50/60 Hz, 17 A	FVCA01.2-7K50-3P4-MDA-LP-NNNN-02VRS	R912005335
Frequency Converter Fv 11 kW 3 AC 380 ... 480 V, 50/60 Hz, 24 A	FVCA01.2-11K0-3P4-MDA-LP-NNNN-02VRS	R912005336
Frequency Converter Fv 15 kW 3 AC 380 ... 480 V, 50/60 Hz, 33 A	FVCA01.2-15K0-3P4-MDA-LP-NNNN-02VRS	R912005337
Frequency Converter Fv 18.5 kW 3 AC 380 ... 480 V, 50/60 Hz, 39 A	FVCA01.2-18K5-3P4-MDA-LP-NNNN-02VRS	R912005338
Frequency Converter Fv 22 kW, 3 AC 380 ... 480 V, 50/60 Hz, 44 A	FVCA01.2-22K0-3P4-MDA-LP-NNNN-02VRS	R912005339
Frequency Converter Fv 30 kW, 3 AC 380 ... 480 V, 50/60 Hz, 60 A	FVCA01.2-30K0-3P4-MDA-LP-NNNN-02VRS	R912005340
Frequency Converter Fv 37 kW, 3 AC 380 ... 480 V, 50/60 Hz, 75 A	FVCA01.2-37K0-3P4-MDA-LP-NNNN-02VRS	R912005341
Frequency Converter Fv 45 kW, 3 AC 380 ... 480 V, 50/60 Hz, 95 A	FVCA01.2-45K0-3P4-MDA-LP-NNNN-02VRS	R912005342
Frequency Converter Fv 55 kW, 3 AC 380 ... 480 V, 50/60 Hz, 110 A	FVCA01.2-55K0-3P4-MDA-LP-NNNN-02VRS	R912005343
Frequency Converter Fv 75 kW, 3 AC 380 ... 480 V, 50/60 Hz, 152 A	FVCA01.2-75K0-3P4-MDA-LP-NNNN-02VRS	R912005344
Frequency Converter Fv 90 kW, 3 AC 380 ... 480 V, 50/60 Hz, 183 A	FVCA01.2-90K0-3P4-MDA-LP-NNNN-02VRS	R912005345

Accessories

Description	Type code	Material number
Accessories for operating panel assembly		
Mounting plates to install the Frequency Converter Fv operating panel in the control cabinet section	FVAM01.1-A-Mounting Plate	R912002621
PROFIBUS interface		
Communication adapter to connect a Frequency Converter Fv to a PROFIBUS master	FVAA01.2-P-NNNN-01V01	R912004868
Modbus interface		
Communication adapter RS232/485 to connect a Frequency Converter Fv to a Modbus master or engineering PC	FVAA01.1-M-NNNN-01V01	R912002622
Connection cable Frequency Converter Fv to operating panel, 1 m	FRKS0001/001,0	R912001754
Connection cable Frequency Converter Fv to operating panel, 3 m	FRKS0001/003,0	R912001755

Frequency Converter Fe – technical data



Highlights

- ▶ Integrated brake chopper (< 15 kW)
- ▶ High overcurrent carrying capacity
- ▶ Broad performance spectrum
- ▶ CE marking and UL certification
- ▶ Multiple self-protection measures
- ▶ Worldwide availability and service

Frequency Converter Fe –
type code

FECG02.1-7K50-3P400-A-SP-MODB-01V01

Version

G = General automation

P = Pumps, fans

Continuous output

E.g. 7K50 = 7.5 kW

Mains connection

3P400 = 3 AC 380 ... 480 V

Protection category

A = IP20

Firmware

Fe interface

MODB = Modbus

Operating panel

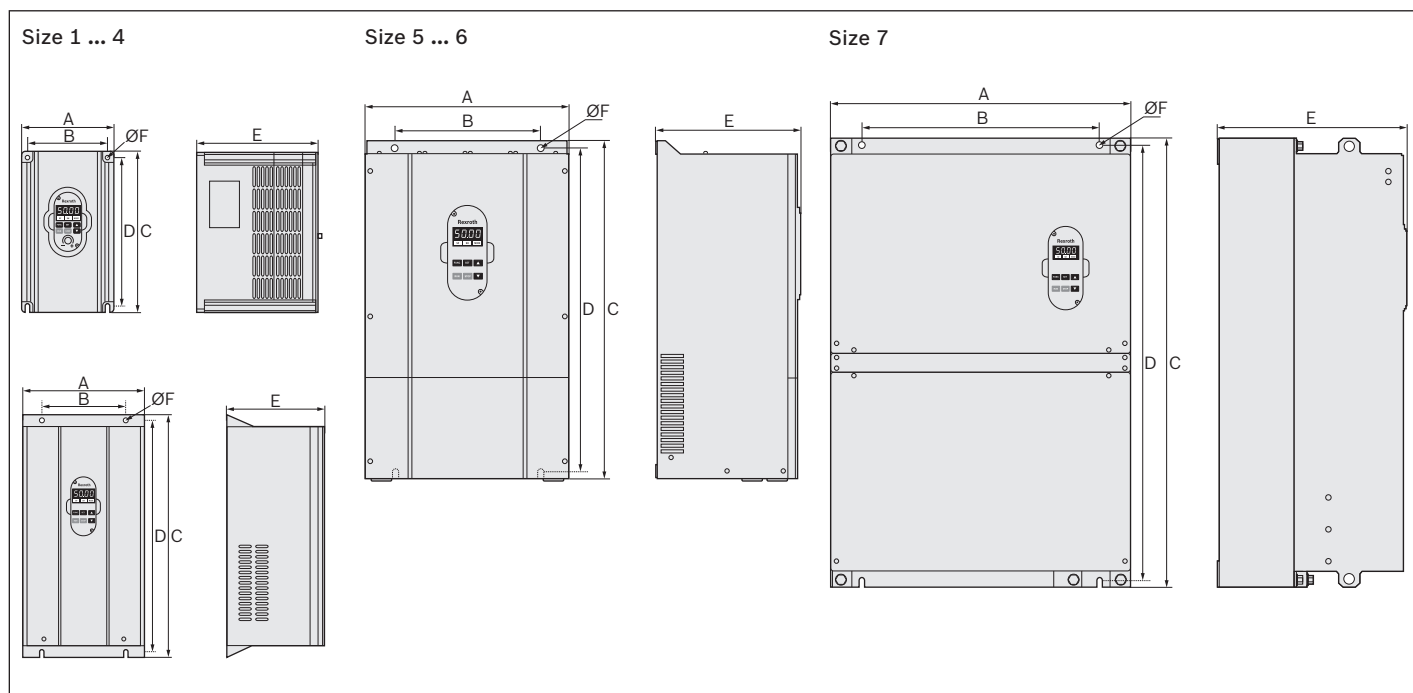
SP = Small operating panel with potentiometer
(up to 7.5 kW)

BN = Large operating panel without potentiometer
(from 11 kW)

Type		FECG02.1				FECG02.1 or FECP02.1															
		0K75-3P400-A-SP	1K50-3P400-A-SP	2K20-3P400-A-SP	4K00-3P400-A-SP	5K50-3P400-A-SP	7K50-3P400-A-SP	11K0-3P400-A-BN	15K0-3P400-A-BN	18K5-3P400-A-BN	22K0-3P400-A-BN	30K0-3P400-A-BN	37K0-3P400-A-BN	45K0-3P400-A-BN	55K0-3P400-A-BN	75K0-3P400-A-BN	90K0-3P400-A-BN	110K-3P400-A-BN	132K-3P400-A-BN	160K-3P400-A-BN	
Functions																					
Control technology		U/f																			
Pulse width modulation (PWM) for converters with	0.75 ... 7.5 kW	1 ... 8 kHz, continuously adjustable																			
	11 ... 22 kW	1 ... 8 kHz, continuously adjustable																			
	30 ... 37 kW	1 ... 8 kHz, continuously adjustable																			
	45 kW	1 ... 6 kHz, continuously adjustable																			
	55 ... 90 kW	1 ... 6 kHz, continuously adjustable																			
	110 ... 160 kW	1 ... 6 kHz, continuously adjustable																			
Integrated brake chopper		Standard up to 15 kW																			
Modulation type		Magnetic flux PWM modulation => SVPWM																			

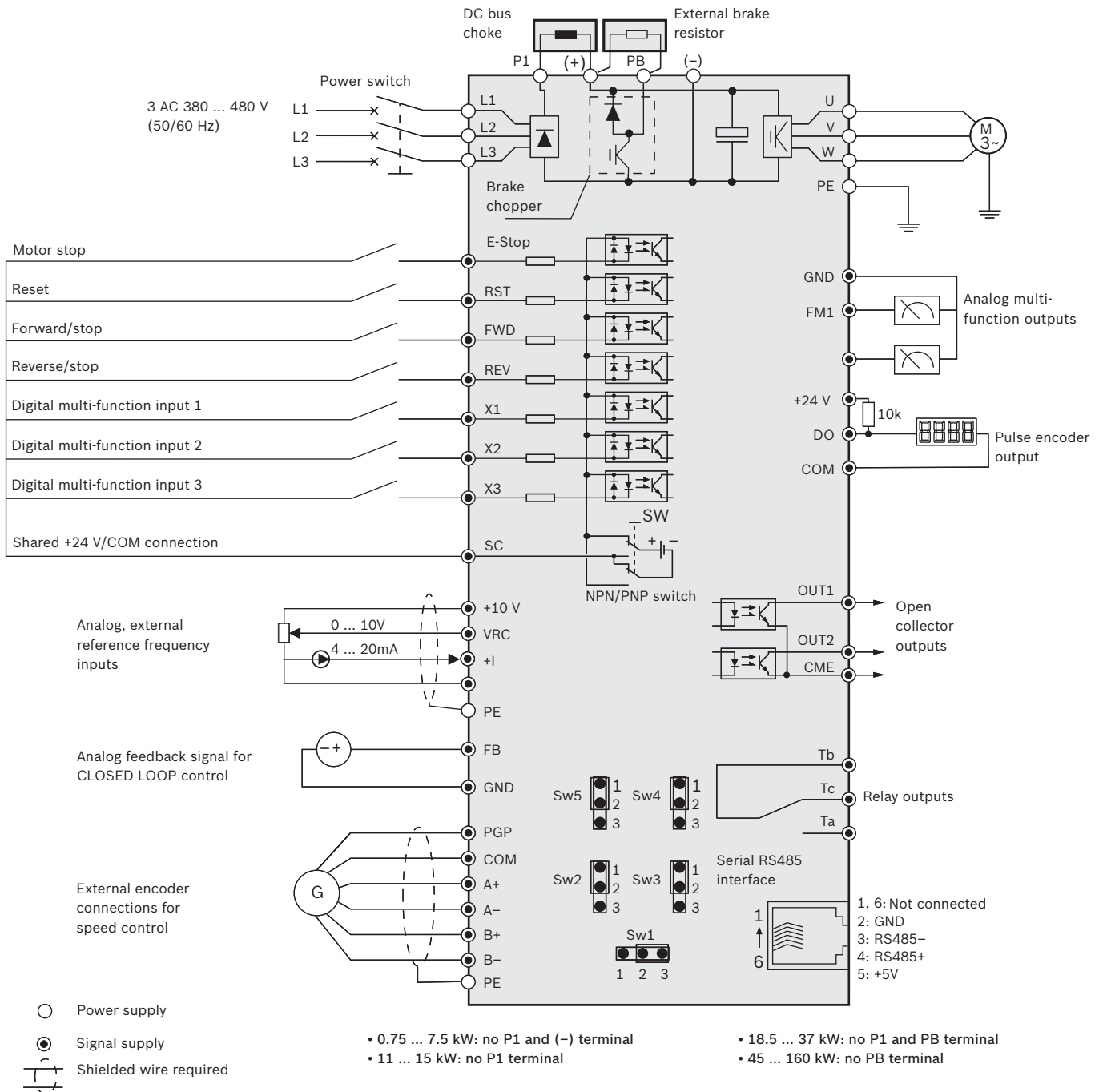
Type		FECG02.1				FECG02.1 or FECP02.1															
		0K75-3P400-A-SP	1K50-3P400-A-SP	2K20-3P400-A-SP	4K00-3P400-A-SP	5K50-3P400-A-SP	7K50-3P400-A-SP	11K0-3P400-A-BN	15K0-3P400-A-BN	18K5-3P400-A-BN	22K0-3P400-A-BN	30K0-3P400-A-BN	37K0-3P400-A-BN	45K0-3P400-A-BN	55K0-3P400-A-BN	75K0-3P400-A-BN	90K0-3P400-A-BN	110K-3P400-A-BN	132K-3P400-A-BN	160K-3P400-A-BN	
Speed control range	With pulse encoder	1:100																			
	With pulse encoder	1:100																			
Start-up torque	FOC	Max. start-up torque 150% at 5 Hz																			
Frequency resolution	Digital	0.01 Hz																			
	Analog	Maximum frequency x 0.1%																			
U/f curve		Freely definable																			
Ramps		Linear, S-curve																			
DC brake	Start frequency	0 ... 60 Hz																			
	Braking time	0 ... 10 s																			
Automatic energy saving function		Load-dependent adaptation of U/f curve																			
Automatic PWM frequency adaptation		Load-dependent adaptation of PWM frequency																			
Integrated controller		Integrated step switching mechanism																			
Frequency setting accuracy	Analog	0.05%																			
	Digital	0.01%																			
Controller		PI																			
Bus systems		Modbus																			
		PROFIBUS (ext. option)																			
Status messages via digital outputs		Mode, target value reached, etc.																			
Display		4-digit LED: frequency, output voltage, output current, etc.																			
Status LED		Rotation direction and operating status																			
Performance data																					
Mains connection voltage	V	3 AC 380 ... 480 (-15%/+10%)																			
Supply frequency	Hz	50 ... 60 (±5%)																			
Nominal motor voltage	V	3-phase, 0 V ... mains connection voltage																			
Rated motor power	kW	0.75	1.5	2.2	4	5.5	7.5	11	15	18.5	22	30	37	45	55	75	90	110	132	160	
Rated continuous current	A	2.5	4	6	10	13	17	24	33	39	44	60	75	95	110	152	183	223	265	325	
Output voltage	V	0 V ... mains connection voltage																			
Output frequency	Hz	0 ... 650																			
Overload capacity	G-type	200% In for 1 s or 150% In for 1 min																			
	P-type	120% In für 1 min or 105% In for 60 min																			
Brake																					
Brake chopper		Internal									External										
Brake resistor		External																			
Motor cable length																					
External mains filter C3	m	75																			
Ambient conditions																					
Ambient temperature		-10 ... +40°C																			
Max. installation height		From 1,000 m derating (1% of the output rating per 100 m)																			
Relative humidity		< 90%																			
Protection category		IP20																			

Frequency Converter Fe – device dimensions



Type		FECG02.1				FECG02.1 or FECP02.1													
		0K75-3P400-A-SP	1K50-3P400-A-SP	2K20-3P400-A-SP	4K00-3P400-A-SP	5K50-3P400-A-SP	7K50-3P400-A-SP	11K0-3P400-A-BN	15K0-3P400-A-BN	18K5-3P400-A-BN	22K0-3P400-A-BN	30K0-3P400-A-BN	37K0-3P400-A-BN	45K0-3P400-A-BN	55K0-3P400-A-BN	75K0-3P400-A-BN	90K0-3P400-A-BN	110K-3P400-A-BN	132K-3P400-A-BN
Dimensions																			
System size		1					2		3		4		5		6		7		
A	mm	125					220		275		290		364		455		570		
B	mm	109					180		200		200		260		375		450		
C	mm	220					392		463		574		602		682		850		
D	mm	204					372		443		550		576		650		825		
E	mm	176					218		218		236		260		290		360		
ØF	mm	6					9.5		9.5		11		11		12		11		
Weight	kg	3	3.2	3.5	10.7	10.9	16.2	16.9	21.5	22	33.2	33.8	50.9	52.5	96.5	100	102		

Block diagram



Frequency Converter Fe – ordering information

Description	Type code	Material number: G-type
Frequency Converter Fe 0.75 kW, 3 AC 380 ... 480 V, 50/60 Hz, 2.5 A	FECG02.1-0K75-3P400-A-SP-MODB-01V01	R912001279
Frequency Converter Fe 1.5 kW, 3 AC 380 ... 480 V, 50/60 Hz, 4 A	FECG02.1-1K50-3P400-A-SP-MODB-01V01	R912001280
Frequency Converter Fe 2.2 kW, 3 AC 380 ... 480 V, 50/60 Hz, 5.5 A	FECG02.1-2K20-3P400-A-SP-MODB-01V01	R912001281
Frequency Converter Fe 4 kW, 3 AC 380 ... 480 V, 50/60 Hz, 10 A	FECG02.1-4K00-3P400-A-SP-MODB-01V01	R912001283
Frequency Converter Fe 5.5 kW, 3 AC 380 ... 480 V, 50/60 Hz, 13 A	FECG02.1-5K50-3P400-A-SP-MODB-01V01	R912001284
Frequency Converter Fe 7.5 kW, 3 AC 380 ... 480 V, 50/60 Hz, 17 A	FECG02.1-7K50-3P400-A-SP-MODB-01V01	R912001285
Frequency Converter Fe 11 kW, 3 AC 380 ... 480 V, 50/60 Hz, 24 A	FECG02.1-11K0-3P400-A-BN-MODB-01V01	R912001286
Frequency Converter Fe 15 kW, 3 AC 380 ... 480 V, 50/60 Hz, 33 A	FECG02.1-15K0-3P400-A-BN-MODB-01V01	R912001287
Frequency Converter Fe 18.5 kW, 3 AC 380 ... 480 V, 50/60 Hz, 39 A	FECG02.1-18K5-3P400-A-BN-MODB-01V01	R912001288
Frequency Converter Fe 22 kW, 3 AC 380 ... 480 V, 50/60 Hz, 44 A	FECG02.1-22K0-3P400-A-BN-MODB-01V01	R912001289
Frequency Converter Fe 30 kW, 3 AC 380 ... 480 V, 50/60 Hz, 60 A	FECG02.1-30K0-3P400-A-BN-MODB-01V01	R912001290
Frequency Converter Fe 37 kW, 3 AC 380 ... 480 V, 50/60 Hz, 75 A	FECG02.1-37K0-3P400-A-BN-MODB-01V01	R912001291
Frequency Converter Fe 45 kW, 3 AC 380 ... 480 V, 50/60 Hz, 95 A	FECG02.1-45K0-3P400-A-BN-MODB-01V01	R912001292
Frequency Converter Fe 55 kW, 3 AC 380 ... 480 V, 50/60 Hz, 110 A	FECG02.1-55K0-3P400-A-BN-MODB-01V01	R912001293
Frequency Converter Fe 75 kW, 3 AC 380 ... 480 V, 50/60 Hz, 152 A	FECG02.1-75K0-3P400-A-BN-MODB-01V01	R912001294
Frequency Converter Fe 90 kW, 3 AC 380 ... 480 V, 50/60 Hz, 183 A	FECG02.1-90K0-3P400-A-BN-MODB-01V01	R912001295
Frequency Converter Fe 110 kW, 3 AC 380 ... 480 V, 50/60 Hz, 223 A	FECG02.1-110K-3P400-A-BN-MODB-01V01	R912001296
Frequency Converter Fe 132 kW, 3 AC 380 ... 480 V, 50/60 Hz, 265 A	FECG02.1-132K-3P400-A-BN-MODB-01V01	R912001761
Frequency Converter Fe 160 kW, 3 AC 380 ... 480 V, 50/60 Hz, 325 A	FECG02.1-160K-3P400-A-BN-MODB-01V01	R912001762
		Material number: P-type
Frequency Converter Fe 5.5 kW, 3 AC 380 ... 480 V, 50/60 Hz, 13 A	FECPO2.1-5K50-3P400-A-SP-MODB-01V01	R912001297
Frequency Converter Fe 7.5 kW, 3 AC 380 ... 480 V, 50/60 Hz, 17 A	FECPO2.1-7K50-3P400-A-SP-MODB-01V01	R912001298
Frequency Converter Fe 11 kW, 3 AC 380 ... 480 V, 50/60 Hz, 24 A	FECPO2.1-11K0-3P400-A-BN-MODB-01V01	R912001299
Frequency Converter Fe 15 kW, 3 AC 380 ... 480 V, 50/60 Hz, 33 A	FECPO2.1-15K0-3P400-A-BN-MODB-01V01	R912001300
Frequency Converter Fe 18.5 kW, 3 AC 380 ... 480 V, 50/60 Hz, 39 A	FECPO2.1-18K5-3P400-A-BN-MODB-01V01	R912001301
Frequency Converter Fe 22 kW, 3 AC 380 ... 480 V, 50/60 Hz, 44 A	FECPO2.1-22K0-3P400-A-BN-MODB-01V01	R912001302
Frequency Converter Fe 30 kW, 3 AC 380 ... 480 V, 50/60 Hz, 60 A	FECPO2.1-30K0-3P400-A-BN-MODB-01V01	R912001303
Frequency Converter Fe 37 kW, 3 AC 380 ... 480 V, 50/60 Hz, 75 A	FECPO2.1-37K0-3P400-A-BN-MODB-01V01	R912001304
Frequency Converter Fe 45 kW, 3 AC 380 ... 480 V, 50/60 Hz, 95 A	FECPO2.1-45K0-3P400-A-BN-MODB-01V01	R912001305
Frequency Converter Fe 55 kW, 3 AC 380 ... 480 V, 50/60 Hz, 110 A	FECPO2.1-55K0-3P400-A-BN-MODB-01V01	R912001306
Frequency Converter Fe 75 kW, 3 AC 380 ... 480 V, 50/60 Hz, 152 A	FECPO2.1-75K0-3P400-A-BN-MODB-01V01	R912001307
Frequency Converter Fe 90 kW, 3 AC 380 ... 480 V, 50/60 Hz, 183 A	FECPO2.1-90K0-3P400-A-BN-MODB-01V01	R912001308
Frequency Converter Fe 110 kW, 3 AC 380 ... 480 V, 50/60 Hz, 223 A	FECPO2.1-110K-3P400-A-BN-MODB-01V01	R912001309
Frequency Converter Fe 132 kW, 3 AC 380 ... 480 V, 50/60 Hz, 265 A	FECPO2.1-132K-3P400-A-BN-MODB-01V01	R912001766
Frequency Converter Fe 160 kW, 3 AC 380 ... 480 V, 50/60 Hz, 325 A	FECPO2.1-160K-3P400-A-BN-MODB-01V01	R912001767

Accessories

Description	Type code	Material number
PROFIBUS interface (slave)		
Communication adapter to connect a Frequency Converter Fe to a PROFIBUS master	FEAA02.1-MODB*-PROFI-NNNN-NN	R912001501
Connection cable for PROFIBUS interface, 1 m	FRKB0001 001,0	R912001756
Connection cable for PROFIBUS interface, 5 m	FRKB0002 005,0	R912001757

Frequency converter accessories – mains filters, brake resistors and brake choppers

Mains filter

Mains filters ensure that the EMC limit values are adhered to and suppress leakage current generated by line capacitors. Our mains filters are optimally coordinated with the power units and are scalable in regards to current, number of drives and motor cable length. They can be combined with shielded motor cables for trouble-free operation conforming to EN 61800-3, Category C3 for

- ▶ Rexroth EFC 3600 with single cable lengths of up to 30 m
- ▶ Rexroth Frequency Converter Fv and Fe with single cable lengths of up to 75 m

Brake resistors

When using the Rexroth Frequency Converters Fv and Fe in regenerative operation there is a choice of particularly compact brake resistors for various different levels of power consumption.

The brake resistor is easy to mount near the converter, saving space. The robust construction and high dielectric strength of the resistor elements enables high power and impulse loading. The resistor elements are flameproof and are protected from harmful environmental factors by their encapsulation.

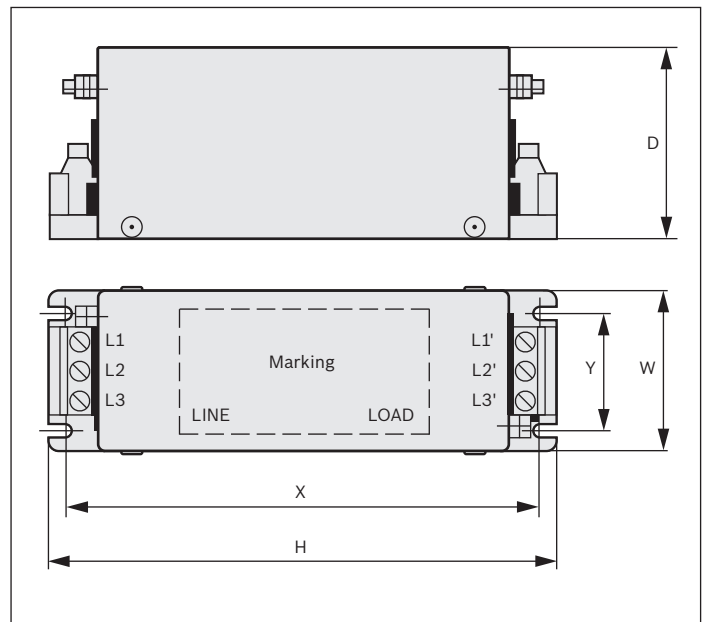
Brake chopper

Brake choppers are used together with an external braking resistor to increase the braking power for Rexroth frequency converters with a power range higher than 15 kW. The FELB brake chopper is controlled by frequency converter FVCA, FECCG, or FECP.



EFC 3600 mains filter – dimensions and technical data

They can be combined with our shielded motor cables for trouble-free operation conforming to EN 61800-3, category C1 for cable lengths up to 5 m, category C3 for cable lengths up to 30 m.



Mains filter EFC 3600	Conti- nuous current	Dimensions					Weight	Material number
	A	D mm	H mm	X mm	W mm	Y mm	kg	
FENF01.1B-A030-E0006-A-240-NNNN	6	38	84.5	74.7	52		0.26	R912004600
FENF01.1B-A030-E0010-A-240-NNNN	10	43	113	103.1	52		0.42	R912004601
FENF01.1B-A030-E0020-A-240-NNNN	20	53	177	143	59		0.86	R912004602
FENF01.1B-A030-E0025-A-240-NNNN	25	53	177	143	59		0.87	R912004603
FENF01.1B-A030-E0008-A-480-NNNN	8	63	165	155	51.4	38	0.58	R912004604
FENF01.1B-A030-E0020-A-480-NNNN	20	53	159.6	143	59		0.75	R912004605

For optimal combinations with frequency converters, see the selection guides on pages 31 and 32.

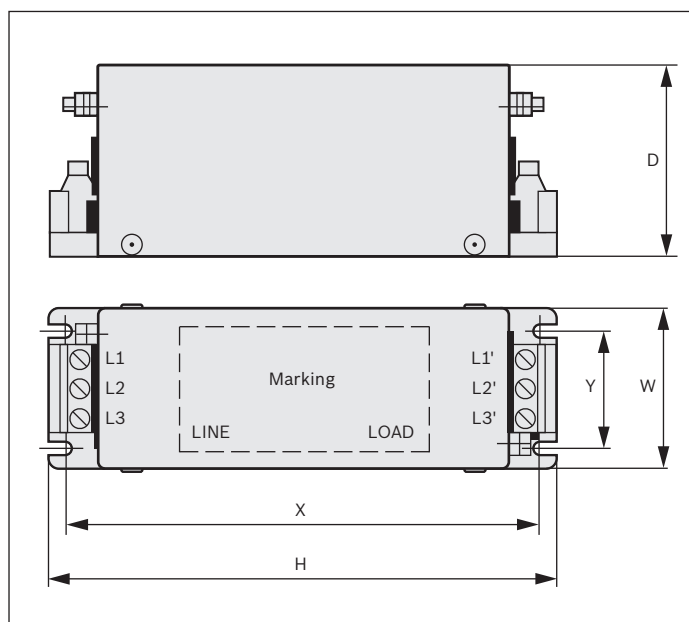
Frequency Converter Fv and Frequency Converter Fe mains filters – dimensions and technical data

Frequency converter Fv mains filter

They can be combined with our shielded motor cables for trouble-free operation conforming to EN 61800-3, category C3 for cable lengths from 50 m (up to 7.5 kW) to 75 m (from 11 kW).

Frequency converter Fe mains filter

They can be combined with our shielded motor cables for trouble-free operation conforming to EN 61800-3, category C3 for cable lengths up to 75 m.

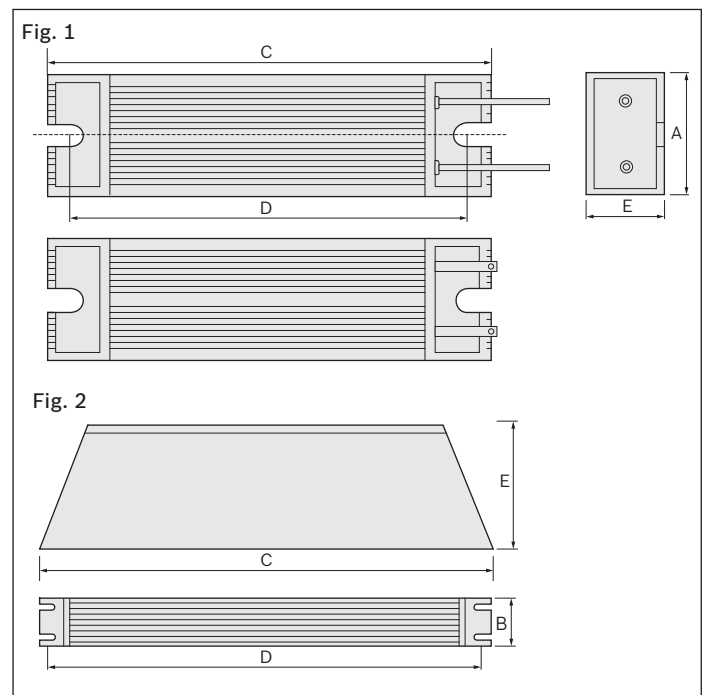


Frequency converter Fv, Fe mains filter	Continuous current	Dimensions					Weight	Material number
		A	D mm	H mm	X mm	W mm		
FENF01.1A-A075-E0008-A-480-NNNN	8	70	240	228	60	47.5	1.4	R912003315
FENF01.1A-A075-E0022-A-480-NNNN	22	120	302	290	65	52.5	3	R912003316
FENF01.1A-A075-E0030-A-480-NNNN	30	120	302	290	65	52.5	3.3	R912003317
FENF01.1A-A075-E0051-A-480-NNNN	51	150	314.6	275	71	55	4.4	R912003318
FENF01.1A-A075-E0090-A-480-NNNN	90	135	290	255	80	60	4.2	R912003319
FENF01.1A-A075-E0120-A-480-NNNN	120	150	290	255	90	65	4.9	R912003320
FENF01.1A-A075-E0250-A-480-NNNN	250	110	200	145	170	155	5	R912003329
FENF01.1A-A075-E0320-A-480-NNNN	320	116	290	170	190	165	7.2	R912004298
FENF01.1A-A075-E0400-A-480-NNNN	400	116	290	170	190	165	7.5	R912004299

For optimal combinations with frequency converters, see the selection guides on pages 31 and 32.

EFC 3600 brake resistors – dimensions and technical data

Brake resistor dimensions,
aluminum housing construction:



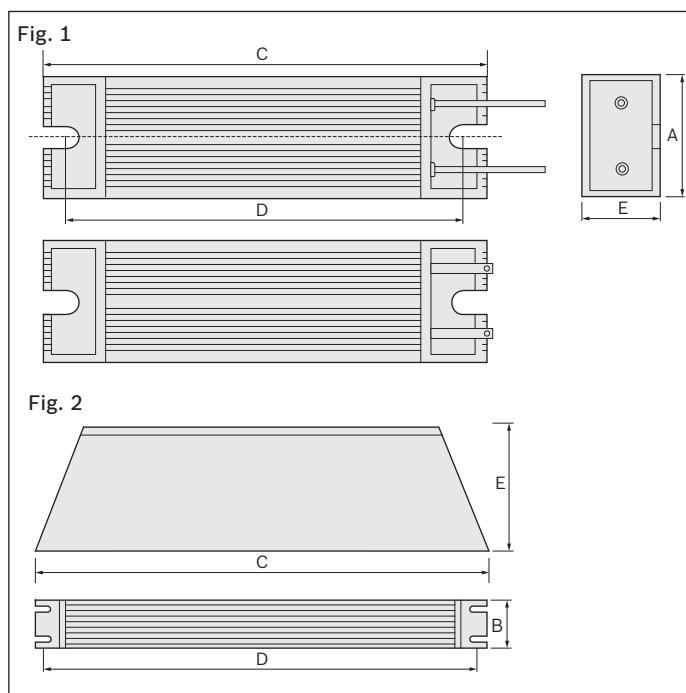
Brake resistors	Operating time OT	Permanent braking power	Resis- tance	Dimensions					Weight	Material number
	%	kW	Ω	A mm	B mm	C mm	D mm	E mm	kg	
FELR01.1.N-0500-N065R-D-560-NNNN ¹⁾	20	0.5	65	60	–	335	317	30	1.03	R912004573
FELR01.1.N-0500-N180R-D-560-NNNN ¹⁾	10	0.5	180	60	–	335	317	30	1.03	R912004587
FELR01.1.N-0500-N330R-D-560-NNNN ¹⁾	20	0.5	330	60	–	335	317	30	1.03	R912004585
FELR01.1.N-0400-N095R-D-560-NNNN ¹⁾	20	0.4	95	60	–	265	247	30	0.8	R912004570
FELR01.1.N-0400-N500R-D-560-NNNN ¹⁾	20	0.4	500	60	–	265	247	30	0.8	R912004582
FELR01.1.N-0300-N065R-D-560-NNNN ¹⁾	10	0.3	65	60	–	215	197	30	0.62	R912004572
FELR01.1.N-0300-N330R-D-560-NNNN ¹⁾	10	0.3	330	60	–	215	197	30	0.62	R912004584
FELR01.1.N-0200-N095R-D-560-NNNN ¹⁾	10	0.2	95	60	–	165	147	30	0.464	R912004569
FELR01.1.N-0200-N190R-D-560-NNNN ¹⁾	20	0.2	190	60	–	165	147	30	0.464	R912004567
FELR01.1.N-0200-N500R-D-560-NNNN ¹⁾	10	0.2	500	60	–	165	147	30	0.464	R912004581
FELR01.1.N-0200-N1K0R-D-560-NNNN ¹⁾	20	0.2	1000	60	–	165	147	30	0.464	R912004579
FELR01.1.N-0100-N190R-D-560-NNNN ¹⁾	10	0.1	190	40	–	165	148	20	0.24	R912004566
FELR01.1.N-0100-N400R-D-560-NNNN ¹⁾	20	0.1	400	40	–	165	148	20	0.24	R912004564
FELR01.1.N-0100-N1K0R-D-560-NNNN ¹⁾	10	0.1	1000	40	–	165	148	20	0.24	R912004578
FELR01.1.N-0100-N2K0R-D-560-NNNN ¹⁾	20	0.1	2000	40	–	165	148	20	0.24	R912004576
FELR01.1.N-0060-N400R-D-560-NNNN ¹⁾	10	0.06	400	40	–	115	98	20	0.165	R912004563
FELR01.1.N-0060-N2K0R-D-560-NNNN ¹⁾	10	0.06	2000	40	–	115	98	20	0.165	R912004575
FELR01.1.N-1K00-N180R-D-560-NNNN ²⁾	20	1.0	180	50	30	400	384	107	3.6	R912004588

For optimal combinations with frequency converters and brake choppers, see the selection guides on pages 33-35.

¹⁾ Fig. 1 ²⁾ Fig. 2

Frequency Converter Fv and Frequency Converter Fe brake resistors – dimensions and technical data

Brake resistor dimensions,
aluminum housing construction:



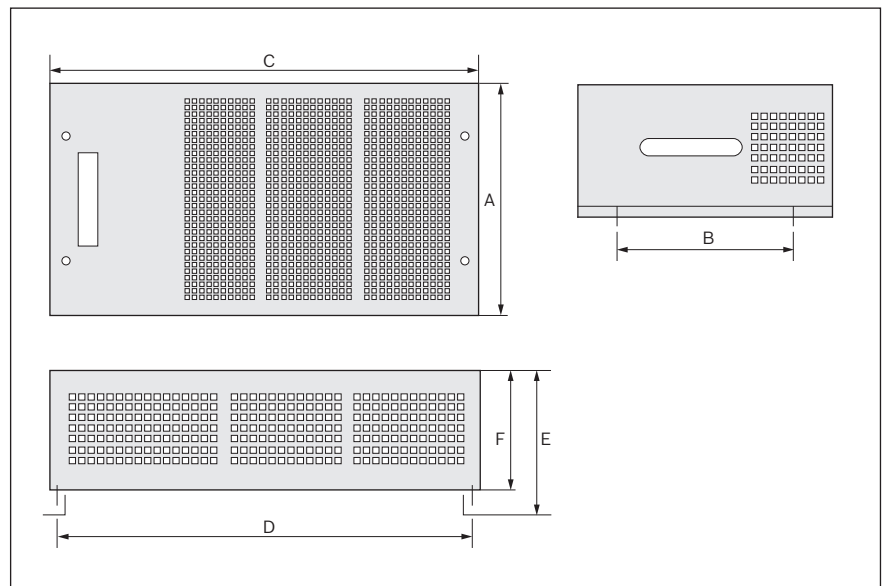
Brake resistors	Operating time OT	Permanent braking power	Resis- tance	Dimensions					Weight	Material number
	%	kW	Ω	A mm	B mm	C mm	D mm	E mm	kg	
FELR01.1N-0080-N750R-D-560-NNNN ¹⁾	10	0.08	750	40	–	140	123	20	0.20	R912001618
FELR01.1N-0150-N700R-D-560-NNNN ¹⁾	20	0.15	700	40	–	215	197	20	0.32	R912001619
FELR01.1N-0260-N250R-D-560-NNNN ¹⁾	10	0.26	250	60	–	215	197	30	0.62	R912001623
FELR01.1N-0260-N400R-D-560-NNNN ¹⁾	10	0.26	400	60	–	215	197	30	0.62	R912001624
FELR01.1N-0390-N150R-D-560-NNNN ¹⁾	10	0.39	150	60	–	265	247	30	0.80	R912001627
FELR01.1N-0500-N550R-D-560-NNNN ¹⁾	40	0.50	550	60	–	335	317	30	1.03	R912001631
FELR01.1N-0520-N100R-D-560-NNNN ¹⁾	10	0.52	100	60	–	335	317	30	1.03	R912001632
FELR01.1N-0520-N230R-D-560-NNNN ¹⁾	20	0.52	230	60	–	335	317	30	1.03	R912001633
FELR01.1N-0520-N350R-D-560-NNNN ¹⁾	20	0.52	350	60	–	335	317	30	1.03	R912001634
FELR01.1N-0780-N075R-D-560-NNNN ²⁾	10	0.78	75	61	40.5	400	382	59	2.20	R912001637
FELR01.1N-0780-N140R-D-560-NNNN ²⁾	20	0.78	140	61	40.5	400	382	59	2.20	R912001638
FELR01.1N-0800-N275R-D-560-NNNN ²⁾	40	0.80	275	61	40.5	400	382	59	2.20	R912001639
FELR01.1N-1K04-N050R-D-560-NNNN ²⁾	10	1.04	50	50	30	400	384	107	3.60	R912001652
FELR01.1N-1K04-N090R-D-560-NNNN ²⁾	20	1.04	90	50	30	400	384	107	3.60	R912001653
FELR01.1N-01K2-N180R-D-560-NNNN ²⁾	40	1.20	180	50	30	450	434	107	4.00	R912001620
FELR01.1N-01K5-N068R-D-560-NNNN ²⁾	20	1.50	68	50	30	485	470	107	4.35	R912001621
FELR01.1N-01K5-N150R-D-560-NNNN ²⁾	40	1.50	150	50	30	485	470	107	4.35	R912001622
FELR01.1N-1K56-N040R-D-560-NNNN ²⁾	10	1.56	40	50	30	485	470	107	4.35	R912001654
FELR01.1N-1K56-N070R-D-560-NNNN ²⁾	20	1.56	70	50	30	485	470	107	4.35	R912001655
FELR01.1N-02K0-N047R-D-560-NNNN ²⁾	20	2.00	47	50	30	550	534	107	4.90	R912001625
FELR01.1N-02K0-N110R-D-560-NNNN ²⁾	40	2.00	110	50	30	550	534	107	4.90	R912001626

For optimal combinations with frequency converters and brake choppers, see the selection guides on pages 33-35.

¹⁾ Fig. 1 ²⁾ Fig. 2

Frequency Converter Fv and Frequency Converter Fe brake resistors – dimensions and technical data

Brake resistor dimensions,
resistor box construction:

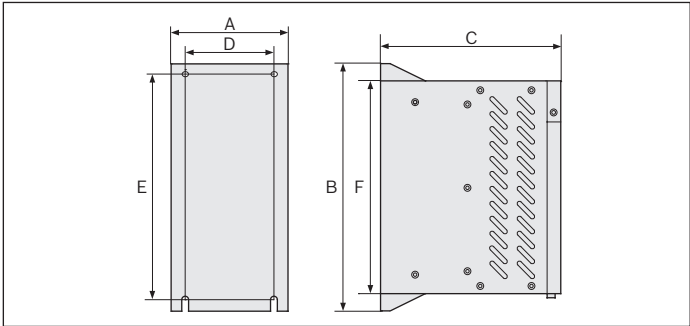


Brake resistors	Operating time OT	Permanent braking power	Resis- tance	Dimensions						Weight	Material number
	%	kW	Ω	A mm	B mm	C mm	D mm	E mm	F mm	kg	
FELR01.1N-04K5-N055R-A-560-NNNN	40	4.50	55	340	291	600	580	170	145	12.00	R912001628
FELR01.1N-04K8-N27R2-A-560-NNNN	10	4.80	27.2	340	291	600	580	170	145	12.00	R912001630
FELR01.1N-04K8-N032R-A-560-NNNN	10	4.80	32	340	291	600	580	170	145	12.00	R912001629
FELR01.1N-06K0-N020R-A-560-NNNN	10	6.00	20	340	291	600	580	170	145	14.00	R912001635
FELR01.1N-06K0-N040R-A-560-NNNN	40	6.00	40	340	291	600	580	170	145	14.00	R912001636
FELR01.1N-08K0-N027R-A-560-NNNN	40	8.00	27	410	340	685	642	170	145	16.50	R912001640
FELR01.1N-09K6-N13R6-A-560-NNNN	10	9.60	13.6	410	340	685	642	170	145	18.50	R912001642
FELR01.1N-09K6-N016R-A-560-NNNN	10	9.60	16	410	340	685	642	170	145	18.50	R912001641
FELR01.1N-10K0-N022R-A-560-NNNN	20	10.00	22	410	340	685	642	170	145	18.50	R912001643
FELR01.1N-10K0-N024R-A-560-NNNN	20	10.00	24	410	340	685	642	170	145	18.50	R912001644
FELR01.1N-10K0-N27R2-A-560-NNNN	40	10.00	27.2	410	340	685	642	170	145	18.50	R912001647
FELR01.1N-10K0-N028R-A-560-NNNN	20	10.00	28	410	340	685	642	170	145	18.50	R912001645
FELR01.1N-10K0-N032R-A-560-NNNN	20	10.00	32	410	340	685	642	170	145	18.50	R912001646
FELR01.1N-12K5-N017R-A-560-NNNN	20	12.50	17	410	340	685	642	170	145	20.50	R912001648
FELR01.1N-12K5-N018R-A-560-NNNN	20	12.50	18	410	340	685	642	170	145	20.50	R912001649
FELR01.1N-12K5-N020R-A-560-NNNN	20	12.50	20	410	340	685	642	170	145	20.50	R912001650
FELR01.1N-12K5-N022R-A-560-NNNN	40	12.50	22	410	340	685	642	170	145	20.50	R912001651
FELR01.1N-40K0-N03R4-A-560-NNNN	10	40	3.4	700	–	1100	–	–	500	86.8	R912004612
FELR01.1N-50K0-N03R7-A-560-NNNN	40	50	3.7	700	–	1300	–	–	500	100.2	R912004613
FELR01.1N-50K0-N05R0-A-560-NNNN	40	50	5	700	–	1300	–	–	500	100.2	R912004614
FELR01.1N-60K0-N03R7-A-560-NNNN	40	60	3.7	700	–	1500	–	–	500	113.6	R912004615
FELR01.1N-80K0-N03R2-A-560-NNNN	20	80	3.2	700	–	1800	–	–	500	138.5	R912004616

For optimal combinations with frequency converters and brake choppers, see the selection guides on pages 33-35.

Brake choppers – dimensions and technical data

Brake chopper dimensions



Brake chopper	Dimensions						Weight	Material number
	A mm	B mm	C mm	D mm	E mm	F mm	kg	
FELB02.1N-30K0-NNONE-A-560-NNNN	103	215	158	78	200	185	2.5	R912001499
FELB02.1N-45K0-NNONE-A-560-NNNN	103	215	158	78	200	185	2.5	R912001500
FELB02.1N-220K0-NNONE-A-560-NNNN	254	409	203	190	270	380	11.2	R912004611

For optimal combinations with frequency converters and brake resistors, see the selection guides on pages 33-35.

Selection guide for accessories – mains filter for Rexroth EFC 3600

Selection guide for EMC filter for EFC 3600

Frequency converter	Type code	Material number
EFC3600-0K40-1P2-MDA-7P-NNNN	FENF01.1B-A030-E0006-A-240-NNNN	R912004600
EFC3600-0K75-1P2-MDA-7P-NNNN	FENF01.1B-A030-E0010-A-240-NNNN	R912004601
EFC3600-1K50-1P2-MDA-7P-NNNN	FENF01.1B-A030-E0020-A-240-NNNN	R912004602
EFC3600-2K20-1P2-MDA-7P-NNNN	FENF01.1B-A030-E0025-A-240-NNNN	R912004603
EFC3600-0K40-3P4-MDA-7P-NNNN	FENF01.1B-A030-E0008-A-480-NNNN	R912004604
EFC3600-0K75-3P4-MDA-7P-NNNN		
EFC3600-1K50-3P4-MDA-7P-NNNN		
EFC3600-2K20-3P4-MDA-7P-NNNN		
EFC3600-4K00-3P4-MDA-7P-NNNN	FENF01.1B-A030-E0020-A-480-NNNN	R912004605

Selection guide for accessories – mains filter for Rexroth Frequency Converter Fv

Selection guide for EMC filter for Frequency Converter Fv

Frequency converter	Type code	Material number
FVCA01.2-0K40-3P4-MDA-LP-NNNN-02VRS	FENF01.1A-A075-E0008-A-480-NNNN (E0008)	R912003315
FVCA01.2-0K75-3P4-MDA-LP-NNNN-02VRS		
FVCA01.2-1K50-3P4-MDA-LP-NNNN-02VRS		
FVCA01.2-2K20-3P4-MDA-LP-NNNN-02VRS		
FVCA01.2-4K00-3P4-MDA-LP-NNNN-02VRS	FENF01.1A-A075-E0022-A-480-NNNN (E0022)	R912003316
FVCA01.2-5K50-3P4-MDA-LP-NNNN-02VRS		
FVCA01.2-7K50-3P4-MDA-LP-NNNN-02VRS	FENF01.1A-A075-E0030-A-480-NNNN (E0030)	R912003317
FVCA01.2-11K0-3P4-MDA-LP-NNNN-02VRS		
FVCA01.2-15K0-3P4-MDA-LP-NNNN-02VRS	FENF01.1A-A075-E0051-A-480-NNNN (E0051)	R912003318
FVCA01.2-18K5-3P4-MDA-LP-NNNN-02VRS		
FVCA01.2-22K0-3P4-MDA-LP-NNNN-02VRS	FENF01.1A-A075-E0090-A-480-NNNN (E0090)	R912003319
FVCA01.2-30K0-3P4-MDA-LP-NNNN-02VRS		
FVCA01.2-37K0-3P4-MDA-LP-NNNN-02VRS	FENF01.1A-A075-E0120-A-480-NNNN (E0120)	R912003320
FVCA01.2-45K0-3P4-MDA-LP-NNNN-02VRS		
FVCA01.2-55K0-3P4-MDA-LP-NNNN-02VRS	FENF01.1A-A075-E0250-A-480-NNNN (E0250)	R912003329
FVCA01.2-75K0-3P4-MDA-LP-NNNN-02VRS		
FVCA01.2-90K0-3P4-MDA-LP-NNNN-02VRS		

Selection guide for accessories – mains filter for Rexroth Frequency Converter Fe

Selection guide for EMC filter for Frequency Converter Fe

Frequency converter	Type code	Material number
FECG02.1-0K75-3P400-A-SP-MODB-01V01	FENF01.1A-A075-E0008-A-480-NNNN	R912003315
FECG02.1-1K50-3P400-A-SP-MODB-01V01		
FECG02.1-2K20-3P400-A-SP-MODB-01V01		
FECG02.1-4K00-3P400-A-SP-MODB-01V01	FENF01.1A-A075-E0022-A-480-NNNN	R912003316
FECx02.1-5K50-3P400-A-SP-MODB-01V01		
FECx02.1-7K50-3P400-A-SP-MODB-01V01		
FECx02.1-11K0-3P400-A-SP-MODB-01V01	FENF01.1A-A075-E0030-A-480-NNNN	R912003317
FECx02.1-15K0-3P400-A-SP-MODB-01V01	FENF01.1A-A075-E0051-A-480-NNNN	R912003318
FECx02.1-18K5-3P400-A-SP-MODB-01V01		
FECx02.1-22K0-3P400-A-SP-MODB-01V01		
FECx02.1-30K0-3P400-A-SP-MODB-01V01	FENF01.1A-A075-E0090-A-480-NNNN	R912003319
FECx02.1-37K0-3P400-A-SP-MODB-01V01		
FECx02.1-45K0-3P400-A-SP-MODB-01V01		
FECx02.1-55K0-3P400-A-SP-MODB-01V01	FENF01.1A-A075-E0120-A-480-NNNN	R912003320
FECx02.1-75K0-3P400-A-SP-MODB-01V01	FENF01.1A-A075-E0250-A-480-NNNN	R912003329
FECx02.1-90K0-3P400-A-SP-MODB-01V01		
FECx02.1-110K-3P400-A-SP-MODB-01V01		
FECx02.1-132K-3P400-A-SP-MODB-01V01	FENF01.1A-A075-E0320-A-480-NNNN	R912004298
FECx02.1-160K-3P400-A-SP-MODB-01V01	FENF01.1A-A075-E0400-A-480-NNNN	R912004299

“x” is used as a placeholder for the G or P series.

Selection guide for accessories – EFC 3600 brake resistors

Frequency converter	EFC 3600/1x 200 VAC				EFC 3600/3x 400 VAC				
	0K40	0K75	1K50	2K20	0K40	0K75	1K50	2K20	4K00
Brake resistors									
FELR01.1N-0060-N400R-D-560-NNNN ¹⁾	1								
FELR01.1N-0100-N190R-D-560-NNNN ¹⁾		1							
FELR01.1N-0200-N095R-D-560-NNNN ¹⁾			1						
FELR01.1N-0300-N065R-D-560-NNNN ¹⁾				1					
FELR01.1N-0060-N2K0R-D-560-NNNN ¹⁾					1				
FELR01.1N-0100-N1K0R-D-560-NNNN ¹⁾						1			
FELR01.1N-0200-N500R-D-560-NNNN ¹⁾							1		
FELR01.1N-0300-N330R-D-560-NNNN ¹⁾								1	
FELR01.1N-0500-N180R-D-560-NNNN ¹⁾									1
FELR01.1N-0100-N400R-D-560-NNNN ²⁾	1								
FELR01.1N-0200-N190R-D-560-NNNN ²⁾		1							
FELR01.1N-0400-N095R-D-560-NNNN ²⁾			1						
FELR01.1N-0500-N065R-D-560-NNNN ²⁾				1					
FELR01.1N-0100-N2K0R-D-560-NNNN ²⁾					1				
FELR01.1N-0200-N1K0R-D-560-NNNN ²⁾						1			
FELR01.1N-0400-N500R-D-560-NNNN ²⁾							1		
FELR01.1N-0500-N330R-D-560-NNNN ²⁾								1	
FELR01.1N-1K00-N180R-D-560-NNNN ²⁾									1

The above table lists the optimal combination of frequency converter and brake resistor and the number of components required to operate a frequency converter with respect to a given moderating ratio OT.

¹⁾ OT = 10% see page 27 ²⁾ OT = 20% see page 27

Selection guide for accessories – Frequency Converter Fv brake choppers and brake resistors

Frequency converter	FVCA01.2																
	0K40	0K75	1K50	2K20	4K00	5K50	7K50	11K0	15K0	18K5	22K0	30K0	37K0	45K0	55K0	75K0	90K0
Brake chopper																	
FELB02.1N-30K0-NNONE-A-560-NNNN ¹⁾					integrated					1/1/-	1/1/-	1/-/2		-/2/-	2/-/-		
FELB02.1N-45K0-NNONE-A-560-NNNN ¹⁾					integrated					-/-/1	-/-/1	-/1/-	1/1/2	1/-/2	-/2/3	2/3/4	3/3/4
Brake resistors																	
FELR01.1N-0080-N750R-D-560-NNNN ²⁾	1/-/-	1/-/-															
FELR01.1N-0150-N700R-D-560-NNNN ²⁾		-/1/-															
FELR01.1N-0260-N250R-D-560-NNNN ²⁾				1/-/-													
FELR01.1N-0260-N400R-D-560-NNNN ²⁾			1/-/-														
FELR01.1N-0390-N150R-D-560-NNNN ²⁾					1/-/-												
FELR01.1N-0500-N550R-D-560-NNNN ²⁾		-/-/1															
FELR01.1N-0520-N100R-D-560-NNNN ²⁾						1/-/-											
FELR01.1N-0520-N230R-D-560-NNNN ²⁾				-/1/-													
FELR01.1N-0520-N350R-D-560-NNNN ²⁾			-/1/-														
FELR01.1N-0780-N075R-D-560-NNNN ²⁾							1/-/-										
FELR01.1N-0780-N140R-D-560-NNNN ²⁾					-/1/-												
FELR01.1N-0800-N275R-D-560-NNNN ²⁾			-/-/1														
FELR01.1N-1K04-N050R-D-560-NNNN ²⁾								1/-/-									
FELR01.1N-1K04-N090R-D-560-NNNN ²⁾						-/1/-											
FELR01.1N-01K2-N180R-D-560-NNNN ²⁾				-/-/1													
FELR01.1N-01K5-N068R-D-560-NNNN ²⁾									-/2/-								
FELR01.1N-01K5-N150R-D-560-NNNN ²⁾						-/-/2											
FELR01.1N-1K56-N040R-D-560-NNNN ²⁾									1/-/-								
FELR01.1N-1K56-N070R-D-560-NNNN ²⁾							-/1/-										
FELR01.1N-02K0-N047R-D-560-NNNN ²⁾								-/1/-									
FELR01.1N-02K0-N110R-D-560-NNNN ²⁾					-/-/1												
FELR01.1N-04K5-N055R-A-560-NNNN ³⁾							-/-/1										
FELR01.1N-04K8-N272R-A-560-NNNN ³⁾											1/-/-						
FELR01.1N-04K8-N032R-A-560-NNNN ³⁾										1/-/-							
FELR01.1N-06K0-N020R-A-560-NNNN ³⁾											1/-/-				2/-/-		3/-/-
FELR01.1N-06K0-N040R-A-560-NNNN ³⁾								-/-/1									
FELR01.1N-08K0-N027R-A-560-NNNN ³⁾									-/-/1								
FELR01.1N-09K6-N13R6-A-560-NNNN ³⁾														1/-/-		2/-/-	
FELR01.1N-09K6-N016R-A-560-NNNN ³⁾													1/-/-				
FELR01.1N-10K0-N022R-A-560-NNNN ³⁾										-/-/1	-/1/-		-/-/2			-/-/4	-/-/4
FELR01.1N-10K0-N024R-A-560-NNNN ³⁾														-/2/-			
FELR01.1N-10K0-N272R-A-560-NNNN ³⁾												-/1/-					
FELR01.1N-10K0-N028R-A-560-NNNN ³⁾													-/2/-				
FELR01.1N-10K0-N032R-A-560-NNNN ³⁾														-/1/-			
FELR01.1N-12K5-N017R-A-560-NNNN ³⁾																	
FELR01.1N-12K5-N018R-A-560-NNNN ³⁾											-/-/1			-/-/2	-/2/-		
FELR01.1N-12K5-N020R-A-560-NNNN ³⁾																-/3/-	-/3/-
FELR01.1N-12K5-N022R-A-560-NNNN ³⁾															-/-/3		

The above table lists the optimal combination of frequency converter, brake chopper, and brake resistor and the number of components required to operate a frequency converter with respect to a given moderating ratio OT.

The three digits listed for the various models (x/x/x) each stand for a specific braking ratio: digit 1 ~ OT = 10%, digit 2 ~ OT = 20%, digit 3 ~ OT = 40%. The specific value (1, 2, 3 or 4) corresponds with the number of components required to operate a frequency converter.

¹⁾ See page 30. ²⁾ See page 28. ³⁾ See page 29.

Selection guide for accessories – Frequency Converter Fe brake choppers and brake resistors

Frequency converter	FECG02.1					FECG02.1 or FECP02.1													
	0K75	1K50	2K20	4K00	5K50	7K50	11K0	15K0	18K5	22K0	30K0	37K0	45K0	55K0	75K0	90K0	110K	132K	160K
Brake chopper																			
FELB02.1N-30K0-NNONE-A-560-NNNN ¹⁾									1/1/-	1/1/-	1/-/2		-/2/-	2/-/-					
FELB02.1N-45K0-NNONE-A-560-NNNN ¹⁾									-/-/1	-/-/1	-/1/-	1/1/2	1/-/2	-/2/3	2/3/4	3/3/4	3/3/-	3/-/-	
FELB02.1N-220K-NNONE-A-560-NNNN ¹⁾																	-/-/1	-/1/1	1/1/2
Brake resistors																			
FELR01.1N-0080-N750R-D-560-NNNN ²⁾	1/-/-																		
FELR01.1N-0150-N700R-D-560-NNNN ²⁾	-/1/-																		
FELR01.1N-0260-N250R-D-560-NNNN ²⁾			1/-/-																
FELR01.1N-0260-N400R-D-560-NNNN ²⁾		1/-/-																	
FELR01.1N-0390-N150R-D-560-NNNN ²⁾				1/-/-															
FELR01.1N-0500-N550R-D-560-NNNN ²⁾	-/-/1																		
FELR01.1N-0520-N100R-D-560-NNNN ²⁾					1/-/-														
FELR01.1N-0520-N230R-D-560-NNNN ²⁾			-/1/-																
FELR01.1N-0520-N350R-D-560-NNNN ²⁾	-/1/-																		
FELR01.1N-0780-N075R-D-560-NNNN ²⁾						1/-/-													
FELR01.1N-0780-N140R-D-560-NNNN ²⁾				-/1/-															
FELR01.1N-0800-N275R-D-560-NNNN ²⁾	-/-/1																		
FELR01.1N-1K04-N050R-D-560-NNNN ²⁾							1/-/-												
FELR01.1N-1K04-N090R-D-560-NNNN ²⁾					-/1/-														
FELR01.1N-01K2-N180R-D-560-NNNN ²⁾			-/-/1																
FELR01.1N-01K5-N068R-D-560-NNNN ²⁾								-/2/-											
FELR01.1N-01K5-N150R-D-560-NNNN ²⁾					-/2/-														
FELR01.1N-1K56-N040R-D-560-NNNN ²⁾								1/-/-											
FELR01.1N-1K56-N070R-D-560-NNNN ²⁾						-/1/-													
FELR01.1N-02K0-N047R-D-560-NNNN ²⁾							-/1/-												
FELR01.1N-02K0-N110R-D-560-NNNN ²⁾				-/-/1															
FELR01.1N-04K5-N055R-A-560-NNNN ³⁾						-/1/-													
FELR01.1N-04K8-N27R2-A-560-NNNN ³⁾										1/-/-									
FELR01.1N-04K8-N032R-A-560-NNNN ³⁾									1/-/-										
FELR01.1N-06K0-N020R-A-560-NNNN ³⁾											1/-/-			2/-/-		3/-/-	3/-/-		
FELR01.1N-06K0-N040R-A-560-NNNN ³⁾							-/-/1												
FELR01.1N-08K0-N027R-A-560-NNNN ³⁾								-/-/1											
FELR01.1N-09K6-N13R6-A-560-NNNN ³⁾												1/-/-		2/-/-				3/-/-	
FELR01.1N-09K6-N016R-A-560-NNNN ³⁾												1/-/-							
FELR01.1N-10K0-N022R-A-560-NNNN ³⁾									-/-/1	-/1/-	-/2/-			-/4	-/4				
FELR01.1N-10K0-N024R-A-560-NNNN ³⁾												-/2/-							
FELR01.1N-10K0-N27R2-A-560-NNNN ³⁾											-/2/-								
FELR01.1N-10K0-N028R-A-560-NNNN ³⁾							-/1/-												
FELR01.1N-10K0-N032R-A-560-NNNN ³⁾											-/2/-								
FELR01.1N-12K5-N017R-A-560-NNNN ³⁾											-/1/-								
FELR01.1N-12K5-N018R-A-560-NNNN ³⁾									-/-/1			-/2/-	-/2/-						
FELR01.1N-12K5-N020R-A-560-NNNN ³⁾															-/3/-	-/3/-	-/3/-		
FELR01.1N-12K5-N022R-A-560-NNNN ³⁾													-/3/-						
FELR01.1N-40K0-N03R4-A-560-NNNN ³⁾																	-/1/-	1/-/-	
FELR01.1N-50K0-N03R7-A-560-NNNN ³⁾																	-/1/-		
FELR01.1N-50K0-N05R0-A-560-NNNN ³⁾																		-/2/-	
FELR01.1N-60K0-N03R7-A-560-NNNN ³⁾																	-/1/-		
FELR01.1N-80K0-N03R2-A-560-NNNN ³⁾																		-/1/-	

The above table lists the optimal combination of frequency converter and brake resistor and the number of components required to operate a frequency converter with respect to a given moderating ratio OT.

The three digits listed for the various models (x/x/x) each stand for a specific braking ratio: digit 1 ~ OT = 10%, digit 2 ~ OT = 20%, digit 3 ~ OT = 40%. The specific value (1, 2, 3 or 4) corresponds with the number of components required to operate a frequency converter.

¹⁾ See page 30. ²⁾ See page 28. ³⁾ See page 29.

Software

Commissioning software

“ConverterPC” software can be used for the commissioning and remote control of Rexroth frequency converters. A standard serial interface is used for communication. ConverterPC makes it easy to specify converter speeds, control start and stop, and adjust device parameters. The software also provides functions that are not available when operating the converter locally via the operating panel.

One or more converters (max. 247 devices) can be connected to a computer via a Modbus network to create a control network with ConverterPC.

Frequency Converter Fv:

Software version: Converter_PC_01V07

Frequency Converter Fe:

Software version: Converter_PC_7.010

EFC 3600:

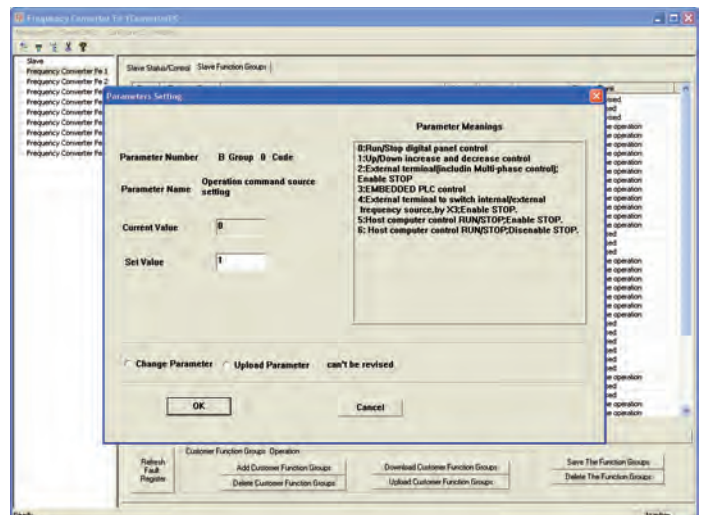
Software in preparation

System requirements for software use on a PC

- ▶ Processor: Pentium 100 MHz or faster
- ▶ Operating system: Windows XP, Windows 7
- ▶ Display resolution: 1024 x 768
- ▶ Memory: 1 GB free disk space

The software is available as free download on the respective online catalog pages:

www.boschrexroth.com/frequencyconverter



Notes

Notes

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www.boschrexroth.com

Local contact information can be found at:

www.boschrexroth.com/contact

Product documentation can be found at:

www.boschrexroth.com/EFC3600
www.boschrexroth.com/Fv
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