

FFC SERIES

MECHANICAL DATA

FIXED BOLT HOLES	Max. \varnothing 6 x 4	DIMENSIONS: W x H x D	273 x 227 x 140 / 273 x 247 x 140 mm
HOUSING MATERIAL	PC + fiberglass	WEIGHT	Max. 3.2 kg

ELECTRICAL DATA

POWER INPUT VOLTAGE	380 ... 480 V AC	LOAD CATEGORY	3 phase AC asynchronous motor
POWER INPUT FREQUENCY	47 ... 63 Hz	DIAMETER OF INCOMING CABLE	\varnothing 9 ... 14
AUXILIARY CONTROL POWER SUPPLY	24 ... 28 V DC	WIRE CROSS-SECTIONAL AREA	Max. 4 mm ²
POWER OUTPUT	0 - Power input	I/O SIGNAL CONNECTOR	M12 A-CODE 5 pin
OUTPUT FREQUENCY	0 ... 600 Hz	FIELD BUS CONNECTOR	M12 D-CODE 4 pin

PRODUCT PARAMETERS

PROTECTION IP GRADE	54	WORKING HUMIDITY	20 % ... 85 %RH
OPERATING TEMPERATURE	-25 ... +55 °C	SHELL MATERIAL	PC + fiberglass
STORAGE TEMPERATURE	-30 ... +70 °C	INSTALLATION REQUIREMENTS	Indoor or outdoor, naturally ventilated environment

ENVIRONMENTAL CONDITIONS

EMC	EN 61326-1:2013 (GB/T18268) EN 55011:2007-11 (GB4824, group 1, A class) EN 61000-6-2:2006-03 (GB/T17799.2)	FLAME RETARDANT GRADE	V 0
SHOCK RESISTANCE (EN 60068-2-27)	15 g / 11 ms, positive and negative for X, Y and Z directions	MAXIMUM TEMPERATURE OF RADIATOR	90 °C
VIBRATION RESISTANCE (EN 60068-2-6)	10 ... 55 Hz, 1.5 mm double amplitude in X, Y and Z directions, 2 hours per direction		

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SELECTION TABLE

Motor Power		Rated Current Is	OverLoad in 60 second	Max instant current	Cable connection	Article number	Rated input	Max cable diameter	Wire diameter	Braking resistor	
kW	HP	Amp	Amp	Amp			Amp	mm	mm ²	suggestion	
0.37	0.5	1.5	2.25	3.75	flange	FFC3-003-0xxx..	1.8	9-14	2.5	300 ... 500 Ω	200 ... 1000 W
0.37	0.5	1.5	2.25	3.75	quick plug	FFC3-003-1xxx..	1.8	9-14	2.5	300 ... 500 Ω	200 ... 1000 W
0.55	0.75	1.8	2.7	4.5	flange	FFC3-005-0xxx..	2.5	9-14	2.5	300 ... 500 Ω	200 ... 1000 W
0.55	0.75	1.8	2.7	4.5	quick plug	FFC3-005-1xxx..	2.5	9-14	2.5	300 ... 500 Ω	200 ... 1000 W
0.75	1	2.3	3.45	5.57	flange	FFC3-007-0xxx..	3.8	9-14	2.5	300 ... 500 Ω	200 ... 1000 W
0.75	1	2.3	3.45	5.75	quick plug	FFC3-007-1xxx..	3.8	9-14	2.5	300 ... 500 Ω	200 ... 1000 W
1.1	1.5	3.1	4.65	7.75	flange	FFC3-011-0xxx..	3.8	9-14	2.5	150 ... 300 Ω	500 ... 1500 W
1.1	1.5	3.1	4.65	7.75	quick plug	FFC3-011-1xxx..	3.8	9-14	2.5	150 ... 300 Ω	500 ... 1500 W
1.5	2	3.8	5.7	9.5	flange	FFC3-015-0xxx..	4.6	9-14	2.5	150 ... 300 Ω	500 ... 1500 W
1.5	2	3.8	5.7	9.5	quick plug	FFC3-015-1xxx..	4.6	9-14	2.5	150 ... 300 Ω	500 ... 1500 W
2.2	3	5.5	8.25	13.75	flange	FFC3-022-0xxx..	6.3	13-18	4	75 ... 100 Ω	1000 ... 3000 W
2.2	3	5.5	8.25	13.75	quick plug	FFC3-022-1xxx..	6.3	13-18	4	75 ... 100 Ω	1000 ... 3000 W
3	4	7.2	10.8	18	flange	FFC3-030-0xxx..	9.1	13-18	4	75 ... 100 Ω	1000 ... 3000 W
3	4	7.2	10.8	18	quick plug	FFC3-030-1xxx..	9.1	13-18	4	75 ... 100 Ω	1000 ... 3000 W
4	5	9.5	14.25	23.75	flange	FFC3-040-0xxx..	12.5	16-21	6	40 ... 60 Ω	2000 ... 6000 W
4	5	9.5	14.25	23.75	quick plug	FFC3-040-1xxx..	12.5	16-21	6	40 ... 60 Ω	2000 ... 6000 W
5.5	7.5	13	19.5	32.5	flange	FFC3-050-0xxx..	16	16-21	6	40 ... 60 Ω	2000 ... 6000 W
5.5	7.5	13	19.5	32.5	quick plug	FFC3-050-1xxx..	16	16-21	6	40 ... 60 Ω	2000 ... 6000 W

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TYPE CODE

FFC	3	-	007	1	0	1	C	E	2	2	P	-	A1
FieldBus Frequence Converter	2: AC 220 V 3: 3 AC 380 ...480 V		003: 0.37 KW 005: 0.55 KW 007: 0.75 KW 011: 1.1 KW 015: 1.5 KW 022: 2.2 KW 030: 3 KW 040: 4 KW 055: 5.5 KW	Power and motor cable connection 0: cable gland 1: plug-in	Brake output voltage code see brake parameter table	0: No load switch 1: Power cut-off switch	N: without break resistor B: built in E: external	P: Profinet E: EtherCAT U: EtherNet/IP A: AS-i	Number of digital input points	Number of digital input points / L:IO-Link master	Other: N:NPN P:PNP		hardware version

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BREAK VOLTAGE

Break voltage	Code
380 V AC	FFC3- * * * - * 1
220 V AC	FFC3- * * * - * 2
180 V DC	FFC3- * * * - * 3
100 V DC	FFC3- * * * - * 4
24 V DC	FFC3- * * * - * 5

FIELD BUS TYPE

Fieldbus type	Code
ProfiNet	FFC3- * * * - * * * P

I/O CONFIGURATION

Code	Function
FFC3- * * * - * * * * 4 2	4DI + 2DO
FFC3- * * * - * * * * 4 L	4DI + IO-Link master

MAINTANCE SWITCH

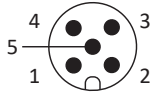
Maintance switch	Code
Without	FFC3- * * * - * * * 0
With	FFC3- * * * - * * * 1

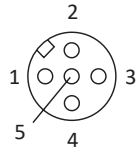
BRAKING RESISTOR

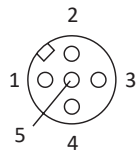
Braking resistor	Code
Without	FFC3- * * * - * * * N
Built in	FFC3- * * * - * * * B
External	FFC3- * * * - * * * E

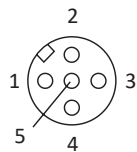
FFC SERIES

CONNECTIONS

Marking	Diagram	Pin definition	Connector type	Describe
PWR	additional I/O power supply connector 	1. 24 V DC	M12 B-CODE 5 Pin	When the internal capacity is insufficient, supplement the 24 V power supply for I/O terminals
		2. NC		
		3. GND		
		4. NC		
		5. NC		

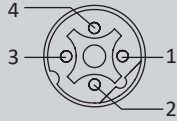
Marking	Diagram	Pin definition	Connector type	Describe
DI0 & DI1	digital input connector 	1. 24 V DC	M12 A-CODE 5 Pin	Input impedance: 33 kΩ
		2. DI 0		
		3. NC		
		4. DI 1		
		5. PE		

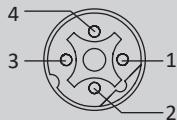
Marking	Diagram	Pin definition	Connector type	Describe
DI2 & DI3	digital input connector 	1. 24 V DC	M12 A-CODE 5 Pin	Input impedance: 33 kΩ
		2. DI 0		
		3. NC		
		4. DI 1		
		5. PE		

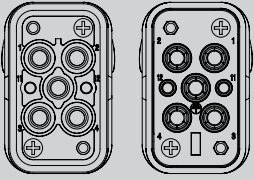
Marking	Diagram	Pin definition	Connector type	Describe
DO0 & DO1	digital input connector 	1. 24 V DC	M12 A-CODE 5 Pin	Single channel (MAX) for internal power supply: 500 mA for 1- channel, 2-channel (MAX) 900 mA
		2. DO 0		
		3. NC		
		4. DIO1		
		5. PE		

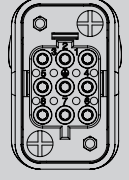
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CONNECTIONS

Marking	Diagram	Pin definition	Connector type	Describe
ProfiNet 1		1. TD+	M12 D-CODE 4 Pin	ProfiNet cable in
		2. RD+		
		3. TD-		
		4. RD-		

Marking	Diagram	Pin definition	Connector type	Describe
ProfiNet 2		1. TD+	M12 D-CODE 4 Pin	ProfiNet cable out
		2. RD+		
		3. TD-		
		4. RD-		

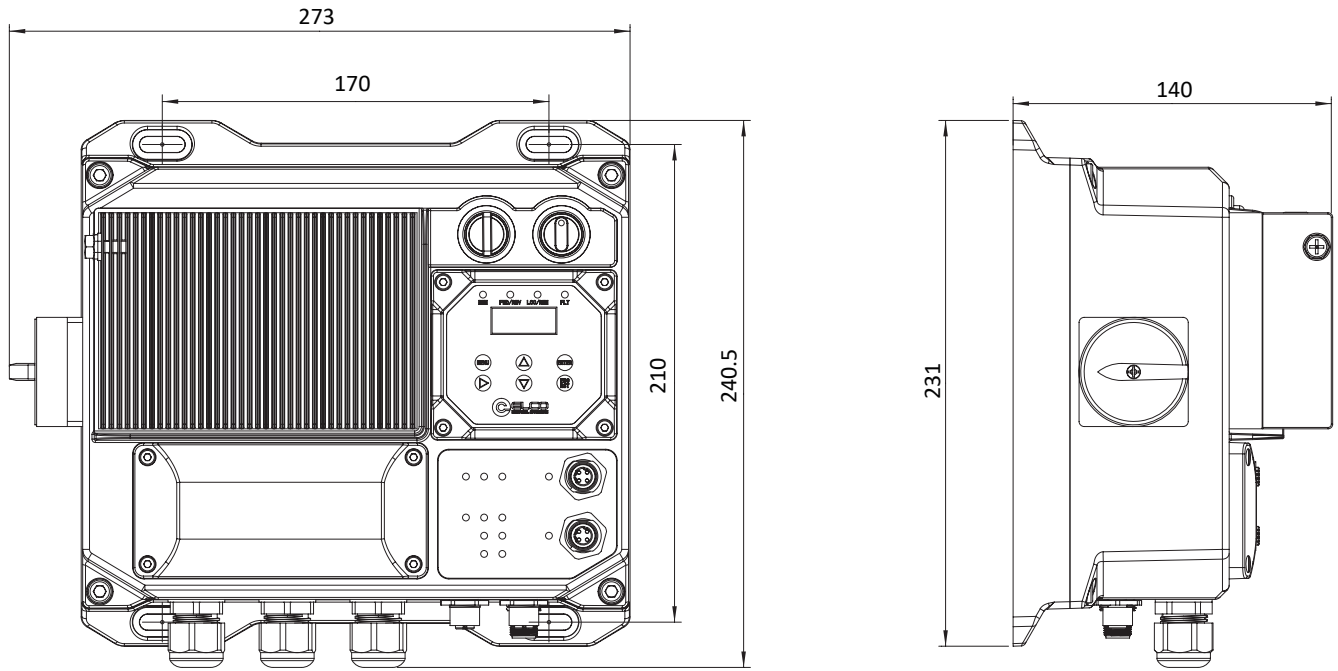
Marking	Diagram	Pin definition	Connector type	Describe
Power		1. R	Power in quick connector	Cable outer diameter 9 ... 14 mm
		2. S		
		3. T		
		4. N		
		PE		

Marking	Diagram	Pin definition	Connector type	Describe
Motor		1. U	Motor cable quick connector	-
		2. V		
		3. W		
		4. NC		
		PE		
		5. PB+		
		6. NC		
		7. NC		
8. PB-				

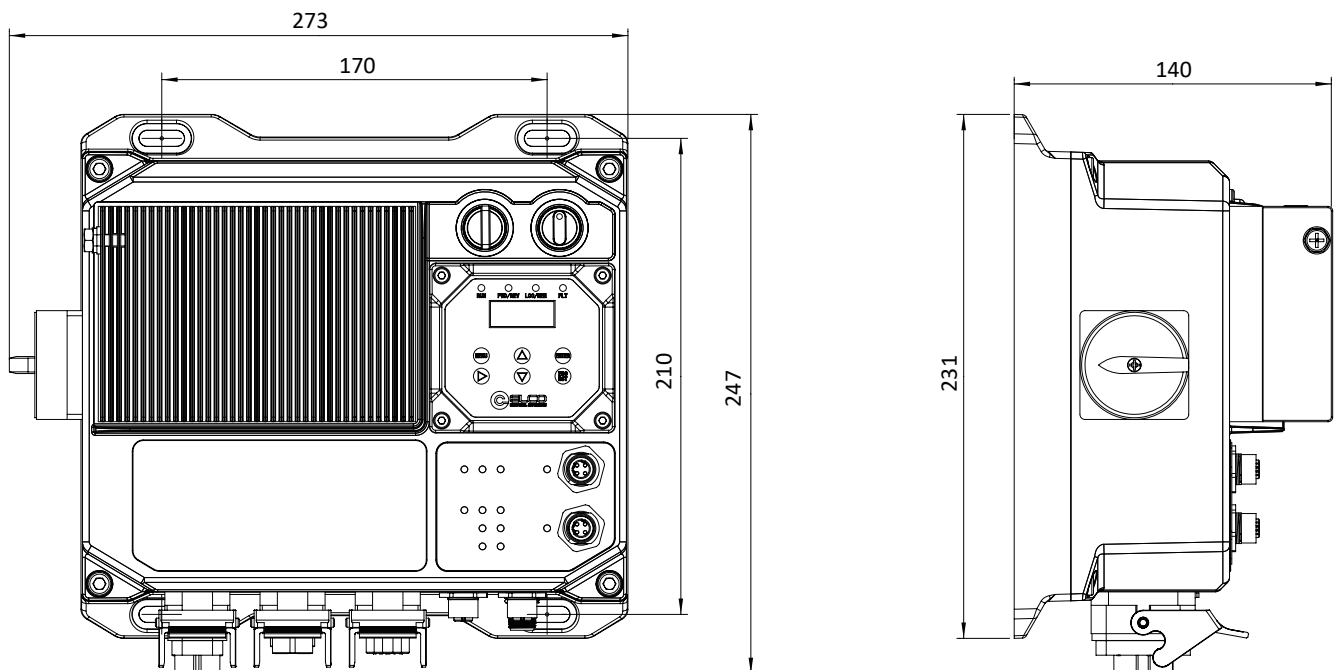
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DIMENSIONS

0.37 ... 2.2 kw polyamide gland cable sealing and fixing



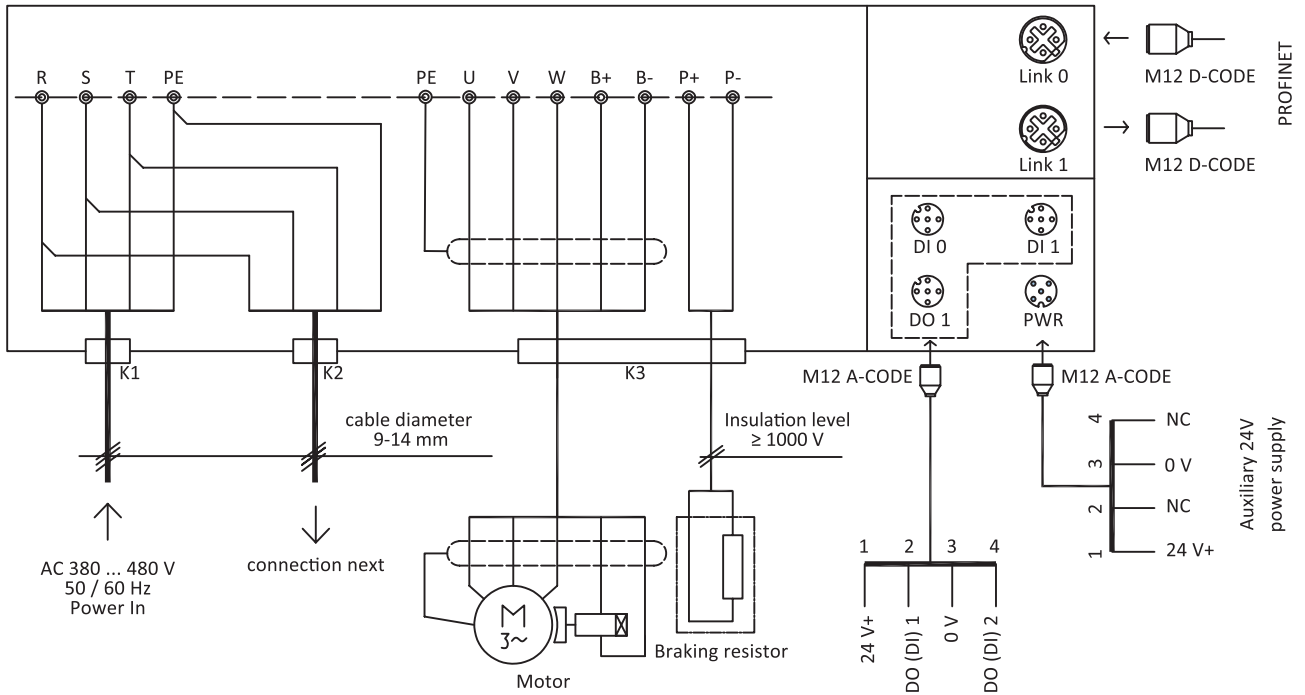
Quick plug cable connection



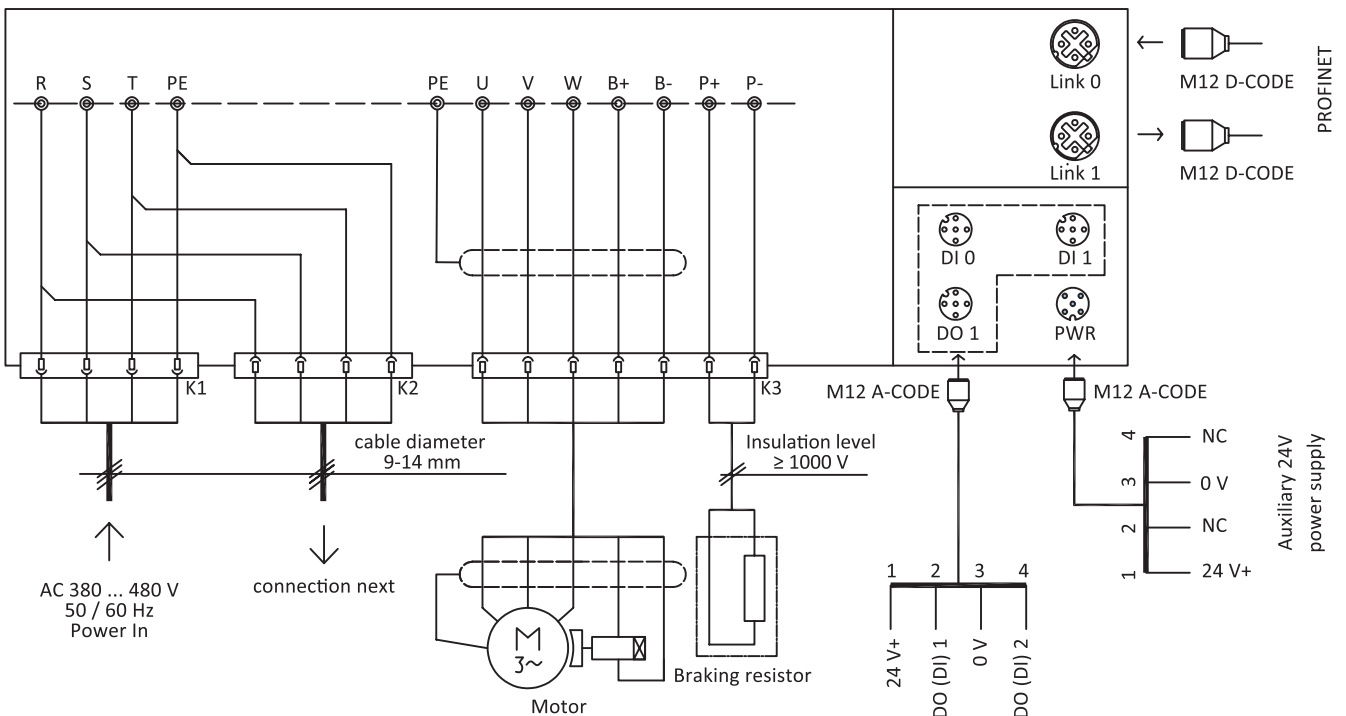
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WIRING DIAGRAM

0.37 ... 2.2 kw polyamide gland cable sealing and fixing



0.37 ... 2.2 kw polyamide gland cable sealing and fixing



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SALES AND SERVICE

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