

EMDX³ multi-function measuring units

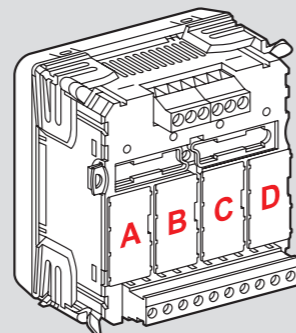
Technical characteristics

Cat.Nos		4 120 45	4 120 47	4 120 51	4 120 52	4 120 53
Connection	Current measurement terminals	Flexible cable 4 mm ² Rigid cable 6 mm ²	4 mm ² 6 mm ²	4 mm ² 6 mm ²	4 mm ² 6 mm ²	4 mm ² 6 mm ²
	Other terminals	Flexible cable 2.5 mm ² Rigid cable 4 mm ²	2.5 mm ² 4.5 mm ²	2.5 mm ² 4 mm ²	2.5 mm ² 4 mm ²	2.5 mm ² 4 mm ²
Protection index	Front cover	IP 54	IP 54	IP 54	IP 54	IP 54
	Casing	IP 20	IP 20	IP 20	IP 20	IP 20
Weight	Type	250 g	285 g	250 g	285 g	285 g
Display	Backlit LCD	Backlit LCD	Backlit LCD	Backlit LCD	Backlit LCD	Backlit LCD
	Refresh time	1.1 s	1.1 s	1 s	1 s	1 s
Measurements	Direct	1P+N, 3P, 3P+N	1P+N, 3P, 3P+N	1P+N, 3P, 3P+N	1P+N, 3P, 3P+N	1P+N, 3P, 3P+N
	From PT	Phase/Phase Phase/Neutral	80 - 500 V 50 - 290 V	80 - 460 V 86 - 260 V	80 - 500 V 50 - 290 V	80 - 500 V 50 - 290 V
Voltage measurement	Primary	-	-	max. 1200 V	max. 1200 V	max. 150 kV
	Secondary	-	-	-	-	-
Update period	Direct	0.8 s	0.3 s	0.2 s	0.2 s	0.2 s
	From a CT	Primary 50 kA	50 kA	max. 10 kA (X/1 A) or 50 kA (X/5A)	max. 10 kA (X/1 A) or 50 kA (X/5A)	max. 10 kA (X/1 A) or 50 kA (X/5A)
Current measurement	Secondary	5 A	5 A	1 A or 5 A	1 A or 5 A	1 A or 5 A
	Minimum measurement	10 mA	10 mA	5 mA	5 mA	5 mA
Input consumption	Permanent overload	≤ 1 VA	≤ 1 VA	≤ 1 VA	≤ 1 VA	≤ 0.2 VA
	Intermittent overload	1.2 In	1.2 In	1.2 In	1.2 In	1.2 In
Update period	Direct	0.2s	0.2s	0.2s	0.2s	0.2s
	Max. CT x PT ratio	9999	9999	99990	99990	10000000 (x/1 A) 2000000 (x/5 A)
Power measurement	Total	0 - 9999 kW/ kVA / kVA	0 - 9999 kW/ kVA / kVA	0 - 9999 kW/ kVA / kVA 0 - 9999 MW I MVA / MVA	0 - 9999 kW/ kVA / kVA 0 - 9999 MW I MVA / MVA	0 - 9999 kW/ kVA / kVA 0 - 9999 MW I MVA / MVA
	Update period	0.2 s	0.2 s	0.2 s	0.2 s	0.2 s
Frequency measurement	Measurement range	45/65 Hz	45/65 Hz	45/65 Hz - 360/440 Hz	45/65 Hz - 360/440 Hz	45/65 Hz
	Update period	0.2 s	0.2 s	0.2 s	0.2 s	0.2 s
Auxiliary power supply	50 / 60 Hz	230 V ± 10%	Self-supplied	80 - 265 V ± 10%	80 - 265 V ± 10%	80 - 265 V ± 10%
	d.c.	-	-	100 - 300 V ± 10%	100 - 300 V ± 10%	100 - 300 V ± 10%
Consumption	a.c.	≤ 2.5 VA	≤ 2.5 VA	≤ 2.5 VA	≤ 2.5 VA	≤ 2.5 VA
	d.c.	-	-	≤ 2.5 W	≤ 3.5 W	≤ 3.5 W
Operating temperature		from -5° C to +55° C	from -5° C to +55° C	from -5° C to +55° C	from -5° C to +55° C	from -5° C to +55° C
Storage temperature		from -25° C to +70° C	from -25° C to +70° C	from -25° C to +70° C	from -25° C to +70° C	from -25° C to +70° C

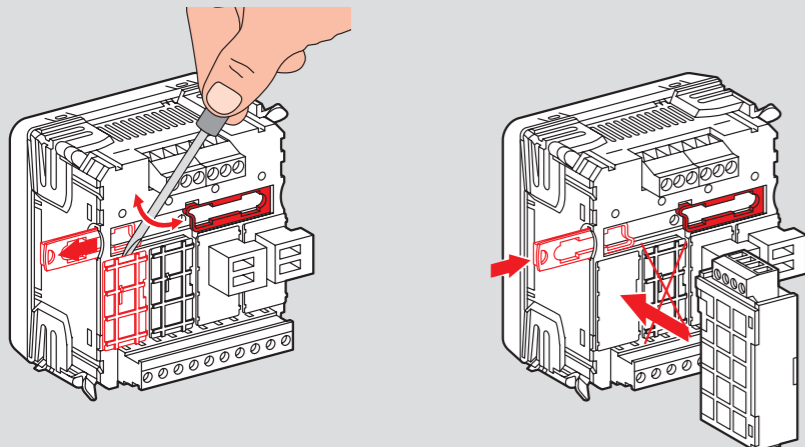
1: except for Cat.No 4 120 53 - 50 Hz only

Maximum number of modules and installing position for multi-function measuring unit Cat.No 4 120 53

Cat.Nos	Designation	Max. number	EMDX ³ -Premium 4 120 53
4 120 55	RS 485 communication module	1	A
4 120 57	2 inputs / 2 outputs module	2	C, D
4 120 58	Temperature module	1	D
4 120 59	Pulse output module for energy count	2	A, B, C, D
4 120 60	2 analog outputs module	2	C, D

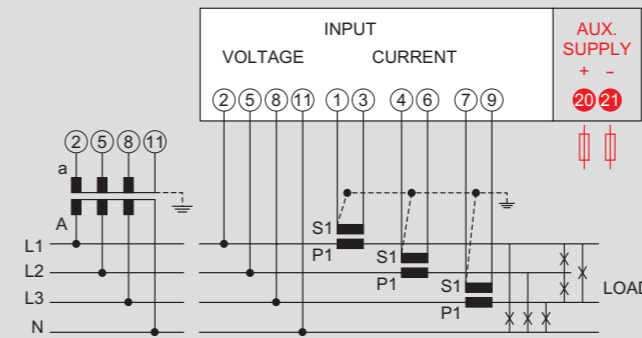


Fitting modules Cat.Nos 4 120 53

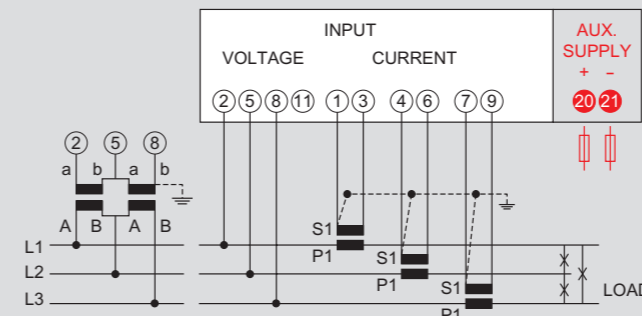


Connection solutions

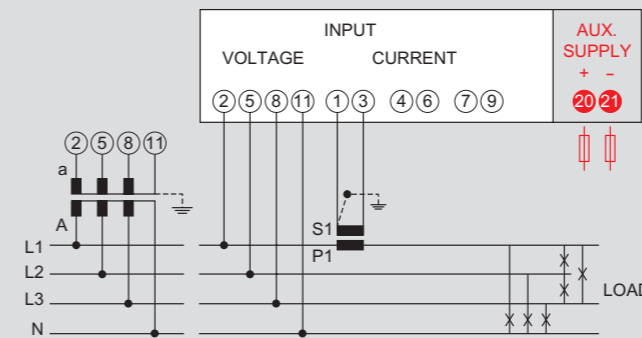
Unbalanced three-phase network (4-wire)



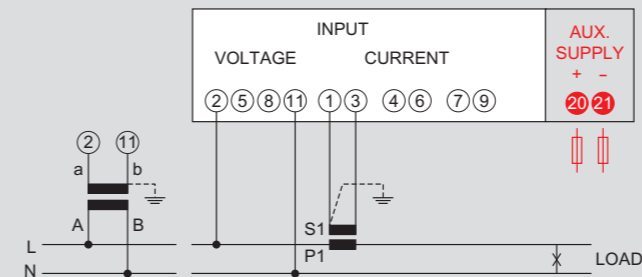
(3-wire)



Balanced three-phase network (3-wire)



Single-phase network (2-wire)



Wiring example of communication network

