

SOLAR GUARDIAN KIT

edition 00 : data 23/01/2025



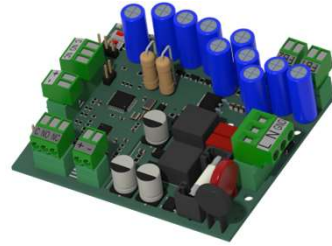
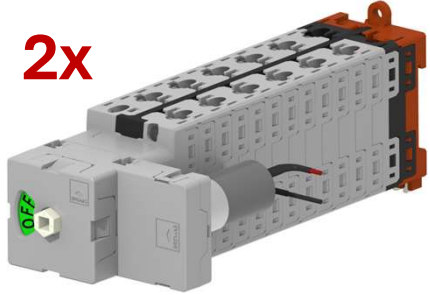
Bremas Ersce S.p.A.
Via Castellazzo 9 – 20040 Cambiago (MI)
Tel +39 02 95651611 Fax +39 02 95651639
www.bremas.it info@bremas.it
ISO 9001 Certified Quality System



KB1503012MUAEC

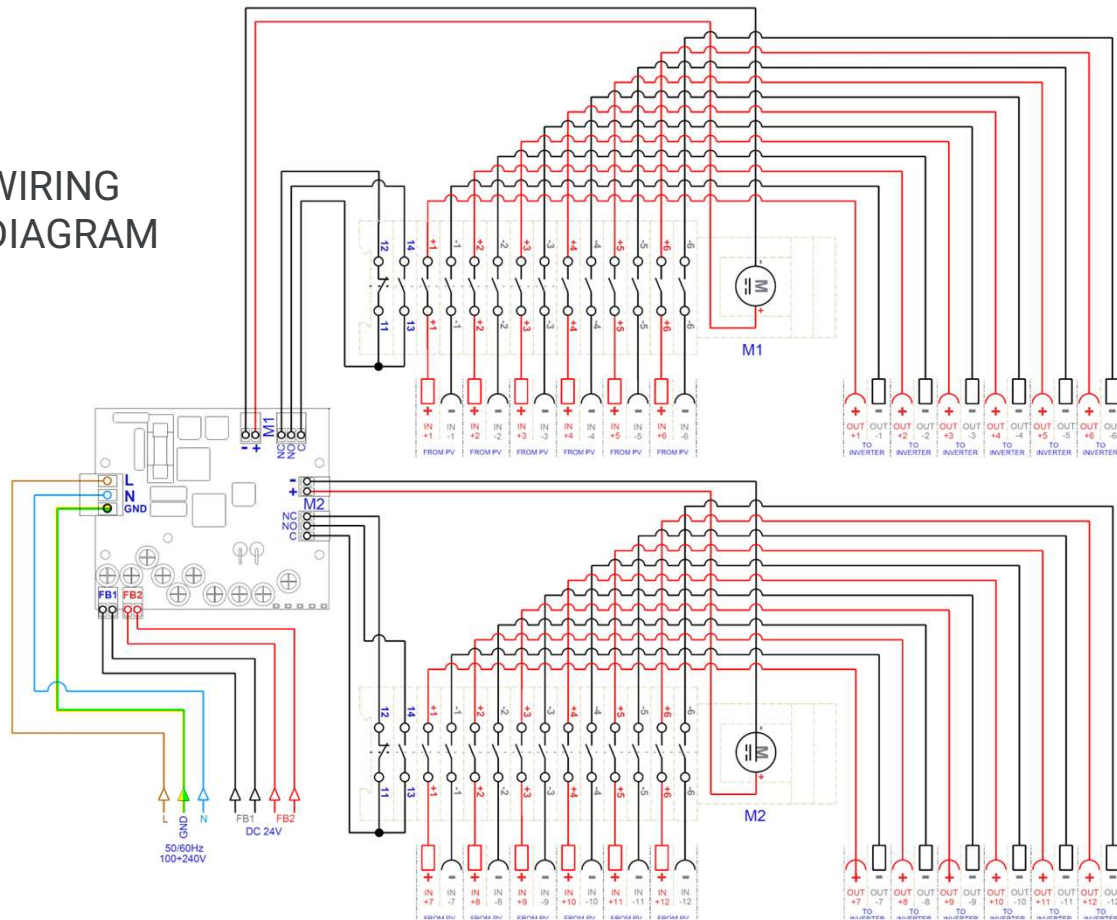
SOLAR GUARDIAN KIT FOR 12 INPUTS

2x



Kit for DIN rail
for vertical or horizontal
mounting supplied
as spare parts

WIRING DIAGRAM



DX150306MUAEDSC



Disconnect switch

Technical data according to IEC 60947-3:2021

Utilization category			PV1 (DC-21B)	PV2
Rated operational voltage	Ue	V dc	1500	1500
Rated operational current	Ie	A	20	8
Rated operational voltage (second rating)	Ue	V dc	1300	1300
Rated operational current (second rating)	Ie	A	25	10
Rated operational voltage (third rating)	Ue	V dc	1250	1250
Rated operational current (third rating)	Ie	A	30	12
Rated operational voltage (fourth rating)	Ue	V dc	1000	1000
Rated operational current (fourth rating)	Ie	A	50	20
Rated operational voltage (fifth rating)	Ue	V dc	-	800
Rated operational current (fifth rating)	Ie	A	-	30
Rated operational voltage (sixth rating)	Ue	V dc	-	700
Rated operational current (sixth rating)	Ie	A	-	40
Rated thermal current	Ith	A	50	
DC Poles	Nr.	Nr.	12	
Rated conditional short-circuit current		kA	5	
Rated insulation voltage	Ui	V dc	1500	
Rated impulse withstand voltage	Uimp	kV	8	
Rated short-time withstand current (1 s)	Icw	A	780	
Rated short-circuit making capacity	Icm	kA	1,4	
Power loss per layer at 20 A / 50 A		W	0,2 / 1,25	
Maximum size of the fuse for the short-circuit protection	gPV	A	50	

Mechanical characteristics

Type of mounting			Base mounting Back-side for DIN rail or 2 screws fixing For direct operation With pre-mounted status indicator
Layers		Nr.	14
Terminal screws orientation			Head up
External metal parts (screws, shaft)			Stainless steel
Cross-section of flexible/solid wires	Max.	mm ² AWG	2x 6 2x 10
Cross-section of wires with fork lug	Max.	mm ² AWG	1x 16 1x 6
Connection cable length from PCB to motor (+/-) and connection cable length of NO-NC auxiliary switches	Length	mm	~250
	Section	mm ² / AWG	0,5 / 20
FB1 and FB2 signal connection cables	Note		Not supplied
	solid wire/stranded wire - min. / max.	mm ² AWG	0,129-1,31 26-16
	maximum length allowed	m	50
<i>Minimum required fine wire cross-section: IEC 60947-1, table 9</i>			
Terminal screws type			M4 – PH2
Terminal screws tightening torque		Nm	1,7 ±10%
Net weight		g	680
Protection degree IEC 529 EN 60529			
To the terminal			IP20
Ambient conditions			
Pollution degree ins.			2
Operational ambient temperature		°C	-30 ÷ +50
Storage ambient temperature		°C	-30 ÷ +85
Damp heat test IEC 60068-2-30			90-100% RH at +55 °C

Motor driven actuator

Motor characteristics

Rated operational voltage	Ue	V dc	24 ±5%
Rated operational current	Ie	A	0,4
Stall current	Max.	A	1,4
Free-load current		A	0,10
Free-load speed	Max.	rpm	20 ±3
Rated load current		A	0,15
Rated load speed		rpm	17,6 ±2
Output power at Max. efficiency		W	1,55
Terminal type			Solder (supplied with wiring)
Pre-soldered cables length		mm	300
Protection degree to the terminals			IP00*

Operating features

Rotation direction	Clockwise (90deg)
Position (status indicator)	Rotary disc with static window at 09:00 o'clock

* Pre soldered wiring with heat-shrink sheath

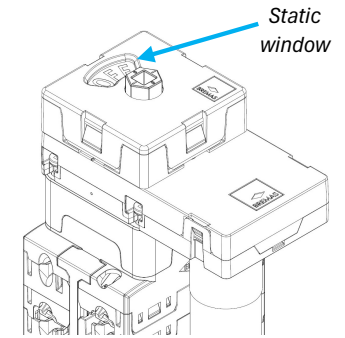
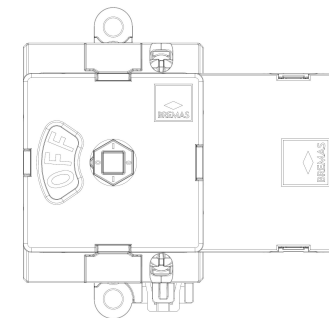
Status indicator

Emergency manual operation

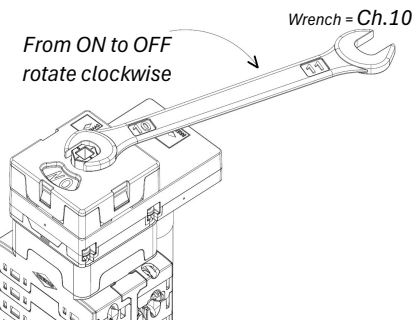
Wrench = Ch.10
or Square Key = □5



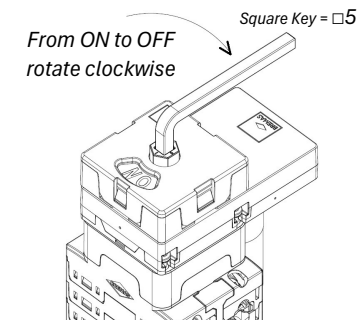
Rotary disc



Static window



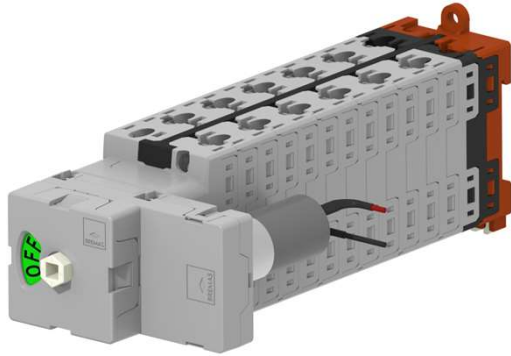
From ON to OFF
rotate clockwise



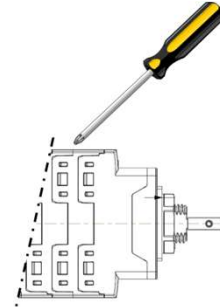
From ON to OFF
rotate clockwise

DX150306MUAEDSC

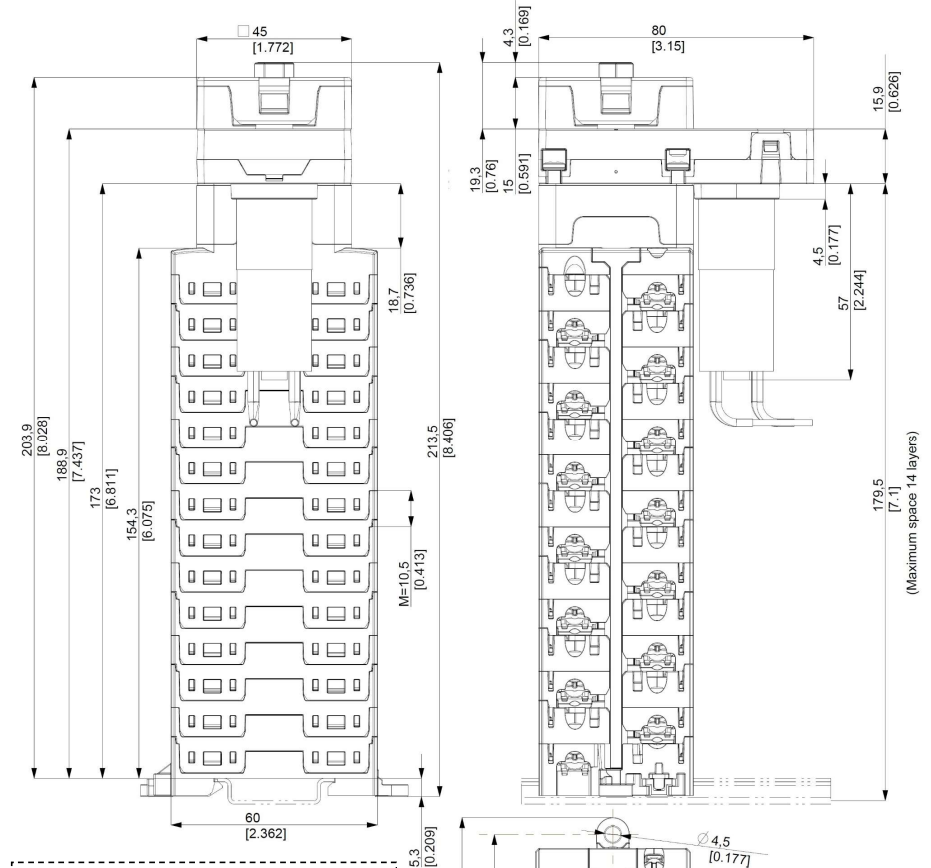
Product image



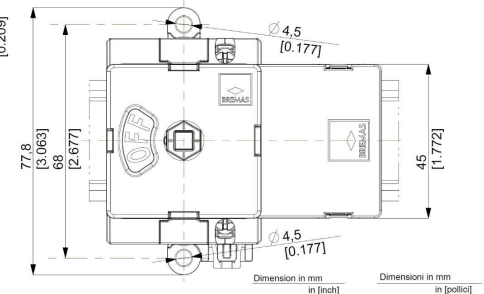
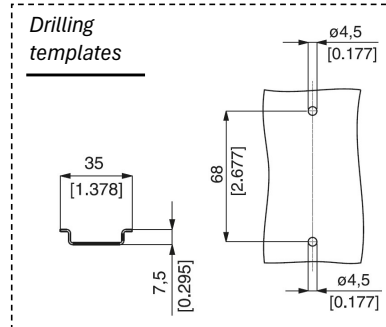
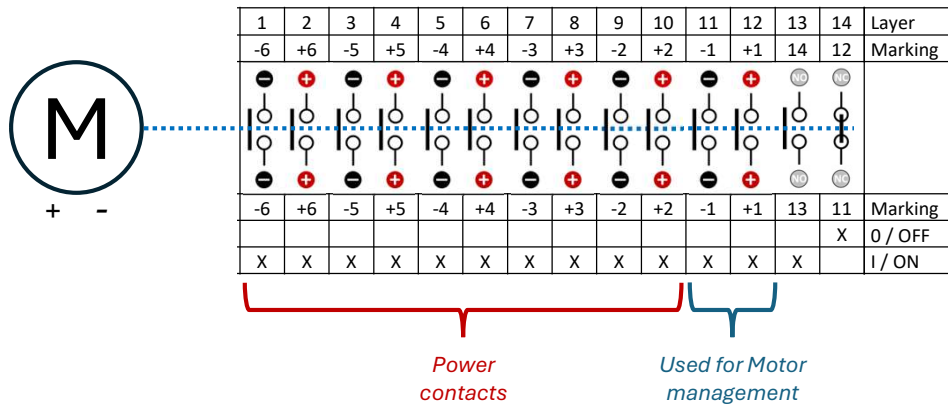
Screwdriver orientation for terminal fixing



Dimensions



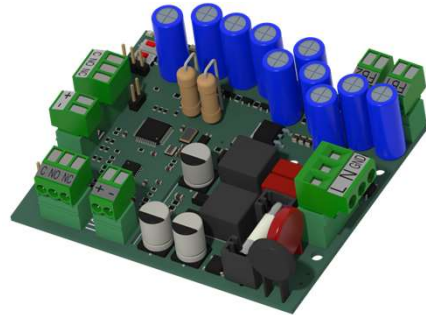
Electrical Diagram



FSEB2M

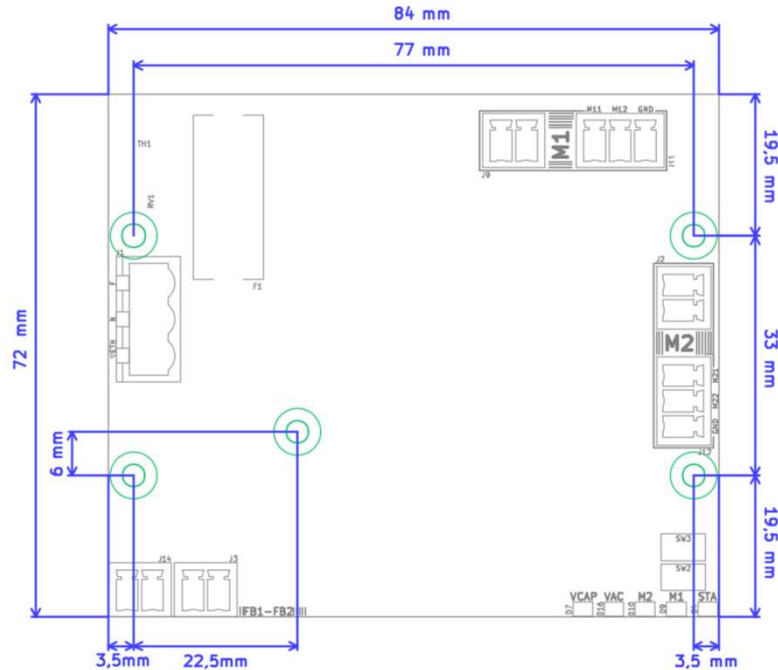
Electronic board

Product image



Dimensions

5 holes diameter 3,2 mm



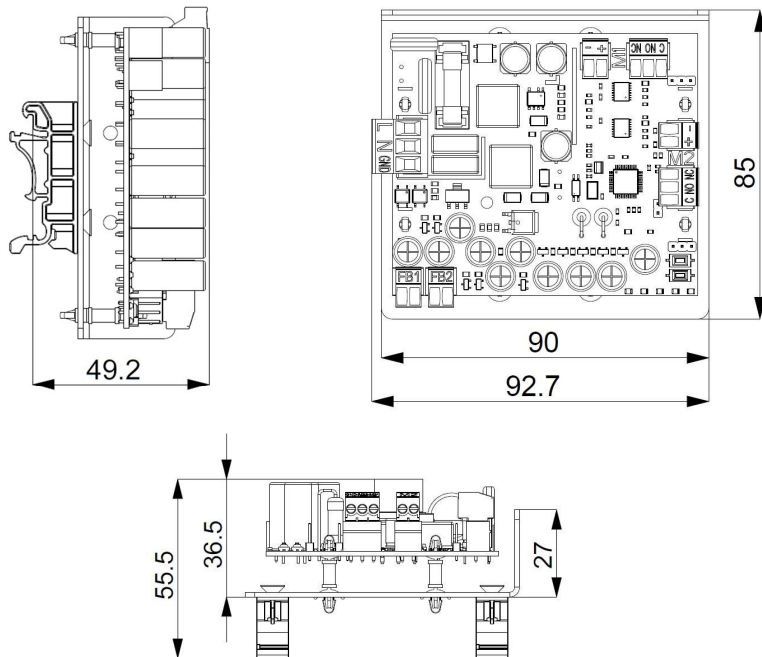
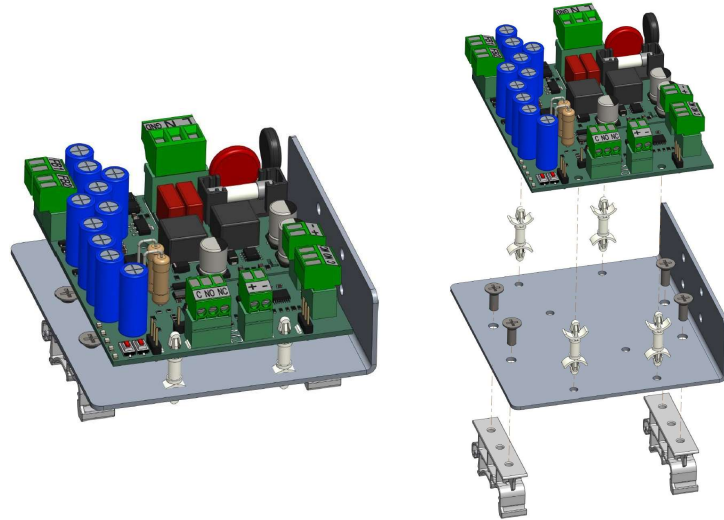
Technical data

AC supply			
Voltage range		V ac	100...240
Rated operational voltage		V ac	230 ±5%
Frequency range		Hz	50/60
Rated operational current (stand-by)		mA	≅ 20
Rated operational current (peak)	Max.	mA	≅ 400
Overvoltage protection		V ac	275 (varistor)
Functional data			
Capacitors charging time	Max.	s	+18
FB terminals (J3-J14) – Electrical parameters	Max.		24 Vdc – 100 mA
Temperature for automatic shutdown		°C	+100
Mechanical characteristics			
Dimensions (L x H x P)		mm	84 x 72 x 25
Net weight		g	76 (FSEB1M) – 81 (FSEB2M)
Cross-section of flexible/solid wires (J1 terminal)	Max.	mm ² AWG	2 14
Cross-section of flexible/solid wires (J2-J3-J9-J11-J12-J14 terminals)	Max.	mm ² AWG	1,3 16
Ambient conditions			
Operational ambient temperature		°C	-30 ÷ +50
Storage ambient temperature		°C	-30 ÷ +85
Humidity			90-100% RH at +55 °C

FSDIN

DIN support

Horizontal mounting



Vertical mounting

