

# SOLAR GUARDIAN KIT

edition 00 : data 23/01/2025



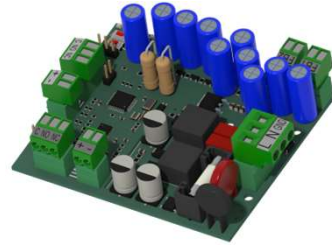
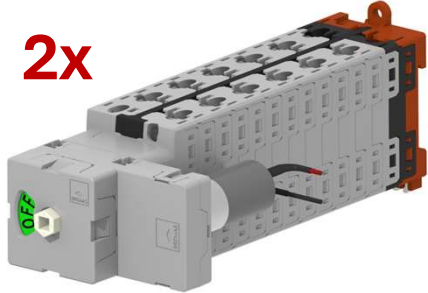
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KB1002012M0AEC

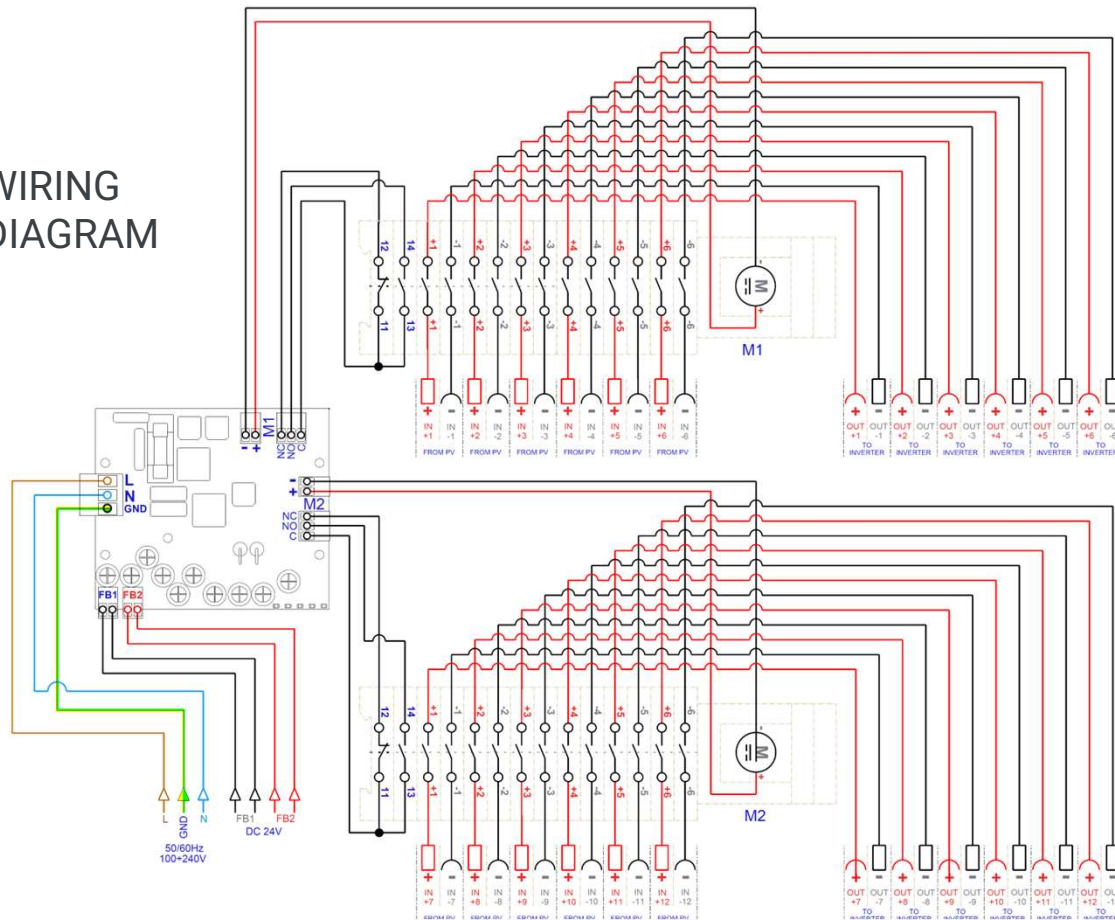
## SOLAR GUARDIAN KIT FOR 12 INPUTS

2x



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

## WIRING DIAGRAM



## DM100206M0AEDSC



### Disconnect switch

#### Technical data according to IEC 60947-3:2021

Utilization category			PV1 (DC-21B)	PV2
Rated operational voltage	Ue	V dc	1100	1100
Rated operational current	Ie	A	12	5
Rated operational voltage (second rating)	Ue	V dc	1000	1000
Rated operational current (second rating)	Ie	A	20	10
Rated operational voltage (third rating)	Ue	V dc	750	750
Rated operational current (third rating)	Ie	A	32	18
Rated operational voltage (fourth rating)	Ue	V dc	700	700
Rated operational current (fourth rating)	Ie	A	40	20
Rated operational voltage (fifth rating)	Ue	V dc	500	-
Rated operational current (fifth rating)	Ie	A	50	-
Rated operational voltage (sixth rating)	Ue	V dc	-	-
Rated operational current (sixth rating)	Ie	A	-	-
Rated thermal current	Ith	A	50	
DC Poles		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 <sup>2</sup> AWG	2x 6 2x 10
Cross-section of wires with fork lug	Max.	mm <sup>2</sup> 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 <sup>2</sup> / AWG	0,5 / 20
FB1 and FB2 signal connection cables	Note		Not supplied
	solid wire/stranded wire - min. / max.	mm <sup>2</sup> AWG	0,129-1,31 26-16
	maximum length allowed	m	50

Minimum required fine wire cross-section: IEC 60947-1, table 9

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
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#### 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

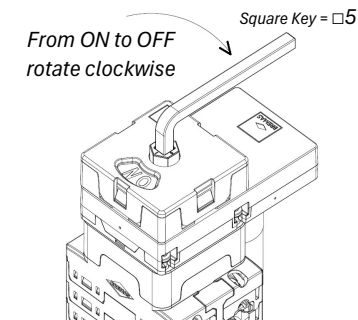
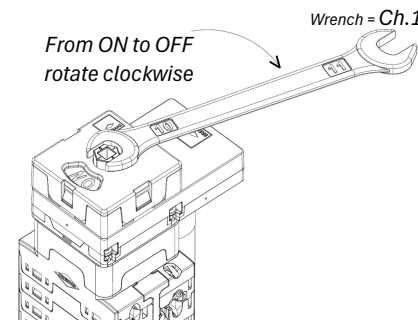
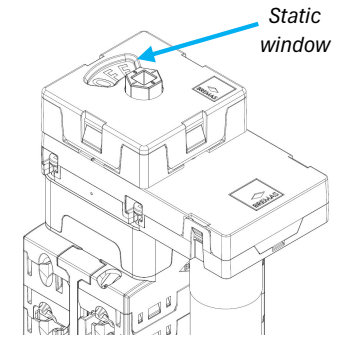
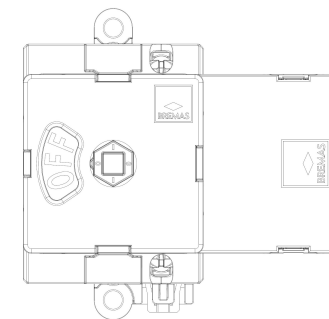
#### Status indicator

##### Emergency manual operation

Wrench = Ch.10  
or Square Key = □5

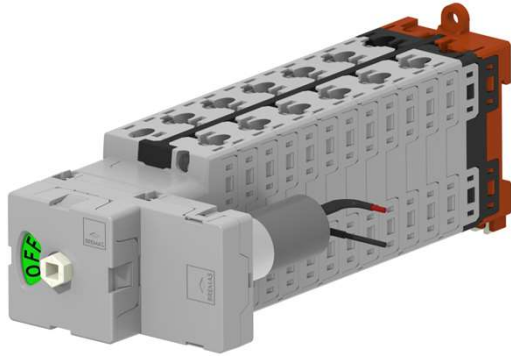


Rotary disc

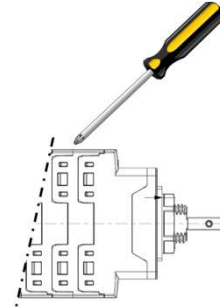


## DM100206M0AEDSC

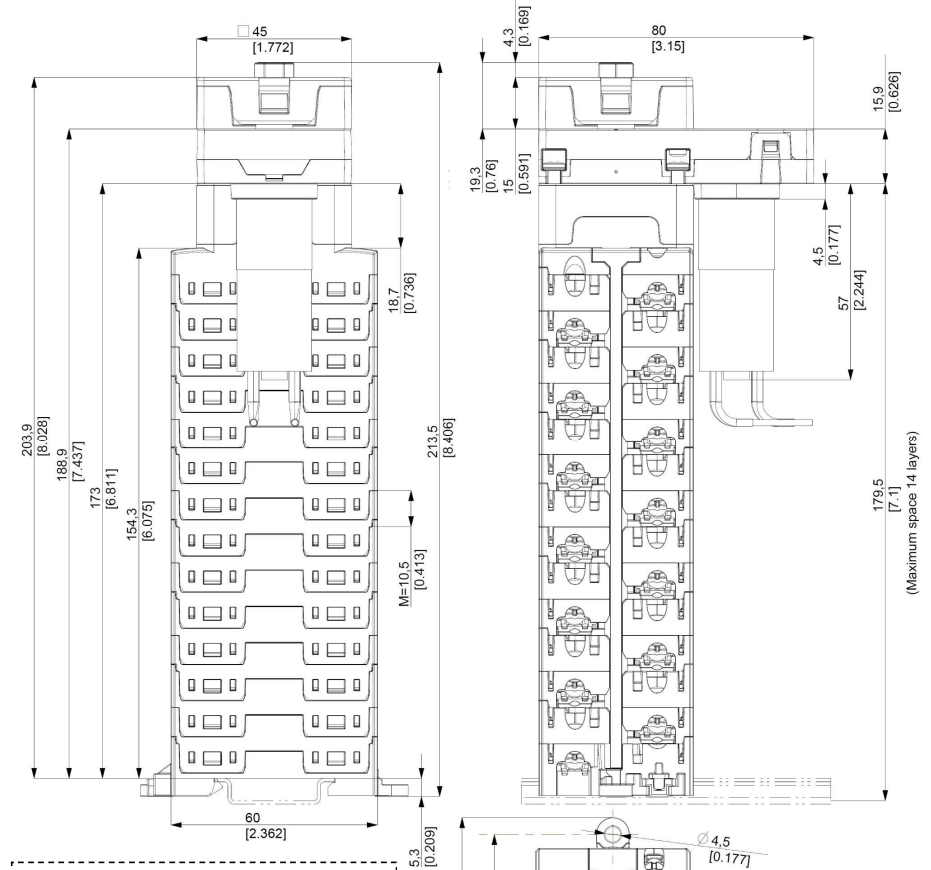
Product image



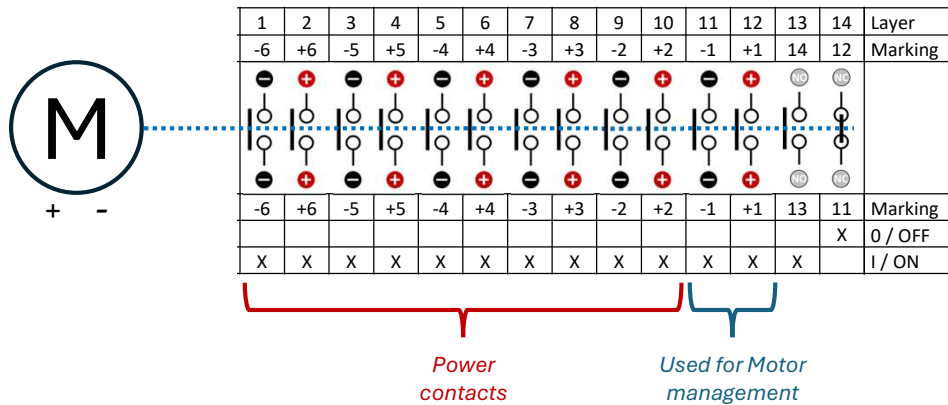
Screwdriver orientation for terminal fixing



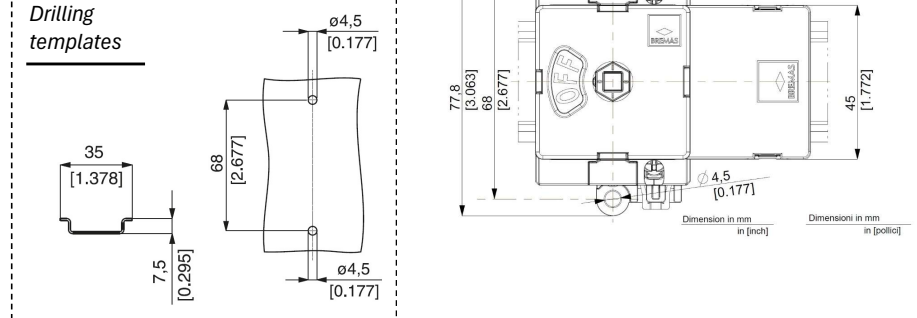
Dimensions



Electrical Diagram



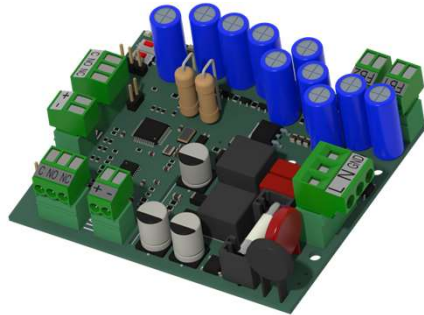
Drilling templates



## FSEB2M

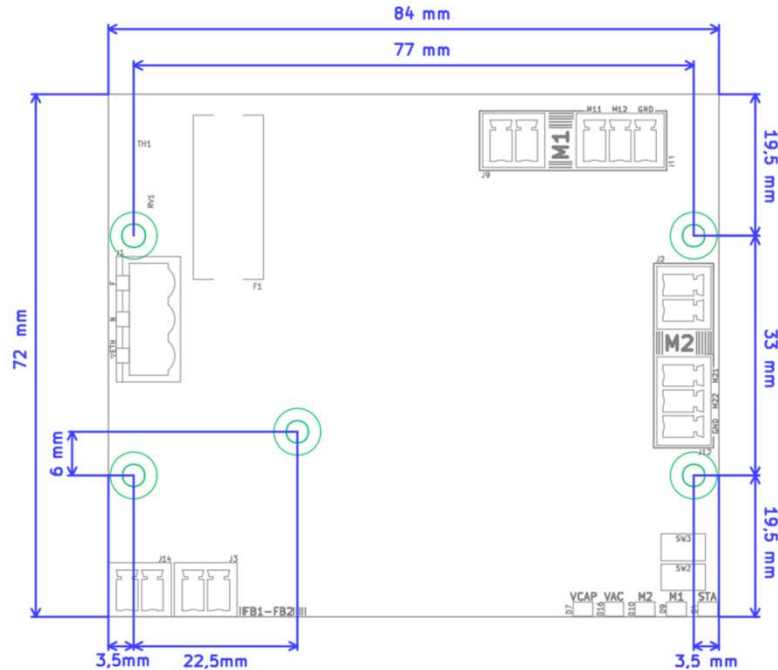
### Electronic board

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 <sup>2</sup> AWG	2 14
Cross-section of flexible/solid wires (J2-J3-J9-J11-J12-J14 terminals)	Max.	mm <sup>2</sup> 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

