KA1503002MUAEC

edition 00 : data 23/01/2025

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BETTER SWITCHES

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SOLAR GUARDIAN KIT FOR 2 INPUTS Kit for DIN rail for vertical or horizontal mounting supplied as spare parts M N FR1 00000 WIRING DIAGRAM $\widehat{}$ -+ 4 + FB1 S **DC 24V** OUT +2 OUT IN +1 OUT +1 OUT IN +2 IN IN 50/60Hz 100÷240V -1 FROM PV FROM PV TO INVERTER TO INVERTER

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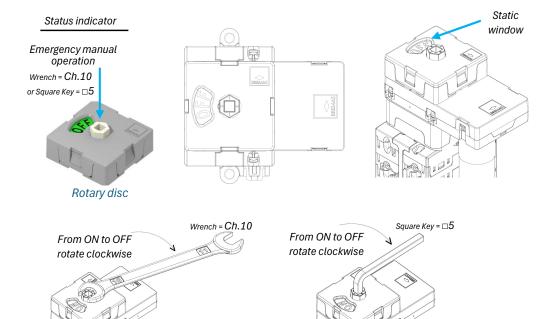
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Motor driven actuator

Motor characteristics					
Rated operational voltage	Ue	Vdc	24 ±5%		
Rated operational current	le	A	0,4		
Stall current	Max.	А	1,4		
Free-load current		Α	0,10		
Free-load speed	Max.	rpm	20 ±3		
Rated load current		Α	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			

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* Pre soldered wiring with heat-shrink sheath



DX150302MUAEDSC

DC Disconnect Switch with motor driven actuator

Disconnect switch

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	le	Α	20	8
Rated operational voltage (second rating)	Ue	V dc	1300	1300
Rated operational current (second rating)	le	Α	25	10
Rated operational voltage (third rating)	Ue	Vdc	1250	1250
Rated operational current (third rating)	le	A	30	12
Rated operational voltage (fourth rating)	Ue	Vdc	1000	1000
Rated operational current (fourth rating)	le	A	50	20
Rated operational voltage (fifth rating)	Ue	Vdc	-	800
Rated operational current (fifth rating)	le	A	-	30
Rated operational voltage (sixth rating)	Ue	Vdc		700
Rated operational current (sixth rating)	le	A		40
Rated thermal current	lth	A	50	40
DC Poles	101	Nr.	4	
Rated conditional short-circuit current		kA	5	
Rated insulation voltage	Ui	V dc	150	n
				J
Rated impulse withstand voltage	Uimp	kV	8	
Rated short-time withstand current (1 s)	lcw	Α	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.	. 6	
Terminal screws orientation			Head up	
External metal parts (screws, shaft)			Stainless steel	
	Max.	mm ²	2x 6	
Cross-section of flexible/solid wires		AWG	2x 10	
		mm ²	1x 16	
Cross-section of wires with fork lug	Max.	AWG	1x 6	
Connection cable length from PCB to motor (+/-)	Length	mm	~250	
and connection cable length of NO-NC auxiliary switches	Section	mm ² / AWG	0,5/2	
	Note		Not supplied	
	solid wire/stranded	mm ²	0,129-1,31	
FB1 and FB2 signal connection cables	wire - min. / max.	AWG	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%	
Notwoidht			430	
Netweight		g	430	
-		g	430	
Protection degree IEC 529 EN 60529		g	IP20	
Protection degree IEC 529 EN 60529 To the terminal		g		
Protection degree IEC 529 EN 60529 To the terminal Ambient conditions		g	IP2(
Protection degree IEC 529 EN 60529 To the terminal Ambient conditions Pollution degree ins.			IP2(2)
Net weight Protection degree IEC 529 EN 60529 To the terminal Ambient conditions Pollution degree ins. Operational ambient temperature Storage ambient temperature		g °C °C	IP2(-50

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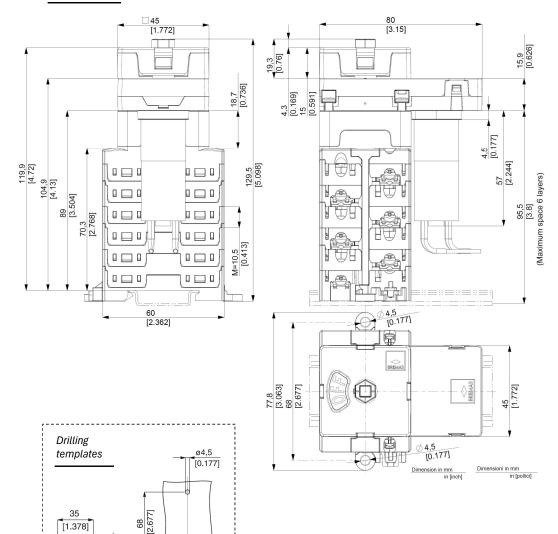
DC Disconnect Switch with motor driven actuator

Product image

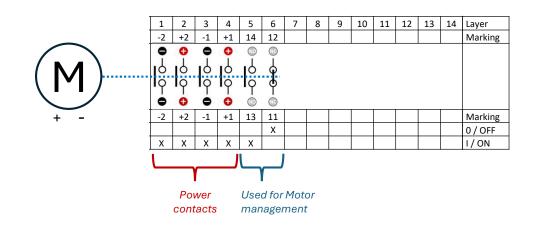




Screwdriver orientation for terminal fixing



Electrical Diagram



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7,5

ø4,5

[0.177]

Dimensions



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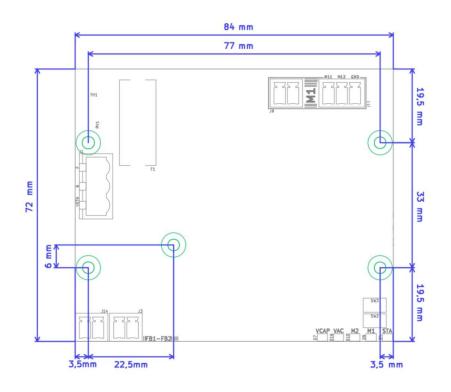
FSEB1M

Electronic board

Product image



Dimensions



Technical data

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AC supply			
Voltage range		V ac	100240
Rated operational voltage		V ac	230 ±5%
Frequency range		Hz	50/60
Rated operational current (stand-by)		mA	≅ 20
Rated operational current (peak)		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	mm²	2
Cross-section of nexible/solid wires (Friterminal)		AWG	14
Cross-section of flexible/solid wires (J2-J3-J9-J11-J12-J14 terminals)	Max.	mm ²	1,3
		AWG	16
Ambient conditions			
Operational ambient temperature		°C	-30 ÷ +50
Storage ambient temperature		°C	-30 ÷ +85
Humidity			90-100% RH at +55 °C

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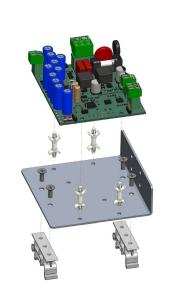
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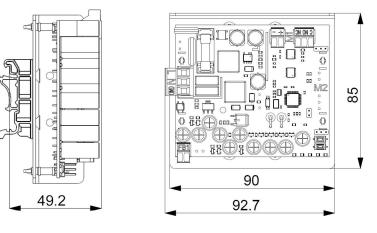


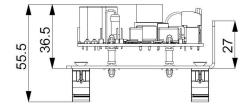
DIN support

Horizontal mounting



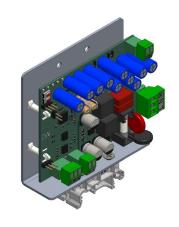


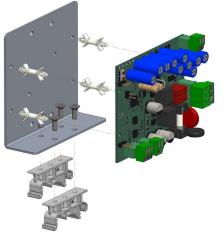




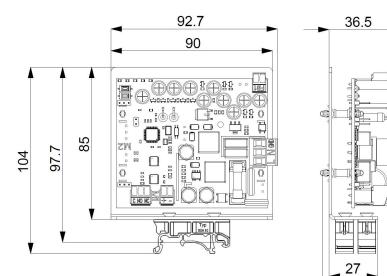
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