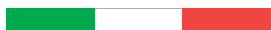


SOLAR GUARDIAN

Smart Safety and Automatic Restart for PV Systems



MADE IN ITALY



bremas.it/en



SOLAR GUARDIAN KIT

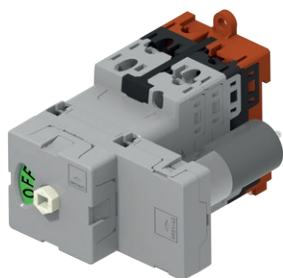
The Essential Solution for Advanced PV Systems

SOLAR GUARDIAN KIT



DISCONNECT SWITCH

From 1 to 6 couple of inputs

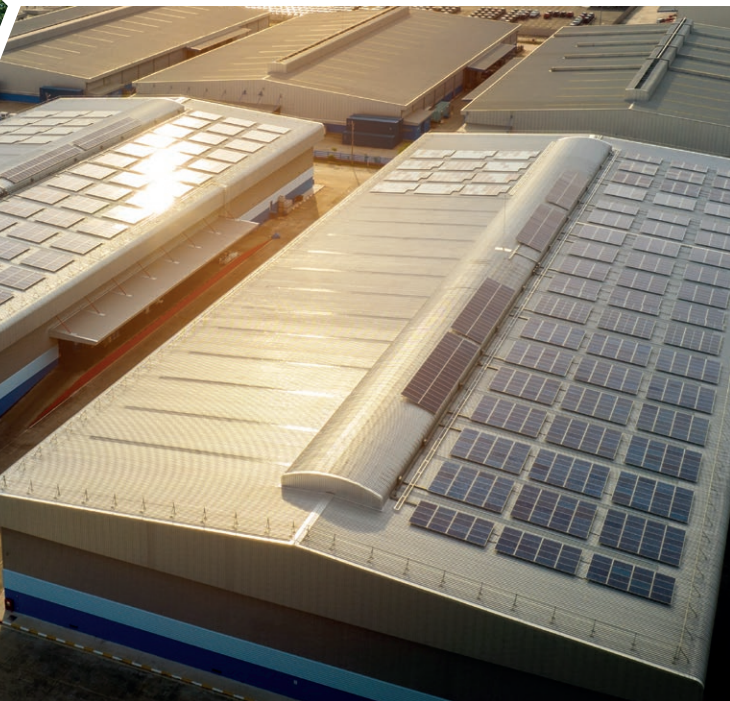


ELECTRONIC BOARD

For Fire, Safety &
Restart management



Industrial & Commercial



KA AND KB SERIES – SOLAR GUARDIAN KIT UP TO 12 INPUTS



PV inputs	PV1 cat. per input	PV1 cat. per input	Code	PV inputs	PV1 cat. per input	PV1 cat. per input	Code
1	700V - 40A	1000V - 20A	KA1002001M0AEC	1	1000V - 50A	1500V - 20A	KA1503001MUAEC
2			KA1002002M0AEC	2			KA1503002MUAEC
3			KA1002003M0AEC	3			KA1503003MUAEC
4			KA1002004M0AEC	4			KA1503004MUAEC
5			KA1002005M0AEC	5			KA1503005MUAEC
6			KA1002006M0AEC	6			KA1503006MUAEC



PV inputs	PV1 cat. per input	PV1 cat. per input	Code	PV inputs	PV1 cat. per input	PV1 cat. per input	Code
8	700V - 40A	1000V - 20A	KB1002008M0AEC	8	1000V - 50A	1500V - 20A	KB1503008MUAEC
10			KB1002010M0AEC	10			KB1503010MUAEC
12			KB1002012M0AEC	12			KB1503012MUAEC

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

■ We are available for additional custom configurations. Feel free to reach out to discuss your specific needs.



■ Technical specifications



DISCONNECTION MODES



AUTOMATIC DISCONNECTION AND RECONNECTION

Automatic OFF: The DC lines disconnect automatically if the AC line is interrupted for more than 3 seconds.

Automatic ON: The DC lines reconnect automatically once the AC line is restored and stable for at least 5 seconds.



MAINTAINED AUTOMATIC DISCONNECTION

Automatic OFF: DC lines disconnect and remain inactive after a manual remote command.

Automatic ON: DC lines reconnect when the manual command is released, after verifying AC line status.



AUTOMATIC DISCONNECTION FOR OVERTEMPERATURE

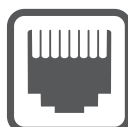
Automatic OFF: DC lines disconnect if the cabinet temperature exceeds 100°C.

ADDITIONAL FUNCTIONS



STATUS SIGNALING

The electronic board uses relay contacts to indicate the disconnect switch's status, enabling remote visual indicators (e.g., near the manual safety switch).



RJ-45

CABLE-ENABLED CONTROL

Easily monitor and manage your photovoltaic system with integrated Ethernet connectivity for stable and reliable remote access.



4G CONNECTIVITY

Ensure reliable monitoring and management of your photovoltaic system with 4G connectivity, offering seamless access even in remote locations.

■ Technical data IEC EN 60947-3

Technical data IEC EN 60947-3			SOLAR GUARDIAN				SOLAR GUARDIAN KIT			
			FB10020		FB15030		KA/KB10020		KA/KB15030	
Rated insulation voltage	Ui	V	1500							
Rated impulse withstand voltage	Uimp	kV	8							
Rated thermal current	Ith	A	50							
Power loss per layer at 20 A / 50 A		W	0,2 / 1,25							
DC inputs										
Utilization category			PV1	PV2	PV1	PV2	PV1	PV2	PV1	PV2
Rated operational current at 1500 V	Ie	A	-	-	20	8	-	-	20	8
Rated operational current at 1300 V	Ie	A	-	-	25	10	-	-	25	10
Rated operational current at 1250 V	Ie	A	-	-	30	12	-	-	30	12
Rated operational current at 1100 V	Ie	A	12	5	-	-	12	5	-	-
Rated operational current at 1000 V	Ie	A	20	10	50	20	20	10	50	20
Rated operational current at 800 V	Ie	A	-	-	-	30	-	-	-	30
Rated operational current at 750 V	Ie	A	32	18	-	-	32	18	-	-
Rated operational current at 700 V	Ie	A	40	20	-	40	40	20	-	40
Rated operational current at 600 V	Ie	A	-	-	-	-	-	-	-	-
Rated operational current at 500 V	Ie	A	50	-	-	-	50	-	-	-
Short circuit protection										
Rated conditional short-circuit current		kA	5							
Max fuse size for short circuit protection	gPV	A	50							
Rated short-time withstand current (1 s)	Icw	A	780							
Rated short-circuit making capacity	Icm	kA	1,4							
Terminals										
Cross-section of flexible/solid wires	Max.	mm2	-				2 x 6			
		AWG	-				2 x 10			
Cross-section of wires with fork lug	Max.	mm2	-				1 x 16			
		AWG	-				1 x 6			
Connection type			MC4 plug-in connectors				Screws M4 - PH2			
Screw tightening torque	Nm		-				1,7 ±10%			
	lb.in		-				12 ±10%			
Protection degree IEC EN 61439-2										
Solution in box			IP56				-			
Protection degree IEC 529 EN 60529										
To the terminals			-				IP20			
Ambient conditions										
Pollution degree			2							
Operational ambient temperature		°C	-30 ÷ +50				-30 ÷ +85			
Storage ambient temperature			-30 ÷ +85							
Damp heat test IEC 60068-2-30			90-100% RH at +55 °C							

■ Motor characteristics

Rated operational voltage	Ue	Vdc	-	24 ±5%
Rated operational current	Ie	A	-	0,3
Terminal type			-	Solder
Protection degree to the terminals			-	IP00



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