



SolarEdge

Monitoring Combiner Box with GFDI



Ensure field operation with maximum safety

- Fuse per input (replaceable)
- Web-based string performance monitoring
- Per string ground fault detection and automatic isolation
- Automatic self-testing of main components
- Communication to monitoring web server via Zigbee, RS485 or Ethernet
- Remote control of cabinets from web server
- UL certified outdoor string combiner box
- IP65 - Outdoor installation



architects of energy™



Monitoring Combiner Box with GFDI

MCB16
MCB36
MCB64

The SolarEdge Monitoring Combiner Box with GFDI allows you to enjoy a high level of system performance monitoring and exceptional system safety. The box comes in three sizes, for up to 16, 36 or to 64 strings.

The box detects string leakage and isolates the faulty string, ensuring other strings are not affected, and immediately provides

on-site and web indication as well as email fault notification. Additionally the detection and isolation components are continuously monitored and an alert is sent in case of a fault, promising an uninterrupted detection system.

The box includes built in fuses that exceed the European string fusing requirements.

TECHNICAL DATA

	MCB16	MCB36	MCB64	
ELECTRICAL SPECIFICATIONS				
Maximum Number of inputs	16	36	64	
Maximum Input Voltage	1000			Vdc
Maximum Input Current (Per String)	11.5			Adc
Fuse Rating Per Input	15			A
Maximum Output Current	192 (1 output)	432 (2 outputs)	768 (2 outputs)	Adc
AC Voltage Rating	90 - 240, compatible with all European AC voltage conditions			Vac
AC Frequency (Nominal)	50 / 60			Hz
Power Consumption	< 50	< 120	< 200	W
GROUND FAULT DETECTION AND ISOLATION				
Threshold Range (Programmable)	50 - 400			mA
Detection Resolution	± 10			mA
Time From Leakage Detection to String Isolation	< 750			msec
MONITORING AND FAULT DETECTION CAPABILITIES				
Instantaneous String Current	Yes, ± 5% accuracy			A
Output Voltage	Yes, ± 5% accuracy			V
Continuous String Charge	Yes, ± 5% accuracy			Wh
Ground Leakage Detection and Isolation	Optional			
Leakage Sensor and String Circuit Breaker Monitoring	Optional			
Combiner Box-Web Communications (Data and Control)	Yes			
Web Portal, Email Notification and Logging in Case of Leakage, Sensor Fault and Breaker Fault	Optional			
Graphic User Interface for Configuration, Monitoring and Control	Yes, on-site via technician laptop			
ADDITIONAL FEATURES				
Display	LCD and LED for full status review			
On-site Master Shutdown	Yes			
Input Lightning Protection (Per String)	Yes - 1000 Vdc / 8kA - 8/20 µs			
Output Lightning Protection (Per Cabinet)	Yes - 1000 Vdc / 20kA - 8/20 µs			
Supported Communication Interfaces	RS485, RS232, Ethernet, ZigBee (optional)			
STANDARD COMPLIANCE				
Electromagnetic Compatibility	EN61000-6-2, EN61000-6-3, EN61000-3-11, EN61000-3-12			
Safety	IEC62109			
INSTALLATION SPECIFICATIONS				
Dimensions (HxWxD)	1067x305x914	1067x305x914	1524x305x914	mm
Weight	70	105	170	kg
Operating Temperature Range	-20 - +60			°C
Protection Rating	IP65			
Relative Humidity	0 - 100			%
Wiring Temperature Rating	75			°C
Input Wiring Gauge	2.08 - 8.37	2.08 - 8.37	2.08 - 5.26	mm ²
Output Wiring Gauge	53.5 - 175	53.5 - 250		mm ²
Material	14 gauge steel with polyester powder paint			
Storage Temperature Range	-20 - +60			°C
Storage Humidity Range	0 - 95			%

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