

STRING BOX

Intelligent string box

- Parallel connection of (up to) 16 strings by 9A each (8 channels)
- Local and remote indication of status and alarm conditions
- RS232 and RS485 connections
- One slot connection for expanding communication (e.g. Ethernet board)
- Proprietary communication protocol and MODBUS RTU, both available on all the communication ports, no configuration necessary, hot-swap
- Wide configurability of the monitoring parameters using the available software
- Local history log of alarms and status
- Protection fuses for each input, 1000Vdc on positive and negative
- For each input is possible to connect wires up to 16mm²
- Output switch, with optional release coil, used for inverter detachment
- Monitored discharger, used against over-voltage situations, protected against over-currents, easy to restore thanks to removable cartridges
- Direct input power from PV field or from auxiliary
- Insulated digital inputs for local monitoring
- Insulated analog inputs for environmental sensors (2xPT100, 0-10V, 4-20mA)
- Configurable digital outputs with free contacts
- IP65 protection degree for external environment

General Specifications

PRODUCT CODE:

6QPSC002B

The parallel string box monitors the currents in photovoltaic modules and can promptly diagnose faults. The device is made of UV-resistant polyester resin and offers IP65 degree of protection. It has a general circuit breaker, type ABB T1D 160PV, to disconnect the photovoltaic field from the inverter and up to 16 strings (with a maximum input current per string of 9A) can be connected. Since it is compatible with the SunVision monitoring software, signals and alarms are sent in the event of current faults according to the thresholds set at configuration. Communication solutions include an RS485 port (supplied as standard), an optional slot for a NetMan Plus PV Ethernet card and analog inputs for the connection of environmental sensors (temperature, radiation and wind).

Reliable Power

Technical Specifications

MODELS	String Box
GENERAL	
Max input current	16 x 9A
Max output current	144A
Max voltage	880Vdc
Input screw	16+16 screw terminals
Output screw	2 bus bar
Protection level	IP65
Operating temperature	-20°C ÷ 45°C
Insulation	2500Vac between power and control
PROTECTION	
Overvoltage discharger	type 2, 1000V max., 40KA (total 8/20µs), 12.5KA (nominal 8/20µs), 25KA (max. 8/20µs), configuration with three varistors, auto protected with fuse, monitored
General output switch	4x160A (ABB T1D 160 PV)
String fuse	12A 900Vdc 10x38
Auxiliary power fuse	4A 500Vac 10x38
OUTPUT RELAYS	
No. of relays	2
Contact	di scambio libero da potenziale, max. 2A, max. 220Vdc / 250Vac, max. 60W /62.5VA resistance < 35 mΩ
Insulation	1000Vac
COMMUNITACION	
Standard	1 x RS232 (DB9 female), 1 x RS485 (RJ45 + terminals), expansion communication slot
Speed	9600bps
Insulation	2500Vac x 1 min. (232 and 485), Slot non-isolated
Addressing	from 1 to 127 String Box through micro interruptor Dip-Switch
MECHANICAL DATA	
Dimensions (WxDxH)	590x260x700mm
Weight	25Kg
LV Directive 2006/95EC; EMC Directive 2004/108/EC	

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