FIMER

Monitoring and Communications
PVI-STRINGCOMB

The String Combiner “PVI-STRINGCOMB”, ideal for commercial and utility-grade inverters, ensures the same monitoring accuracy of the PV generator typically achieved with string inverters.

This box can combine up to 10 channels of individual or paired string currents that can be accurately monitored via hall effect sensors.

The system supervisor enables prompt detection of the faulty strings. Any issue on the line is detected promptly and signaled to the managing inverter.

With PVI-STRINGCOMB, the connected strings are protected and controlled

All string combiner boxes include surge protection with removable elements as well as fuse protection for each couple of string channels.
It is available with a fully-integrated DC switch (optional on -S version), fuse and remote controlled DC disconnect function.

It has an integrated DC disconnection switch (-S version) with triggering current or minimum voltage release coil.

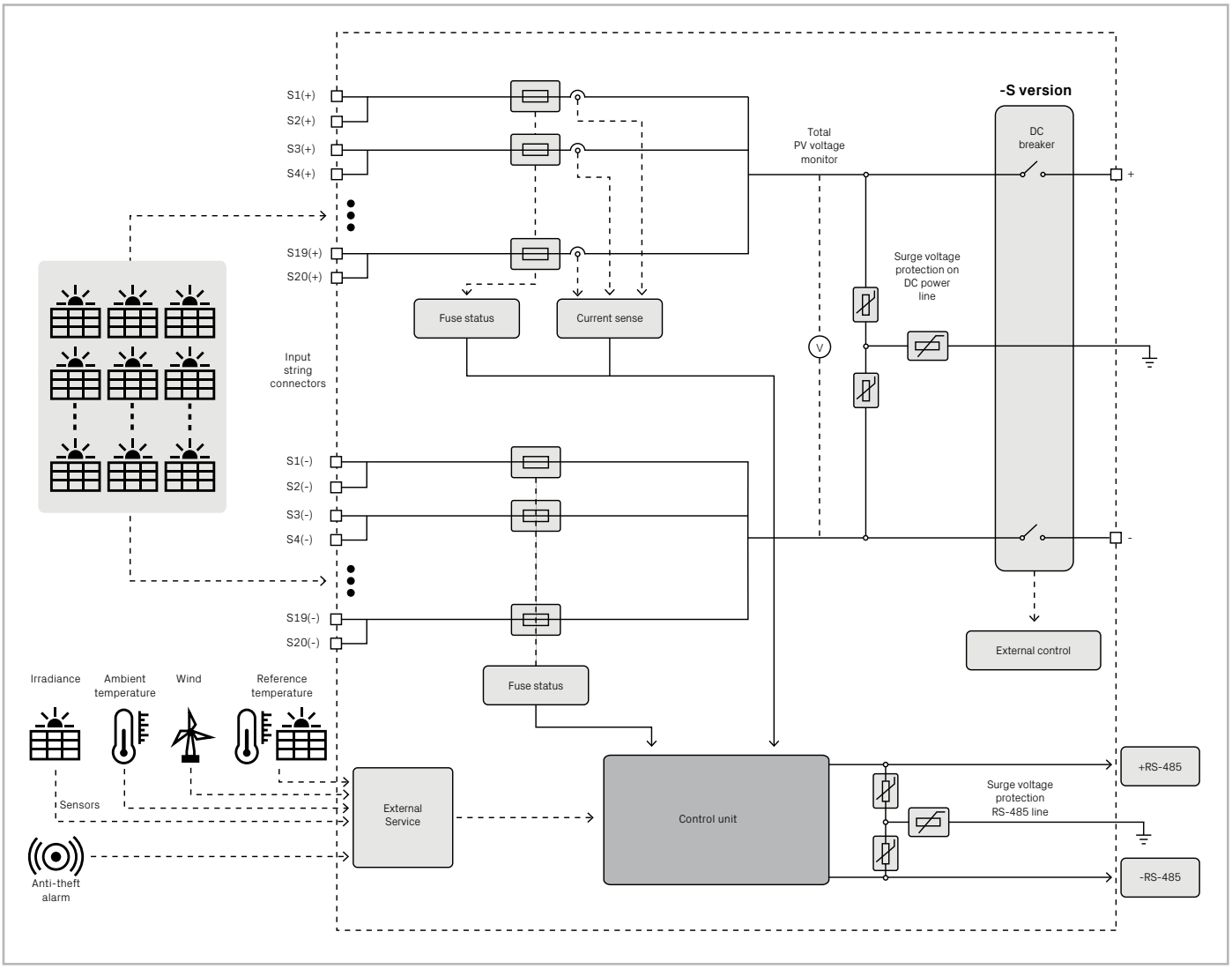
Highlights

- Up to 20 strings can be directly connected
- The cartridge fuse on each input provides over-current protection
- 10 Hall-Effect current sensors for fast, precise monitoring and fault diagnostic
- Environmental protection rating of IP65
- RS-485 serial bus for communication with FIMER's PLUS and ULTRA inverter families

Additional highlights

- It includes four analogue inputs for external sensors, one built-in cordtype anti-theft device, two digital inputs
- Available fuses: 12A, 16A, 20A, 25A
- Built-in power supply for ambient sensors
- Auxiliary input for external source ("night mode")
- Overvoltage protection on DC power line and RS-485 communication line by means of overvoltage surge arresters

PVI-STRINGCOMB block diagram



Technical data and types

Type code	PVI-STRINGCOMB (125A)
Input side	
DC input string voltage range	250...1000 V
Absolute maximum DC input string voltage	1000 V
Maximum DC current for each measurement channel	20 A
Measurement channels	10
DC connection for each measurement channel	2
Maximum number of DC connection	20
Number of input DC connections for each fuse	2
ing cable cross section	6 mm² max.
Type of input DC connection	Multicontact MC4 connectors or PG cable gland
Output side	
Maximum output current	125 A (100A between 40° and 55°C)
Output cable connection [1)]	1 x M10 (copper or aluminium cable with M10 terminal)
Ground cable connection [1)]	1 x M8
Output DC switch rating [1)]	160 A / 1000 V (opt.)
Communication	
User interface	1 x RS-485
Features	
Anti-theft alarm	Yes
Anemometer sensor monitoring (opt.)	Yes
Temperature sensor monitoring (opt.)	Yes
Reference PV cell monitoring (opt.)	Yes
Data monitoring	
String currents	Yes
String fuse status	Yes
Ambient parameters	Yes
Overvoltage status	Yes

Technical data and types

Type code	PVI-STRINGCOMB (125A)
Environmental parameters	
Ambient temperature range	-25...+ 55°C/-13...131°F
Relative humidity	0...100% condensing
Maximum operating altitude without derating	1000 m / 3280 ft
Environmental protection rating	IP65
Cooling	Natural
Enclosure [1]	Fiberglass
Dimension (H x W x D)	559mm x 757mm x 250mm / 22.0" x 29.8" x 9.8"
Weight	< 23 kg / 50.7 lb
Warranty	5 years standard 10/15/20 optional
Compliance	
Marking	CE
Safety and EMC standard	EN 50178, EN61000-6-2, EN61000-6-4
Available products variants	
With input PG cable gland	PVI-STRINGCOMB
With multicontact MC4 connectors	PVI-STRINGCOMB-MC
With input PG cable gland and Output Disconnector	PVI-STRINGCOMB-S
With multicontact MC4 connectors and Output Disconnector	PVI-STRINGCOMB-S-MC

[1] For the available options refer to the configuration module

Remark. Features not specifically listed in the present data sheet are not included in the product

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