

PVI-STRINGCOMB

GENERAL SPECIFICATIONS

PVI-STRINGCOMB

The Aurora PVI-STRINGCOMB string combiner box is an ideal complement to the Aurora commercial and utility grade inverter that ensures the same monitoring accuracy of the PV generator typically achieved with string inverters.

Up to 10 channels of individual or paired string currents can be accurately monitored via hall effect sensors, and any issue detected promptly signaled to the managing inverter and the system supervisor to allow prompt detection of the faulty strings.

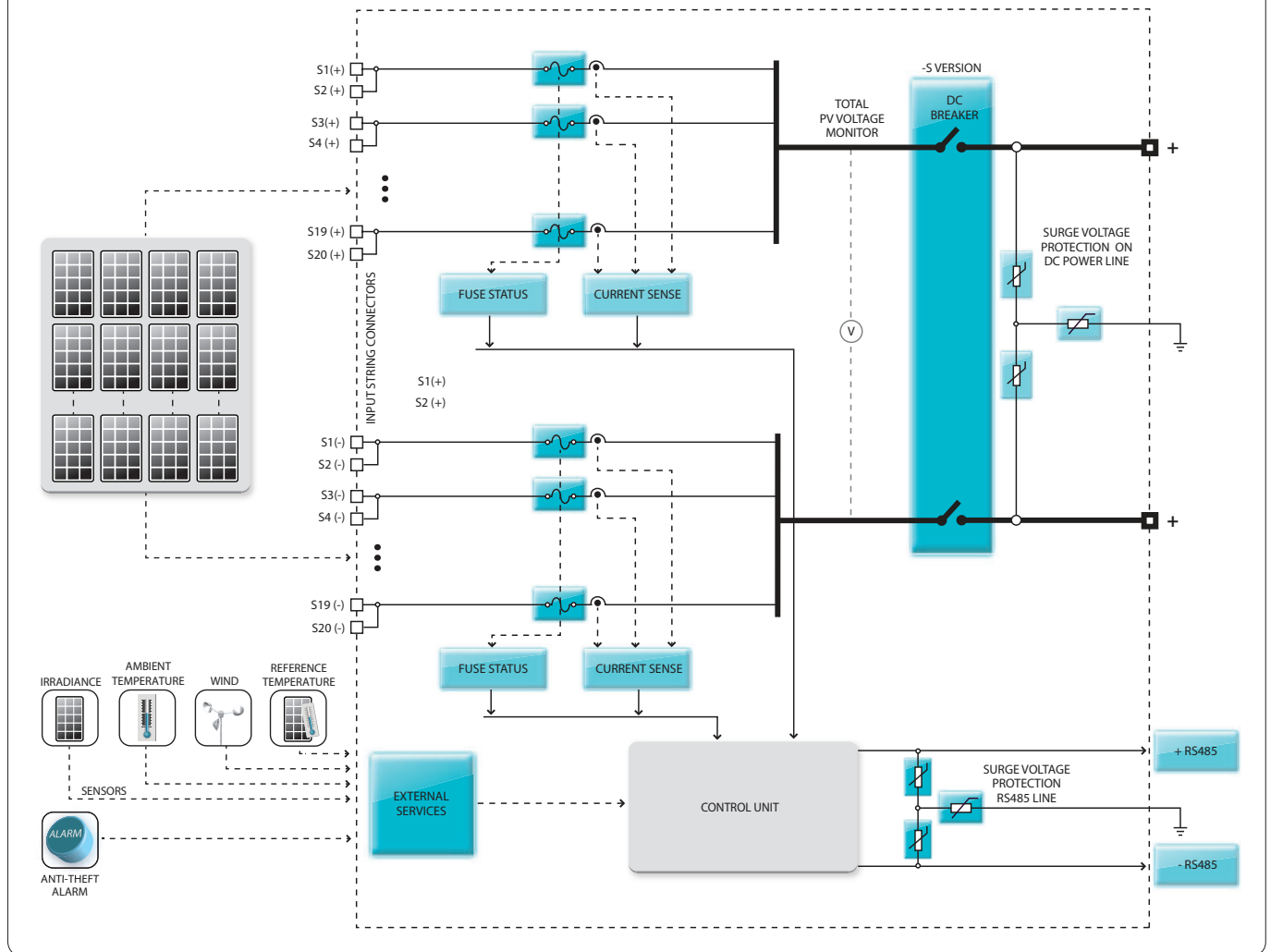
All string combiner boxes include surge protection with removable elements as well as fuse protection for each couple of string channels. It is available with a fully-integrated DC switch (optional on -S version), fuse and remote controlled DC disconnect function.



Features

- Up to 20 strings directly connectable
- Cartridge fuse on each input for over current protection
- 10 Hall-effect current sensors for fast and precise monitoring and fault diagnostic
- Integrated DC disconnection switch (-US and -S version)
- Rugged watertight powder-coated aluminum enclosure
- RS485 serial bus for communication with the central inverter
- 4 analog inputs for ambient sensors: temperature, irradiance, wind speed, anti-theft
- Available fuse size: 10A, 12A, 16A, 20A
- Internal auxiliary power supply and additional output for external auxiliary (-S Version)
- Overvoltage protection on DC power line and signals via replaceable varistors (-S Version)

BLOCK DIAGRAM OF STRINGCOMB



Block Diagram

PARAMETER	AURORA® STRINGCOMB	AURORA® STRINGCOMB-S
Input Side		
DC Input String Voltage Range	250 ÷ 850 V	250 ÷ 850 V
Absolute Maximum DC Input String Voltage	1000 V	1000 V
Maximum DC Current for Each Measurement Channel	20.0 A	20.0 A
Measurement Channels	10	10
Strings for Each Measurement Channel	2	2
Maximum Number of Input Strings	20	20
Number of Input String for Each Fuse	2	2
String Cable Cross Section	6 mm² max.	6 mm² max.
Output Side		
Maximum Output Current	160.0 A	125.0 A
Output Cable Connection	1 x M10 (200 mm² max.)	1 x M10 (200 mm² max.)
Ground Connection Cable	1 x M8 (350 mm² max.)	1 x M8 (350 mm² max.)
Output DC Switch Rating	Not available	125 A / 1,000 V
Communication		
User Interface	1 x RS485	1 x RS485
Features		
Anti-theft Alarm (opt.)	Yes	Yes
Anemometer Sensor Monitoring (opt.)	Yes	Yes
Temperature Sensor Monitoring (opt.)	Yes	Yes
Reference PV Cell Monitoring (opt.)	Yes	Yes
Data Monitoring		
String Currents	Yes	Yes
String Fuse Status	Yes	Yes
Ambient Parameters	Yes	Yes
Overvoltage status	Yes	Yes
Environmental Parameters		
Ambient Temperature Range	-25...+55°C / -13...131°F	-25...+55°C / -13...131°F
Relative Humidity	0...100 % condensing	0...100 % condensing
Maximum Operating Altitude without Derating	1000m / 3280 ft	1000m / 3280 ft
Environmental Protection Rating	IP 65	IP 65
Cooling	Natural	Natural
Enclosure	Aluminum Powder-Coated	Aluminum Powder-Coated
Dimension (H x W x D)	559mm x 757mm x 250mm / 22.0" x 29.8" x 9.8"	559mm x 757mm x 250mm / 22.0" x 29.8" x 9.8"
Weight	< 23 kg / 50.7 lb	< 25 kg / 55.1 lb
Warranty	5year standard 10/15/20 optional	5year standard 10/15/20 optional
Safety		
Marking	CE	CE
Safety and EMC Standard	EN 50178, EN 61000-6-2, EN 61000-6-4	EN 50178, EN 61000-6-2, EN 61000-6-4
Available Products Variants		
10 A x 20 input strings or 20 A x 10 input strings	PVI-STRINGCOMB	Not available
10 A x 20 input strings or 20 A x 10 input strings with DC switch	Not available	PVI-STRINGCOMB-S



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