



Smart terminal box with guaranteed durability and featuring the innovative RealProtect protection concept

Advantages at a glance

- | Smart string monitoring
- | Innovative protection concept

In the Conergy SmartConnect, individual module strings are bundled and safely routed to the Conergy IPG central inverter. Conergy SmartConnect is a combination of an exact, well-organised string monitoring system and a safety concept adapted to the PV technology.

Novel string monitoring system

Conergy SmartConnect monitors the output of up to eight individual inputs. The yields of all individual module strings are stored centrally by the new Conergy SmartControl analysis and control system and correlated to stored setpoints. If difference between string outputs is too large, the operator is informed. Active disconnection allows string voltages to be measured separately.

Innovative protection concept

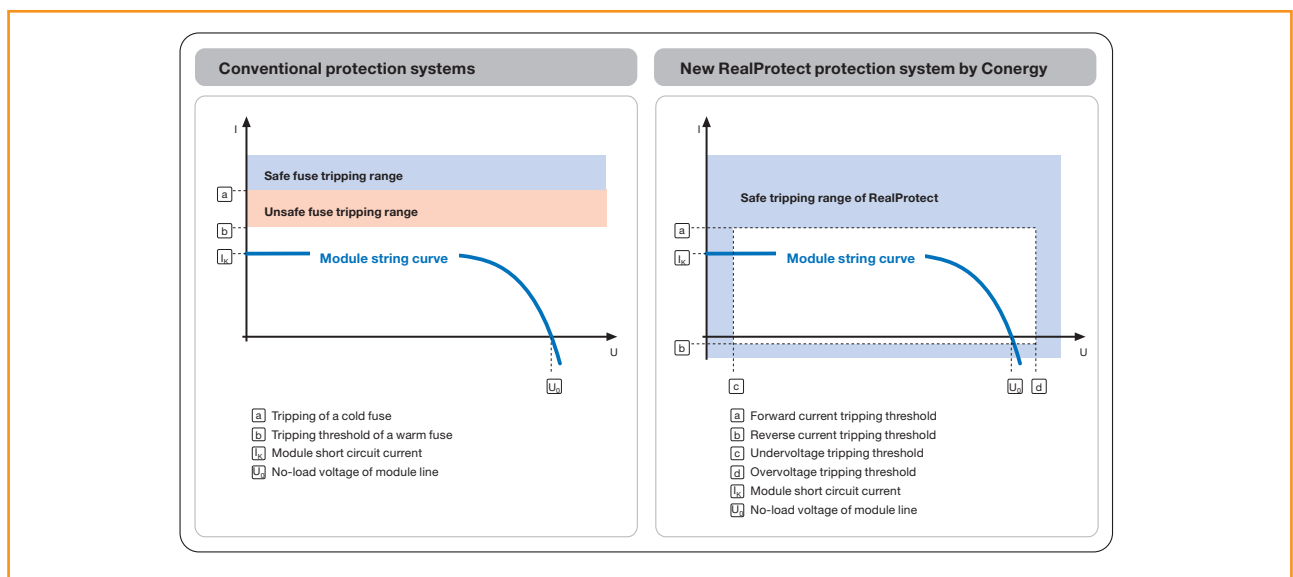
The innovative RealProtect protection concept by Conergy replaces conventional fuses. This ensures all-round protection for modules and the photovoltaic system as a whole. In comparison with conventional string fuses, RealProtect offers the following advantages:



- | Fixed tripping threshold
- | Current and voltage dependent disconnection
- | Remote disconnection and reconnection
- | Different tripping characteristics for forward and reverse current
- | No ageing of fuses
- | Surge voltage protection

Durability guaranteed

Conergy SmartConnect is enclosed in an IP 65 rated stainless steel housing, making it ideal for long-term use in PV systems. In addition, the direct connection between the strings and the spring clamp connectors ensures a durable and safe installation.



Advantage of the innovative RealProtect protection concept by Conergy

**Input data**

Input string terminal	Max. 6 mm ²
String connections	8 (max. 10 module lines in parallel per line connection)
Measuring channels	8
Input current	Max. 20 A
Input voltage	Max. 965 V

Disconnection function

Manual	on site or remote controllable
Automatic	RealProtect
	RealProtect protection range: Forward current > 20 A, reverse current < -1 A Undervoltage < 300 V, overvoltage > 1000 V

Output data

Output terminal	Max. 150 mm ²
Ground terminal	Max. 35 mm ²
Main line connections	2
Output current	Max. 160 A
Current carrying capacity of the main terminals	Max. 250 A

General data

Width / height / depth	610 x 540 x 185 mm
Communication	Voltage-free fault alarm contact Optional: CAN-Bus communication with Conergy SmartControl
Weight	24 kg
Protection type	IP 65
Ambient temperature	-20 to +45 °C
Surge voltage protection	Yes

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