

PROTECT PV.OD

COMPACT OUTDOOR UNITS FOR PV POWER STATIONS



The Protect PV solar inverter product line, designed by AEG Power Solutions, offers professional solutions for utility-scale applications on ground area installations.

The Protect PV.Outdoor System consist of a durable, external, weatherproof metal housing and an integrated, high-efficiency, solar central inverter, either the PV.690 or the PV.880.

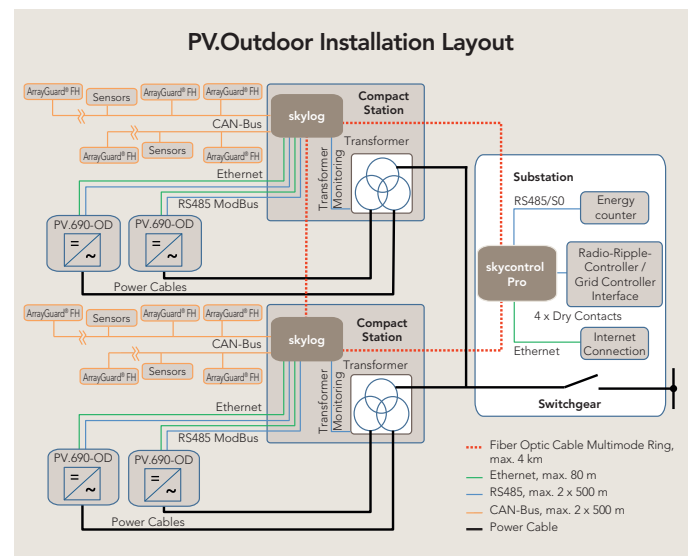
The design offers many advantages during transport, installation, and service thanks to its light weight and its small dimensions.

The PV.Outdoor offers ease of use and maintenance as is standard for all AEG products. In addition, AEG Power Solutions has developed a unique cooling system that provides optimal air circulation within the inverter. The enclosure consists of double-walled aluminum with a stainless steel plinth for mounting onto a concrete foundation. Additional components, such as transformers and medium-voltage switchgear, are part of the separate Compact Station, which can combine the output from two PV.Outdoor systems.

Ethernet and fiber optic communication channels connected to the skylog via open standards such as ModBus or Ethernet form the foundation for communications in PV power plants using AEG PS solar central inverters.

A powerful and proven online communications platform allows owners and operators to view the current and historical system status instantaneously.

With over 60 years of experience in power supply systems and solutions for power plants, AEG Power Solutions offers a comprehensive range of services aimed at securing maximum yields for your PV power installation. These services include contractual solutions with service guarantees and high inverter availability.



PROTECT PV

TECHNICAL DATA

	Protect PV.690-OD	Protect PV.880-OD
DC INPUT		
Recom. PV power ^{*1}	630 - 890 kWp	800 - 1150 kWp
DC voltage window	465 - 1000 V	486 - 1000 V
Max. DC voltage	1000 V	
Extended U _{MPPT} voltage range	465 - 820 V	486 - 820 V
U _{MPPT} voltage range @ 50 °C (EN 50530)	550 - 820 V	573 - 820 V
Max. DC current	1170 A	1440 A
Quantity DC inputs	1 MCCB	
Quantity DC fuses	up to 8 pcs. (pos & neg)	
Overvoltage protection	Grade 2	
AC OUTPUT		
Nom. AC power at cos φ = 1 (@ 50 °C)	630 kVA	800 kVA
Nom. AC power at cos φ = 1 (@ 25 °C)	690 kVA	880 kVA
Power factor, adjustable	lag 0.9 – 1 – lead 0.9	
Output voltage without transformer	345 V	360 V
Max. AC current	1159 A	1411 A
MV-connection ^{*2}	10, 20 kV and others as required	
Mains frequency	50/60 Hz	
Current distortion	< 3%	
Overvoltage protection	Grade 2	
DEVICE DATA		
Efficiency ^{*3} (Max. / Euro / CEC)	98.4% / 98.2% / 98.2%	98.9% / 98.6% / 98.7%
External power supply	TN-S, 230 V 50/60 Hz	
Operating temperature	-20 °C to +50 °C	
Relative humidity	15 ... 95% max, non condensing	
Protection grade, EN 60529	IP 54	
Altitude above sea level	1,500 m (3000 m max 40 °C)	
Dimensions (W x H x D)	2200 x 2250 x 900 mm	
Weight	approx. 1650 kg	approx. 1850 kg
Consumption of auxiliaries during night	100 W	
Method of cooling	Air	
Range of application	Outdoor	
Required air flow	4000 m ³ /h	
Equipment color	RAL 7035	
CE Certificate	Yes	
Grid monitoring	according to FNN (VDN, BDEW) and corresponding to local requirements	
ALARMS & MONITORING		
Earth fault monitoring	Yes	
Overvoltage protection	Yes	
Contact and breaker position	Yes	
Emergency power off	Yes	
Failure indicators (acoustic/optical)	3 status LED, detailed history	
COMMUNICATIONS		
Display	240 x 64 graphical LC Display and 4 display keys	
Hardware	RS 485, RS 232, CAN BUS, Ethernet Freely programmable opto coupler inputs and dry contacts	
Telecom line	ISDN, GSM, GPRS, DSL	
Software/Protocol	Modbus, Profibus DP, Web portal, CANopen CiA 437	
Overvoltage protection	Option	
OPTIONS		
MV transformer	in separate compact stations	
MV switchgear	in separate compact stations	
Zone monitoring	No	Yes
String monitoring	Yes	
PV plant control	Yes	

*1: Depending on local environmental conditions - *2: External transformer necessary

*3: Without transformer (LV/MV) - Technical data is preliminary and subject to change without prior notice.

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For further information
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