Conergy IPG 300K

Excellent effi ciency factor
Because it has no low-voltage transformer, uses the newest IGBTs (Insulated Gate Bipolar Transistors) with a trench gate structure, and contains iron powder chokes, the Conergy IPG 300K is able to achieve an above-average European efficiency factor of 98.2 %. The inverter feeds directly into an external medium-voltage transformer which ensures the galvanic insulation of the modules from the public grid. The Conergy IPG 300K also produces high yields thanks to the particularly quick and precise MPP tracking.

High availability factor
The design of the technical parameters has been optimised with regard to the operating time of the inverter. For example, the IGBTs not only increase the effi ciency factor, but their high dielectric strength inhibits the transmission of voltage spikes. The intelligent minimum-performance recognition system protects the AC contactors and a fast over-current recognition system for all transistors protects the IGBTs.

Ease of installation
The Conergy IPG series inverters are only 180 cm high. This allows easy transport through any door and mounting in every type of compact concrete substation. As well as this, the footprint of the inverters has been kept very small. The central inverters do not need to be adjusted after installation.

- Transformerless technology enables a European effi ciency factor of 98.2 %
- Maximisation of yield due to rapid Maximum Power Point Tracking with > 99 % precision
- High availability thanks to quality components

Conergy IPG 300K

	Conergy IPG 300K
Recommended solar generator connected load (STC)	300 kWp
Output power	270 kW
Maximum AC power	270 kW
Maximum effi ciency factor	98,8 %
European effi ciency factor	98,2 %
Input voltage range	V_{Pmin} = 530 V_{DC} bis V_{OCmax} = 965 V_{DC}
MPP range at DC rated output	530 – 780 V_{DC}
Input current	566 A_{DC}
Output voltage range	126–179 VAC (standard setup) adjustable for other country standards
Mains frequency range	50 Hz / 60 Hz (+1 Hz / –2,5 Hz)
Required grid format	IT grid
Stand-by performance / nighttime performance	55 W
Output current distortion	< 3 %
AC outputs	L1, L2, L3, N and PE , each with 2 connection bolts M12
DC inputs	4 / connection bolts M12
Automatic turn-on	When suffi cient solar generator power is available
Resetting time after AC deactivation	When suffi cient solar generator power is available
Overload behaviour	Performance limiting
DC voltage ripple	2 %
Operating mode	Maximum Power Point Tracking (> 99 % accuracy)
Ground fault monitoring	Yes
Reverse polarity protection	Short circuit diodes on the PV side
Overvoltage protection	High performance varistors
Performance factor Cos Phi	> = 0.99 at rated power
Auxiliary supply	230 V / 50 Hz / max. 700 W / terminals 1.5–2.5 mm²
Recommended series fuse for auxiliary supply	10 A
Ambient temperature range	–20 °C up to +40 °C
Relative humidity	95 % non-condensing
Housing colour	Conergy Brand Blue
Protection type / protection class	IP 20 / I
Fan flow	3,230 m^3 / h
Weight	1,540 kg
Dimensions (W × H × D)	2,010 mm × 1,800 mm × 800 mm
Approval	CE, GS
Transformer specifi cations	Medium voltage according to public utility company specifi cations; low voltage 270 V eff.; nominal capacity 270 kVA; vector group Dyn5; short-circuit voltage <= 6 %; if there are several Conergy IPG 300K, a low-voltage winding is required for each device

Erhältlich bei: