



The central inverters (3-phase) of the Conergy IPG series are packed with innovative, cutting-edge technology. Their optimised efficiency factor covers the entire performance spectrum and the high technical availability factor has been achieved by proven long-life components and the latest control procedures.

The exceptionally service-friendly and low-maintenance inverters are available in performance classes of 40, 60, 80, 100 and 280 kW.

Excellent efficiency

The inverters of the Conergy IPG series achieve their distinguished efficiency factor through the use of IGBTs (Insulated Gate Bipolar Transistors) with Trench Gate Structure, and through the use of iron powder chokes and high quality transformers with losses less than 1 %.

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 efficiency 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.

Highest feed-in quality

All the Conergy IPG series inverters exhibit a distortion factor of less than 2 %. This means the current generated by the inverters is "cleaner" than the current in most public power grids.

Flexible equipment configuration

With a wide range of input voltages from 493 to 965 V, the IPG series allows the largest possible range of module connection possibilities. For larger installations, all of the Conergy IPG series inverters can be easily combined to provide higher performance.

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.



CONERGY

Central inverters | Technical data

Conergy IPG 280K

Recommended solar generator connected load (25 °C)	280 kWp
Output power	250 kW
Maximum efficiency factor	95.6 %
European efficiency factor	94.6 %
Input voltage range	V _{pmin} = 493 VDC to V _{ocmax} = 965 VDC
MPP range at DC rated output	493–780 VDC
Input current	568 ADC
Output voltage range	196–253 VAC (standard setup) adjustable for other country standards
Mains frequency range	49.8–50.2 Hz (standard setup) adjustable for other country standards
Stand-by performance	55 W
Nighttime performance	55 W
Output current distortion	< 2 %
AC outputs	5 connectors (L1, L2, L3, N and PE)
DC inputs	4
Automatic turn-on	When sufficient solar generator power is available
Resetting time after AC deactivation	Min. 2 min
Overload behaviour	Performance limiting
DC voltage ripple	2 %
Operating mode	Maximum Power Point Tracking (> 1 % accuracy)
Ground fault monitoring	Yes
Reverse polarity protection	Short circuit diodes on the PV side
Overvoltage protection	High performance varistors
Performance factor Cos Phi	1
Solar generator/mains decoupling	High insulation transformer
Maximum performance of auxiliary supply	700 W
Recommended series fuse for auxiliary supply	10 A
Ambient temperature range	0–40 °C
Relative humidity	95 % non-condensing
Housing colour	Conergy Brand Blue
Protection type	IP 20
Fan flow	3,230 m ³ /h
Weight	2,140 kg
Dimensions (W x H x D)	2,010 x 2,000 x 880 mm
Dimensions Conergy IPG compact (W x H x D)	2,010 x 1,800 x 800 mm
Connector dimensions:	
L1, L2, L3, N, SG+, SG-	Connection bolts M12
PE	Connection bolts M12
Auxiliary supply	Terminals 1.5–2.5 mm ²

Available from: