



# Conergy IPG 110/280K

## 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

Conergy IPG K central inverter series 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 Conergy IPG K central inverters allow the largest possible range of module wiring 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 180cm 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.

- | High availability thanks to quality components
- | Maximisation of yield due to Maximum Power Point Tracking with > 99% precision

- | Best feed-in quality with a distortion factor < 2%
- | Broad input voltage range from 493 to 965V enables optimum module wiring



Conergy IPG 110K



Conergy IPG 280K



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	Conergy IPG 110K	Conergy IPG 280K
<b>Recommended solar generator connected load (STC)</b>	110 kWp	280 kWp
<b>Output power</b>	100 kW	250 kW
<b>Maximum AC power</b>	100 kW	250 kW
<b>Maximum efficiency factor</b>	97.0 %	96.1 %
<b>European efficiency factor</b>	96.5 %	95.2 %
<b>Input voltage range</b>	$V_{Pmin} = 493 V_{DC}$ to $V_{OCmax} = 965 V_{DC}$	
<b>MPP range at DC rated output</b>	493–780 $V_{DC}$	
<b>Input current</b>	223 $A_{DC}$	568 $A_{DC}$
<b>Output voltage range</b>	196–253 $V_{AC}$ (standard setup) adjustable for other country standards	
<b>Mains frequency range</b>	49.8–50.2 Hz (standard setup) adjustable for other country standards	
<b>Required grid format</b>	all TN grids	
<b>Stand-by performance/ nighttime performance</b>	49 W	55 W
<b>Output current distortion</b>	< 2 %	
<b>AC outputs</b>	L1, L2, L3, N and PE, each with 2 connection bolts M12	
<b>DC inputs</b>	4/connection bolts M12	
<b>Automatic turn-on</b>	When sufficient solar generator power is available	
<b>Resetting time after AC deactivation</b>	2 min (standard setup) adjustable for other country standards	
<b>Overload behaviour</b>	Performance limiting	
<b>DC voltage ripple</b>	2 %	
<b>Operating mode</b>	Maximum Power Point Tracking (> 99% accuracy)	
<b>Ground fault monitoring</b>	Yes	
<b>Reverse polarity protection</b>	Short circuit diodes on the PV side	
<b>Overvoltage protection</b>	High performance varistors	
<b>Performance factor Cos Phi</b>	≥ 0.99 at rated power	
<b>Solar generator / mains decoupling</b>	High insulation transformer	
<b>Auxiliary supply</b>	230 V / 50–60 Hz / max. 300 W / terminals 1.5–2.5 mm <sup>2</sup>	230 V / 50–60 Hz / max. 800 W / terminals 1.5–2.5 mm <sup>2</sup>
<b>Recommended series fuse for auxiliary supply</b>	10 A	
<b>Ambient temperature range</b>	–20 °C up to +45 °C	–20 °C up to +40 °C
<b>Communication</b>	CANopen (via Conergy CAN converter)	
<b>Relative humidity</b>	95 % non-condensing	
<b>Housing colour</b>	Conergy Brand Blue	
<b>Protection type / protection class</b>	IP 20 / I	
<b>Fan flow</b>	1,385 m <sup>3</sup> / h	3,230 m <sup>3</sup> / h
<b>Weight</b>	1,220 kg	2,400 kg
<b>Dimensions (W × H × D)</b>	1,210 mm × 1,800 mm × 800 mm	2,010 mm × 1,800 mm × 800 mm
<b>Approval</b>	CE / CS	

Available from: