Conergy IPG 80K





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.



Technical data Conergy IPG 80K

| Recommended solar generator connected load (25 °C) | 80 kWp |
|--|--|
| Output power | 72 kW |
| Maximum efficiency factor | 95.5 % |
| European efficiency factor | 94.4 % |
| Input voltage range | Vpmin = 493 VDC to Vocmax = 965 VDC |
| MPP range at DC rated output | 493–780 VDC |
| Input current | 162 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 | 49 W |
| Nighttime performance | 49 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 | 250 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 | 1,385 m3/h |
| Weight | 900 kg |
| Dimensions (W x H x D) | 1,210 x 1,970 x 880 mm |
| Dimensions Conergy IPG compact (W x H x D) | 1,210 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: