PEI 3kW

Single Phase Solar On Grid Inverter



Features:

- Max. efficiency: 96.44%, MPPT efficiency: >99.9%
- Low startup voltage “45V”
- Anti-islanding protection
- IP65 protection
- Wide MPPT range
- In-house remote monitoring application “Premier Energies”

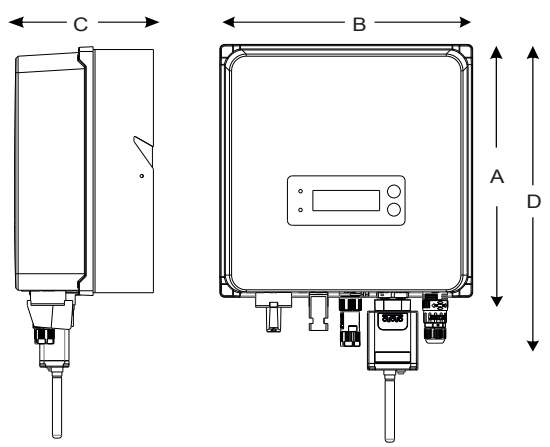
Certification: BIS

Technical specifications

Main	
Product name	PEI003XX1PN243-X
Product or component type	Grid tie inverter
Input specification	
DC input (PV side)	
Nominal DC input power (kW)	3
Max. allowable PV power (kW)	4.5
Nominal PV voltage (V)	360
Max. DC input voltage (V)	550
Startup voltage (V)	45
Operating range (V)	45-550
MPPT voltage range (V)	45-500
Max input current per MPPT (A)	17
Number of MPPT	1
Max. Input strings per MPPT tracker	1
Max. PV short circuit current per MPPT (ISC) (A)	20
Output specifications	
AC output (grid side)	
Rated output power (kW)	3
Max. output power (kW)	3
Nominal AC current, RMS (A)	12.50
Max. output current (A)	14.28
Grid voltage range (V)	216-264
Grid frequency range (Hz)	50
Power factor (at rated output power)	>0.99 (adjustable from 0.8 leading to 0.8 lagging)
Total harmonic distortion [THDi]	<3% at rated load
Load feed-in phase / connection phase	Single phase
Interface	
DC connection	MC4 connectors
Display	LCD with LED indication
Datalogger & Communication	RS485 (default) / Wi-Fi / GSM
Efficiency	
Maximum efficiency (%)	96.44
MPPT efficiency (%)	>99.9
Euro efficiency (%)	96

Protection functions	
DC reverse polarity protection	Yes
Short circuit protection	Yes
Over current protection	Yes
Over voltage / Under voltage protection	Yes
Over frequency / Under frequency	Yes
Insulation resistance monitoring	Yes
Residual current detection	Yes
Surge protection	Type II SPD on AC and DC Side
Anti - Islanding protection	Yes
Temperature protection	Yes
Integrated DC switch	No
Integrated AFCI (DC arc-fault circuit protection)	Optional
General data	
Topology	Transformerless
Consumption @ night (W)	<0.5
Operating temperature range	-25 °C to +60 °C
Cooling method	Natural convection
Relative humidity	0 to 100% non condensing
Max. operational altitude	4000m
Noise (dBA)	<30
Design lifetime	>20 years
Warranty	10 Years additional if product is registered on app within 15 days of commissioning
Ingress protection	IP65
Dimensions (W*H*D)	256*302*142mm
Net weight (Kg)	4.4
Mechanical integration	Wall mountable
Certifications	
Safety	IS 16169 : 2019 / IEC 62116 : 2014, IS 16221 (part 2) : 2015 / IEC 62109-2 : 2011
Electrical	IS 17980 : 2022 / IEC 62891 : 2020

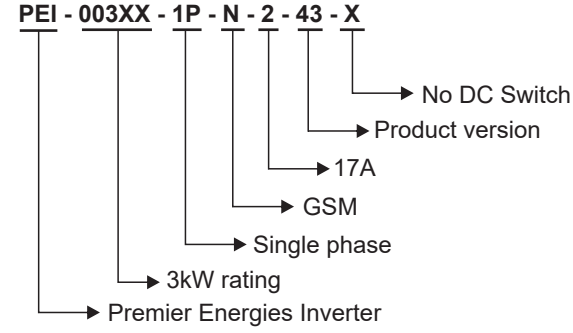
Dimensions (All are in mm)



A: 255.78mm **B: 255.78mm**
C: 142.70mm **D: 302.36mm**

Ordering information

Product code	Description
PEI003XX1PN243-X	Premier Energies Inverter - 1 phase / 3kW, 17A, without DC Switch
PEI-AC-S2G-02	GSM module



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The specification and key features contained in this datasheet may deviate slightly from our actual products due to the on-going innovation & product enhancement, Premier Energies reserves the right to make necessary adjustment to the information described herein at any time without further notice.