

iMars BG Series

Three Phase Grid-tied Solar Inverter

BG12KTR
BG15KTR
BG17KTR
BG20KTR-M



Description

iMars BG series three-phase grid-tied solar inverters adopt the latest technologies combination of T Topology three level topology and SVPWM, provide flexible system configuration and monitoring solutions for household, commercial and power plant systems.

Features

- Dual MPPTs work independently and allow unbalanced input power. One MPPT maximum input is up to 60% of Max.DC power.
- High efficiency and stable performance at entire input voltage and output power range.
- Max efficiency is up to 98.3%.
- Wide input voltage range gives more possibilities for accepting different string configuration and different Topology of PV modules.
- Bus capacitors consist of advanced film capacitors, designed with the latest thermal simulation technology for longer lifespan.
- Integrated intelligent DC combiner and surge protection improve system flexibility and lower the cost.
- 5V 200mA auxiliary DC power interface is optional for system expansion.
- AC output power is adjustable between 1-100%.
- Reactive power control and Power factor adjustable: 0.8 leading ~ 0.8 lagging.
- RS485, Ethernet, WiFi, GPRS Communication modes are optional for realizing multiple monitoring solutions via local or internet by PC, smart phone, etc.

Specification

	BG12KTR	BG15KTR	BG17KTR	BG20KTR-M
Input (DC)				
Max. DC voltage (V)	1000			
Starting voltage /Min. operation voltage (V)	200/180			300/200
Starting power (W)	150			
MPPT Operating Voltage Range (V) / Rated Voltage	180- 800/610V			280- 800/610V
Rated power voltage range (V)	350 - 800	400 - 800	400 - 800	450-800
Number Of MPPT / String Per MPPT	2/2			
Max. DC Power (W)	12500	15600	17500	20800
Max. DC Current (A) Per MPPT x Number Of MPPT	19x2	21x2	23x2	25x2
DC switch	Integrated			
Output (AC)				
Rated power (W)	12000	15000	17000	20000
Max AC Current (A)	20	24	28	32
Rated AC Voltage And Range/ Rated Grid frequency And Range	3/PE, 230/400V, (320~460V), 3/PE,220/380V, (320~460V)			
	50Hz (47~51.5Hz) / 60Hz (57~61.5Hz)			
	According to VDE0126-1-1, VDE-AR-N4105, CQC, G59/3, C10/11, AS4777/3100.			
Power factor	-0.8~+0.8 (Adjustable)			
THD	< 3% (at rated power)			
AC connection	Three-phase (L1, L2, L3, PE) or (L1, L2, L3, N, PE)			
System				
Cooling method	Smart Cooling method			
Max efficiency	98.20%	98.30%	98.30%	98.40%
Euro-efficiency	97.60%	97.80%	97.80%	98.00%
MPPT efficiency	99.90%			
Degree of protection	IP65			
Self-consumption (at night)	<0.5W			
Topology	Transformerless			
Operating temperature range	-25℃~-+60℃ (derate after 45℃)			
Relative humidity	0~95%, no condensation			
Protection Functions	DC isolation monitoring, DC monitoring, grounding fault monitoring, grid monitoring, island protection, overvoltage and short circuit protection, etc			
Noise	< 50dB			
Display and communication				
Display	3.5 inches LCD display, support backlit display			
System language	English, Chinese, German, Dutch			
Key	Integrated			
Communication interfaces:	RS485 (Standard),WiFi, Ethernet (Optional)			
Mechanical parameters				
Dimension (H x W x D mm)	610x480x204			
Weight (kg)	38			
Installation	Wall mounting			
Others				
DC terminal	BC03A, BC03B (PV-FT-CF-C-4-300-BU (-); PV-FT-CM-C-4-300-RD (+), Helios H4 4mm ²)			
Certifications	VDE0126-1-1, VDE-AR-N4105, CQC, G59/3, C10/11, AS4777/3100. EN61000-6-1:4, EN61000-11:12, IEC62109-1:2010, PEA, LVRT			
Factory warranty (years)	5 (standard) / 10, 15, 20 (optional)			