

Beta Series (50-60)K-5G THREE PHASE INVERTER 5G



Features

EFFICIENT

- Maximum efficiency 98.7%.
- String current up to **16 A**.
- 5/6 MPPT design, supports multiple orientation system design.
- Night time PID recovery function, increases overall system yield (optional).

SMART

- Night SVG function.
- Supports export power control.
- Intelligent string monitoring, smart I-V curve scan.
- Scan to register on MasterPowerCloud, supports remote upgrade and control.

SAFE

- IP66, C5 Anti-Corrosion Level.
- Intelligent redundant fan-cooling.
- Globally recognised branded componentry for longer life.
- AFCI protection, proactively reduces fire risk.

ECONOMIC

- Supports GPRS/WiFi communication with less wiring and reduced installation costs.
- DC side supports "Y" connector.
- Supports aluminium wire access to reduce cost.
- 10/12 string inputs allow for 150%+ DC oversizing.

Technical specifications

MODEL	MF-BETA-3P50KW	MF-BETA-3P60KW
INPUT DC		
Maximum Input Voltage	1100 V	
Rated Voltage	600 V	
Start-up Voltage	195 V	
MPPT Voltage Range	180 - 1000 V	
Maximum Capacity	70 kW	80 kW
Maximum Input Current	5*32 A	6*32 A
Maximum Short Circuit Current	5*40 A	6*40 A
MPPT Number / Maximum Input Strings Number	5 / 10	6 / 12
OUTPUT AC		
Rated Output Power	50 kW	60 kW
Maximum Apparent Output Power	55 kVA	66 kVA
Maximum Output Power	55 kW	66 kW
Rated Grid Voltage	3/N/PE, 220 V / 380 V, 230	
Rated Grid Frequency	50 Hz / 60 Hz	
Rated Grid Output Current		
Maximum Output Current	76.0 A / 72.2 A	91.2 A / 86.6 A
Power Factor	83.6 A >0.99 (0.8 leading - 0.8 lagging) 100.3 A	
THDi	<3%	
EFFICIENCY		
Maximum Efficiency	98.7%	
EU Efficiency	98.3%	
PROTECTION		
DC Reverse-polarity Protection	Yes	
Short Circuit Protection	Yes	
Output Over Current Protection	Yes	
Surge Protection	DC Type II / AC Type II	
Grid Monitoring	Yes	
Anti-islanding Protection	Yes	
Temperature Protection	Yes	
Strings Monitoring	Yes	
I/V Curve Scanning	Yes	
Integrated AFCI (DC Arc-fault Circuit Protection)	Yes ¹	
Integrated PID Recovery	Optional ²	
Integrated DC Switch	Optional	

(1) Activation required.

(2) Due to the similar functional logic, when the night time PID-Recovery function is integrated, the night time var compensation function can not be used.
Also, the negative grounding option is not available for inverters with night time PID-Recovery function

MODEL	MF-BETA-3P50KW	MF-BETA-3P60KW
GENERAL DATA		
Dimensions (W*H*D)	691*578*338 mm	
Weight	54.5 kg	
Topology	Transformerless	
Self-consumption (Night)	< 1 W	
Operating Ambient Temperature Range	-25 ~ 60°C	
Relative Humidity	0-100%	
Ingress Protection	IP66	
Cooling Concept	Intelligent redundant fan-cooling	
Maximum Operation Altitude	4000 m	
Grid Connection Standard	G98 or G99, VDE-AR-N 4105 / VDE V 0124, EN 50549-1, VDE 0126 / UTE C 15 / VFR:2019, RD 1699 / RD 244 / UNE 206006 / UNE 206007-1, CEI 0-21, C10/11, NRS 097-2-1, TOR, EIFS 2018.2, IEC 62116, IEC 61727, IEC60068, IEC 61683, EN 50530	
Safety / EMC Standard	IEC 62109-1/-2, IEC62116 & IEC 61000-6-1/-2/-3/-4	
FEATURES		
DC connection	MC4 connector	
AC connection	OT terminal (max. 70 mm ²)	
Display	LCD, Capacitive touch buttons	
Communication	RS485, USB, Optional: Wi-Fi, GPRS	

Product specifications are subject to change without notice,