



Hybrid Series

- Pure sine wave output
- Self-consumption and feed-in to the grid
- Programmable supply priority for PV, Battery or Grid
- User-adjustable battery charging current suits different types of batteries
- Programmable operation modes: Grid-tie, off-grid and grid-tie with backup
- Built-in timer for various on/off operation modes
- Multiple communication for USB, RS-232, Modbus and SNMP
- Monitoring software for real-time status display and control
- Parallel operation up to 6 units for 5KW and 10KW

Full Specifications

MODEL	Hybrid 2K-48	Hybrid Plus 3K-48	Hybrid Plus 5K-48	Hybrid 10K-48
PHASE		1-phase in / 1-phase out		3-phase in / 3-phase out
MAXIMUM PV INPUT POWER	2250 W	4500 W	10000 W	14850 W
RATED OUTPUT POWER	2000 W	3000 W	5000 W	10000 W
MAXIMUM CHARGING POWER		1200 W	4800 W	9600 W
GRID-TIE OPERATION				
PV INPUT (DC)				
Nominal DC Voltage / Maximum DC Voltage	300 VDC / 350 VDC	360 VDC / 500 VDC	720 VDC / 900 VDC	720 VDC / 900 VDC
Start-up Voltage / Initial Feeding Voltage	80 VDC / 120 VDC	116 VDC / 150 VDC	225 VDC / 250 VDC	320 VDC / 350 VDC
MPP Voltage Range	120 VDC ~ 320 VDC	250 VDC ~ 450 VDC	250 VDC ~ 850 VDC	400 VDC ~ 800 VDC
Number of MPP Trackers / Maximum Input Current	1 / 1 x 15 A	1 / 1 x 18 A	2 / 2 x 10 A	2 / 2 x 18.6A
GRID OUTPUT (AC)				
Nominal Output Voltage	101/110/120/127 VAC		208/220/230/240 VAC	230 VAC (P-N) / 400 VAC (P-P)
Output Voltage Range	88 - 127 VAC*		184 - 265 VAC*	184 - 265 VAC* per phase
Nominal Output Current	18 A	13 A	21 A	14.5A per phase
Power Factor			> 0.99	
EFFICIENCY				
Maximum Conversion Efficiency (DC/AC)	95%		96%	
OFF-GRID OPERATION				
AC INPUT				
AC Start-up Voltage/Auto Restart Voltage	60 - 70 VAC / 85 VAC		120 - 140 VAC / 180 VAC	120 - 140 VAC per phase / 180 VAC per phase
Acceptable Input Voltage Range	80 - 130 VAC		170 - 280 VAC	170 - 280 VAC per phase
Maximum AC Input Current		30 A		40 A
PV INPUT (DC)				
Maximum DC Voltage	350 VDC	500 VDC	900 VDC	900 VDC
MPP Voltage Range	150 VDC ~ 320 VDC	250 VDC ~ 450 VDC	250 VDC ~ 850 VDC	400 VDC ~ 800 VDC
Number of MPP Trackers / Maximum Input Current	1 / 1 x 15 A	1 / 1 x 18 A	2 / 2 x 10A	2 / 2 x 18.6A
BATTERY MODE OUTPUT (AC)				
Nominal Output Voltage	101/110/120/127 VAC	202/208/220/230/240 VAC	202/208/220/230/240 VAC	230 VAC (P-N) / 400 VAC (P-P)
Output Waveform			Pure Sinewave	
Efficiency (DC to AC)	90%		93%	91%
HYBRID OPERATION				
PV INPUT (DC)				
Nominal DC Voltage / Maximum DC Voltage	300 VDC / 350 VDC	360 VDC / 500 VDC	720 VDC / 900 VDC	720 VDC / 900 VDC
Start-up Voltage / Initial Feeding Voltage	80 VDC / 120 VDC	116 VDC / 150 VDC	225 VDC / 250 VDC	320 VDC / 350 VDC
MPP Voltage Range	150 VDC ~ 320 VDC	250 VDC ~ 450 VDC	250 VDC ~ 850 VDC	400 VDC ~ 800 VDC
Number of MPP Trackers / Maximum Input Current	1 / 1 x 15 A	1 / 1 x 18 A	2 / 2 x 10A	2 / 2 x 18.6A
GRID OUTPUT (AC)				
Nominal Output Voltage	101/110/120/127 VAC	202/208/220/230/240 VAC	202/208/220/230/240 VAC	230 VAC (P-N) / 400 VAC (P-P)
Output Voltage Range	88-127 VAC*		184 - 264.5 VAC*	184 - 264.5 VAC* per phase
Nominal Output Current	18 A	13 A	21 A	14.5 A per phase
AC INPUT				
AC Start-up Voltage / Auto Restart Voltage	60 - 70 VAC / 85 VAC		120 - 140 VAC / 180 VAC	120 - 140 VAC per phase / 180 VAC per phase
Acceptable Input Voltage Range	80 - 130 VAC		170 - 280 VAC	170 - 280 VAC per phase
Maximum AC Input Current		30 A		40 A
BATTERY MODE OUTPUT (AC)				
Nominal Output Voltage	101/110/120/127 VAC	202/208/220/230/240 VAC	202/208/220/230/240 VAC	230 VAC (P-N) / 400 VAC (P-P)
Efficiency (DC to AC)	90%		93%	91%
BATTERY & CHARGER				
Nominal DC Voltage			48 VDC	
Maximum Charging Current	Default 25A, 5A - 25A (Adjustable)		Default 60A, 5A - 100A (Adjustable)	Default 60A, 10A - 200A (Adjustable)
GENERAL				
PHYSICAL				
Dimension, D x W x H (mm)	107 x 438 x 480		204.2 x 460 x 600	167.5 x 500 x 622
Net Weight (kgs)	15.5		29	45
INTERFACE				
Communication Port		RS-232/USB		RS-232/USB and CAN Interface
Intelligent Slot				Optional SNMP, Modbus and AS-400 cards available
ENVIRONMENT				
Humidity			0 ~ 90% RH (Non-Condensing)	
Operating Temperature		0 to 40°C		-10 to 55°C
Altitude			0 ~ 1000 m**	

*These figures may vary depending on different AC voltage and country requirements
 **Power derating 1% every 100 m when altitude is over 1000m.
 Product specifications are subject to change without further notice.