

TOTAL 20K

- Pure sine wave output
- Self-consumption and Feed-in to the grid
- Programmable supply priority for PV, Battery or Grid
- True galvanic isolation transformer design
- User-adjustable charging current
- Programmable multiple operation modes: Grid-tie, off-grid and gridtie with backup
- Built-in timer for various mode of on/off operation
- Multiple communication for USB, RS-232, Modbus and SNMP
- Monitoring software for real-time status display and control



TECHNICAL DATA SHEET

MODEL	TOTAL 20K
MAXIMUM PV INPUT POWER	30KW
RATED OUTPUT POWER	20KW
MAXIMUM CHARGING POWER	20KW
GRID-TIE OPERATION	
PV INPUT (DC)	
Nominal DC Voltage / Maximum DC Voltage	720 VDC / 950 VDC
Start-up Voltage / Initial Feeding Voltage	500 VDC / 550 VDC
MPP Voltage Range	550 VDC ~ 900 VDC
Full power MPP Voltage Range	625 VDC ~ 900 VDC
Number of MPP Trackers / Maximum Input Current	1 / 48A
GRID OUTPUT (AC)	
Nominal Output Voltage	230 VAC* (P-N) / 400 VAC (P-P)
Output Voltage Range	184 - 265 VAC per phase
Output Frequency Range	47.5 ~ 51.5 Hz or 59.3 ~ 60.5 Hz
Nominal Output Current	29 A per phase
Power Factor	> 0.99
EFFICIENCY	
Maximum Conversion Efficiency (DC/AC)	91%
OFF-GRID OPERATION	
AC INPUT	
AC Start-up Voltage/Auto Restart Voltage	120 - 140 VAC per phase / 180 VAC per phase
Acceptable Input Voltage Range	170 - 280 VAC per phase
Maximum AC Input Current	40 A per phase
PV INPUT (DC)	
Maximum DC Power / Maximum DC Voltage	30KW / 950 VDC
MPP Voltage Range	550 VDC ~ 900 VDC
Number of MPP Trackers / Maximum Input Current	1 / 48 A
BATTERY MODE OUTPUT (AC)	
Nominal Output Voltage	230 VAC (P-N) / 400 VAC (P-P)
Output Waveform	Pure Sinewave
Efficiency (DC to AC)	>91%
HYBRID OPERATION	
PV INPUT (DC)	
Nominal DC Voltage / Maximum DC Voltage	720 VDC / 950 VDC
Start-up Voltage / Initial Feeding Voltage	500 VDC / 550 VDC
MPP Voltage Range	550 VDC ~ 900 VDC
Number of MPP Trackers / Maximum Input Current	1 / 48 A
GRID OUTPUT (AC)	
Nominal Output Voltage	230 VAC* (P-N) / 400 VAC (P-P)
Output Voltage Range	184 - 265 VAC per phase
Output Frequency Range	47.5 ~ 51.5 Hz or 59.3 ~ 60.5 Hz
Nominal Output Current	29 A per phase
Power Factor	> 0.99
AC INPUT	
AC Start-up Voltage / Auto Restart Voltage	120 - 140 VAC per phase / 180 VAC per phase
Acceptable Input Voltage Range	170 - 280 VAC per phase
Maximum AC Input Current	40 A per phase
BATTERY MODE OUTPUT (AC)	
Nominal Output Voltage	230 VAC (P-N) / 400 VAC (P-P)
Efficiency (DC to AC)	>91%
BATTERY & CHARGER	
Nominal Battery Voltage/Charging Voltage Range	384 VDC / 336 VDC ~ 512 VDC
Maximum Charging Current	50A
GENERAL	
PHYSICAL	
Dimension, D x W x H (mm)	559 x 320 x 909
Net Weight (kgs)	120
INTERFACE	
Communication Port	RS-232/USB
Intelligent Slot	Optional SNMP, GPRS, WIFI, Modbus cards available
ENVIRONMENT	
Humidity	0 ~ 90% RH (Non-Condensing)
Operating Temperature	-10 to 55°C
Altitude	0 ~ 1000 m**

*These figures are based on VDE-4105 standard. All 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.