



BLACK DRAGON INVERTER

Data sheet

On-Grid Inverter with Energy Storage



BDS
BLACK-DRAGON.NET



HYG5532



HYG1033



HYG1533

Features

1. Pure sine wave output
2. Self-consumption and feed in to the grid
3. Programmable supply priority for PV, Battery or Grid
4. User-adjustable battery charging current suits different types of batteries
5. Programmable multiple operation modes: Grid-tie, Off-grid and grid-tie with backup
6. Built-in timer for various mode of on/off operation
7. Multiple communication for USB, RS232, Modbus & SNMP
8. Monitoring software for real-time status display & control
9. Parallel operation up to 6 units for 10KW & 15KW



Available
Color



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Product
data sheet 

Technical Specifications:

Model	HYG5532	HYG1033	HYG1533
PHASE	1-phase in/1 phase out	3-phase in/3-phase out	3-phase in/3-phase out
Max.PV INPUT POWER	6500W	14850W	22500W
Rated Output Power	5500W	10000W	15000W
Maximum Charging Power	2880 W	9600 W	15000 W
GRID TIE OPERATION			
PV INPUT (DC)			
Nominal DC Voltage/Max. DC Voltage	360 VDC/500 VDC	720 VDC/900 VDC	720 VDC/900 VDC
Start-up Voltage/Initial Feeding Voltage	116 VDC/150 VDC	320 VDC/350 VDC	320 VDC/350 VDC
MPP Voltage Range	120 VDC-450 VDC	400 VDC-800 VDC	400 VDC-800 VDC
Number of MPP Trackers	2/2x13A	2/2x18.6A	2/A: 37.65A; B:18.6A
Maximum Input Current			
GRID OUTPUT (AC)			
Nominal Output Voltage	220/230/240 VAC	230 VAC (P-N)	230 VAC (P-N)
		400 VAC (P-P)	400 VAC (P-P)
Output Voltage Range	184-265VAC	184 -265 VAC* per phase	184 - 265 VAC* per phase
Nominal Output Current	23.9A	14.5A per phase	21.7A per phase
Power Factor	> 0.99		
EFFICIENCY			
Maximum Conversion Efficiency (DC/AC)	96%		
European Efficiency@Vnominal	95%		
OFF GRID OPERATION			
AC INPUT			
AC start-up Voltage/	120- 140VAC/180VAC	120- 140VAC per phase	120- 140VAC per phase
Auto Restart Voltage		180 VAC per phase	180 VAC per phase
Acceptable Input Voltage Range	170-280VAC	170-280VAC per phase	170-280 VAC per phase
Max. AC Input Current	40A	40A	40A
PV INPUT (DC)			
Max. DC Voltage	500 VDC	900 VDC	900 VDC
MPP Voltage Range	120 VDC-450 VDC	400 VDC-800 VDC	350 VDC-850 VDC
Number of MPP Trackers/Max. Input Current	2/2x13A	2/2x18.6A	2/A: 37.65A; B:18.6A
BATTERY Mode Output (AC)			
Nominal Output Voltage	220/230/240VAC	220/230/240 VAC	230VAC (P-N) / 400VAC (P-P)
Output Waveform	Pure Sine Wave		
Efficiency (DC to AC)	93%	91%	91%
HYBRID OPERATION			
PV INPUT (DC)			
Nominal DC Voltage/Max. DC Voltage	360 VDC/500 VDC	720 VDC/ 900 VDC	720 VDC/ 900 VDC
Start-up Voltage/Initial Feeding Voltage	116 VDC/150 VDC	320 VDC/ 350 VDC	320 VDC/ 350 VDC
MPP Voltage Range	120 VDC-450 VDC	400 VDC-800 VDC	350 VDC-850 VDC
No. of MPP Trackers/Max. Input Current	2/2x13A	2/2x18.6A	2/A: 37.65A; B:18.6A
GRID OUTOUT (AC)			
Nominal Output Voltage	202/208/2020/230/240 VAC	230 VAC (P-N)/	230 VAC (P-N)/
		400 VAC (P-P)	400 VAC (P-P)
Output Voltage Range	184-264.5 VAC*	184-264.5 VAC* per phase	184-264.5 VAC* per phase
Nominal Output Current	23.9A	14.5A per phase	21.7A per phase
AC INPUT			
AC Start-up Voltage/Auto Restart Voltage	120- 140VAC/180VAC	120- 140VAC per phase / 180VAC per phase	120- 140VAC per phase/ 180VAC per phase
Acceptable Input Voltage Range	170-280 VAC	170-280 VAC	170-280 VAC per phase
Max. AC Input Current	30A	30A	40A
BATTERY MODE OUTPUT (AC)			
Nominal Output Voltage	202/208/220/230/240 VAC	230 VAC (P-N)/	230 VAC (P-N)/
		400 VAC(P-P)	400 VAC(P-P)
Efficiency (DC to AC)	93%	91%	91%
BATTERY& CHARGER			
Battery DC Voltage	48V		
Max. Charging Current	Default 60A	Default 60A,10A-200A Adjustable	Default 60A, 5A-300A Adjustable
GENERAL			
PHYSICAL			
Dimension, D x W x H (mm)	110*450*445	167.5*500*622	219*650*820
Net weight (kgs)	16	45	62
INTERFACE			
Communication Port	RS-232/USB and CAN Interface		RS-232, USB and Dry contact
ENVIRONMENT			
Humidity	0 -90%RH		
Operating Temperature	0 to 40° C	- 10 to 55 ° C	
Altitude	0- 1000 m**		

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