

HYBRID INVERTER PHI 5 – 15 kW

98.2%
Maximum Efficiency

10 Years
Warranty

3 MPP
Trackers



High performance



IP65 Rated



Battery Ready



Easy Upgrade



Remote Monitoring



**Energy that shines
in the dark**

KEY FEATURES

AE Pulsar Storage Solution offers exceptional performance, flexibility, and efficiency for any application, including residential and business applications.

The solution is designed for demanding applications and ensures a stable energy supply even under extreme conditions.

5/6/8/10/12/15 kW Three-Phase Hybrid Inverter

50 A battery port up to 1 C and Ethernet Interface

3x MPP trackers for max. 25 A Isc, designed for up to 20 A string current

MPP voltage range 120-900 V (1000 V max. voltage)

Island / Off-Grid mode / Blackstart

Up to 100% unbalanced load in on-grid and off-grid mode

Modbus EMS connection via RS485 or Ethernet

Model	PHI-5	PHI-6	PHI-8	PHI-10	PHI-12	PHI-15
PV INPUT						
Max. DC Input Power [kW]	11.0	13.2	17.6	18.0	18.0	18.0
Max. DC Voltage [V]				1000*		
Nominal DC Operating Voltage [V]				720		
Max. MPPT Input Current [A]				20 / 20 / 20		
Max. MPPT Short Circuit Current [A]				25 / 25 / 25		
Max. MPPT Input Power [kW]				10.10.2010		
Min. Operating PV Voltage [V]				90**		
MPPT Voltage Range [V]				120 ~ 900		
Start-up Input Voltage [V]				150		
MPPT Voltage Range under Full Load [V]	120 ~ 850	120 ~ 850	140 ~ 850	175 ~ 850	210 ~ 850	263 ~ 850
Number of MPP Trackers				3		
Strings per MPP Tracker				1+1+1		
BATTERY						
Battery Type				Lithium-Ion Battery (LFP)		
Battery Voltage [V]				100 ~ 800		
Min. Operating Battery Voltage [V]				100		
Min. Battery Voltage under Full AC Load [V]	108	125	160	210	250	310
Max. Charge/ Discharge Current [A]				50		
Communication Interface				CAN		
AC OUTPUT						
Nominal AC Power [kW]	5.0	6.0	8.0	10.0	12.0	15.0
Max. Apparent AC Power [kVA]	5.5	6.6	8.8	11.0***	13.2	16.5
Rated Grid Voltage (AC Voltage Range) [V]				400/230Vac; 380/220Vac, 3L/N/PE		
Rated Grid Frequency [Hz]				50 / 60, ±5		
Rated AC Current per Phase [A]	7.6	9.1	12.1	15.2	18.2	22.7
Max. AC Current per Phase [A]	8.3	10.0	13.3	16.7	20.0	25.0
Power Factor				1 (Adjustable from 0.8 leading to 0.8 lagging)		
THDI [%]				<3 at rated power		
AC INPUT						
Max. AC Power [kVA]	6.0	7.2	9.6	12.0	14.4	16.0
Rated Grid Voltage (AC Voltage Range) [V]				400/230Vac; 380/220Vac, 3L/N/PE		
Rated Grid Frequency [Hz]				50 / 60, ±5		
Max. AC Current per Phase [A]	9.1	10.9	14.5	18.2	21.8	24.2
EPS OUTPUT						
Max. Apparent AC Power [kVA]	5.0	6.0	8.0	10.0	12.0	15.0
Peak Apparent AC Power for 60 sec [kVA]	6.0	7.2	9.6	12.0	14.4	15.0
Rated Output Voltage [V]				400/230Vac; 380/220Vac, 3L/N/PE		
Rated Grid Frequency [Hz]				50 / 60		
Max. EPS Current per Phase [A]	7.2	8.7	11.6	14.5	17.4	21.7
Power Factor				1 (Adjustable from 0.8 leading to 0.8 lagging)		
Switch Time [ms]				< 20		
THDV [%]				< 3 at Linear load		
EPS OUTPUT						
MPPT Efficiency [%]				99.9		
Max. Efficiency [%]				98.2		
Euro Efficiency [%]				97.2		
PROTECTION						
PV Reverse Polarity Protection				YES		
Battery Reverse Protection				YES		
Anti-Islanding Protection				YES		
Leakage Current Protection				YES		
Insulation Resistor Detection				YES		
Over Voltage Category				III(AC side), II(DC side)		
Reverse Connect Protection				YES		
Over-Current Protection/Over-Temperature Protection				YES		
DC/AC Surge Protection				Type II(PV)/Type II(AC)		
AFCI Protection				Optional		
DC Switch				YES		
GENERAL DATA						
Dimensions (W x H x D) [mm³]				600 x 450 x 226		
Packaging Dimensions (W x H x D) [mm³]				665 x 545 x 390		
Net Weight [kg]				34		
Gross Weight [kg]				40		
Installation				Wall-mounted		
Operating Temperature Range [°C]				-25 ~ +60 (Derating at 45)		
Storage Temperature [°C]				-40 ~ +70		
Storage/Operation Relative Humidity [%]				0 ~ 100		
Altitude [m]				<4000 at Derating exceeding 2000		
Protective Class				I		
Ingress Protection				IP65 (For outdoor use)		
Standby Consumption [W]				20		
Standby Mode				YES		
Cooling	Natural	Natural	Natural	Natural	Natural	Fan cooling
Noise Grade [dB]	< 40	< 40	< 40	< 40	< 40	< 55
Inverter Topology				Non-isolated		
Communication Interface				Ethernet, EMS(RS485), Meter, WiLAN(Wifi+LAN+Bluetooth), 4G(Opt.), DRM, Ripple Control, USB, BMS(CAN), SG Ready		
LCD Display				Backlight 16 x 4 character		
Standard Warranty [years]				10		
Button				4x Capacitive touch sensor		
Buzzer				1, inside(EPS&Earth fault)		

* For 1000V system, PV Maximum operating voltage is 900V.

** The starting working voltage of the power supply is 90V.

*** Belgian safety regulations require an apparent power of 10000W to be 10000VA.

The specifications and characteristics contained in this datasheet may deviate slightly from our actual products due to the product developments and uncertainty of measurement devices.
The specifications included in the datasheet are subject to change without prior notice.