



Force HS+ Series Single Phase Hybrid Inverters

7kW ~ 10.5kWAUSTRALIAN VERSION 

The Energizer® Force HS+ Series inverter range offers advanced features and is compatible with high-voltage batteries. With the hybrid inverter range, you're able to expand your solar system by adding extra batteries.

There are 6 inverter size options and it can connect to our Powerstack with up to seven battery modules connected in series, allowing for flexible storage capacity.

High Performance Single Phase Hybrid Inverters

- Three & Four MPPT design with precise MPPT algorithm
- 97.80% maximum efficiency
- IP65 rated
- Optional export control
- Compact & lightweight
- RS485, Wi-Fi, LAN, GPRS (optional) communications
- Wide voltage range/low start-up voltage
- Android and iPhone apps available
- 10 years warranty



MODEL INPUT	Force 7.0HS+	Force 8.0HS+	Force 9.0HS+	Force 9.9HS+	Force 10.0HS+	Force 10.5HS+
ELECTRICAL CHARACTERISTICS						
Battery Type	Li-Ion					
Battery Voltage Range [V]	85 ~ 480					
Recommended Battery Voltage [VDC]	300					
Max. Charge Current [A]	50					
Max. Discharge Current [A]	50					
Communication Interfaces	CAN / RS485					
Reverse Connect Protection	YES					
INPUT PV						
Max. Array Power [Wp]	15000	16000	18000	20000	20000	21000
Max. Input Power [W]	10500	12000	13500	15000	15000	15000
Max. DC Voltage [V]	600					
Nominal DC Operating Voltage [V]	360					
Max. Input Current (Input A / Input B)[A]	16 /16 /16	16 /16 /16	16 /16 /16 /16	16 /16 /16 /16	16 /16 /16 /16	16 /16 /16 /16
Max. Short Circuit Current (Input A / Input B)[A]	20 / 20 / 20	20 / 20 / 20	20 / 20 / 20 / 20	20 / 20 / 20 / 20	20 / 20 / 20 / 20	20 / 20 / 20 / 20
Max. Inverter Backfeed Current to the Array [mA]	0					
MPPT Voltage Range [V]	80 ~ 500					
Start-up Voltage [V]	75					
Np. of MPP Trackers	3	3	4	4	4	4
Strings per MPP Tracker	1					
DC Disconnection Switch	PEDS150-HM5SR-6, 6 layers					
OUTPUT AC						
Nominal AC Power [VA]	7000	8000	9000	9900	10000	10500
Rated Output Apparent Power [VA]	7000	8000	9000	9900	10000	10500
Max. Apparent AC power [VA]	7700	8800	9900	9900	10500	10500
Rated Grid Voltage (AC Voltage Range) [V]	220/230/240 (180~270)					
Rated Grid Frequency [Hz]	50/60, ±5					
Nominal AC Current [A]	30.4	34.8	39.1	43.0	43.5	45.7
Max. AC Current [A]	33.5	38.3	43.0	43.0	45.7	45.7
Displacement Power Factor	0.8 Leading to 0.8 Lagging					
THDi (Rated Power) (%)	<3					
INPUT AC						
Max AC Power [VA]	14000	14500	14500	14500	14500	14500
Max. AC Current [A]	60.9	63.0	63.0	63.0	63.0	63.0
Rated Grid Voltage (AC Voltage Range) [V]	220/230/240 (180~270)					
Rated Grid Frequency [Hz]	50/60, ±5					
EPS OUTPUT (WITH BATTERY)						
Rated Output Apparent Power [VA]	7000	8000	9000	9900	10000	10500
Max. EPS Power [VA]	7000	8000	9000	9900	10000	10500
EPS Rated Voltage [V], Frequency [Hz]	220/230/240, 50/ 60					
Rated Output Current [A]	31.8	36.4	40.9	45.0	45.5	47.7
Max. Output Current [A]	31.8	36.4	40.9	45.0	45.5	47.7
Max. EPS Current [A]	31.8	36.4	40.9	45.0	45.5	47.7
EPS Peak Power (60s) [W]	10000	10000	12000	12000	12000	12000
Switch Time [ms]	<10					
THDV (Linear Load) [%]	<2					
EFFICIENCY						
MPPT Efficiency [%]	99.90					
European Efficiency [%]	97.40					
Max. Efficiency [%]	97.80					
Max. Battery Charge Efficiency (PV to BAT) (@Full Load) [%]	98.50					
Max. Battery Discharge Efficiency (BAT to AC) (@Full Load) [%]	97.00					
SAFETY						
PV Reverse Polarity Protection	YES					
Battery Reverse Protection	YES					
Anti-islanding Protection	Active Frequency Drift with Positive Feedback					
Output Short Protection	YES					
Leakage Current Protection	YES					
Insulation Resistor Detection	YES					
Overcurrent Protection / Overtemperature Protection	YES					
Overvoltage Category	III (AC side), II (DC side)					
AC/DC Surge Protection	Type II/Type I					
AFCI Protection	98.50					
POWER CONSUMPTION						
Standby Consumption [W] (Idle)	<15					
STANDARD						
Safety	IEC62109-1/IEC62109-2/IEC 62477-1					
EMC	EN 61000-6-1/EN 61000-6-2/ EN 61000-6-3					
Certification	G99/EN50549/ NRS 097-2-1					
ENVIRONMENT LIMIT						
Ingress Protection	IP65					
Protective Class	Class I					
Operating Temperature Range [°C]	-25~+60 (Derating at +45)					
Humidity [%]	0~95 (No condensation)					
Altitude [m]	<2000					
Storage Temperature [°C]	-40~+70					
Noise Emission (Typical) [dB]	<30					
DIMENSION AND WEIGHT						
Dimensions (W* H* D) [mm]	450*527*208					
Weight [kg]	29 (KH)/27.5 (KA)					
Cooling Concept	Natural					
Topology	Non-isolated					
Communication	Meter(Optional), WIFI, 4G (Optional), DRM, USB, CT, RS485					
MANUFACTURE						
Country of Origin	China					