

# Hybrid 3PH Series



6K / 8K / 10K / 12K / 15K

## Key Features

- 150% PV oversized and 110%-150% overload output
- Higher efficiency on charging and discharging, up to 97.8%
- Tough screen is an option
- Compatible with single-phase load and three-phase load.
- Dry contact controls generator start, compatible with generator power supply.
- Support countercurrent prevention control.
- Up to 20A single-channel MPPT current. Perfectly supporting the latest 210mm high-power PV panels (12K and 15K).
- Support three-phase 100% unbalanced on-load operation.
- Battery side has a pre-charging circuit to ensure system safety.
- LLC soft switch on battery side to improve the efficiency.
- Support WIFI, GPRS, 4G, APP communications.
- Support remote control, remote management and online upgrade.

## Hybrid 6.0 – 15.0K 3PH Series Product Specification

ESS 3P SPEC	6K	8K	10K	12K	15K
<b>Solar Input(PV)</b>					
Max.PV Input Power(kW)	9	12	15	18	22.5
Max. PV Voltage(V)	1000				
MPPT Voltage Range(V)	180-850				
Full Power MPPT Voltage Range(V)	250-850	330-850	430-850	510-850	620-850
Start-up Voltage(V)	125				
Max.Input Current per MPPT	13/13				20/20
Max. Short-circuit Current	16/16				30/30
Number of MPP Trackers	2				
MPPT Number/Max. Input Strings Number	1/1				2/2
Rated Input Voltage(V)	600				
<b>Battery Output</b>					
Battery Type	Lithium and Lead Acid Battery				
Max.Charging/Discharging Power(kW)	6.6	8.8	11	13.2	16.5
Battery Voltage Range(V)	125-600				
Battery Working Voltage Range(V)	150-550				
Max.Charging/Discharging Current(A)	50				
Rated.Charging/Discharging Current(A)	40				
<b>AC Output</b>					
Nominal Output Power to Grid(kVA)	6	8	10	12	15
Max. Apparent Power to Grid(kVA)	6.6	8.8	11	13.2	16.5
Max. Apparent Power from Grid(kVA)	13.2	17.6	22	26.4	33
Max. Apparent Current from Grid(A)	19.1	25	31.8	38.1	47.6

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Nominal Output Current to Grid(A)	8.7	11.5	14.4	17.3	21.7
Max.Output Current to Grid(A)	9.5	12.7	15.9	19.1	23.8
Nominal Grid Voltage	380V/400V, 3W+N+PE				
Nominal Grid Frequency	50Hz/60Hz				
THDI	<2%				
<b>EPS Output</b>					
Nominal Output Power(kVA)	8	8	10	12	15
Max. Apparent Power (kVA)	8.8	8.8	11	13.2	16.5
Nominal Output Current(A)	8.7	11.5	14.4	17.3	21.7
Max.Output Current(A)	9.5	2.7	15.9	19.1	23.8
Nominal Output Voltage(V)	400V,3W+N+PE				
Nominal Output Frequency(Hz)	50Hz/60Hz				
THDV	<2%				
<b>General Data</b>					
Max.Efficiency	97.90%		98.20%		98.50%
Europe Efficiency	97.20%		97.50%		97.60%
MPPT Efficiency	99.90%				
Max.Battery Charge/Discharge Efficiency	97.50%			97.60%	97.80%
Ingress Protection	IP65				
Operating Temperature Range	-35°C ~ 60°C				
Relative Humidity	0~100%				
Operating Altitude	4000m(Derating above 2000 m)				
Cooling	Natural Convection				
Noise Emission	≤25dB				
Dimensions W*D*H (mm)	530*560*220				
Weight (kg)	30	30	31	32	34
Installation	Wall Mounted				
EMC	IEC/EN 61000-6-1:2019, IEC/EN 61000-6-2:2019, IEC/EN 61000-6-3:2021, IEN/EN 61000-6-4:2019, IEC/EN 61000-3-2:2019/A1:2021, EN 61000-3-3:2013/A2:2021, IEC/EN 61000-3-11:2019, EN 61000-3-12:2011				
Safety Regulation	EC/EN62109-1:2010, IEC/EN62109-2:2011				
Grid certification	EN50549-1/EN50549-1/Rfg:2016/NC Rfg:2018/PTPiREE:2021/VDE4105/0124/G99/NRS 097-2-1: 2017/UNE 217001/UNE 217002/NTS 2.1/NA/EEA-NE7 – CH2020/Hungary deviation/OVE Directive R25:2020, TORErzeuger Type AV1.2				
<b>Interface</b>					
HMI	LCD;APP				
BMS	RS485,CAN				
EMS	RS485				
Meter	RS485				
Supported Communication Interface	WIFI / GPRS / 4G				

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 May. 2023