








Three Phase Hybrid Inverter

TLH-8KW/10KW/12KW-EU-1



-  100% three-phase unbalanced output, with each phase capable of delivering up to 50% of the rated power.
-  Ac coupling to retrofit existing solar system.
-  Max. 10 pcs parallel for on-grid and on-grid.
-  Max.charging/discharging current of 240A
-  48v low voltage battery transformer isolation design
-  6 time periods for battery charging/discharging
-  Support storing energy from diesel generator



Technical Data

Model	TLH-8KW-EU-1	TLH-10KW-EU-1	TLH-12KW-EU-1
PV String Input			
Max.DC Input Power(W)	10400	13000	15600
Rated PV Input Voltage(V)	550(160-800)		
Start-up Voltage(V)	160		
MPPT Voltage Range(V)	200-650		
Full Load MPPT Voltage Range(V)	350-650		
Max.DC Input Current(A)	13+13	26+13	
Max.DC Short Circuit Current(A)	17+17	34+17	
No.of MPPT Trackers	2		
No.of Stringsper MPPT Tracker	1+1	2+1	
AC Output			
Rated AC Output Power(W)	8000	10000	12000
Max AC Output Power(W)	8800	11000	13200
AC Output Rated Current(A)	12.1	16.7	18.2
Max AC Output Current(A)	13.4	18.4	20
Max Output short circuit current(A)	75		
Max.Continuous AC Pass	45		
Peak Power(off grid)	2times of rated power,10S		
Power Factor	0.8leading-0.8lagging		
Output Frequency and Voltage	50/60Hz;3L/N/PE220/380Vac,230/400Vac		
Grid Type	Three Phase		
Total Harmonic Distortion(THDi)	<3%(of nominal power)		
DC Current Injection	<0.5%In		
Battery			
Battery Type	Lead-acidorLithium-ion		
Battery Voltage Range(V)	40-60		
Max.Charging Current(A)	160	200	240
Max.Discharging Current(A)	160	200	240
External Temperature Sensor	Yes		
Charging Curve	3 Stages/Equalization		
Charging Strategy for Li-IonBattery	Self-adaption to BMS		
Efficiency			
Max. Efficiency	0.976		
Euro Efficiency	0.97		
MPPT Efficiency	0.99		
Protection			
Anti-islanding Protection	Yes		
PV String InputReverse Polarity	Yes		
Insulation Resistor Detection	Yes		
Residual Current MonitoringUnit	Yes		
Output Over Current Protection	Yes		
Output Shorted Protection	Yes		
Output over voltage protection	Yes		
Photo voltaic input lightning	Yes		
Surge Protection	DC Type III/AC Type III		
Over Voltage Category	DC Type II/AC Type III		
Certifications and Standards			
Operating Temperature Range(°C)	-40-60 °C,>45 °C Derating		
Cooling	Smart Cooling		
Noise(dB)	≤50dB		
Communication to BMS	RS485;CAN		
Monitoring mode	Wi-Fi+APP		
Weight(kg)	37.5		
Size(WxHxD mm)	702×422×281(Excluding Connectors and Brackets)		
Ingress Protection	Ip65		
Installation Style	Wall-mounted		
Warranty	5Years(10Years Optional)		