



# ETEK Three Phase Storage Inverter with Two MPPT

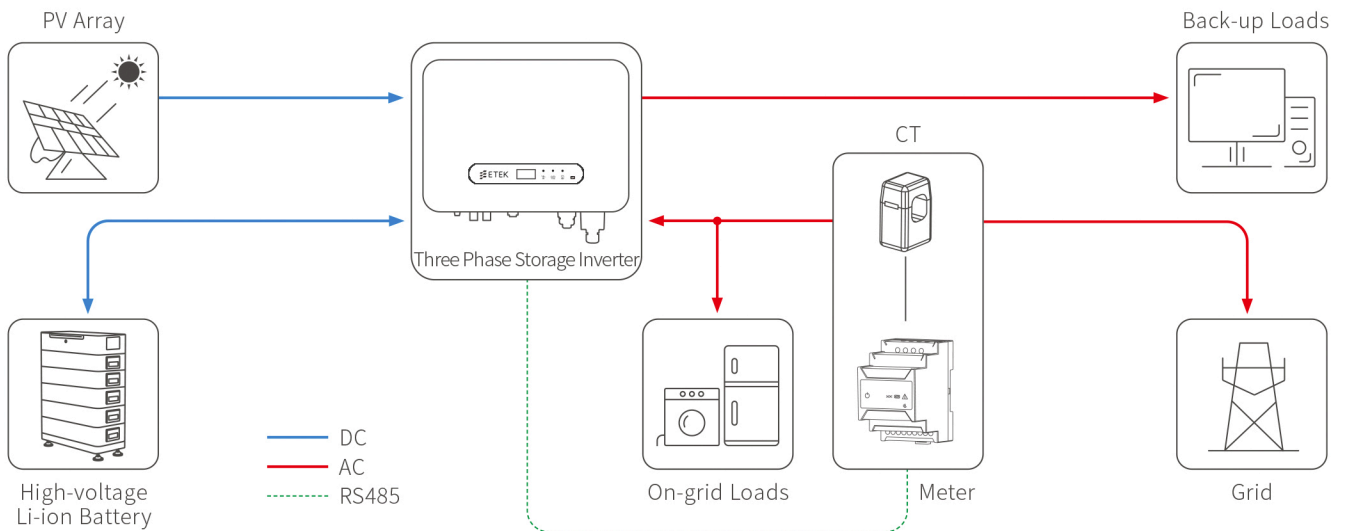
ETH-4K-12KTL-HT



MAX 98.2% EFFICIENCY

IP65 PROTECTION

- Max. efficiency up to 98.2%  
Max. 25A charge/discharge current
- Up to 110% phase unbalanced output available on both on-grid and back-up outputs.
- Support back-up paralleling connection of up to 10 units.
- Fast and easy data checking and commissioning via App or OLED display
- 135~750V wide battery connection range to store more energy and optimize self-sufficiency rate.
- Arbitrary phase of back-up output allows up to 125% overloading ability.
- Maximum 200% back-up output overloading @60s.
- Uninterruptible power supply, switch to off-grid mode within 10ms



Type Designation	ETH-4KTL-HT	ETH-5KTL-HT	ETH-6KTL-HT	ETH-8KTL-HT	ETH-10KTL-HT	ETH-12KTL-HT
<b>PV Input</b>						
Max. Input Power (kW)	6.0	7.5	9.0	12.0	15.0	18.0
Start-up Voltage (V)	135	135	135	135	135	135
Max. DC Input Voltage (V)*	1000	1000	1000	1000	1000	1000
Rated DC Input Voltage (V)	620	620	620	620	620	620
MPPT Voltage Range (V)	120-950	120-950	120-950	200-950	200-950	200-950
No. of MPP Trackers	2	2	2	2	2	2
No. of DC Inputs per MPPT	1/1	1/1	1/1	1/1	1/1	1/1
Max. Input Current (A)	15/15	15/15	15/15	15/15	15/15	15/15
Max. Short-circuit Current (A)	20/20	20/20	20/20	20/20	20/20	20/20
<b>Battery Side</b>						
Battery Type	Lithium Battery (with BMS)					
Battery Voltage Range (V)	135-750					
Max. Charge/Discharge Current (A)	25/25					
<b>Grid Side</b>						
Rated Output Power (kW)	4.0	5.0	6.0	8.0	10.0	12.0
Max. Output Apparent Power (kVA)	4.4	5.5	6.6	8.8	11.0	13.2
Max. Input Apparent Power (kVA)**	8.0	10.0	12.0	16.0	16.5	16.5
Max. Charging Power of Battery (kW)	4.0	5.0	6.0	8.0	10.0	12.0
Rated AC Voltage (V)	3L/N/PE; 220/380V; 230/400V; 240/415V					
Rated AC Frequency (Hz)	50/60	50/60	50/60	50/60	50/60	50/60
Max. Output Current (A)	6.7	8.3	10.0	13.3	16.5	20.0
Power Factor	0.8 leading ... 0.8 lagging					
Max. Total Harmonic Distortion	<3% @Rated output power					
DCI	<0.5%In	<0.5%In	<0.5%In	<0.5%In	<0.5%In	<0.5%In
<b>Back-up Side</b>						
Rated Output Power (kW)	4.0	5.0	6.0	8.0	10.0	12.0
Max. Output Apparent Power (kVA)	4.4	5.5	6.6	8.8	11.0	13.2
Max. Output Current (A)	6.7	8.3	10.0	13.3	16.5	20.0
UPS Switching Time	<10ms	<10ms	<10ms	<10ms	<10ms	<10ms
Rated Output Voltage (V)	3/N/PE; 220/380V; 230/400V; 240/415V					
Rated Output Frequency (Hz)	50/60	50/60	50/60	50/60	50/60	50/60
Peak Output Apparent Power (kVA)***	8, 60s	10, 60s	12, 60s	16, 60s	20, 60s	20, 60s
Voltage Harmonic Distortion	<3% @Linear load					
<b>Efficiency</b>						
Max. Efficiency	98.1%	98.1%	98.1%	98.2%	98.2%	98.2%
European Efficiency	97.3%	97.3%	97.3%	97.4%	97.4%	97.4%
<b>Compliance</b>						
IEC/EN 62109, IEC/EN 61000, EN50549-1, TOR Generator Type A, VDE-AR-N-4105						

Protection	
DC Reverse Polarity Protection	Integrated
Battery Input Reverse Connection Protection	Integrated
Insulation Resistance Protection	Integrated
Surge Protection	Integrated
Over-temperature Protection	Integrated
Residual Current Protection	Integrated
Islanding Protection	Integrated (Frequency shift)
AC Over-voltage Protection	Integrated
Overload Protection	Integrated
AC Short-circuit Protection	Integrated

General Data	
Over Voltage Category	PV: II; Main: III
Dimensions (W×H×D mm)	534×418×210
Weight (KG)	27.0
Protection Degree	IP65
Standby Self-consumption (W)	<15
Topology	Transformerless
Operating Temperature Range (°C)	-30~60
Relative Humidity (%)	0~100
Operating Altitude (m)	3000 (>3000m derating)
Cooling	Natural Convection
Noise Level (dB)	<25
Display	OLED & LED
Communication	CAN, RS485, WiFi/LAN (Optional)

\* Max. operating DC voltage is 950V, max. withstanding DC voltage is 1000V

\*\* Max apparent power from the grid means the maximum power imported from the utility grid used to satisfy the backup loads and charge the battery

\*\*\* The output power will exceed the rated value only when the power in the PV array is sufficient, and the duration of the overload is related to the overload power