

● YOUR
● SMART
● ENERGY



Stax - M30/M50

COMMERCIAL SERIES

POWER

30 / 50 kW

CAPACITY

53.75 ~ 193.5 kWh



KEY FEATURES

- **Quick Installation:**
No battery rack or wiring needed — Plug and Play Solution.
- **Reliable Operation:**
AlphaESS BypassTech ensures continuity by isolating faults.
- **Maximize Battery Life:**
AI-driven diagnostics & calibration for SOC Consistency.
- **Easy Expansion:**
Plug-and-play batteries for seamless scaling.
- **200% PV input to boost profits**
- **IP66 for tough outdoor environments**

StaX-M30/M50

Model	Stax-M30	Stax-M50
System Specifications		
Rated Output Apparent Power	30 kVA	50 kVA
Rated Output Current	43.3 A (400V)	72.2 A (400V)
Capacity Range	53.75 ~ 193.5 kWh*	
Battery Chemistry	LFP (LiFePO ₄)	
Ingress Protection	IP66	
Operating Temperature Range	-10 ~ 50 °C	
Communication	Wi-Fi / LAN / 4G (Optional)	
Warranty	10 Years Product Warranty, 10 Years Battery Performance Warranty	
Inverter Technical Specifications		
PV Strings Input Data		
Max. PV Input Power	60 kW	100 kW
Max. PV Input Voltage	1000 V	
Start-up Voltage	180 V	
MPPT Voltage Range	150 ~ 850 V	
Max. Input Current per MPPT	40 A	
Max. PV Short-Circuit Current	45 A	
MPPT Number / Max. Input Strings	3 / 2	4 / 2
Battery		
Battery Voltage Range	150 ~ 800 V	
Max. Charge / Discharge Current	140 A	
AC Input & Output Data (Grid Side)		
Rated. Output Power	30 kW	50 kW
Max. Input Power	60 kW	100 kW
Nominal AC voltage	220 V / 380 V, 230 V / 400 V	
Rated Frequency	50 / 60 Hz	
Back-up Output (On-Grid & Off Grid)		
Max. Output Power (On-Grid)	30 kW	50 kW
Max. Continuous AC Pass-through	91.2 A	152 A
Max. Output Power (Off-Grid)	31.5 kW (long term); 48 kW (2s)	52.5 kW (long term); 80 kW (2s)
Switch Time	< 10 ms	
Rated Output Voltage	3L / N / PE, 220 / 380 V; 230/400 V	
Rated Frequency	50 / 60 Hz	
Input Generator		
Max. Input Power	30 kW	50 kW
General Data		
Inverter Max Efficiency	97.8%	
Dimensions (W x H x D)	530 x 880 x 290 mm	
Weight	73 kg	
Noise Emission	70 dB	
SPD	Type II	
Max. Operating Altitude	4000 m	
Certifications & Standards	IEC61000, IEC62109, AS4777, VDE4105, TOR R25, C10/11, EN50549, CEI 0-16 CEI 0-21, G99	
Country of Manufacture	China	
Battery Technical Specifications		
Module Model	M38280-S	
Module Capacity	10.75 kWh	
Depth of Discharge (DOD)	100% DoD	
Nominal Voltage	38.4 V	
Max. Charging / Discharging Current	140 A**	
Operating Temperature Range	0°C ~ 50°C (Charge); -20°C ~ 50°C (Discharge)	
Cycle Life	6000	
Modules of Connection	5 ~ 18	
Dimensions (W x D x H)	550 x 615 x 250 mm	
Weight	93 kg	
Certification	UN38.3, IEC 62619, IEC 62040, IEC 61000-6-1 /-3	

* Inverter battery output will be limited if the configured battery capacity is below 53.76 kWh for M30 or 96.75 kWh for M50. Consult AlphaESS engineers for details.

** Test condition: Max.0.5C charge/discharge at 25±2 °C

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