

● YOUR  
● SMART  
● ENERGY



# Stax - M30/M50

COMMERCIAL SERIES

**POWER**

30 / 50 kW

**CAPACITY**

60.25- 216.9 kWh



- **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**
- **Heating Module integrated for low-temperature environments**

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# Stax - M30/M50

| Model                                   | Stax - M30  | Stax - M50 |
|---|---|------------|
| <b>System Specifications</b>            |   |            |
| Nominal Output Power                    | 30 kW   | 50 kW      |
| System Capacity                         | 60.25 - 216.9 kWh   |            |
| Ingress Protection                      | IP66  |            |
| Battery Chemistry                       | LFP (LiFePO <sub>4</sub> )  |            |
| Warranty                                | 10 Years Warranty   |            |
| <b>PV Side</b>                          |   |            |
| Max. Input Power                        | 60 kW   | 100 kW     |
| Start-up Voltage                        | 180 V   |            |
| MPPT Voltage Range                      | 150 ~ 850 V   |            |
| Number of MPPTs                         | 3   | 4          |
| Number of strings per MPPT              | 2   |            |
| Max. Input Current                      | 42 A * 3  | 42 A * 4   |
| Max. Short-circuit Current              | 60 A * 3  | 60 A * 4   |
| Protection                              | AFCI (Optional) , DC Switch, Type II Surge protection, DC reverse-polarity protection       |            |
| <b>AC Data (Grid)</b>                   |   |            |
| Nominal Output Power                    | 30 kW   | 50 kW      |
| Max. Output Apparent Power              | 30 kVA  | 50 kVA     |
| Nominal Grid Voltage                    | 3 / N / PE, 230 V / 400 V   |            |
| Nominal Grid Frequency                  | 50 Hz / 60 Hz   |            |
| Max. Output Current                     | 43.2 A  | 72.2 A     |
| Power Factor                            | > 0.99 (0.8 leading - 0.8 lagging)  |            |
| Max. THD of Current                     | < 3%  |            |
| <b>AC Data (Backup)</b>                 |   |            |
| Nominal Output Power                    | 30 kW   | 50 kW      |
| Max. Output Power                       | 105% continuously ; 150% for 10s ; 160% for 2s  |            |
| Back-up Swtich Time                     | < 10ms  |            |
| Nominal Output Frequency                | 3 / N / PE, 230 V / 400 V   |            |
| Max. Output Current                     | 43.2 A  | 72.2 A     |
| Max. THD of Voltage                     | < 2%  |            |
| <b>AC Data (Generator)</b>              |   |            |
| Max. Input Power                        | 30 kW   | 50 kW      |
| Nominal Input Voltage                   | 3 / N / PE, 230 V / 400 V   |            |
| Nominal Input Frequency                 | 50 Hz / 60 Hz   |            |
| Nominal Input Current                   | 43.2 A  | 72.2 A     |
| <b>Efficiency</b>                       |   |            |
| Max. Efficiency                         | 97.7%   |            |
| European Efficiency                     | 97.4%   |            |
| Battery Charging / Discharge Efficiency | 98.5% / 97.5%   |            |
| <b>General Parameters</b>               |   |            |
| Dimensions (W x D x H)                  | 530 x 290 x 880 mm  |            |
| Weight                                  | 76 kg   |            |
| Operating Temperature Range             | -25 ~ 60 °C   |            |
| Operating Humidity Range                | 0 - 100%  |            |
| Noise Emission                          | 62 dB   |            |
| Corrosion Protection Class              | Battery C5, Inverter C4   |            |
| Inverter Self Cleaning                  | Intelligent Fan ventilation   |            |
| Surge Current Carrying Capacity         | 40kA (8 / 20µs)   |            |
| Local HMI Availability                  | LED indicator   |            |
| Arc-Fault Circuit Interrupter (AFCI)    | YES   |            |
| Compliance                              | IEC 62109, IEC61000, VDE 4105, VDE 4110, TOR-R25, G99 G100, EN50549-18-10, C10 / 11, NC RFG |            |
| <b>Battery Technical Specifications</b> |   |            |
| Module Model                            | M38314-S  |            |
| Module Capacity                         | 12.05 kWh   |            |
| Depth of Discharge (DoD)                | 95% on grid ; 90% off grid  |            |
| Nominal Voltage                         | 38.4 V  |            |
| Max. Charging / Discharging Current     | 157A*   |            |
| Operating Temperature Range             | -20 °C ~ 50 °C  |            |
| Cycle Life                              | 8000 @ EOL 70% **   |            |
| Cell OEM                                | CALB  |            |
| Number of Battery Module                | 5 - 18 ***  |            |
| Dimensions (W x D x H)                  | 550 x 615 x 250 mm  |            |
| Weight                                  | 90 kg   |            |
| Innovation and Protection               | Pack Level Bypass, Aerosol fire fighting system   |            |
| Compliance                              | IEC 62619, IEC 62040, IEC 61000-6-1 / -2 / -3 / -4, UL9540A                                 |            |

\* Max. charge / discharge current derating may occur with changes in temperature and SoC.

\*\* Under specific test conditions.

\*\*\* Max. 12 battery modules per column, up to 2 columns.

\*\*\*\* To ensure optimal charging and discharging power, for M30, a minimum of 6 battery units is recommended; for M50, a minimum of 9 battery units is recommended.