Midea Energy

# Aero-Stack Home Energy Solutions

## Three-Phase All-In-One Energy Storage System



* The illustration is for reference only. The actual product's appearance might vary depending on the configurations.

### Optimal Costs

- Unbalanced three-phase power output, ensuring efficient operation
- EMS-integrated intelligent management for precision control, maximizing cost savings

### Performance Enhancement

- Max. 2.0 DC/AC ratio compatibility, higher energy utilization
- 200% peak output power in off-grid mode, instant high-power boost

### Ultimate Security

- Advanced fire suppression technology
- Extreme temperature durability

### Simplified Installation

- Modular design and plug-in terminals drastically cut installation time
- High integration and future-proof scalability

| Model | Aero-Stack EC 20TP | Aero-Stack EC 25TP | Aero-Stack EC 30TP |
|---|---|---|---|
| **DC input (PV side)** | | | |
| Max. PV power [kWp] | 32 | 40 | 48 |
| Max. DC input voltage [V] | 1100 | | |
| Nominal DC input voltage [V] | 600 | | |
| Start-up voltage [V] | 180 | | |
| MPPT voltage range [V] | 160–1000 | | |
| Number of MPPTs | 4 | | |
| Number of PV strings per MPPT | 1 | | |
| Max. input current per MPPT [A] | 16 | | |
| Max. short-circuit current per MPPT [A] | 20 | | |
| **AC output (grid-side)** | | | |
| Nominal output power [kW] | 20 | 25 | 30 |
| Max. output apparent power [kVa] | 22 | 27.5 | 33 |
| Nominal output current [A] | 30.4 | 38 | 45.5 |
| Max. output current [A] | 33.4 | 41.8 | 50 |
| Nominal output voltage [V] | 380/400 | | |
| Nominal grid frequency [Hz] | 50/60 | | |
| Power factor | 0.8 leading to 0.8 lagging | | |
| Total harmonic distortion of current [THDi] | <2% | | |
| **Efficiency** | | | |
| Max. efficiency | 98.4% | | |
| **AC output (backup)** | | | |
| Peak output power (10 seconds) | 25.5 | 30 | 36 |
| Nominal output voltage [V] | 380/400 | | |
| Nominal output frequency [Hz] | 50/60 | | |
| Power factor | 0.8 leading to 0.8 lagging | | |
| Total harmonic distortion of voltage [THDv] | <2% | | |
| Disruption time of backup switch | 0 | | |
| **Battery Connection** | | | |
| Battery module models | Aero-Stack BAT 9 | | |
| Number of battery modules per controller | 1–6 | | |
| Battery module voltage range [V] | 600–900 | | |
| **Protection** | | | |
| Safety protection feature | AFCI DC arc protection V2, DC reverse polarity protection, insulation resistance detection, RCD (residual current monitoring), anti-islanding, AC overcurrent/short-circuit/overvoltage protection, Type II DC/AC surge protection | | |
| **General data** | | | |
| Dimension (W × D × H) [mm] | 870 × 290 × 375 | | |
| Weight [kg] | 45 | | |
| Storage temperature range [℃] | -25℃ to +60℃ | | |
| Operating temperature range [℃] | -25℃ to +55℃ | | |
| Relative humidity range | 0%–95% | | |
| Max. operating altitude [m] | 3000 | | |
| Cooling method | Smart air cooling | | |
| System Ingress protection rating | IP66 | | |
| Noise [dB] | ≤55 dB@25℃ | | |
| Anti-corrosion degree | C4-M | | |
| Communication manner | CAN, RS485, communication module | | |
| Standard compliance | EN 50549, G99, CEI 0-16, VDE-AR-N 4110, VDE-AR-N 4120, NTS 2.1, NTS SENP 1.1 | | |

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| Model | Aero-Stack BAT 9 |
|---|---|
| **Performance specification** | |
| Battery type | $LiFePO_4$ |
| Cell capacity [Ah] | 314 |
| Cell cycle life | 10000 |
| System cycle life | 7000 |
| Total energy capacity [kWh] | 9.04 |
| Usable energy capacity [kWh] | 8.75 |
| Depth of discharge (DoD) | 100% |
| Max. charge / discharge power [W] | 4.5 |
| Peak charge / discharge power (10 seconds) [W] | 4.95 |
| **General data** | |
| Dimension (W × D × H) [mm] | 870 × 260 × 315 |
| Weight [kg] | 75 |
| Storage temperature range [℃] | -25℃ to +60℃ |
| Operating temperature range [℃] | -20℃ to +55℃ |
| Relative humidity range | 5%–95% |
| Max. operating altitude [m] | 3000 |
| Noise [dB] | ≤55 dB@25℃@1 m |
| Cooling method | Natural convection |
| System Ingress protection rating | IP66 |
| Anti-corrosion degree | C4-M |
| Installation method | Floor standing |
| Compatible inverters | Aero-Stack EC |
| Number of battery modules per energy controller | 1–6 |

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