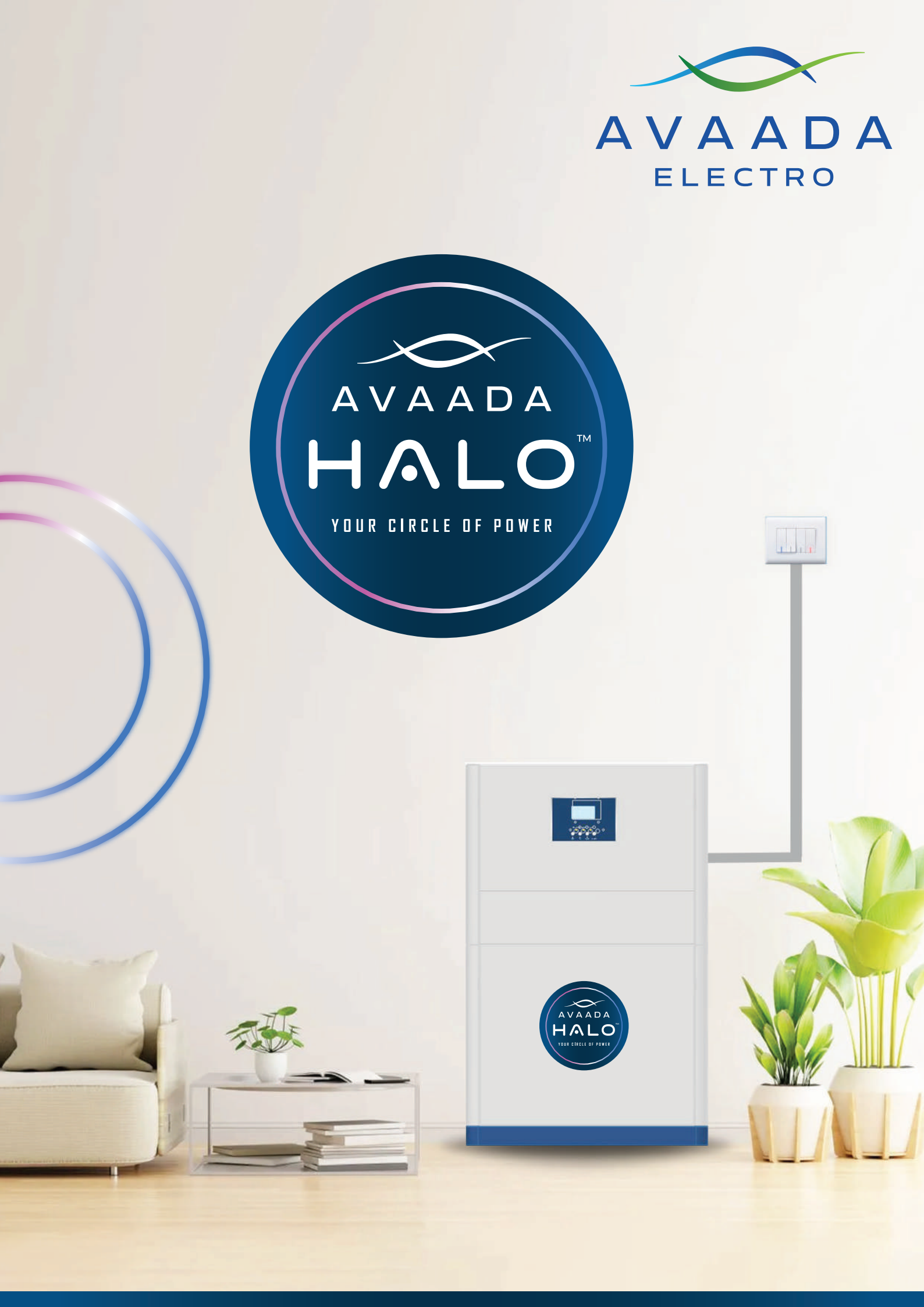
AVAADA
ELECTRO

# AVAADA HALO™

YOUR CIRCLE OF POWER



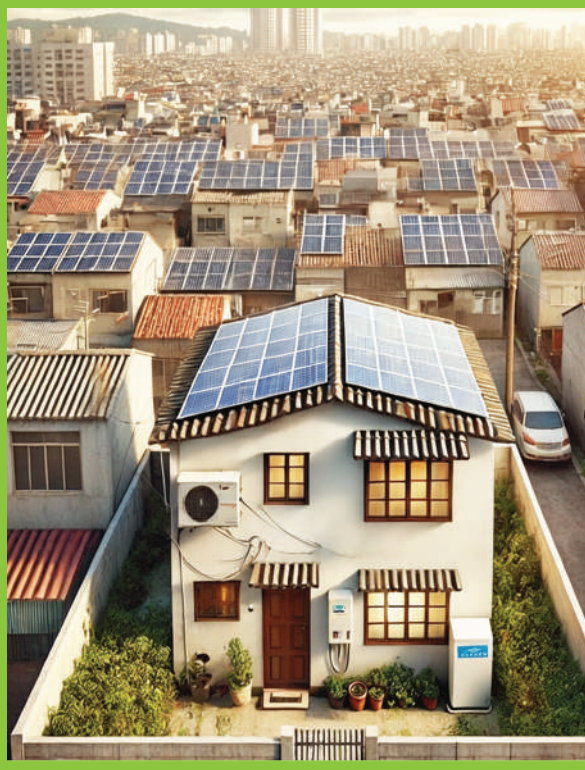
# YOUR CIRCLE OF POWER

Avaada HALO is an advanced Battery Energy Storage System that stores energy from Solar or Grid, transforming how you power your premises. It captures, stores, and delivers clean solar energy, ensuring uninterrupted power, lower bills, and complete energy independence.

Say goodbye to unreliable grids and rising energy costs. Avaada HALO intelligently stores excess solar energy to power your premises day and night. Even without solar panels, it stands strong as a standalone backup system, keeping your premises bright and life uninterrupted.


## Key Features

- **All-in-One Energy System:** Seamlessly integrates Hybrid inverter, and battery in one compact unit.
- **Expandable Power:** Stack up to 4 units for up to **4 Hrs full load power backup** of usable storage- perfect for homes, offices, or villas.
- **High Output Performance:** Delivers **up to 10 kW continuous power** and up to **19 kW with solar support** during outages.
- **Smart Design:** Sleek, space-saving metal enclosure. Mount it indoors or outdoors, along with the wall on floor.
- **Future-Ready:** Modular setup designed to grow with your energy needs.
- **Long-life $LiFePO_4$ Battery** with > 6,000 cycles.
- **95% Efficiency** for maximum solar utilization.
- **Certified for Safety & Performance (**BIS, RoHS, IEC 62109-2 / 62116).
- **10-Year Warranty** backed by **Avaada- India's trusted clean-energy brand.**



## Why Avaada HALO

- Reliable backup for homes and businesses
- Cleaner, quieter alternative to generators
- Smart energy management for sustainable living
- Stay in control with the **Avaada Mobile App:** monitor real-time energy generation, usage, and battery health. Get alerts, performance reports, and total visibility at your fingertips.
- **Seamless Solar Integration:** Works effortlessly with both existing and new solar PV systems

## Applications

## Avaada Halo Specifications:

| | | | |
|---|---|---|---|
| Nominal AC Power | 3000 W | 5000 W | 10000 W |
| Rated Grid Voltage | 230 V (± 10%) | | |
| Nominal AC Frequency | 50Hz (± 10%) | | |
| Nominal AC Current | 12.75 A | 21.25 A | 43.25A |
| Output Waveform | Pure Sinewave | | |
| Power Factor Adjustment Range | 0.8 leading to 0.8 lagging | | |

## Battery Specifications

| | | | |
|---|---|---|---|
| Total Energy (2 Hrs full load backup) | 5 kWh | 10 kWh | 20 kWh |
| Usable Capacity | 5 kWh | 10 kWh | 20 kWh |
| Rated Capacity | 100 AH | 200 AH | 400 AH |
| Charge/Discharge Rating | 0.5C/0.25C | | |
| Rated DC Voltage | 24V (nominal ~25.6V) | 48V (nominal ~48V) | |
| Cont. Backup Power (Off-grid w/o Solar) | 3.0 kW | 5.0 kW | 10.0 kW |
| Cont. Backup Power (Off-grid w/ Solar) | 5.7 kW | 9.5 kW | 19kW |
| Peak Output Power [10s] | 4.5 kW | 7.5 kW | 15kW |
| BMS Voltage | Up to 30 V | Up to 60 V | Up to 60 V |
| Maximum Charge/Discharge Current | 50A | 100A | 100A |
| Battery Input Voltage Range | 16 V–35 V | 37 V–55 V | 37 V–55 V |
| Battery Chemistry | Lithium Ferro Phosphate (LiFePO4) | | |
| System Roundtrip Efficiency | AC coupled 90%/DC coupled 94% | | |
| Depth of Discharge[DOD] | 90% | | |
| Cycle Life[90% DOD] | > 6000 Cycles | | |
| Short circuit current | >200A | >200A | >200A |
| Energy Capacity at the end of 10 years | 70 % | | |

## Other Specifications

| | |
|---|---|
| Typical Noise Level | <50 dB |
| Overvoltage Category | IV [electric supply side], II [PV Side] |
| Operating Temperature | -10 ~ 50 °C |
| Inverter Communication Interface | RS485, CAN(optional) |
| Battery Communication Interface | RS485 |
| Display Communication | LCD/LED |
| Installation Method | Floor along wall mounted |
| Warranty | 10 years* |

## User Interface

| | |
|---|---|
| Display and LED Indication | Graphical LCD and LED for fault indication |
| Battery Parameters | Voltage / Current / SOC/ Alarms etc |
| PV Parameters | PV Voltage/ MPPT current/ Power etc |
| AC Parameters | Grid voltage, frequency, power, current etc |
| Operations | Mode of operations / Active faults/ System Mimic etc |
| Faults and Warnings | Under and Over Temp'r/ current/ voltage / load etc. |

## Solar Input

| Max. PV Input Power [MPPT] | 4500 W | 6500 W | 15000 W |
|---|---|---|---|
| PV Input Voltage | 260 V (246 V ~ 321V) | 420 V (340 V ~ 442V) | 420 V (340 V ~ 442V) |
| MPPT Voltage Range [DC] | 246 V ~ 321 V | 340V ~442 V | 340V ~442 V |
| Max. Operating PV Input Current | 18 A | 18 A | 18 A + 18 A |
| Max. Input Short-Circuit Current | 27 A | 27A | 27 A + 27 A |
| Maximum PV Charging Current | 100 A | 120 A | 150 A |
| Maximum Short Circuit Current[DC] | 30 A | 30 A | 30 A |
| No. of MPPTs/ String per MPPT | 1-1 | 1-1 | 2-2 |

## Standards & Certifications

| | |
|---|---|
| Inverter Certifications | IEC 62109-2, IEC 62116 |
| System Certifications | BIS, MNRE |
| Hazardous Material Classifications | RoHS |
| Grid Connections Standards | Indian Electricity Grid Code/CEA Regulations, IS/IEC 61727 |
| Relative Humidity | Up-to 95% |
| Cooling | Forced air (inverter)/Natural (battery) |
| Degree of Protection | IP21 |
| Altitude | Max 4000m |

| Maximum Inverter efficiency | 95% | 95% | 95% |
|---|---|---|---|
| Dimensions ( LXBXH) mm | 936 x 589 x 156 | 1376 x 589 x 156 | 1376 x 589 x 310 |
| Weight in Kg | ~ 65Kg | ~ 120Kg | ~ 200Kg |

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