



## All-In-One Energy Storage System



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## All In One Energy Storage System Single Phase Home Storage Solution (LV)

Afore ASL Series is an all-in-one solar and storage solution that integrates the inverter, battery charger, UPS-level switching, and battery enclosure into a pre-wired modular system for easier and faster installation. The compact, elegantly designed, and robust unit is IP66 rated, so it can be mounted either inside or outside withstanding all weather conditions and brings a reduction of installation time of up to 50%.



IP66 Outdoor Design



Modular Design  
Plug & Play



AFCI Standard



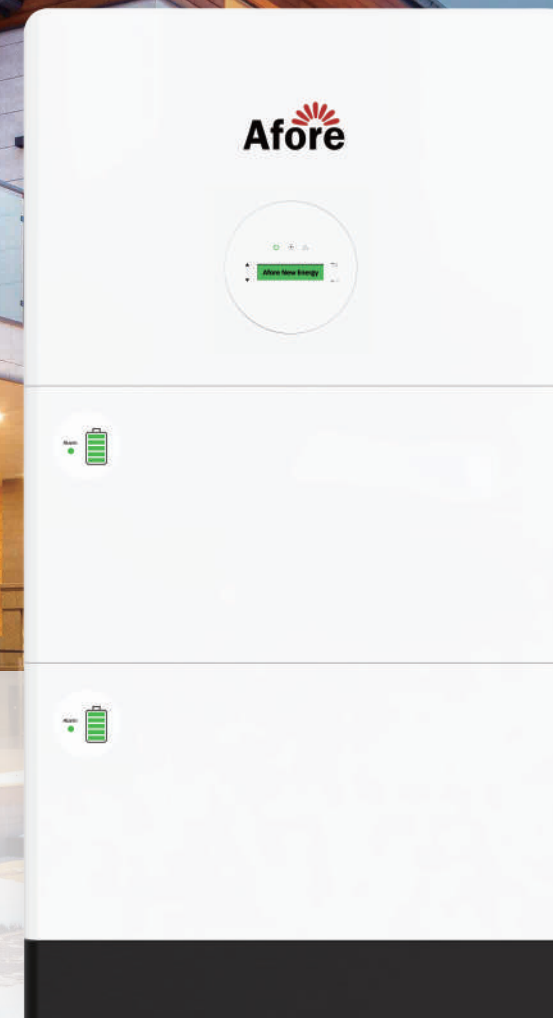
Scalable Design  
Up To 30.72kWh



150% Backup  
Overloading for 10 mins



RSD Ready  
VPP Ready

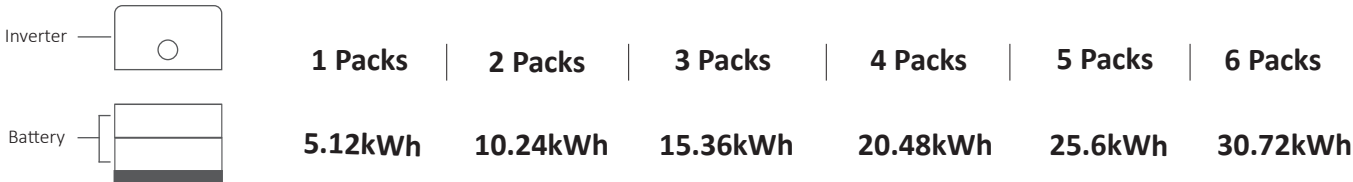


### FOR SOLAR + ENERGY STORAGE SYSTEM

**POWER** 3 / 3.6 / 4 / 4.6 / 5 / 5.5 / 6 kW

**CAPACITY** 5.12kWh - 30.72kWh Battery Capacity

| ■ Technical Data                      | AF3K-ASL                                                                                     | AF3.6K-ASL  | AF4K-ASL    | AF4.6K-ASL  | AF5K-ASL    | AF5.5K-ASL  | AF6K-ASL    |
|---------------------------------------|----------------------------------------------------------------------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|
| PV Input                              |                                                                                              |             |             |             |             |             |             |
| Max. Input Power (kW)                 | 4.5                                                                                          | 5.4         | 6.0         | 6.9         | 7.5         | 8.3         | 9.0         |
| Max. PV Voltage (V)                   | 550                                                                                          |             |             |             |             |             |             |
| MPPT Range (V)                        | 80 - 500                                                                                     |             |             |             |             |             |             |
| Full MPPT Range (V)                   | 90 - 500                                                                                     | 110 - 500   | 120 - 500   | 130 - 500   | 150 - 500   | 160 - 500   | 170 - 500   |
| Normal Voltage (V)                    | 360                                                                                          |             |             |             |             |             |             |
| Startup Voltage (V)                   | 100                                                                                          |             |             |             |             |             |             |
| Max. Input Current (A)                | 18.5 x 2                                                                                     |             |             |             |             |             |             |
| Max. Short Current (A)                | 26 x 2                                                                                       |             |             |             |             |             |             |
| No. of MPP Tracker / No. of PV String | 2 / 2                                                                                        |             |             |             |             |             |             |
| Battery Port                          |                                                                                              |             |             |             |             |             |             |
| Max. Charge/Discharge Power (kW)      | 3.0                                                                                          | 3.6         | 4.0         | 4.6         | 5.0         | 5.5         | 6.0         |
| Max. Charge/Discharge Current (A)     | 80                                                                                           |             |             |             | 120         |             |             |
| Battery Normal Voltage (V)            | 51.2                                                                                         |             |             |             |             |             |             |
| Battery Voltage Range (V)             | 40 - 60                                                                                      |             |             |             |             |             |             |
| Battery Type                          | Li-ion / Lead-acid etc.                                                                      |             |             |             |             |             |             |
| AC Grid                               |                                                                                              |             |             |             |             |             |             |
| Max Continuous Current (A)            | 14.0                                                                                         | 17.0        | 19.0        | 22.0        | 23.0        | 26.0        | 28.0        |
| Max Continuous Power (kVA)            | 3.0                                                                                          | 3.6         | 4.0         | 4.6         | 5.0         | 5.5         | 6.0         |
| Nominal Grid Current (A)              | 13.7 / 13.1                                                                                  | 16.4 / 15.7 | 18.2 / 17.4 | 21.0 / 20.0 | 22.8 / 21.8 | 25.0 / 24.0 | 27.3 / 26.1 |
| Nominal Grid Voltage (V)              | 198 to 242 @ 220 / 207 to 253 @ 230                                                          |             |             |             |             |             |             |
| Nominal Grid Frequency (Hz)           | 50 / 60                                                                                      |             |             |             |             |             |             |
| Power Factor                          | 0.999 (Adjustable from 0.8 overexcited to 0.8 underexcited)                                  |             |             |             |             |             |             |
| Current THD (%)                       | < 3                                                                                          |             |             |             |             |             |             |
| AC Load Output (Back-up)              |                                                                                              |             |             |             |             |             |             |
| Max Continuous Current (A)            | 14.0                                                                                         | 17.0        | 19.0        | 22.0        | 23.0        | 26.0        | 28.0        |
| Max Continuous Power (kVA)            | 3.0                                                                                          | 3.6         | 4.0         | 4.6         | 5.0         | 5.5         | 6.0         |
| Max Peak Current (A) (10min)          | 20.5 / 19.6                                                                                  | 24.6 / 23.5 | 27.3 / 26.1 | 31.4 / 30   | 34.1 / 32.7 | 37.8 / 36.1 | 41.0 / 39.2 |
| Max Peak Power (kVA) (10min)          | 4.5                                                                                          | 5.4         | 6.0         | 6.9         | 7.5         | 8.3         | 9.0         |
| Nominal AC Voltage L-N (V)            | 220 / 230                                                                                    |             |             |             |             |             |             |
| Nominal AC Frequency (Hz)             | 50 / 60                                                                                      |             |             |             |             |             |             |
| Switching Time (ms)                   | < 10                                                                                         |             |             |             |             |             |             |
| Voltage THD (%)                       | < 3                                                                                          |             |             |             |             |             |             |
| Efficiency                            |                                                                                              |             |             |             |             |             |             |
| CEC Efficiency (%)                    |                                                                                              | 97.0        |             |             |             | 98.1        |             |
| Max. Efficiency (%)                   |                                                                                              | 97.6        |             |             |             | 98.1        |             |
| PV to Bat. Efficiency (%)             |                                                                                              | 98.1        |             |             |             | 98.1        |             |
| Bat. between AC Efficiency (%)        |                                                                                              | 96.8        |             |             |             | 96.8        |             |
| Protection                            |                                                                                              |             |             |             |             |             |             |
| PV Reverse Polarity Protection        | Yes                                                                                          |             |             |             |             |             |             |
| Over Current/Voltage Protection       | Yes                                                                                          |             |             |             |             |             |             |
| Anti-Islanding Protection             | Yes                                                                                          |             |             |             |             |             |             |
| AC Short Circuit Protection           | Yes                                                                                          |             |             |             |             |             |             |
| Residual Current Detection            | Yes                                                                                          |             |             |             |             |             |             |
| Ground Fault Monitoring               | Yes                                                                                          |             |             |             |             |             |             |
| Insulation Resister Detection         | Yes                                                                                          |             |             |             |             |             |             |
| PV Arc Detection                      | Yes                                                                                          |             |             |             |             |             |             |
| Enclosure Protect Level               | IP66 / NEMA4X                                                                                |             |             |             |             |             |             |
| AC/DC surge protection                | Type II                                                                                      |             |             |             |             |             |             |
| General Data                          |                                                                                              |             |             |             |             |             |             |
| Dimensions (W x H x D, mm)            | 600 x 430 x 210                                                                              |             |             |             |             |             |             |
| Weight (kg)                           | 25                                                                                           |             |             |             |             |             |             |
| Topology                              | Transformerless                                                                              |             |             |             |             |             |             |
| Cooling                               | Intelligent Fan                                                                              |             |             |             |             |             |             |
| Relatively Humidity                   | 0 - 100 %                                                                                    |             |             |             |             |             |             |
| Operating Temperature Range (°C)      | - 25 to 60                                                                                   |             |             |             |             |             |             |
| Operating Altitude (m)                | < 4000                                                                                       |             |             |             |             |             |             |
| Noise Emission (dB)                   | < 25                                                                                         |             |             |             |             |             |             |
| Standby Consumption (W)               | < 10                                                                                         |             |             |             |             |             |             |
| Mounting                              | Wall Bracket                                                                                 |             |             |             |             |             |             |
| Communication with RSD                | SUNSPEC                                                                                      |             |             |             |             |             |             |
| Display & Communication Interfaces    | LCD, LED, RS485, CAN, Wi-Fi, GPRS, 4G                                                        |             |             |             |             |             |             |
| Certification & Approvals             | NRS097, G98/G99, EN50549-1, C10/C11, AS4777.2, VDE-AR-N4105, VDE0126, IEC62109-1, IEC62109-2 |             |             |             |             |             |             |
| EMC                                   | EN61000-6-2, EN61000-6-3                                                                     |             |             |             |             |             |             |



■ Model

AF5000W-LE

| Parameter                           |                             |
|-------------------------------------|-----------------------------|
| Nominal Voltage(Vdc)                | 51.2                        |
| Nominal Capacity(Wh)                | 5120                        |
| Working Voltage Range(Vdc)          | 44.8-56.16                  |
| Charge Voltage(Vdc)                 | 58.4                        |
| Nominal Charge/Discharge Current(A) | 50                          |
| Max.Charge/Discharge Current(A)     | 100                         |
| Peak Current(A)                     | 200@3sec                    |
| Parallel Connection                 | ≤ 6 pcs                     |
| Cycle Life                          | 6000 @ 80% DOD, 25°C / 0.5C |

| Structure     |             |
|---------------|-------------|
| Dimension(mm) | 600*210*300 |
| Weight(kg)    | 50.5        |
| IP Rating     | IP65        |
| Installation  | Stacked     |

| Working Environment               |                        |
|-----------------------------------|------------------------|
| Charge Working Temperature(°C)    | 0-55                   |
| Discharge Working Temperature(°C) | -20~60                 |
| Altitude(M)                       | <2500                  |
| Humidity(RH)                      | 5-95% (w/o condensing) |

| Communication      |                                     |
|--------------------|-------------------------------------|
| Communication Port | RS485, CAN                          |
| Display            | SOC status indicator, LED indicator |

| Certification                                     |  |
|---------------------------------------------------|--|
| CB, IEC62619; CE-EMC, CE-GPSD, UKCA; UN38.3, MSDS |  |

# All In One Energy Storage System Three Phase Storage Solution (HV)

Afore ATH Series is an all-in-one solar and storage solution that integrates the inverter, battery charger, UPS-level switching, and battery enclosure into a pre-wired modular system for easier and faster installation. The compact, elegantly designed, and robust unit is IP66 rated, so it can be mounted either inside or outside withstanding all weather conditions and brings a reduction of installation time of up to 50%.



IP66 Outdoor Design



Modular Design  
Plug & Play



AFCI Standard



Scalable Design Up  
To 25.6kWh



UPS function  
switch time  $\leq 10\text{ms}$



RSD Ready  
VPP Ready

## FOR SOLAR + ENERGY STORAGE SYSTEM

### POWER

3 / 4 / 5 / 6 / 8 / 10 / 12 / 15kW

### BATTERY CAPACITY

2.56kWh: 7.68kWh - 25.6kWh

5.12kWh: 15.36kWh - 30.72kWh

Afore



| ■ Technical Data                    | AF3K-ATH                                                                                     | AF4K-ATH    | AF5K-ATH    | AF6K-ATH    | AF8K-ATH        | AF10K-ATH    | AF12K-ATH    | AF15K-ATH   |
|-------------------------------------|----------------------------------------------------------------------------------------------|-------------|-------------|-------------|-----------------|--------------|--------------|-------------|
| PV Input                            |                                                                                              |             |             |             |                 |              |              |             |
| Max. DC Input Power (kW)            | 5                                                                                            | 6           | 7.5         | 9           | 12              | 15           | 18           | 22.5        |
| Max. PV Voltage (V)                 | 1000                                                                                         |             |             |             |                 |              |              |             |
| Rated DC Input Voltage (V)          | 620                                                                                          |             |             |             |                 |              |              |             |
| DC Input Voltage Range (V)          | 150-1000                                                                                     |             |             |             |                 |              |              |             |
| MPPT Voltage Range (V)              | 150-850                                                                                      |             |             |             |                 |              |              |             |
| Full MPPT Range(V)                  | 200-850                                                                                      |             |             | 250-850     | 300-850         |              | 500-850      |             |
| Start-up Voltage (V)                | 160                                                                                          |             |             |             |                 |              |              |             |
| Max. DC Input Current (A)           | 20x2                                                                                         |             |             |             |                 |              |              |             |
| Max. Short Current(A)               | 30x2                                                                                         |             |             |             |                 |              |              |             |
| No. of MPPT Tracker / Strings       | 2/2                                                                                          |             |             |             |                 |              |              |             |
| Battery Port                        |                                                                                              |             |             |             |                 |              |              |             |
| Battery Nominal Voltage (V)         | 150                                                                                          | 200         | 200         | 250         | 300             | 350          | 450          | 500         |
| Battery Voltage Range (V)           | 80-600                                                                                       |             |             |             |                 |              |              |             |
| Max. Charge/Discharge Current (A)   | 30                                                                                           |             |             |             |                 |              |              |             |
| Max. Charge/Discharge Power (kW)    | 3                                                                                            | 4           | 5           | 6           | 8               | 10           | 12           | 15          |
| Charging Curve                      | 3 Stages                                                                                     |             |             |             |                 |              |              |             |
| Compatible Battery Type             | Li-ion / Sodium-ion battery                                                                  |             |             |             |                 |              |              |             |
| AC Grid                             |                                                                                              |             |             |             |                 |              |              |             |
| Nominal AC Output Power (kW)        | 3                                                                                            | 4           | 5           | 6           | 8               | 10           | 12           | 15          |
| Max. AC Input/Output Power (kVA)    | 4.5 / 3.3                                                                                    | 6 / 4.4     | 7.5 / 5.5   | 9 / 6.6     | 12 / 8.8        | 15 / 11      | 18 / 13.2    | 22.5 / 16.5 |
| Max. AC Output Current (A)          | 5.3                                                                                          | 7           | 8.5         | 10.5        | 13.5            | 17           | 21.5         | 27          |
| Nominal AC Voltage (V)              | 230/400                                                                                      |             |             |             |                 |              |              |             |
| Nominal AC Frenquency (Hz)          | 50/60                                                                                        |             |             |             |                 |              |              |             |
| Power Factor                        | 1 ( -0.8-0.8) adjustable                                                                     |             |             |             |                 |              |              |             |
| Current THD (%)                     | <3%                                                                                          |             |             |             |                 |              |              |             |
| AC Load Output (Back-up)            |                                                                                              |             |             |             |                 |              |              |             |
| Nominal Output Power (VA)           | 3000                                                                                         | 4000        | 5000        | 6000        | 8000            | 10000        | 12000        | 15000       |
| Nominal Output Voltage (V)          | 230/400                                                                                      |             |             |             |                 |              |              |             |
| Nominal Output Frequency (Hz)       | 50/60                                                                                        |             |             |             |                 |              |              |             |
| Nominal Output Current (A)          | 4.4                                                                                          | 5.8         | 7.3         | 8.7         | 11.6            | 14.5         | 17.4         | 21.8        |
| Peak Output Power                   | 3300VA, 60s                                                                                  | 4400VA, 60s | 5500VA, 60s | 6600VA, 60s | 8800VA, 60s     | 11000VA, 60s | 13200VA, 60s | 16500VA,60s |
| THDV (with linear load)             | <3%                                                                                          |             |             |             |                 |              |              |             |
| Switching Time (ms)                 | <10                                                                                          |             |             |             |                 |              |              |             |
| Efficiency                          |                                                                                              |             |             |             |                 |              |              |             |
| Europe Efficiency                   | 97.50%                                                                                       |             |             |             |                 |              |              |             |
| Max. Efficiency                     | 98.00%                                                                                       |             |             |             | 98.20%          |              | 98.30%       |             |
| Battery Charge/Discharge Efficiency | 98.00%                                                                                       |             |             |             |                 |              |              |             |
| Protection                          |                                                                                              |             |             |             |                 |              |              |             |
| Reverse Polarity Protection         | Yes                                                                                          |             |             |             |                 |              |              |             |
| Over Current / Voltage Protection   | Yes                                                                                          |             |             |             |                 |              |              |             |
| Anti-islanding Protection           | Yes                                                                                          |             |             |             |                 |              |              |             |
| AC Short-circuit Protection         | Yes                                                                                          |             |             |             |                 |              |              |             |
| Leakage Current Detection           | Yes                                                                                          |             |             |             |                 |              |              |             |
| Ground Fault Monitoring             | Yes                                                                                          |             |             |             |                 |              |              |             |
| Grid Monitoring                     | Yes                                                                                          |             |             |             |                 |              |              |             |
| Enclosure Protect Level             | IP66                                                                                         |             |             |             |                 |              |              |             |
| AC/DC surge protection              | Type II                                                                                      |             |             |             |                 |              |              |             |
| General Data                        |                                                                                              |             |             |             |                 |              |              |             |
| Dimensions (W x H x D, mm)          | 600 x 432 x 210                                                                              |             |             |             |                 |              |              |             |
| Weight (kg)                         | 25                                                                                           |             |             |             |                 |              |              |             |
| Topology                            | Transformerless                                                                              |             |             |             |                 |              |              |             |
| Cooling Concept                     | Natural Convection                                                                           |             |             |             | Intelligent Fan |              |              |             |
| Relatively Humidity                 | 0-100%                                                                                       |             |             |             |                 |              |              |             |
| Operating Temperature Range (°C)    | -25 to 60 °C                                                                                 |             |             |             |                 |              |              |             |
| Operating Altitude (m)              | <4000                                                                                        |             |             |             |                 |              |              |             |
| Noise Emission (dB)                 | <40                                                                                          |             |             |             |                 |              |              |             |
| Standby Consumption (W)             | <5                                                                                           |             |             |             |                 |              |              |             |
| Display & Communication Interfaces  | LCD, LED, RS485, CAN, Wi-Fi, GPRS, 4G                                                        |             |             |             |                 |              |              |             |
| Certification & Approvals           | NRS097, G98/G99, EN50549-1, C10/C11, AS4777.2, VDE-AR-N4105, VDE0126, IEC62109-1, IEC62109-2 |             |             |             |                 |              |              |             |
| EMC                                 | EN61000-6-2, EN61000-6-3                                                                     |             |             |             |                 |              |              |             |



| ■ Model                                                                               | AF2500W-HB                          | AF5000W-HC      |
|---------------------------------------------------------------------------------------|-------------------------------------|-----------------|
| Parameter                                                                             |                                     |                 |
| Nominal Voltage(Vdc)                                                                  | 51.2                                | 51.2            |
| Nominal Capacity(Wh)                                                                  | 2560                                | 5120            |
| Working Voltage Range(Vdc)                                                            | 129.6-516.6                         | 129.6-350.4     |
| Charge Voltage(Vdc)                                                                   | 56.16                               | 56.16           |
| Nominal Charge/Discharge Current(A)                                                   | 25                                  | 50              |
| Max.Charge/Discharge Current(A)                                                       | 50                                  | 100             |
| Peak Current(A)                                                                       | 100@3sec                            | 200@3sec        |
| Series Connection                                                                     | 3-10 pcs                            | 3-6 pcs         |
| Cycle Life                                                                            | 6000 @ 80% DOD, 25℃ / 0.5C          |                 |
| Structure                                                                             |                                     |                 |
| Power Module Dimensions(mm)/Weight(kg)                                                | 600*210*250 /14                     | 610*225*250 /15 |
| Battery Module Dimensions(mm)/Weight(kg)                                              | 600*210*160 /27                     | 610*225*250 /52 |
| Lampstand Module Dimensions(mm)/Weight(kg)                                            | 600*210*90 /5                       | 610*225*90 /5.5 |
| Top Cap Module Dimensions(mm)/Weight(kg)                                              | 600*210*50 /2.5                     | 610*225*50 /3   |
| IP Rating                                                                             | IP65                                |                 |
| Installation                                                                          | Stacked                             |                 |
| Working Environment                                                                   |                                     |                 |
| Charge Working Temperature(℃)                                                         | 0-55                                |                 |
| Discharge Working Temperature(℃)                                                      | -20~60                              |                 |
| Altitude(M)                                                                           | <2500                               |                 |
| Humidity(RH)                                                                          | 5-95% (w/o condensing)              |                 |
| Communication                                                                         |                                     |                 |
| Communication Port                                                                    | RS485, CAN                          |                 |
| Display                                                                               | SOC status indicator, LED indicator |                 |
| Certification                                                                         |                                     |                 |
| CB, IEC62619, CE-EMC, CE-GPSD, UKCA, UL1973, UL9540A, EN62040, IEC62040; UN38.3, MSDS |                                     |                 |



# Outdoor Cabinet ESS Solution

- 100% Unbalanced Output
- 150% Backup Overload
- UPS
- UPS Level Switch Time ≤ 10ms
- Parallel Operation Extend to 300kW
- Support DC & AC Coupling System
- Support DG Input & Smart Load

The Afore all-in-one ESS cabinet is designed for small to medium-sized C&I energy storage and microgrid applications. It has the characteristics of high reliability, high efficiency.

## Model AF100KW-LI

| DC Data                 |                          |
|-------------------------|--------------------------|
| Battery chemistry       | LiFePO4                  |
| Cycle life              | ≥6000 (@25°C, 0.5C/0.5C) |
| Cell spec               | 3.2V/100Ah               |
| Battery module capacity | 10.24KWh                 |
| string configuration    | 2P160S                   |
| Number of strings       | 1                        |
| Rated energy capacity   | 102.4KWh                 |
| Rated voltage           | 512V                     |
| Voltage range           | 448V-584V                |

| General Data                |                                |
|-----------------------------|--------------------------------|
| Dimension (W*D*H)           | 1100 x1100 x2380 mm            |
| Weight of the whole system  | <1.5T                          |
| Degree of protection        | IP54                           |
| Cooling method              | HVAC                           |
| Fire Fighting System        | Hot aerosol fire extinguishing |
| Operating temperature range | -20~40°C                       |
| Relative humidity           | 0~95%(non-condensing)          |
| Max working altitude        | ≤3,000m(9,842ft)               |
| Communication interfaces    | CAN                            |
| Standards                   | UN38.3                         |

| Technical Data                      | AF36K-ATH                                                                                    | AF40K-ATH                   | AF50K-ATH                   |
|-------------------------------------|----------------------------------------------------------------------------------------------|-----------------------------|-----------------------------|
| PV Input                            |                                                                                              |                             |                             |
| Max. DC Input Power (kW)            | 54                                                                                           | 60                          | 75                          |
| Max. PV Voltage (V)                 |                                                                                              | 1000                        |                             |
| Rated DC Input Voltage (V)          |                                                                                              | 620                         |                             |
| DC Input Voltage Range (V)          |                                                                                              | 150-1000                    |                             |
| MPPT Voltage Range (V)              |                                                                                              | 150-850                     |                             |
| Full MPPT Range(V)                  |                                                                                              | 500-850                     |                             |
| Start-up Voltage (V)                |                                                                                              | 160                         |                             |
| Max. DC Input Current (A)           |                                                                                              | 40 x 4                      |                             |
| Max. Short Current(A)               |                                                                                              | 48 x 4                      |                             |
| No. of MPPT Tracker / Strings       |                                                                                              | 4/8                         |                             |
| Battery Port                        |                                                                                              |                             |                             |
| Battery Nominal Voltage (V)         |                                                                                              | 500                         |                             |
| Battery Voltage Range (V)           |                                                                                              | 150-800                     |                             |
| Max. Charge/Discharge Current (A)   |                                                                                              | 120                         |                             |
| Max. Charge/Discharge Power (kW)    | 36                                                                                           | 40                          | 50                          |
| Charging Curve                      |                                                                                              | 3 Stages                    |                             |
| Compatible Battery Type             | Li-ion / Lead-acid / Sodium metal chloride battery                                           |                             |                             |
| AC Grid                             |                                                                                              |                             |                             |
| Nominal AC Output Power (kW)        | 36                                                                                           | 40                          | 50                          |
| Max. AC Input/Output Power (kVA)    | 72 / 39.6                                                                                    | 80 / 44                     | 100/ 55                     |
| Max. AC Output Current (A)          | 60.06                                                                                        | 66.77                       | 83.38                       |
| Nominal AC Voltage (V)              |                                                                                              | 230/400                     |                             |
| Nominal AC Frenquency (Hz)          |                                                                                              | 50/60                       |                             |
| Power Factor                        |                                                                                              | 1 ( -0.8-0.8 )              |                             |
| Current THD (%)                     |                                                                                              | <3 %                        |                             |
| AC Load Output (Back-up)            |                                                                                              |                             |                             |
| Nominal Output Power (VA)           | 36000                                                                                        | 44000                       | 55000                       |
| Nominal Output Voltage (V)          |                                                                                              | 230/ 400                    |                             |
| Nominal Output Frequency (Hz)       |                                                                                              | 50/ 60                      |                             |
| Nominal Output Current (A)          | 52.2                                                                                         | 58                          | 72.5                        |
| Peak Output Power                   | 54000VA, 10s / 39600VA, 60s                                                                  | 60000VA, 10s / 44000VA, 60s | 75000VA, 10s / 55000VA, 60s |
| THDV (with linear load)             |                                                                                              | 3 %                         |                             |
| Switching Time (ms)                 |                                                                                              | <10                         |                             |
| Efficiency                          |                                                                                              |                             |                             |
| Europe Efficiency                   | 98.20%                                                                                       | 98.30%                      | 98.30%                      |
| Max. Efficiency                     |                                                                                              | 98.60%                      |                             |
| Battery Charge/Discharge Efficiency |                                                                                              | 99.00%                      |                             |
| Protection                          |                                                                                              |                             |                             |
| Reverse Polarity Protection         |                                                                                              | Yes                         |                             |
| Over Current / Voltage Protection   |                                                                                              | Yes                         |                             |
| Anti-islanding Protection           |                                                                                              | Yes                         |                             |
| AC Short-ciruit Protection          |                                                                                              | Yes                         |                             |
| Leakage Current Detection           |                                                                                              | Yes                         |                             |
| Ground Fault Monitoring             |                                                                                              | Yes                         |                             |
| Grid Monitoring                     |                                                                                              | Yes                         |                             |
| Enclosure Protect Level             |                                                                                              | IP66                        |                             |
| AC/DC surge protection              |                                                                                              | Type II                     |                             |
| General Data                        |                                                                                              |                             |                             |
| Dimensions (W x H x D, mm)          |                                                                                              | 979 x 610 x 310 mm          |                             |
| Weight (kg)                         |                                                                                              | 70kg                        |                             |
| Topology                            |                                                                                              | Transformerless             |                             |
| Cooling Concept                     |                                                                                              | Intelligent Fan             |                             |
| Relative Humidity                   |                                                                                              | 0-100%                      |                             |
| Operating Temperature Range (°C)    |                                                                                              | -25 to 60 °C                |                             |
| Operating Altitude (m)              |                                                                                              | <4000                       |                             |
| Noise Emission (dB)                 |                                                                                              | <60                         |                             |
| Standby Consumption (W)             |                                                                                              | <100                        |                             |
| Display & Communication Interfaces  | LCD, LED, RS485, CAN, Wi-Fi, GPRS, 4G                                                        |                             |                             |
| Certification & Approvals           | NRS097, G98/G99, EN50549-1, C10/C11, AS4777.2, VDE-AR-N4105, VDE0126, IEC62109-1, IEC62109-2 |                             |                             |
| EMC                                 | EN61000-6-2, EN61000-6-3                                                                     |                             |                             |