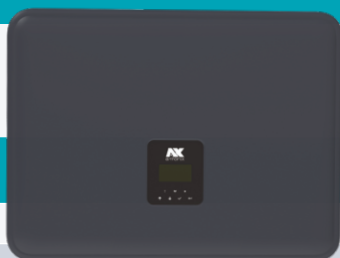


# Technical Data

## AX Plus 5–15kW 3ph Hybrid Inverter



| Specification                             |  | AX Plus 5kW                                    | AX Plus 6kW | AX Plus 8kW | AX Plus 10kW         | AX Plus 12kW | AX Plus 15kW |
|-------------------------------------------|--|------------------------------------------------|-------------|-------------|----------------------|--------------|--------------|
| Order number                              |  | 9896128                                        | 9896129     | 9896130     | 9896131              | 9896132      | 9896133      |
| PV Input                                  |  |                                                |             |             |                      |              |              |
| Max. Array Power [Wp]                     |  | 11000                                          | 14000       | 18000       | 20000                | 24000        | 30000        |
| Max. DC Input Power [W]                   |  | 11000                                          | 13200       | 17600       | 18000                | 22500        | 25000        |
| Max. DC Voltage [V]                       |  | 1000 <sup>[1]</sup>                            |             |             |                      |              |              |
| Nominal DC Operating Voltage [V]          |  | 620                                            |             |             |                      |              |              |
| Max. MPPT Input Current [A]               |  | 20/20/20                                       |             |             |                      |              |              |
| Max. MPPT Short Circuit Current [A]       |  | 25/25/25                                       |             |             |                      |              |              |
| Max. MPPT Input Power [W]                 |  | 10000/10000/10000                              |             |             |                      |              |              |
| Min. Operating PV Voltage [V]             |  | 90 <sup>[2]</sup>                              |             |             |                      |              |              |
| MPPT Voltage Range [V]                    |  | 120~950                                        |             |             |                      |              |              |
| Start-up Input Voltage [V]                |  | 140                                            |             |             |                      |              |              |
| No. of MPP Trackers                       |  | 3                                              |             |             |                      |              |              |
| Strings per MPP Tracker                   |  | 1+1+1                                          |             |             |                      |              |              |
| Battery                                   |  |                                                |             |             |                      |              |              |
| Battery Type                              |  | Lithium-Ion Battery [LFP]                      |             |             |                      |              |              |
| Battery Voltage [V]                       |  | 100~800                                        |             |             |                      |              |              |
| Min. Operating Battery Voltage [V]        |  | 100                                            |             |             |                      |              |              |
| Min Battery Voltage @Full AC Load [V]     |  | 108                                            | 125         | 160         | 210                  | 250          | 310          |
| Max. Charge / Discharge Current [A]       |  | 50                                             |             |             |                      |              |              |
| Communication Interface                   |  | CAN                                            |             |             |                      |              |              |
| AC Output                                 |  |                                                |             |             |                      |              |              |
| Norminal AC Power [W]                     |  | 5000                                           | 6000        | 8000        | 10000                | 12000        | 15000        |
| Max. Apparent AC Power [VA]               |  | 5500                                           | 6600        | 8800        | 11000 <sup>[3]</sup> | 13200        | 16500        |
| Rated Grid Voltage (AC Voltage Range) [V] |  | 400/230Vac; 380/220Vac, 3L/N/PE                |             |             |                      |              |              |
| Rated Grid Frequency [Hz]                 |  | 50/60, ±5                                      |             |             |                      |              |              |
| Rated AC Current [A] (Per Phase)          |  | 7.6                                            | 9.1         | 12.1        | 15.2                 | 18.2         | 22.7         |
| Max. AC Current [A] (Per Phase)           |  | 8.3                                            | 10          | 13.3        | 16.7                 | 20           | 25           |
| Power Factor                              |  | 1 (Adjustable from 0.8 leading to 0.8 lagging) |             |             |                      |              |              |
| Distortion factor THDI [%]                |  | <3 @rated power                                |             |             |                      |              |              |
| AC Input                                  |  |                                                |             |             |                      |              |              |
| Max. AC Power [VA]                        |  | 6000                                           | 7200        | 9600        | 12000                | 14400        | 16000        |
| Rated Grid Voltage (AC Voltage Range) [V] |  | 400/230Vac; 380/220Vac, 3L/N/PE                |             |             |                      |              |              |
| Rated Grid Frequency [Hz]                 |  | 50/60, ±5                                      |             |             |                      |              |              |
| Max. AC Current [A] (Per Phase)           |  | 9.1                                            | 10.9        | 14.5        | 18.2                 | 21.8         | 24.2         |
| EPS Output                                |  |                                                |             |             |                      |              |              |
| Max. Apparent AC Power [VA]               |  | 5000                                           | 6000        | 8000        | 10000                | 12000        | 15000        |
| Peak Apparent AC Power [VA] (60s)         |  | 6000                                           | 7200        | 96000       | 12000                | 14400        | 15000        |
| Rated Output Voltage [V]                  |  | 400/230Vac; 380/220Vac, 3L/N/PE                |             |             |                      |              |              |
| Rated Grid Frequency [Hz]                 |  | 50/60                                          |             |             |                      |              |              |
| EPS Max. Current [A] (Per Phase)          |  | 7.2                                            | 8.7         | 11.6        | 14.5                 | 17.4         | 21.7         |
| Power Factor                              |  | 1 (Adjustable from 0.8 leading to 0.8 lagging) |             |             |                      |              |              |
| Switch Time [ms]                          |  |                                                |             |             |                      |              |              |
| Distortion factor THDV [%]                |  | <3 @Linear load                                |             |             |                      |              |              |

# Technical Data

## AX Plus 5–15kW 3ph Hybrid Inverter



| Specification                                          | AX Plus 5kW                                                                                                                                                 | AX Plus 6kW | AX Plus 8kW | AX Plus 10kW | AX Plus 12kW | AX Plus 15kW |
|--------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|-------------|--------------|--------------|--------------|
| Efficiency                                             |                                                                                                                                                             |             |             |              |              |              |
| MPPT Efficiency [%]                                    | 99.9                                                                                                                                                        |             |             |              |              |              |
| Max. Efficiency [%]                                    | 97.3                                                                                                                                                        | 97.7        | 97.7        | 97.9         | 97.9         | 97.9         |
| Euro-Efficiency [%]                                    | 97.2                                                                                                                                                        |             |             |              |              |              |
| Safety                                                 |                                                                                                                                                             |             |             |              |              |              |
| PV Reverse Polarity Protection                         | Yes                                                                                                                                                         |             |             |              |              |              |
| Battert Reverse Protection                             | Yes                                                                                                                                                         |             |             |              |              |              |
| Anti-Islanding Protection                              | Yes                                                                                                                                                         |             |             |              |              |              |
| Output Short Protection                                | Yes                                                                                                                                                         |             |             |              |              |              |
| Leakage Current Protection                             | Yes                                                                                                                                                         |             |             |              |              |              |
| Insulation Resistor Protection                         | Yes                                                                                                                                                         |             |             |              |              |              |
| Over Voltage Category                                  | III (AC side), II (DC side)                                                                                                                                 |             |             |              |              |              |
| Reverse Connect Protection                             | Yes                                                                                                                                                         |             |             |              |              |              |
| Over-CurrentProtection/<br>Over-Temperature Protection | Yes                                                                                                                                                         |             |             |              |              |              |
| DC/AC Surge Protection                                 | Type II (PV), Type II (AC)                                                                                                                                  |             |             |              |              |              |
| AFCI Protection                                        | Yes                                                                                                                                                         |             |             |              |              |              |
| DC Switch                                              | Yes                                                                                                                                                         |             |             |              |              |              |
| General Data                                           |                                                                                                                                                             |             |             |              |              |              |
| Dimensions (W*H*D) [mm]                                | 600*450*226                                                                                                                                                 |             |             |              |              |              |
| Dimension of Packing (W*H*D) [mm]                      | 665*545*390                                                                                                                                                 |             |             |              |              |              |
| Net Weight [kg]                                        | 34                                                                                                                                                          |             |             |              |              |              |
| Gross Weight [kg]                                      | 40                                                                                                                                                          |             |             |              |              |              |
| Installation                                           | Wall-mounted                                                                                                                                                |             |             |              |              |              |
| Operating Temperature Range [°C]                       | -25 ~ +60                                                                                                                                                   |             |             |              |              |              |
| Storage Temperature [°C]                               | -40 ~ +70                                                                                                                                                   |             |             |              |              |              |
| Storage/Operation Relative Humidity [%]                | 0 ~ 100                                                                                                                                                     |             |             |              |              |              |
| Altitude [m]                                           | <4000 @Derating exceeding 2000                                                                                                                              |             |             |              |              |              |
| Protective Class                                       | I                                                                                                                                                           |             |             |              |              |              |
| Ingress Protection                                     | IP65 (For outdoor use)                                                                                                                                      |             |             |              |              |              |
| Standby Consumption [W]                                | 20 ~ 25                                                                                                                                                     |             |             |              |              |              |
| Standby Mode                                           | Yes                                                                                                                                                         |             |             |              |              |              |
| Cooling                                                | Natural                                                                                                                                                     |             |             |              |              |              |
| Noise Grade [dB]                                       | <40                                                                                                                                                         |             |             |              |              |              |
| Inverter Topology                                      | Non-isolated                                                                                                                                                |             |             |              |              |              |
| Communication Interface                                | Ethernet, EMS (RS485), Meter, WLAN (Wifi+LAN+Bluetooth). 4G (Optional), DRM, Ripple Control, USB, BMS(CAN), SG Ready                                        |             |             |              |              |              |
| LCD Display                                            | Backlight 16*4 character                                                                                                                                    |             |             |              |              |              |
| Standard Warranty [year]                               | 10                                                                                                                                                          |             |             |              |              |              |
| Button                                                 | Capacitive touch sensor *4                                                                                                                                  |             |             |              |              |              |
| Buzzer                                                 | 1. inside (EPS & Earth fault)                                                                                                                               |             |             |              |              |              |
| Certification                                          | VDE 4105; VDE0126; EN 62109; EN61000; EN62920; EN55011; EN IEC 62311; EN301 489; RoHs, REACH, TOR; Belgium C10/11; France EN50549-1; Italy CEI021. CEI0-16; |             |             |              |              |              |

<sup>[1]</sup> For a 1000V system, the maximum operating voltage of the PV system is 950V.

<sup>[2]</sup> The starting operating voltage of the power supply is 90V.

<sup>[3]</sup> Belgian safety regulations require an apparent power of 10000W to be considered as 10000VA.

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