

# MID 29.9-50K-HU

- DC/AC ratio up to 2
- 3/4 MPP trackers for more flexibility
- Integrated backup function
- Support unbalanced output



P O W E R  
- I N G O  
T O M O -  
R R O W O

| Datasheet                                  | MID 29.9K-HU                                                     | MID 30K-HU           | MID 33K-HU           | MID 36K-HU           | MID 40K-HU           | MID 50K-HU           |
|--------------------------------------------|------------------------------------------------------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| Input data (DC)                            |                                                                  |                      |                      |                      |                      |                      |
| Max. recommended PV power (for module STC) | 59800W                                                           | 60000W               | 66000W               | 72000W               | 80000W               | 100000W              |
| Max. DC voltage                            | 1000V                                                            |                      |                      |                      |                      |                      |
| Start Voltage                              | 160V                                                             |                      |                      |                      |                      |                      |
| Normal Voltage                             | 600V                                                             |                      |                      |                      |                      |                      |
| MPPT voltage range                         | 200-1000V                                                        |                      |                      |                      |                      |                      |
| No. of MPP trackers                        | 3                                                                |                      |                      |                      | 4                    |                      |
| No. of PV strings per MPP tracker          | 2                                                                |                      |                      |                      |                      |                      |
| Max. input current per MPP tracker         | 40A                                                              |                      |                      |                      |                      |                      |
| Max. short-circuit current per MPP tracker | 50A                                                              |                      |                      |                      |                      |                      |
| Battery data (DC)                          |                                                                  |                      |                      |                      |                      |                      |
| Compatible battery                         | APX HV Battery 1.0<br>APX HV Battery 2.0(5kWh~30kWh)             |                      |                      |                      |                      |                      |
| Operating voltage range                    | APX 1.0 Battery: 600 V ~ 980 V<br>APX 2.0 Battery: 660 V ~ 980 V |                      |                      |                      |                      |                      |
| Max. operating current                     | APX 1.0 Battery: 83.3A<br>APX 2.0 Battery: 75.8A                 |                      |                      |                      |                      |                      |
| Max. discharge power*1                     | APX 1.0 Battery:29.9kW                                           | APX 1.0 Battery:30kW |                      |                      |                      |                      |
|                                            | APX 2.0 Battery:29.9kW                                           | APX 2.0 Battery:30kW | APX 2.0 Battery:33kW | APX 2.0 Battery:36kW | APX 2.0 Battery:40kW | APX 2.0 Battery:45kW |
| Max. charge power                          | APX 1.0 Battery: 50kW/APX 2.0 Battery: 50kW                      |                      |                      |                      |                      |                      |
| Output data (AC)                           |                                                                  |                      |                      |                      |                      |                      |
| AC nominal input power                     | 35.9kW                                                           | 36kW                 | 39.6kW               | 43.2kW               | 48kW                 | 60kW                 |
| Max. AC apparent power                     | 35.9kVA                                                          | 36kVA                | 39.6kVA              | 43.2kVA              | 48kVA                | 60kVA                |
| Nominal AC voltage                         | 220/380V, 230/400V                                               |                      |                      |                      |                      |                      |
| AC grid frequency (range*)                 | 50/60 Hz (45-55Hz/55-65Hz)                                       |                      |                      |                      |                      |                      |
| Power factor (nominal power)               | > 0.99                                                           |                      |                      |                      |                      |                      |
| Max. input current                         | 54.4A                                                            | 54.5A                | 60A                  | 65.5A                | 72.7A                | 90.9A                |
| Adjustable power factor                    | 0.8leading...0.8lagging                                          |                      |                      |                      |                      |                      |
| THDi                                       | <3%                                                              |                      |                      |                      |                      |                      |
| AC grid connection type                    |                                                                  |                      | 3W+N+PE/3W+PE        |                      |                      |                      |
| Backup output (AC)                         |                                                                  |                      |                      |                      |                      |                      |
| Nominal output power                       | 29.9kW                                                           | 30kW                 | 33kW                 | 36kW                 | 40kW                 | 50kW                 |
| Max. apparent power*2                      | 29.9kVA                                                          | 30kVA                | 33kVA                | 36kVA                | 40kVA                | 50kVA                |
| Nominal AC voltage                         | 220/380V, 230/400V                                               |                      |                      |                      |                      |                      |
| Max. output current*3                      | 45.3A                                                            | 45.5A                | 54.5A                | 50A                  | 60.6A                | 75.8A                |
| Norminal frequency                         | 50/60Hz                                                          |                      |                      |                      |                      |                      |
| Overload capability                        | 1.2 times of rated power, 10s                                    |                      |                      |                      |                      |                      |
| THDv                                       | <3%                                                              |                      |                      |                      |                      |                      |
| Efficiency                                 |                                                                  |                      |                      |                      |                      |                      |
| Max. efficiency                            | 98.6%                                                            |                      |                      |                      |                      |                      |
| European efficiency                        | 97.2%                                                            |                      |                      |                      |                      |                      |
| Protection devices                         |                                                                  |                      |                      |                      |                      |                      |
| DC switch                                  | Yes                                                              |                      |                      |                      |                      |                      |
| DC reverse polarity protection             | Yes                                                              |                      |                      |                      |                      |                      |
| AC/DC surge protection                     | Type II                                                          |                      |                      |                      |                      |                      |
| Insulation resistance monitoring           | Yes                                                              |                      |                      |                      |                      |                      |
| Output surge protection                    | Type II                                                          |                      |                      |                      |                      |                      |
| AC short-circuit protection                | Yes                                                              |                      |                      |                      |                      |                      |
| Ground fault monitoring                    | Yes                                                              |                      |                      |                      |                      |                      |
| Grid monitoring                            | Yes                                                              |                      |                      |                      |                      |                      |
| Anti-islanding protection                  | Yes                                                              |                      |                      |                      |                      |                      |
| Residual-current monitoring unit           | Yes                                                              |                      |                      |                      |                      |                      |
| String fault monitoring                    | Yes                                                              |                      |                      |                      |                      |                      |
| AFCI protection                            | Optional                                                         |                      |                      |                      |                      |                      |

| Datasheet                                          | MID 29.9K-HU                        | MID 30K-HU | MID 33K-HU | MID 36K-HU | MID 40K-HU | MID 50K-HU |
|----------------------------------------------------|-------------------------------------|------------|------------|------------|------------|------------|
| General data                                       |                                     |            |            |            |            |            |
| Dimensions (W / H / D)                             | 680/570/256mm                       |            |            |            |            |            |
| Weight                                             | 48kg                                |            |            |            | 50kg       |            |
| Noise level                                        | -25°C ... +60°C                     |            |            |            |            |            |
| Operating temperature range                        | ≤55dB(A)                            |            |            |            |            |            |
| Nighttime power consumption                        | 4000m                               |            |            |            |            |            |
| Topology                                           | Transformerless                     |            |            |            |            |            |
| Cooling                                            | Smart air cooling                   |            |            |            |            |            |
| Protection degree                                  | IP66                                |            |            |            |            |            |
| AC connection                                      | 0~100%                              |            |            |            |            |            |
| DC connection                                      | H4/MC4(Optional)                    |            |            |            |            |            |
| Relative humidity                                  | Waterproof PG connector+OT terminal |            |            |            |            |            |
| Interfaces: RS485/CAN/USB                          | OLED+LED/WIFI+APP                   |            |            |            |            |            |
| Display                                            | Yes                                 |            |            |            |            |            |
| Monitor: WiLAN-X2/4G-X/<br>ShineMaster-X           | Optional                            |            |            |            |            |            |
| Warranty                                           | 5/10 years(optional)                |            |            |            |            |            |
| CE, N4105, EN50549-1, C10/C11, CEI 0-21, G99, G100 |                                     |            |            |            |            |            |

\*1. Compatible with APX 1.0 battery (max. discharge power 30 kW) and APX 2.0 battery (max. discharge power 45 kW).

\*2. Compatible with APX 1.0 (30 kVA backup power / 30 kW max. charge power) and APX 2.0 (50 kVA backup power / 45 kW max. charge power).

\*3. Max. output current with APX battery: 75.8 A

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