

## PRODUCT PARAMETER

7.6kW Datasheet For North America | 11.4kW Datasheet For North America (draft)

|                                     | 7.6kW Datasheet For North America             | 11.4kW Datasheet For North America (draft) |                                   |
|-------------------------------------|---|--|-----------------------------------|
| PV INPUT (ONLY FOR HYBRID)          | Max. Solar STC Power [W]                      | 15200                                      | 22800                             |
|                                     | Max. Input Voltage [V]                        |  | 550                               |
|                                     | Start-up Input Voltage [V]                    |  | 100                               |
|                                     | Rated Input Voltage [V]                       |  | 380                               |
|                                     | MPPT Operating Voltage Range [V]              |  | 80-500                            |
|                                     | MPPT Operating Voltage Range [V] (Full Load)  | 250-500                                    | 285-500                           |
|                                     | Max. Input Current [A]                        | 20/20/20                                   | 40/20/20                          |
|                                     | Max. Short-circuit Current [A]                | 25/25/25                                   | 50/25/25                          |
|                                     | No. of MPP Trackers                           |  | 3                                 |
|                                     | No. of Strings per MPP Tracker                | 1/1/1                                      | 2/1/1                             |
| BATTERY                             | Max. Charge/Discharge Power (W)               | 7600                                       | 11400                             |
|                                     | Battery Normal Voltage (V)                    |  | 400                               |
|                                     | Battery Voltage Range (V)                     |  | 325-495                           |
|                                     | Battery Type                                  |  | LFP                               |
|                                     | Capacity (KWH)                                |  | 15 \ 20                           |
| Expected Life Time                  |   | 10 Years                                   |                                   |
| Battery Communication               |   | CAN / RS485                                |                                   |
| Gen Input & AC Grid (Input)         | Max Input power (W)                           | 7600                                       | 11400                             |
|                                     | Max. Input Continuous Current (A)             | 31.7                                       | 47.5                              |
|                                     | Input Voltage Range(V)                        |  | 211-264@240                       |
|                                     | Nominal Grid Frequency (Hz)                   |  | 60                                |
| Back-up (output)                    | Rated output power (W)                        | 7600                                       | 11400                             |
|                                     | Max. Output Apparent Power [VA]               | 7600                                       | 11400                             |
|                                     | Max. Peak Power (VA) (10S)                    | 11400                                      | 15390                             |
|                                     | Rated AC output current (A)                   | 31.7                                       | 47.5                              |
|                                     | Load Start Capacity [A]                       | 90   | 110                               |
|                                     | Nominal AC Voltage L-L (V)                    |  | 240                               |
|                                     | Nominal AC Voltage L-O (V)                    |  | 120                               |
|                                     | Nominal AC Frequency (Hz)                     |  | 60                                |
|                                     | Power Factor                                  |  | >0.99 (0.8 leading - 0.8 lagging) |
|                                     | THDv(@linear load) (%)                        |  | < 3 @rated power                  |
| Imbalance for Split-Phase Loads [%] |   | 100  |                                   |
| Efficiency                          | Max. Efficiency (%)                           |  | 97.6                              |
|                                     | CEC Efficiency (%)                            |  | 97                                |
|                                     | Max. BAT Discharge Efficiency (BAT to AC) (%) |  | 97.4                              |
|                                     | Round Trip Efficiency                         |  | 89                                |
|                                     | MPPT Efficiency (%)                           |  | 99.9                              |
| Protection                          | PV Reverse Polarity Protection                |  | YES                               |
|                                     | Bat. Reverse Polarity Protection              |  | YES                               |
|                                     | Over Current/Voltage Protection               |  | YES                               |
|                                     | Anti-Islanding Protection                     |  | YES                               |
|                                     | AC Short Circuit Protection                   |  | YES                               |
|                                     | Ground Fault Monitoring                       |  | YES                               |
|                                     | Residual Current Detection                    |  | YES                               |
|                                     | Insulation Resister Detection                 |  | YES                               |
|                                     | PV Arc Detection                              |  | YES                               |
|                                     | Rapid Shut Down                               |  | YES                               |

### General Data

|                                    |   |
|------------------------------------|---|
| Dimensions (W x H x D) (mm)        | 28*66.5*6.7 inch (710*1690*170 mm)  |
| Weight                             | Inverter: 71Lbs (32.5Kg) ; System: 397 Lbs (180Kg, Modular Design, no special tools needed) |
| Topology                           | Transformerless   |
| Cooling                            | Natural convection  |
| Relatively Humidity                | 0 - 100 % (No Condensation)   |
| Operating Temperature              | Inverter: -13F ~ 140F (-25°C ~ 60°C)<br>System: -4F ~ 131F (-20°C ~ 55°C)                   |
| Storage Temperature                | -4F ~ 140F (-20°C ~ 60°C)   |
| Protection Degree                  | NEMA4X(hybrid),NEMA3R(hybrid+battery)   |
| Pollution Degree (PD)              | PD3(outside),PD2(Inside)  |
| Operating Altitude                 | < 9842 Ft (3000m)   |
| Noise Emission (dB)                | < 40 @1m  |
| Mounting                           | Floor standing/Wall-mounted   |
| Communication with RSD             | SUNSPEC   |
| Display & Communication Interfaces | LED / RS485, CAN, Wi-Fi,USB   |
| Environmental                      | RoHS Directive 2011/65/EU   |
| Seismic                            | AC156, IEEG 693-2005 (high)   |
| Certification & Approvals          | PV: UL 1699B, UL 1741, UL 3741, UL 1741 SA, UL1998 (US), IEEG 1547, IEEG 1547.1             |
| EMC                                | FCC part15 CLASS B  |
| Others                             | Revenue grade metering, ANSI C12.20   |

### MH Gate1-U US

|  |  |
|--|--|
| Grid Voltage (V)                         | 120/240  |
| Feed-In Type                             | Split Phase  |
| Grid Frequency (Hz)                      | 60   |
| Current Rating (A)                       | 200  |
| Maximum Input Short Circuit Current (kA) | 22   |
| Overcurrent Protection Device            | Hiconics Hybrid Inverter: 50A<br>Existing Solar (3rd Party): 80A<br>Diesel Generator: 200A<br>Smart Circuits: Circuit 1/80A; Circuit 2&3/50A<br>Non Backup: 160A<br>Backup: 200A |
| AC Meter                                 | CT: 200 A split core current transformers for metering<br>/ 200 A clamp-type current transformers for metering   |
| User Interface                           | App  |
| Operating Modes                          | Self-Power/Backup Standby/TOU  |
| Backup Transition                        | Seamless switch to backup mode   |
| Modularity                               | allow up to 3 units  |
| Warranty                                 | 10 years   |
| Dimensions (W x H x D) (mm)              | 800×530×160  |
| Weight (kg)                              | 23   |
| Mounting options                         | Wall Mounted   |
| Certifications                           | UL 1741, UL 1741 SA, IEEG 1547:2018 (UL 1741-SB, 3rd Ed.),<br>UL 1741 PCS CRD, UL67, UL1 998, UL 869A, CSA 22.2 No. 107.1,<br>47 CFR Part 15 Class B, ICES 003, ICC ES AC156.    |
| Operating Temperature                    | -40°C to 50°C  |
| Operating Humidity (RH)                  | Up to 100%, condensing   |
| Operating Altitude                       | 9842 Ft (3000m)  |
| Environment                              | Indoor and outdoor rated   |
| Enclosure Type                           | NEMA 3R  |

### General Data

Midea | HICONICS



# SPLIT-PHASE ALL-IN-ONE RESS

8+4-Layer Safety Strategy

## BUSINESS PROFILE AT A GLANCE

2023 TOTAL REVENUE (USD)



51.68 B

2023 NET PROFIT (USD)



4.66 B

NUMBER OF EMPLOYEES



190 K+

BY S&P/MOODY'S/FITCH CREDIT RATINGS



A/A3/A

FORTUNE GLOBAL 500 2024



# 277

FORBES GLOBAL 2000 2023



# 199

BRAND FINANCE 2023 TOP 500 MOST VALUABLE BRANDS



# 198

BRAND FINANCE 2023 TOP 100 MOST VALUABLE TECH BRANDS



# 36

## LEADING ODM PROVIDER OF GREEN ENERGY PRODUCTS

ODM VALUE CHAIN  
A REPEATABLE PATH FOR EXCELLENCE IN QUALITY DELIVERY

GLOBAL R&D STRATEGY

4 Research Institutes

Central Academy  
Industrial Technology Research Institute  
Industrial Technology Research Institute  
AI Research Institute

33 R&D Centers

25% Masters & PhDs

50+ Core Laboratory

Aesthetics & Design Center

BILLION LEVEL SUPPLY CHAIN

27.6 B

Procurement Volume

100 K+ Supplier System

100% Quality Sampling

Top 5 Supplier Resources

INTELLIGENT MANUFACTURING

50+

Years Manufacturing Experience

40 Global Manufacture Centers

Inhouse Production Lines  
Beijing & Anqing Manufacturing Center

100 K GMP Cleanroom

Lighthouse / Digital Factory

QUALITY CONTROL

130 M

Dollars Investment

1st in Industry to Conduct:

Mechanical back-to-back test  
Simulation test  
Motor Load Test

CSA Cooperative Sightings Lab

UL/CE Certificates

## SPLIT-PHASE ALL-IN-ONE RESS

8+4-LAYER SAFETY STRATEGY



8 Layer  
Battery Safety Protection

Anti-condensation protection  
Cells preload design in whole life-cycle  
High-temperature resistance insulated pad  
Built-in fire extinguisher  
Aerogel insulated pads  
Decompression valve  
8 temperature sensors  
5mV Voltage detect accuracy

4 Layer  
System Protection

PV disconnection protection  
DC ground-fault protection  
Grid fault protection  
DC bus protection

FLEXIBLE INVESTMENT

90 kWh  
Modular design, scalable up to

Multiple  
Scenario application

Mixed Use  
Old & new batteries

DURABLE & ARTISTICAL

Tahiti Grey  
Elegant colour

NEMA 4X  
Enclosure

6.7'  
Slim

CAPABLE & SIMPLE

25 min Quick installation

50% Commissioning time-saving

Guided quick connectors between batteries