MORNINGSTAR
WORLD'S LEADING SOLAR CONTROLLERS & INVERTERS

+1-215-321-4457
sales@morningstarcorp.com

READY|EDGE

Intelligent Monitoring for Off-Grid Systems

- Total System Visibility & Accessibility: Locally & Cloud-Based
- Measure & Detect: Digital & Analog Input Monitoring with Alerts
- Battery Insights: Monitoring & Health Metrics
- Smart Generator Management: Smart Generator & Back-Up Power Source Control

ReadyEdge™ (RE-1) is a single-point monitoring and communication device for system-wide measurement, detection, and data aggregation in off-grid and hybrid power systems. It integrates cloud connectivity and industrial protocol support (SNMP, Modbus) within the core platform and interfaces with up to sixteen (16) compatible Morningstar charge controllers or inverters.

System data is collected and presented locally through LiveView, with logging for historical analysis. Optional connectivity to the Morningstar SolarConnect cloud enables remote monitoring.

ReadyEdge supports generator and auxiliary charging source management, including fuel cells and AC chargers. It provides accurate battery current measurement and state-of-charge tracking across all storage chemistries and communicates with select battery management systems (BMS) for detailed real-time health and performance data. The device operates standalone or within the Morningstar ecosystem.

KEY FEATURES AND BENEFITS

- Use as a stand-alone device or connect up to sixteen (16) Morningstar products
- Suitable for 12, 24, 36, and 48V battery systems
- Includes access to Morningstar Solar Connect remote cloud service for visibility into your remote energy system anywhere in the world
- Automatic Generator Start (AGS) with 2-wire signaling and AC, DC, or Dry Contact feedback with retries
- Monitor temperatures, voltages, theft loops, door switches, smoke/water detectors, tank levels (water, fuel), and more
- 12 Volt, 12 Watt output for powering EIA-485 bus, driving a relay, or other small 12 Volt loads
- Compatible with negative-ground, positive-ground, and ungrounded systems
- Pair the ReadyEdge with a ReadyShunt to capture precise battery State of Charge and other metrics
- AC Detect feature signals when AC power is present or lost - supports up to 240 Vac input
- LiveView 2.0 Webpages interface (served from ReadyEdge) provides full system visibility, configuration, and control. Manage the ReadyEdge, connected Products, inputs, outputs, and generator/charging sources from any web browser on a shared network
- All communication ports are isolated, preventing damage due to ground loops or connections to equipment on different power sources or grounds
- Mounts to 35mm DIN rail; includes two lengths of DIN rail to mount the ReadyEdge alone or with room for up to six (6) ReadyBlocks attached
- An Event Logger records timestamped alarms, faults, alerts, and other events to provide insights into system operation and to aid in troubleshooting

+1-215-321-4457
sales@morningstarcorp.com

Specifications

ReadyEdge (RE-1)	
Power: Parameter	**Specification**
Input Voltage	8 - 72 Vdc
Self-Consumption (Typical)	< 2 Watts
Self-Consumption (Maximum)	14 W (with 12 V output @ max load)
Inputs & Outputs: Function	**Specification**
Programmable DC Output	1 × 12 Vdc, 1 A
Digital Inputs	6 × Dry Contact
Tank Level Input	1 × Resistive (SAE & Euro supported)
AC Voltage Detection	40–240 Vac nominal (Valid/Invalid)
DC Voltage Inputs	3 × 0–80 Vdc
Temperature Inputs	2 × Morningstar Remote Temperature Sensors
Communications & Data: Interface	**Specification**
Ethernet	1 × RJ-45, 10/100BASE-TX
EIA-485	1 × 3-wire (A, B, GND), 1500 V isolation
MeterBus	2 × RJ-11, 1500 V isolation
MS-CAN	2 × RJ-45 CANbus, 1500 V isolation
ReadyRail Port	1 × Supports up to 6 ReadyBlocks™
SD Card Slot	Up to 32 GB
Communication Protocols	HTTP, SNMP (v1/v2c/v3), MODBUS TCP
Environmental: Parameter	**Specification**
Operating Temperature	–40°C to +60°C
Storage Temperature	–55°C to +80°C
Humidity	100% non-condensing
Maximum Altitude	3000 m
Mechanical: Parameter	**Specification**
Dimensions	15.8 × 10.6 × 5.4 cm (6.2 × 4.2 × 2.1 in)
Weight	0.41 kg (0.91 lb)
Enclosure	Type 1 Indoor, IP20
Certifications	UL 62109-1 / CSA 22.2 107-1 IEC 62109-1 IEC 62368-1 EMC Directive 2014/30/EU Radio Equipment Directive (RED) 2014/53/EU FCC Part 15 Subpart B, Class B ICES-003 Issue 7, Class B CEC Australia Listing ACMA AS/NZS CISPR 32:2015