The Ethernet MeterBus Converter (model: EMC-1) provides IP-Based MODBUS Connectivity for remote monitoring, custom programming, and cloud-hosted data service and is a gateway to Envision, a cloud-based site manager.

Connects any Morningstar product equipped with a MeterBus port (RJ-11) to the internet and an IP-based network. Compatible products include:

- MPPT controllers: TriStar MPPT, ProStar MPPT, and SunSaver MPPT
- PWM controllers: TriStar, ProStar (Gen3) and SunSaver Duo
- Inverters: SureSine

The EMC-1 is powered by connecting it to the Morningstar product’s MeterBus port and the DC input for 12, 24, or 48V systems. The EMC-1 converts this connection into a fully enabled Ethernet port allowing data transfer to the internet. Once connected, the MeterBus port enables transmission of serial data to the EMC-1. This enables remote monitoring, configuration, and control, using any type of IP-based network connection. This way, many new, powerful integration options for Morningstar products can be activated and used in remote power systems.

**KEY FEATURES AND BENEFITS**

- Connects to any meterbus enabled controller to provide enhanced data and network features
- Adds IP based MODBUS connectivity for remote communication and control
- Live View displays system status and log data directly from the EMC in an easy-to-view webpage
- Powered via meterbus port on controller, PoE or DC Input for 12, 24 or 48V systems
Technical Specifications

**Mechanical**
- Dimensions
  15.3 x 8.60 x 3.0 cm
  6.04 x 3.37 x 1.2 in
- Weight
  0.13 kg / 0.28 lbs

**Environmental**
- Operating Temperature Range
  –40°C to +60°C
- Storage Temperature Range
  –55°C to +80°C
- Humidity
  100% non-condensing

**Data & Communications**
- Communication Ports
  MeterBus (RJ-11)
  Ethernet (RJ-45)
  MODBUS Serial
  MODBUS TCP/IP
  10/100Base-T
- COM Protocols
- Ethernet speed

**Electrical**
- DC Input Supply Voltage Range
  8-80 Vdc
- Maximum Self-consumption
  2 Watts

1. **Dip Switches**
   - DIP 1 enables Ethernet write commands
   - DIP 2 enables cloud data service (future use)
2. **Ethernet Port (RJ-45)**
   - Used to connect the EMC-1 to LAN / Internet
3. **Power Input**
   - 8-80 Vdc power input
4. **Status LED**
   - Green and red lights indicate unit status
5. **Web Monitoring Service LED**
   - Green and red LEDs indicate Web Service status (future use)
6. **Ethernet Write LED**
   - Green light indicates Ethernet write command capability
7. **Meterbus (RJ-11 port)**
   - Used to connect the EMC-1 to Morningstar Device
8. **DIN rail mounts (bottom of unit)**
   - 35mm standard size

**Warranty**
Five year warranty period.
Contact Morningstar or your authorized distributor for complete terms.