General Specifications
- Inrush Current (Hot Start): 30W
- Inrush Current (Cold Start): 60W
- Minimum Wire Gauge: 28-16 AWG
- Minimum Width: 2″ (50mm)
- Minimum Pitch: 3.5mm
- Minimum Screw Torque: <1.77 lb·in
- Maximum Width: 8.11″ (206mm)
- Maximum Height: 5.57″ (141mm)

CPU Specifications
- Processor: ARM7TDMI
- Memory: Flash memory
- User Data Memory Type: Battery Backed RAM, User configurable
- Expandable Memory: 6 expansion modules max
- Expansion Modules: 8 expansion modules max
- Real Time Clock Accuracy: ±2.6s per day typical at 25°C, ±8s per day max at 60°C
- Programming Software: Do-more Designer – Ver. 2.0 or higher
- Programming Cable Options: BK-PSM-CBL

Built-in RS-232/485 Port Specifications
- Port Status LED: Green LED is illuminated when active for TXD and RXD
- Removable connector included.

CPU Mode Switch Functions
- RUN position: CPU is forced into RUN Mode if no errors are encountered.
- TERM position: RUN, PROGRAM and DEBUG modes are available. In this position, the mode of operation can be changed through the Do-more Designer.
- STOP position: CPU is forced into STOP Mode.

Built-in Ethernet Specifications
- Port Name: ETHERNET
- Description: Standard transformer isolated Ethernet port with built-in surge protection.
- Transfer Rate: 10Mbps (Yellow LED) and 100Mbps (Green LED)
- Port Status LED: Green LED lights when Ethernet Port is established, LED flashes when port is active (ACT)
- Cable Recommendations: BRX-ETH-CBL15, ZL-BX-ETH, EtherCAT cable, 15-position terminal block to pigtail wire, 600V, 24 AWG, 1 meter (3.3 ft.) length, 4 required.

Power Supply Specifications
- Nominal Voltage Range: 12-24 VDC
- Input Voltage Range (Tolerance): ±10-38 VDC
- Maximum Input Voltage Ripple: 0.25% of input
- Maximum Input Power: 35W
- Cold Start Inrush Current: 55A, 2ms
- Input Protection: Reverse polarity protection and Undervoltage
- Heat Dissipation: 25W Max
- Voltage Regulation (differential): ±150mVAC input to Ground between 1 minute.
- Power Supply Weight: 2.74kg (6 lb) max.

CPU Status Indicators
- LED Indicators:
  - ERR: CPU is in error mode
  - CPU: CPU is in STOP mode
  - BRX: CPU in error mode
  - MEM: CPU is in memory mode
  - SD: CPU is in SD Card mode

WARNING: To minimize the risk of potential safety problems, you should follow all applicable local and national codes that regulate the installation and operation of your equipment. These codes vary from area to area and it is your responsibility to determine which codes should be followed, and to verify that the equipment, installation, and operation are in compliance with the latest revision of these codes.

Collision Warning: Equipment damage or serious injury to personnel can result from the failure to follow all applicable codes and standards. We do not guarantee the products described in this publication are suitable for your particular application, nor do we assume any responsibility for your product design, installation, or operation.

If you have any questions concerning the installation or operation of this equipment, or if you need additional information, please call Technical Support at (770) 944-4240.

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**Terminal and Front Panel Layout**

- **Custom Label Window**
- **CPU Mode Switch**
- **Battery Replacement**
- **MicroSD Card Slot**
- **Ethernet Port**
- **Pluggable Option Module (POM) Slot**

**I/O Terminal Blocks sold separately.** *(See Terminal Block Connection Options table).*

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**Analog Current Sinking Input Circuits**

- **2-Wire Transmitter**
  - Transmitter
  - Power Supply
  - 3-Wire Transmitter
  - 24VDC User Supplied Power

**Analog Output Wiring**

- **Current Source Output**
  - 3-Wire Transmitter
  - 24 VDC User Supplied Power

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**Analog Output Specifications**

- **Outputs per Module**: 2
- **Output Voltage Range**: 0-3 mA, 0-3 V, 0-20 V
- **Minimum Voltage Load Impedance**: 3 kΩ
- **Output Current Range**: Software selectable ±5 mA, ±10 mA, ±20 mA
- **Maximum Current Output**: ±20 mA
- **Setting Time**: 1 ms
- **Resolution**: ±0.0001 V, ±0.001 A

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**Analog Input Specifications**

- **Inputs per Module**: 4
- **Input Voltage Range**: Software selectable ±15 V, ±10 V, ±5 V
- **Input Current Range**: Software selectable ±20 mA, ±40 mA
- **Rejection**: ±0.001 V/°C, ±0.05 V/°C
- **Conversion Time**: 1.2 ms
- **Input Impedance**: 10 MΩ
- **Input Impedance Current Modes**: ±20 mA

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**Discrete Input Specifications**

- **Input Type**: Sink Source
- **Total Inputs per Module**: 20 total (10 High Speed (X0..X9) and 10 Standard (X10..X19))
- **Recommended Inputs** (also can be used as standard inputs)
- **Commons**: 54 points (common) isolated
- **Nominal Voltage Rating**: 12-24 VAC/DC
- **Input Voltage Range**: 2-30 VAC/DC
- **Maximum Voltage**: 30 VAC/DC
- **DC Frequency**: 0-250Hz - High Speed
- **Minimum Pulse Width**: 0.5 μs - High Speed
- **AC Frequency**: 47-63 Hz, 20-200 Hz (filter must be set in software for AC operation)
- **Input Impedance**: 2 MΩ @ 24VDC
- **Input Current**: 6 mA @ 24 VAC/DC
- **Maximum Input Current**: 12 mA @ 20 VAC/DC
- **Maximum OFF Current**: ≤ 20 mA
- **ON Voltage Level**: ≥ 9.0 VDC/VAC
- **OFF Voltage Level**: ≤ 2.0 VAC/VDC
- **Status Indicators**: Logic Side, Green

**Discrete Output Specifications**

- **Output Type**: Relay Form A (S-0SPST)
- **Total Outputs per Module**: 16 Relay
- **Commons**: 12 points (common) isolated
- **Maximum Current per Common**: 1 A
- **Nominal Voltage Ratings**: 12-48 VDC, 24-240 VAC
- **Operating Voltage Range**: 5-80 VDC, 12-240 VAC
- **Maximum Voltage**: 60VDC, 28VAC
- **Minimum Output Current**: 0.1 mA @ 24VDC
- **Maximum Output Current**: 24 mA
- **Maximum Leakage Current**: 1 μA (DC), 300 μA (AC) due to RC snubber
- **Status Indicators**: Logic Side, Green

**High Speed Input (HSI) Functions**

- **Input Function**: Input Requested
- **Input Response**: Up counters
- **Counting Position (Dec)/Scaling (Sizing)**
- **Frequency (Measurement)**
  - Maximum (3) A and B counters
  - Quadrature (A and B with 2) counters
- **Input Frequency (Measurement)**
  - Single Input (5 Dual Edge) latches
- **Table-Driven Outputs**
  - Programmable digital select
- **Period/Times**
  - Programmed digital select
- **Interrupts**
  - 0 Time interrupts
  - Match register interrupts

**High Speed Output (HSO) Functions**

- **Output Function**: Input Requested
- **Output Response**: Up counters
- **Counting Position (Dec)/Scaling (Sizing)**
- **Frequency (Measurement)**
  - Maximum (3) A and B counters
  - Quadrature (A and B with 2) counters
- **Input Frequency (Measurement)**
  - Single Input (5 Dual Edge) latches
- **Table-Driven Outputs**
  - Programmable digital select
- **Period/Times**
  - Programmed digital select
- **Interrupts**
  - 0 Time interrupts
  - Match register interrupts

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**Discrete Wiring**

- **Discrete Input Wiring**
  - **Sinking Input**
    - NC 0 1 2 3
    - 0-3
  - **Sourcing Input**
    - NC 0 1 2 3
    - 0-3
  - **Supply Power Wiring**
    - NC 0 1 2 3
    - 12-24VDC

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**Analog Wiring**

- **Analog Output Wiring**
  - **Current Source Output**
    - 3-Wire Transmitter
    - 24 VDC User Supplied Power

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**Technical Support**

- **Phone**: 770-844-4200
- **Website**: www.do-moreplcs.com