



# DM38

## Features

- LCD display with back lighting
- Modbus-RTU communication
- DIN rail type

### MEASUREMENT PARAMETERS:

- Phase Voltage (L-N)
- Line Voltage (L-L)
- Phase Current
- Bidirectional kW (per phase & total)
- Bidirectional kVAR (per phase & total)
- Bidirectional kVA (per phase & total)
- Frequency
- Power Factor (per phase & total)
- Energy (+ and -) for kWh, kVARh and kVAh
- THD Phase Voltage (L-N)
- THD Phase Current

## Technical Data

### DISPLAY TYPE

LCD display

### MEASUREMENTS

3-phase 4-wire system

### CURRENT MEASUREMENT (TRMS)

CT primary : 5 ~ 8000 A  
 CT secondary : 5 A  
 Minimum measurement : 10 mA  
 Accuracy : 0.5% from 1A to 6 A (secondary)  
 Burden : < 0.03 VA at 5 A  
 Sustained overload : 6 A

### VOLTAGE MEASUREMENT (TRMS)

Nominal phase voltage : 70 ~ 300 V AC  
 Minimum measurement : 10 V  
 Accuracy : 0.5% at full scale

### POWER MEASUREMENT

Real power, apparent power, reactive power measurement  
 Measuring updating period : 1 s  
 Accuracy : 1.0%

### POWER FACTOR MEASUREMENT

Total and displacement power factor  
 Accuracy : 1.0%

### FREQUENCY MEASUREMENT

Measurement range : 45 ~ 65 Hz  
 Measurement updating period : 1s  
 Accuracy : 0.5%

### ENERGY ACCURACY

Active (according to IEC 62053-21) : class 1  
 Reactive (according to IEC 62053-23) : class 2

### POWER SUPPLY

Self supplied : 100 ~ 240 V AC  
 Frequency : 50 / 60 Hz  
 Power consumption : < 3 VA

### COMMUNICATION

Hardware interface : Isolated RS485  
 Protocol : Modbus-RTU  
 Baud rate : 2400, 4800, 9600, 19200, 38400

### ENVIRONMENTAL CONDITIONS

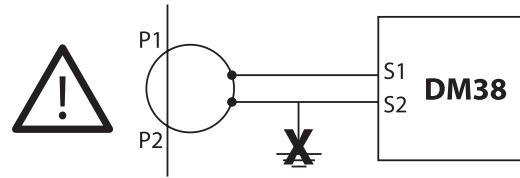
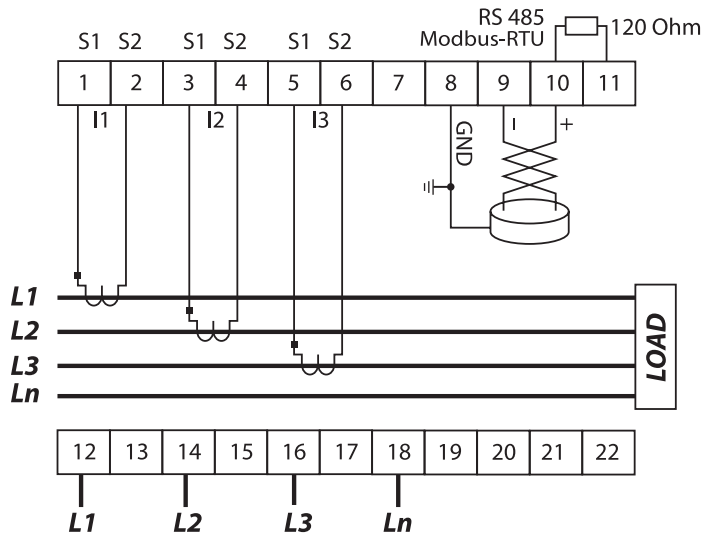
Temperature : -10°C to 55°C  
 Humidity : 5% to 95%, non-condensing

### MECHANICAL

Mounting : DIN rail  
 Dimension (mm) : 65(w) x 85(h) x 50(d)  
 Approximate weight : 0.3 kg

### Typical Application Diagram

#### DM 38 CONNECTION DIAGRAM



**NOTE:** Current transformer secondary terminal **MUST NOT** be earthed.

### Electromagnetic Compatibility (EMC)

**Part 6-2: Generic Standards IEC61000-6-2**  
Immunity for industrial environments.

**Part 6-4: Generic Standards IEC61000-6-4**  
Emission standard for industrial environments.

### Ordering Information

| MODEL      | DESCRIPTION               |
|------------|---------------------------|
| DM 38-240A | Self Powered 100~240 V AC |

### Case Dimensions

