

Digital Multimeter

DM-50



features



- True RMS Measurement
- 4-digits Segment Display
- Real Time Display (for each phase) :-
 - Current (I)
 - Voltage (V)
 - Frequency (Hz)
 - True Power Factor (PF)
 - Displacement Power Factor (Cos φ)
 - Active Power (P)
 - Reactive Power (Q)
 - Apparent Power (S)
- Default View Mode Selection
- Auto / Manual Scroll for L1, L2 & L3
- Alarm LED Indication :- (Activated by A-02s)
 - Adjustable Over / Under Current Setting
 - Adjustable Over / Under Voltage Setting
 - Adjustable Over / Under Frequency Setting
 - Adjustable Low PF / Cos φ Setting
 - Adjustable Start / Reset Time Delay
- Complies with: IEC 61326-1
- External Plug-in Module for :-
 - A-01s / A-01sp (RS-485 Modbus RTU) *isolated type*
 - A-02s (RS-485 Modbus RTU + Alarm Output) *isolated type*

technical data

Network Type
3P4W, 3P3W & 1P2W

Display Type
4-digits 7 Segment Display

LEDs Indication
A, V, Hz, PF, Cos φ , kW, kVA, kVAR

Aux Power Supply

AC range	: 65 ~ 275 Vac (45 ~ 65 Hz)
DC range	: 90 ~ 300 Vdc
Consumption	: < 3VA

Current Measurement

AC Input Range	: 0.025 ~ 10.0 A
Accuracy	: ± 1.0 %
CT Range	: 5 ~ 10,000 / 5A
Burden	: < 0.1 VA at 5A

Voltage Measurement

AC Input Range	: 0~300 VLN, 0~500 VLL
Accuracy	: ± 1.0 %

Power Measurement
Accuracy (W, VAR, VA, PF, Cos φ) : ± 2.0 %

Frequency Measurement

Range	: 45 ~ 65 Hz
Accuracy	: ± 0.5 %

Mechanical

Operating Temp.	: -5°C ~ +55°C
IP Rating	: IP54 (front panel)
Installation	: Panel flush mount
Dimension (mm)	: 99.2 (h) x 99.2 (w) x 45 (d)
Weight	: approx. 265 gram

measured parameters

Voltage : V1, V2, V3, V12, V23, V31

Current : I1, I2, I3, In

Active Power : P1, P2, P3, ΣP

Reactive Power : Q1, Q2, Q3, ΣQ

Apparent Power : S1, S2, S3, ΣS

Frequency : Hz

True Power Factor : PF1, PF2, PF3, PFavg

Displacement Power Factor:
Cos φ 1, Cos φ 2, Cos φ 3, Cos φ avg

Alarm : Off / Under / Over Current
Off / Under / Over Voltage
Off / Under / Over Frequency
Off / Low PF / Low Cos φ
Start / Reset Time Delay

Operated Hours
Hour Run

communication

A-01s / A-01sp & A-02s Plug in module
(sold separately)

Modbus RTU RS-485 (isolated type) with :-

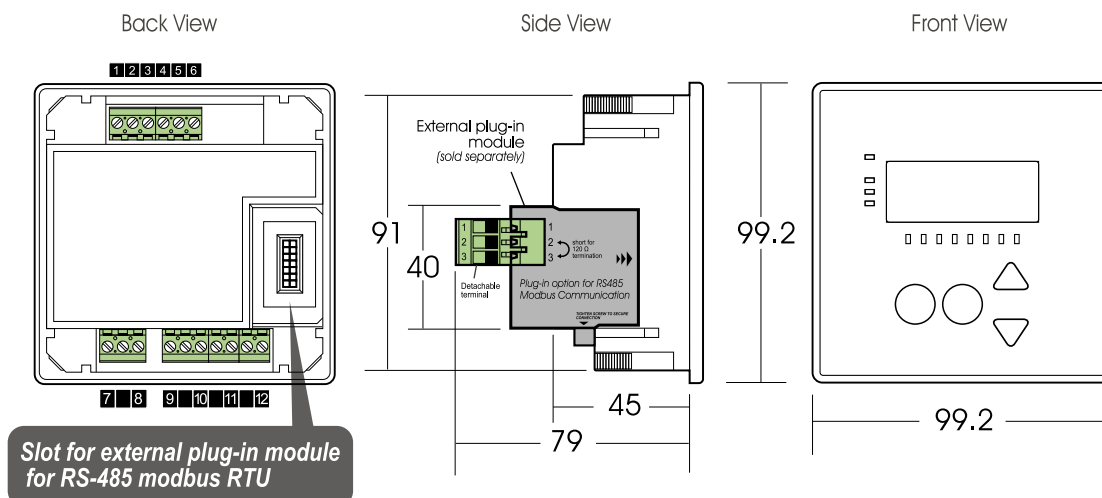
- Modbus Address : 1 ~ 247
- Baud rate (kbps) : 0.3, 0.6, 1.2, 2.4, 4.8, 9.6, 19.2, 28.8
- Parity : none, odd, even

(programmable alarm) external output

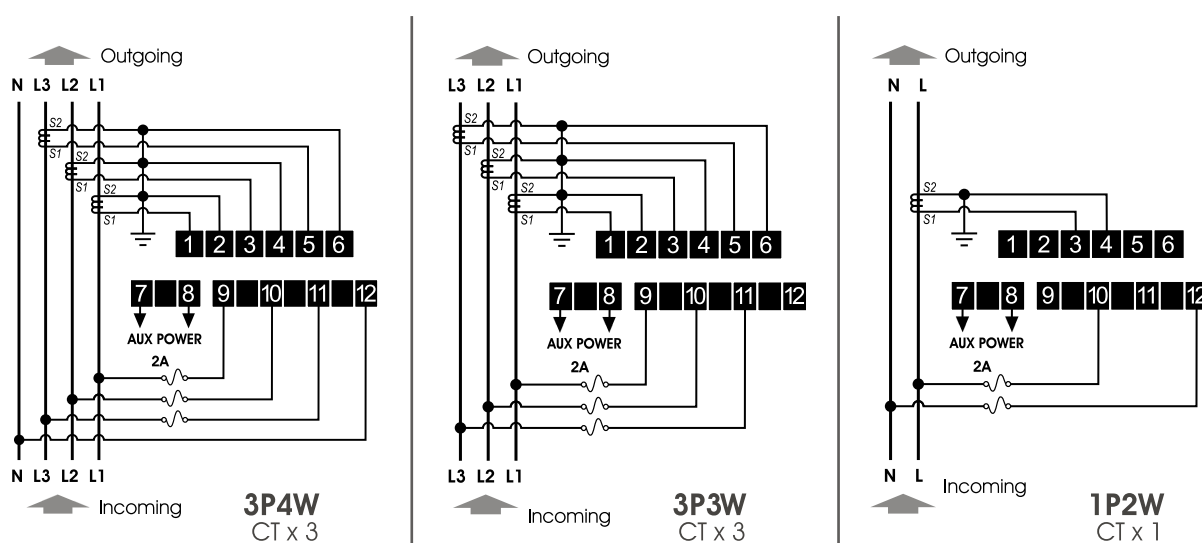
A-02s Plug in module (sold separately)

Modbus RTU RS-485 (isolated type) with external alarm output only

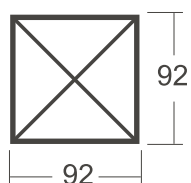
casing dimension



wiring diagram



panel cut-out



Panel Cut-out : 92 x 92

ordering information

Model	Description
DM-50	65 ~ 275 Vac (45~65 Hz) 90~300 Vdc

Note: All measurement in mm.