

DESCRIPTION

MF72 is a multifunctional 3-phase voltage/ current meter. With 3 phase voltage or current display at the same time, configurable display range via front buttons, anti-inference design, reliable quality and easy to use and install

MF72 also has multiple I/O functions including 3 relay outputs, an analogue output and a RS485 communication port running the Modbus RTU Protocol



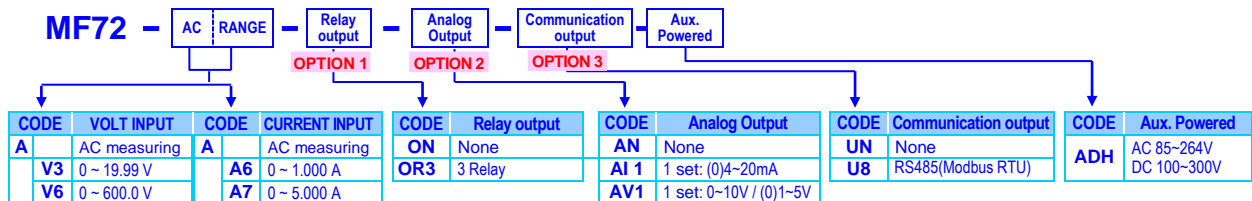
FEATURES

- Measuring AC Voltage 0~19.99V/~600.0V, AC Current 0~1A/~5A
- Front buttons to configure display range and alarm mode
- Terminal implant design
- 72x72 panel size, installation depth only 78.2mm

APPLICATIONS

- MCC panel, Machinery, Switch gear, Testing Equipment
- Motor control panel, mechanical equipment, voltage switch box

ORDERING INFORMATION



TECHNICAL SPECIFICATIONS

Input Range

Measuring Range	Input Impedance	Measuring Range	Input Impedance
AC		AC	
Voltage	0~19.99 V 0~600.0 V	≥1M ohm ≥2M ohm	Current
			0~1.000 A 0~5.000 A
			0.02 ohm 0.02 ohm

Measuring:	True RMS measurement
Calibration:	Digital calibration by front key
A/D converter:	12 bits resolution
Accuracy:	±0.2% of FS ± 1C
Sampling rate:	15 cycles/sec
Response time:	≤ 100 msec. (avg = 1, mavg=1, dfilt=1)
Frequency:	45~60Hz
Display & Functions	
LED:	4 digits, 0.39"(10.0mm) , high-brightness LED
Display range:	-1999~9999
Scaling function:	IOsc: Low Scale; Settable range -1999~9999 hIsc: High Scale; Settable range -1999~9999 Programmable from 0 /)0 /)00 /)000
Decimal point:	
Over range Indication:	ovfl: when input is over 110% of input range Hi
Low cut:	IOcut: Settable range -1999~9999
Frequency display:	In General Settings classes can view the frequency
Reading Stable Function	
Average:	Avg: Settable range: 1~99 times
Moving average:	Mavg: Settable range: 1~20 times
Digital filter:	DFilt: Settable range: 1~99 times

Control Functions(option)

Relay:	Maximum of 3 groups optional relay 3 set Form-A, 5A/250Vac, 5A/30Vdc
Relay energized mode:	Energized levels compare with set-points: OFF / Hi / Lo / Hi.HLd / Lo.HLd / do programmable

Energizing functions: Start delay / Energized & De-energized delay / Energized Latch

- [rYsb] Start band (Minimum level for Energizing): 0~9999counts
- [rYsd] Start delay time: 0:00.0~9(Minutes):59.9(Second)
- [rYrd] Energized delay time: 0.00.0~9(Minutes):59.9(Second)
- [rYfd] De-energized delay time: 0.00.0~9(Minutes):59.9(Second)
- [rYhy] Hysteresis: 0~5000 counts

Analogue output(option)

Analogue output:	Maximum of 1 analogue outputs optional
Accuracy:	≤ ± 0.2% of F.S.; 12 bits DA converter
Ripple:	≤ ± 0.1% of F.S.
Response time:	≤ 100 msec. (10~90% of input)
Isolation:	AC 2.0 KV between input and power Analogue output no isolation
Output range:	Specify either Voltage or Current output in ordering Voltage: 0~5V / 0~10V / 1~5V programmable Current: 0~10mA / 0~20mA / 4~20mA
Output capability:	Voltage: 0~10V: ≥ 1000Ω; Current: 4(0)~20mA: ≤ 600Ω max
Functions:	[a0ls] (output range Low): Settable range Settable range: -1999~9999 [a0hs] (output range high): Settable range: Settable range: -1999~9999
Digital fine adjust:	[a0zro] Settable range : -1999~1999 [a0spn] Settable range : -1999~1999

RS 485 Communication(option)

Protocol:	Modbus RTU mode
Baud rate:	1200/2400/4800/9600/19200/38400 programmable
Parity:	Data bits: Even, odd or none (with 1 or 2 stop bit) programmable
Address:	1 ~ 255 programmable
Distance:	1200M max
Terminate resistor:	150Ω.



Power

Power supply: AC 85~264V / DC 100~300V;
Power consumption: 10 VA(ac) , 4W(dc)
Back up memory: EEPROM

Electrical Safety

Dielectric strength: AC 2.0 KV for 1 min, Between Power / Input / Output / Case
Insulation resistance: ≥100M ohm at 500Vdc, Between Power / Input / Output
Isolation: Between Power / Input / Relay, Analogue or RS485
EMC: EN 55011:2002; EN 61326:2003
Safety(LVD): EN 61010-1:2001

Environmental

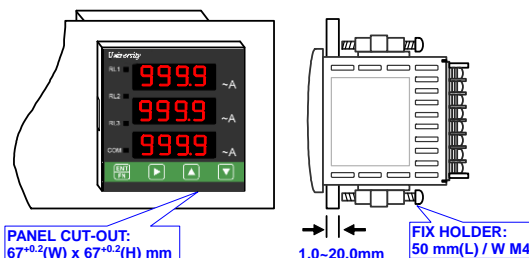
Operating temp.: 0~60 °C
Operating humidity: 20~95 %RH, Non-condensing
Temp. coefficient: ≤ 100 PPM/°C
Storage temp.: -10~70 °C
Enclosure: Front panel: IEC 549 (IP52); Housing: IP20
Vibration test: 1~800Hz, 3.175g2/Hz

Mechanical

Dimensions: 72mm(W) x 72mm(H) x 78.2mm(D)
Panel cutout: 67mm(W) x 67mm(H)
Case material: ABS fire-resistance (UL 94V-0)
Mounting: Panel flush mounting
Terminal block: Plastic NYLON 66 (UL 94V-0); 10A/300Vac, M2.6, 1.3mm²~2.0mm² (22~16AWG)
Weight: Max.250g
Maximum torque of terminal screws: 10kg-cm(MAX)

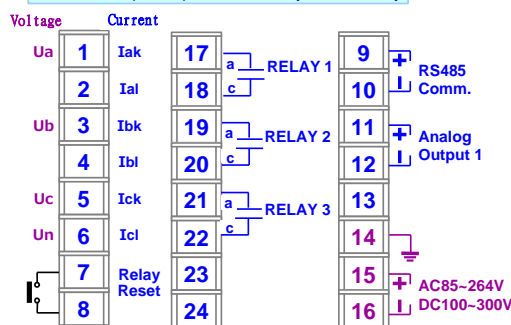
INSTALLATION

The meter should be installed in a location that does not exceed the maximum operating temperature and provides good air circulation.



CONNECTION DIAGRAM

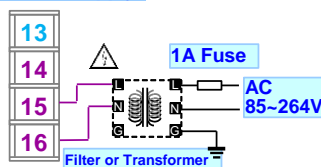
Terminals: 10A/300Vac, M2.6, 1.3~2.0mm² (22~16AWG)



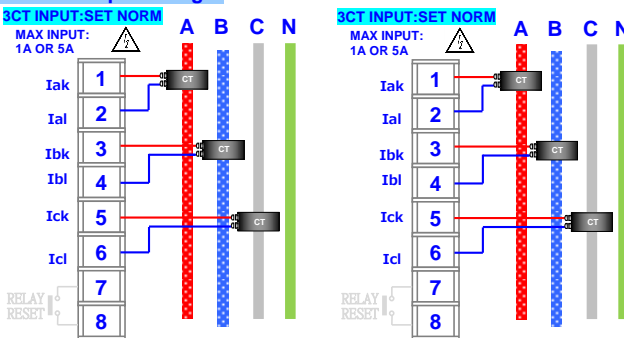
Attention: PT secondary can not short-circuit
 CT secondary can not open circuit

⚠ Please check the voltage of power supplied first, and then connect to the specified terminals. It is recommended that power supplied to the meter be protected by a fuse or circuit breaker. Wiring subject to change, please follow the wiring diagram on the meter wiring.

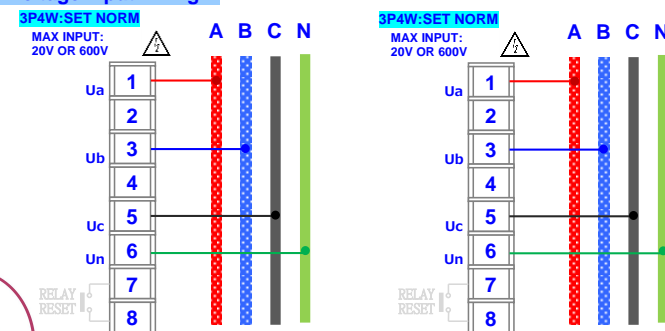
Power Supply



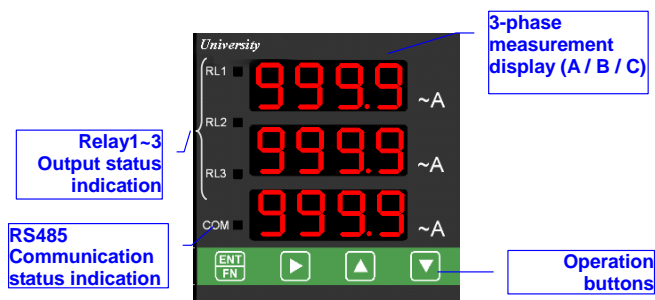
Current input wiring



Voltage input wiring



FRONT PANEL



DIMENSIONS

