OP3285-V02

# selec

**MA323-40/300V-CE**

Operating Instructions




**96 x 96**

## SPECIFICATIONS

**DISPLAY**
3 rows of 3 digit,
7 segment LED display 0.57 inch digit height
**RATED INPUT CURRENT**
Nominal 5A (Min-20mA, Max-7.2A)
**CT PRIMARY**
1A/5A to 10,000A (Programmable for any value)
Note:1A to 10,000A if CT secondary is 1 else 5A to 10,000A
**CT SECONDARY**
1A or 5A (Programmable)
**ACCURACY**
±0.5% of full scale. ±2 digit
**DISPLAY UPDATE TIME**
1 sec. for all parameters
**POWER CONSUMPTION**
Less than 5VA
**BURDEN**
0.5VA@5A per phase
**RESOLUTION**
Resolution depends on CT ratio
**ENVIRONMENTAL CONDITIONS**
- Indoor use
- Altitude of up to 2000 meters
- Pollution degree II

Temperature : Operating : -10°C to 55°C
Storage : -20°C to 75°C
Humidity : Up to 85% non-condensing
**PROTECTION CLASS**: II
**IP PROTECTION**
Front: IP65
Back/Terminal: IP20
**MOUNTING** : Panel mounting
**WEIGHT** : 200 gm

## ORDER CODE INFORMATION

| Product | Supply | Certification | |
|---|---|---|---|
| | | CE | cULus LISTED |
| MA323-40/300V-CE | 40 to 300V AC/DC,50/60 Hz | ✔ | — |

## SAFETY PRECAUTIONS

All safety related codifications, symbols and instructions that appear in this operating manual or on the equipment must be strictly followed to ensure the safety of the operating personnel as well as the instrument.

If the equipment is not used in a manner specified by the manufacturer it might impair the protection provided by the equipment.

- Do not use the equipment if there is any mechanical damage.
- Ensure that the equipment is supplied with correct voltage.

**⚠ CAUTION :**

1. Read complete instructions prior to installation and operation of the unit.
2. Risk of electric shock.
3. The equipment in its installed state must not come in close proximity to any heating sources, oils, steam, caustic vapors or other unwanted process byproducts.

## WIRING GUIDELINES

**⚠ WARNING :**

1. To prevent the risk of electric shock, power supply to the equipment must be kept OFF while doing the wiring arrangement.
2. Wiring shall be done strictly according to the terminal layout. Confirm that all connections are correct.
3. Use lugged terminals.
4. To reduce electromagnetic interference use of wires with adequate ratings and twists of the same in equal size shall be made with shortest connections.
5. Layout of connecting cables shall be away from any internal EMI source.
6. Cable used for connection to power source, must have a cross section of 0.5mm$^2$ to 2.5mm$^2$ ( 20 to 14AWG ; 75$^0$C (min) ). These wires shall have current carrying capacity of 7.2 A.
7. Copper cable should be used (Stranded or Single core cable).
8. Before attempting work on device, ensure absence of voltages using appropriate voltage detection device.

## INSTALLATION GUIDELINES

**⚠ CAUTION :**

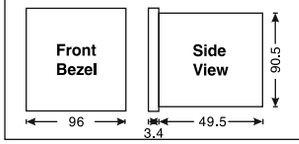
1. This equipment, being built-in-type, normally becomes a part of main control panel and in such case the terminals do not remain accessible to the end user after installation and internal wiring.
2. Conductors must not come in contact with the internal circuitry of the equipment or else it may lead to a safety hazard that may in turn endanger life or cause electrical shock to the operator.
3. Circuit breaker or mains switch must be installed between power source and supply terminals to facilitate power 'ON' or 'OFF' function. However this switch or breaker must be installed in a convenient position normally accessible to the operator.
4. Before disconnecting the secondary of the external current transformer from the equipment, make sure that the current transformer is short circuited to avoid risk of electrical shock and injury.
5. The equipment shall not be installed in environmental conditions other than those mentioned in this manual.
6. The equipment does not have a built-in-type fuse. Installation of external fuse of rating 275V AC / 0.5Amp for electrical circuitry / battery is highly recommended.

## MECHANICAL INSTALLATION

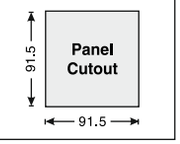
For installing the meter

1. Prepare the panel cutout with proper dimensions as shown below.
2. Push the meter into the panel cutout. Secure the meter in its place by fitting the clamp on the rear side. Fit clamps on both sides in diagonally opposite location for optimum fitting.

**Outline Dimensions (in mm)**




**Panel cutout Dimensions (in mm)**




## FRONT PANEL DESCRIPTION




## ONLINE PAGE DESCRIPTION

Displays three phase current

## SERIAL NUMBER DESCRIPTION

Press ^ key for 3 sec. to display 9 digit serial number for 5 sec.

## CONFIGURATION

There are 2 dedicated keys marked as >, ^.

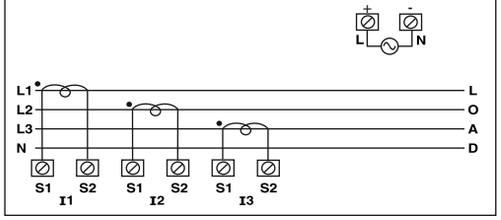
**Note:** The settings should be done by a professional, after going through this users manual and after having understood the application situation.

**For the configuration setting mode :**

- Use > + ^ these 2 keys for 3 sec. to enter & exit from configuration menu.
- Press ^ key to go to next page.
- Press > key to edit the parameter & shift the cursor for next digit to edit.
- Press ^ key to increment parameter value.
- Press > key for 5 sec. to save parameter value.
- Press ^ key for 5 sec. to set CT primary values in kilo from normal and vice versa.

Eg:- If user want to set 1300 = first
Set digit 001 then hold key ^ for 5 sec. to shift in k, then display will show 1.00k, press > shift to cursor for next digit. Next press ^ key to change values after the decimal point 1.3k and then hold > key for 5 sec. to save the parameters, it will show 1.30k.

## TERMINAL CONNECTIONS



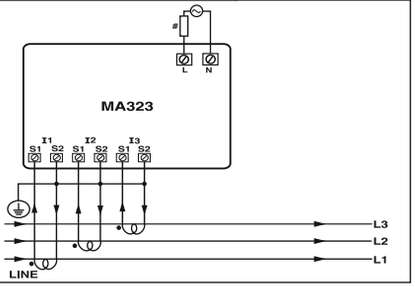

## MAINTENANCE

1. The equipment should be cleaned regularly to avoid blockage of ventilating parts.
2. Clean the equipment with a clean dry or damp cloth. Do not use any cleaning agent other than water.

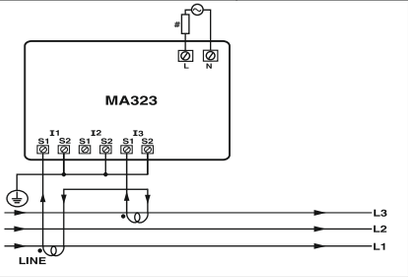
| Config. page | Function | Range or Selection | Factory Setting |
|---|---|---|---|
| 1 | CT primary | 1A or 5A | 5 |
| 2 | CT secondary | 5A or 10.0kA | 5 |

## TYPICAL WIRING DIAGRAM

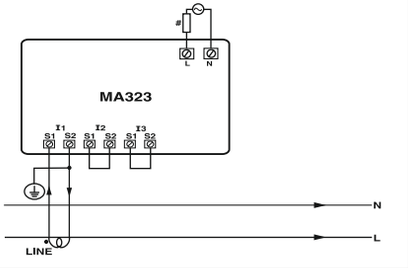
**3 Phase | 3 CT's**




**3 Phase | 2 CT's**




**1 Phase | 1 CT**




# All fuse types : 0.5A class CC UL type ; 0.5A fast acting 600V

(Specifications are subject to change, since development is a continuous process.)


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