



48 x 48mm

**Features :**

- True RMS measurement
- Measure 3 Phase voltage and current
- 3 Digit 7 segment dual line display
- Works with 1 phase and 3 phase CT

Certification : CE

**Display Specifications**

|                    |                                                      |
|--------------------|------------------------------------------------------|
| Display parameters | Voltage & Current                                    |
| Type               | 7 segment                                            |
| Display            | 3 digit LED display with dual rows                   |
| Display height     | 8.6mm                                                |
| Colour             | Red and Green                                        |
| Display scrolling  | 10 sec (with 3 phase CT),<br>Fixed (with 1 phase CT) |

**Resolution**

| Current value | Resolution | Voltage value | Resolution |
|---------------|------------|---------------|------------|
| <10A          | 0.01A      | <100V         | 0.1V       |
| <100A         | 0.1A       | >100V         | 1V         |
| >100A         | 1A         |               |            |

**Input specifications**

|                     |                                               |
|---------------------|-----------------------------------------------|
| Network selection   | Auto (based on CT module)                     |
| Rated input voltage | 20-520VAC                                     |
| Rated input current | 5% to 120% of full scale (based on CT module) |
| Operating frequency | 50 to 60Hz                                    |
| Current overload    | 120% of full Scale (based on CT module)       |

**CT selection for converter**

|                     |                                |
|---------------------|--------------------------------|
| Parameter selection | Four DIP switches              |
| CT Primary          | 5A / 400A / 500A / 630A / 800A |

**Accuracy**

|       |                 |
|-------|-----------------|
| Meter | 0.5% full scale |
| CT    | 1% full scale   |

**Auxiliary supply**

|                     |               |
|---------------------|---------------|
| Input voltage range | 85 to 276V AC |
| Consumption         | 4VA max       |
| Frequency           | 50 to 60Hz    |

**Environmental specification**

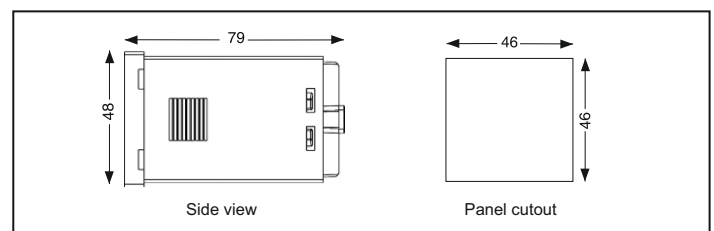
|                  |                                                   |
|------------------|---------------------------------------------------|
| Temperature      | Operating : 0°C to 60°C<br>Storage : -20 to 70 °C |
| Humidity         | 95% non-condensing                                |
| Pollution degree | II                                                |

**Mechanical specification**

|           |           |
|-----------|-----------|
| Mounting  | Panel     |
| Dimension | 48 x 48mm |
| IP Front  | IP 51     |
| IP Back   | IP 20     |
| Torque    | 0.5 N-m   |

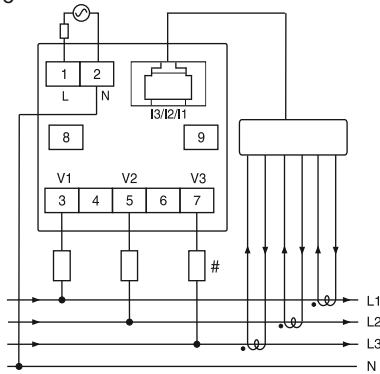
**Packaging**

|                  |                  |
|------------------|------------------|
| Packing material | Corrugated box   |
| Weight : Packed  | 113gms           |
|                  | Unpacked : 74gms |

**Dimensions (All are in mm)**

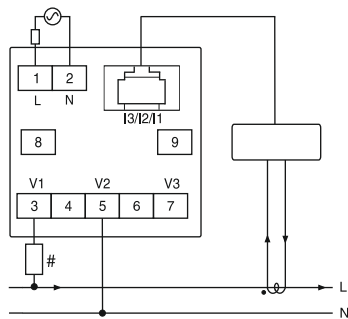
## Terminal Connections

For 1Ø - 2 Wire  
3Ø - 4 Wire



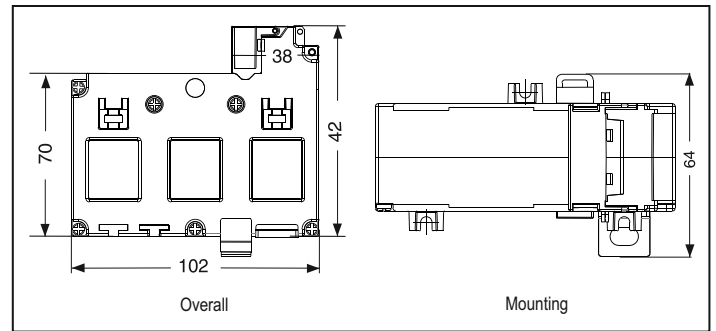
Note : Neutral to be connected for 3Ø - 4 wire

For 1Ø - 2 wire



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

## Dimension (All are in mm)

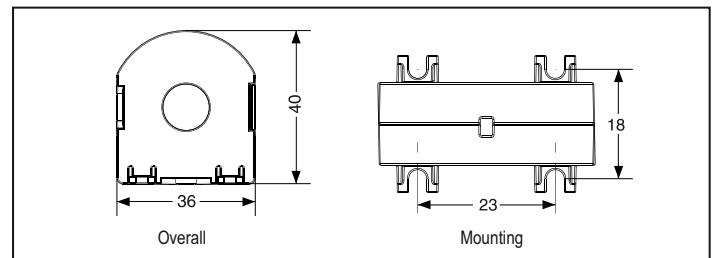


## CT 1PH-D13mm-80A-G

## Specification

|                     |                                   |
|---------------------|-----------------------------------|
| Rated input current | Nominal 80A AC (Min 4A - Max 96A) |
| No. of phases       | 1                                 |
| Inner dia           | 12mm                              |
| Mounting            | Din rail & Wall mount             |

## Dimension (All are in mm)

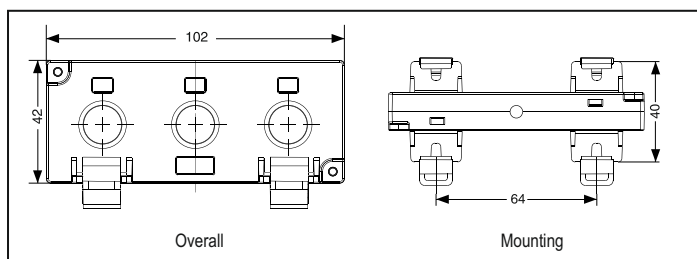


## CT 3PH-D13mm-80A-G

## Specification

|                     |                                   |
|---------------------|-----------------------------------|
| Rated input current | Nominal 80A AC (Min 4A - Max 96A) |
| No. of phases       | 3                                 |
| Inner dia           | 13mm                              |
| Mounting            | Din rail & Wall mount             |

## Dimension (All are in mm)



## CT 3PH-21x25mm-250A-G

## Specification

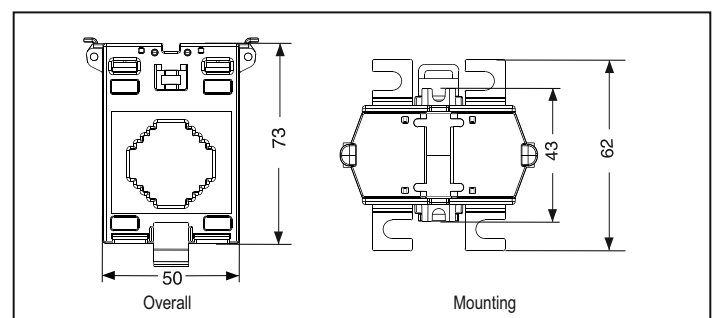
|                     |                                      |
|---------------------|--------------------------------------|
| Rated input current | Nominal 250A AC (Min 10A - Max 300A) |
| No. of phases       | 3                                    |
| Inner dia           | 21x 25mm                             |
| Mounting            | Din rail & Wall mount                |

## CT 1PH-30x10mm-250A-G

## Specification

|                     |                                      |
|---------------------|--------------------------------------|
| Rated input current | Nominal 250A AC (Min 10A - Max 300A) |
| No. of phases       | 1                                    |
| Inner dia           | 30x10mm                              |
| Mounting            | Din rail & Wall mount                |

## Dimension (All are in mm)

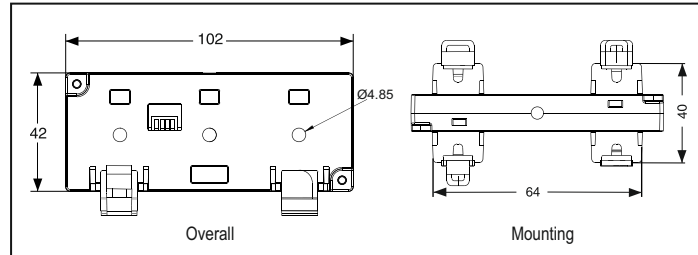


## 3PH 5A CONVERTER-G

## Specification

|                     |                                  |
|---------------------|----------------------------------|
| Rated input current | Nominal 5AAC (Min 50mA - Max 6A) |
| No. of phases       | 3                                |
| Inner dia           | 4.85mm                           |
| Mounting            | Din rail & Wall mount            |

## Dimension (All are in mm)



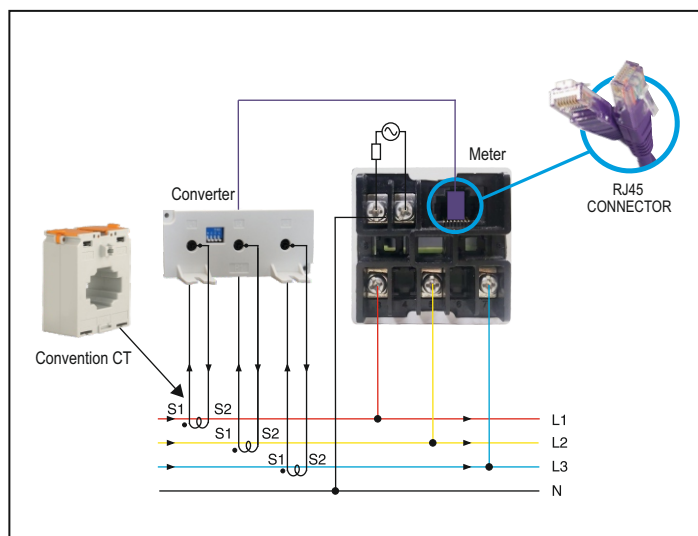
## DIP switch selection for converter

| DIP Configuration | CT   |
|-------------------|------|
|                   | 5A   |
|                   | 400A |
|                   | 500A |
|                   | 630A |
|                   | 800A |

Switch Setting Example -

Conventional CTs to be used along with converter

## Wiring diagram



## Compliance

| Applicable EMI / EMC Standards |                |                                                                                                                                                                                                                                                                                                                    |
|--------------------------------|----------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Product Standard : IEC 61326-1 |                |                                                                                                                                                                                                                                                                                                                    |
| Category                       |                | Standards Compliance                                                                                                                                                                                                                                                                                               |
| ESD Immunity                   | IEC 61000-4-2  | Level II (Air discharge : 8kV),<br>(Contact Discharge : 4kV)                                                                                                                                                                                                                                                       |
| Surge Immunity                 | IEC 61000-4-5  | +/- 2kV common mode, (Line to ground)                                                                                                                                                                                                                                                                              |
| Radiated Susceptibility        | IEC 61000-4-3  | Level III, 80 to 1000MHz (10V/m)<br>Level II, 1.4GHz to 2GHz (3V/m)<br>Level I, 2GHz to 2.7GHz (1V/m)                                                                                                                                                                                                              |
| Conducted Susceptibility       | IEC 61000-4-6  | Level II (3Vrms)                                                                                                                                                                                                                                                                                                   |
| Voltage Dips and Interruptions | IEC 61000-4-11 | <b>Dips</b> : 0% residual voltage /<br>1 cycle (Criteria B), 40% residual voltage /<br>10 cycles 50Hz / 12 cycles 60Hz (Criteria C)<br>70% residual voltage / 25 cycles<br>50Hz / 30 cycles 60Hz (Criteria C)<br><b>Interruptions</b> : 0% residual voltage /<br>250 cycles 50Hz / 300 cycles 60Hz<br>(Criteria C) |
| Conducted Emission             | CISPR-11       |                                                                                                                                                                                                                                                                                                                    |
| Radiated Emission              | CISPR-11       |                                                                                                                                                                                                                                                                                                                    |
| Electrical Fast Transient      | IEC 61000-4-4  | Level II (2kV)                                                                                                                                                                                                                                                                                                     |

## Ordering information

| Product code          | Supply voltage / Current range | Certification |
|-----------------------|--------------------------------|---------------|
| MVA593-CE             | 180 - 300 VAC, 50 / 60Hz       | CE            |
| CT 1PH-D13mm-80A-G    | 80A                            | CE            |
| CT 1PH-30x10mm-250A-G | 250A                           | CE            |
| CT 3PH-D13mm-80A-G    | 80A                            | CE            |
| CT 3PH-21x25mm-250A-G | 250A                           | CE            |
| 3PH 5A CONVERTER-G    | ---                            | CE            |