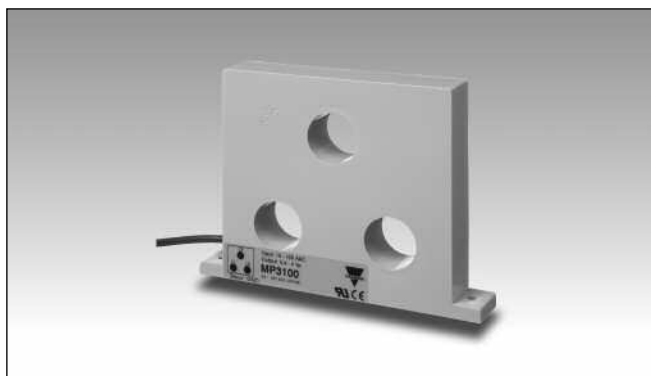


# Monitoring Relays Current Transformer, 3-Phase Types MP 3005, MP 3020, MP 3100, MP 3500

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- 4 types of input:
  - 0.5 - 5 A
  - 2 - 20 A
  - 10 - 100 A
  - 50 - 500 A
- For use in connection with control relays types e.g. DIB02, PIB02, DUA01, PUA01

## Product Description

3-phase current transformers for 5, 20, 100 or 500 AAC. Output voltage (0.4 - 4 V<sub>p</sub>) is proportional to measured current.

## Ordering Key

**MP 3005**

Type \_\_\_\_\_  
Input current \_\_\_\_\_

## Type Selection

| Input current | Type no. |
|---------------|----------|
| 5 A           | MP 3005  |
| 20 A          | MP 3020  |
| 100 A         | MP 3100  |
| 500 A         | MP 3500  |

## Input Specifications

|                                    | MP 3005                 | MP 3020                 | MP 3100                 | MP 3500                 |
|------------------------------------|-------------------------|-------------------------|-------------------------|-------------------------|
| <b>Current range</b>               | 0.5 - 5 AAC             | 2 - 20 AAC              | 10 - 100 AAC            | 50 - 500 AAC            |
| <b>Max. current</b> (continuously) | 20 AAC                  | 50 AAC                  | 150 AAC                 | 500 AAC                 |
| <b>Frequency range</b>             | 40 Hz-1 kHz             | 40 Hz-1 kHz             | 40 Hz-1 kHz             | 40 Hz-1 kHz             |
| <b>Rated insulation voltage</b>    |                         |                         |                         |                         |
| Input-output                       | 1000 VAC <sub>rms</sub> | 1000 VAC <sub>rms</sub> | 1000 VAC <sub>rms</sub> | 1000 VAC <sub>rms</sub> |
| <b>Overvoltage category</b>        | IV (IEC 60664)          | IV (IEC 60664)          | IV (IEC 60664)          | IV (IEC 60664)          |
| <b>Dielectric strength</b>         |                         |                         |                         |                         |
| Dielectric voltage                 | 6 kVAC <sub>rms</sub>   | 6 kVAC <sub>rms</sub>   | 6 kVAC <sub>rms</sub>   | 6 kVAC <sub>rms</sub>   |
| Rated impulse withstand volt.      | 12 kV (1.2/50 μs)       | 12 kV (1.2/50 μs)       | 12 kV (1.2/50 μs)       | 12 kV (1.2/50 μs)       |
| <b>Power consumption</b>           | < 300 mW @ 5 A          | < 300 mW @ 20 A         | < 2 W @ 100 A           | < 21 W @ 500 A          |

## Output Specifications

|   | MP 3005                | MP 3020                | MP 3100                | MP 3500                |
|---|------------------------|------------------------|------------------------|------------------------|
| <b>Output voltage</b>                   |                        |                        |                        |                        |
| (in connection with SM 115)             | 0.4 - 4 V <sub>p</sub> | 0.4 - 4 V <sub>p</sub> | 0.4 - 4 V <sub>p</sub> | 0.4 - 4 V <sub>p</sub> |
| <b>Rated insulation voltage</b> (cable) | 250 VAC <sub>rms</sub> | 250 VAC <sub>rms</sub> | 250 VAC <sub>rms</sub> | 250 VAC <sub>rms</sub> |



## General Specifications

|                            | MP 3005                              | MP 3020                              | MP 3100                              | MP 3500   |
|----------------------------|--------------------------------------|--------------------------------------|--------------------------------------|---|
| <b>Pollution degree</b>    | 3 (IEC 60664)                        | 3 (IEC 60664)                        | 3 (IEC 60664)                        | 3 (IEC 60664)   |
| <b>Ambient temperature</b> | - 20° to + 60°C<br>(- 4° to + 140°F) | - 20° to + 60°C<br>(- 4° to + 140°F) | - 20° to + 60°C<br>(- 4° to + 140°F) | - 20° to + 40°C<br>(- 4° to + 104°F)<br>(max. amb. temp for<br>< 200 A is + 60°C<br>(+140°F)) |
| <b>Housing</b>             |                                      |                                      |                                      |   |
| Dimensions                 | 120 x 45 x 16 mm                     | 120 x 45 x 16 mm                     | 150 x 114 x 23 mm                    | 150 x 114 x 23 mm   |
| Material                   | ABS                                  | ABS                                  | ABS                                  | ABS   |
| <b>Weight</b>              | 200 g                                | 200 g                                | 750 g                                | 750 g   |
| <b>Connection cable</b>    | 2 m, 2 x 0.25 mm <sup>2</sup>        | 2 m, 2 x 0.25 mm <sup>2</sup>        | 2 m, 2 x 0.25 mm <sup>2</sup>        | 2 m, 2 x 0.25 mm <sup>2</sup>   |
| <b>Approvals</b>           | UL                                   | UL                                   | UL                                   | UL  |
| <b>CE-marking</b>          | Yes                                  | Yes                                  | Yes                                  | Yes   |

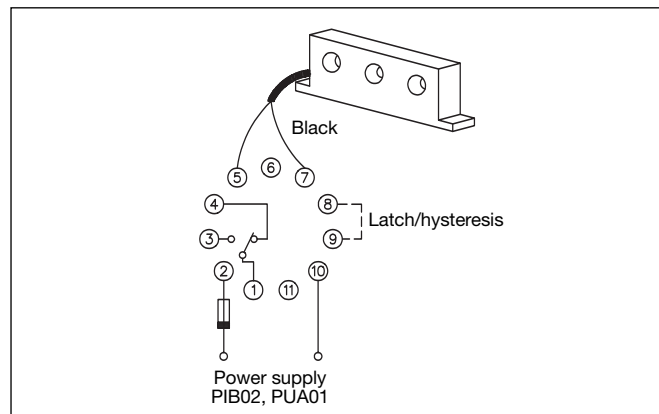
## Mode of Operation

The output voltage is proportional to the highest current value in the 3 conductors which are drawn through the holes of the current metering transformer.

This makes it possible to use the current metering transformers, e.g. type MP 3005, for measuring far below the nominal range.

By drawing each conductor several times through the hole, the output voltage is multiplied by the number of times each conductor is drawn through the hole.

## Wiring Diagram



## Dimensions

