## : ©hipsmall

Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts,Customers Priority,Honest Operation, and Considerate Service",our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!


## Contact us

Tel: +86-755-8981 8866 Fax: +86-755-8427 6832
Email \& Skype: info@chipsmall.com Web: www.chipsmall.com Address: A1208, Overseas Decoration Building, \#122 Zhenhua RD., Futian, Shenzhen, China


- 1-phase current metering transformer for use with control relays types: DUA01, PUA01, DIB02, PIB02, DIC01, PIC01, DWA01, PWA01, DWB01, PWB01, DWB02, PWB02, DWB03, PWB03, S 180, H 479
- Measuring ranges: MI 5: 0.5 - 5 AAC MI 20: 2 - 20 AAC MI 100: 10 - 100 AAC MI 500: 50 - 500 AAC


## Product Description

AC current transformers for 5, 20, 100, 500 AAC. Output
voltage ( $0.4-4 \mathrm{Vp}$ ) is proportional to measured current.

## Ordering Key <br> MI 500 <br> Type Input current

## Type Selection

Input current
5 AAC
20 AAC
OAAC
100 AAC
500 AAC

Type no.
MI 5
MI 20
MI 100
MI 500

Input Specifications

|  | MI 5 | MI 20 | MI 100 | MI 500 |
| :---: | :---: | :---: | :---: | :---: |
| Current range | 0.5-5 AAC | 2-20 AAC | 10-100 AAC | 50-500 AAC |
| Max. current (continuously) | 20 AAC | 50 AAC | 250 AAC | 750 AAC |
| Max. overload current ( $\mathrm{t}=30 \mathrm{~s}$ ) | 40 AAC | 85 AAC | 325 AAC | 1000 AAC |
| Frequency range | $40 \mathrm{~Hz}-1 \mathrm{kHz}$ | $40 \mathrm{~Hz}-1 \mathrm{kHz}$ | $40 \mathrm{~Hz}-1 \mathrm{kHz}$ | $40 \mathrm{~Hz}-1 \mathrm{kHz}$ |
| Rated insulation voltage Input-output | $1000 \mathrm{VAC}_{\text {rms }}$ | $1000 \mathrm{VAC}_{\text {rms }}$ | $1000 \mathrm{VAC}_{\text {rms }}$ | $1000 \mathrm{VAC}_{\text {rms }}$ |
| Overvoltage category | IV (IEC 60664) | IV (IEC 60664) | IV (IEC 60664) | IV (IEC 60664) |
| Dielectric strength Dielectric voltage Rated impulse withstand volt. | $6 \mathrm{kVAC}_{\text {rms }}$ $12 \mathrm{kV}(1.2 / 50 \mu \mathrm{~s})$ | $6 \mathrm{kVAC}_{\text {ms }}$ $12 \mathrm{kV}(1.2 / 50 \mu \mathrm{~s})$ | $6 \mathrm{kVAC}_{\text {rms }}$ $12 \mathrm{kV}(1.2 / 50 \mu \mathrm{~s})$ | $6 \mathrm{kVAC}_{\text {rms }}$ $12 \mathrm{kV}(1.2 / 50 \mu \mathrm{~s})$ |
| Power consumption | $<100 \mathrm{~mW} / 5 \mathrm{~A}$ | < $100 \mathrm{~mW} / 20 \mathrm{~A}$ | <0.5 W/100 A | $<6 \mathrm{~W} / 500 \mathrm{~A}$ |

## Output Specifications

|  | MI 5 | MI 20 | MI 100 | MI 500 |
| :---: | :---: | :---: | :---: | :---: |
| Output Voltage $\left(\mathrm{T}_{\mathrm{A}}=20^{\circ} \mathrm{C}, \mathrm{R}_{\mathrm{L}}=9.5 \mathrm{k} \Omega\right)$ | 0.4-4 $\mathrm{V}_{\mathrm{p}}$ | 0.4-4 $\mathrm{V}_{\mathrm{p}}$ | 0.4-4 $\mathrm{V}_{\mathrm{p}}$ | 0.4-4 $\mathrm{V}_{\mathrm{p}}$ |
| Output impedance | $<700 \Omega$ | $<200 \Omega$ | $<40 \Omega$ | $<10 \Omega$ |
| Tolerance of output voltage @ rated input current | $\pm 5 \%$ | $\pm 5 \%$ | $\pm 5 \%$ | $\pm 5 \%$ |
| Temperature variation | $\pm 0.1 \%$ per ${ }^{\circ} \mathrm{C}$ | $\pm 0.1 \%$ per ${ }^{\circ} \mathrm{C}$ | $\pm 0.1 \%$ per ${ }^{\circ} \mathrm{C}$ | $\pm 0.1 \%$ per ${ }^{\circ} \mathrm{C}$ |
| Rated insulation voltage (cable) | $250 \mathrm{VAC}_{\text {rms }}$ | $250 \mathrm{VAC}_{\text {rms }}$ | $250 \mathrm{VAC}_{\text {rms }}$ | $250 \mathrm{VAC}_{\text {rms }}$ |

General Specifications

| Pollution degree | 3 (IEC 60664) |
| :---: | :---: |
| Ambient temperature | $-20^{\circ}$ to $+60^{\circ} \mathrm{C}\left(-4^{\circ}\right.$ to $\left.+140^{\circ} \mathrm{F}\right)$ |
| Housing |  |
| Dimensions MI 5, MI 20 | $52 \times 45 \times 16 \mathrm{~mm}$ |
| MI 100, MI 500 | $95 \times 67.5 \times 20 \mathrm{~mm}$ |
| Material | ABS |
| Weight MI 5, MI 20 | 70 g |
| MI 100, Ml 500 | 270 g |
| Connection cable |  |
| MI 5, MI 20 | $1 \mathrm{~m}, 2 \times 0.25 \mathrm{~mm}^{2}$ |
| MI 100, MI 500 | $2 \mathrm{~m}, 2 \times 0.25 \mathrm{~mm}^{2}$ |
| Approval | UL |
| CE-marking | Yes |

## Mode of Operation

The metered conductor is the current in the conductor drawn through the central hole of the current metering transformer. Drawing the conductor through the hole several times makes it possible to meter currents below the nominal range.

If the conductor is drawn through the central hole e.g. 5 times, the metering transformer will register 50 A when
is 10 A .

In amplitude and phase the output voltage is proportional to the phase current metered.
$4 \mathrm{~V}_{\mathrm{p}}$ will then be equal to the rms-value of the nomi-nal phase current.

## Wiring Diagrams



## Dimensions

MI 5, MI 20


MI 100, MI 500


