



**CORRENTE ALTERNATA  
a vero valore efficace**

**ALTERNATE CURRENT  
root-mean-square**

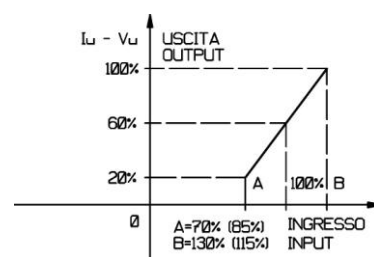
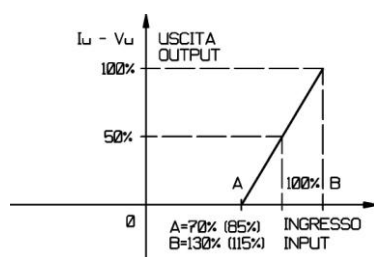
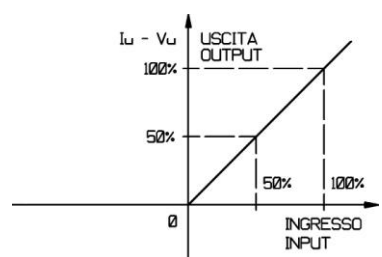
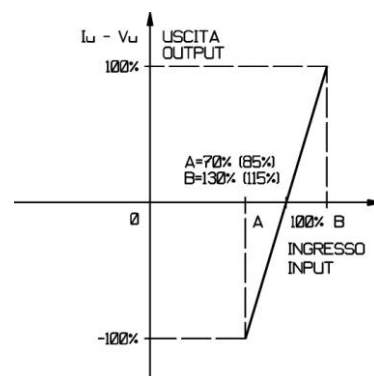
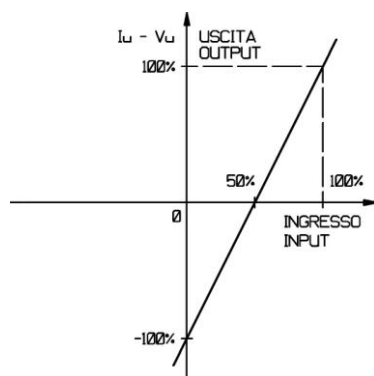
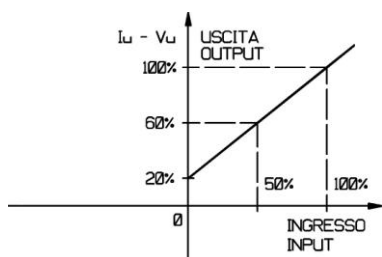
**E.S.A.M.**

**MT-Ca TRMS**

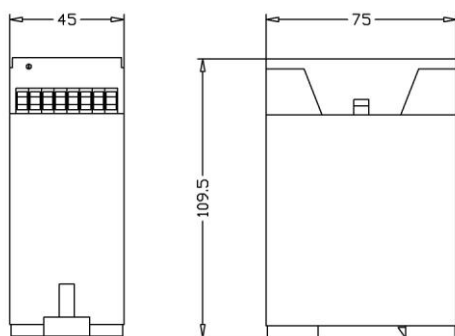
Il convertitore **ESAM MT-Ca TRMS** misura il **vero valore efficace** di una **corrente** alternata non sinusoidale e fornisce in uscita una corrente continua (o una tensione) direttamente proporzionale alla corrente misurata e indipendente dal carico (**corrente impressa**). Essendo alimentato separatamente, in c.a. o in c.c., può fornire un'uscita anche senza segnale in ingresso (ad es. 4 ... 20mA, 1 ... 5V, ecc.).

*ESAM MT-Ca TRMS transducer measures the **root-mean-square** of a not sinusoidal alternate **current** and gives in output a **load-independent** direct current (or a voltage) directly proportional to the measured current. This transducer (which has separated a.c. or d.c. auxiliary power) can give an output even without a signal in input (ex. 4 ... 20mA, 1 ... 5V, etc.)*

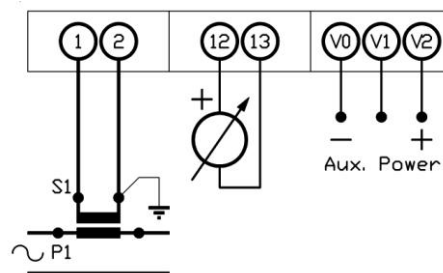
**CARATTERISTICHE INGRESSO-USCITA  
(100% =  $I_n$ )**



**DIMENSIONI D'INGOMBRO  
OVERALL DIMENSIONS**



**SCHEMA D'INSERIZIONE  
WIRING DIAGRAM**



montaggio su profilato DIN EN 60715 TH 35 / DIN EN 60715 TH 35 rail mounting

| modello<br>model  | MT-Ca TRMS   |   |   |   |                                 |
|---|--|---|---|---|---------------------------------|
| grandezza misurata<br>measured variable   | corrente alternata<br>alternate current  |   |   |   |                                 |
| metodo di misura<br>measuring method  | vero valore efficace<br>root-mean-square   |   |   |   |                                 |
| versione<br>version   | con alimentazione ausiliaria<br>with auxiliary power   |   |   |   |                                 |
| valori nominali di ingresso (In)<br>input rated values  | 0,5A   | 1A  | 2,5A  | 5A  | 10A                             |
| frequenza nominale / rated frequency ( $\pm 5\%$ fn)  | 50Hz   | 60Hz  | (400Hz a richiesta / on request)                                    |   |                                 |
| campi di misura<br>measuring ranges   | 0 ... 1,2In<br>In:   | $\pm 30\%$ In   | $\pm 15\%$ In   | valore nominale corrente da misurare<br>rated value of measured current |                                 |
| campo di taratura<br>calibration range  | 0,8 ... 1,2In  |   |   |   |                                 |
| campo di variazione (I)<br>variation range  | 0 ... 1,2In  |   |   |   |                                 |
| banda passante (-3db) con In<br>bandwidth (-3db) with In  | 3kHz   |   |   |   |                                 |
| fattore di cresta<br>crest factor   | 3  | (altri valori a richiesta / other values on request)              |   |   |                                 |
| sovraccarico permanente<br>continuous overload  | 2In  | (3In a richiesta / on request)<br>(1,5In per / for In=10A)        |   |   |                                 |
| sovraccarico istantaneo (1 sec.)<br>instantaneous overload  | 10In   | (20In a richiesta / on request)                                   |   |   |                                 |
| grandezza in uscita (Iu – Vu)<br>output variable  | corrente continua impressa o tensione continua<br>direct current (load-independent) or direct voltage  |   |   |   |                                 |
| campo della variabile d'uscita:<br>range of output variable   | 0 ... 1,2In (mA)<br>0 ... 1,2Vun (V)   | 0 ... 1mA-V<br>0 ... $\pm 1$ mA-V<br>1 ... 5mA-V<br>1...3...5mA-V | 0 ... 5mA-V<br>0 ... $\pm 5$ mA-V<br>2 ... 10mA-V<br>2...6...10mA-V | 0 ... 10mA-V<br>0 ... $\pm 10$ mA-V<br>4 ... 20mA<br>4...12...20mA      | 0 ... 20mA<br>0 ... $\pm 20$ mA |
| resistenza di carico (0 ... Rn)<br>load resistance  | 0 ... 10V/In<br>0,1 ... 1M $\Omega$ (Vun)  | (0 ... 15V/In a richiesta / on request)                           |   |   |                                 |
| precisione / accuracy   | $\pm 0,5\%$  | ( $\pm 0,2\%$ a richiesta / on request)                           |   |   |                                 |
| residuo di alternata / ripple   | $\leq 1\%$   | ( $\leq 0,5\%$ a richiesta / on request)                          |   |   |                                 |
| tempo di risposta / response time   | $\leq 300$ msec.   | ( $\leq 50$ msec. a richiesta / on request)                       |   |   |                                 |
| alimentazione ausiliaria c.a. ( $\pm 15\%$ )<br>a.c. auxiliary power  | 24V  | 100V  | 115V  | 230V  | 380V                            |
| alimentazione ausiliaria c.c. ( $\pm 15\%$ )<br>d.c. auxiliary power  | 12V  | 24V   | 48V   | 110V  | 220V                            |
| autoconsumo<br>consumption  | circuito amperometrico / amperometric circuit: $\leq 0,8$ VA (In)<br>alimentazione ausiliaria c.a. / a.c. auxiliary power: $\leq 4$ VA<br>alimentazione ausiliaria c.c. / d.c. auxiliary power: $\leq 4$ W |   |   |   |                                 |
| isolamento tra: / insulation between:<br>ingressi – uscita / inputs – output<br>ingressi – alim. ausiliaria c.a. / inputs – a.c. aux. power<br>ingressi – alim. ausiliaria c.c. / inputs – d.c. aux. power<br>uscita – alim. ausiliaria c.a. / output – a.c. aux. power<br>uscita – alim. ausiliaria c.c. / output – d.c. aux. power<br>tutti i morsetti – massa / all of terminals – earth<br>prova impulsi / impulsive test | 4kV / 60sec. 50Hz<br>4kV / 60sec. 50Hz<br>2kV / 60sec. 50Hz<br>4kV / 60sec. 50Hz<br>2kV / 60sec. 50Hz<br>4kV / 60sec. 50Hz<br>5kV 1,2 $\mu$ sec.   |   |   |   |                                 |
| peso / weight   | Kg. 0,40   |   |   |   |                                 |



**ATTENZIONE TENSIONE PERICOLOSA** Rischio di shock elettrico e ustioni. L'apparecchio deve essere installato da personale qualificato. Togliere tensione prima di eseguire ogni tipo di lavoro e osservare le istruzioni per l'uso. (per altre eventuali informazioni ved. [www.esam.biz](http://www.esam.biz))  
**WARNING HAZARDOUS VOLTAGE** Can cause electrical shock and burns. This equipment must be installed by qualified persons only. Disconnect power before proceeding with any work and observe the operating instructions (see [www.esam.biz](http://www.esam.biz) for other possible info).

**E.S.A.M.**  
UNICENTER S.R.L.

Elettronica Strumenti Apparecchiature Misura

20010 Bareggio (MI) Italy – Via S. Pietro, 10

Tel. +39 0290361297 – Fax +39 0290362314

