

## CORRENTE ALTERNATA - TRIFASE con alimentazione ausiliaria

## THREE-PHASE - ALTERNATE CURRENT with auxiliary power

# MT-C3

Il convertitore **ESAM MT-C3** misura le 3 **correnti** alternate sinusoidali di un circuito trifase e fornisce in uscita 3 correnti continue (o 3 tensioni) direttamente proporzionali alle correnti misurate e indipendenti 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.).

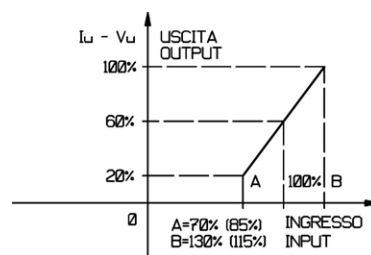
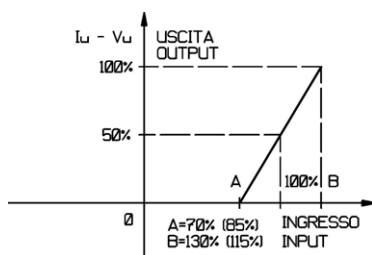
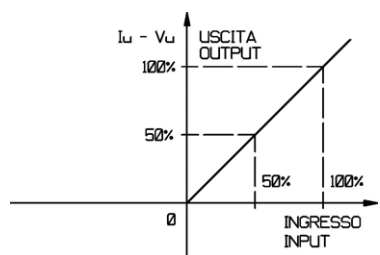
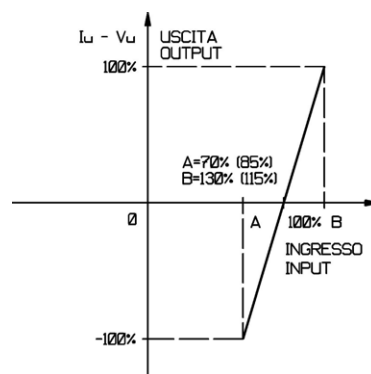
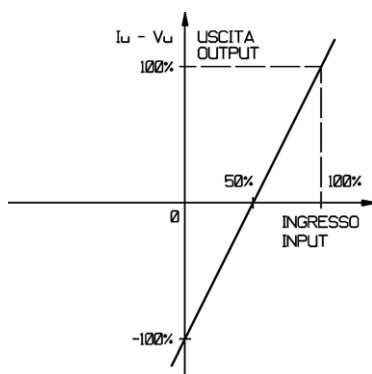
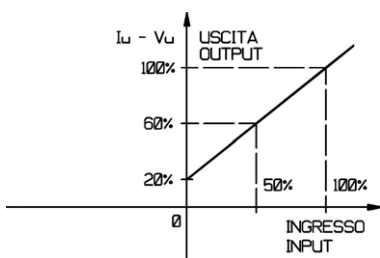
In opzione uscita seriale isolata **RS485** Modbus RTU (es. uscita analogica per protezione, uscita seriale per supervisione e controllo).

*ESAM MT-C3 transducer measures the 3 alternate sinusoidal **currents** of a three-phase circuit and gives in output 3 **load-independent** direct currents (or 3 voltages) directly proportional to the measured currents.*

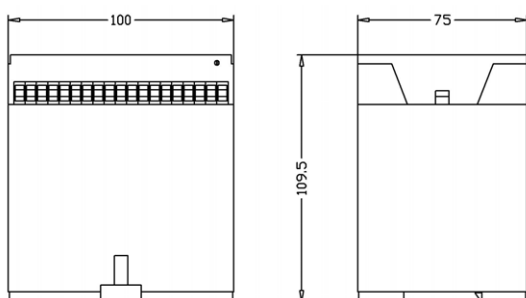
*This transducer (which has separated a.c. or d.c. auxiliary power) can give an output even without a signal in input (ex. 4 ... 20mA, 1 ... 5V, etc.)*

*In option **RS485** Modbus RTU insulated serial output (e.g. analog output for fast feedback, serial output for supervision and control).*

### CARATTERISTICHE INGRESSO-USCITA (100% = In)



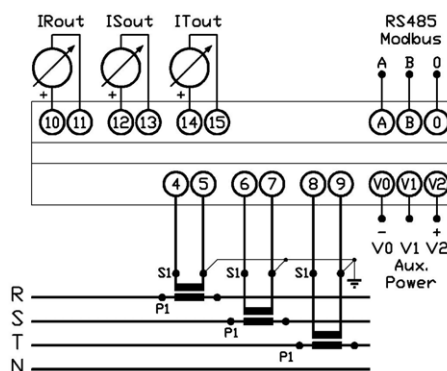
### DIMENSIONI D'INGOMBRO OVERALL DIMENSIONS



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

### INPUT-OUTPUT CHARACTERISTICS (100% = In)

### SCHEMA D'INSERIZIONE WIRING DIAGRAM



| modello<br>model   | MT-C3  |                            |                             |                            |            |
|--|--|----------------------------|-----------------------------|----------------------------|------------|
| grandezza misurata<br>measured variable  | corrente alternata sinusoidale (fattore di forma 1,11)<br>sinusoidal alternate current (form factor 1,11)  |                            |                             |                            |            |
| 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 ( $\pm 5\%$ fn)<br>rated frequency  | 50Hz<br>60Hz   |                            |                             |                            |            |
| campo di misura<br>measuring range   | 0 ... 1,2In<br>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  |                            |                             |                            |            |
| 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>1 ... 5mA-V | 0 ... 5mA-V<br>2 ... 10mA-V | 0 ... 10mA-V<br>4 ... 20mA | 0 ... 20mA |
| resistenza di carico (0 ... Rn)<br>load resistance   | 0 ... 15V/Inun (5mA: 3k $\Omega$ , 10mA: 1,5k $\Omega$ , 20mA: 0,75k $\Omega$ )<br>0,1 ... 1M $\Omega$ (Vun)   |                            |                             |                            |            |
| uscita seriale (a richiesta) / serial output (on request)  | RS485 protocollo MODBUS RTU / RS485 MODBUS RTU protocol  |                            |                             |                            |            |
| precisione / accuracy  | $\pm 0,5\%$ ( $\pm 0,2\%$ a richiesta / on request)  |                            |                             |                            |            |
| residuo di alternata / ripple  | $\leq 0,5\%$   |                            |                             |                            |            |
| tempo di risposta / response time  | $\leq 250$ 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   | ogni circuito amperometrico / each 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 – uscite / inputs – outputs<br>ingressi – alim. ausiliaria c.a. / inputs – a.c. aux. power<br>ingressi – alim. ausiliaria c.c. / inputs – d.c. aux. power<br>uscite – alim. ausiliaria c.a. / outputs – a.c. aux. power<br>uscite – alim. ausiliaria c.c. / outputs – d.c. aux. power<br>uscite analogiche – RS485 / analog outputs – RS485<br>tutti gli ingressi / all of inputs<br>tutti i morsetti – massa / all of terminals – earth<br>prova impulsivi / impulsive test | 4kV / 60sec. 50Hz<br>4kV / 60sec. 50Hz<br>2kV / 60sec. 50Hz<br>4kV / 60sec. 50Hz<br>2kV / 60sec. 50Hz<br>1kV / 60sec. 50Hz<br>4kV / 60sec. 50Hz<br>4kV / 60sec. 50Hz<br>5kV 1,2 $\mu$ sec.                           |                            |                             |                            |            |
| peso / weight  | Kg. 0,70   |                            |                             |                            |            |



**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).