



**Trasformatore di tensione per reti bassa tensione
Misura**

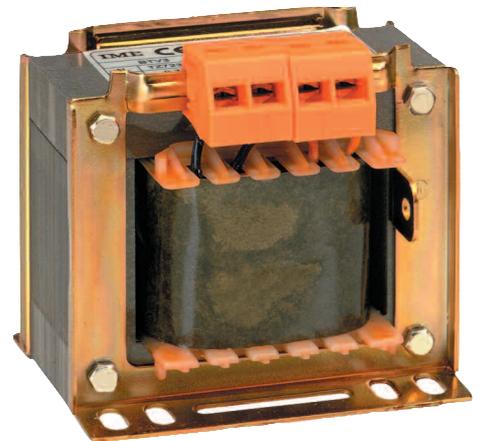
Trasformatore monofase di tensione
INSERZIONE FASE-FASE
Tensione primaria: 100...690V
Tensione secondaria: 100V
Precisione: cl.1
Prestazione nominale: 6VA
INSERZIONE FASE-NEUTRO
Tensione primaria: 100:√3...690:√3V
Tensione secondaria: 100:√3V
Precisione: cl.1
Prestazione nominale: 3VA

**Voltage transformer for low-voltage network
Measure**

Single-phase voltage transformer
PHASE-PHASE CONNECTION
Primary voltage: 100...690V
Secondary voltage: 100V
Accuracy: cl.1
Rated burden: 6VA
PHASE-NEUTRAL CONNECTION
Primary voltage: 100:√3...690:√3V
Secondary voltage: 100:√3V
Accuracy: cl.1
Rated burden: 3VA



BTV3



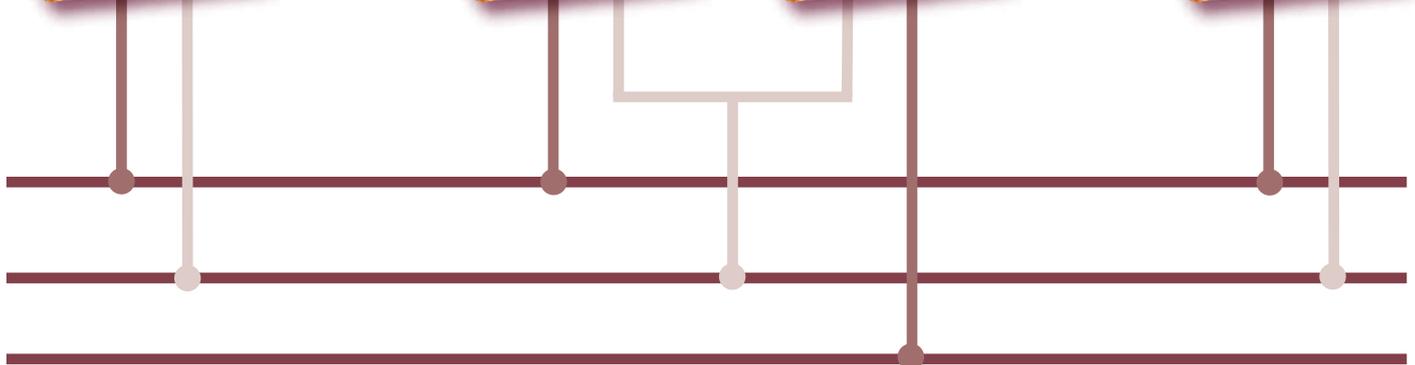
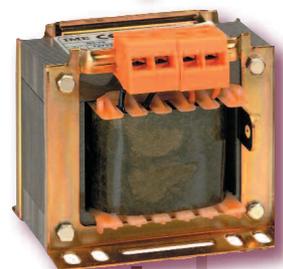
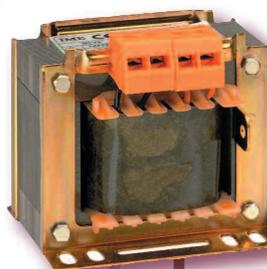
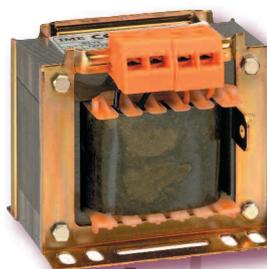
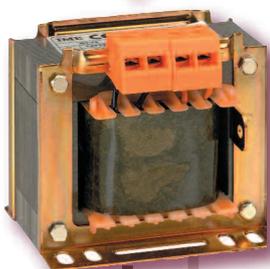
**Indicatori
Meters**



**Multifunzione Contatori
Multifunction Static energy meters**



**Relè
Relays**



CODICE ORDINAZIONE / ORDER CODE		Tensione primaria Primary voltage	CL. 1
Secondario / Secondary		V	VA
100V	100: $\sqrt{3}V$		
TVVAC100C100		100	6
TVVAC110C100		110	6
TVVAC115C100		115	6
TVVAC230C100		230	6
TVVAC240C100		240	6
TVVAC400C100		400	6
TVVAC440C100		440	6
TVVAC450C100		450	6
TVVAC500C100		500	6
TVVAC600C100		600	6
TVVAC660C100		660	6
TVVAC690C100		690	6
	TVVAG100G100	100: $\sqrt{3}V$	3
	TVVAG110G100	110: $\sqrt{3}V$	3
	TVVAG115G100	115: $\sqrt{3}V$	3
	TVVAG230G100	230: $\sqrt{3}V$	3
	TVVAG240G100	240: $\sqrt{3}V$	3
	TVVAG400G100	400: $\sqrt{3}V$	3
	TVVAG440G100	440: $\sqrt{3}V$	3
	TVVAG450G100	450: $\sqrt{3}V$	3
	TVVAG500G100	500: $\sqrt{3}V$	3
	TVVAG600G100	600: $\sqrt{3}V$	3
	TVVAG660G100	660: $\sqrt{3}V$	3
	TVVAG690G100	690: $\sqrt{3}V$	3

NORME DI RIFERIMENTO

EN/IEC61869-1, EN/IEC61869-3

CARATTERISTICHE TECNICHE

INSERZIONE FASE-FASE

Tensione nominale primaria U_{pr} : 100...690V

Tensione nominale secondaria U_{sr} : 100V

INSERZIONE FASE-NEUTRO

Tensione nominale primaria U_{pr} : 100: $\sqrt{3}$...690: $\sqrt{3}V$

Tensione nominale secondaria U_{sr} : 100: $\sqrt{3}V$

Frequenza nominale: 50Hz

Frequenza di funzionamento: 47...63Hz

Opzione: frequenza nominale 400Hz (prestazioni da definire)

Prestazione nominale: vedi tabella

Classe di precisione: cl.1

FATTORE DI TENSIONE NOMINALE (tensione per prova riscaldamento)

Durata nominale continua: 1,2 U_{pr}

Durata nominale 8 ore: 1,9 U_{pr} (inserzione fase-neutro e primario $U_{pr}:\sqrt{3}$)

Massima potenza dissipata¹: $\leq 9W$

¹Per il dimensionamento termico dei quadri

LIMITI DELL'ERRORE DI TENSIONE E DELL'ERRORE D'ANGOLO

(EN/IEC61869-3)

Classe di precisione Accuracy class	Errore di tensione (rapporto) in percentuale \pm Percentage voltage (ratio) error \pm
	80...120% U_n
1	1,0

L'errore di tensione e l'errore d'angolo a frequenza nominale non devono superare i valori indicati in tabella, ad ogni tensione compresa tra l'80% e il 120% della tensione nominale e con prestazione compresa tra il 0% e il 100% della prestazione nominale (per TV con prestazione < 10VA) o tra il 25% e il 100% della prestazione nominale (per TV con prestazione $\geq 10VA$) a fattore di potenza di 0,8 in ritardo.

REFERENCE STANDARDS

EN/IEC61869-1, EN/IEC61869-3

SPECIFICATIONS

PHASE-PHASE CONNECTION

Rated primary voltage U_{pr} : 100...690V

Rated secondary voltage U_{sr} : 100V

PHASE-NEUTRAL CONNECTION

Rated primary voltage U_{pr} : 100: $\sqrt{3}$...690: $\sqrt{3}V$

Rated secondary voltage U_{sr} : 100: $\sqrt{3}V$

Rated frequency: 50Hz

Working frequency: 47...63Hz

Option: rated frequency 400Hz (burdens to the advised)

Rated burden: see table

Accuracy class: cl.1

RATED VOLTAGE FACTOR (for voltage heating test)

Continuous rated time: 1,2 U_{pr}

8 hours rated time: 1,9 U_{pr} (phase-neutral and primary $U_{pr}:\sqrt{3}$ connection)

Max. power dissipation¹: $\leq 9W$

¹For switchboard thermal calculation

LIMITS OF VOLTAGE ERROR AND PHASE DISPLACEMENT

(EN/IEC61869-3)

Errore d'angolo \pm		Phase displacement \pm	
Minuti Minutes		Centiradiani Centiradians	
80...120% U_n		80...120% U_n	
40		1,2	

The voltage error and phase displacement at rated frequency shall not exceed the values given in table, at any voltage between 80% and 120% of rated voltage and with burdens of between 0% and 100% of rated burden (VT with burden < 10VA) or 25% and 100% of rated burden (VT with burden $\geq 10VA$) at a power factor of 0,8 lagging.

PRESCRIZIONI RELATIVE ALL'ISOLAMENTO

Trasformatore a secco, isolamento in aria

Classe di isolamento (EN/IEC61869-1): B

Tensione nominale primaria U_{pn} Rated primary voltage U_{pn}	$\leq 600V$	$> 600V$
Tensione massima di riferimento per l'isolamento U_m Highest voltage for equipment U_m	0,72kV valore efficace / r.m.s.	1,2kV valore efficace / r.m.s.
Livello di isolamento nominale Rated insulation level	3kV valore efficace / r.m.s. 50Hz / 1min	6kV valore efficace / r.m.s. 50Hz / 1min

CONDIZIONI AMBIENTALI

Installazione in situazione non esposta (EN/IEC61869-1)

Temperatura di riferimento: $23^{\circ}C \pm 1^{\circ}C$

Temperatura di impiego: $-25...50^{\circ}C$

Temperatura media giornaliera: $\leq 30^{\circ}C$

Temperatura di magazzinaggio: $-40...85^{\circ}C$

Umidità relativa: $\leq 85\%$

Adatto all'utilizzo in clima tropicale

CUSTODIA

Materiale custodia: metallo

Grado di protezione (EN/IEC 60529): IP00 morsetti

Fissaggio a vite per montaggio a parete

Peso: 2,35 kg

CONNESSIONI

Morsetti a vite M4

SIGLATURA CONNESSIONI

Primario: A – B (fase-fase) / A – N (fase-neutro)

Secondario: a – b (fase-fase) / a – n (fase-neutro)

INSULATION REQUIREMENTS

Dry transformer, air insulation

Class of insulation (EN/IEC61869-1): B

ENVIRONMENTAL CONDITIONS

Non-exposed installation (EN/IEC61869-1)

Reference temperature: $23^{\circ}C \pm 1^{\circ}C$

Nominal temperature range: $-25...50^{\circ}C$

Daily mean temperature: $\leq 30^{\circ}C$

Limit temperature range for storage: $-40...85^{\circ}C$

Relative humidity: $\leq 85\%$

Suitable for tropical climates

HOUSING

Housing material: metal

Protection degree (EN/IEC 60529): IP00 terminals

Fixing screw facility for wall mounting

Weight: 2,35 kg

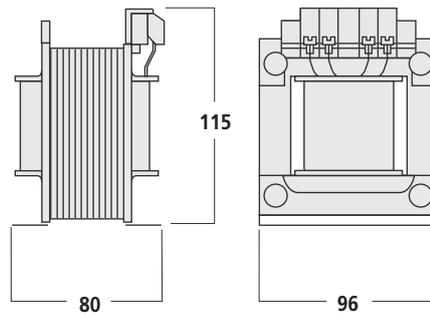
CONNECTIONS

Screw terminals M4

CONNECTIONS LABEL

Primary: A – B (phase-phase) / A – N (phase-neutral)

Secondary: a – b (phase-phase) / a – n (phase-neutral)



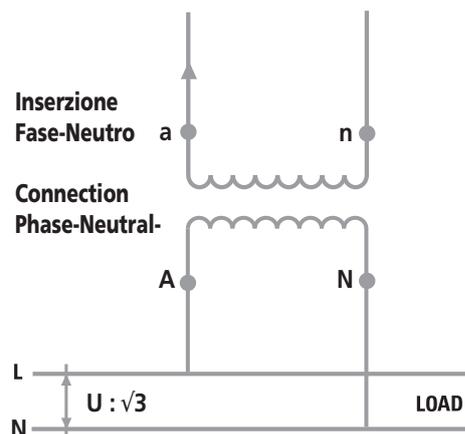
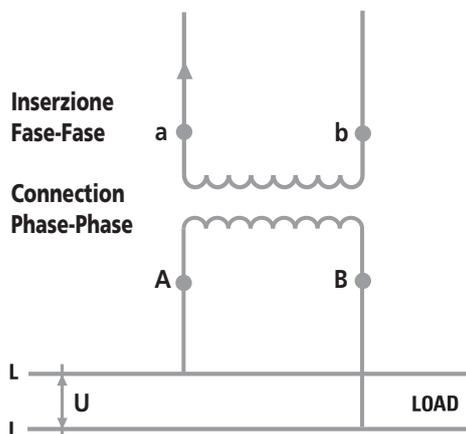
NOTA: è possibile realizzare trasformatori con più ingressi primari e/o uscite secondarie.

Caratteristiche tecniche (precisione, prestazioni, isolamento, ecc.) e dimensioni: da definire.

NOTE: it is possible to manufacture transformers with various primary inputs and/or secondary outputs.

Dimensional and technical specifications (accuracy, rated burden, insulation, etc): to be specified.

SCHEMA D'INSERZIONE WIRING DIAGRAM





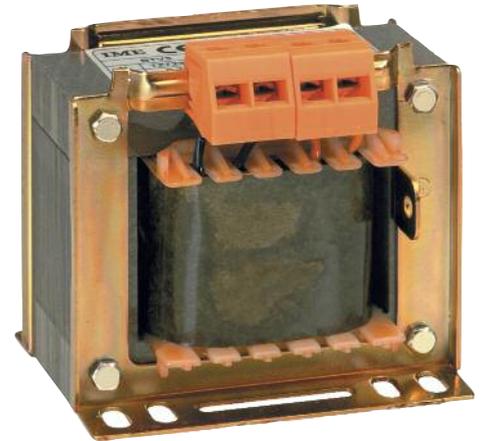
**Transformateur de tension pour réseau basse tension
Mesure**

Transformateur de tension monophasé
RACCORDEMENT PHASE - PHASE
Tension primaire: 100...690V
Tension secondaire: 100V
Précision: cl.1
Prestation nominale: 6VA
RACCORDEMENT PHASE-NEUTRE
Tension primaire: 100:√3...690:√3V
Tension secondaire: 100:√3V
Précision: cl.1
Prestation nominale: 3VA

**Voltage transformer for low-voltage network
Measure**

Single-phase voltage transformer
PHASE-PHASE CONNECTION
Primary voltage: 100...690V
Secondary voltage: 100V
Accuracy: cl.1
Rated burden: 6VA
PHASE-NEUTRAL CONNECTION
Primary voltage: 100:√3...690:√3V
Secondary voltage: 100:√3V
Accuracy: cl.1
Rated burden: 3VA

BTV3

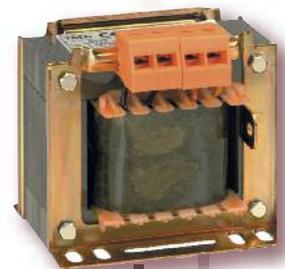
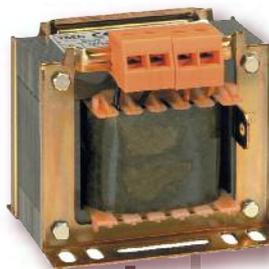
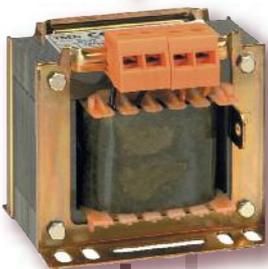


**Indicateurs
Meters**

**Centrales de mesure
Multifunction**

**Compteurs d'énergie
Static energy meters**

**Relais
Relays**



REFERENCE / ORDER CODE		Tension primaire Primary voltage	CL. 1
Secondaire / Secondary			
100V	100: √3V	V	VA
3013 0310		100	6
3013 0311		110	6
3013 0315		115	6
3013 0320		230	6
3013 0321		240	6
3013 0330		400	6
3013 0340		440	6
3013 0345		450	6
3013 0350		500	6
3013 0360		600	6
		660	6
		690	6
	3013 0373	100: √3V	3
	3013 0374	110: √3V	3
	3013 0375	115: √3V	3
	3013 0377	230: √3V	3
	3013 0378	240: √3V	3
	3013 0380	400: √3V	3
	3013 0381	440: √3V	3
	3013 0382	450: √3V	3
	3013 0383	500: √3V	3
	3013 0384	600: √3V	3
		660: √3V	3
		690: √3V	3

NORME DE REFERENCE

EN/IEC61869-1, EN/IEC61869-3

CARACTERISTIQUES TECHNIQUES

RACCORDEMENT PHASE-PHASE

Tension nominale primaire U_{pr} : 100...690V

Tension nominale secondaire U_{sr} : 100V

RACCORDEMENT PHASE-NEUTRE

Tension nominale primaire U_{pr} : 100:√3...690:√3V

Tension nominale secondaire U_{sr} : 100:√3V

Fréquence nominale: 50Hz

Fréquence de fonctionnement: 47...63Hz

Option: fréquence nominale 400Hz (prestations à définir)

Prestation nominale: voir tableau

Classe de précision: cl.1

FACTEUR DE TENSION NOMINALE (pour test d'échauffement)

Durée nominale continue: $1,2U_{pr}$

Durée nominale 8 heures: $1,9U_{pr}$ (raccordement phase-neutre et primaire U_{pr} √3)

Puissance max. dissipée²: ≤ 9W

²Pour le dimensionnement thermique du coffret

LIMITE DES ERREURS DE COURANT ET DEPLACEMENT DE PHASE

(EN/IEC61869-3)

Classe de précision Accuracy class	Erreur de tension (rapport) en pourcentage Percentage voltage (ratio) error ±	Déplacement de phase Phase displacement ±	
		Minutes Minutes	Centiradians Centiradians
		80...120% U_n	80...120% U_n
1	1,0	40	1,2

L'erreur de tension à la fréquence nominale ne doit pas dépasser les valeurs indiquées dans le tableau. Toute tension comprise entre 80% et 120% de la tension nominale et avec des prestations comprises entre 0% et 100% de la prestation nominale (TT avec prestation <10VA) ou 25% et 100% de la prestation nominale (TT avec prestation ≥ 10VA) à un facteur de puissance de 0,8 en retard.

REFERENCE STANDARDS

EN/IEC61869-1, EN/IEC61869-3

SPECIFICATIONS

PHASE-PHASE CONNECTION

Rated primary voltage U_{pr} : 100...690V

Rated secondary voltage U_{sr} : 100V

PHASE-NEUTRAL CONNECTION

Rated primary voltage U_{pr} : 100:√3...690:√3V

Rated secondary voltage U_{sr} : 100:√3V

Rated frequency: 50Hz

Working frequency: 47...63Hz

Option: rated frequency 400Hz (burdens to the advised)

Rated burden: see table

Accuracy class: cl.1

RATED VOLTAGE FACTOR (for voltage heating test)

Continuous rated time: $1,2U_{pr}$

8 hours rated time: $1,9U_{pr}$ (phase-neutral and primary U_{pr} √3 connection)

Max. power dissipation²: ≤ 9W

²For switchboard thermal calculation

LIMITS OF VOLTAGE ERROR AND PHASE DISPLACEMENT

(EN/IEC61869-3)

The voltage error and phase displacement at rated frequency shall not exceed the values given in table, at any voltage between 80% and 120% of rated voltage and with burdens of between 0% and 100% of rated burden (VT with burden <10VA) or 25% and 100% or rated burden (VT with burden ≥ 10VA) at a power factor of 0,8 lagging.

PRESCRIPTIONS RELATIVES À L'ISOLEMENT

Transformateur sec, isolé dans l'air

Classe de l'isolement (EN/IEC61869-1): B

Tension nominale primaire U_{pn} <i>Rated primary voltage U_{pn}</i>	$\leq 600V$	$> 600V$
Tension max. de référence pour l'isolement U_m <i>Highest voltage for equipment U_m</i>	0,72kV valeur efficace / r.m.s.	1,2kV valeur efficace / r.m.s.
Niveau de l'isolement nominal <i>Rated insulation level</i>	3kV valeur efficace / r.m.s. 50Hz / 1min	6kV valeur efficace / r.m.s. 50Hz / 1min

CONDITIONS D'UTILISATION

Installation non exposée (EN/IEC61869-1)

Température de référence: 23°C ± 1°C

Température d'utilisation: -25...50°C

Température moyenne journalière: ≤ 30°C

Température de stockage: -40...85°C

Humidité relative: ≤ 85%

Adapté pour l'utilisation en climat tropical

BOITIER

Matériau du boîtier: métal

Degré de protection (EN/IEC 60529): IP00 bornes

Facilité de fixation pour montage en saillie

Poids: 2,35 kg

RACCORDEMENT

Primaire - secondaire : par vis M4 et faston 6,3 x 0,8mm

ETIQUETTES DE RACCORDEMENT

Primaire: A – B (phase-phase) / A – N (phase-neutre)

Secondaire: a – b (phase-phase) / a – n (phase-neutre)

INSULATION REQUIREMENTS

Dry transformer, air insulation

Class of insulation (EN/IEC 61869-1): B

ENVIRONMENTAL CONDITIONS

Non-exposed installation (EN/IEC61869-1)

Reference temperature: 23°C ± 1°C

Nominal temperature range: -25...50°C

Daily mean temperature: ≤ 30°C

Limit temperature range for storage: -40...85°C

Relative humidity: ≤ 85%

Suitable for tropical climates

HOUSING

Housing material: metal

Protection degree (EN/IEC 60529): IP00 terminals

Fixing screw facility for wall mounting

Weight: 2,35 kg

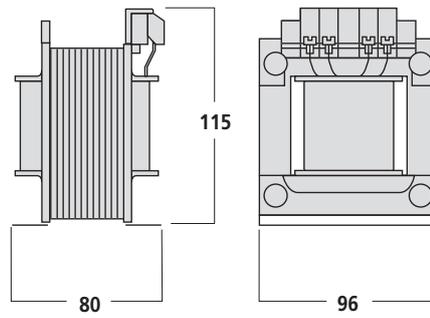
CONNECTIONS

Screw terminals M4

CONNECTIONS LABEL

Primary: A – B (phase-phase) / A – N (phase-neutral)

Secondary: a – b (phase-phase) / a – n (phase-neutral)



NOTE: il est possible de fabriquer des transformateurs avec diverses entrées primaires et / ou sorties secondaires.

Dimensions et spécifications techniques (précision, prestation, isolement, etc): à préciser.

NOTE: it is possible to manufacture transformers with various primary inputs and/or secondary outputs.

Dimensional and technical specifications (accuracy, rated burden, insulation, etc): to be specified.

SCHEMA DE RACCORDEMENT WIRING DIAGRAM

