Trasformatore di corrente per reti bassa tensione Misura

Current transformers for low-voltage network Measure

TAS127

Trasformatore monofase di corrente
Primario a sbarra passante
Corrente primaria 400...4000A
Corrente secondaria 1 - 5A
Classi di precisione: cl.0,5 - 1
Prestazione nominale 2...30VA

Single-phase current transformer
Passing bus bar primary
Primary current 400...4000A
Secondary current 1 - 5A
Accuracy class: cl.0,5 - 1
Rated burden 2...30VA

FINESTRA *WINDOW*

A	=	38 x 127	127 x 38

Coprimorsetto sigillabile
Sealable terminal cover
(Opzione Option)

Fissaggio su sbarra verticale
Fixing on vertical bar

Morsetti lato lungo
Fissaggio su sbarra orizzontale
Terminals on long side
Fixing on horizontal bar

TAS127
fissaggio su sbarra verticale
fixing on vertical bar

CODICE ORDINAZIONE / *ORDER CODE*		Corrente primaria *Primary current*	CL. 0,5	CL. 1
Secondario / *Secondary*				
5A	1A	A	VA	VA
TASR50C400	TASR10C400	400	-	3
TASR50C500	TASR10C500	500	2	4
TASR50C600	TASR10C600	600	4	6
TASR50C700	TASR10C700	700	4	8
TASR50C750	TASR10C750	750	4	8
TASR50C800	TASR10C800	800	4	8
TASR50D100	TASR10D100	1000	6	10
TASR50D120	TASR10D120	1200	8	12
TASR50D125	TASR10D125	1250	8	12
TASR50D150	TASR10D150	1500	10	15
TASR50D160	TASR10D160	1600	10	15
TASR50D200	TASR10D200	2000	15	20
TASR50D250	TASR10D250	2500	20	25
TASR50D300	TASR10D300	3000	25	30
TASR50D320	TASR10D320	3200	25	30
TASR50D400	TASR10D400	4000	25	30
ATACOP04	Accessorio coprimorsetto sigillabile / *Accessory sealable terminal cover*			
ATADIS02	B distanziale per sbarra da 100mm / *B spacing device for bars of 100mm*			

TAS127
morsetti lato lungo fissaggio su sbarra orizzontale
terminals on long side fixing on horizontal bar

CODICE ORDINAZIONE / *ORDER CODE*		Corrente primaria *Primary current*	CL. 0,5	CL. 1
Secondario / *Secondary*				
5A	1A	A	VA	VA
TASR50C4003	TASR10C4003	400	-	3
TASR50C5003	TASR10C5003	500	2	4
TASR50C6003	TASR10C6003	600	4	6
TASR50C7003	TASR10C7003	700	4	8
TASR50C7503	TASR10C7503	750	4	8
TASR50C8003	TASR10C8003	800	4	8
TASR50D1003	TASR10D1003	1000	6	10
TASR50D1203	TASR10D1203	1200	8	12
TASR50D1253	TASR10D1253	1250	8	12
TASR50D1503	TASR10D1503	1500	10	15
TASR50D1603	TASR10D1603	1600	10	15
TASR50D2003	TASR10D2003	2000	15	20
TASR50D2503	TASR10D2503	2500	20	25
TASR50D3003	TASR10D3003	3000	25	30
TASR50D3203	TASR10D3203	3200	25	30
TASR50D4003	TASR10D4003	4000	25	30
ATACOP04	Accessorio coprimorsetto sigillabile / *Accessory sealable terminal cover*			
ATADIS02	B distanziale per sbarra da 100mm / *B spacing device for bars of 100mm*			

NORME DI RIFERIMENTO

EN/IEC 61869-1, 61869-2

REFERENCE STANDARDS

EN/IEC 61869-1, 61869-2

CARATTERISTICHE TECNICHE

Corrente nominale primaria I_{pr}: 400…4000A
Frequenza nominale: 50Hz
Frequenza di funzionamento: 47…63Hz
Opzione: frequenza nominale 400Hz (prestazioni da definire)
Corrente termica nominale permanente I_{cth}: 100% I_{pr}
Corrente termica nominale di cortocircuito I_{th}: < 60I_{pr} (max. 90kA)
Corrente nominale dinamica I_{dyn}: 2,5I_{th}
Fattore di sicurezza (FS): ≤ 5
Corrente nominale secondaria I_{sr}: 5-1A
Prestazione nominale: 2…30VA
Classe di precisione: 0,5 – 1

SPECIFICATIONS

Rated primary current I_{pr} : *400…4000A*
Rated frequency: *50Hz*
Working frequency: *47…63Hz*
Option: *rated requency 400Hz (burdens to the advised)*
Rated continuous thermal current I_{cth}: *100% I_{pr}*
Rated short-time thermal current I_{th}: *< 60I_{pr} (max. 90kA)*
Rated dynamic current I_{dyn} : *2,5I_{th}*
Instrument security factor (FS): *≤ 5*
Rated secondary current I_{sr}: *5 - 1A*
Rated burden: *2…30VA*
Accuracy class: *0,5 – 1*

Massima potenza dissipata [1]: ≤ 23W

[1] Per il dimensionamento termico dei quadri

Temperatura max ammissibile su cavo a barra primario: 125°C

Funzionamento garantito a secondario aperto per 1 minuto

I trasformatori di corrente non dovrebbero funzionare con l' avvolgimento secondario aperto a causa delle sovratensioni potenzialmente pericolose e dei surriscaldamenti che possono verificarsi.

Per ovviare a questo problema è possibile utilizzare l'accessorio ATAP015 (NT710) da collegare direttamente al secondario del trasformatore, in grado di rilevare costantemente la tensione ai morsetti e qualora questa raggiunga il valore di soglia (18V) a causa di una interruzione dei collegamenti o alla rimozione delle apparecchiature, provvede automaticamente alla richiusura del circuito.
Al ripristino delle condizioni normali di funzionamento si esclude automaticamente. Collegato permanentemente al secondario del trasformatore da proteggere, non influisce minimamente sulle caratteristiche e prestazioni del TA; non necessita di alcuna alimentazione esterna (autoalimentato).

Max. power dissipation [1]: *≤ 23W*

[1] For switchboard thermal calculation

The allowed max cable or busbar temp is: *125°C*

Working time guaranteed with secondary winding open for 1 minute
Current transformers should not be operated with the secondary winding open-circuited because of the potentially dangerous over-voltages and overheating which can occur.

To obviate this problem, it is possible to use ATAP015 (NT710) accessory to be directly connected with the transformer secondary winding, which is able to continuously detect the terminal voltage and, if the voltage reaches the threshold value (18V) owing to a connection breakdown or disconnection of the devices, automatically closes again the circuit.
When the normal working conditions are restored, it automatically disconnects. Continuously connected with the secondary winding of the transformer to protect, it doesn't affect at all the current transformer features or performances. It doesn't need any external supply (self-supplied).

PRESCRIZIONI RELATIVE ALL'ISOLAMENTO

Trasformatore a secco, isolamento in aria

Tensione massima di riferimento per l'isolamento U_m: 0,72kV valore efficace

Livello di isolamento nominale: 3kV valore efficace 50Hz/1min

Classe di isolamento (EN/IEC 61869-1, 61869-2): B

INSULATION REQUIREMENTS

Dry transformer, air insulation

Highest voltage for equipment U_m: *0,72kV r.m.s.*

Rated insulation level: *3kV r.m.s. 50Hz/1min*

Class of insulation (EN/IEC 61869-1, 61869-2): *B*

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

(EN/IEC 61869-1, 61869-2)

LIMITS OF CURRENTS ERROR AND PHASE DISPLACEMENT

(EN/IEC 61869-1, 61869-2)

Classe di precisione *Accuracy class*	Errore di corrente (rapporto) in percento (±) alla percentuale della corrente nominale sottoindicata *± Percentage current (ratio) error at percentage of rated current shown below*					Errore d'angolo(±) alla percentuale della corrente nominale sottoindicata *± Phase displacement at percentage of rated current shown below*									
						Minuti *Minutes*					Centiradianti *Centiradians*				
	5	20	50	100	120	5	20	50	100	120	5	20	50	100	120
0,5	1,5	0,75		0,5	0,5	90	45		30	30	2,7	1,35		0,9	0,9
1	3,0	1,5		1,0	1,0	180	90		60	60	5,4	2,7		1,8	1,8

L'errore di corrente e l'errore d'angolo a frequenza nominale non devono superare i valori indicati in tabella, quando la prestazione è uguale a un qualsiasi valore compreso **tra il 25% e il 100% della prestazione nominale**.

The current error and phase displacement at rated frequency shall not exceed the values given in table when the secondary burden is any value ***from 25% to 100% of the rated burden.***

CONDIZIONI AMBIENTALI

Installazione in situazione non esposta (EN/IEC 61869-1, 61869-2)

Temperatura di riferimento: 23°C ± 1°C

Temperatura di impiego:-25…50°C (I_{pr} ≤ 1000A) - -25...40°C (I_{pr} > 1000A)

Temperatura media giornaliera: ≤ 30°C

Temperatura di magazzinaggio: -40…85°C

Umidità relativa: ≤ 85%

Adatto all'utilizzo in clima tropicale

ENVIRONMENTAL CONDITIONS

Non-exposed installation (EN/IEC 61869-1, 61869-2)

Reference temperature: *23°C ± 1°C*

Nominal temperature range: *-25…50°C (I_{pr} ≤ 1000A) - -25...40°C (I_{pr} > 1000A)*

Daily mean temperature: *≤ 30°C*

Limit temperature range for storage: *-40…85°C*

Relative humidity: *≤ 85%*

Suitable for tropical climates

CUSTODIA

Materiale custodia: policarbonato autoestinguente

Grado di protezione (EN/IEC 60529): IP40 custodia, IP00 morsetti (IP20 con coprimorsetto sigillabile)

Opzione: coprimorsetto sigillabile

Peso: 1500 grammi (Max.)

HOUSING

Housing material: *self extinguishing polycarbonate*

Protection degree (EN/IEC 60529): *IP40 housing, IP00 terminals (IP20 with sealable terminal cover)*

Option*: sealable terminal cover*

Weight: *1500 grams (Max.)*

CONNESSIONI

PRIMARIO

Cavo o sbarra passante

Fissaggio sbarra: viti, con cappuccio isolato

Coppia serraggio consigliata: 0,2Nm

SECONDARIO

Secondario: morsetti M4 con serraggio a dado

Coppia serraggio consigliata: 0,5Nm

Coppia serraggio max.: 0,8Nm

CONNECTIONS

PRIMARY

Passing cable/bus bar primary

Fixing on bar: *screws, with insulated caps*

Suggested tightening torque: *0,2Nm*

SECONDARY

Secondary winding: *tightening by nut M4*

Suggested tightening torque: *0,5Nm*

Suggested tightening max.: *0,8Nm*

Siglatura connessioni: primario P1(K) – P2(L)
secondario s1(k) – s2(l)

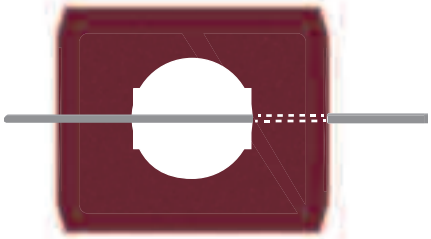
Effettuando più passaggi (spire) del cavo all'interno del trasformatore, è possibile ridurre il valore della corrente primaria, mantenendo inalterati valori di corrente secondaria, prestazioni, classe di precisione.
Corrente primaria effettiva = Corrente primaria nominale: Nm spire

Es.: trasformatore con rapporto = 150/5A

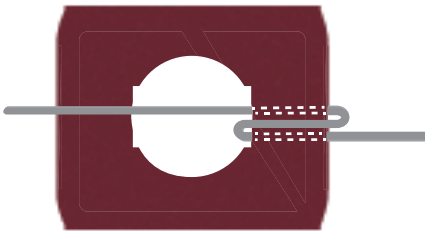
Connections label: *primary winding P1(K) – P2(L)*
secondary winding s1(k) – s2(l)

Making more cable passages (windings) inside the transformer, it is possible to reduce the primary current value, keeping unchanged the secondary current values,burden and accuracy class.
Actual primary current = rated primary current : Nm windings

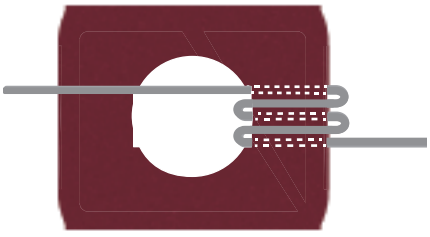
Ex.: transformer with ratio = 150/5A



1 Passaggio cavo 150/5A
1 Cable passage 150/5A

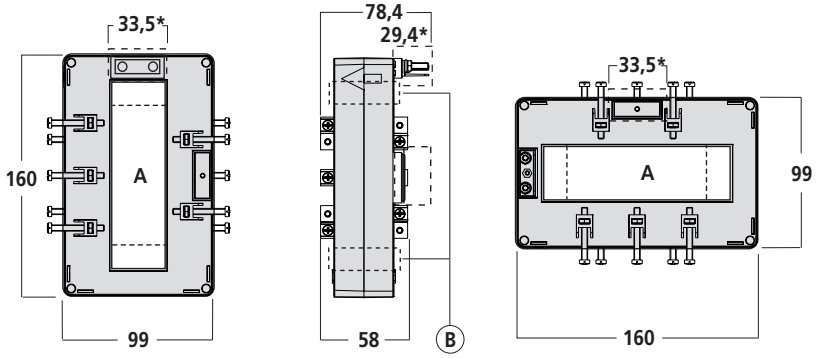


2 Passaggi cavo 75/5A
2 Cable passages 75/5A



3 Passaggi cavo 50/5A
3 Cable passages 50/5A

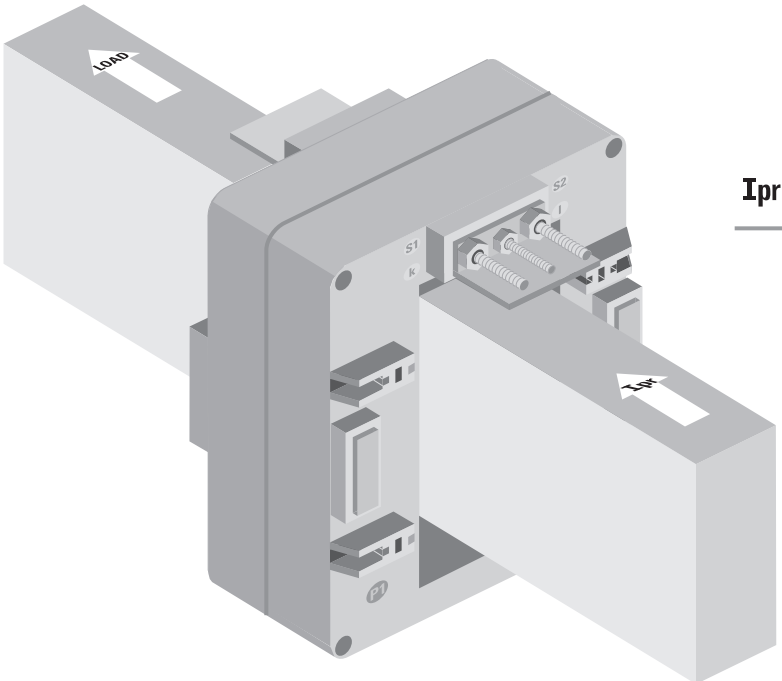
DIMENSIONI *DIMENSIONS*

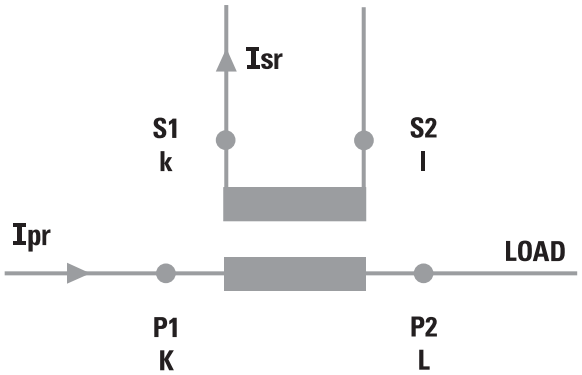


*Opzione/Option

B = Distanziale/Spacing device

SCHEMA D'INSERZIONE *WIRING DIAGRAM*





La I.M.E. S.p.A. si riserva in qualsiasi momento, di modificare le caratteristiche tecniche senza darne preavviso. / *I.M.E. S.p.A. reserves the right, to modify the technical characteristics without notice.*

Transformateurs de mesure pour réseau basse tension Mesure

Measuring transformers for low-voltage network Measure

TAS127

Transformateur de courant monophasé
Primaire à barre passante
Courant primaitre 400…4000A
Courant secondaire 1 - 5A
Classe de précision : cl. 0,5 - 1
Prestation nominale nominale 2…30VA

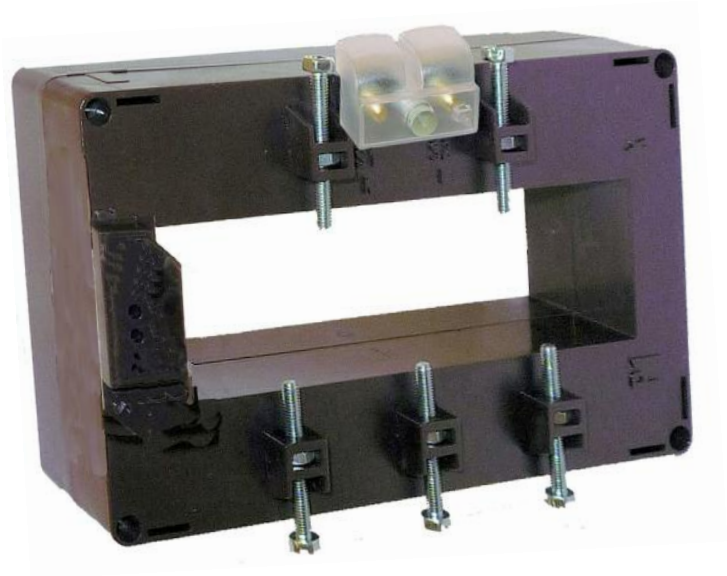
Single-phase current transformer
Passing bus bar primary
Primary current 400...4000A
Secondary current 1 - 5A
Accuracy class : cl. 0,5 - 1
Rated burden 2...30VA

OUVERTURE *WINDOW*

A = 38 x 127 | 127 x 38

Fixation sur barre verticale
Fixing on vertical bar

Cache bornes plombable
Sealable terminal cover
(Option *Option*)



Montage barre à plat
Fixation sur barre horizontale
Terminals on long side
Fixing on horizontal bar

TAS127
Fixation sur barre verticale
fixing on vertical bar

RÉFÉRENCE *ORDER CODE*		Courant primaire *Primary current*	CL. 0,5	CL. 1
Secondaire / *Secondary*				
5A	1A	A	VA	VA
3020 9740	3020 9701	400	-	3
3020 9750	3020 9702	500	2	4
3020 9760	3020 9703	600	4	6
3020 9770	3020 9704	700	4	8
3020 9775	3020 9705	750	4	8
3020 9780	3020 9706	800	4	8
3020 9790	3020 9707	1000	6	10
3020 9792	3020 9708	1200	8	12
☎	☎	1250	8	12
3020 9795	3020 9709	1500	10	15
☎	☎	1600	10	15
3020 9796	3020 9710	2000	15	20
3020 9797	3020 9711	2500	20	25
3020 9798	3020 9720	3000	25	30
☎	☎	3200	25	30
3020 9799	3020 9721	4000	25	30
3020 0101	Cache bornes plombables / *Accessory sealable terminal cover*			
☎	B Cales pour barres de 100mm / B spacing device for bars of 100mm			

TAS127
Montage barre à plat, fixation sur barre horizontale
Terminals on long side, fixing on horizontal bar

RÉFÉRENCE *ORDER CODE*		Courant primaire *Primary current*	CL. 0,5	CL. 1
Secondaire / *Secondary*				
5A	1A	A	VA	VA
3020 9740H	3020 9701H	400	-	3
3020 9750H	3020 9702H	500	2	4
3020 9760H	3020 9703H	600	4	6
3020 9770H	3020 9704H	700	4	8
3020 9775H	3020 9705H	750	4	8
3020 9780H	3020 9706H	800	4	8
3020 9790H	3020 9707H	1000	6	10
3020 9792H	3020 9708H	1200	8	12
☎	☎	1250	8	12
3020 9795H	3020 9709H	1500	10	15
☎	☎	1600	10	15
3020 9796H	3020 9710H	2000	15	20
3020 9797H	3020 9711H	2500	20	25
3020 9798H	3020 9720H	3000	25	30
☎	☎	3200	25	30
3020 9799H	3020 9721H	4000	25	30
3020 0101H	Cache bornes plombables / *Accessory sealable terminal cover*			
☎	B Cales pour barres de 100mm / B spacing device for bars of 100mm			

NORME DE REFERENCE

EN/IEC 61869-1, 61869-2

REFERENCE STANDARDS

EN/IEC 61869-1, 61869-2

CARACTERISTIQUES TECHNIQUES

Courant nominal primaire I_{pr}: 400…4000A

Fréquence nominale: 50Hz

Fréquence de fonctionnement: 47…63Hz

Option: fréquence nominale 400Hz (prestation à préciser)

Courant thermique nominal continu I_{cth}: < 100% I_{pr}

Courant thermique nominal de court-circuit I_{th}: < 60I_{pr} (max. 90kA)

Courant nominal dynamique I_{dyn}: 2,5I_{th}

Facteur de sécurité (FS): ≤ 5

Courant nominal secondaire I_{sr}: 5-1A

Prestation nominale: 2…30VA

Classe de précision: 0,5 – 1

SPECIFICATIONS

Rated primary current I_{pr} : *400…4000A*

Rated frequency: *50Hz*

Working frequency: *47…63Hz*

Option: *rated requency 400Hz (burdens to the advised)*

Rated continuous thermal current I_{cth}: *< 100% I_{pr}*

Rated short-time thermal current I_{th}: *< 60I_{pr} (max. 90kA)*

Rated dynamic current I_{dyn} : *2,5I_{th}*

Instrument security factor (FS): *≤ 5*

Rated secondary current I_{sr} : *5 - 1A*

Rated burden: *2…30VA*

Accuracy class: *0,5 – 1*

Puissance maximum dissipée [2]: ≤ 23W

[2] Pour le dimensionnement thermique du coffret

La température max.. admissible sur câble à barre primaire est : 125°C

Fonctionnement avec secondaire ouvert 1 minute

Les transformateurs de courant ne doivent pas fonctionner avec l'enroulement secondaire en circuit ouvert en raison du danger potentiel de surtension et la surchauffe qui peut se produire.

Pour remédier à ce problème, il est possible d'utiliser l'accessoire ATAP015 (NT710) pour être directement raccordé à l'enroulement secondaire du transformateur. Cet accessoire est en mesure de détecter en continu la tension aux bornes et, si la tension atteint la valeur seuil (18V) à cause d'une rupture de raccordement ou de déconnexion des dispositifs, l'accessoire referme automatiquement le circuit. Lorsque les conditions de travail normales sont rétablies, il se déconnecte automatiquement. Connecté en permanence avec l'enroulement secondaire du transformateur à protéger, il ne porte pas atteinte aux fonctionnalités ni aux performances du transformateur de courant. Il ne nécessite aucune alimentation externe (auto-alimenté).

Max. power dissipation [2]: *≤ 23W*

[2] For switchboard thermal calculation

The allowed max. cable for busbar temp is : *125°C*

Working time guaranteed with secondary winding open for 1 minute

Current transformers should not be operated with the secondary winding open-circuited because of the potentially dangerous over-voltages and overheating which can occur.

To obviate this problem, it is possible to use ATAP015 (NT710) accessory to be directly connected with the transformer secondary winding, which is able to continuously detect the terminal voltage and, if the voltage reaches the threshold value (18V) owing to a connection breakdown or disconnection of the devices, automatically closes again the circuit.

When the normal working conditions are restored, it automatically disconnects. Continuously connected with the secondary winding of the transformer to protect, it doesn't affect at all the current transformer features or performances. It doesn't need any external supply (self-supplied).

CARACTERISTIQUES D'ISOLEMENT

Transformateur sec isolé dans l'air

Tension max. de référence pour l'isolement U_m: 0,72kV valeur efficace

Niveau de tension nominale pour l'isolement: 3kV valeur efficace 50Hz/1min

Classe de l'isolement (EN/IEC 61869-1, 61869-2): B

INSULATION REQUIREMENTS

Dry transformer, air insulation

Highest voltage for equipment U_m: *0,72kV r.m.s.*

Rated insulation level: *3kV r.m.s. 50Hz/1min*

Classe de l'isolement (EN/IEC 61869-1, 61869-2): B

LIMITE DES ERREURS DE COURANT ET DEPLACEMENT DE PHASE

(EN/IEC 61869-1, 61869-2)

LIMITS OF CURRENTS ERROR AND PHASE DISPLACEMENT

(EN/IEC 61869-1, 61869-2)

Classe de précision Accuracy class	Erreur du courant (rapport) en % du courant nominal indiqué ci-dessous Percentage current (ratio) error at percentage of rated current shown below					Déplacement de phase en % du courant nominal ci-dessous Phase displacement at percentage of rated current shown below									
						Minutes Minutes					Centiradiants Centiradians				
	5	20	50	100	120	5	20	50	100	120	5	20	50	100	120
0,5	1,5	0,75		0,5	0,5	90	45		30	30	2,7	1,35		0,9	0,9
1	3,0	1,5		1,0	1,0	180	90		60	60	5,4	2,7		1,8	1,8

L'erreur du courant et le déplacement de phase à la fréquence nominale ne doit pas excéder la valeur indiquée dans le tableau lorsque l'enroulement du secondaire représente une valeur de **25% à 100% de la prestation nominale**.

The current error and phase displacement at rated frequency shall not exceed the values given in table when the secondary burden is any value ***from 25% to 100% of the rated burden.***

CONDITIONS D'UTILISATION

Installation non exposée (EN/IEC 61869-1, 61869-2)

Température de référence: 23°C ± 1°C

Température d'utilisation:-25…50°C (I_{pr} < 1000A) - -25…40°C (I_{pr} ≥ 1000A)

Température moyenne journalière: ≤ 30°C

Température de stockage: -40…85°C

Humidité relative: ≤ 85%

Adapté pour l'utilisation en climat tropical

ENVIRONMENTAL CONDITIONS

Non-exposed installation (EN/IEC 61869-1, 61869-2)

Reference temperature: *23°C ± 1°C*

Nominal temperature range: *-25…50°C (I_{pr} < 1000A - 25…40°C (I_{pr} ≥ 1000A)*

Daily mean temperature: *≤ 30°C*

Limit temperature range for storage: *-40…85°C*

Relative humidity: *≤ 85%*

Suitable for tropical climates

BOITIER

Matériau du boîtier: polycarbonate autoextinguible

Indice de protection (EN / IEC 60529): IP40 boîtier, IP00 bornes (IP20 avec cache borne plombable)

Option: cache borne plombable

Poids: 1500 grammes (Max.)

HOUSING

Housing material: *self extinguishing polycarbonate*

Protection degree (EN / IEC 60529): *IP40 housing, IP00 terminals (IP20 with sealable terminal cover)*

Option*: sealable terminal cover*

Weight: *1500 grams (Max.)*

RACCORDEMENT

PRIMAIRE

Primaire barre/câble passant

Fixation sur barre : *vis avec capuchon isolant*

Couple de serrage conseillé : 0,2Nm

SECONDAIRE

Enroulement secondaire : par cosse, serrage par écrou M4

Couple de serrage conseillé : *0,5Nm*

Couple de serrage max. conseillé. : *0,8Nm*

CONNECTIONS

PRIMARY

Passing cable/bus bar primary

Fixing on bar: *screws, with insulated caps*

Suggested tightening torque: *0,2Nm*

SECONDARY

Secondary winding : *tightening by nut M4*

Suggested tightening torque : *0,5Nm*

Suggested tightening max. : *0,8Nm*

Repérage *: enroulement primaire P1(K) – P2(L)*
enroulement secondaire s1(k) – s2(l)

En effectuant plus de passage de câble (enroulements) à l'intérieur du transformateur, il est possible de réduire la valeur du courant primaire , tout en conservant les valeurs secondaires du courant, la prestation et la classe de précision.

Courant primaire effectif = courant primaire nominal: Nm enroulements

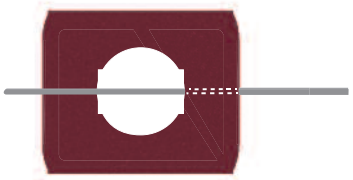
Ex. : transformateur avec rapport = 150/5A

Connections label: *primary winding P1(K) – P2(L)*
secondary winding s1(k) – s2(l)

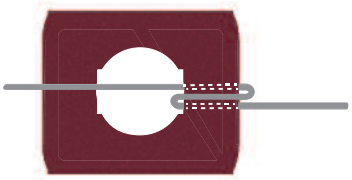
Making more cable passages (windings) inside the transformer, it is possible to reduce the primary current value, keeping unchanged the secondary current values, burden and accuracy class.

Actuel primary current = rated primary current : Nm windings

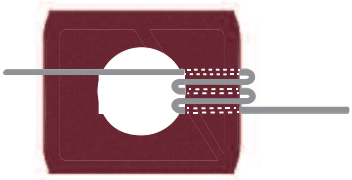
Ex. : transformer with ratio = 150/5A



1 passage de câble 150/5A
1 cable passage 150/5A

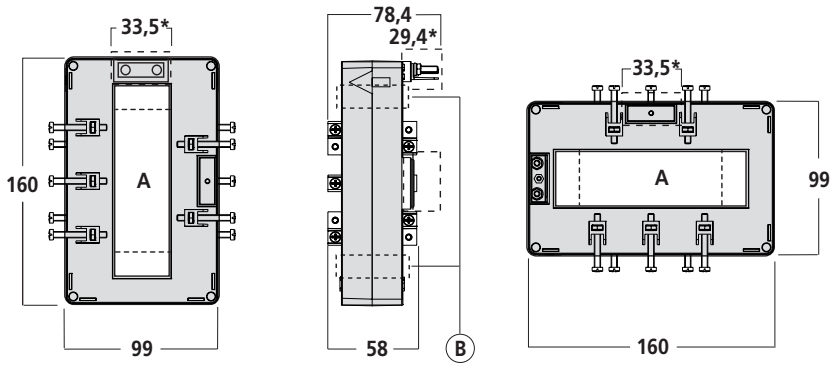


2 passages de câble 75/5A
2 cable passages 75/5A



3 passages de câble 50/5A
3 cable passages 50/5A

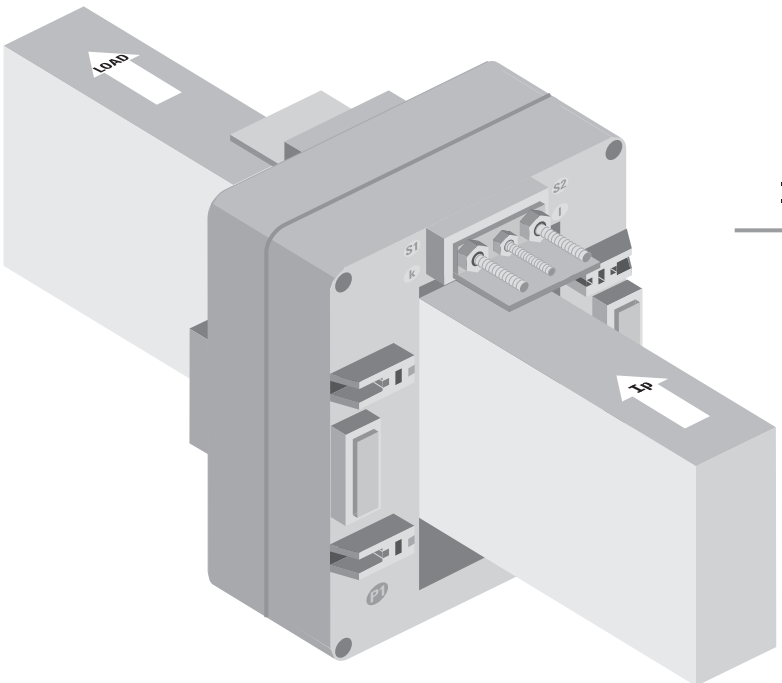
DIMENSIONS *DIMENSIONS*

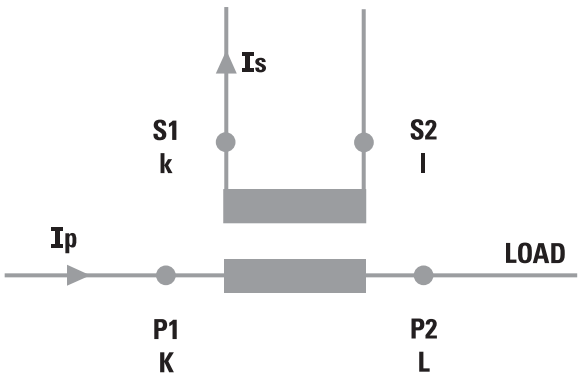


Option

B = Cale/Spacing device

SCHEMAS DE RACCORDEMENT *WIRING DIAGRAMS*





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