



Trasformatore di corrente per reti bassa tensione Misura

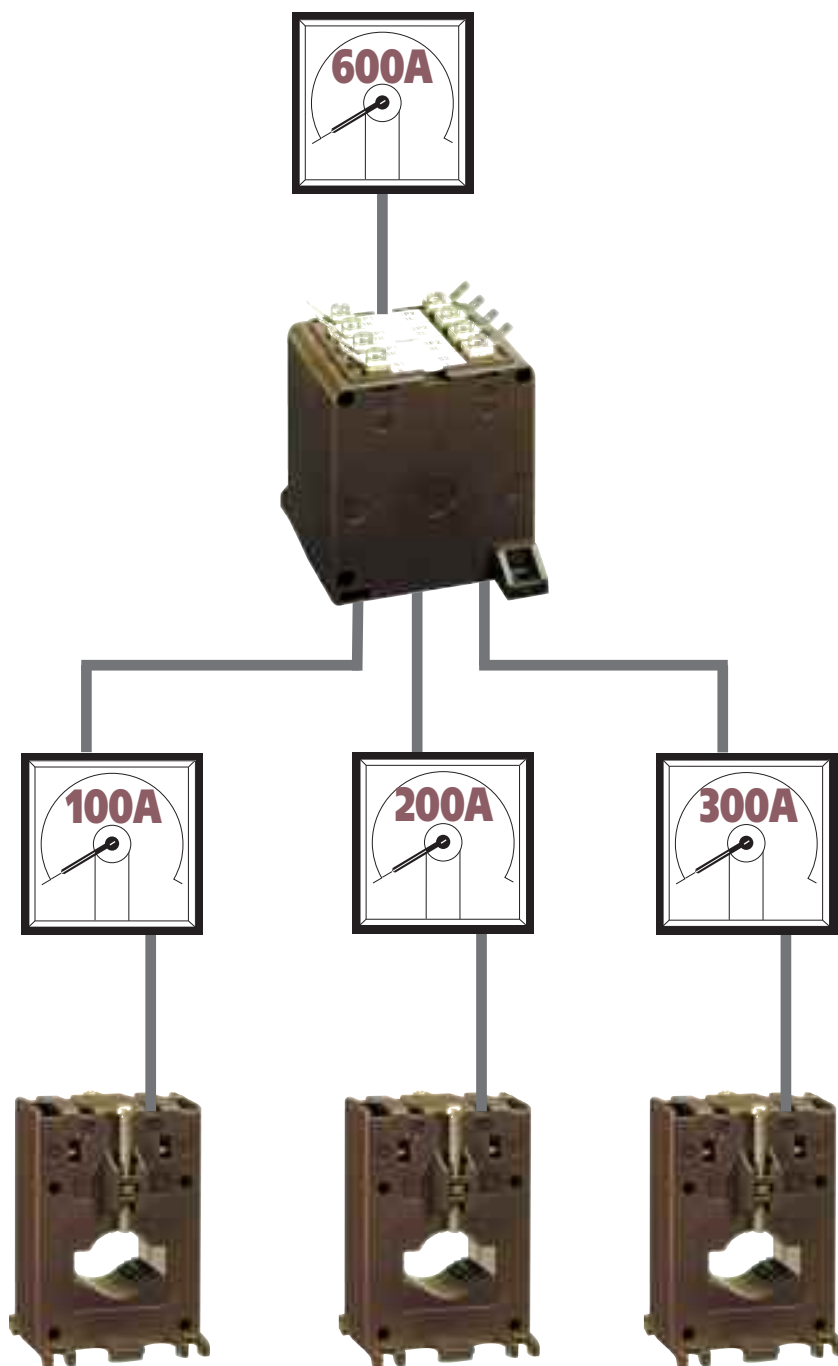
Trasformatore sommatore di corrente
2 o 3 ingressi monofasi
Effettua la somma vettoriale
delle correnti di più linee
di un unico sistema di tensione
Indispensabile quando i rapporti dei TA
principali non sono uguali tra loro
Primario avvolto
Correnti primarie 1 - 5A
Correnti secondarie 1 - 5A
Classi di precisione: cl.0,5 - 1
Prestazione nominale:
10VA (cl.0,5)
15VA (cl.1)

Current transformer for low-voltage network Measure

2 or 3 single-phase input
current summation transformer
It effects the vectorial sum
of the currents of many lines
in just one voltage system.
It is essential when the main C.T. ratios
are not the same
Primary winding
Primary currents 1 - 5A
Secondary currents 1 - 5A
Accuracy class: cl.0,5 - 1
Rated burden:
10VA (class 0,5)
15VA (class 1)



BSA02-03



BSA02				
CODICE ORDINAZIONE / ORDER CODE		Corrente primaria Primary current	CL. 0,5	CL. 1
Secondario / Secondary				
5A	1A	A	VA	VA
TAEA5025		5 + 5	10	15
	TAEA1021	1 + 1	10	15
ATACOP11	Accessorio coprimorsetto sigillabile / Accessory sealable terminal cover			

BSA03				
CODICE ORDINAZIONE / ORDER CODE		Corrente primaria Primary current	CL. 0,5	CL. 1
Secondario / Secondary				
5A	1A	A	VA	VA
TAEA5035		5 + 5 + 5	10	15
	TAEA1031	1 + 1 + 1	10	15
ATACOP11	Accessorio coprimorsetto sigillabile / Accessory sealable terminal cover			

I codici dei trasformatori sommatore sopra indicati, sono da considerarsi validi solo per somme di correnti di più linee di un unico sistema di tensione, rapporti TA uguali tra loro, es. 100/5A+100/5A+100/5A=5A(300A).

A richiesta è possibile realizzare trasformatori sommatore per somme di correnti di più linee di un unico sistema di tensione, con rapporti TA differenti tra loro, es. 100/5A+200/5A+300/5A=5A(600A).

NORME DI RIFERIMENTO

EN/IEC 61869-1, 61869-2

CARATTERISTICHE TECNICHE

Corrente nominale primaria I_{pr} : 1 - 5A

Numero ingressi: 2 (BSA02) o 3 (BS03)

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} : $< 60 I_{pr}$

Corrente nominale dinamica I_{dyn} : $2,5 I_{th}$

Fattore di sicurezza (FS): ≤ 5

Corrente nominale secondaria I_{sr} : 5-1A

Prestazione nominale: 10VA (cl.0,5) - 15VA (cl.1)

Classe di precisione: cl. 0,5 - 1

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).

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 tra terminali primari e secondari, 500V valore efficace 50Hz/1min tra le sezioni primarie

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

The codes for the above mentioned summations transformers are valid just for current sums of more lines of one voltage system with CT ratios equal among them, ex. 100/5A+100/5A+100/5A=5A(300A).

Upon request it is possible to manufacture summation transformers for current sums of more lines of one voltage system with CT ratios different among them, ex. 100/5A+200/5A+300/5A=5A(600A).

REFERENCE STANDARDS

EN/IEC 61869-1, 61869-2

SPECIFICATIONS

Rated primary current I_{pr} : 1 - 5A

Input number: 2 (BSA02) or 3 (BS03)

Rated frequency: 50Hz

Working frequency: 47...63Hz

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

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

Rated short-time thermal current I_{th} : $< 60 I_{pr}$

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

Instrument security factor (FS): ≤ 5

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

Rated burden: 10VA (cl. 0,5) - 15VA (cl. 1)

Accuracy class: cl. 0,5 - 1

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).

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 between primary and secondary terminals, 500V r.m.s. 50Hz/1min between primary sections

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

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
Temperatura media giornaliera: ≤ 30°C
Temperatura di magazzinaggio: -40...85°C
Umidità relativa: ≤ 85%
Adatto all'utilizzo in clima tropicale

LIMITI DELL'ERRORE DI CORRENTE E DELL'ERRORE D'ANGOLO
(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				
	5	20	50	100	120
	0,5	1,5	0,75	0,5	0,5
1	3,0	1,5		1,0	1,0

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.

CUSTODIA

Materiale custodia: polycarbonato autoestinguente
Grado di protezione (EN/IEC 60529): IP40 custodia, IP00 morsetti (IP20 con coprimorsetto sigillabile)
Opzione: coprimorsetto sigillabile
Tipo profilato: a cappello TH35-15 (EN/IEC 60715)
Peso: 320 grammi (Max.)

CONNESSIONI

Primario: a morsetti M4 con serraggio a dado
Secondario: morsetti M4 con serraggio a dado
Siglatura connessioni: primario P1(K) – P2(L) secondario s1(k) – s2(l)

ENVIRONMENTAL CONDITIONS

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

LIMITS OF CURRENTS ERROR AND PHASE DISPLACEMENT
(EN/IEC 61869-1, 61869-2)

Errore d'angolo(±) alla percentuale della corrente nominale sottoindicata ± Phase displacement at percentage of rated current shown below									
Minuti Minutes					Centiradiani Centiradians				
5	20	50	100	120	5	20	50	100	120
90	45		30	30	2,7	1,35		0,9	0,9
180	90		60	60	5,4	2,7		1,8	1,8

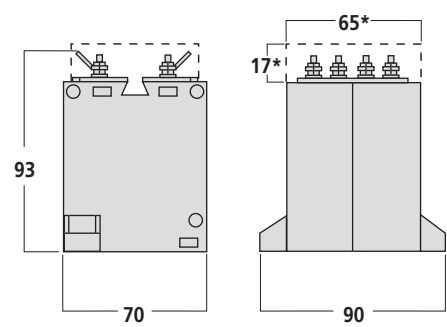
The current error and phase displacement at rated frequency shall not exceed the values given in table when the secondary burden is any value from 25% to 100% of the rated burden.

HOUSING

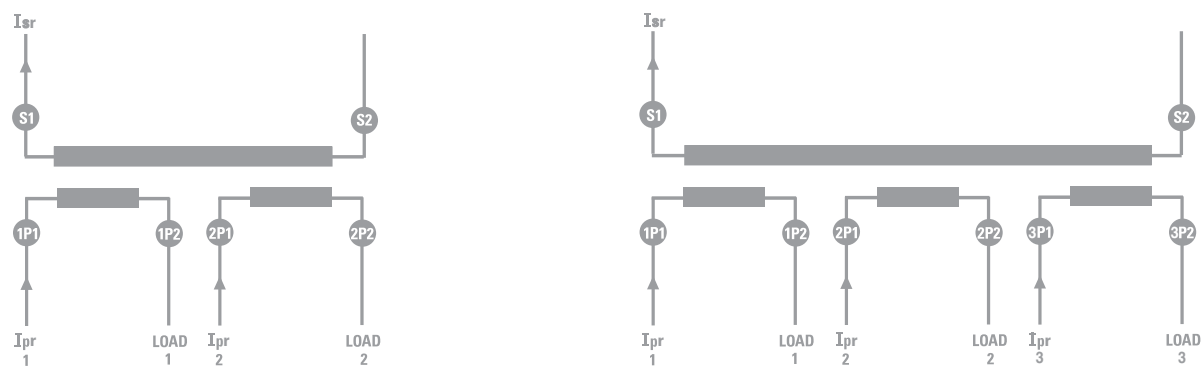
Housing material: self extinguishing polycarbonate
Protection degree (EN/IEC 60529): IP40 housing, IP00 terminals (IP20 with sealable terminal cover)
Option: sealable terminal cover
Rail type: top hat TH35-15 (EN/IEC 60715)
Weight: 320 grams (Max.)

CONNECTIONS

Primary winding: tightening by nut M4
Secondary winding: tightening by nut M4
Connections label: primary winding P1(K) – P2(L) secondary winding s1(k) – s2(l)



SCHEMI D'INSERZIONE *WIRING DIAGRAMS*





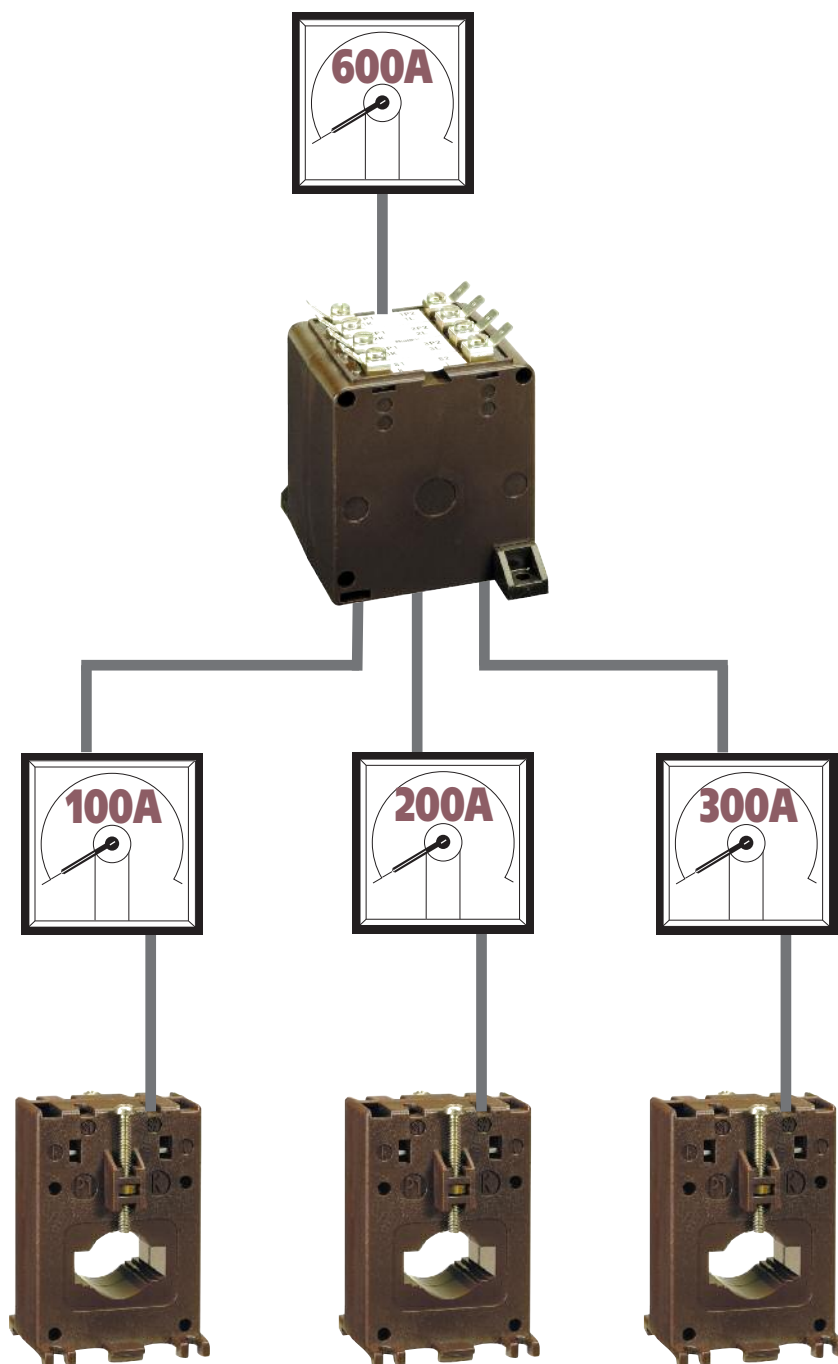
**Transformateurs de
courant pour réseau
basse tension**
Mesure

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

BSA02-03

Transformateur de courant sommateur
2 ou 3 entrées monophasées
Effectue la somme des courants de
plusieurs lignes en un système de tension
unique
Indispensable lorsque les rapport
principaux des TC ne sont pas identiques
Primaire bobiné
Courant primaire 1 - 5A
Courant secondaire 1 - 5A
Classe de précision : cl.0,5 - 1
Prestation nominale nominale:
10VA (cl.0,5)
15VA (cl.1)

2 or 3 single-phase input
current summation transformer
It effects the vectorial sum
of the currents of many lines
in just one voltage system.
It is essential when the main C.T. ratios
are not the same
Primary winding
Primary currents 1 - 5A
Secondary currents 1 - 5A
Accuracy class: cl.0,5 - 1
Rated burden:
10VA (class 0,5)
15VA (class 1)



BSA02				
RÉFÉRENCE / ORDER CODE		Courant primaire Primary current	CL. 0,5	CL. 1
Secondaire / Secondary				
5A	1A	A	VA	VA
3020 0802		5 + 5	10	15
	3020 0801	1 + 1	10	15
☎	Accessoire cache bornes plombable / Accessory sealable terminal cover			
BSA03				
RÉFÉRENCE / ORDER CODE		Courant primaire Primary current	CL. 0,5	CL. 1
Secondaire / Secondary				
5A	1A	A	VA	VA
3020 0803		5 + 5 + 5	10	15
	3020 0811	1 + 1 + 1	10	15
☎	Accessoire cache bornes plombable / Accessory sealable terminal cover			

Les références des TC sommateurs indiquées ici sont valables uniquement pour des sommes de courants de TC à primaire identique
ex. 100/5A+100/5A+100/5A=5A(300A).
Sur demande, il est possible de réaliser des TC sommateurs à primaires inégaux.
ex. 100/5A+200/5A+300/5A=5A(600A).

NORME DE REFERENCE

EN/IEC 61869-1, 61869-2

CARACTERISTIQUES TECHNIQUES

Courant nominal primaire I_{pr} :	1 - 5A
Nombre d'entrées:	2 (BSA02) ou 3 (BS03)
Fréquence nominale:	50Hz
Fréquence de fonctionnement:	47...63Hz
Option:	fréquence nominale 400Hz (prestation à définir)
Courant thermique nominal continu I_{cth} :	$< 100\% I_{pr}$
Courant thermique nominal de court-circuit I_{th} :	$< 60I_{pr}$
Courant nominal dynamique I_{dyn} :	$2,5I_{th}$
Facteur de sécurité (FS):	≤ 5
Courant nominal secondaire I_{sr} :	5-1A
Prestation nominale:	10VA (cl.0,5) - 15VA (cl.1)
Classe de précision:	0,5 - 1
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).	

CARACTERISTIQUES D'ISOLEMENT

Transformateur sec, isolé dans l'air
Tension maximum pour l'isolement U_m: 0,72kV valeur efficace
Niveau de tension nominale pour l'isolement: 3kV valeur efficace 50Hz/1min
entre les bornes primaires et secondaires, 500V r.m.s. 50Hz/1min entre les sections primaires
Classe de l'isolement (EN/IEC 61869-1, 61869-2): B

The codes for the above mentioned summations transformers are valid just for current sums of more lines of one voltage system with CT ratios equal among them,
ex. 100/5A+100/5A+100/5A=5A(300A).
Upon request it is possible to manufacture summation transformers for current sums of more lines of one voltage system with CT ratios different among them,
ex. 100/5A+200/5A+300/5A=5A(600A).

REFERENCE STANDARDS

EN/IEC 61869-1, 61869-2

SPECIFICATIONS

Rated primary current I_{pr} :	1 - 5A
Input number:	2 (BSA02) or 3 (BS03)
Rated frequency:	50Hz
Working frequency:	47...63Hz
Option:	rated requence 400Hz (burdens to the advised)
Rated continuous thermal current I_{cth} :	$< 100\% I_{pr}$
Rated short-time thermal current I_{th} :	$< 60I_{pr}$
Rated dynamic current I_{dyn} :	$2,5I_{th}$
Instrument security factor (FS):	≤ 5
Rated secondary current I_{sr} :	5 - 1A
Rated burden:	10VA (class 0,5) - 15VA (class1)
Accuracy class:	0,5 - 1
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).	

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 between primary and secondary terminals, 500V r.m.s. 50Hz/1min between primary sections
Class of insulation (EN/IEC 61869-1, 61869-2): B

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
Température moyenne journalière: ≤ 30°C
Température de stockage: -40...85°C
Humidité relative: ≤ 85%
Adapté pour l'utilisation en climat tropical

LIMITE DES ERREURS DE COURANT ET DEPLACEMENT DE PHASE
(EN/IEC 61869-1, 61869-2)

Classe de précision Accuracy class	% d'erreur de courant (rapport) (±) en pourcentage du courant nominal indiqué ci-après ± Percentage current (ratio) error at percentage of rated current shown below					Déplacement de phase (±) en pourcentage du courant nominal indiqué ci-après ± Phase displacement at percentage of rated current shown below									
						Minutes Minutes					Centiradians 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**

BOITIER

Matériau du boîtier: polycarbonate autoextinguible
Indice de protection (EN/IEC 60529): IP00 bornes (IP20 avec cache borne plombable), IP20 boîtier
Option: cache borne plombable
Type de profil: TH35-15 (EN/IEC 60715)
Poids: 320 grammes (Max.)

RACCORDEMENT

Primaire: par cosse, serrage par écrou M4
Secondaire: par cosse, serrage par écrou M4
Repérage: primaire P1(K) – P2(L) secondaire s1(k) – s2(l)

ENVIRONMENTAL CONDITIONS

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

LIMITS OF CURRENTS ERROR AND PHASE DISPLACEMENT
(EN/IEC 61869-1, 61869-2)

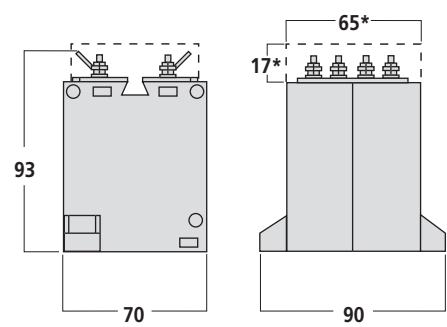
The current error and phase displacement at rated frequency shall not exceed the values given in table when the secondary burden is any value **from 25% to 100% of the rated burden**.

HOUSING

Housing material: self extinguishing polycarbonate
Protection degree (EN/IEC 60529): IP40 housing, IP00 terminals (IP20 with sealable terminal cover)
Option: sealable terminal cover
Rail type: top hat TH35-15 (EN/IEC 60715)
Weight: 320 grams (Max.)

CONNECTIONS

Primary winding: tightening by nut M4
Secondary winding: tightening by nut M4
Connections label: primary winding P1(K) – P2(L) secondary winding s1(k) – s2(l)



SCHEMA DE RACCORDEMENT *WIRING DIAGRAMS*

