



Trasformatore di corrente per reti bassa tensione Misura

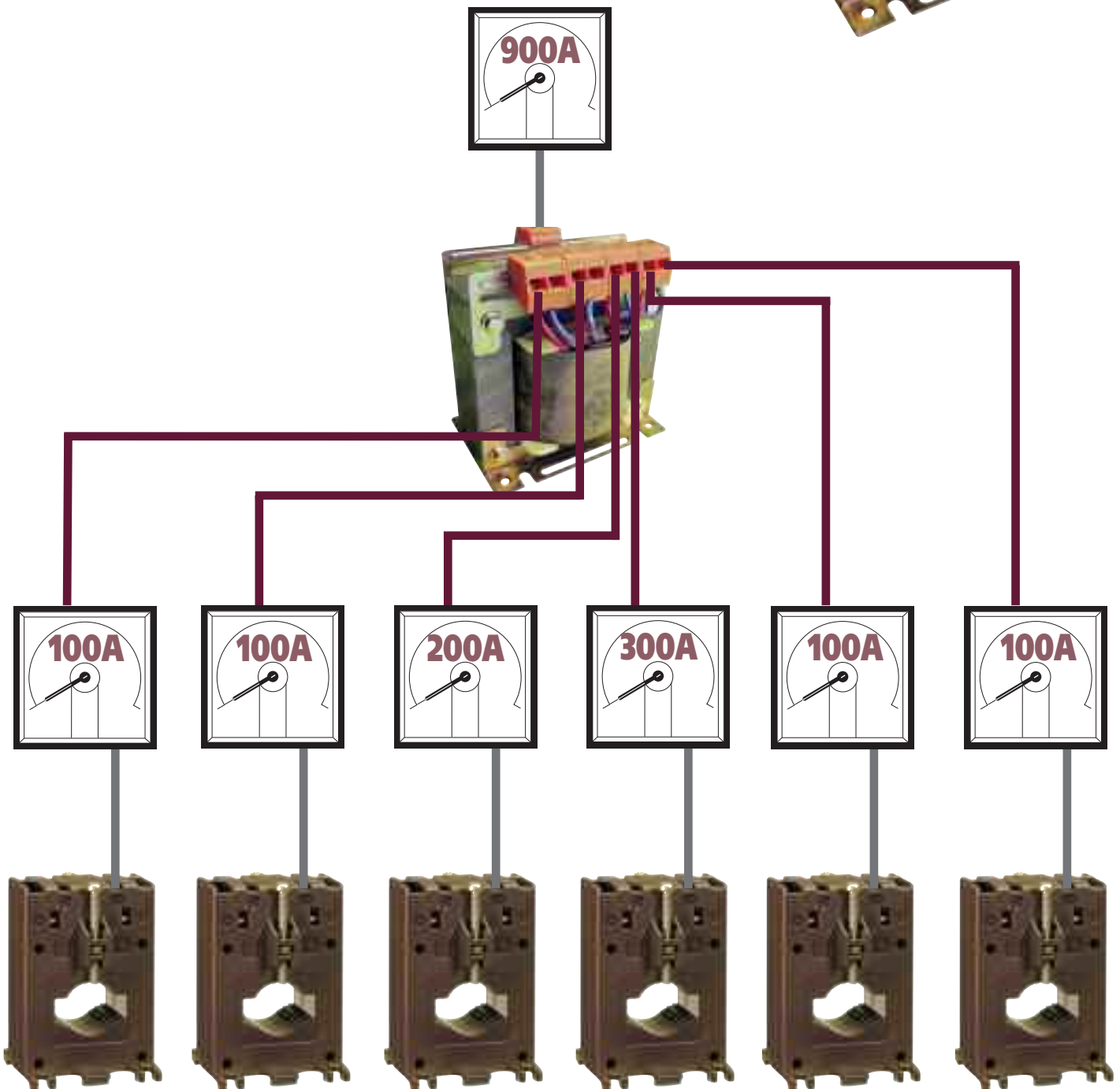
Current transformer for low-voltage network Measure



BTA2

Trasformatore sommatore di corrente
da 2 a 6 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
Classe di precisione: cl.0,5
Prestazione nominale:
40VA (2...4 ingressi)
15VA (5...6 ingressi)

From 2 to 6 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 0,5
Rated burden:
40VA (2...4 input)
15VA (5...6 input)



CODICE ORDINAZIONE / ORDER CODE		Corrente primaria Primary current	CL. 0,5
Secondario / Secondary		A	VA
5A	1A	5 + 5	40
TAEB5025		5 + 5 + 5	40
TAEB5035		5 + 5 + 5 + 5	40
TAEB5045		5 + 5 + 5 + 5 + 5	15
TAEB5055		5 + 5 + 5 + 5 + 5 + 5	15
TAEB5065		5 + 5 + 5 + 5 + 5 + 5 + 5	40
	TAEB1021	1 + 1	40
	TAEB1031	1 + 1 + 1	40
	TAEB1041	1 + 1 + 1 + 1	15
	TAEB1051	1 + 1 + 1 + 1 + 1	15
	TAEB1061	1 + 1 + 1 + 1 + 1 + 1	15

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...6
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:	40VA (2...4 ingressi) - 15VA (5...6 ingressi)
Classe di precisione:	cl. 0,5
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).	

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

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 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 ...6
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:	40VA (2...4 input) - 15VA (5...6 input)
Accuracy class:	cl. 0,5
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).	

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	

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.

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

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

CUSTODIA

Materiale custodia: metallo
Grado di protezione (EN/IEC 60529): IP00 morsetti
Fissaggio: a vite per montaggio a parete
Peso: 4 kg (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)

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

ENVIRONMENTAL CONDITIONS

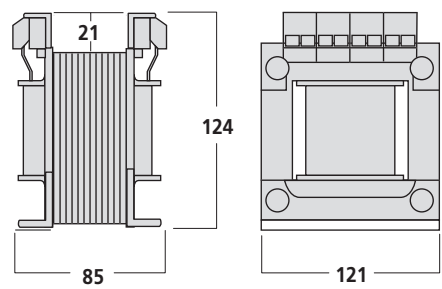
Non-exposed installation (EN/IEC 61869-1, 61869-2)
Reference temperature: 23°C ± 1°C
Nominal temperature range: -25...50°C
Daily mean temperature: ≤ 30°C
Limit temperature range for storage: -40...85°C
Relative humidity: ≤ 85%
Suitable for tropical climates

HOUSING

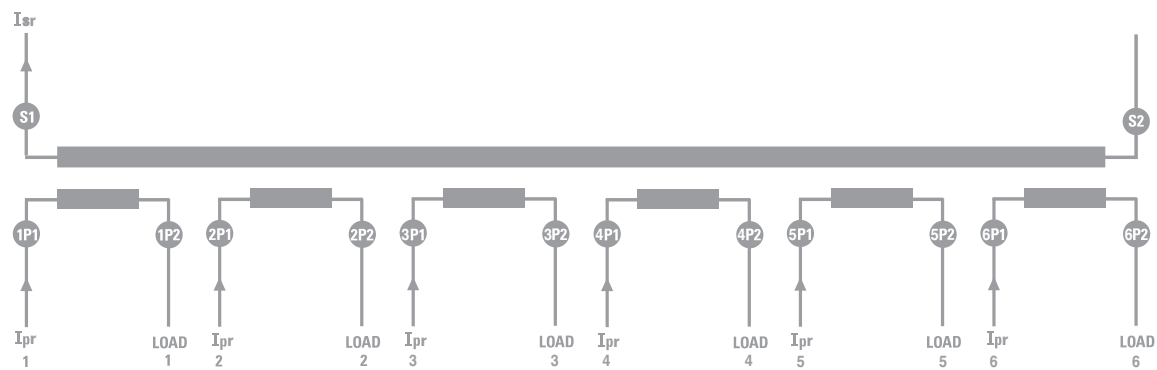
Housing material: metal
Protection degree (EN/IEC 60529): IP00 terminals
Mounting: screw type for wall mounting
Weight: 4 Kg (Max.)

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 D'INSERZIONE *WIRING DIAGRAM*





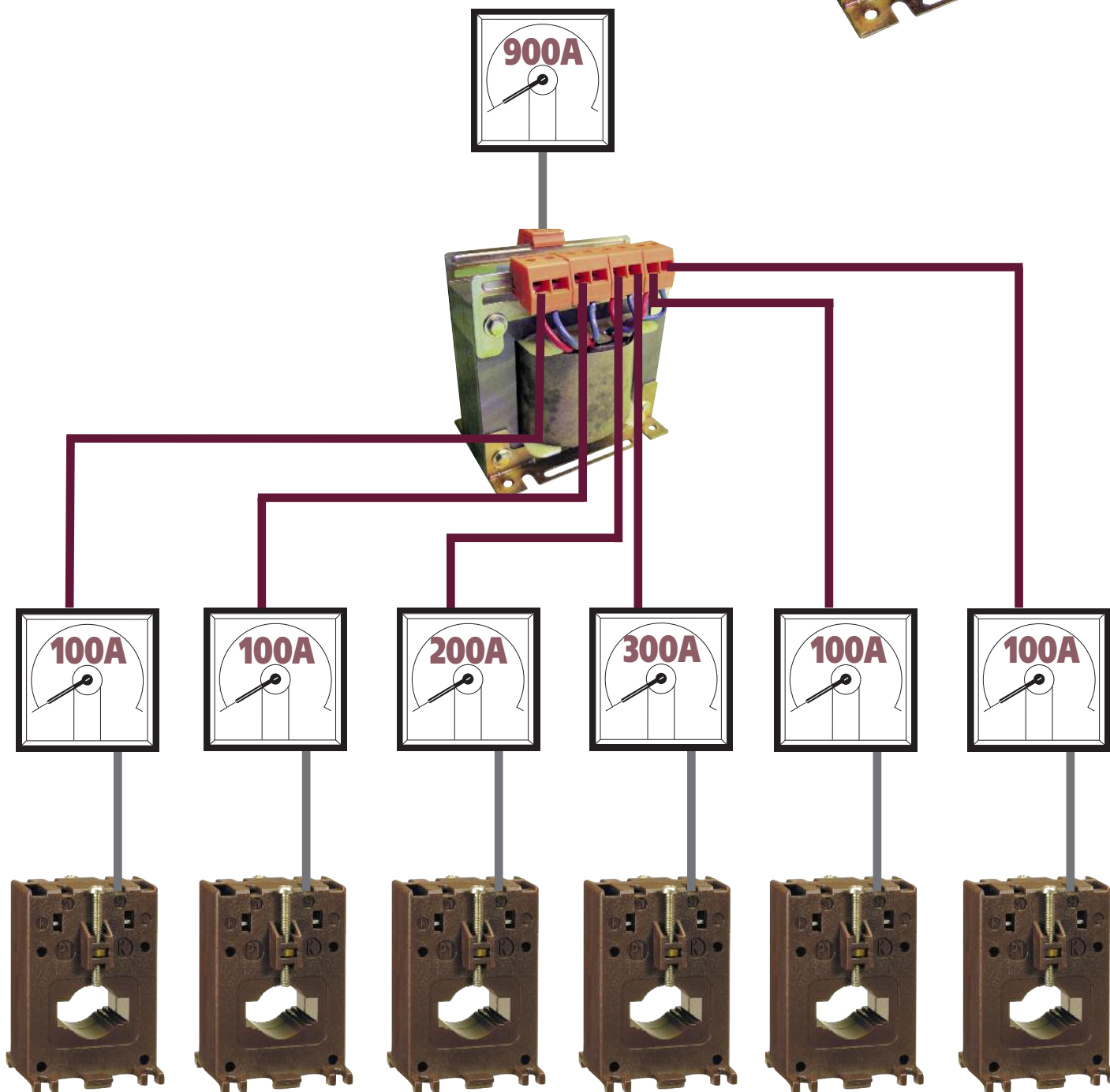
Transformateur de courant pour réseau basse tension **Mesure**

Transformateur sommateur de courant
de 2 à 6 entrées monophasées
Effectue la somme vectorielle des courants
de plusieurs phases dans un système de
tension simple
Indispensable lorsque les rapports des TC
principaux ne sont pas identiques
Primaire bobiné
Courants primaires 1 - 5A
Courants secondaires 1 - 5A
Classe de précision: cl.0,5
Prestation nominale:
40VA (2...4 entrées)
15VA (5...6 entrées)

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

From 2 to 6 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 0,5
Rated burden:
40VA (2...4 input)
15VA (5...6 input)

BTA2



REFERENCE / ORDER CODE		Courant primaire Primary current	CL. 0,5
Secondaire / Secondary			
5A	1A	A	VA
3020 0902		5 + 5	40
3020 0903		5 + 5 + 5	40
3020 0904		5 + 5 + 5 + 5	40
3020 0905		5 + 5 + 5 + 5 + 5	15
3020 0906		5 + 5 + 5 + 5 + 5 + 5	15
	3020 0922	1 + 1	40
	3020 0923	1 + 1 + 1	40
	3020 0924	1 + 1 + 1 + 1	40
	3020 0925	1 + 1 + 1 + 1 + 1	15
	3020 0926	1 + 1 + 1 + 1 + 1 + 1	15

Les références des transformateurs sommateurs ci-dessus sont valables uniquement pour les sommes des courants de plusieurs phases dans un système de tension simple avec des rapports de TC égaux entre eux, ex. 100/5A +100 / 5A +100 / 5A = 5A (300A).
 Sur demande, il est possible de réaliser des transformateurs sommateurs pour des sommes de courant de plusieurs phases dans un système de tension simple avec des rapports de TC différents entre eux, ex. 100/5A +200 / 300 5A / 5A = 5A (600A).

NORMES DE REFERENCE

EN/IEC 61869-1, 61869-2

CARACTERISTIQUES TECHNIQUES

Courant nominal primaire I _{pr} : 1 - 5A
Nombre d'entrées: 2...6
Fréquence nominale : 50Hz
Fréquence de fonctionnement : 47...63Hz
Option : fréquence nominale 400Hz (prestations 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 : 40VA (2...4 Entrées) - 15VA (5...6 Entrées)
Classe de précision : 0,5
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).

LIMITE DES ERREURS DE COURANT ET DEPLACEMENT DE PHASE

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

Classe de précision Accuracy class	Pourcentage d'erreur du courant (ratio) (±) en pourcentage du courant nominal indiqué ci-dessous ± Percentage current (ratio) error at percentage of rated current shown below					Déphasage en pourcentage (±) du courant nominal indiqué ci-dessous ± 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

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 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 ...6
Rated frequency: 50Hz
Working frequency: 47...63Hz
Option: rated rency 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: 40VA (2...4 input) - 15VA (5...6 input)
Accuracy class: 0,5
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).

LIMITS OF CURRENTS ERROR AND PHASE DISPLACEMENT

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

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/min entre bornes primaires et secondaires, 500V r.m.s. 50Hz/1min entre sections primaires
Classe d'isolement (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

BOITIER

Matériau du boîtier : Métal
Indice de protection (EN/IEC 60529): IP00 bornes
Facilité de fixation pour montage en saillie
Poids: 4 kg (Max.)

RACCORDEMENT

Primaire: par vis M4 et par faston
Secondaire: par vis M4 et par faston
Etiquettes de raccordement: primaire P1(K) – P2(L) secondaire s1(k) – s2(l)

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

ENVIRONMENTAL CONDITIONS

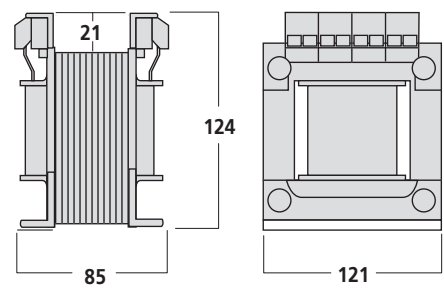
Non-exposed installation (EN / IEC 61869-1, 61869-2)
Reference temperature: 23°C ± 1°C
Nominal temperature range: -25...50°C
Daily mean temperature: ≤ 30°C
Limit temperature range for storage: -40...85°C
Relative humidity: ≤ 85%
Suitable for tropical climates

HOUSING

Housing material: metal
Protection degree (EN/IEC 60529): IP00 terminals
Mounting: screw type for wall mounting
Weight: 4 Kg (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 DIAGRAM*

