Trasformatore di corrente per reti bassa tensione Misura

Current transformers for low-voltage network Measure

TAU9

Trasformatore monofase di corrente
Primario a sbarra passante
Corrente primaria 1500...5000A
Corrente secondaria 1 - 5A
Classe di precisione: cl.0,5
Prestazione nominale 20...60VA

Single-phase current transformer
Passing bus bar primary
Primary current 1500...5000A
Secondary current 1 - 5A
Accuracy class: cl.0,5
Rated burden 20...60VA

FINESTRA *WINDOW*

A	=	55 x 165

Coprimorsetto sigillabile
Sealable terminal cover
(Opzione Option)

CODICE ORDINAZIONE / *ORDER CODE*		Corrente primaria *Primary current*	CL. 0,5
Secondario / *Secondary*			
5A	1A	A	VA
TAUB50D150	TAUB10D150	1500	20
TAUB50D200	TAUB10D200	2000	30
TAUB50D250	TAUB10D250	2500	40
TAUB50D300	TAUB10D300	3000	40
TAUB50D400	TAUB10D400	4000	50
TAUB50D500	TAUB10D500	5000	60
ATACOP05	Accessorio coprimorsetto sigillabile / *Accessory sealable terminal cover*		

NORME DI RIFERIMENTO

EN/IEC 61869-1, 61869-2

REFERENCE STANDARDS

EN/IEC 61869-1, 61869-2

CARATTERISTICHE TECNICHE

Corrente nominale primaria I_{pr}: 1500…5000A

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): < 10

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

Prestazione nominale: 20…60VA

Classe di precisione: 0,5

Massima potenza dissipata [1]: ≤ 43W

[1] Per il dimensionamento termico dei quadri

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).

SPECIFICATIONS

Rated primary current I_{pr}: *1500…5000A*

Rated frequency: *50Hz*

Working frequency: *47…63Hz*

Option: *rated requency 400Hz (burdens to be 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): *< 10*

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

Rated burden: *20…60VA*

Accuracy class: *0,5*

Max. power dissipation [1]: *≤ 43W*

[1]For switchboard thermal calculation

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

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…40°C

Temperatura media giornaliera: ≤ 30°C

Temperatura di magazzinaggio: -40…85°C

Umidità relativa: ≤ 85%

Adatto all'utilizzo in clima tropicale

CUSTODIA

Materiale custodia: policarbonato autoestinguente

Grado di protezione (EN60529): IP20 custodia, IP00 morsetti (IP20 con coprimorsetto sigillabile)

Opzione: coprimorsetto sigillabile

Peso: 5000 grammi (Max.)

CONNESSIONI

Primario: a sbarra passante

Secondario: morsetti M5 con serraggio a dado

Opzione: morsetti laterali

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…40°C*

Daily mean temperature: *≤ 30°C*

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

Relative humidity: *≤ 85%*

Suitable for tropical climates

HOUSING

Housing material: *self extinguishing polycarbonate*

Protection degree (EN60529): *IP20 housing, IP00 terminals (IP20 with sealable terminal cover)*

Option*: sealable terminal cover*

Weight: *5000 grams (Max.)*

CONNECTIONS

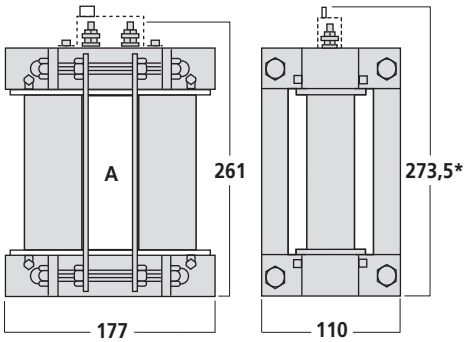
Primary winding: *passing bus bar*

Secondary winding: *tightening by nut M5*

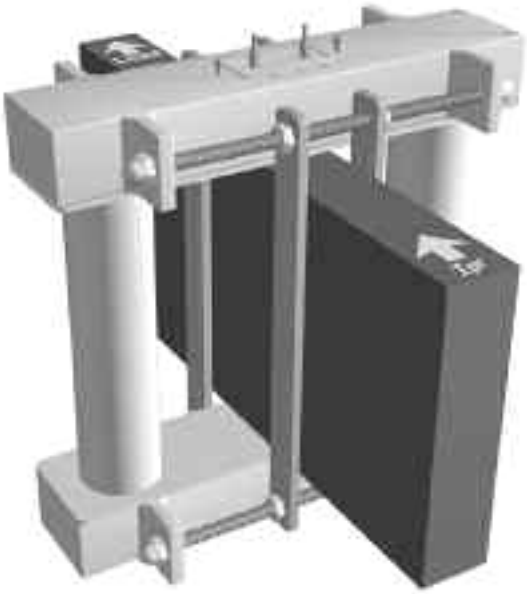
Option*: side terminals*

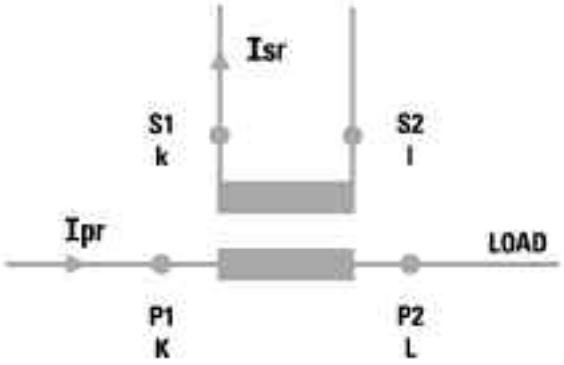
Connections label: *primary winding P1(K) – P2(L)*
secondary winding s1(k) – s2(l)

DIMENSIONI *DIMENSIONS*



SCHEMA D'INSERZIONE *WIRING DIAGRAM*





Transformateur de mesure pour réseau basse tension Mesure

Measuring transformers for low-voltage network Measure

TAU9

Transformateur de courant monophasé
Primaire à barre passante
Courant primaire 1500…5000A
Courant secondaire 1 - 5A
Classe de précision : cl. 0,5
Prestation nominale 20…60VA

Single-phase current transformer
Passing bus bar primary
Primary current 1500...5000A
Secondary current 1 - 5A
Accuracy class : cl. 0,5
Rated burden 20...60VA

OUVERTURE *WINDOW*

A	=	55 x 165

Cache bornes plombable
Sealable terminal cover
(Option)

REFERENCE / *ORDER CODE*		Courant primaire *Primary current*	CL. 0,5
Secondaire / *Secondary*			
5A	1A	A	VA
3020 9215	3020 9203	1500	20
3020 9220	3020 9204	2000	30
3020 9225	3020 9205	2500	40
3020 9230	3020 9206	3000	40
3020 9240	3020 9207	4000	50
3020 9250	3020 9208	5000	60
3020 0008	Accessoire cache bornes plombable / *Accessory sealable terminal cover*		

NORME DE REFERENCE

EN/IEC 61869-1, 61869-2

REFERENCE STANDARDS

EN/IEC 61869-1, 61869-2

CARACTERISTIQUES TECHNIQUES

Courant nominal primaire I_{pr}: 1500…5000A

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): ≤ 10

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

Prestation nominale:: 20…60VA

Classe de précision: 0,5

Puissance max. dissipée [2]: ≤ 43W

[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).

SPECIFICATIONS

Rated primary current I_{pr} : *1500…5000A*

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): *≤ 10*

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

Rated burden: *20…60VA*

Accuracy class: *0,5*

Max. power dissipation [2]: *≤ 43W*

[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 maximum 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*

Class of insulation (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*	% 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*					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

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

Temperatura 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: polycarbonate autoextinguible

Indice de protection (EN60529): IP20 boîtier, IP00 bornes (IP20 avec cache borne plombable)

Option: cache bornes plombable

Poids: 5000 grammes (Max.)

RACCORDEMENT

Primaire: barre passante

Secondaire : par cosse, serrage par écrou M5

Option: bornier latéral

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…40°C*

Daily mean temperature: *≤ 30°C*

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

Relative humidity: *≤ 85%*

Suitable for tropical climates

HOUSING

Housing material: *self extinguishing polycarbonate*

Protection degree (EN60529): *IP20 housing, IP00 terminals (IP20 with sealable terminal cover)*

Option*: sealable terminal cover*

Weight: *5000 grams (Max.)*

CONNECTIONS

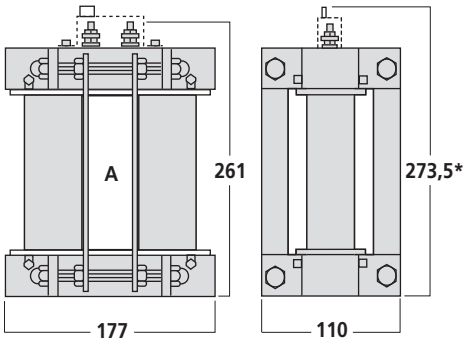
Primary winding: *passing bus bar*

Secondary winding: *tightening by nut M5*

Option: *side terminals*

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

DIMENSIONS *DIMENSIONS*



SCHEMAS DE RACCORDEMENT *WIRING DIAGRAM*