Split core current Transformers

IAP - IAM - IAG

IAG

IAM

IAP

Application

Split core current transformers convert an alternating current of high value into a proportional, lower one, which is appropiate to be measured by standard instruments (ammeters, wattmeters, varmeters, power factor meters, relays, measuring transducers...) of rated currents 5 or 1 A. Their split core allows their installation in already existing networks without need to cut the conductors. They are suitable for indoor use in low-voltage networks, and they are built according to IEC and EN 61869-2 standards.

Design features

- The current transformers can be opened
- Cases of self-extinguishing polycarbonate UL 94 - V0
- Double secondary terminals, for short circuiting the secondary winding before opening the measuring circuit
- Mounting brackets for the panel mounting and fixing clamps for the fixing to the primary bus bar are included

Accuracy

Our current transformers fulfil the specifications of the accuracy classes 0.5, 1 and 3, for the rated burden indicated in the table, in the same instrument.

IAP, IAM, IAG Technical Data

Electrical Features (according to IEC-61869-2	
Rated secondary current	5 or 1 A
Frecuency range	50 - 60 Hz
Hightest voltage for equipment	720 V
Rated insulation level	3kV, 50Hz 1 min.
Rated continuos thermal current	1.2x I_N
Rated short-time thermal current (I_{th})	60x I_N
Rated dynamic current (I_{dyn})	2.5x I_{th}
Thermal class of insulation, according to IEC-6085	E (120°C)
Window	IAP: busbar 2x 50x10 mm, 3x 40x10 mm or round conductor Ø 40mm IAM: busbar 4x 80x10 mm or round conductor Ø 80 mm IAG: busbar 4x 125x10 mm or round conductor Ø 80 mm
Weight: (depending on primary current)	IAP: 1040 g ... 1365 g IAM: 1190 g ... 1640 g IAG: 1640 g ... 2495 g

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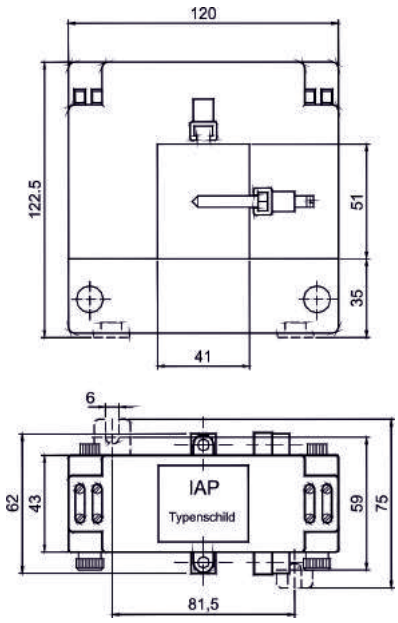
IAP - IAM - IAG Technical Daten, Executions

Primary rated current A	Rated burdens VA (sec. .../5A , .../1A)								
	IAP			IAM			IAG		
	Cl. 0,5	Cl. 1	Cl. 3	Cl. 0,5	Cl. 1	Cl. 3	Cl. 0,5	Cl. 1	Cl. 3
60	–	–	1,25	–	–	–	–	–	–
75	–	–	1,25	–	–	–	–	–	–
100	–	1,25*	2,5	–	–	1,25	–	–	–
125	–	1,25*	3,75	–	–	2,5	–	–	–
150	–	2,5*	3,75	–	–	3,75	–	–	–
200	–	3,75*	3,75	–	1,25*	3,75	–	–	–
250	–	3,75*	7,5	–	2,5*	3,75	–	–	–
300	–	5*	10	–	3,75*	5	–	–	–
400	–	7,5	20	–	5	10	–	–	–
500	5	10	30	1,25	5	15	–	2,5	15
600	10	15	30	2,5	7,5	20	1,25	5	15
750	10	20	45	7,5	15	30	1,25	10	20
800	10	30	60	10	20	30	2,5	10	20
1000	10	45	60	10	20	45	5	15	30
1200	15	45	60	10	30	60	7,5	20	45
1500	–	–	–	10	45	60	10	30	60
1600	–	–	–	–	–	–	15	45	60
2000	–	–	–	–	–	–	15	60	60
2500	–	–	–	–	–	–	20	60	60
3000	–	–	–	–	–	–	20	60	60

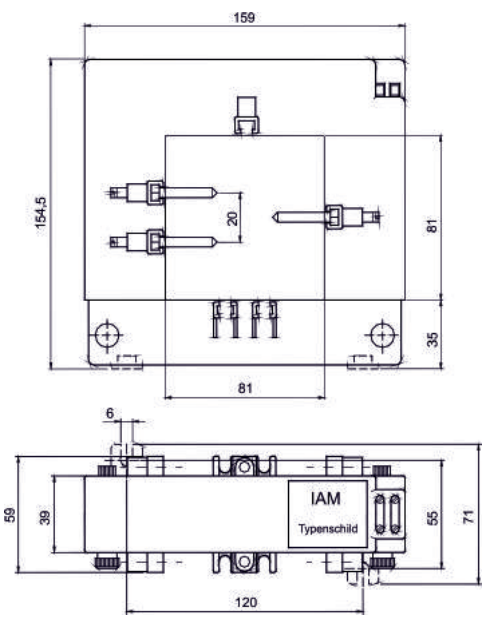
Remark: These current transformers meet the demands for the classes 0.5, 1 and 3 in the same instrument. / * only ammeters

Dimensions

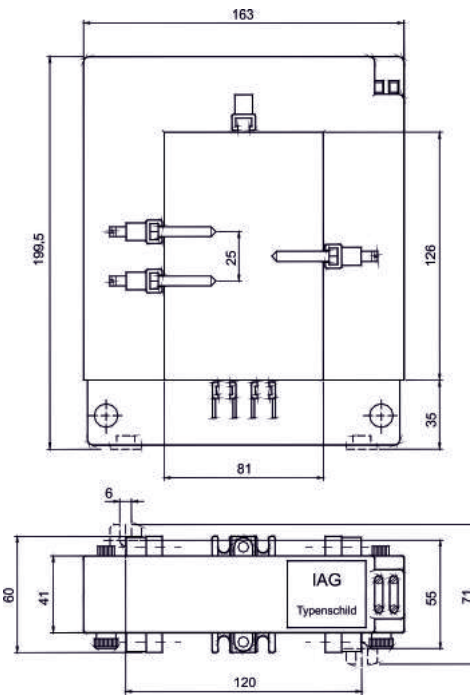
IAP



IAM



IAG



IA23

Dimensions:	112 x 92.5 x 40 mm
Primary bar:	23 x 33 mm

Application

Split core current transformers convert an alternating current of high value into a proportional, lower one, which is appropiate to be measured by standard instruments (ammeters, wattmeters, varmeters, power factor meters, relays, measuring transducers...) of rated currents 5A (1A on request). Their split core allows their installation in already constructed networks without need to cut the conductors. They are suitable for indoor use in low-voltage networks, and they are built according to IEC and EN 61869-2 standards.

Design features

- The current transformers can be opened
- Cases of self-extinguishing polycarbonate UL 94 - V0
- Double secondary terminals, for short circuiting the secondary winding before opening the measuring circuit
- Mounting brackets for the panel mounting and fixing clamps for the fixing to the primary bus bar are included

Accuracy

Our current transformers fulfil the specifications of the accuracy classes 0.5, 1 and 3, for the rated burden indicated in the table.

IA23 Technical Data	
Electrical Features (according to IEC-61869-2)	
Rated secondary current	5 or 1 A
Frecuency range	50 - 60 Hz
Hightest voltage for equipment	720 V
Rated insulation level	3kV, 50Hz 1 min.
Rated continuos thermal current	1.2x I_N
Rated short-time thermal current (I_{th})	60x I_N
Rated dynamic current (I_{dyn})	2.5x I_{th}
Thermal class of insulation, according to IEC-6085	E (120°C)

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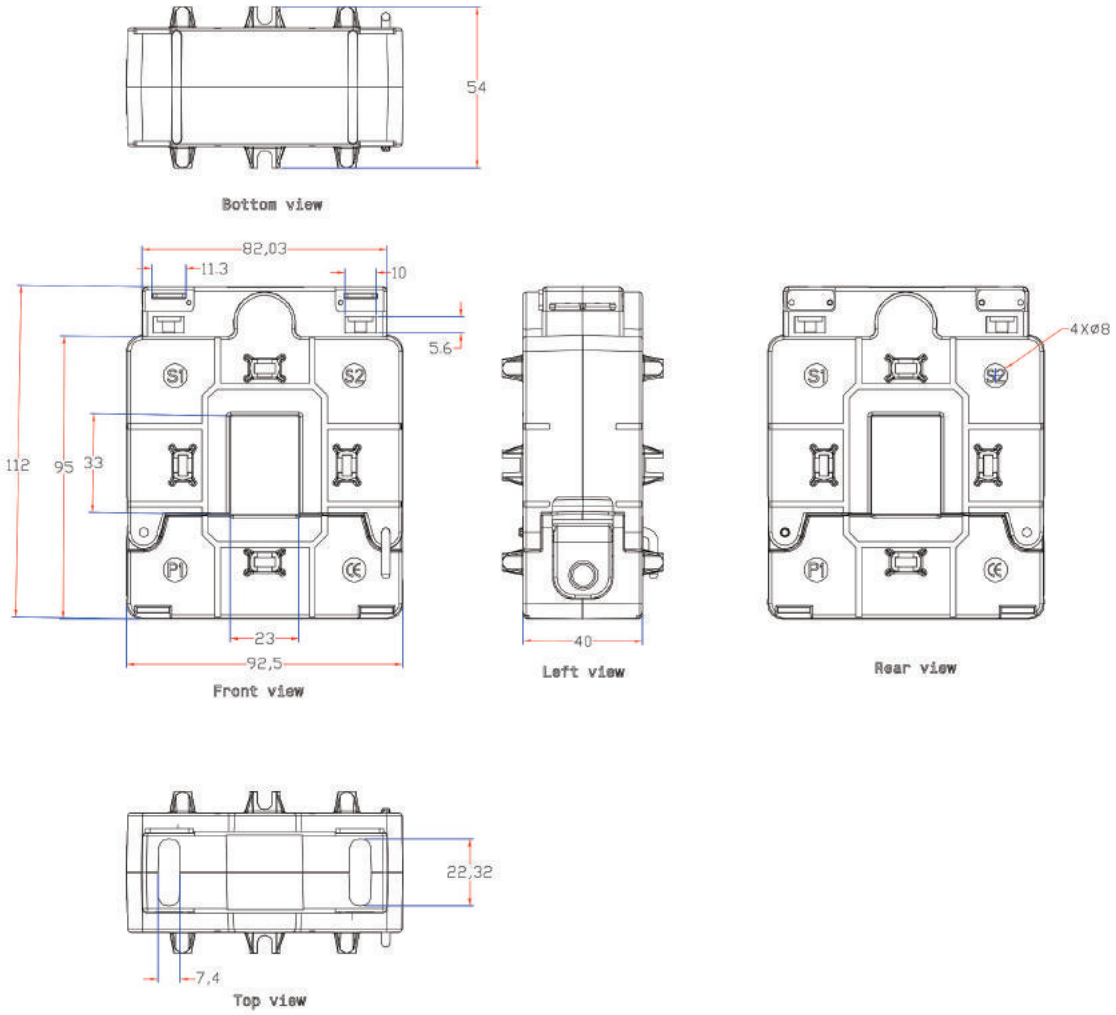
IA23 Technical Daten, Executions

Primary rated current A	Rated burdens VA (sec. .../5A)		
	Cl. 0,5	Cl. 1	Cl. 3
50	-	-	1.25
60	-	-	1.25
75	-	-	1.25
100	-	-	2.5
150	-	2.5*	3.75
200	-	2.5*	5
250	-	2.5	5
300	-	5	5
400	5	10	15
500	7.5	15	20
600	10	20	30

Remark: These current transformers meet the demands for the classes 0.5, 1 and 3 in the same instrument. / * only ammeters

Dimensions



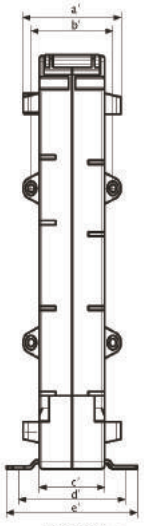
IA80 - Split core

IA80 Technical Features, Executions		
Primary Current A	Class 0.5 / VA	Class1/ VA
	sec. 5A	
250	-	1.25
300	-	2.5
400	2,5	3,75
500	3,75	5
600	5	7,5
800	7,5	10
1000	10	15
1200	10	15
1500	10	15

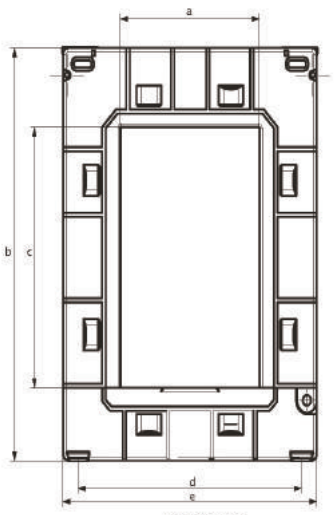
Technical Data

Applicable standard: IEC-61869-1&2 / IEC- 60044 -1, BS 3938, IS 2705 -1,2&3	
Case	Unfilled polycarbonate, flame retardant grades classified UL 94V-0.
Connection	Two connection on each side. M4 screws with self lifting clamp strap assembly for celsa series and 1 connection on each side M4 screws with self lifting clamp strap for Celsa CT series.
Insulation class	E (120°C max)
System voltage	720V maximum
Test voltage	4 KV 50 Hz for 1 min
Operating frequency	50Hz / 60Hz
Rated secondary output	5A standard (1A on request)
Rated burden	1, 1.25, 1.5, 2.5, 3.75, 5, 7.5, 10, 12.5, 15, 20, 30, 45 VA
Ambient temperature	-25°C to +40°C
Storage temperature	-25°C to +40°C
Thermal short circuit current (Ith)	60xIn for Bus Bar type CT.
Dynamic short circuit current (Idyn)	2.5xIth
Instrument security factor (FS)	2.5, 5, 10
Accuracy class	0.5, 1 and 3
Mounting	busbar, cable or wall
Terminal cover	hinged

Dimensions:



Side view



Front view

Dimensions in mm					
Front view	**a**	**b**	**c**	**d**	**e**
IA80	55	158	85	106	125
Side view	**a'**	**b'**	**c'**	**d'**	**e'**
IA80	54	46	40	62	76
Window	55 x85				

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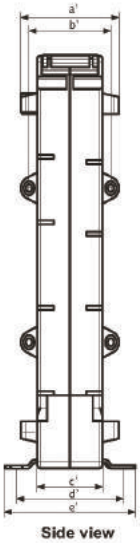
IA170 - Split core

IA170 Technical Features, Executions		
Primary Current A	Class 0.5 / VA sec. 5A	Class1/ VA
500	1.25	5
600	1.25	5
750	5	10
800	7.5	10
1000	10	20
1200	15	20
1250	15	20
1500	20	30
1600	20	30
2000	25	30
2500	25	30
3000	30	45
4000	30	45
5000	30	45

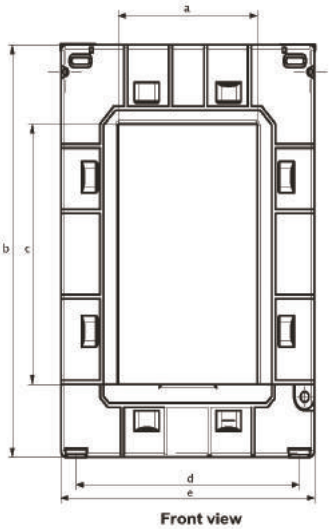
Technical Data

Applicable standard: IEC-61869-1&2 / IEC- 60044 -1, BS 3938, IS 2705 -1,2&3	
Case	Unfilled polycarbonate, flame retardant grades classified UL 94V-0.
Connection	Two connection on each side. M4 screws with self lifting clamp strap assembly for celsa series and 1 connection on each side M4 screws with self lifting clamp strap for Celsa CT series.
Insulation class	E (120°C max)
System voltage	720V maximum
Test voltage	4 KV 50 Hz for 1 min
Operating frequency	50Hz / 60Hz
Rated secondary output	5A standard (1A on request)
Rated burden	1, 1.25, 1.5, 2.5, 3.75, 5, 7.5, 10, 12.5, 15, 20, 30, 45 VA
Ambient temperature	-25°C to +40°C
Storage temperature	-25°C to +40°C
Thermal short circuit current (Ith)	60xIn for Bus Bar type CT.
Dynamic short circuit current (Idyn)	2.5xIth
Instrument security factor (FS)	2.5, 5, 10
Accuracy class	0.5, 1 and 3
Mounting	busbar, cable or wall
Terminal cover	hinged

Dimensiones:



Side view



Front view

Dimensions in mm					
Front view	**a**	**b**	**c**	**d**	**e**
IA170	85	245	172	177	195
Side view	**a'**	**b'**	**c'**	**d'**	**e'**
IA170	78	71	40	62	76
Window	85 x 172				

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TC - TQ Split core current transformer / sensor

- Very easy mounting is guaranteed
- Fast fixation with two UV-resistant tie wraps
- Also in class 1 available for high accurate kWh measurements
- All TC/TQ.. split core CT's are supplied with colour coded leads

Application

The very compact TQ/ TC are especially designed for connection to digital measurement systems. All TC /TQ are supplied with colour coded leads secondary leads. Correct closing of the current transformer/sensor is guaranteed by a distinct sound of a "click". Two UV-resistant ty-raps are supplied with the current transformer which can be easily mounted around the primary conductor.

TC / TQ Technical Data

Enviromental conditions	
Location	Indoor use
Operating temperature	TQ18-B: -10°C to +55°C TC18: -5°C to +40°C TQ27: -10°C to +55°C TQ42: -10°C to +55°C TQ84: -10°C to +55°C
Relative humidity	5% - 85%, non condensing
Protection degree	IP20
Application conditions	
Standard	IEC 61869-2
Rated short-time thermal current	60 x In/1s
Continuous thermal current (Icth)	100% In
Rated insulation level	0,72/3-kV
Rated frequency	50/60Hz
Class of insulation	E (120°C)
Primary conductor	TQ18-B: max.Ø 18mm TC18: max.Ø 18mm TQ 27: max.Ø 28mm TQ42: max.Ø 42mm TQ84: max. 2x Ø 42mm
Secondary	TQ18-B: 1A: L= 3m cabel 0,5mm2 flexibel 5A: L= 0,5 m cabel 1,5mm2 flexibel TC18: 1A: L= 3m cabel 0,5mm2 flexibel TQ27: 1A: L= 3m cabel 0,5mm2 flexibel 5A: L= 0,5 m cabel 1,5mm2 flexibel TQ42/ TQ84: 1A: L= 5m cabel 0,5mm2 flexibel 5A: L= 3m cabel 1,5mm2 flexibel

TC / TQ Technical Features

Type	Primary current A	VA Rated burden [1]		
		Cl. 0,5 [2]	Cl.1 [2]	Cl.3
TQ 18-B	100/1A	-	0,2	-
	125/1A	-	0,2	-
	150/1A	-	0,2	-
	200/1A	0,2	-	-
	250/1A	0,2	-	-
	150/5A	-	1	-
	200/5A	-	1	-
	250/5A	-	1	-
TC 18	60/1A	-	-	0,2
	75/1A	-	-	0,2
	100/1A	-	-	0,2
	125/1A	-	-	0,2
	150/1A	-	-	0,2
	200/1A	-	0,2	-
	250/1A	-	0,2	-
TQ 27	200/1A	-	0,2	-
	250/1A	-	0,2	-
	300/1A	-	0,2	-
	400/1A	-	0,2	-
	500/1A	0,2	-	-
	250/5A	-	1	-
	300/5A	-	1	-
	400/5A	-	1	-
	500/5A	-	1	-
TQ 42 TQ84	250/1A	-	0,5	-
	300/1A	-	0,5	-
	400/1A	0,5	-	5
	500/1A	0,5	-	-
	600/1A	0,5	-	5
	750/1A	0,5	-	-
	800/1A	0,5	-	5
	1000/1A [2]	0,5	-	5
	400/5A	-	0,5	5
	500/5A	-	0,5	-
	600/5A	0,5	-	-
	750/5A	0,5	-	-
	800/5A	0,5	-	-
	1000/5A[3]	0,5	-	5

1) Burden specified at the end of the secondary leads / class 3
2) Accuracy conform IEC 61869-2, valid from 5- to 20% In
3) Ambient temperature -10°C ... +40°C

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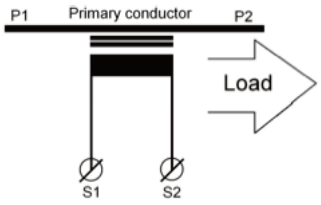
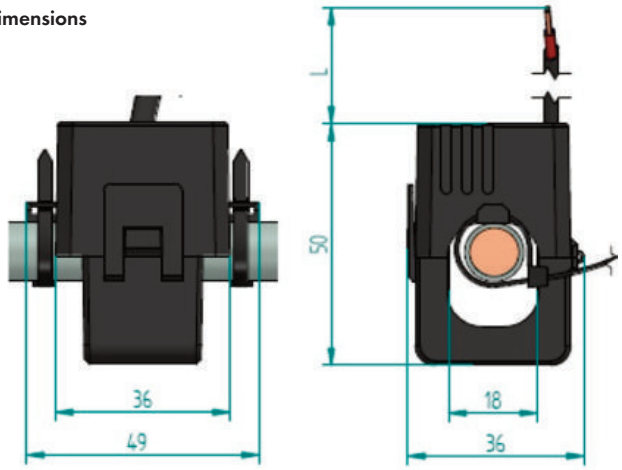
Dimensions / Wiring diagrams

TC18

Wiring diagrams

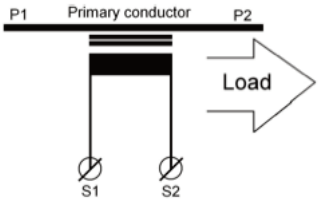


Dimensions



TQ18-B

Wiring diagrams



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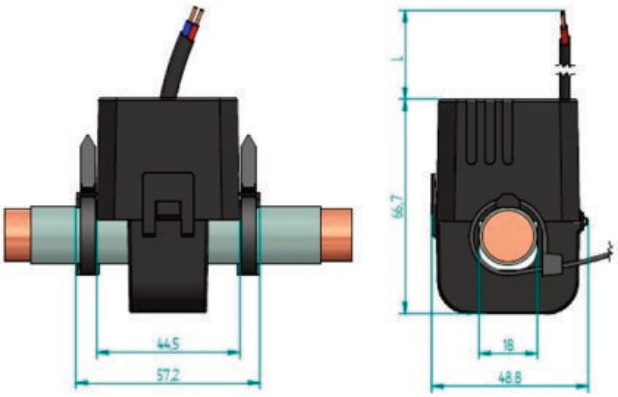
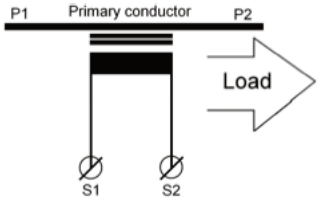
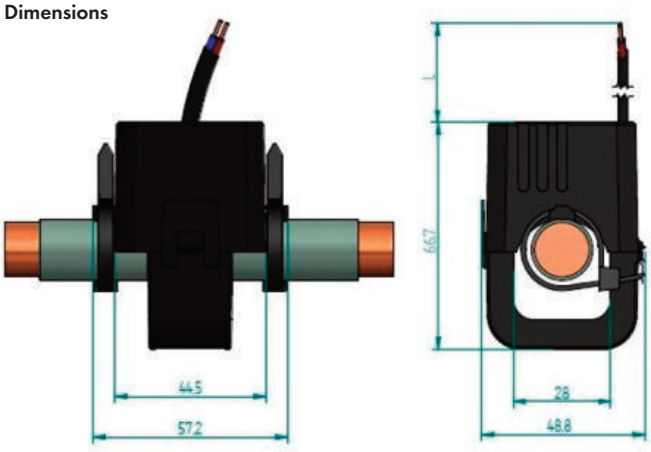


TQ 27

Wiring diagrams

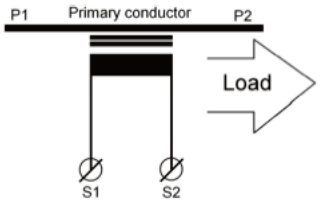


Dimensions



TQ 42 / TQ 84

Wiring diagrams



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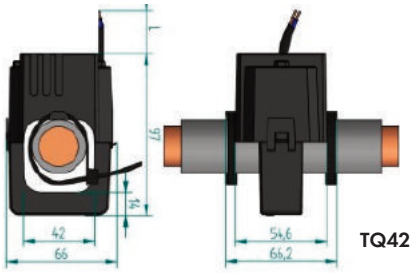
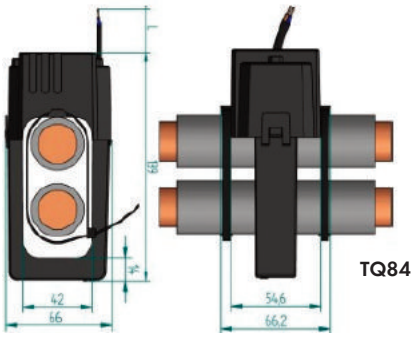


TQ42



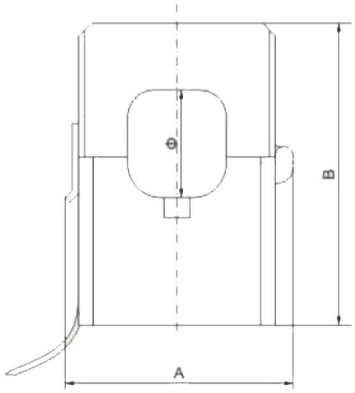
TQ84

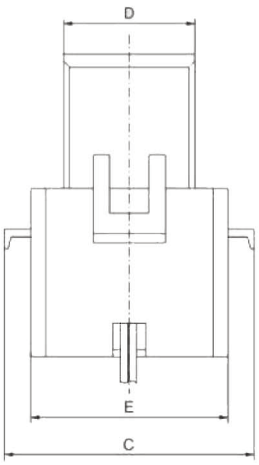
TQ10 - Split core current transformer

- Designed to facilitate the installation in a new or already existing networks
- Easy openned
- They may be installed an connected without any supply interruption.

The TQ10 is a miniature current transformer. It has the characteristics of small size, light weight, and easy installation. Rated current output is V. Inner hole size 10mm. The flame-retardant plastic housing, protected from moisture, stable in performance, and require no maintenance. When installin g this product, it s strictly prohibited to open circuit secondary. After connecting the secondary circuit, CT should be hung on the bus or fixed with nylon tie

Dimensions:





TQ10 Technical Data	
Rated frequency	50/60Hz
Rated test voltage	3kV Ac (1min)
Rated short-time thermal current (Ith)	60 In
Rated dynamic current (Idyn)	2.5 Ith
Rated voltage (Um)	0.72kV AC
Continuous overload (Id)	1.2 In
Temperature	Operating: -10 ... 50°C Enviromental: -15 ... 40°C
Housing	self-extinguishing class VO
Safety factor	FS 5
Working voltage	≤ 660V
Elevation	≤ 1000m
Installation place	Indoor
Cable length	12 m

TQ10 Technical Features		
Type	Ratio	**Accuracy class**
TQ10	50A/0.333V	1
	60A/0.333V	1

Dimensions in mm						
Model	**ø**	**A**	**B**	**C**	**D**	**E**
TQ10	10	29	41	/	14	26

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