MEASUREMENT AND CONTROL

TD, TDH, TQ & TQR

Transformers for current measurement

Circutor

Current transformers for any type of installation

Solutions for low-voltage current measurement

The installation of current transformers allows the different measuring devices to provide reliable and traceable data on the evolution of consumption and production processes in electrical installations.

Designed in collaboration with installers

In the continuous process of improvement of our products, and thanks to the accumulated experience of our installers, we have designed this new range of current transformers to be installed quickly, easily and robustly. Meeting the most demanding expectations of the current market.

Solutions for every type of installation

TD and **TDH** transformers

Easier to install

Thanks to our partnership with installers, our **TD and TDH** current transformers have a new and improved design to cover any need that may arise during their installation. The different models take into account aspects involving both their easy installation and their power optimisation when being connected to any electronic measurement device.

TQ and **TQR** transformers

Installation without interruption

The split-core **TQ and TQR** transformers have been designed to be connected to installations already in operation. A simple, two-step process makes for easy installation that saves on indirect costs, avoiding to disconnect the supply before start-up.

Easy opening button

Toggle clamp system

TD and **TDH**

Solid core and narrow section current transformers

Easier to install

- .../5 A
- .../1 A
- .../250 mA

From 40A up to 4000A

Attachment using ties

New tie fastening system built in at the transformer itself for an easy, fast and secure installation.

Encapsulation

The inside of the transformers can be encapsulated for installation in very humid or saline environments.

Low losses

Ideal for installation with any type of device, especially for low-energy electronic equipment.

Accurate

Best measuring accuracy guaranteed when connected to any type of receiver.

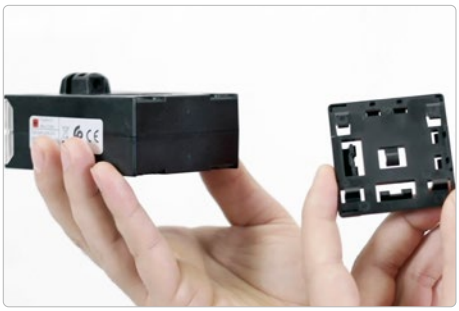
Versatile

Multiple formats for connecting the transformer.

DIN rail: Two-way fastening with an accessory for connecting to the DIN rail, whether connecting vertically or horizontally.

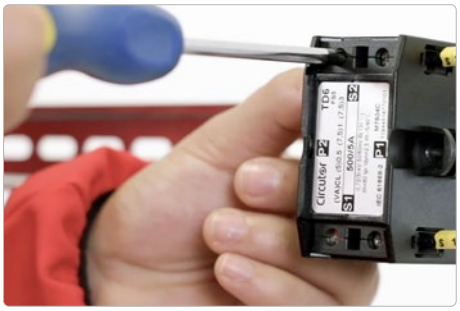
Panel: The transformers have individual parts for installation at the bottom of a panel.

Busbar/Cable: Enclosure with different window options for installing directly on a busbar or cable, using insulated-tip screws or ties, for secure fastening.



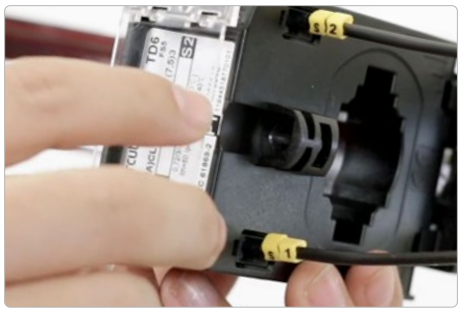
Sealable

It has optional accessories for sealing the terminals and the transformer label.



Connect the secondary cables.

Place the anti-fraud laps.



Terminal cover disables access to fastening screws and product label.

Once the terminal cover has been placed, the transformer sealed.

Sealed device.

Accessories for TD and TDH current transformers

Accessory for installing TD and TDH transformers to DIN rail.

We can bidirectionally fix the device to a DIN rail with just this accessory, as it provides the possibility of fixing it either horizontally or vertically.

References

Model	Code	Description
DIN-FIX 50x50	M75102.	DIN rail fixing 50 x 50 mm (TD4/TDH4, TD5/TDH5, TD5.2/ TDH5.2, TD6/ TDH6, TD6.2/ TDH6.2)
DIN-FIX 50x84	M75103.	DIN rail fixing 50 x 84 mm (TD8/ TDH8, TD10/ TDH10)

DIN-Fix

Accessories for sealing TD series current transformers.

The **TD-Cover kit** consists of a transparent cover that is placed at the top of the transformer, disabling access to the secondary connection terminals, and it can be sealed to avoid any manipulation. It also includes two caps, common to any TD series model, to prevent access to the secondary terminals that remain unused once the measurement devices are connected.

Referencias

Description	Code
TD4-COVER	M75111.
TD5/TD5.2-COVER	M75121.
TD6/TD6.2-COVER	M75141.
TD8-COVER	M75161.
TD10-COVER	M75171.
TD12-COVER	M75181.

TD-Cover

Compatible with both **TD** and **TDH** models

TD. Solid core and narrow section current transformers

TD4 - TDH4
40...200 A

TD5 - TDH5
50...250 A

TD5.2 - TDH5.2
100...600 A

TD6 - TDH6
150...800 A

TD6.2 - TDH6.2
100...600 A

TD8 - TDH8
300...1600 A

TD10 - TDH10
600...3000 A

TD12 - TDH12
800...4000 A

References

Type	TD4				TD5				TD5.2				TD6			
Dimensions (mm) a x b x c	80 x 50 x 48				84 x 58 x 53				84 x 58 x 53				91 x 66 x 53			
Diameter Ø (mm)	21				21				22				30			
Plate (mm)	-				15 x 15 | 20 x 10 | 25 x 5				25 x 10 | 30 x 10 | 20 x 12				20 x 25 | 30 x 15 | 40 x 10			
VA / A	Class			Code	Class			Code	Class			Code	Class			Code
	0.5	1	3		0.5	1	3		0.5	1	3		0.5	1	3	
40/5A	-	-	1.25	M75011.												
50/5A	-	1	1.5	M75012.	-	0.5	1,5	M75022.								
60/5A	-	1.25	2.5	M75013.	-	1	2.5	M75023.								
75/5A	-	1.5	3.75	M75014.	-	1.5	3.5	M75024.								
100/5A	1.5	2.5	5	M75015.	1.5	2.5	3.75	M75025.	-	-	1	M750A5.				
125/5A	2.5	3.75	5	M75016.	1.5	2.5	3.75	M75026.	-	1	1.5	M750A6.				
150/5A	3.75	5	5	M75017.	1.5	2.5	3.75	M75027.	1	1.5	2.5	M750A7.	1	2.5	3.5	M75047.
200/5A	5	7.5	7.5	M75018.	2.5	3.75	5	M75028.	1.5	2.5	3.5	M750A8.	1.5	3.5	5	M75048.
250/5A					2.5	3.75	5	M75029.	2.5	3.5	5	M750A9.	2.5	5	5	M75049.
300/5A									2.5	3.5	5	M750AA.	2.5	5	5	M7504A.
400/5A									2.5	3.5	5	M750AB.	2.5	5	5	M7504B.
500/5A									5	7.5	10	M750AC.	5	7.5	7.5	M7504C.
600/5A									5	7.5	10	M750AD.	5	7.5	7.5	M7504D.
750/5A													5	7.5	10	M7504E.
800/5A													5	7.5	10	M7504F.

Type	TD6.2				TD8				TD10				TD12			
Dimensions (mm) a x b x c	91 x 66 x 53				109 x 85 x 59				108 x 131 x 69				134 x 151 x 69			
Diameter Ø (mm)	25				44				63				50			
Plate (mm)	25 x 12 | 30 x 10 | 20 x 20				50 x 30 | 60 x 12 | 12 x 45				50 x 50 | 60 x 30 | 80 x 30				100 x 50			
VA / A	Class			Code	Class			Code	Class			Code	Class			Code
	0.5	1	3		0.5	1	3		0.5	1	3		0.5	1	3	
100/5A	1	2.5	3.5	M75055.												
125/5A	1.5	3.5	5	M75056.												
150/5A	2.5	3.5	5	M75057.												
200/5A	3.5	5	5	M75058.												
250/5A	3.5	5	5	M75059.												
300/5A	5	7.5	7.5	M7505A.	2.5	3.5	3.5	M7506A.								
400/5A	5	7.5	7.5	M7505B.	2.5	3.5	5	M7506B.								
500/5A	5	7.5	10	M7505C.	2.5	5	5	M7506C.								
600/5A	5	7.5	10	M7505D.	2.5	5	5	M7506D.	2.5	5	7.5	M7507D.				
750/5A					2.5	5	5	M7506E.	2.5	5	7.5	M7507E.				
800/5A					5	7.5	7.5	M7506F.	2.5	5	7.5	M7507F.	2.5	5	7.5	M7508F.
1000/5					5	7.5	10	M7506G.	2.5	5	7.5	M7507G.	2.5	5	7.5	M7508G.
1200/5					5	7.5	10	M7506H.	2.5	5	7.5	M7507H.	5	10	15	M7508H.
1250/5					7.5	10	10	M7506J.	2.5	5	7.5	M7507J.	5	10	15	M7508J.
1500/5					7.5	10	15	M7506K.	5	10	15	M7507K.	7.5	15	20	M7508K.
1600/5					7.5	10	15	M7506L.	5	10	15	M7507L.	7.5	15	20	M7508L.
2000/5									5	10	15	M7507M.	7.5	15	20	M7508M.
2500/5									5	10	15	M7507N.	10	20	25	M7508N.
3000/5									5	10	15	M7507P.	10	20	25	M7508P.
4000/5													15	20	25	M7508Q.

TDH. Solid core, high accuracy and narrow section current transformers

Technical specifications TD / TDH

Electrical characteristics	Frequency	50 / 60 Hz
	Insulation voltage	3 kV
	Thermal short-circuit current, I_{th}	60 I_n
	Dynamic current, I_{dyn}	2.5 I_{th}
	Accuracy class	See table
	Highest voltage for the material	0.72 $kV_{ac/dc}$
Environmental characteristics	Operating temperature	Thermal class B (130° C)
	Enclosure	UL94 self-extinguishing plastic
	Safety factor	FS 5
	Sealable secondary terminals	Yes
	Protection Degree	IP20 secondary terminals
	Attachment to DIN rail	Yes
Standards	IEC 61869-1, IEC 61869-2, UL94	

Codification table TD / TDH

M	7	X	X	X	X	0	0	X
Internal code								↑
Secondary					Standard .../5 A			0
					.../1 A			1
					.../ 250 mA			A

References

Type	TDH4				TDH5				TDH5.2				TDH6			
Dimensions (mm) a x b x c	80 x 50 x 48				84 x 58 x 53				84 x 58 x 53				91 x 66 x 53			
Diameter Ø (mm)	21				21				22				30			
Plate ((mm)	-				15 x 15 I 20 x 10 I 25 x 5				25 x 10 I 30 x 10 I 20 x 12				20 x 25 I 30 x 15 I 40 x 10			
VA / A	Class			Code	Class			Code	Class			Code	Class			Code
	0.2	0.5S	0.2S		0.2	0.5S	0.2S		0.2	0.5S	0.2S		0.2	0.5S	0.2S	
60/5A	0.5	0.5	-	M77013.	0.5	0.5	-	M77023.								
75/5A	0.75	0.75	0.5	M77014.	1	1	0.5	M77024.								
100/5A	1	1	0.5	M77015.	1.5	1.5	0.75	M77025.	0.5	0.5	-	M770A5.				
125/5A	1.5	1.5	1	M77016.	1.5	1.5	0.75	M77026.	0.75	0.75	0.5	M770A6.				
150/5A	2.5	2.5	2	M77017.	1.5	1.5	1	M77027.	1	1	0.5	M770A7.	1	1	0.5	M77047.
200/5A	3.5	3.5	3	M77018.	2.5	2.5	2	M77028.	1.5	1.5	1	M770A8.	2	2	1	M77048.
250/5A					2.5	2.5	2	M77029.	2	2	1.5	M770A9.	2.5	2.5	1.5	M77049.
300/5A									1.5	1.5	1	M770AA.	3.5	3.5	2.5	M7704A.
400/5A									2.5	2.5	2	M770AB.	3.5	3.5	2.5	M7704B.
500/5A									5	5	2	M770AC.	5	5	3.5	M7704C.
600/5A									5	5	2	M770AD.	5	5	3.5	M7704D.
750/5A													5	5	3.5	M7704E.
800/5A													5	5	3.5	M7704F.

Type	TDH6.2				TDH8				TDH10				TDH12			
Dimensions (mm) a x b x c	91 x 66 x 53				109 x 85 x 59				108 x 131 x 69				134 x 151 x 69			
Diameter Ø (mm)	25				44				63				50			
Plate ((mm)	20 x 25 I 30 x 15 I 40 x 10				50 x 30 I 60 x 12 I 12 x 45				50 x 50 I 60 x 30 I 80 x 30				100 x 50			
VA / A	Class			Code	Class			Code	Class			Code	Class			Code
	0.2	0.5S	0.2S		0.2	0.5S	0.2S		0.2	0.5S	0.2S		0.2	0.5S	0.2S	
100/5A	1	1	0.5	M77055.												
125/5A	2	2	1	M77056.												
150/5A	3	3	1.5	M77057.												
200/5A	3.5	3.5	2.5	M77058.												
250/5A	3.5	3.5	2.5	M77059.												
300/5A	7.5	7.5	5	M7705A.	2	2	1	M7706A.								
400/5A	7.5	7.5	5	M7705B.	2	2	1	M7706B.								
500/5A	7.5	7.5	5	M7705C.	3.5	3.5	2	M7706C.								
600/5A	7.5	7.5	5	M7705D.	3.5	3.5	2	M7706D.	3.75	3.75	2.5	M7707D.				
750/5A					3.5	3.5	2	M7706E.	3.75	3.75	2.5	M7707E.				
800/5A					3.5	3.5	2	M7706F.	3.75	3.75	2.5	M7707F.	2.5	2.5	-	M7708F.
1000/5A					5	5	3.5	M7706G.	3.75	3.75	2.5	M7707G.	2.5	2.5	1.25	M7708G.
1200/5A					5	5	3.5	M7706H.	3.75	3.75	2.5	M7707H.	5	5	3.5	M7708H.
1250/5A					7.5	7.5	5	M7706J.	3.75	3.75	2.5	M7707J.	5	5	3.5	M7708J.
1500/5A					7.5	7.5	5	M7706K.	7.5	7.5	5	M7707K.	7.5	7.5	5	M7708K.
1600/5A					7.5	7.5	5	M7706L.	7.5	7.5	5	M7707L.	7.5	7.5	5	M7708L.
2000/5A									7.5	7.5	5	M7707M.	10	10	7.5	M7708M.
2500/5A									7.5	7.5	5	M7707N.	10	10	7.5	M7708N.
3000/5A									7.5	7.5	5	M7707P.	15	15	10	M7708P.
4000/5A													20	20	15	M7708Q.

TQ

Split-core current transformers

Installation without interruption

- .../5 A
- .../1 A
- .../250 mA
- .../100 mA

From 100A up to 5000A

Easy opening button

Push-button opening

Simple installation with instant opening using the push button, avoiding the use of removable parts.

Versatile

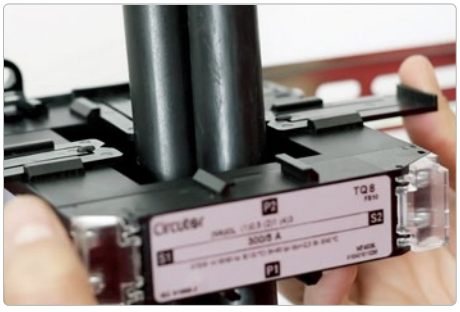
Installation to DIN rail or directly on conductors. Feature non-metallic parts to ensure fastening in busbars with plates.

Lightweight and compact

New design that reduces its weight and size for easier installation in any electrical panel.

Accurate

Guarantee the best measuring accuracy when connected to any type of receiver.



Low losses

Ideal for installation with any type of device, especially for low-energy electronic equipment.

Sealable

Prevents tampering with the electrical connections by sealing the terminal block of the current transformer.

TQR

Split-core current transformers

Installation without interruption

- .../5 A
- .../1 A
- .../250 mA
- .../100 mA

From 400A up to 2000A

Toggle clamp system

Simple installation with instant opening through toggle clamp avoiding the use of removable parts.

Attachment using ties

New tie fastening system for an easy, fast and secure installation.

Adjustable

Designed with a circular cross-section to fully adapt to the wiring cross-section, improving the measurement accuracy.

Low losses

Ideal for installation with any type of device, especially for low-energy electronic equipment.

Accurate

Guarantee the best measuring accuracy when connected to any type of receiver.

High IP rating

Transformers with high IP65 protection, thanks to a sealing joint that keeps particles out of the connection terminals.

TQ. Split-core current transformers

Technical specifications TQ

Electrical characteristics	Frequency	50 / 60 Hz
	Insulation voltage	3 kV
	Thermal short-circuit current, I_{th}	60 I_n
	Dynamic current, I_{dyn}	2.5 I_{th}
	Accuracy class	See table
	Highest voltage for the material	0.72 $kV_{ac/dc}$
Environmental characteristics	Operating temperature	Thermal class B (130° C)
	Enclosure	Self-extinguishing plastic (UL94)
	Safety factor	FS 10
	Sealable secondary terminals	Yes
	Protection Degree	IP20 secondary terminals
	Attachment to DIN rail	Yes
Standards	IEC 61869-1, IEC 61869-2, UL94	

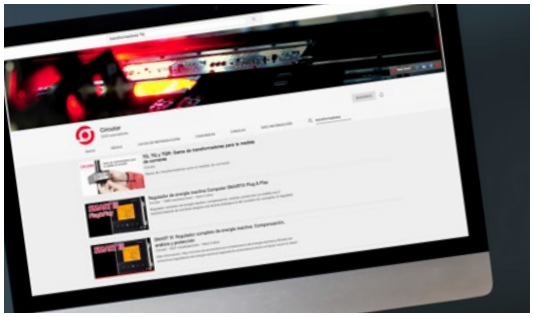
Codification table TQ

M	7	4	X	X	X	0	0	X
Internal code								↑
Secondary					Standard .../5 A			0
					.../1 A			1
					.../ 250 mA			A
					.../ 100 mA			7

References

Type	TQ-6				TQ-8				TQ-10				TQ-12			
Dimensions (mm) a x b x c	99 x 80 x 28				148 x 120 x 28				192 x 152 x 50				235 x 180 x 77			
DiameterØ (mm)																
Plate (mm)	20 x 30				60 x 80				120 x 80				160 x 80			
VA / A	Class			Code	Class			Code	Class			Code	Class			Code
	0.5	1	3		0.5	1	3		0.5	1	3		0.5	1	3	
100/5A	-	-	1	M74023.												
150/5A	-	-	1	M74025.												
200/5A	-	-	2	M74026.												
250/5A	-	1	2	M74027.												
300/5A	0.5	1	2	M74028.	-	1	2.5	M74035.								
400/5A	1	2.5	4	M7402A.	1	1.5	3	M74037.								
500/5A					2	5	7.5	M74039.	-	4	12	M74041.				
600/5A					2	5	8	M7403B.	-	5	14	M74042.				
700/5A					2	5	8	M7403D.								
750/5A					2.5	5	10	M7403E.	3	6	17	M74043.				
800/5A					3	6	10	M7403F.	3	7	18	M74044.				
1000/5A					5	8	15	M7403I.	5	9	20	M74045.	10	15	20	M74051.
1200/5A									6	11	24	M74046.	-	-	-	-
1250/5A									7	15	28	M74047.	-	-	-	-
1500/5A									8	17	30	M74048.	15	20	25	M74052.
2000/5A									8	17	30	M7404A.	15	20	25	M74053.
2500/5A													15	20	25	M74054.
3000/5A													20	25	30	M74055.
4000/5A													20	25	30	M74056.
5000/5A													20	25	30	M74057.

Visit Circutor's YouTube channel to see how our transformers are installed



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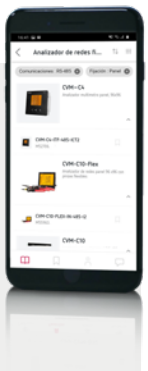


TQR. Split-core current transformers

Technical specifications TQR

Electrical characteristics	Frequency	50 / 60 Hz
	Insulation voltage	3 kV
	Thermal short-circuit current,, I_{th}	60 I_n
	Dynamic current, I_{dyn}	2.5 I_{th}
	Accuracy class	See table
	Highest voltage for the material	0.72 $kV_{ac/dc}$
Environmental characteristics	Operating temperature	Thermal class B (130° C)
	Enclosure	Self-extinguishing plastic (UL94)
	Factor de seguridad	FS 10
	Protection Degree	IP 40 / IP 65 (optional only for TQR-8)
Standards	IEC 61869-2	

References

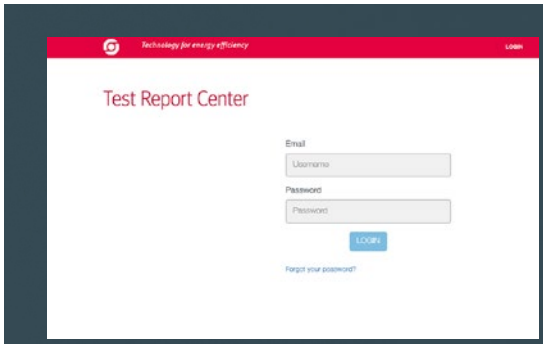
Type	TQR-8				TQR-10			
Dimensions (mm) a x b x c	173 x 216 x 43				199 x 240 x 43			
Diameter Ø (mm)	80				105			
Plate (mm)	-				-			
VA / A	Class 0.5	Class 1	Class 3	Code	Class 0.5	Class 1	Class 3	Code
400/5A	-	1.5	3	M76037.				
500/5A	1	1.5	3	M76039.				
600/5A	1.5	2	4	M7603B.	1.5	2	4	M7604B.
700/5A	2	4	8	M7603D.	2	4	8	M7604D.
750/5A	2.5	5	10	M7603E.	2.5	5	10	M7604E.
800/5A	3	7	15	M7603F.	3	7	15	M7604F.
1000/5A	5	8	16	M7603J.	5	8	16	M7604J.
1250/5A	6	10	20	M7603L.	6	10	20	M7604L.
1500/5A	6	10	20	M7603M.	6	10	20	M7604M.
2000/5A	8	15	25	M7603N.	8	15	25	M7604N.

Test report online

Download the test reports for Circutor's TD, TDH, TQ and TQR transformers free of charge from:

http://testreport.circutor.com

SCAN ME



Codification table TQR

M	7	6	X	X	X	0	0	X	X	X	
Code								Internal code ↑		↑	Delivery time
Secundary				Standard (.../ 5 A)				0			-
				.../ 1 A				1			1
				.../250 mA				A			1
				.../100 mA				7			Consult
IP65 protection (cable meters) Only TQR-8										0	
				IP 65 (1 m)						1	
				IP 65 (2 m)						2	
				IP 65 (3 m)						3	
				IP 65 (4 m)						4	
				IP 65 (5 m)						5	
				IP 65 (6 m)						6	
				IP 65 (7m)						7	
				IP 65 (8 m)						8	
				IP 65 (9 m)						9	
				IP 65 (10 m)						A	

(*) A certificate is attached for every transformer

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