

# Технические характеристики

## По вопросам продаж и поддержки обращайтесь:

Алматы (7273)495-231	Казань (843)206-01-48	Новокузнецк (3843)20-46-81	Смоленск (4812)29-41-54
Архангельск (8182)63-90-72	Калининград (4012)72-03-81	Новосибирск (383)227-86-73	Сочи (862)225-72-31
Астрахань (8512)99-46-04	Калуга (4842)92-23-67	Омск (3812)21-46-40	Ставрополь (8652)20-65-13
Барнаул (3852)73-04-60	Кемерово (3842)65-04-62	Орел (4862)44-53-42	Сургут (3462)77-98-35
Белгород (4722)40-23-64	Киров (8332)68-02-04	Оренбург (3532)37-68-04	Тверь (4822)63-31-35
Брянск (4832)59-03-52	Краснодар (861)203-40-90	Пенза (8412)22-31-16	Томск (3822)98-41-53
Владивосток (423)249-28-31	Красноярск (391)204-63-61	Пермь (342)205-81-47	Тула (4872)74-02-29
Волгоград (844)278-03-48	Курск (4712)77-13-04	Ростов-на-Дону (863)308-18-15	Тюмень (3452)66-21-18
Вологда (8172)26-41-59	Липецк (4742)52-20-81	Рязань (4912)46-61-64	Ульяновск (8422)24-23-59
Воронеж (473)204-51-73	Магнитогорск (3519)55-03-13	Самара (846)206-03-16	Уфа (347)229-48-12
Екатеринбург (343)384-55-89	Москва (495)268-04-70	Санкт-Петербург (812)309-46-40	Хабаровск (4212)92-98-04
Иваново (4932)77-34-06	Мурманск (8152)59-64-93	Саратов (845)249-38-78	Челябинск (351)202-03-61
Ижевск (3412)26-03-58	Набережные Челны (8552)20-53-41	Севастополь (8692)22-31-93	Череповец (8202)49-02-64
Иркутск (395)279-98-46	Нижний Новгород (831)429-08-12	Симферополь (3652)67-13-56	Ярославль (4852)69-52-93
Россия (495)268-04-70	Киргизия (996)312-96-26-47	Казахстан (7172)727-132	

# 1-phase energy meters for DIN rail



## Types

**EM 110**

Functions	1-phase energy meter (kWh)
Mounting	DIN rail
Dimensions (HxWxD) mm	90x18x63 - 1 DIN module

## Technical specifications

Display	Electromechanical totalizer 6+1-digit (energy)
Current / voltage	1-phase 230 VAC- 32 A direct (max 45 A), other voltage ranges on request
Auxiliary power supply	Self power supply
Active energy (EN 62053-21)	Class 1
MID certification annex MI-003	Option [PFB]
Active energy (EN 50470-3)	Class B
Approvals/Marks	CE - MID [AV8 only] - cULus [AV7 only, on request]

## Input/output, communication

Pulse or alarm outputs	1 pulse output [01]
------------------------	---------------------

## Order code

	<b>EM110DIN AV81X 01 PFB</b>
Current / voltage	Amp 32 (45) A, self power supply 230 VAC <b>AV81X</b>
Outputs	Pulse output <b>01</b>
Option	None <b>X</b> MID Certification <b>PFB</b>

# 1-phase energy meters/analyzers for DIN rail



Types	EM 111	EM 112
Functions	1-phase energy analyzer Measure: $\pm kWh$ , $\pm kvarh$ , V, A, Cos phi, Hz, W, var, $W_{dmd}$	1-phase energy analyzer Measure: $\pm kWh$ , $\pm kvarh$ , V, A, Cos phi, Hz, W, var, $W_{dmd}$
Mounting	DIN rail	DIN rail
Dimensions (HxWxD) mm	90x18x63 - 1 DIN module	90x36x63 - 2 DIN modules

Technical specifications		
Display	Backlit LCD with touch keypad 4 DGT (inst. variables) 5+2, 6+1, 7 DGT (energies)	Backlit LCD with touch keypad and supercapacitor backup (up to 48h) for kWh reading, up to 2 x 4 DGT (inst. variables) 6+2, 7+1, 8 DGT (energies)
Range code	230 VAC [AV8] Ib: 5 A; $I_{nom}$ : 32 A; $I_{max}$ : 45 AAC; 1-phase, other voltage ranges on request	230 VAC [AV0] Ib: 5 A, $I_{max}$ : 100 AAC; 1-phase, other voltage ranges on request
Auxiliary power supply	Self power supply	Self power supply
Wrong connection detection	Yes	Yes
Stored value	$kW_{dmd}$ max.	$kW_{dmd}$ max
Bidirectional measure of energy	Yes	Yes
Dual tariff management	Double tariff	Double tariff
Active energy (EN 62053-21)	Class 1	Class 1
MID certification annex MI-003	Option [PFB]	Option [PFB]
Active energy (EN 50470-3)	Class B	Class B
Reactive energy (EN 62053-23)	Class 2	Class 2
Configuration software	Universal Configuration Software - UCS [S1]	Universal Configuration Software - UCS [S1]
Approvals/Marks	CE - MID [AV8 only] - cULus [AV7 only, on request]	CE - MID [AV0 only] - cULus [AV1 only, on request]

Input/output, communication		
Inputs	1 (dual tariff management)	1 (dual tariff management)
Pulse or alarm outputs	1 pulse output [O1]	1 pulse output [O1]
RS485 (Modbus RTU)	Option [S1]	Option [S1]
M-Bus	Option [M1]	Option [M1]

Order code		Order code	
	<b>EM111DIN AV81X S1 X</b>		<b>EM112DIN AV01X S1 X</b>
Range code	Amp 32 (45) A, self power supply 230 VAC <b>AV81X</b>	Range code	Amp 100 A, self power supply 230 VAC <b>AV01X</b>
Output	Pulse output <b>O1</b> M-Bus port <b>M1</b> RS485 Modbus port <b>S1</b>	Output	Pulse output <b>O1</b> M-Bus port <b>M1</b> RS485 Modbus port <b>S1</b>
Option	None <b>X</b> MID Certification <b>PFB</b>	Option	None <b>X</b> MID Certification <b>PFB</b>

## 3-phase energy meters/analyzers for DIN rail



Types	EM 330	EM 340	
Functions	3-phase energy meters with or without neutral. System: $\pm kWh$ , $\pm kvarh$ , h, V, A, Cos phi, Hz, W, var, $W_{dmd}$	3-phase energy meters with or without neutral. System: $\pm kWh$ , $\pm kvarh$ , h, V, A, Cos phi, Hz, W, var, $W_{dmd}$	
Mounting	Din rail	Din rail	
Dimensioni (HxLxP) mm	90x54x63 - 3 DIN modules	90x54x63 - 3 DIN modules	
Technical specifications			
Display	Backlit LCD with touch keypad 3x 4 DGT (inst. variables) 3x 6+2, 7+1, 8 DGT (energies)	Backlit LCD with touch keypad 3x 4 DGT (inst. variables) 3x 6+2, 7+1, 8 DGT (energies)	
Range code	3x230 (400) VAC, 5 (6) A with CT	3X230 (400) VAC, 65 A, direct connection	
Auxiliary power supply	From 90 to 260 VAC/DC	Self power supply	
Wrong connection detection	Yes	Yes	
Stored value	$kW_{dmd}$ max.	$kW_{dmd}$ max.	
Bidirectional measure of energy	Yes	Yes	
Dual tariff management	Double tariff	Double tariff	
Active energy (EN 62053-21)	Class 1	Class 1	
MID certification annex MI-003	Option [PFB]	Option [PFB]	
Active energy (EN 50470-3)	Class B	Class B	
Reactive energy (EN 62053-23)	Class 2	Class 2	
Configuration software	Universal Configuration Software - UCS [S1]	Universal Configuration Software - UCS [S1]	
Approvals/Marks	CE - cULus - MID	CE - MID	
Input/output, communication			
Inputs	1 (dual tariff management)	1 (dual tariff management)	
Pulse or alarm outputs	1 pulse output [O1]	1 pulse output [O1]	
RS485 (Modbus RTU)	Option [S1]	Option [S1]	
M-Bus	Option [M1]	Option [M1]	
Order code		Order code	
	<b>EM330DIN AV53H S1 X</b>		<b>EM340DIN AV23X S1 X</b>
Range code	Amp 5 A, Un 230-400 V, power suppl. aux 90 to 260 VAC/DC <b>AV53H</b>	Range code	Amp 65 A, Un 400 V, self power supply <b>AV23X</b>
	Pulse output <b>O1</b>		Pulse output <b>O1</b>
	M-Bus port <b>M1</b>		M-Bus port <b>M1</b>
Output	RS485 Modbus port <b>S1</b>	Output	RS485 Modbus port <b>S1</b>
	None <b>X</b>		None <b>X</b>
Option	MID Certification <b>PFB</b>	Option	MID Certificate <b>PFB</b>

# 1-phase and 3-phase energy meters/analyzers



Types	EM 210 AV	EM 210 MV	
Functions	1 phase and 3 phase energy meters/analyser, with or without neutral. System: $\pm kWh$ , $\pm kvarh$ , V, A, VA, var, W, Cos phi, Hz, THD A, V [X]	1 phase and 3 phase energy meters/analyser, with or without neutral. System: $\pm kWh$ , $\pm kvarh$ , V, A, VA, var, W, Cos phi, Hz, THD [A, V]	
Mounting	Panel mounting 72x72 mm or DIN rail	Panel mounting 72x72 mm or DIN rail	
Dimensions (HxLxP) mm	72x72x65 - 4 DIN modules	72x72x65 - 4 DIN modules	
Technical specifications			
Display	Detachable LCD display 3-digit (instantaneous variables) 6+1-digit (energies)	Detachable LCD display 3-digit (instantaneous variables) 6+1-digit (energies)	
Range code	3x230 (400) VAC, 5 (6) A from CT, MID available*, other voltage ranges on request	3x230 (400) VAC, 5 (6) A from CTVxX or Rogowsky coil ROG4X, other voltage ranges on request	
Auxiliary power supply	Self power supply [X] Universal power supply 90-260 VAC/DC [H] (MID version)	Self power supply [X]	
Wrong connection detection	Yes	Yes	
THD	Up to 15° harmonics, only with self power supply	Up to 15° harmonics	
Bidirectional measure of energy	Yes	Yes	
Active energy (EN 62053-21)	Class 1	Class 1	
MID certification annex MI-003	Option [PFB]		
Active energy (EN 50470-3)	Class B		
Reactive energy (EN62053-23)	Class 2	Class 2	
Configuration software	Universal Configuration Software - UCS [OS]	Universal Configuration Software - UCS [OS]	
Approvals/Marks	CE - cULus - MID [PFBP, PFBF]	CE - cULus	
Output, communication			
Output	1 opto-mosfet output [OX] 1 pulse + RS485 port [OS]	1 opto-mosfet output [OX] 1 pulse + RS485 port [OS]	
M-Bus (only option [OS])	Through gateway VMU-B	Through gateway VMU-B	
Order code		Order code	
EM21072D	AV53X OS X	EM21072D	MV53X OS X
Amp 5 A, Un 230-400 V, self power supply.	AV53X	230/400 V <sub>LL</sub> AC, 0.333V	MV53X
Amp 5 A, Un 120-230V, self power supply,	AV63X	(current sensor CTV series or ROG4X connection)	
Amp 5 A, Un 230-400V, aux. power supply 65~400 VAC*	AV53H	120/230 V <sub>LL</sub> AC, 0.333V (VT/PT and current sensor	MV63X
Range Code Amp 5 A, Un 120-230V, aux. power supply 65~400 VAC*	AV63H	CTV series or ROG4X connection)	
Output	1 pulse output OX 1 pulse output + RS485 Modbus port OS	Output	1 pulse output OX 1 pulse output + RS485 Modbus port OS
Option	None X MID Certification* Panel mounting PFBP MID Certification* DIN rail mounting PFBF	Option	None X

\*The MID version requires H type power supply

# Quick-fit energy meters



## Types

### EM 270

Functions	Energy meter and analyzer. Up to two 3-phase loads or six 1-phase loads. System: kWh, kvarh, V, A, W, var, VA
Mounting	Panel mounting 72x72 mm or DIN rail
Dimensions (HxLxP) mm	72x72x65 - 4 DIN modules

## Technical specifications



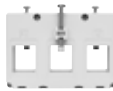
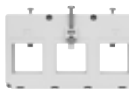
Display	Detachable LCD display 3-digit (instantaneous variables) 6+1-digit (energies)
Range code	Multiple measurement, 3x230(400) VAC, with TCDxx, other voltage ranges on request
Auxiliary power supply	Self power supply
Stored value	kW <sub>dmd</sub> max, kVA <sub>med</sub> max
Active energy (EN 62053-21)	Equivalent to Class 1
Reactive energy (EN 62053-23)	Equivalent to Class 2
Configuration software	Universal Configuration Software - UCS
Approvals/Marks	CE - cULus

## Output, communication

Output	2 opto-mosfet and 1 RS485 Modbus port [0S] 1 RS485 Modbus port with 2 connectors [2S]
M-Bus	Through gateway VMU-B

## Order code




	<b>EM27072D</b>	<b>MV53X</b>	<b>OS</b>	<b>X</b>
Range code	230 VLN, 400 VLL AC, connection via TCD_X or TCD0W	<b>MV53X</b>		
Output	Double RS485 Modbus port for daisy chain connection		<b>OS</b> <b>2S</b>	
Option	None			<b>X</b>

Series	Primary current (A)	Dimensions (mm)	Accuracy Class (cl.)	Cable length (m)	Reference
 <b>TCD0W</b>	65	Bus-bar Size: 16.0 x 8.5 Size: 92.5 x 53.0 x 28.9 Hole spacing: 18 mm	0.5	0.8	<b>TCD0W6580CMX</b>
				1.5	<b>TCD0W65150CMX</b>
				2.0	<b>TCD0W65200CMX</b>
 <b>TCD1X</b>	160	Bus-bar Size: 15.9 x 30.5 Size: 75.0 x 72.0 x 66.8 Hole spacing: 25 mm	0.5	0.8	<b>TCD1X16080CMX</b>
				1.5	<b>TCD1X160150CMX</b>
				2.0	<b>TCD1X160200CMX</b>
 <b>TCD2X</b>	250	Bus-bar Size: 21.3 x 25.3 Size: 105.0 x 72.0 x 50.0 Hole spacing: 35 mm	0.5	0.8	<b>TCD2X25080CMX</b>
				1.5	<b>TCD2X250150CMX</b>
				2.0	<b>TCD2X250200CMX</b>
 <b>TCD3X</b>	630	Bus-bar Size: 31.3 x 31.3 Size: 135.0 x 78.0 x 50.0 Hole spacing: 45 mm	0.5	0.8	<b>TCD3X63080CMX</b>
				1.5	<b>TCD3X630150CMX</b>
				2.0	<b>TCD3X630200CMX</b>

## Quick-fit energy meters



Types		EM 271
Functions	Energy meter and analyzer. Up to two 3-phase loads or six 1-phase loads. Use with split core current sensors System: kWh, kvarh, V, A, W, var, VA	
Mounting	Panel mounting 72x72 mm or DIN rail	
Dimensions (HxLxP) mm	72x72x65 - 4 DIN modules	
Technical specifications		
Display	Detachable LCD display 3-digit (instantaneous variables) 6+1-digit (energies)	
Range code	Multiple measurement, 3x230 (400) VAC, with TCDxM, other voltage ranges on request	
Auxiliary power supply	Self power supply	
Stored value	kW <sub>dmd</sub> max, kVA <sub>med</sub> max	
Active energy (EN 62053-21)	Equivalent to Class 1	
Reactive energy (EN 62053-23)	Equivalent to Class 2	
Configuration software	Universal Configuration Software - UCS	
Approvals/Marks	CE - cULus	
Output, communication		
Output	2 opto-mosfet and 1 RS485 Modbus port [OS] 1 RS485 Modbus port with 2 connectors [2S]	
M-Bus	Through gateway VMU-B	
Order code		
	EM27172D MV53X	OS X
Range code	230 V <sub>LN</sub> , 400 V <sub>LL</sub> AC, connection via TCDxM MV53X	
Output	RS485 port and double pulse output Double RS485 port for daisy chain connection	OS 2S
Option	None	X

Series	Primary current (A)	Dimensions (mm)	Accuracy Class (cl.)	Cable length (m)	Reference
 <b>TCD0M</b>	60	Hole: Ø9.6 Size: 26 x 40 x 26	0.5	from EM271 to connecting box 0.8 from connecting box to sensors 1.75	TCD0M6080CMX
 <b>TCD1M</b>	100	Hole: Ø15.7 Size: 31 x 46 x 31	0.5	from EM271 to connecting box 0.8 from connecting box to sensors 1.75	TCD1M10080CMX
 <b>TCD2M/TCD3M</b>	200	Hole: Ø15.5 Size: 41 x 66 x 38	0.5	from EM271 to connecting box 0.8 from connecting box to sensors 1.75	TCD2M20080CMX
	400	Hole: Ø20.5 Size: 50 x 78 x 39	0.5	from EM271 to connecting box 0.8 from connecting box to sensors 1.75	TCD3M40080CMX

# Quick-fit energy meters



## Types

### EM 280

Functions	Quick-fit energy meter with daisy chaining of voltage and serial connections and fast RJ connection of TCD06B 6-channel current transformer block. Managing of two 3-phase or six 1-phase loads. System: kWh, kvarh, V, A, W, var, VA
Mounting	Panel mounting 72x72 mm or DIN rail
Dimensions (HxLxP) mm	72x72x65 - 4 DIN modules

## Technical specifications



Display	LCD 3 DGT (inst. variables) 6+1, 7 DGT (energies)
Range code	230 VAC, 400 VAC In: 32 A by TCD06BX and TCD06BS, other voltage range on request
Auxiliary power supply	Self power supply
Stored value	kW <sub>dmd</sub> max, kVA <sub>dmd</sub> max
Active energy (EN 62053-21)	Equivalent to Class 1
Reactive energy (EN 62053-23)	Equivalent to Class 2
Configuration software	Universal Configuration Software - UCS
Approvals/Marks	CE - cULus

## Output, communication

Output	2 opto-mosfet and 1 RS485 Modbus port [OS] 1 RS485 Modbus port with 2 connectors [2S]
M-Bus	Through gateway VMU-B

## Order code

	<b>EM28072D MV53X OS X</b>
Range code	230 V <sub>LN</sub> , 400 V <sub>LL</sub> AC, connection via TCD06BS or TCD06BX <b>MV53X</b>
Output	RS485 port and double pulse output <b>OS</b> Double RS485 port for daisy chain connection <b>2S</b>
Option	None <b>X</b>

Series	Primary current (A)	Dimensions (mm)	Accuracy Class	Cable length (m)	Reference
 <b>TCD06BX</b>	32	Hole: Ø7.0 Size: 118 x 53 x 34	0.5	0.8 m	<b>TCD06BX3280CMX</b>
	32	Hole: Ø7.0 Size: 118 x 53 x 34	0.5	1.5 m	<b>TCD06BX32150CMX</b>
	32	Hole: Ø7.0 Size: 118 x 53 x 34	0.5	2.0 m	<b>TCD06BX32200CMX</b>
 <b>TCD06BS</b>	32	Hole: Ø8.5 Size: 118 x 45 x 59	0.5	0.8 m	<b>TCD06BS3280CMX</b>
	32	Hole: Ø8.5 Size: 118 x 45 x 59	0.5	1.5 m	<b>TCD06BS32150CMX</b>
	32	Cavo: Ø8.5 Size: 118 x 45 x 59	0.5	2.0 m	<b>TCD06BS32200CMX</b>



# Energy analyzers



Types		EM 24		
Functions	Energy meter/analyzer, 1-phase/3-phase with or without neutral. System: $\pm kWh$ , $\pm kvarh$ , h, $V_{LL}$ , $V_{LN}$ , var, VA, $W_{dmd}$ , W, $V_{Admd}$ , Hz			
Mounting	DIN rail			
Dimensions (HxLxP) mm	90x72x67 - 4 DIN modules			
Technical specifications				
Display	LCD display 3 x 4 DGT (instantaneous variables) - 8-digit (energies)			
Range code	3 x 230 (400) VAC, 5 (10) A from CT [AV53], other ranges on request. Direct connection 65 A [AV23, AV93]			
Auxiliary power supply	Self power supply [AV23X, AV93X, AV53X*] Auxiliary power supply: 115/230 VAC [AV53D, AV63D] Auxiliary power supply: 24=48 VAC/DC [AV53L]			
Stored value	$A_{dmd\ max}$ , $W_{dmd\ max}$ , $V_{Admd\ max}$			
Bidirectional measure of energy	Yes			
Partial/total energies counters (kWh, kVARh)	Yes			
Multi tariff	Up to 4 tariff allocation [IS]			
Active energy(EN 62053-21)	Class 1			
MID certification annex MI-003	PFB version (3-phase with neutral only)			
Active energy (EN 50470-3)	Class B			
Reactive energy (EN 62053-23)	Class 2			
Pulse counter from external meters	3 for tariff or counters [IS]			
Configuration software	Universal Configuration Software - UCS			
Approvals/Marks	CE - cULus [AV5 e AV6] - MID [AV53X...PFB, AV23X..PFB, AV93X..PFB]			
Input/output, communication				
Inputs	3 digital input [IS]			
Pulse or Alarm outputs	2 open collector [O2]; Relay [R2]			
RS485 Modbus RTU	[IS]			
Modbus TCP/IP	[E1]			
M-Bus	[M2]			
Wireless M-Bus	[W1E]; [W1I]			
Bus Dupline®	[DP]			
Order code				
	EM24DIN	AV53D	IS	X
65 A, $U_N$ 400 V <sub>LL</sub> AC*, $V_{LN}$ : 113 V to 265 V <sub>LN</sub> V <sub>LL</sub> : 196 V to 460 V, self power supply*		<b>AV23X</b>		
65 A, 3 phase with neutral, $U_N$ 400 V, Self power supply*		<b>AV93X</b>		
5 A, $U_N$ 120 V, Auxiliary power supply 115/230 VAC		<b>AV63D</b>		
5 A, $U_N$ 400 V, Auxiliary power supply 24-48 VAC/DC		<b>AV53L</b>		
5 A (CT connection), $U_N$ 400 V 3 phase with neutral, Self power supply*		<b>AV53X</b>		
Range code	5 A (CT connection), $U_N$ 400 V, 115/230 VAC	<b>AV53D</b>		
	3 input and 1 RS485 Modbus serial output		<b>IS</b>	
	2 pulse or alarm open collector output		<b>O2</b>	
	2 pulse or alarm relay output		<b>R2</b>	
	1 Ethernet TCP/IP Modbus output		<b>E1</b>	
	1 M-Bus serial output		<b>M2</b>	
	Wireless M-Bus embedded antenna		<b>W1I</b>	
	Wireless M-Bus external antenna		<b>W1E</b>	
Output	Bus Dupline®		<b>DP</b>	
Option	None			<b>X</b>
	MID Certification			<b>PFB</b>

\* Only these versions can be MID certified.

# Compact transducers



## Types

### CPT DIN Basic

### CPT DIN Advanced

#### Functions

3-phase compact power transducer.  
System: kWh, kvarh,  $V_{LL}$ ,  $V_{LN}$ , An, PF, W, var, VA,  $W_{dmd}$ ,  
 $VA_{dmd}$ , Hz, hour meter  
Max:  $W_{dmd}$ , A,  $A_{dmd}$   
Single-phase:  $V_{LL}$ ,  $V_{LN}$ , A,  $A_{dmd}$ , PF, W, var, VA

3-phase compact power transducer.  
System: kWh, kvarh,  $V_{LL}$ ,  $V_{LN}$ , An, PF, W, var, VA,  $W_{dmd}$ ,  
 $VA_{dmd}$ , Hz, hour meter, ASY  
Max:  $W_{dmd}$ ,  $VA_{dmd}$ , A,  $A_{dmd}$   
Single-phase:  $V_{LL}$ ,  $V_{LN}$ , A,  $A_{dmd}$ , PF, W, var, VA, THD (A, V)  
Max:  $V_{LN}$ , A, W  
Min:  $V_{LN}$ , A, PF

#### Mounting

DIN rail

DIN rail

#### Dimensions (HxLxP) mm

83.5x45x98.5

83.5x45x98.5

## Technical specifications

#### Range code

3x230 (400) VAC, 5 (6) A from CT,  
others values available.

3x230 (400) VAC, 5 (6) A from CT,  
others values available.

#### Auxiliary power supply

18÷60 VAC/DC [AV51L, AV53L],  
90÷260 VAC/DC [AV51H, AV53H]

18÷60 VAC/DC [AV51L, AV53L],  
90÷260 VAC/DC [AV51H, AV53H]

#### Wrong connection detection

Yes

Yes

#### Partial/total energies counters(kWh, kVARh)

Yes

#### Active energy

Class 2

Class 1

#### Reactive energy

Class 3

Class 2

#### Stored value

$A_{dmd}$  max,  $W_{dmd}$  max

V, A, W, VA, PF, min, med e max

#### Configuration software

CPTBSOFT

CPTASOFT

#### Approvals/Marks

CE - cURus - CSA

CE - cURus - CSA

## Input/output, communication

#### Pulse or Alarm output

2 open collector [O2]

#### Modbus RS485

RS485 [S1], RS232 [S2]

RS485 [S1], RS232 [S2]

#### Analogue output (current)

1 output [A1]  
3 output [A3]

#### Analogue output (voltage)

1 output [V1]  
3 output [V3]

## Order code

## Order code

	CPTDIN	AV53H	S1	BX
Range code	1 phase Amp 5 (6) A, 400 V, Power supply 18-60 VAC/DC	AV51L		
	1 Phase Amp 5 (6) A, 400 V, Power supply 90-260 VAC/DC	AV51H		
	3 Phase Amp 5 (6) A, 400 V, Power supply 18 a 60 VAC/DC	AV53L		
	3 Phase Amp 5 (6) A, 400 V, Power supply 90-260 VAC/DC	AV53H		
Output	1 RS232 Modbus serial output		S2	
	1 RS485 Modbus serial output		S1	
Option	Base			BX

	CPTDIN	AV53H	A3	AX
Range code	1 phase Amp 5 (6) A, 400 V, Power supply 18-60 VAC/DC	AV51L		
	1 Phase Amp 5 (6) A, 400 V, Power supply 90-260 VAC/DC	AV51H		
	3 Phase Amp 5 (6) A, 400 V, Power supply 18 a 60 VAC/DC	AV53L		
	3 Phase Amp 5 (6) A, 400 V, Power supply 90-260 VAC/DC	AV53H		
Output	2 relay output		R2	
	1-analogue output: 0/4 to 20 mA DC		A1	
	3-analogue outputs: 0/4 to 20 mA DC		A3	
	1-analogue output: 0 to 10 VDC		V1	
	3-analogue outputs: 0 to 10 VDC		V3	
	2 pulse or alarm outputs		O2	
Option	RS485/RS422 port		S1	
Option	Advanced			AX

# Power analyzers



## Types

**WM15 96**

**Functions**  
 3-phase power analyzer  
 System:  $\pm$ kWh,  $\pm$ kvarh, kVAh,  $V_{LL}$ ,  $V_{LN}$ , var, VA, W,  $W_{dmd}$ ,  $VA_{dmd}$ , VA, PF, Hz, THD,  $\pm$  hour counter  
 Max:  $A_{dmd}$ ,  $W_{dmd}$ ,  $VA_{dmd}$   
 Single-phase:  $V_{LL}$ ,  $V_{LN}$ , A, W, var, VA, PF,  $A_{dmd}$ , kWh

**Mounting** Panel mounting 96x96 mm  
**Dimensions (HxLxP) mm** 96x96x59

## Technical specifications

**Display** Matrix LCD backlight  
 up to 4x 4 DGT (inst. variables)  
 3x 8+2 DGT (energies)

**Range code** 277 / 415 VAC [X],  
 347 / 600 VAC [H],  
 In: 5(6)A

**Power supply** Self power supply 277 / 415  $V_{LL}$  AC [X],  
 Auxiliary power supply: 120-240 VAC [H],

**Phase sequence detection** Yes

**THD (A, V)** Up to 15° harmonics

**Stored value**  $A_{dmd}$  max,  $W_{dmd}$  max,  $VA_{dmd}$  max

**Bidirectional measure of energy** Yes

**Partial/total energies counters (kWh, kVARh)** Yes

**Active energy** Class 1 (EN62953-21) [X],  
 Class 0,5S (EN52053-22) [X05],  
 class B [EN50470-3]

**Reactive energy (EN 62053-23)** Class 2

**Configuration software** Universal Configuration Software - UCS

**Approvals/Marks** CE - cULus - MID [AV53X...PFB]

## Output, communication

**Pulse or Alarm output** 1 opto-mosfet output for pulse or alarm [OX]  
 1 opto mosfet + RS485 port [OS]

**M-Bus** Through gateway VMU-B

## Order code

	<b>WM1596 AV53X</b>	<b>OS</b>	<b>X</b>
<b>Range code</b>	5 (6) A, 277-415 V, Self power supply* 5 (6) A, 347-600 V, Power supply 120-240 VAC/DC	<b>AV53X</b> <b>AV53H</b>	
<b>Output</b>	1 Pulse or Alarm 1 Pulse or Alarm + RS485 port	<b>OX</b> <b>OS</b>	
<b>Option</b>	None Active energy accuracy class 0,5S MID Certification*		<b>X</b> <b>X05</b> <b>PFB</b>

# Power analyzers



## Types

### WM20

### WM30

Functions	3-phase modular power quality analyzer. System: total/partial $\pm kWh$ and $\pm kvarh$ , $V_{LN}$ , $V_{LL}$ , $VA$ , $W$ , var, PF, Hz,	3-phase modular power quality analyzer. System: total/partial $\pm kWh$ and $\pm kvarh$ , $V_{LN}$ , $V_{LL}$ , $VA$ , $W$ , var, PF, Hz,
Mounting	Panel mounting 96x96 mm	Panel mounting 96x96 mm
Dimensions (HxLxP) mm	96x96x50	96x96x50

## Technical specifications

Display	Backlit LCD display 4 x 4-digits - 9+1-digits (energies)	Backlit LCD display 4 x 4-digits - 9+1-digits (energies)
Range code	400 / 690 V <sub>LL</sub> AC 1 (2) AAC [AV4] 400 / 690 V <sub>LL</sub> AC 5 (6) AAC [AV5] 100 / 208 V <sub>LL</sub> AC 5 (6) AAC [AV6] 100 / 208 V <sub>LL</sub> AC 1 (2) AAC [AV7]	400 / 690 V <sub>LL</sub> AC 1 (2) AAC [AV4] 400 / 690 V <sub>LL</sub> AC 5 (6) AAC [AV5] 100 / 208 V <sub>LL</sub> AC 5 (6) AAC [AV6] 100 / 208 V <sub>LL</sub> AC 1 (2) AAC [AV7]
Auxiliary supply	18 ÷ 60 VAC/DC (L) 90 ÷ 260 VAC/DC (H)	18 ÷ 60 VAC/DC (L) 90 ÷ 260 VAC/DC (H)
Phase sequence detection	Yes	Yes
THD (A, V)	Up to 32° harmonics	Up to 32° harmonics
Stored value	W, var, VA, max and dmd values	max and dmd values of: V, A, Hz, PF, ASY, W, var, VA, THD (A, V)
Bidirectional measure of energy	Yes	Yes
Partial/total energies counters(kWh, kVARh)	Yes	Yes
Active energy (EN 62053-22)	Class 0.5S	Class 0.5S
Reactive energy (EN 62053-23)	Class 2	Class 2
Configuration software	Universal Configuration Software - UCS	Universal Configuration Software - UCS
Approvals/Marks	CE - cULus	CE - cULus

## Input, output and communication modules

Bacnet IP/ Ethernet	<b>MCBACIP</b>	<b>MCBACIP</b>
Bacnet MS/TP,RS485	<b>MCBACMS</b>	<b>MCBACMS</b>
2 relay outputs	<b>MOR2</b>	<b>MOR2</b>
Modbus TCP/IP	<b>MCETH</b>	<b>MCETH</b>
Profibus DP V0, RS485	<b>MCPB</b>	<b>MCPB</b>
2 pulse outputs	<b>MOO2</b>	<b>MOO2</b>
Modbus RS485	<b>MC485232</b>	<b>MC485232</b>
2 analogue outputs (voltage)	-	<b>MOV2</b>
2 analogue outputs (current)	-	<b>MOA2</b>

## Order code

## Order code

	WM20	AV53	H		WM30	AV53	H
Range code	From 100 to 230 V <sub>LL</sub> AC, 5 (6) A, connection via CT	<b>AV63</b>		Range code	From 100 to 230 V <sub>LL</sub> AC, 5 (6) A, connection via CT	<b>AV63</b>	
	From 100 to 230 V <sub>LL</sub> AC, 1 (2) A, connection via CT	<b>AV73</b>			From 100 to 230 V <sub>LL</sub> AC, 1 (2) A, connection via CT	<b>AV73</b>	
	From 380 to 690 V <sub>LL</sub> AC, 1 (2) A, connection via CT	<b>AV43</b>			From 380 to 690 V <sub>LL</sub> AC, 1 (2) A, connection via CT	<b>AV43</b>	
	From 380 to 690 V <sub>LL</sub> AC, 5 (6) A, connection via CT	<b>AV53</b>			From 380 to 690 V <sub>LL</sub> AC, 5 (6) A, connection via CT	<b>AV53</b>	
Power supply	Auxiliary power supply from 24 to 48 VAC/DC		<b>L</b>	Power supply	Auxiliary power supply from 24 to 48 VAC/DC		<b>L</b>
	Auxiliary power supply from 100 to 240 AC/DC		<b>H</b>		Auxiliary power supply from 100 to 240 VAC/DC		<b>H</b>

# Power analyzers



Types	WM40	WM50
Functions	3-phase modular power quality analyzer. System: Total/partial $\pm$ kWh and $\pm$ kvarh (multi-tariff), $V_{LN}$ , $V_{LL}$ , VA, W, var, PF, Hz, THD, K-factor Single-phase: $V_{LN}$ , $V_{LL}$ , VA, Al An (calculated or measured), W, var, PF, THD, TDD; Phase sequence-asymmetry-loss Load profile, event stamping, data logger, utility and hour counters	96-channel branch circuit analyzer. Mains power analysis and single branch circuit measurement Mains, system: Total/partial $\pm$ kWh and $\pm$ kvarh (multi-tariff), $V_{LN}$ , $V_{LL}$ , VA, W, var, PF, Hz, THD, K-factor Mains, Single-phase: $V_{LN}$ , $V_{LL}$ , VA, Al An (calculated or measured), W, var, PF, THD, TDD; Phase sequence-asymmetry-loss, event stamping, utility and hour counters Single branch channels: A, W, var, VA, PF, kWh, THD (A), daily min and max for 1 of the above variables
Mounting	Panel mounting 96x96 mm	Panel mounting 96x96 mm
Dimensions (HxLxP) mm	96x96x50	96x96x50
<b>Technical specifications</b>		
Display	LCD backlight 4 x 4 DGT (inst. variables) 8+2, 9+1, 10 DGT (energies)	LCD backlight 4 x 4 DGT (inst. variables) 8+2, 9+1, 10 DGT (energies), only mains
Range code	3x230 (400) VAC, 5 (6) A from CT, others values by request (see cadification table)	WM50 96.: 3x230 (400) VAC, 5 (6) A from CT. TCD12BS: 32 (65) A 12 1-phase loads or 4 3-phase loads program. by UCS
Auxiliary power supply	18 ÷ 60 VAC/DC [L], 90 ÷ 260 VAC/DC [H]	90 ÷ 260 VAC/DC [H]
Phase sequence detection	Yes	Yes
THD (A, V)	Up to 32 <sup>nd</sup> harmonics	Up to 32 <sup>nd</sup> harmonics for general measures. Up to 15 <sup>th</sup> harmonics for every measure from TCD12BS
Stored value	max., min. and dmd of: V, A, Hz, PF, ASY, W, var, VA, THD (A, V), THD	max. and min. values of: V, A, Hz, PF, ASY, W, var, VA, THD (A, V), THD.
Load curve	Through memory with communication module	
Bidirectional measure of energy	Yes	Yes
Partial/total energies counters(kWh, kVARh)	Yes	Yes
Multi tariff management	Up to 6 different tariffs	
Active energy (EN 62053-22)	Class 0.5	Mains: Class 0.5S, Branch channels: Class 2 (EN62053-21)
Reactive energy (EN 62053-23)	Class 2	Class 2
Pulse counter from external meters	Yes	
Configuration software	Universal Configuration Software - UCS	Universal Configuration Software - UCS
Approvals/Marks	CE - cULus	CE - cULus
<b>Input, output and communication modules</b>		
Bacnet IP/ Ethernet / with internal memory	MCBACIP / MCBACIPM	-
Bacnet MS/TP, RS485 / with internal memory	MCBACMS / MCBACMSM	-
2 relays	MOR2	-
Modbus TCP/IP / with internal memory	MCETH / MCETHM	MCETH
Profibus DP V0, RS485/6 / with internal memory	MCPB / MCPBM	-
2 pulse outputs	MOO2	-
Modbus RS485 / with internal memory	MC485232 / MC485232M	MC485232
2 analogue outputs (voltage)	MOV2	-
2 analogue outputs (current)	MOA2	-
6 digital inputs + 6 static outputs	MF16O6	MF16O6
6 digital inputs + 6 static outputs	MF16R4	MF16R4
1 temperature input +1 analogue input 0...20mA	MATP	-
1 temperature input +1 analogue input 0...20mA+1 input for neutral current	MATPN	MATPN
<b>Order code</b>		<b>Order code</b>
	WM40 AV53 H	WM50 AV53 HBC
Range code	From 100 to 230 V <sub>LL</sub> AC, 5 (6) A, connection via CT From 100 to 230 V <sub>LL</sub> AC, 1 (2) A, connection via CT From 380 to 690 V <sub>LL</sub> AC, 1 (2) A, connection via CT From 380 to 690 V <sub>LL</sub> AC, 5 (6) A, connection via CT	From 208 to 480 V <sub>LL</sub> AC, 5 (6) A, connection via CT, 32 (65) A on TCD12 BS sensors
Power supply	Power supply from 19-60 VAC/DC Power supply from 90-260 VAC/DC	Power supply from 90 to 260 VAC/DC
	L H	HBC

## Benefits of the EM100 and EM300 series

### Backlit LCD Display

The EM100 and EM300 are the first meters on the market to present a touch screen. The use of this technology makes the scrolling of information and programming more immediate, and increases the degree of frontal protection. At the same time, critical factors related to the use, especially if frequent, of traditional mechanical buttons are eliminated. The Intelligent backlight only functions for the time strictly necessary for the consultation of parameters.

### Compact size, high current measurement

Thanks to the innovative measuring technique, the EM100 or EM300 are able to measure loads with high currents thus maintaining their accuracy. The nominal current of products with 1 DIN module housing is 32 A, permanently overloadable up to a 45 A maximum. The EM112 can reach 100 A on a single phase in just 2 DIN modules. Three-phase EM330 with measurement from current transformers, and EM340 with direct three-phase insertion up to 65 A offer their measurements in just 3 DIN modules.

### Developed to communicate

In their extremely compact size these meters contain everything you need to communicate according to Modbus RTU or M-Bus standards, making use of the external gateways unnecessary. The EM100 or EM300 meters have been designed to make the development of communication drivers easy, making the job of integrators faster and more effective. The presence in the range of the pulse output, makes immediate acquisition of the energy count according to the more traditional modalities.



### EM100 series: 1-phase energy meters in Class 1, MID certification available. 2 tariffs management

- **EM110:** 240 VAC, 45 A direct connection. Electromechanical display, 7 digits, pulse output, 1 DIN module.
- **EM111:** 240 VAC, 45 A direct connection. Backlight LCD Display LCD, 7 digits. Options available: pulse output or Modbus RS485 or M-Bus. Inputs to select 2 tariffs, 1 DIN module.
- **EM112:** 240 VAC, 100 A direct connection. Backlight LCD Display LCD, 8 digits. Options available: pulse output or Modbus RS485 or M-Bus. Inputs to select 2 tariffs, 2 DIN modules.

### EM300 series: 3-phase energy meter in Class 1, MID certification available. 2 tariffs management

- **EM330:** 400 VAC to 480 VAC, 5 A with CTs. Backlight LCD Display LCD, counters up to 8 digits. Options available: pulse output or Modbus RS485 or M-Bus. Inputs to select 2 tariffs, 3 DIN modules.
- **EM340:** 208 VAC to 400 VAC, 65 A direct connection. Backlight LCD Display LCD, counters up to 8 digits. Options available: pulse output or Modbus RS485 or M-Bus. Inputs to select 2 tariffs, 3 DIN modules.

# EM21072DMV: the retrofit solutions

## Detachable display

- The patented solution with a detachable display, without contacts, allows mounting the instrument both in the DIN rail mode (4 modules) or panel mounting, with standard drilling 72 x 72 mm or 96 x 96 mm thanks to the optional adapter EM200-96. Without a display it becomes a transducer and it will continue to measure making data available on serial line or output pulses.

## Easy installation

- The self-powered solution makes voltmetric wiring easy. A clear display indicates the correct phase sequence, and allows a quick adjusting of the wiring.

## Ready to use

- The split current transformers CTVxX series is easy to install and configure.

## EM210 Allows the use of a Rogowsky coil

- The use of a Rogowsky coil is a simplification in the installation. Different from many competitors, the EM210 contains everything needed for the measurement, without additional adapters.
- Each Rogowsky coil series ROG4X, allows the measurement of currents from 20 A to 4000 A.

## Communication

- The RS485 Modbus COM port makes it easy to connect with advanced digital systems.
- Through the appropriate VMUB gateway it is possible to insert the meter into a M-Bus network for the immediate integration of the measures.
- Pulse outputs allow quick connection to traditional acquisition systems.

## Compliance

- The energy is measured with an accuracy Class 1, according to EN 62053-21



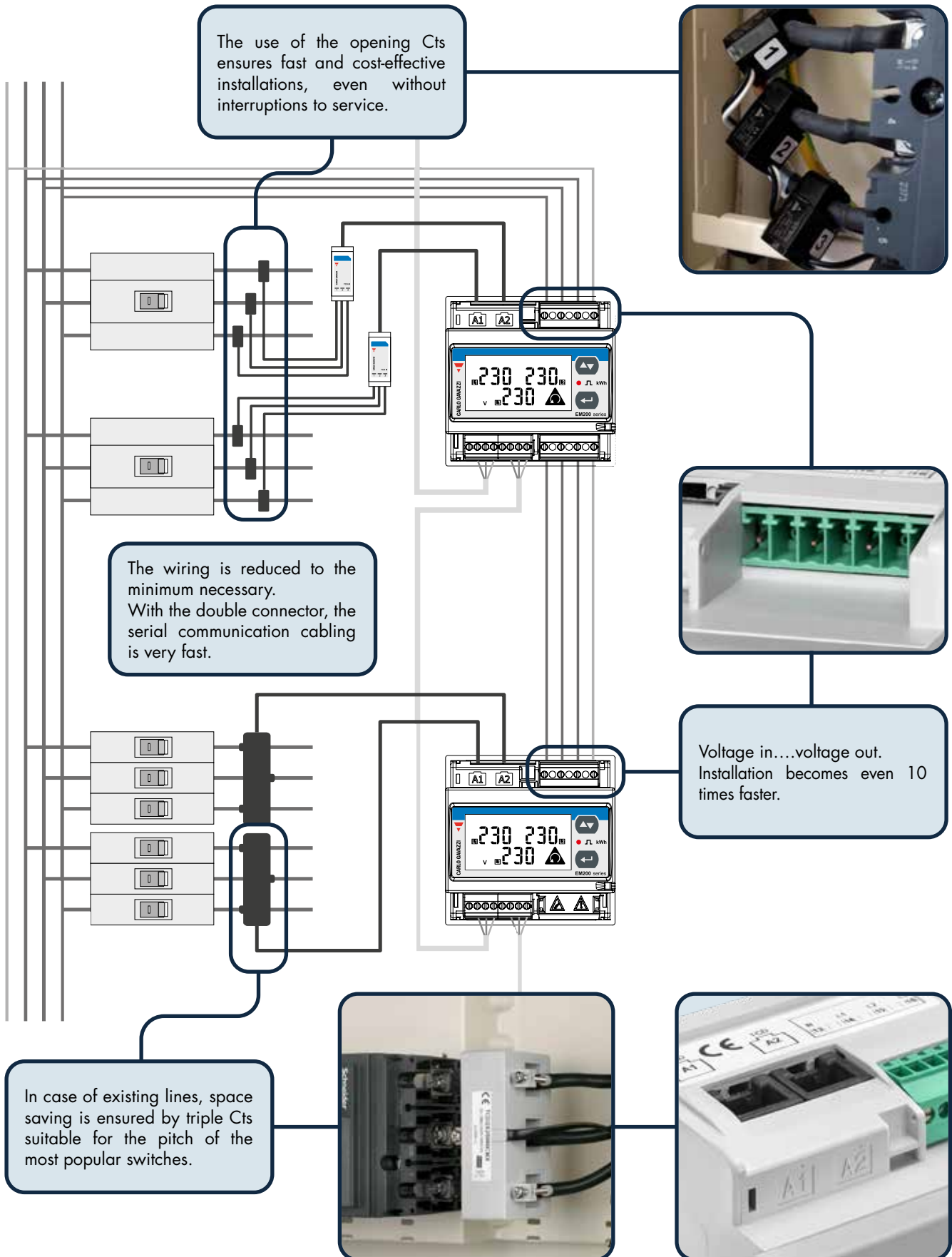
## Compact size for faster installation

The instruments in the EM200 range are specifically designed to meet the increasingly widespread and modern requirements of electricity consumption measurement. They are the first on the market to have a detachable display to support the installations of DIN rail or panel mounting 72 x 72 mm, possibly adaptable

to 96 x 96 mm. Without display it becomes a transducer that prevents unwanted configuration changes. Finally the use of the opening sensors or Rogowsky coil, allows it to detect currents with minimal impact on existing installations.



## EM270 ed EM271: quick installation meters, designed to limit installation costs



The use of the opening Cts ensures fast and cost-effective installations, even without interruptions to service.

The wiring is reduced to the minimum necessary. With the double connector, the serial communication cabling is very fast.

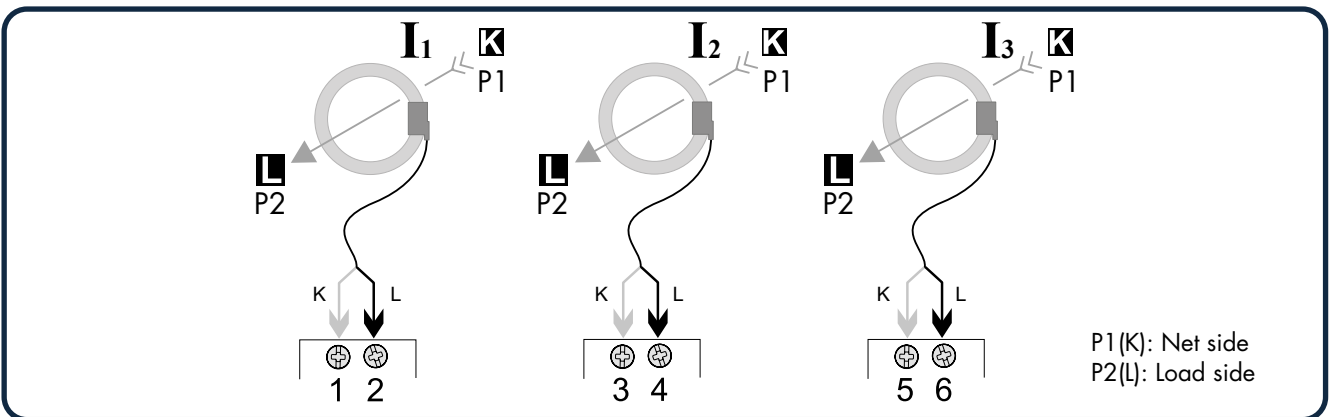
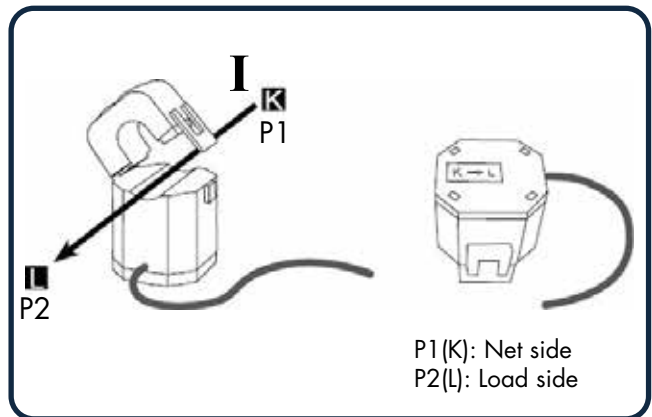
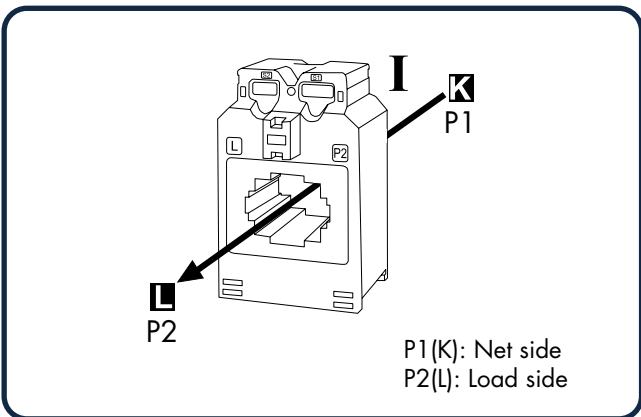
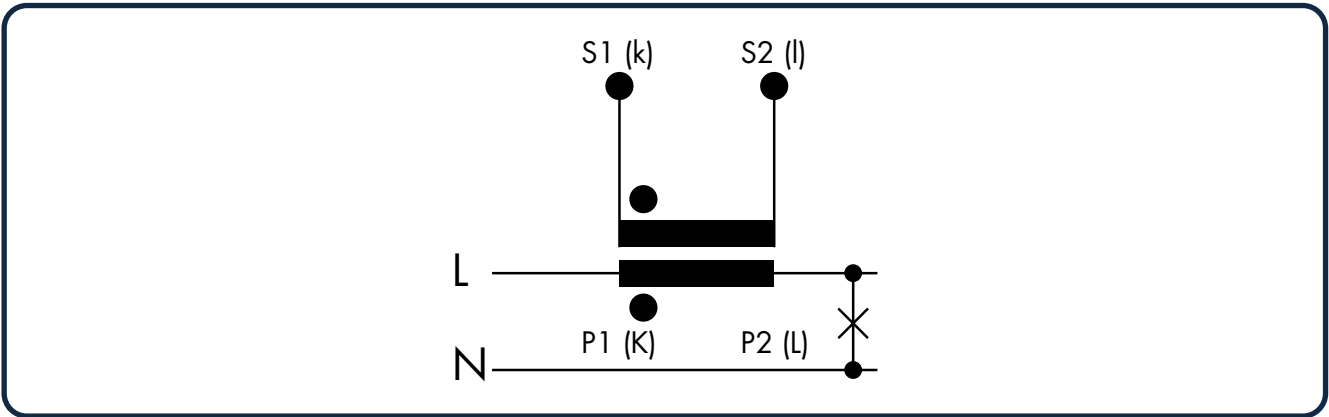
Voltage in...voltage out. Installation becomes even 10 times faster.





In case of existing lines, space saving is ensured by triple Cts suitable for the pitch of the most popular switches.










# Installation procedure






## CTs wiring diagrams





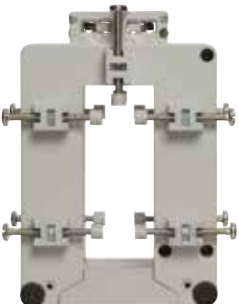






Solid-core current transformer	Primary current (A)	Burden (VA)			References Secondary 5A	Certifications	
		Class 0.5	Class 1	Class 3			
<b>CTD1Z</b>  Hole: Ø21.5 mm Bus-bar size: 19 x 4 mm	50			1.5	CTD1Z505AXXX	CE	
	100		2.5		CTD1Z1005AXXX	CE	
	125		2.5		CTD1Z1255AXXX	CE	
	150		2.5		CTD1Z1505AXXX	CE	
	200		3.75		CTD1Z2005AXXX	CE	
<b>CTD1X</b>  Hole: Ø23.3 mm Bus-bar size: 20 x 5 mm	50		1	1.25	CTD1X505AXXX	CE - cURus - CSA	
	60		1	1.25	CTD1X605AXXX	CE - cURus - CSA	
	70		1.5	1.75	CTD1X705AXXX	CE - cURus - CSA	
	75	1	1.25	1.75	CTD1X755AXXX	CE - cURus - CSA	
	80	1.25	1.5	2	CTD1X805AXXX	CE - cURus - CSA	
	100	1.5	1.75	2.25	CTD1X1005AXXX	CE - cURus - CSA	
	120	1.75	2	2.5	CTD1X1205AXXX	CE - cURus - CSA	
	125	1.75	2.25	2.75	CTD1X1255AXXX	CE - cURus - CSA	
	150	2.25	2.5	3	CTD1X1505AXXX	CE - cURus - CSA	
	160	2.5	2.75	3.25	CTD1X1605AXXX	CE - cURus - CSA	
	200	2.5	3.25	3.75	CTD1X2005AXXX	CE - cURus - CSA	
	250	3.25	4.75	5.25	CTD1X2505AXXX	CE - cURus - CSA	
	300	5	5.5	6	CTD1X3005AXXX	CE - cURus - CSA	
	<b>CTD2X</b>  Hole: Ø24 mm Bus-bar size: 30 x 10 mm / 25 x 20 mm	40			1.25	CTD2X405AXXX	CE - cURus - CSA
		50			1.5	CTD2X505AXXX	CE - cURus - CSA
60				2	CTD2X605AXXX	CE - cURus - CSA	
70				2.5	CTD2X705AXXX	CE - cURus - CSA	
75			1.75	2.5	CTD2X755AXXX	CE - cURus - CSA	
80			2	2.75	CTD2X805AXXX	CE - cURus - CSA	
100			2.5	3	CTD2X1005AXXX	CE - cURus - CSA	
120			2.75	3.75	CTD2X1205AXXX	CE - cURus - CSA	
125		2	2.75	3.75	CTD2X1255AXXX	CE - cURus - CSA	
150		3	4	5	CTD2X1505AXXX	CE - cURus - CSA	
160		3	4	5	CTD2X1605AXXX	CE - cURus - CSA	
200		4	5	6.5	CTD2X2005AXXX	CE - cURus - CSA	
250		5.5	7	8	CTD2X2505AXXX	CE - cURus - CSA	
300		7	8.5	9.5	CTD2X3005AXXX	CE - cURus - CSA	
400		12	13.5	14.5	CTD2X4005AXXX	CE - cURus - CSA	
500		14	15.5	16.5	CTD2X5005AXXX	CE - cURus - CSA	
<b>CTD3X</b>  Hole: Ø41 mm Bus-bar size: 51 x 15 mm / 40 x 20 mm		50			1.75	CTD3X505AXXX	CE - cURus - CSA
	60			2	CTD3X605AXXX	CE - cURus - CSA	
	70			2.5	CTD3X705AXXX	CE - cURus - CSA	
	75			3	CTD3X755AXXX	CE - cURus - CSA	
	80			3	CTD3X805AXXX	CE - cURus - CSA	
	100		2	3.5	CTD3X1005AXXX	CE - cURus - CSA	
	120		2.25	4	CTD3X1205AXXX	CE - cURus - CSA	
	125		2.5	4.5	CTD3X1255AXXX	CE - cURus - CSA	
	150	2.25	3	6	CTD3X1505AXXX	CE - cURus - CSA	
	160	2.5	3.5	6.5	CTD3X1605AXXX	CE - cURus - CSA	
	200	3	4.5	8.5	CTD3X2005AXXX	CE - cURus - CSA	
	250	3.5	6.5	10.5	CTD3X2505AXXX	CE - cURus - CSA	
	300	7	10	13	CTD3X3005AXXX	CE - cURus - CSA	
	400	9	14	17	CTD3X4005AXXX	CE - cURus - CSA	
	500	14	18	21	CTD3X5005AXXX	CE - cURus - CSA	
600	17	21	24	CTD3X6005AXXX	CE - cURus - CSA		
700	22	26	29	CTD3X7005AXXX	CE - cURus - CSA		
750	24	28	31	CTD3X7505AXXX	CE - cURus - CSA		
800	25	29	32	CTD3X8005AXXX	CE - cURus - CSA		

Solid-core current transformer	Primary current (A)	Burden (VA)			References Secondary 5A	Certifications
		Class 0.5	Class 1	Class 3		
<b>CTD4X</b> 	150		2.25		CTD4X1505AXXX	CE - cURus - CSA
	200		3.25		CTD4X2005AXXX	CE - cURus - CSA
	250	2.5	4.5		CTD4X2505AXXX	CE - cURus - CSA
	300	3	4		CTD4X3005AXXX	CE - cURus - CSA
	400	6	9		CTD4X4005AXXX	CE - cURus - CSA
	500	10	12.5		CTD4X5005AXXX	CE - cURus - CSA
	600	11	13.5		CTD4X6005AXXX	CE - cURus - CSA
	700	12.5	15		CTD4X7005AXXX	CE - cURus - CSA
	750	13	15.5		CTD4X7505AXXX	CE - cURus - CSA
	800	14	16.5		CTD4X8005AXXX	CE - cURus - CSA
	1000	17.5	20		CTD4X10005AXXX	CE - cURus - CSA
	1200	20	22.5		CTD4X12005AXXX	CE - cURus - CSA
	1250	20	22.5		CTD4X12505AXXX	CE - cURus - CSA
	1500	27.5	30		CTD4X15005AXXX	CE - cURus - CSA
	1600	27.5	30		CTD4X16005AXXX	CE - cURus - CSA
<b>CTD8V</b> 	150			2	CTD8V1505AXXX	CE - cURus - CSA
	200			4	CTD8V2005AXXX	CE - cURus - CSA
	250			5	CTD8V2505AXXX	CE - cURus - CSA
	300		2	6	CTD8V3005AXXX	CE - cURus - CSA
	400	4	5	8	CTD8V4005AXXX	CE - cURus - CSA
	500	4	5	10	CTD8V5005AXXX	CE - cURus - CSA
	600	6	10	12	CTD8V6005AXXX	CE - cURus - CSA
	700	6	10	12	CTD8V7005AXXX	CE - cURus - CSA
	750	8	12	15	CTD8V7505AXXX	CE - cURus - CSA
	800	8	12	15	CTD8V8005AXXX	CE - cURus - CSA
	1000	10	15	20	CTD8V10005AXXX	CE - cURus - CSA
	1200	12	15	20	CTD8V12005AXXX	CE - cURus - CSA
	1250	12	15	20	CTD8V12505AXXX	CE - cURus - CSA
	1500	20	25	25	CTD8V15005AXXX	CE - cURus - CSA
	1600	20	25	25	CTD8V16005AXXX	CE - cURus - CSA
<b>CTD8H</b> 	150			2	CTD8H1505AXXX	CE - cURus - CSA
	200			4	CTD8H2005AXXX	CE - cURus - CSA
	250			5	CTD8H2505AXXX	CE - cURus - CSA
	300		2	6	CTD8H3005AXXX	CE - cURus - CSA
	400	4	5	8	CTD8H4005AXXX	CE - cURus - CSA
	500	4	5	10	CTD8H5005AXXX	CE - cURus - CSA
	600	6	10	12	CTD8H6005AXXX	CE - cURus - CSA
	700	6	10	12	CTD8H7005AXXX	CE - cURus - CSA
	750	8	12	15	CTD8H7505AXXX	CE - cURus - CSA
	800	8	12	15	CTD8H8005AXXX	CE - cURus - CSA
	1000	10	15	20	CTD8H10005AXXX	CE - cURus - CSA
	1200	12	15	20	CTD8H12005AXXX	CE - cURus - CSA
	1250	12	15	20	CTD8H12505AXXX	CE - cURus - CSA
	1500	20	25	25	CTD8H15005AXXX	CE - cURus - CSA
	1600	20	25	25	CTD8H16005AXXX	CE - cURus - CSA
<b>CTD8V</b> Hole: Ø31 mm Bus-bar size: 31 x 81 mm	2000	20	25	30	CTD8V20005AXXX	CE
	2500	30	40	40	CTD8V25005AXXX	CE
<b>CTD8H</b> Hole: Ø31 mm Bus-bar size: 81 x 31 mm	2000	20	25	30	CTD8H20005AXXX	CE
	2500	30	40	40	CTD8H25005AXXX	CE







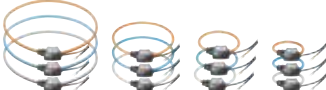




Solid-core current transformer	Primary current (A)	Burden (VA)			References Secondary 5A	Certifications
		Class 0.5	Class 1	Class 3		
<b>CTD8Q</b>  Hole: Ø55 mm Bus-bar size: 100 x 55 mm	1000	15			CTD8Q10005AXXX	CE
	1500	15			CTD8Q15005AXXX	CE
	2000	15			CTD8Q20005AXXX	CE
	2500	15			CTD8Q25005AXXX	CE
	3000	15			CTD8Q30005AXXX	CE
	4000	15			CTD8Q40005AXXX	CE
<b>CTD9V</b>  Hole: Ø36 mm Bus-bar size: 36 x 126 mm	400		3	6	CTD9V4005AXXX	CE - cURus - CSA
	500	6	9		CTD9V5005AXXX	CE - cURus - CSA
	600	11	13		CTD9V6005AXXX	CE - cURus - CSA
	700	12	15		CTD9V7005AXXX	CE - cURus - CSA
	750	12	15		CTD9V7505AXXX	CE - cURus - CSA
	800	12	15		CTD9V8005AXXX	CE - cURus - CSA
	1000	15	20		CTD9V10005AXXX	CE - cURus - CSA
	1200	20	25		CTD9V12005AXXX	CE - cURus - CSA
	1250	20	25		CTD9V12505AXXX	CE - cURus - CSA
	1500	20	30		CTD9V15005AXXX	CE - cURus - CSA
	1600	25	35		CTD9V16005AXXX	CE - cURus - CSA
	2000	25	40		CTD9V20005AXXX	CE - cURus - CSA
	2500	25	40		CTD9V25005AXXX	CE
	3000	25	40		CTD9V30005AXXX	CE
<b>CTD9H</b>  Hole: Ø36 mm Bus-bar size: 126 x 36 mm	400		3	6	CTD9H4005AXXX	CE - cURus - CSA
	500	6	9		CTD9H5005AXXX	CE - cURus - CSA
	600	11	13		CTD9H6005AXXX	CE - cURus - CSA
	700	12	15		CTD9H7005AXXX	CE - cURus - CSA
	750	12	15		CTD9H7505AXXX	CE - cURus - CSA
	800	12	15		CTD9H8005AXXX	CE - cURus - CSA
	1000	15	20		CTD9H10005AXXX	CE - cURus - CSA
	1200	20	25		CTD9H12005AXXX	CE - cURus - CSA
	1250	20	25		CTD9H12505AXXX	CE - cURus - CSA
	1500	20	30		CTD9H15005AXXX	CE - cURus - CSA
	1600	25	35		CTD9H16005AXXX	CE - cURus - CSA
	2000	25	40		CTD9H20005AXXX	CE - cURus - CSA
	2500	25	40		CTD9H25005AXXX	CE
	3000	25	40		CTD9H30005AXXX	CE
<b>CTD10V</b>  Hole: Ø51 mm Bus-bar size: 51 x 126 mm	400		7	10	CTD10V4005AXXX	CE - cURus - CSA
	500	6	9	14	CTD10V5005AXXX	CE - cURus - CSA
	600	11	13	17	CTD10V6005AXXX	CE - cURus - CSA
	700	12	15	20	CTD10V7005AXXX	CE - cURus - CSA
	750	12	15	20	CTD10V7505AXXX	CE - cURus - CSA
	800	12	15	20	CTD10V8005AXXX	CE - cURus - CSA
	1000	15	20	25	CTD10V10005AXXX	CE - cURus - CSA
	1200	20	25	30	CTD10V12005AXXX	CE - cURus - CSA
	1250	20	25	30	CTD10V12505AXXX	CE - cURus - CSA
	1500	20	30	40	CTD10V15005AXXX	CE - cURus - CSA
	1600	25	35	40	CTD10V16005AXXX	CE - cURus - CSA
	2000	25	40	50	CTD10V20005AXXX	CE - cURus - CSA
	2500	25	40	60	CTD10V25005AXXX	CE
	3000	30	50	60	CTD10V30005AXXX	CE
3200	30	50	60	CTD10V32005AXXX	CE	

Solid-core current transformer	Primary current (A)	Burden (VA)			References Secondary 5A	Certifications
		Class 0.5	Class 1	Class 3		
<b>CTD10H</b>  <p>Hole: Ø51 mm Bus-bar size: 126 x 51 mm</p>	400		7	10	CTD10H4005AXXX	CE - cURus - CSA
	500	3	10	14	CTD10H5005AXXX	CE - cURus - CSA
	600	5	12	17	CTD10H6005AXXX	CE - cURus - CSA
	700	8	15	20	CTD10H7005AXXX	CE - cURus - CSA
	750	10	15	20	CTD10H7505AXXX	CE - cURus - CSA
	800	10	15	20	CTD10H8005AXXX	CE - cURus - CSA
	1000	12	20	25	CTD10H10005AXXX	CE - cURus - CSA
	1200	15	25	30	CTD10H12005AXXX	CE - cURus - CSA
	1250	15	25	30	CTD10H12505AXXX	CE - cURus - CSA
	1500	20	30	40	CTD10H15005AXXX	CE - cURus - CSA
	1600	20	30	40	CTD10H16005AXXX	CE - cURus - CSA
	2000	25	40	50	CTD10H20005AXXX	CE - cURus - CSA
	2500	30	50	60	CTD10H25005AXXX	CE
	3000	30	50	60	CTD10H30005AXXX	CE
3200	30	50	60	CTD10H32005AXXX	CE	
<b>CTD11V</b>  <p>Hole: Ø38 mm Bus-bar size: 38 x 127 mm</p>	1000	15			CTD11V10005AXXX	CE
	1500	15			CTD11V15005AXXX	CE
	2000	15			CTD11V20005AXXX	CE
	2500	15			CTD11V25005AXXX	CE
	3000	15			CTD11V30005AXXX	CE
	4000	15			CTD11V40005AXXX	CE
<b>CTD11H</b>  <p>Hole: Ø38 mm Bus-bar size: 127 x 38 mm</p>	1000	15			CTD11H10005AXXX	CE
	1500	15			CTD11H15005AXXX	CE
	2000	15			CTD11H20005AXXX	CE
	2500	15			CTD11H25005AXXX	CE
	3000	15			CTD11H30005AXXX	CE
	4000	15			CTD11H40005AXXX	CE
<b>CTD12V</b>  <p>Hole: Ø54 mm Bus-bar size: 54 x 127 mm</p>	1000	15			CTD12V10005AXXX	CE
	1500	15			CTD12V15005AXXX	CE
	2000	15			CTD12V20005AXXX	CE
	2500	15			CTD12V25005AXXX	CE
	3000	15			CTD12V30005AXXX	CE
	4000	15			CTD12V40005AXXX	CE
<b>CTD12H</b>  <p>Hole: Ø54 mm Bus-bar size: 127 x 54 mm</p>	1000	15			CTD12H10005AXXX	CE
	1500	15			CTD12H15005AXXX	CE
	2000	15			CTD12H20005AXXX	CE
	2500	15			CTD12H25005AXXX	CE
	3000	15			CTD12H30005AXXX	CE
	4000	15			CTD12H40005AXXX	CE

Split code current transformer	Primary current (A)	Burden (VA)		References Secondary 5A	Certifications
		Class 1	Class 3		
<b>CTA5X</b>  Hole: Ø24 mm Secondary cable length: 1 m	100		1 VA	CTA5X100A5A	CE - cURus
	150		1 VA	CTA5X150A5A	CE - cURus
	200		1 VA	CTA5X200A5A	CE - cURus
	250	1 VA		CTA5X250A5A	CE - cURus
	300	2.5 VA		CTA5X300A5A	CE - cURus
<b>CTA6X</b>  Hole: Ø36 mm Secondary cable length: 1 m	200		1 VA	CTA6X200A5A	CE - cURus
	300	2.5 VA		CTA6X300A5A	CE - cURus
	400	5 VA		CTA6X400A5A	CE - cURus
	500	7.5 VA		CTA6X500A5A	CE - cURus
	600	10 VA		CTA6X600A5A	CE - cURus
<b>CTD5S</b>  Hole: Ø26 mm Bus-bar size: 26 x 32 mm	100		1.5	CTD 5S1005AXXX	CE - cURus - CSA
	125	1	1.5	CTD 5S1255AXXX	CE - cURus - CSA
	150	1.5	2.5	CTD 5S1505AXXX	CE - cURus - CSA
	200	1.5	5	CTD 5S2005AXXX	CE - cURus - CSA
	250	1.5	5	CTD 5S2505AXXX	CE - cURus - CSA
	300	2.5	7.5	CTD 5S3005AXXX	CE - cURus - CSA
	400	5	8	CTD 5S4005AXXX	CE - cURus - CSA
<b>CTD6S</b>  Hole: Ø50 mm Bus-bar size: 50 x 52 mm	150		1.5	CTD 6S1505AXXX	CE - cURus - CSA
	200	1.5	2	CTD 6S2005AXXX	CE - cURus - CSA
	250	1.5	4	CTD 6S2505AXXX	CE - cURus - CSA
	300	2.5	5	CTD 6S3005AXXX	CE - cURus - CSA
	400	3	6	CTD 6S4005AXXX	CE - cURus - CSA
	500	5	10	CTD 6S5005AXXX	CE - cURus - CSA
	600	7.5	15	CTD 6S6005AXXX	CE - cURus - CSA
	700	7.5	15	CTD 6S7005AXXX	CE - cURus - CSA
	800	10	15	CTD 6S8005AXXX	CE - cURus - CSA
	1000	10	15	CTD 6S10005AXXX	CE - cURus - CSA
<b>CTD8S</b>  Hole: Ø31 mm Bus-bar size: 31 x 81 mm	150		1.5	CTD 8S1505AXXX	CE - cURus - CSA
	200	1.5	2	CTD 8S2005AXXX	CE - cURus - CSA
	250	1.5	5	CTD 8S2505AXXX	CE - cURus - CSA
	300	2.5	5	CTD 8S3005AXXX	CE - cURus - CSA
	400	3	5	CTD 8S4005AXXX	CE - cURus - CSA
	500	5	10	CTD 8S5005AXXX	CE - cURus - CSA
	600	7.5	15	CTD 8S6005AXXX	CE - cURus - CSA
	700	7.5	15	CTD 8S7005AXXX	CE - cURus - CSA
	750	10	15	CTD 8S7505AXXX	CE - cURus - CSA
	800	10	15	CTD 8S8005AXXX	CE - cURus - CSA
	1000	10	15	CTD 8S10005AXXX	CE - cURus - CSA
	1200	20	25	CTD 8S12005AXXX	CE - cURus - CSA
	1250	20	25	CTD 8S12505AXXX	CE - cURus - CSA
	1500	20	30	CTD 8S15005AXXX	CE - cURus - CSA
	1600	20	30	CTD 8S16005AXXX	CE - cURus - CSA
2000	20	30	CTD 8S20005AXXX	CE	
2500	30	50	CTD 8S25005AXXX	CE	

Split code current transformer	Primary current (A)	Burden (VA)			References Secondary 5A	Certifications
		Class 0.5	Class 1	Class 3		
<b>CTD9S</b>  <p>Hole: Ø36 mm Bus-bar size: 36 x 126 mm</p>	400		5	8	CTD 9S4005AXXX	CE - cURus - CSA
	500		3	10	CTD 9S5005AXXX	CE - cURus - CSA
	600		5	10	CTD 9S6005AXXX	CE - cURus - CSA
	700		10	15	CTD 9S7005AXXX	CE - cURus - CSA
	750		10	15	CTD 9S7505AXXX	CE - cURus - CSA
	800		10	15	CTD 9S8005AXXX	CE - cURus - CSA
	1000		12	20	CTD 9S10005AXXX	CE - cURus - CSA
	1200		15	20	CTD 9S12005AXXX	CE - cURus - CSA
	1250		15	25	CTD 9S12505AXXX	CE - cURus - CSA
	1500		20	30	CTD 9S15005AXXX	CE - cURus - CSA
	1600		20	30	CTD 9S16005AXXX	CE - cURus - CSA
	2000		25	40	CTD 9S20005AXXX	CE - cURus - CSA
	2500		30	50	CTD 9S25005AXXX	CE
	3000		30	50	CTD 9S30005AXXX	CE
	3200		30	50	CTD 9S32005AXXX	CE
	<b>CTD10S</b>  <p>Hole: Ø51 mm Bus-bar size: 51 x 126 mm</p>	400		1	8	CTD 10S4005AXXX
500			3	10	CTD 10S5005AXXX	CE - cURus - CSA
600			5	12	CTD 10S6005AXXX	CE - cURus - CSA
700			10	15	CTD 10S7005AXXX	CE - cURus - CSA
750			10	15	CTD 10S7505AXXX	CE - cURus - CSA
800			10	15	CTD 10S8005AXXX	CE - cURus - CSA
1000			12	20	CTD 10S10005AXXX	CE - cURus - CSA
1200			15	20	CTD 10S12005AXXX	CE - cURus - CSA
1250			15	25	CTD 10S12505AXXX	CE - cURus - CSA
1500			20	30	CTD 10S15005AXXX	CE - cURus - CSA
1600			20	30	CTD 10S16005AXXX	CE - cURus - CSA
2000			25	40	CTD 10S20005AXXX	CE - cURus - CSA
2500			30	50	CTD 10S25005AXXX	CE
3000			30	50	CTD 10S30005AXXX	CE
3200			30	50	CTD 10S32005AXXX	CE
<b>TADK</b> 		1	10			TADK1A5A
	5	10			TADK5A5A	CE
	10	10			TADK10A5A	CE
	15	10			TADK15A5A	CE
	25	10			TADK25A5A	CE
	40	10			TADK40A5A	CE
<b>TADK2</b> 	1	10			TADK21A5A	CE
	5	10			TADK25A5A	CE
	10	10			TADK210A5A	CE
	15	10			TADK215A5A	CE
	25	10			TADK225A5A	CE
	40	10			TADK240A5A	CE
	50	10			TADK250A5A	CE
	60	10			TADK260A5A	CE
	80	10			TADK280A5A	CE
	100	10			TADK2100A5A	CE
	150	10			TADK2150A5A	CE
	200	10			TADK2200A5A	CE
	250	10			TADK2250A5A	CE

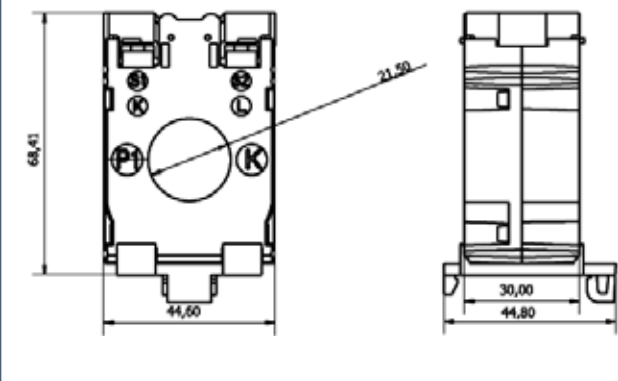


Series	Energy meter	Primary current (A)	Dimensions (mm)	Accuracy Class	Cable Length (m)	Product code	Certifications
<b>CTV 1X</b>							
	EM21072DMV	60	Hole: Ø10.0 Size: 28.0 x 40.0	1	1.8	CTV1X60A333MV	CE - cURus
<b>CTV 2X</b>							
	EM21072DMV	100	Hole: Ø16.0 Size: 32.0 x 45.0	1	1.5	CTV2X100A333MV	CE - cURus
<b>CTV 3X</b>							
	EM21072DMV	200	Hole: Ø15.5 Size: 41.0 x 66.0	1	1.5	CTV3X200A333MV	CE - cURus
<b>CTV 4X</b>							
	EM21072DMV	200 400	Hole: Ø20.5 Size: 50.0 x 78.0	1	2.0	CTV4X400A333MV	CE - cURus
<b>CTV 6X</b>							
	EM21072DMV	400	Hole: Ø36.0 Size: 57.0 x 84.0	1	1.0	CTV6X400A333MV	CE - cURus
<b>CTV 8X</b>							
	EM21072DMV	800	Hole: 50.0 x 90.0 Size: 110.0 x 155.0	1	-	CTV8X800A333MV	CE - cURus
<b>ROG4X</b>							
	EM21072DMV	4000	Hole: Ø ~75, Ø ~100, Ø ~180, Ø ~275 Coil size: Ø ~ 8,3	1	2.0	ROG4X1002M2503X ROG4X1002M3503X ROG4X1002M6003X ROG4X1002M9003X	CE - cURus
<b>TCD0M</b>							
	EM271	60	Hole: Ø9.6 Size: 26 x 40 x 26	0.5	0.8	TCD0M6080CMX	EM271 dedicated sensors (EM271: CE - cULus)
<b>TCD1M</b>							
	EM271	100	Hole: Ø15.7 Size: 31 x 46 x 31	0.5	0.8	TCD1M10080CMX	EM271 dedicated sensors (EM271: CE - cULus)
<b>TCD2M</b>							
	EM271	200	Hole: Ø15.5 Size: 41 x 66 x 38	0.5	0.8	TCD2M20080CMX	EM271 dedicated sensors (EM271: CE - cULus)
<b>TCD3M</b>							
	EM271	400	Hole: Ø20.5 Size: 50 x 78 x 39	0.5	0.8	TCD3M40080CMX	EM271 dedicated sensors (EM271: CE - cULus)

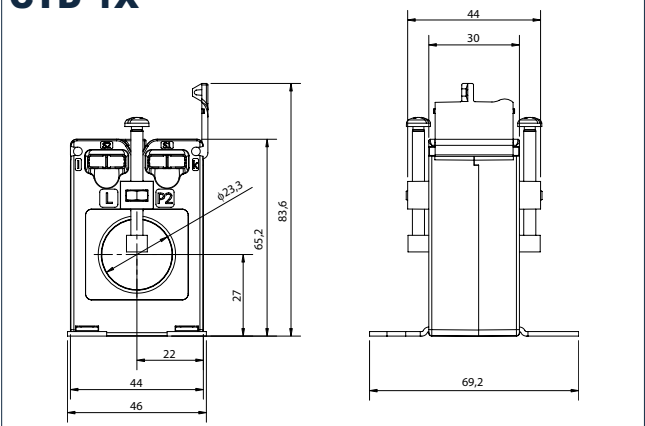


Series	Energy meter	Primary current (A)	Dimensions (mm)	Accuracy Class	Cable length (m)	Product code	Certifications
	EM270	65	Bus-bar Size: 8.5 x 16.0 Interaxis: 18.0 Size: 53 x 92.5 x 28.9	0.5	0.8	TCD0W6580CMX	EM270 dedicated sensors (EM270: CE - cULus)
	EM270	65	Bus-bar Size: 8.5 x 16.0 Interaxis: 18.0 Size: 53 x 92.5 x 28.9	0.5	1.5	TCD0W65150CMX	EM270 dedicated sensors (EM270: CE - cULus)
	EM270	65	Bus-bar Size: 8.5 x 16.0 Interaxis: 18.0 Size: 53 x 92.5 x 28.9	0.5	2.0	TCD0W65200CMX	EM270 dedicated sensors (EM270: CE - cULus)
	EM270	160	Bus-bar Size: 15.9 x 30.5 Interaxis: 25.0 Size: 72 x 75 x 66.8	0.5	0.8	TCD1X16080CMX	EM270 dedicated sensors (EM270: CE - cULus)
	EM270	160	Bus-bar Size: 15.9 x 30.5 Interaxis: 25.0 Size: 72 x 75 x 66.8	0.5	1.5	TCD1X160150CMX	EM270 dedicated sensors (EM270: CE - cULus)
	EM270	160	Bus-bar Size: 15.9 x 30.5 Interaxis: 25.0 Size: 72 x 75 x 66.8	0.5	2.0	TCD1X160200CMX	EM270 dedicated sensors (EM270: CE - cULus)
	EM270	250	Bus-bar Size: 21.3 x 25.3 Interaxis: 35.0 Size: 72 x 105 x 50	0.5	0.8	TCD2X25080CMX	EM270 dedicated sensors (EM270: CE - cULus)
	EM270	250	Bus-bar Size: 21.3 x 25.3 Interaxis: 35.0 Size: 72 x 105 x 50	0.5	1.5	TCD2X250150CMX	EM270 dedicated sensors (EM270: CE - cULus)
	EM270	250	Bus-bar Size: 21.3 x 25.3 Interaxis: 35.0 Size: 72 x 105 x 50	0.5	2.0	TCD2X250200CMX	EM270 dedicated sensors (EM270: CE - cULus)
	EM270	630	Bus-bar Size: 31.3 x 31.3 Interaxis: 45.0 Size: 78 x 135 x 50	0.5	0.8	TCD3X63080CMX	EM270 dedicated sensors (EM270: CE - cULus)
	EM270	630	Bus-bar Size: 31.3 x 31.3 Interaxis: 45.0 Size: 78 x 135 x 50	0.5	1.5	TCD3X630150CMX	EM270 dedicated sensors (EM270: CE - cULus)
	EM270	630	Bus-bar Size: 31.3 x 31.3 Interaxis: 45.0 Size: 78 x 135 x 50	0.5	2.0	TCD3X630200CMX	EM270 dedicated sensors (EM270: CE - cULus)
	EM280	32	Hole: Ø7.0 Interaxis: 17.5 Size: 118 x 53 x 34	0.5	0.8	TCD06BX3280CMX	EM280 dedicated sensors (EM280: CE - cULus)
	EM280	32	Hole: Ø7.0 Interaxis: 17.5 Size: 118 x 53 x 34	0.5	1.5	TCD06BX32150CMX	EM280 dedicated sensors (EM280: CE - cULus)
	EM280	32	Hole: Ø7.0 Interaxis: 17.5 Size: 118 x 53 x 34	0.5	2.0	TCD06BX32200CMX	EM280 dedicated sensors (EM280: CE - cULus)
	EM280	32	Hole: Ø8.5 Interaxis: 17.5 Size: 118 x 45 x 59	0.5	0.8	TCD06BS3280CMX	EM280 dedicated sensors (EM280: CE - cULus)
	EM280	32	Hole: Ø8.5 Interaxis: 17.5 Size: 118 x 45 x 59	0.5	1.5	TCD06BS32150CMX	EM280 dedicated sensors (EM280: CE - cULus)
	EM280	32	Hole: Ø8.5 Interaxis: 17.5 Size: 118 x 45 x 59	0.5	2.0	TCD06BS32200CMX	EM280 dedicated sensors (EM280: CE - cULus)
	WM50	65	Hole: Ø8.5 Interaxis: 17.5 Size: 221x54x49	0.5	TCD12WSS2T1030: 0.3 TCD12WSS2T1050: 0.5 TCD12WSS2T1100: 1.0 TCD12WSS2T1200: 2.0 TCD12WSS2T1300: 3.0 TCD12WSS2T1500: 5.0	TCD12BS32AX	WM50 dedicated sensors (WM50: CE - cULus)

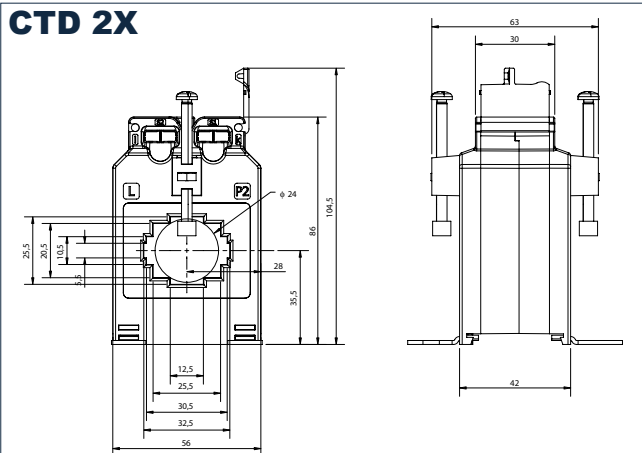
### CTD 1Z



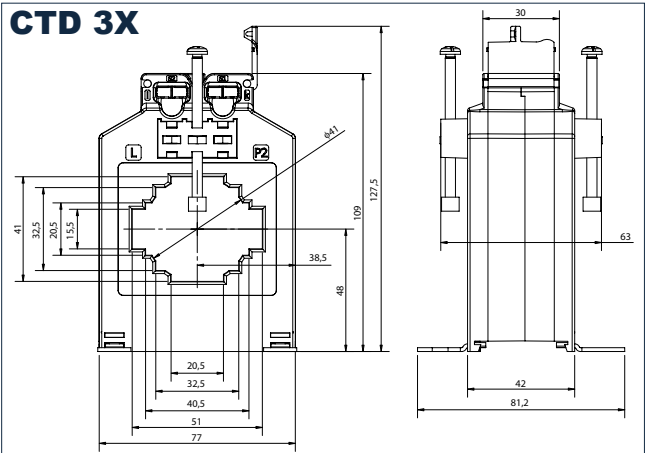
### CTD 1X



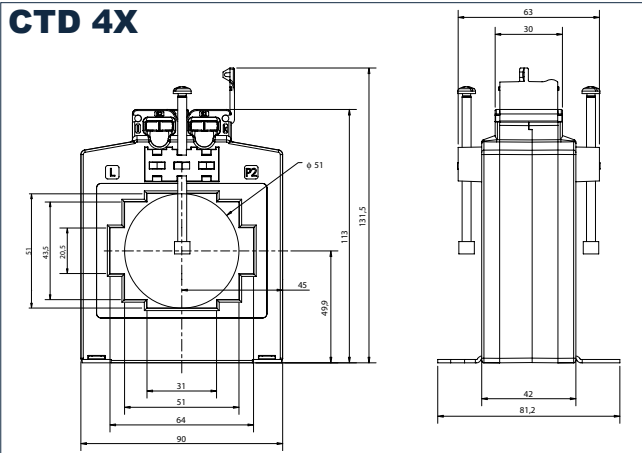
### CTD 2X



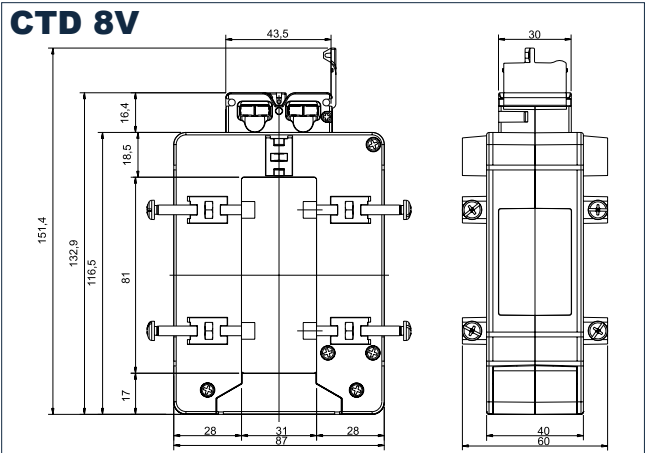
### CTD 3X



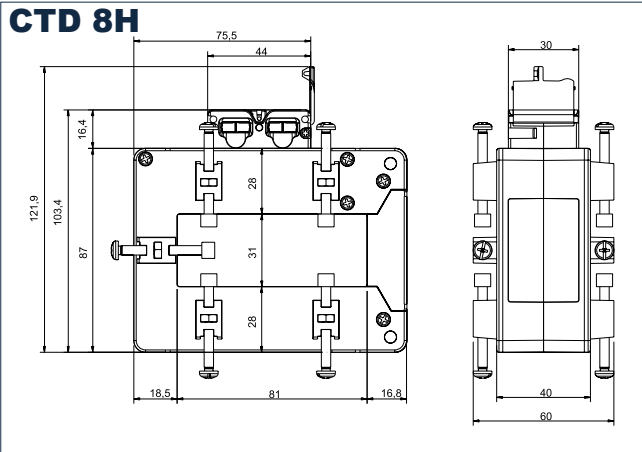
### CTD 4X



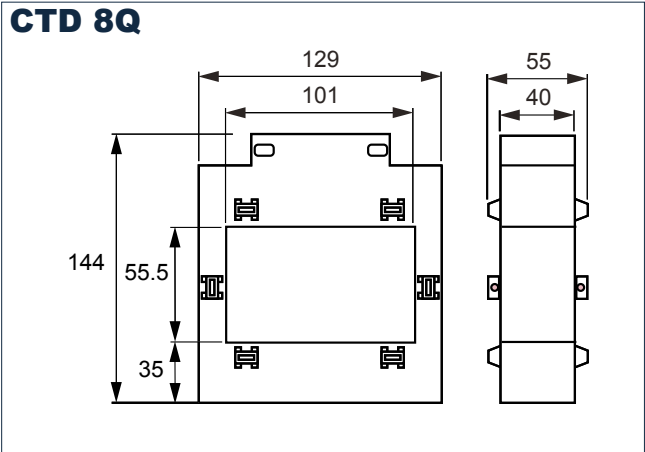
### CTD 8V

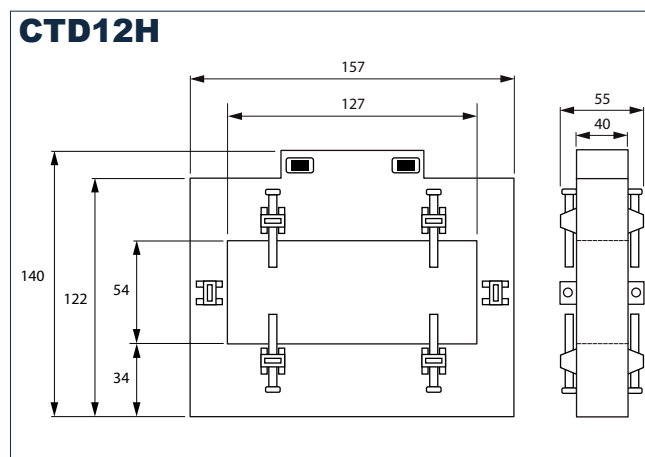
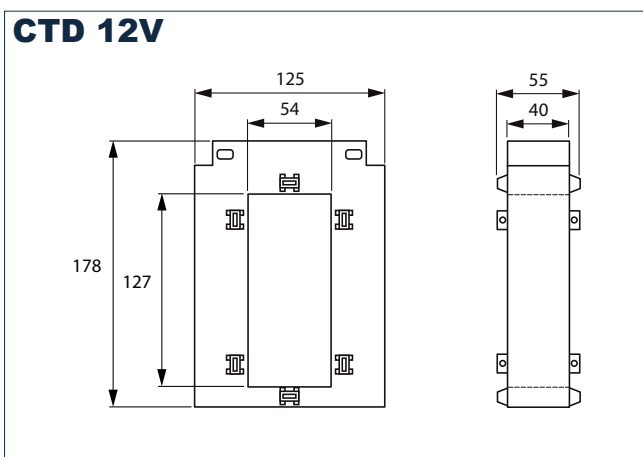
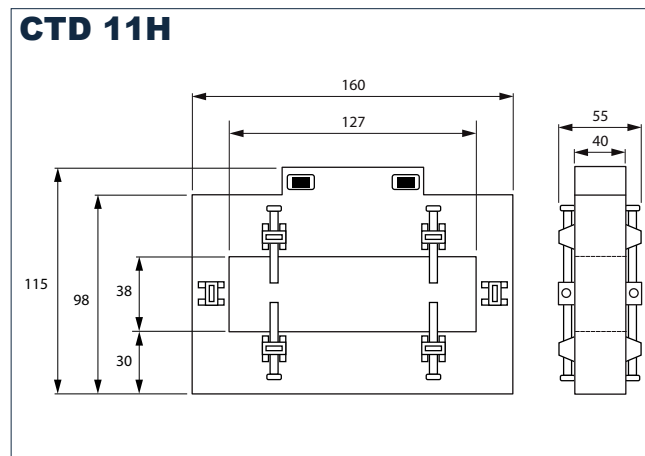
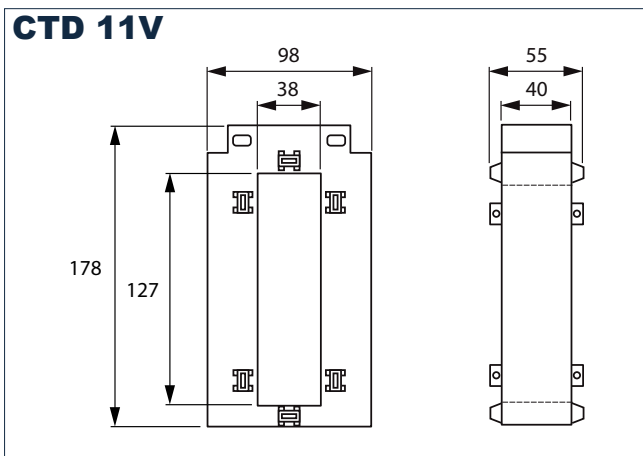
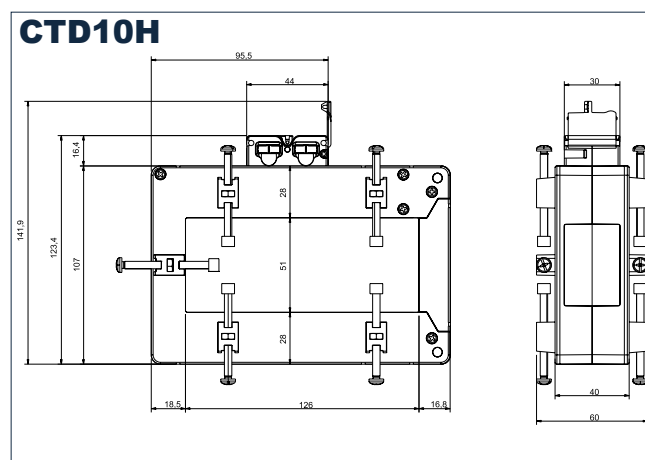
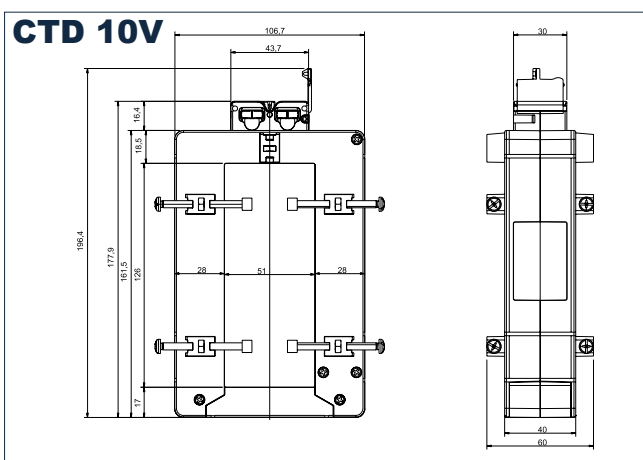
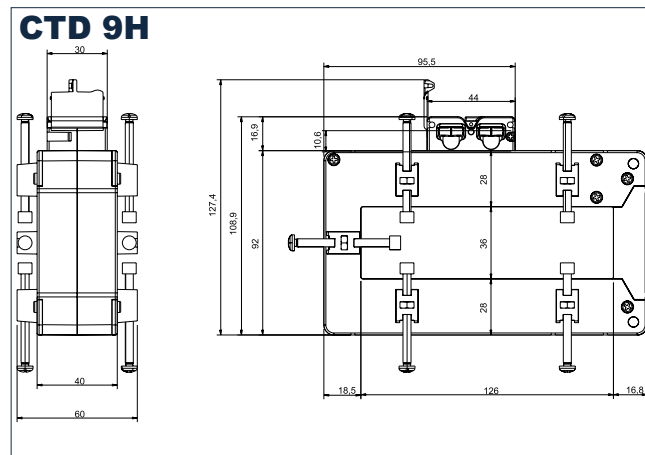
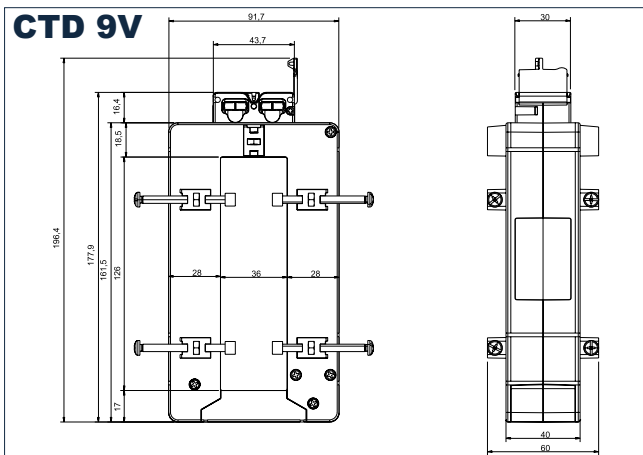


### CTD 8H

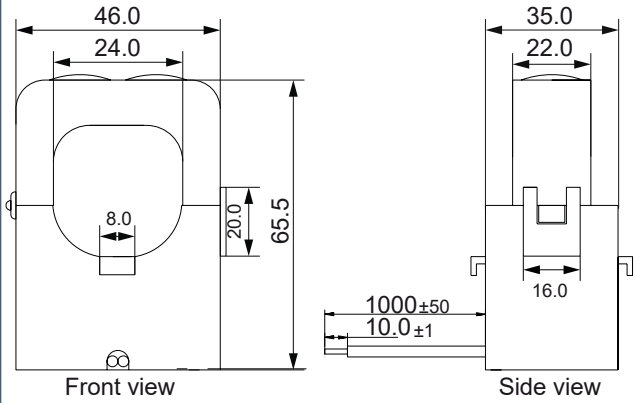


### CTD 8Q

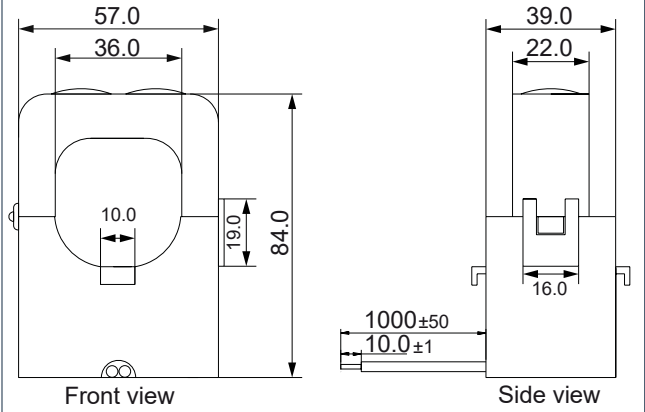




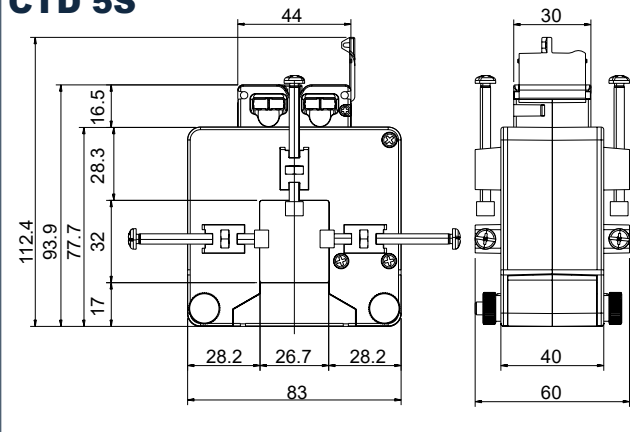
**CTA 5X**



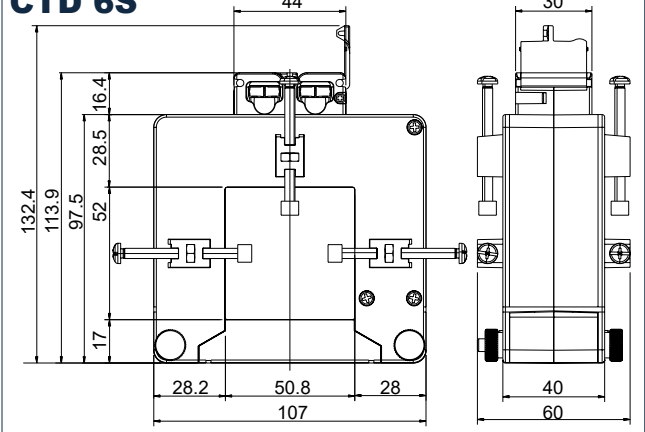
**CTA 6X**



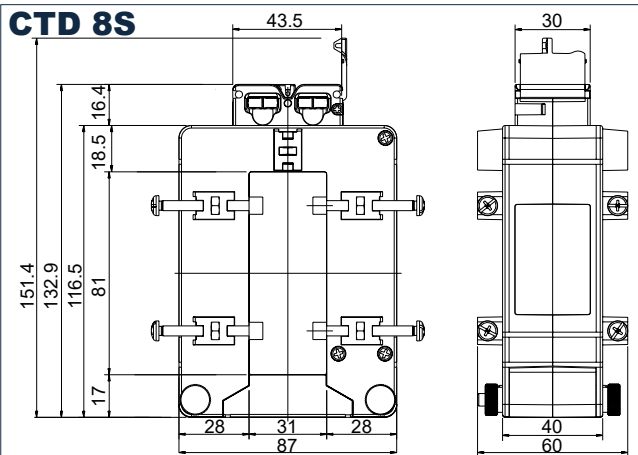
**CTD 5S**



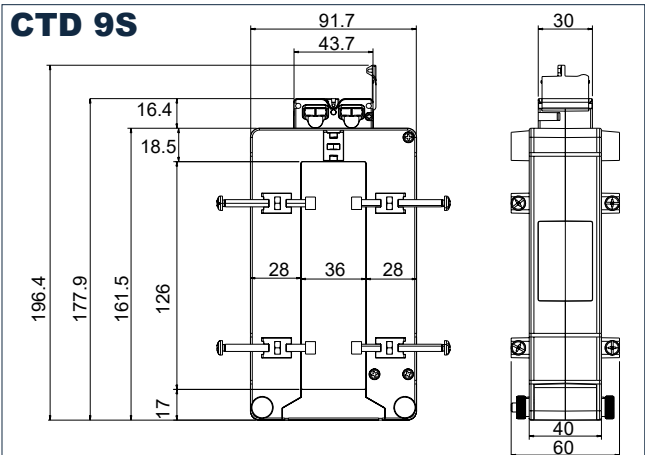
**CTD 6S**



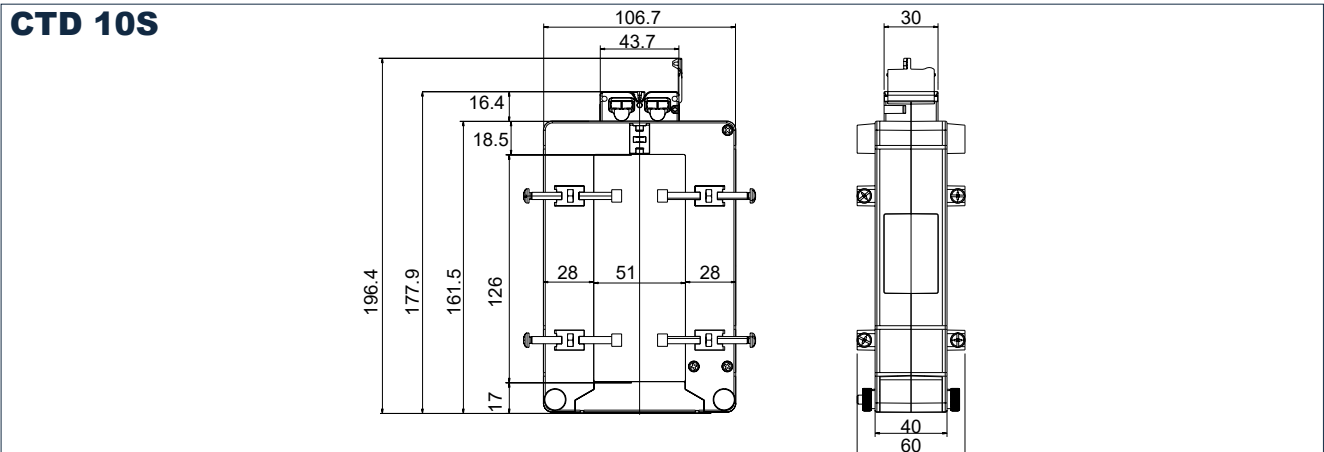
**CTD 8S**

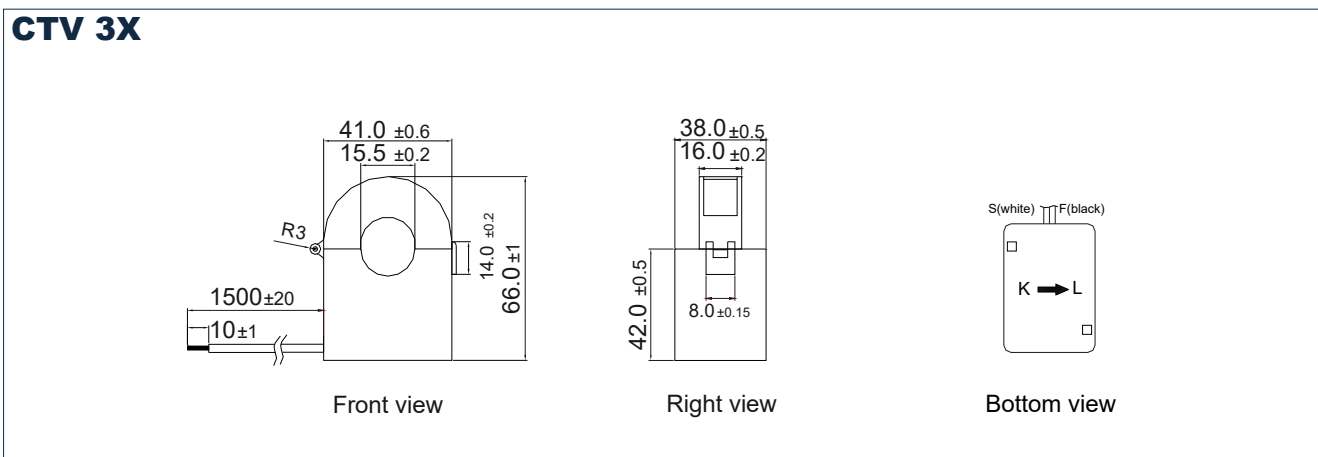
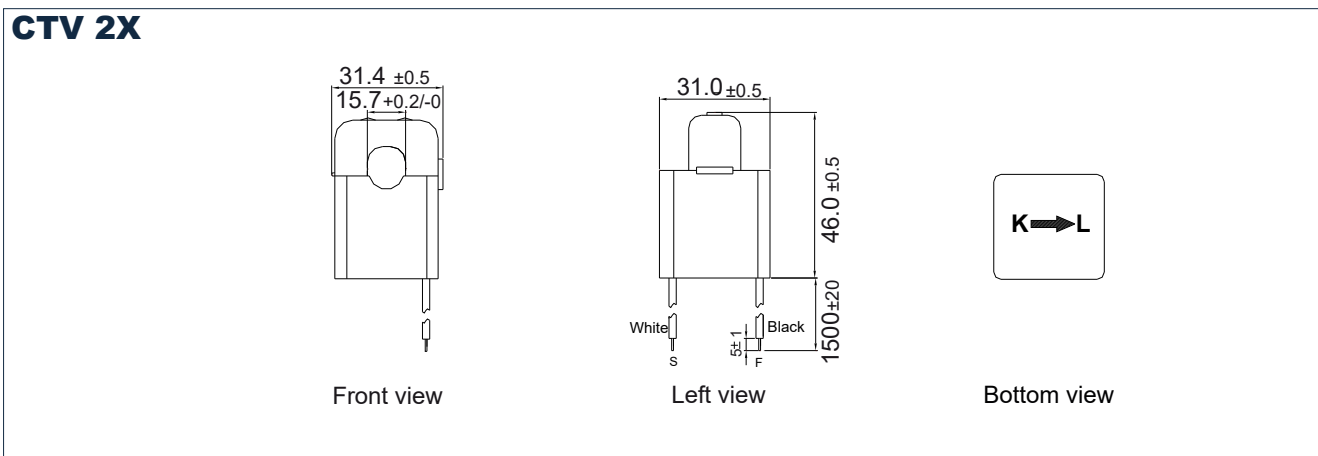
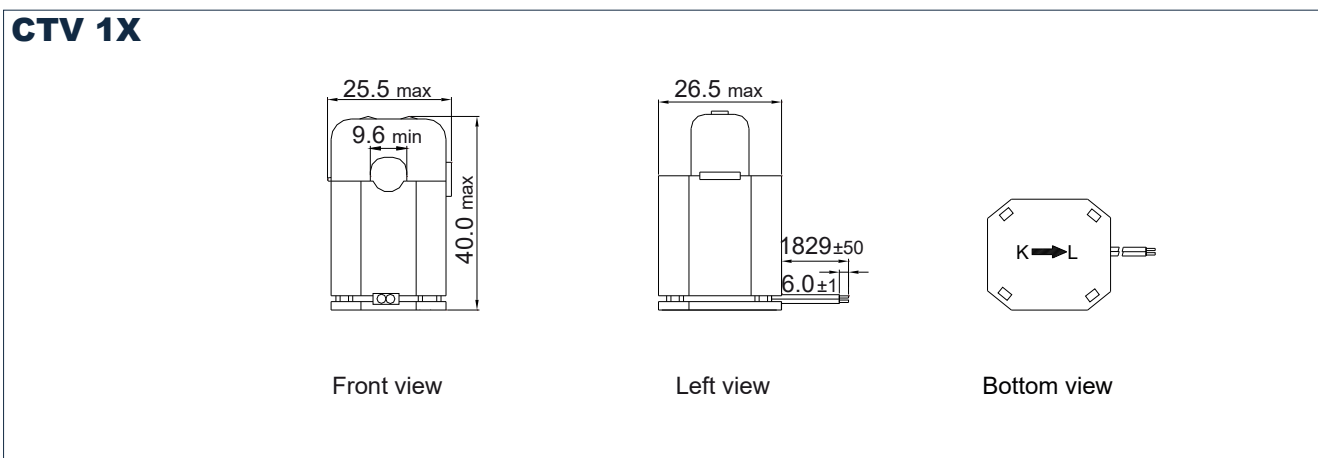
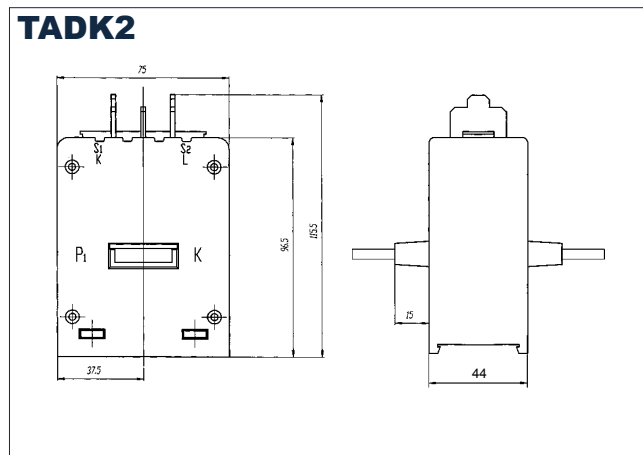
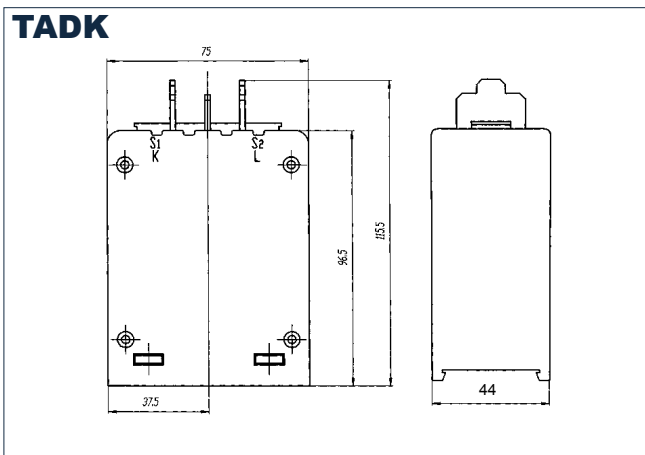


**CTD 9S**

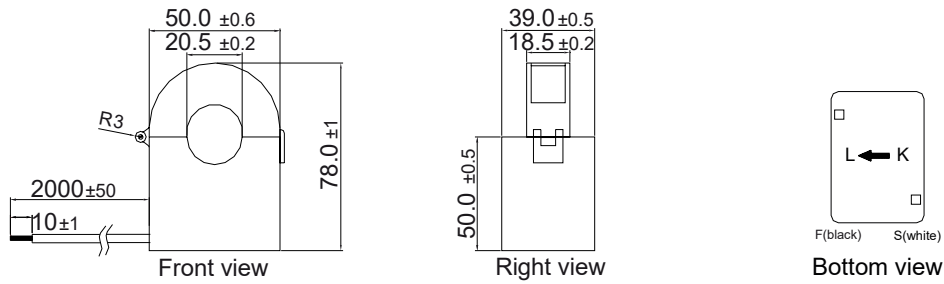


**CTD 10S**

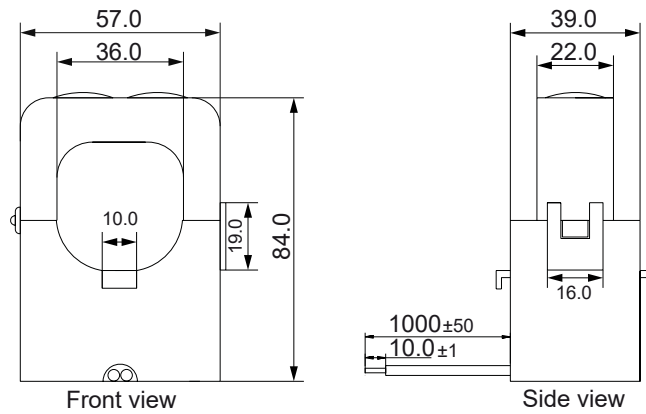




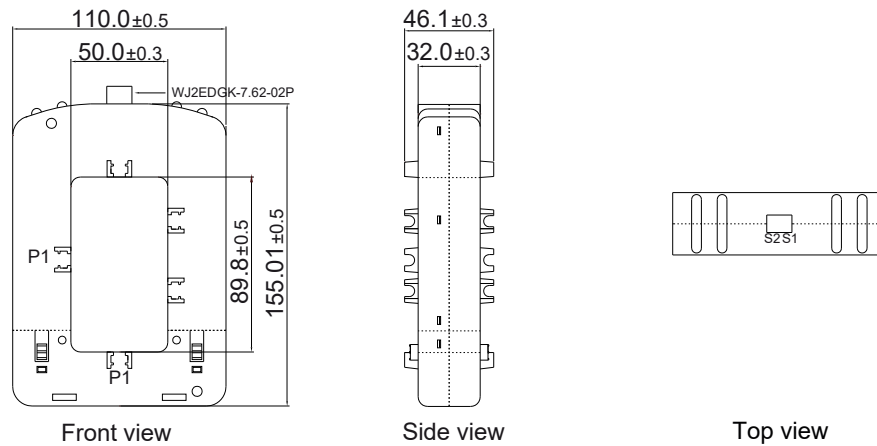
### CTV 4X



### CTV 6X

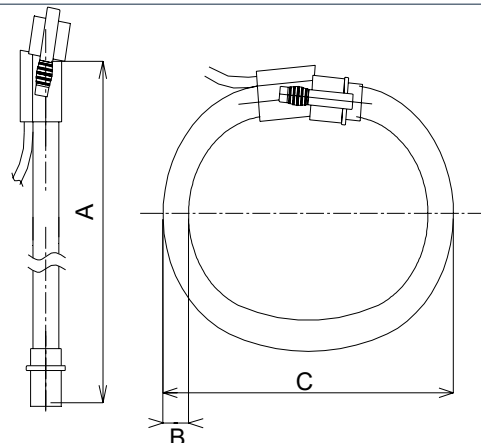


### CTV 8X

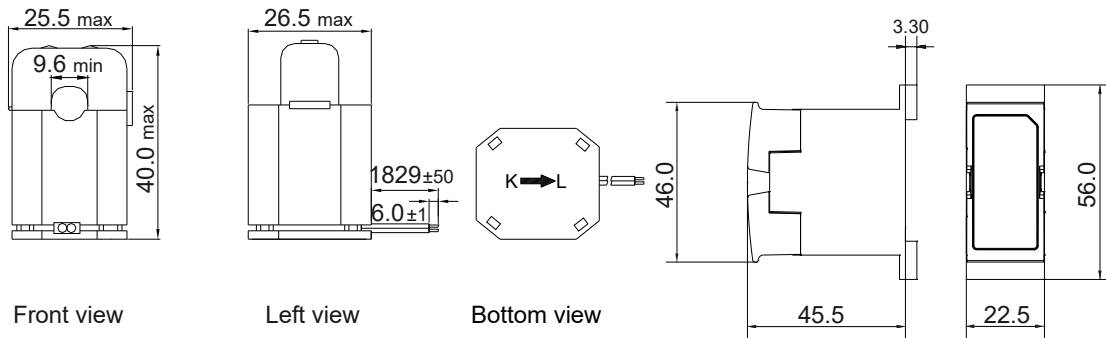


### ROG4X

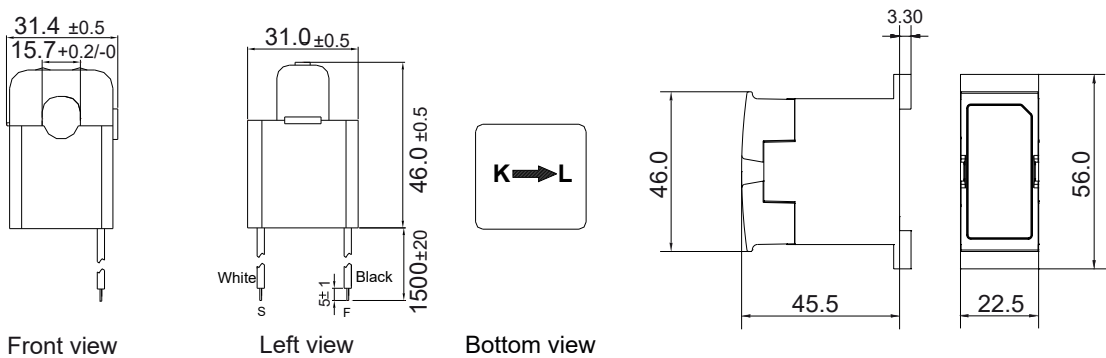
	Coil length (A)	Coil thickness (B)	External coil diameter (C)	Weight
ROG4X1002M2503X	250 mm	$8.3 \pm 0.2$ mm	90 mm	130 g
ROG4X1002M2503X	350 mm	$8.3 \pm 0.2$ mm	120 mm	140 g
ROG4X1002M6003X	600 mm	$8.3 \pm 0.2$ mm	200 mm	170 g
ROG4X1002M9003X	900 mm	$8.3 \pm 0.2$ mm	290 mm	200 g



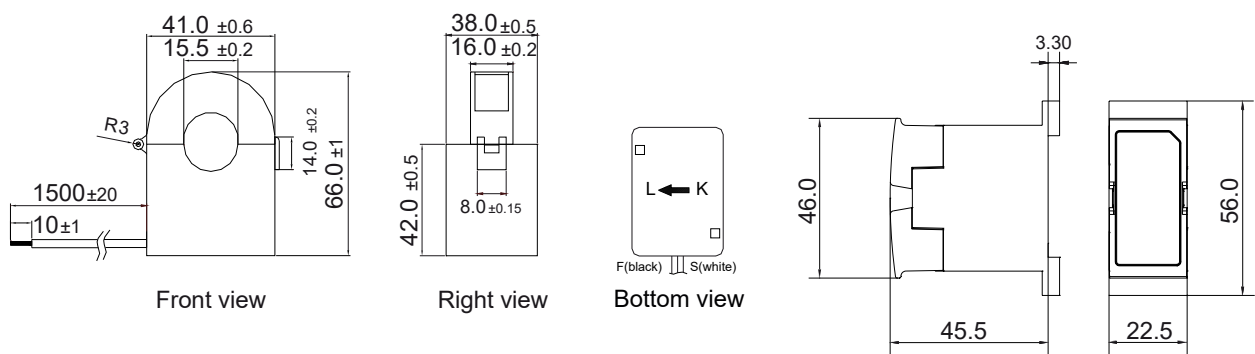
### TCD 0M



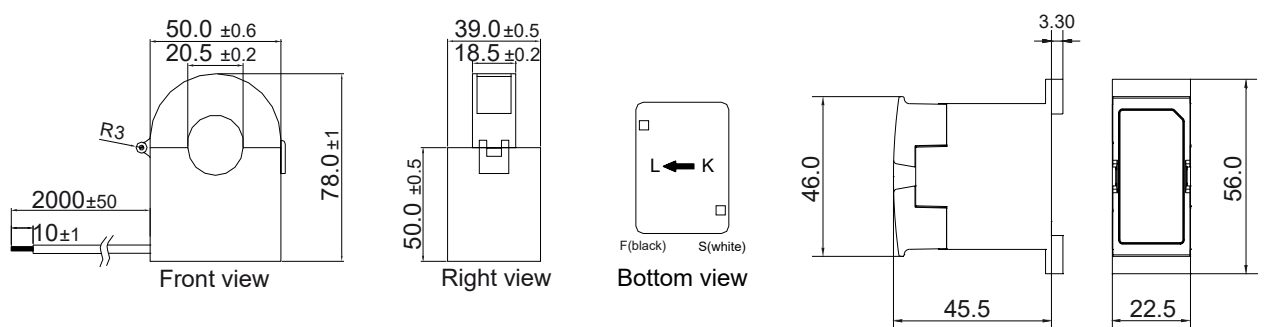
### TCD 1M



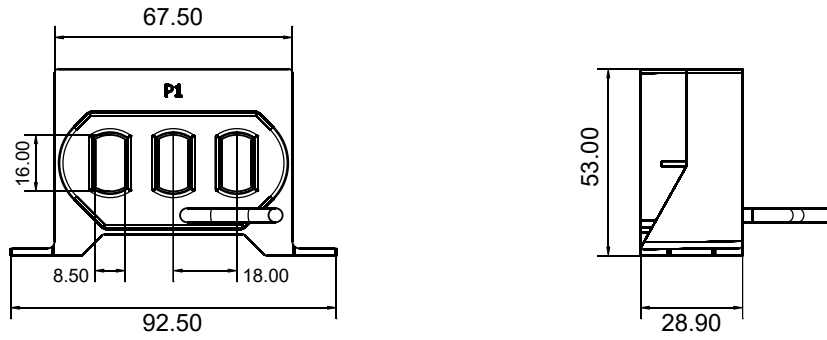
### TCD 2M



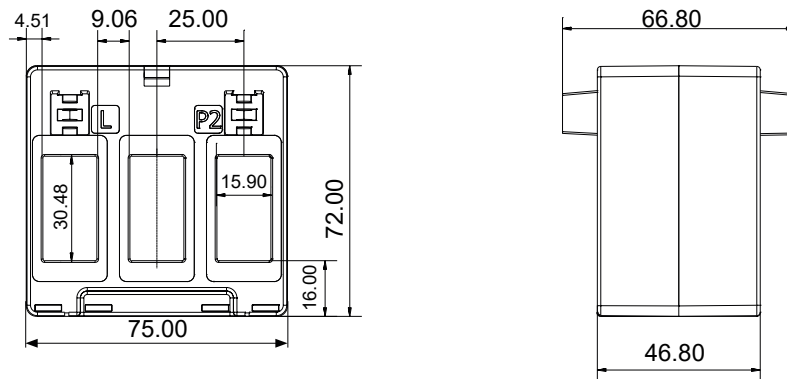
### TCD 3M



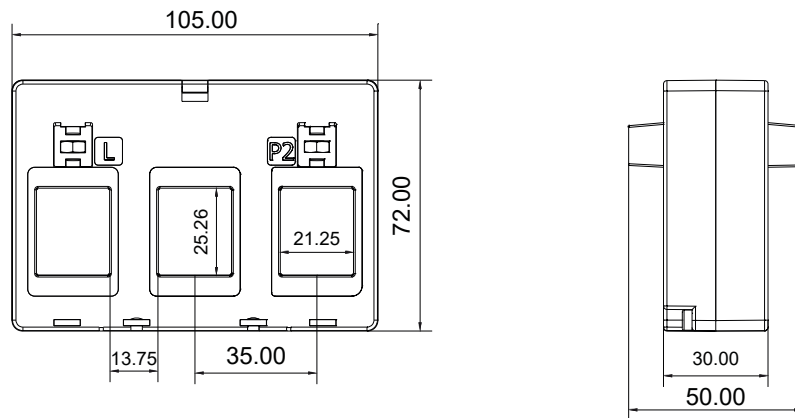
**TCD 0W**



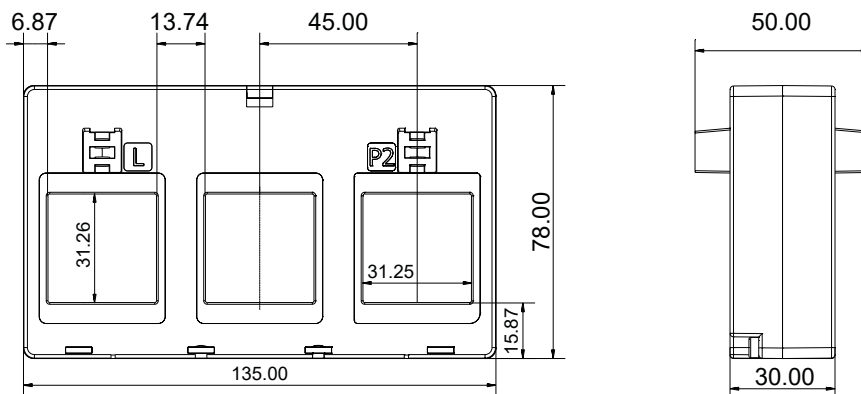
**TCD 1X**



**TCD 2X**

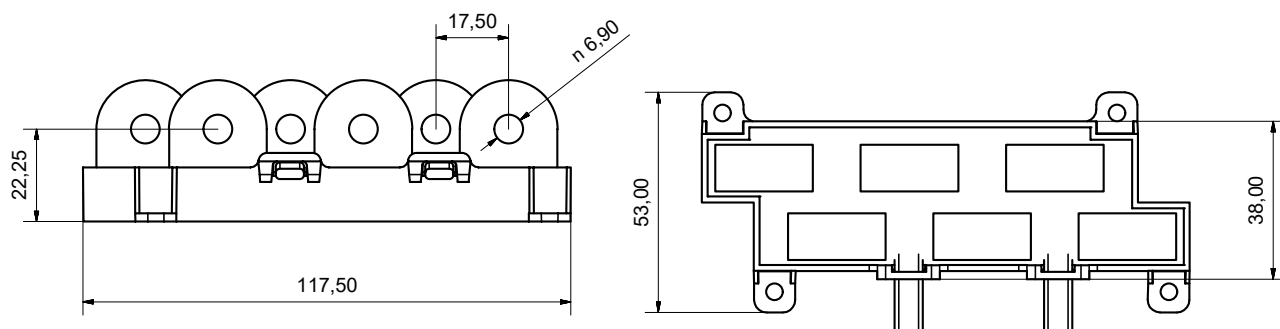


**TCD 3X**

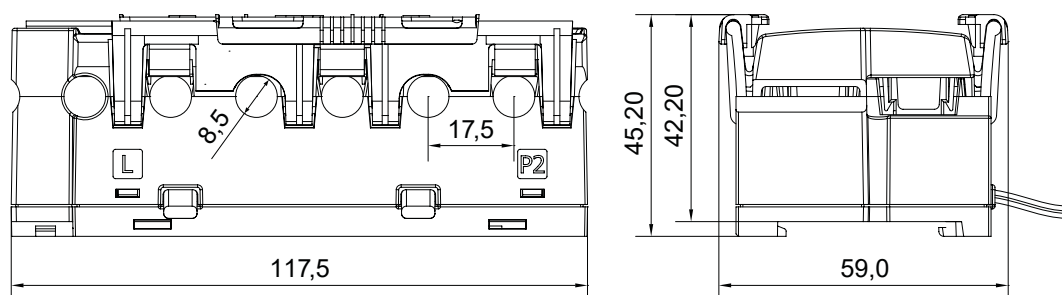




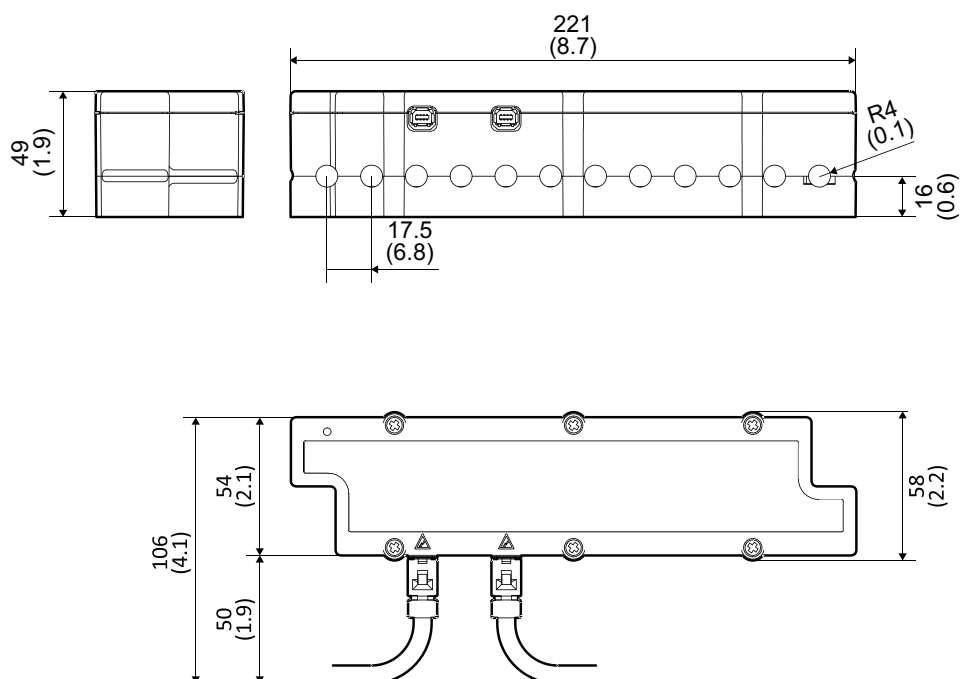
### TCD 06BX



### TCD 06BS



### TCD 12



**По вопросам продаж и поддержки обращайтесь:**

Алматы (7273)495-231	Казань (843)206-01-48	Новокузнецк (3843)20-46-81	Смоленск (4812)29-41-54
Архангельск (8182)63-90-72	Калининград (4012)72-03-81	Новосибирск (383)227-86-73	Сочи (862)225-72-31
Астрахань (8512)99-46-04	Калуга (4842)92-23-67	Омск (3812)21-46-40	Ставрополь (8652)20-65-13
Барнаул (3852)73-04-60	Кемерово (3842)65-04-62	Орел (4862)44-53-42	Сургут (3462)77-98-35
Белгород (4722)40-23-64	Киров (8332)68-02-04	Оренбург (3532)37-68-04	Тверь (4822)63-31-35
Брянск (4832)59-03-52	Краснодар (861)203-40-90	Пенза (8412)22-31-16	Томск (3822)98-41-53
Владивосток (423)249-28-31	Красноярск (391)204-63-61	Пермь (342)205-81-47	Тула (4872)74-02-29
Волгоград (844)278-03-48	Курск (4712)77-13-04	Ростов-на-Дону (863)308-18-15	Тюмень (3452)66-21-18
Вологда (8172)26-41-59	Липецк (4742)52-20-81	Рязань (4912)46-61-64	Ульяновск (8422)24-23-59
Воронеж (473)204-51-73	Магнитогорск (3519)55-03-13	Самара (846)206-03-16	Уфа (347)229-48-12
Екатеринбург (343)384-55-89	Москва (495)268-04-70	Санкт-Петербург (812)309-46-40	Хабаровск (4212)92-98-04
Иваново (4932)77-34-06	Мурманск (8152)59-64-93	Саратов (845)249-38-78	Челябинск (351)202-03-61
Ижевск (3412)26-03-58	Набережные Челны (8552)20-53-41	Севастополь (8692)22-31-93	Череповец (8202)49-02-64
Иркутск (395)279-98-46	Нижний Новгород (831)429-08-12	Симферополь (3652)67-13-56	Ярославль (4852)69-52-93
Россия (495)268-04-70	Киргизия (996)312-96-26-47	Казахстан (7172)727-132	

cgo@nt-rt.ru || <https://gavazzi.nt-rt.ru/>