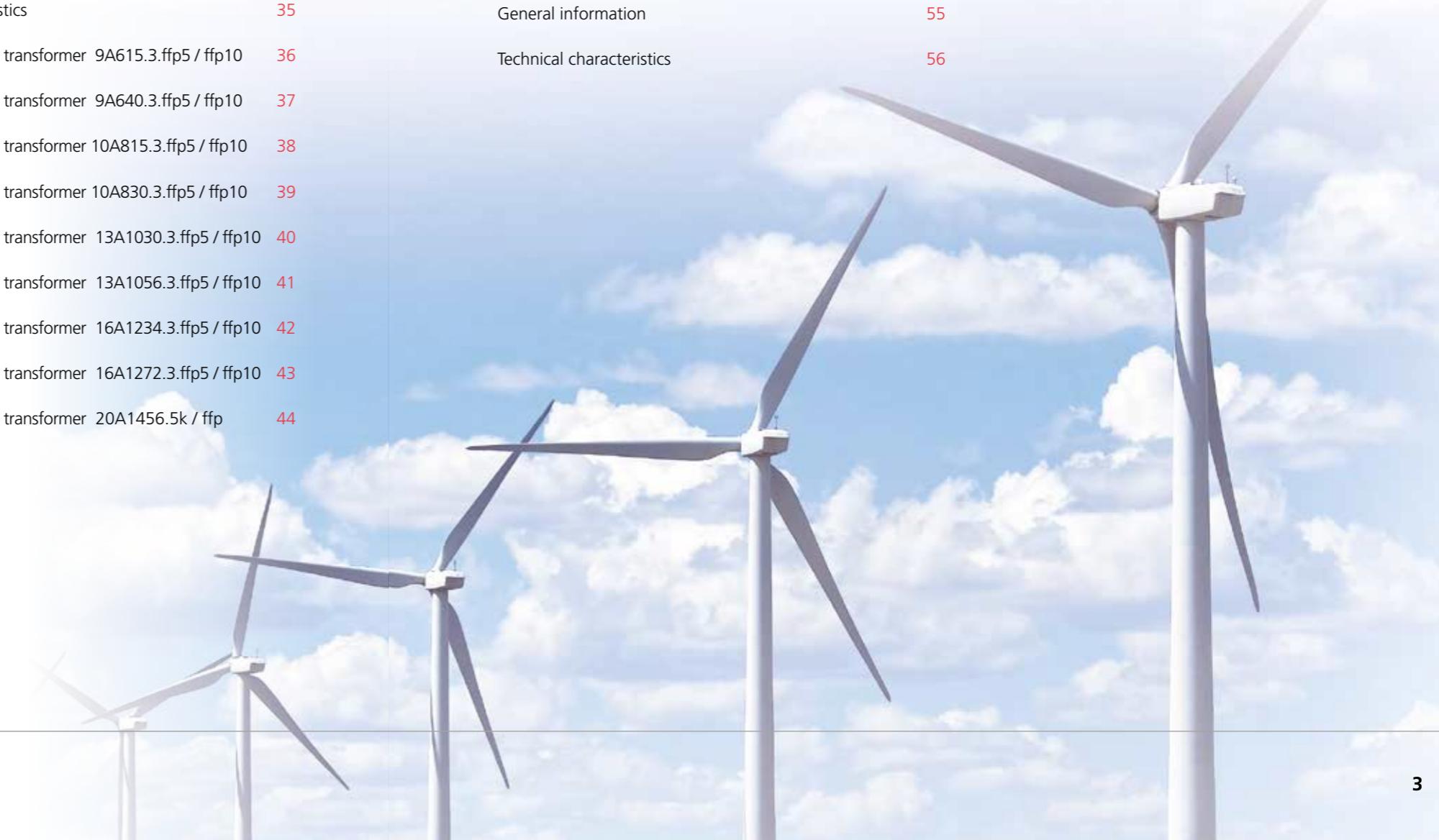


# LOW VOLTAGE CURRENT TRANSFORMERS



## TABLE OF CONTENTS

Product overview	<b>4-5</b>	Busbar type current transformer 10A815.3	<b>23</b>	<b>IP SERIES</b>	<b>46</b>	<b>RSC SERIES</b>	<b>58</b>
		Busbar type current transformer 10A830.3	<b>24</b>	General characteristics	<b>47</b>	General characteristics	<b>59</b>
<b>REGULUS SERIES</b>	<b>6</b>	Busbar type current transformer 13A1030.3	<b>25</b>	Grid for wall mounting	<b>48</b>	Split core current transformer RSC18	<b>60</b>
General characteristics	<b>7</b>	Busbar type current transformer 13A1056.3	<b>26</b>	REDUR secondary terminal	<b>48</b>	Split core current transformer RSC28	<b>61</b>
REGULUS characteristics	<b>8</b>	Busbar type current transformer 16A1234.3	<b>27</b>	Round conductor/busbar type current transformer IPN30	<b>49</b>	Split core current transformer RSC42	<b>62</b>
REDUR secondary terminal	<b>9</b>	Busbar type current transformer 16A1272.3	<b>28</b>	Busbar type current transformer IPA30	<b>50</b>		
Secondary terminal slots	<b>9</b>	Busbar type current transformer 20A1456.5	<b>29</b>	Busbar type current transformer IPA30.5	<b>51</b>	<b>IPS SERIES</b>	<b>64</b>
Extended secondary terminal cover	<b>9</b>	Wound type current transformer 6W0.3	<b>30</b>	Busbar type current transformer IPA40	<b>52</b>	General characteristics	<b>65</b>
Grid for wall mounting	<b>10</b>	Accessories REGULUS series	<b>32</b>	Busbar type current transformer IPA40.5	<b>53</b>	General information	<b>66</b>
REDUR quick-fixing set	<b>11</b>					Enclosure D10 and D20	<b>67</b>
REGULUS denotation key	<b>12</b>	<b>REGULUS FFP SERIES</b>	<b>34</b>	<b>RES 100</b>	<b>54</b>		
Round conductor current transformer 4R21.3	<b>13</b>	General characteristics	<b>35</b>	General information	<b>55</b>		
Busbar type current transformer 6A315.3	<b>14</b>	Busbar type current transformer 9A615.3.ffp5 / ffp10	<b>36</b>	Technical characteristics	<b>56</b>		
Busbar type current transformer 6A412.3	<b>15</b>	Busbar type current transformer 9A640.3.ffp5 / ffp10	<b>37</b>				
Busbar type current transformer 7A412.3	<b>16</b>	Busbar type current transformer 10A815.3.ffp5 / ffp10	<b>38</b>				
Busbar type current transformer 7A412.6	<b>17</b>	Busbar type current transformer 10A830.3.ffp5 / ffp10	<b>39</b>				
Busbar type current transformer 7A512.3	<b>18</b>	Busbar type current transformer 13A1030.3.ffp5 / ffp10	<b>40</b>				
Busbar type current transformer 8A512.3	<b>19</b>	Busbar type current transformer 13A1056.3.ffp5 / ffp10	<b>41</b>				
Busbar type current transformer 8A615.3	<b>20</b>	Busbar type current transformer 16A1234.3.ffp5 / ffp10	<b>42</b>				
Busbar type current transformer 9A615.3	<b>21</b>	Busbar type current transformer 16A1272.3.ffp5 / ffp10	<b>43</b>				
Busbar type current transformer 9A640.3	<b>22</b>	Busbar type current transformer 20A1456.5k / ffp	<b>44</b>				



## PRODUCT OVERVIEW

### REGULUS SERIES

Type	Primary currents	Round conductor dimensions	Bus bar dimensions	Current transformer dimensions (L x W x H)	Page
4R21.3	40...500 A	21 mm	-/-	44 x 30 x 66	13
6A315.3	50...750 A	28 mm	30 x 10 mm 20 x 10 mm	60 x 30 x 80	14
6A412.3	150...800 A	33 mm	40 x 10mm 2 x 30 x 10 mm	60 x 30 x 80	15
7A412.3	60...1000 A	33 mm	40 x 10 mm 2 x 30 x 10 mm	70 x 30 x 90	16
7A412.6	60...400 A	33 mm	40 x 10 mm 2 x 30 x 10 mm	70 x 60 x 90	17
7A512.3	150...1000 A	42 mm	50 x 10mm 2 x 40 x 10mm 2 x 30 x 10mm	70 x 30 x 90	18
8A512.3	150...1500 A	42 mm	50 x 10mm 2 x 40 x 10mm 2 x 30 x 10mm	85 x 30 x 108	19
8A615.3	200...1600 A	52 mm	60 x 10mm 2 x 50 x 10mm 2 x 40 x 10mm 3 x 30 x 10mm	85 x 30 x 108	20
9A615.3	200...2500 A	53 mm	60 x 10mm 2 x 50 x 10mm 2 x 40 x 10mm 3 x 30 x 10mm	95 x 30 x 121	21
9A640.3	200...2000 A	61 mm	2 x 60 x 10mm 3 x 50 x 10mm	96 x 30 x 121	22
10A815.3	400...2500 A	61 mm	80 x 10 mm 2 x 60 x 10 mm 3 x 50 x 10 mm	105 x 30 x 132	23
10A830.3	400...2500 A	70 mm	2 x 80 x 10 mm 3 x 60 x 10mm 3 x 50 x 10mm	105 x 30 x 132	24
13A1030.3	400...4000 A	85 mm	2 x 100 x 10 mm 3 x 80 x 10mm 4 x 50 x 10mm	129 x 30 x 156	25
13A1056.3	400...4000 A	-/-	3 x 100 x 10mm	129 x 30 x 156	26
16A1234.3	400...4000 A	96 mm	2 x 120 x 10 mm 3 x 100 x 10 mm 4 x 80 x 10mm	159 x 30 x 188	27
16A1272.3	400...4000 A	-/-	4 x 120 x 10 mm	159 x 30 x 188	28
20A1456.5	1000...5000 A	-/-	3 x 140 x10 mm	200 x 50 x 160	29
6W0.3	1...40 A	-/-	-/-	60 x 30 x 80	30

## PRODUCT OVERVIEW

### REGULUS FFP SERIES

Type	Primary currents	Round conductor dimensions	Bus bar dimensions	Current transformer dimensions (L x W x H)	Page
9A615.3 ffp5 / ffp10	200...2500 A	53 mm	60 x 10mm 2 x 50 x 10mm 2 x 40 x 10mm 3 x 30 x 10mm	108 / 112 x 32 x 122	36
9A640.3 ffp5 / ffp10	200...2000 A	61 mm	2 x 60 x 10mm 3 x 50 x 10mm	108 / 112 x 32 x 122	37
10A815.3 ffp5 / ffp10	400...2500 A	61 mm	80 x 10 mm 2 x 60 x 10 mm 3 x 50 x 10 mm	117 / 127 x 32 x 133	38
10A830.3 ffp5 / ffp10	400...2500 A	70 mm	2 x 80 x 10 mm 3 x 60 x 10mm 3 x 50 x 10mm	117 / 127 x 32 x 133	39
13A1030.3 ffp5 / ffp10	400...4000 A	85 mm	2 x 100 x 10 mm 3 x 80 x 10mm 4 x 50 x 10mm	141 / 147 x 32 x 157	40
13A1056.3 ffp5 / ffp10	400...4000 A	-/-	3 x 100 x 10mm	141 / 147 x 32 x 157	41
16A1234.3 ffp5 / ffp10	400...4000 A	96 mm	2 x 120 x 10 mm 3 x 100 x 10 mm 4 x 80 x 10mm	171 / 181 x 32 x 188	42
16A1272.3 ffp5 / ffp10	400...4000 A	-/-	4 x 120 x 10 mm	171 / 181 x 32 x 188	43
20A1456.3 k / ffp	1000...5000 A	-/-	3 x 140 x 10mm	200 x 50 x 160	44

### IP SERIES

Type	Primary currents	Round conductor dimensions	Bus bar dimensions	Current transformer dimensions (L x W x H)	Page
IPN30	60...600 A	28 mm	30 x 10 mm	60 x 35 x 75 mm	49
IPA30	60...600 A	23 mm	30 x 10 mm 20 x 10 mm	70 x 35 x 86 mm	50
IPA30.5	40...300 A	23 mm	30 x 10 mm 20 x 10 mm	70 x 49 x 86 mm	51
IPA40	50...1000 A	30 mm	40 x 10 mm 30 x 10 mm 20 x 10 mm	70 x 35 x 86 mm	52
IPA40.5	60...1000 A	30 mm	40 x 10 mm 30 x 10 mm 20 x 10 mm	70 x 49 x 86 mm	53

### RSC SERIES

Type	Primary currents	Round conductor dimensions	Bus bar dimensions	Current transformer dimensions (L x W x H)	Page
RSC18	50-250A	18 mm	n.a.	44 x 45 x 73	60
RSC28	150-500A	28 mm	n.a.	44 x 44 x 73	61
RSC42	400-1000A	42 mm	n.a.	61 x 46 x 101	62

# REGULUS

## SERIES



All current transformers comply with IEC 61869.

#### GENERAL MECHANICAL CHARACTERISTICS:

- Break-proof polyamide enclosure
- Flame retardant
- Nickel-plated crosshead screws (2 Nm)

#### GENERAL ELECTRICAL CHARACTERISTICS:

- Highest voltage for equipment  $U_m = 0,72 \text{ kV}$
- Rated power frequency withstand voltage  $(\text{r.m.s.})$   
3 kV / 1 min
- Rated frequency 50 / 60 Hz
- Rated continuous thermal current  $I_{cth} = 1,2 \times I_{pr}$
- Rated short-time thermal current  $I_{th} = 60 \times I_{pr}$  for 1 sec  
(max. 100 kA/1s)
- Rated dynamic current  $I_{dyn} = 2,5 \times I_{th}$
- Indoor use only
- Ambient air temperature (operating)  
 $-5^\circ\text{C} \dots +40^\circ\text{C}$  (other temperatures on request)
- Short-term temperature of primary conductor  
max.  $170^\circ\text{C}$  for 1 sec
- Instrument security factor FS5 or FS10
- Insulating class E / F / H

#### ACCESSORIES (INCLUDED):

- Secondary terminal cover
- Primary busbar fixing clamp
- Mounting screws
- Protective caps for primary busbar set screws

#### OPTIONAL:

- Snap-on mounting brackets for rail TS35  
(DIN EN 60715)
- Copper busbars in different sizes
- Copper sleeve bushes in different sizes
- Insulating protective caps for primary busbar mounting screws
- Protective cover to increase the clearance and creepage distance
- Primary busbar quick fixing set
- Mounting feet

## REGULUS CHARACTERISTICS

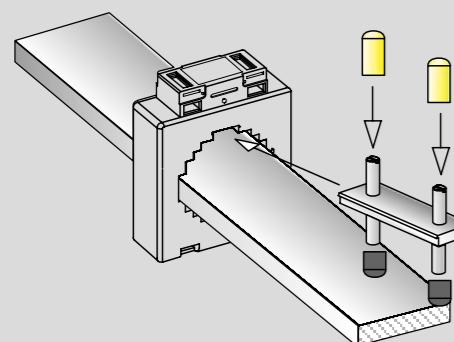
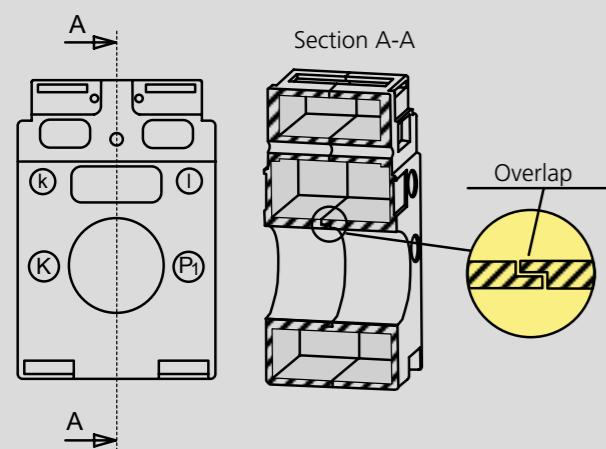
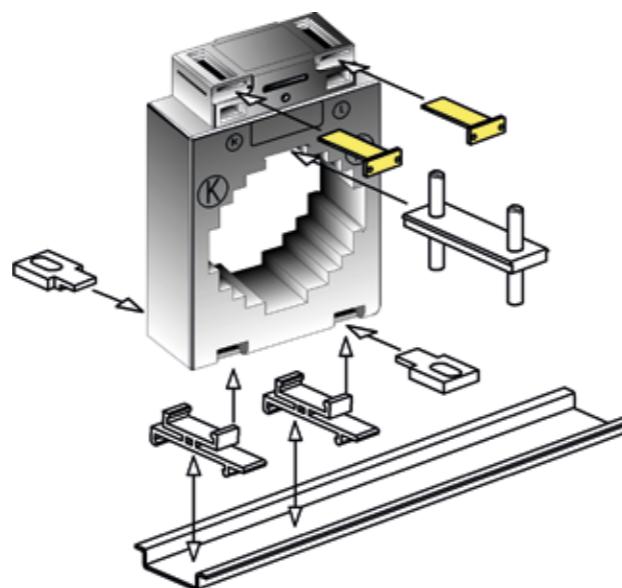
**REGULUS** series transformers are the world's most compact and versatile current transformers for applications with increased safety requirements.

### COMPACTNESS

All REGULUS series current transformers feature a depth of **only 30 mm**. Various types of transformers are available to cover a wide range of windows for bus bars or cables.

### VERSATILITY

We offer a fixing device with a form-locking guide for mounting the current transformer on bus bars. If space is limited, the fixing device can be simply pulled out.



### INCREASED SAFETY

The point where the two halves of the current transformer enclosure join and form the window for the bus bars is crucial to safety. Therefore, the halves of the enclosure are not butt-joined but made to overlap.

### INSULATING CAPS

To protect against unintentional contact, the mounting screws of the bus bar fixing device can be covered by insulating caps (available as option). These can be put on the mounting screws after the current transformer has been mounted on the bus bar.

### PROTECTIVE CAPS

High-strength pressure protective caps made of polyamide, which are plugged onto the screw bolts, ensure the insulation (up to 1.2 kV nominal voltage) between the copper bar and the fastening bar of the current transformers. Likewise, the coating on laminated copper bars is protected from damage.

## REDUR SECONDARY TERMINAL

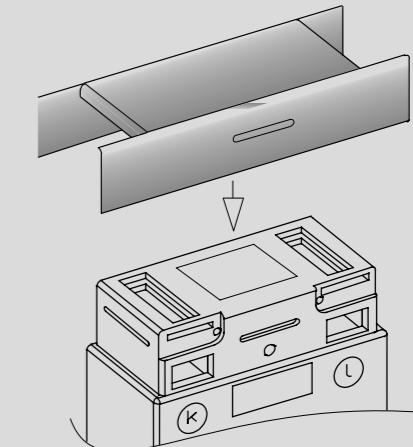
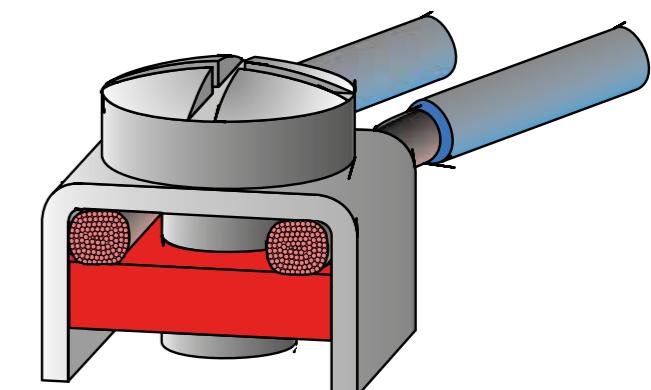
Our clamping system transmits the force by means of a nut (pad) to the wire ends of the conductor wire (lift principle). Therefore, the conductor wire is only exposed to pressure and cannot be damaged by rotating components. When open, there are two clamping spaces of 2,5 mm x 4 mm cross-section each.

The wire ends are clamped across a large area, thus ensuring a low contact resistance. Pressure forces of several hundred Newton are reached. Therefore, conductors even with multiple, fine and extremely fine wires are well compressed so that no corrosion can occur by penetrating harmful gases. Our secondary terminal provides therefore an extremely long-lasting connection even in aggressive industrial environments.

The plus-minus slot of the M5 screw allows ease of handling. The fastening torque is 2 Nm.

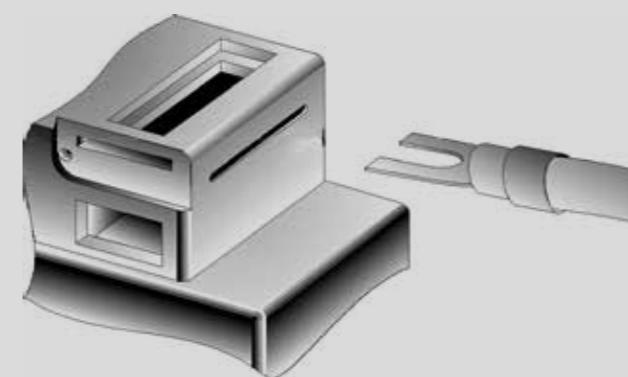
Both, screws and nuts are designed in such a way, that unintentional loosening is prevented.

The secondary terminals are made of nickel-plated brass and feature a double terminal design, which permits the short-circuiting of the current transformer during operation. Work on the secondary circuit is made easy.



### SECONDARY TERMINAL SLOTS

Secondary wires are normally mounted on the terminal block through the square slots, either on the front or back side of the current transformer. The lateral slots can also be used for mounting with a cable socket in case the current transformer is mounted for example behind a fuse panel.



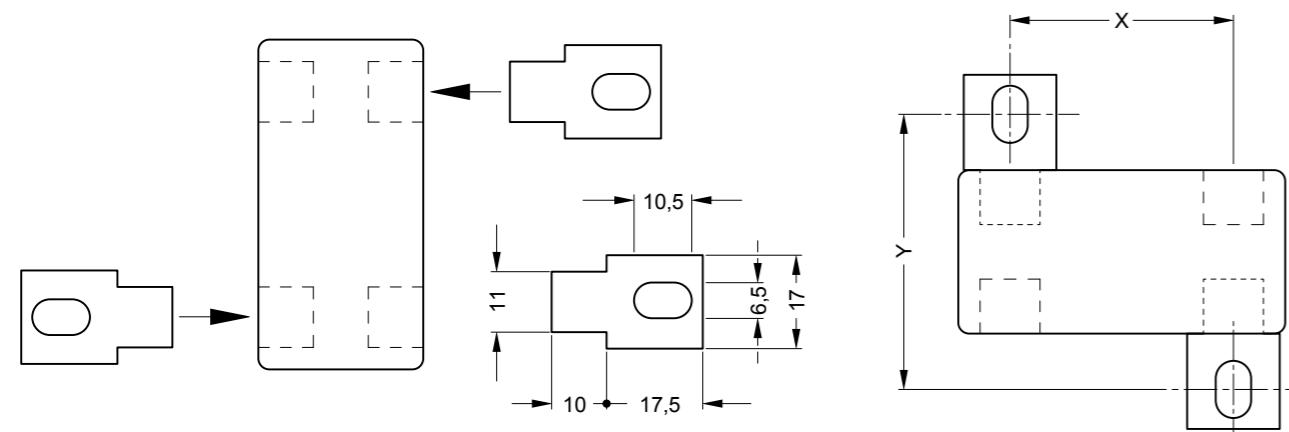
### EXTENDED SECONDARY TERMINAL COVER

When using the current transformer as round conductor type CT e.g. behind a fuse panel, it may be desirable to increase the clearance and creepage distances between the secondary terminals and bus bars. This can be accomplished by adding REDUR's extended secondary terminal cover which covers the front and back terminal slots.

## GRID FOR WALL MOUNTING

### GRID FOR WALL MOUNTING

Our sophisticated design allows mounting of the current transformers on walls within seconds. The dimensions apply if the mounting feet are well inserted in the designated slots.



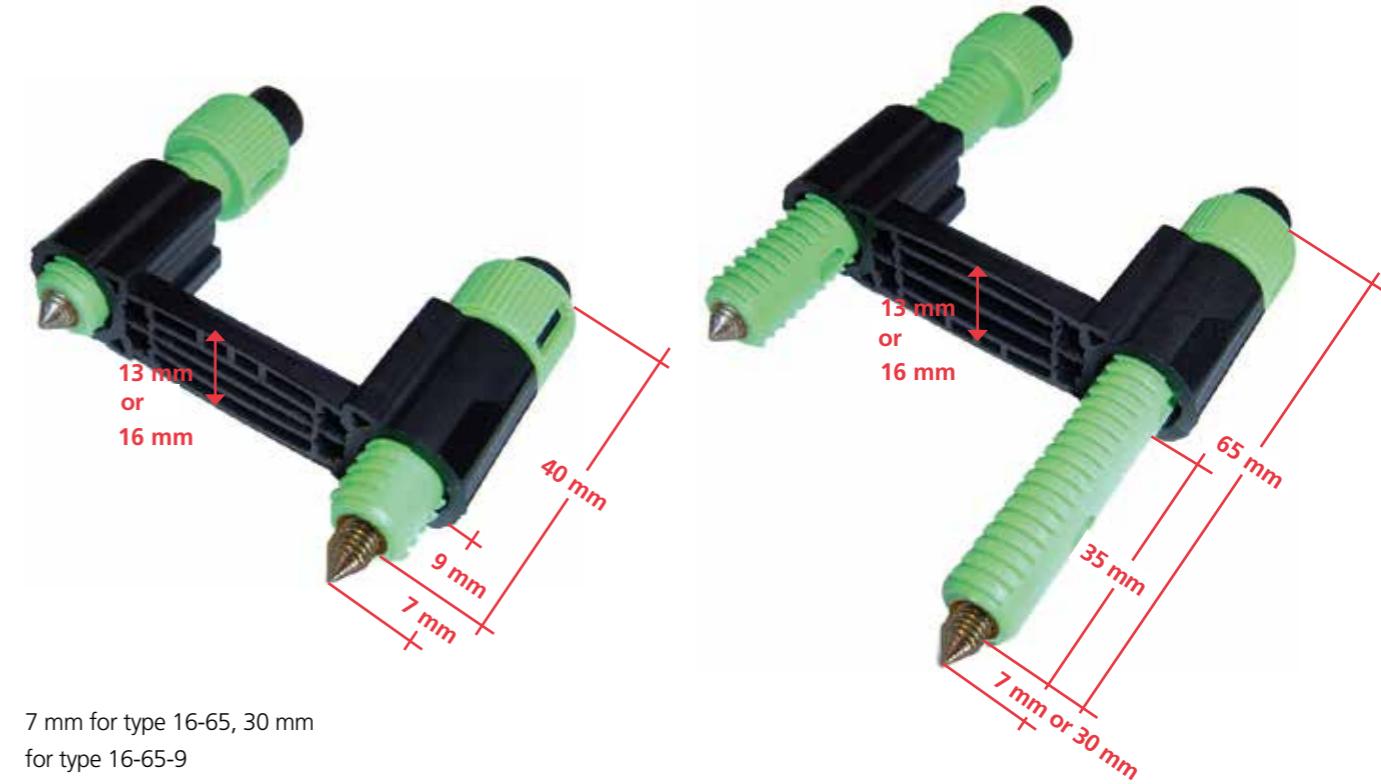
CT Type	x	CT Thickness	y
4R...	26 mm		
6A..., 6W...	40 mm		
7A..., 8A...	46 mm		
9A..., 10A...	59 mm		
13A..., 16A...	69 mm	30 mm	50,5 mm

## REDUR QUICK FIXING SET

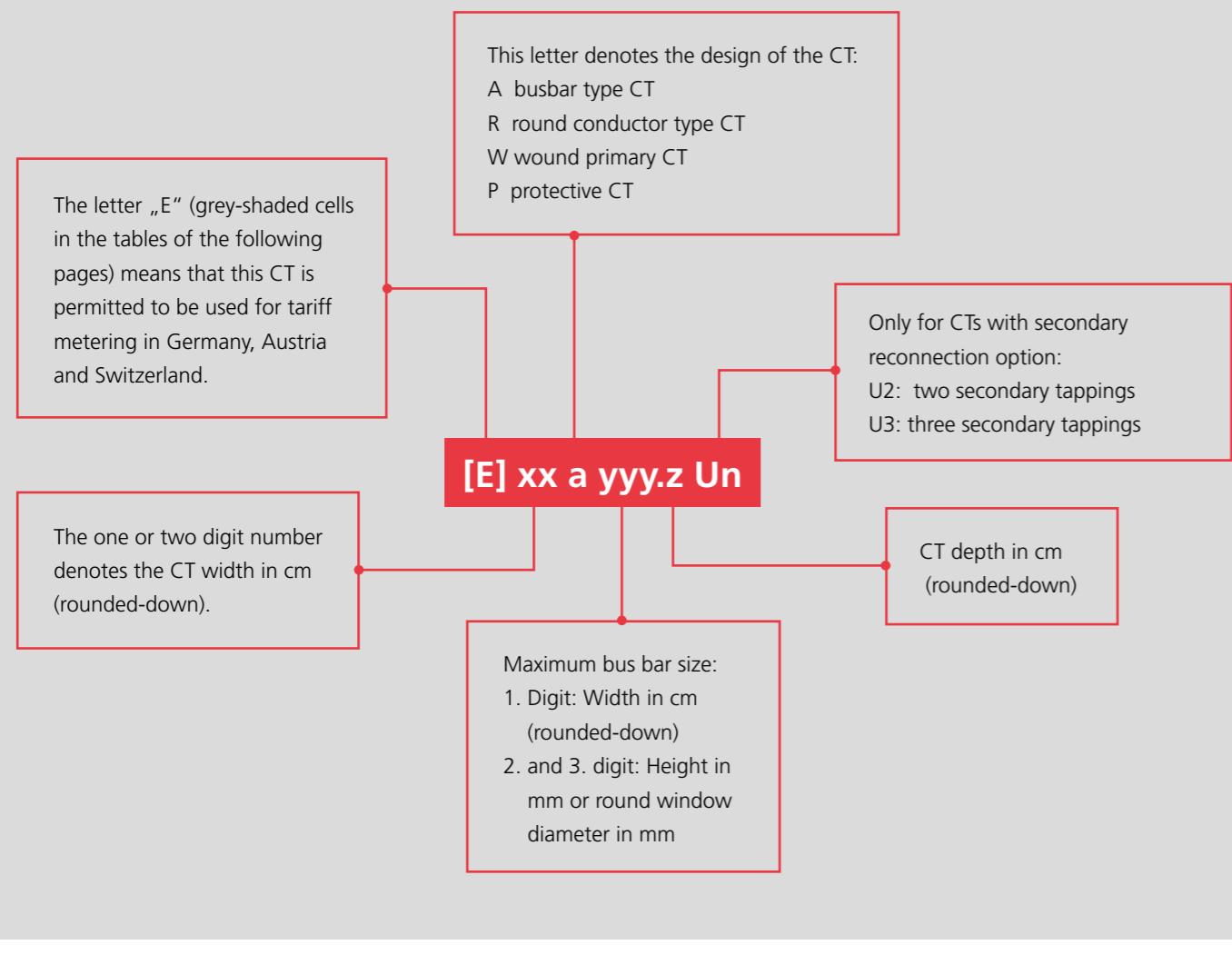
Current transformers are normally mounted on the bus bar with mounting screws. To align the current transformer, it is required to tighten the mounting screws alternately. This can be very time consuming especially if the CT's window is large or with long mounting screws.

We offer a quick-action mechanism for our REGULUS series current transformer which allows fast mounting and alignment. It is inserted in the bus bar window and its quick-action pins are pushed towards the bus bar. Preliminary fixing is done by a quarter right turn of the pins. Final fixing is accomplished with the black rotary buttons. Finger force is sufficient for the final fixing. However, the pins feature a slot allowing the use of a screwdriver as well.

There are 5 versions of quick-action mechanisms available corresponding to the different current transformer sizes. Please pay attention to a minimum height of the bus bars when using the quick-action mechanism along with our 13A and 16A type current transformers.



The following denotation key is used for the REGULUS current transformers:



#### EXAMPLES:

##### 8A615.3 means:

Busbar type current transformer, rounded width 8 cm (actually 85 mm), for max. bus bar size 60 x 10 mm, depth 3 cm

##### 7A412.3 U3 means:

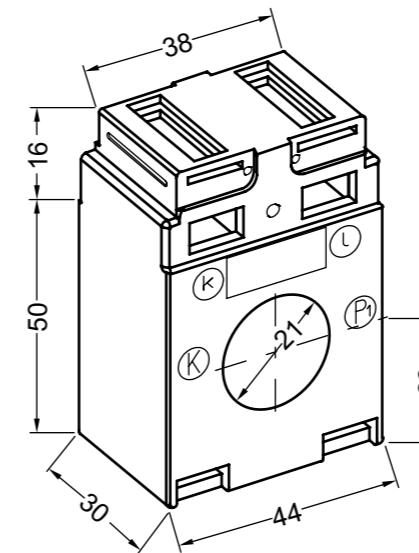
Busbar type current transformer, rounded width 7 cm, for max. bus bar size 40 x 10 mm, depth 3 cm, with 3 change-over functions

##### 4R21.3 means:

Round conductor type or tube type CT with round window with diameter of 21 mm, rounded width 4 cm (actually 44 mm), depth 3 cm

##### E6A315 means:

Round conductor current transformer with declaration of conformity / permission to be used for tariff metering  
(for variants in grey-shaded cells in the tables of the following pages)



#### INFORMATION:

- Weight approx. 150 - 200 g
- Round conductor 21 mm

#### ACCESSORIES (INCLUDED):

- 2 pcs. secondary terminal covers (yellow sliders)
- 2 pcs. mounting feet

$I_{sec}$	Cl.	RATED PRIMARY CURRENT $I_{Pr}$											A
		40	50	60	75	80	100	125	150	200	250	300	
5A	3	1	1,25										
	1		1	1,25	1,25	2,5	2,5	2,5	2,5	2,5	2,5	2,5	2,5
	0,5				2,5			3,75	5	5	5	5	5
	0,5S						1	1	1	2,5	2,5	2,5	2,5
	0,2						1,5	2,0	2,5	5	5	5	5
	0,2S									7,5	7,5	7,5	10
1A	3	1	1,25										
	1		1	1,25	2,5	2,5	2,5	2,5	2,5	2,5	2,5	2,5	2,5
	0,5							3,75	5	5	5	5	5
	0,5S							1	1	1	2,5	2,5	2,5
	0,2							2,5	2,5	5	5	5	5
	0,2S									7,5	7,5	7,5	10

#### OPTIONAL ACCESSORIES:

- Snap-on mounting brackets for rail TS35 (DIN EN 60715)
- Copper sleeve bush da = 21 mm, di = 8,5 mm or 12,5 mm, L = 32 mm<sup>1)</sup>
- Protective cover to increase the clearance and creepage distance

#### SPECIAL DESIGNS (UPON REQUEST):

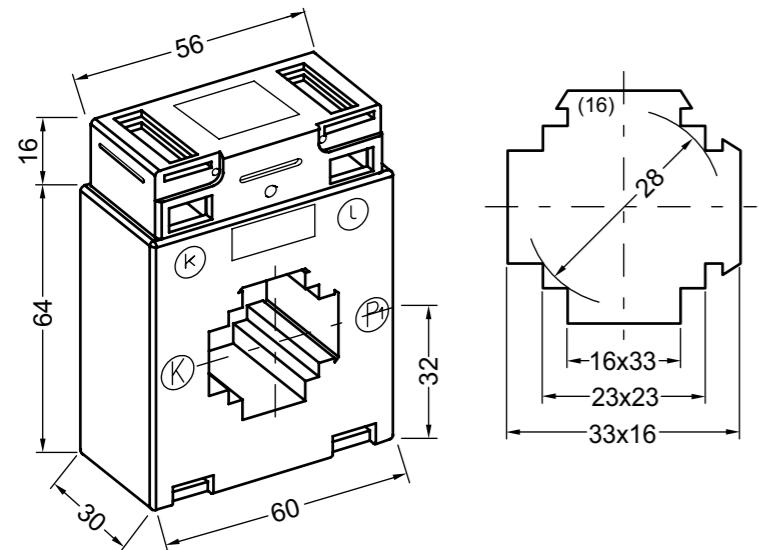
- Other ratios, burdens or accuracy classes
- Cast resin encapsulation
- Highest voltage for equipment 1,2 kV

#### [E] CONFORMITY ASSESSMENT

■ Available for grey-shaded variants

## BUSBAR TYPE CURRENT TRANSFORMER

[E] 6A315.3



### INFORMATION:

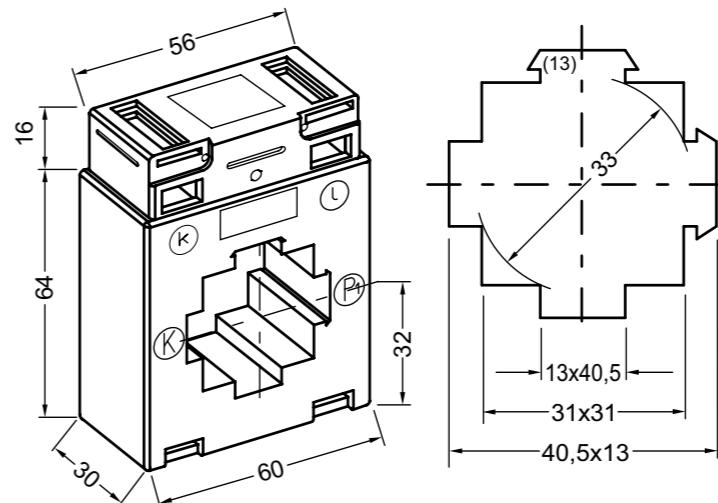
- Weight approx. 250 - 300 g
- Round conductor 28 mm
- Primary busbar 30 x 10 mm, 20 x 10 mm

### ACCESSORIES (INCLUDED):

- 1 pc. primary busbar fixing clamps (type 16)
- 2 pcs. mounting screws M5x35
- 2 pcs. secondary terminal cover (yellow sliders)
- 2 pcs. protective caps for primary busbar mounting screws

## BUSBAR TYPE CURRENT TRANSFORMER

6A412.3



### INFORMATION:

- Weight approx. 160 - 220 g
- Round conductor 33 mm
- Primary busbar 40 x 10 mm, 2 x 30 x 10 mm

### ACCESSORIES (INCLUDED):

- 1 pc. primary busbar fixing clamps (type 13)
- 2 pcs. mounting screws M5x35
- 2 pcs. secondary terminal cover (yellow sliders)
- 2 pcs. protective caps for primary busbar mounting screws

$I_{sec}$	Cl.	RATED PRIMARY CURRENT $I_{pr}$												A		
		50	60	75	80	100	125	150	200	250	300	400	500	600	750	
5A	3	1	1	1,5												VA
	1			1	1,25	2,5	2,5	2,5	2,5	2,5	2,5	5	2,5	2,5	5	
					1,5	3,75	3,75	5	5	5	5	10	5	5	10	
						5	7,5	7,5	7,5	7,5	7,5	15	10	10	15	
	0,5					1	2,5	2,5	2,5	2,5	2,5	2,5	2,5	2,5	2,5	
						2,5	3,75	5	5	5	5	5	5	5	5	
1A	0,5S						2,5	2,5	2,5	2,5	2,5	2,5	2,5	2,5	2,5	VA
							5	5	5	5	5	5	5	5	5	
	0,2										2,5	2,5	2,5	2,5	2,5	
	0,2S										2,5	2,5	2,5	2,5	2,5	
	3	1	1	1,5												
	1		1,25	1,5	2,5	2,5	2,5	2,5	2,5	2,5	2,5	2,5	2,5	2,5	2,5	
5A	1				3,75	3,75	5	5	5	5	5	5	5	5	5	VA
						7,5	7,5	10	10	10	10	10	10	10	10	
	0,5					1,25	1,25	2,5	2,5	2,5	2,5	2,5	2,5	2,5	2,5	
							3,75	5	5	5	5	5	5	5	5	
	0,5S							7,5	10	10	10	10	10	10	10	
								2,5	2,5	2,5	2,5	2,5	2,5	2,5	2,5	
1A	0,5							5	5	5	5	5	5	5	5	VA
								10	10	10	10	10	10	10	10	
	0,2								2,5	2,5	2,5	2,5	2,5	2,5	2,5	
	0,2S								5	5	5	5	5	5	5	
	3	1	1	1,5												
	1		1,25	1,5	2,5	2,5	2,5	2,5	2,5	2,5	2,5	2,5	2,5	2,5	2,5	

### OPTIONAL ACCESSORIES:

- Primary busbar quick fixing set (type 16-40)
- Snap-on mounting brackets for rail TS35 (DIN EN 60715)
- Copper sleeve bush  $d_a = 28$  mm,  $d_i = 8,5$  mm or 12,5 mm,  $L = 32$  mm<sup>1)</sup>
- Insulating protective caps for primary busbar mounting screws
- Copper busbars in different sizes
- Protective cover to increase the clearance and creepage distance
- Mounting feet

### SPECIAL DESIGNS (UPON REQUEST):

- Other ratios, burdens or accuracy classes
- Secondary reconnection
- Cast resin encapsulation
- Highest voltage for equipment 1,2 kV

### [E] CONFORMITY ASSESSMENT

■ Available for grey-shaded variants

### OPTIONAL ACCESSORIES:

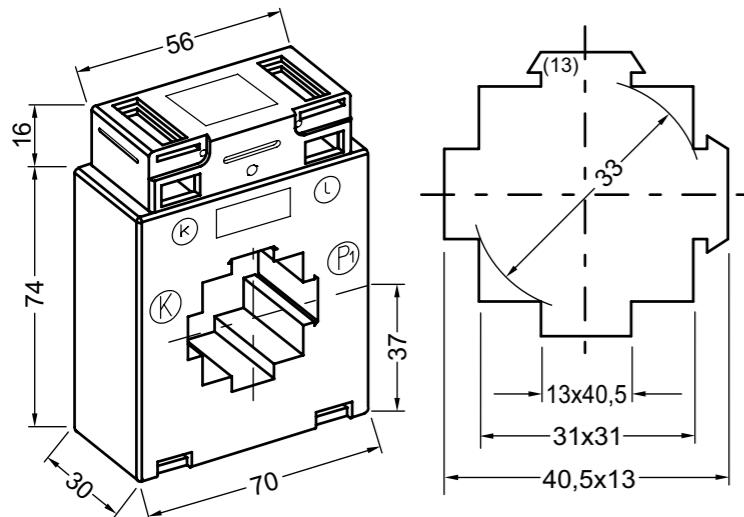
- Primary busbar quick fixing set (type 13-40)
- Snap-on mounting brackets for rail TS35 (DIN EN 60715)
- Copper busbars in different sizes
- Insulating protective caps for primary busbar mounting screws
- Mounting feet

### SPECIAL DESIGNS (UPON REQUEST):

- Other ratios, burdens or accuracy classes
- Cast resin encapsulation
- Highest voltage for equipment 1,2 kV

## BUSBAR TYPE CURRENT TRANSFORMER

[E] 7A412.3



### INFORMATION:

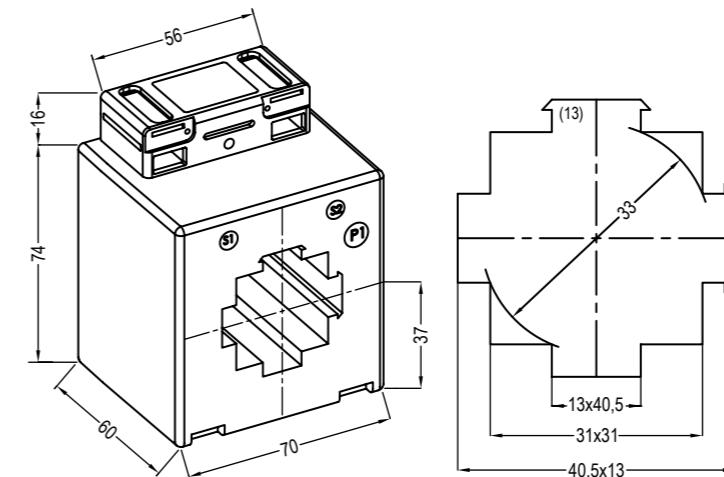
- Weight approx. 280 - 350 g
- Round conductor 33 mm
- Primary busbar 40 x 10 mm, 2 x 30 x 10 mm

### ACCESSORIES (INCLUDED):

- 1 pc. primary busbar fixing clamps (type 13)
- 2 pcs. mounting screws M5x35
- 2 pcs. secondary terminal cover (yellow sliders)
- 2 pcs. protective caps for primary busbar mounting screws

## BUSBAR TYPE CURRENT TRANSFORMER

[E] 7A412.6



### INFORMATION:

- Weight approx. 250 - 500 g
- Round conductor 33 mm
- Primary busbar 40 x 10 mm, 2 x 30 x 10 mm

### ACCESSORIES (INCLUDED):

- 1 pc. primary busbar fixing clamps (type 13)
- 2 pcs. mounting screws M5x35
- 2 pcs. secondary terminal cover (yellow sliders)
- 2 pcs. protective caps for primary busbar mounting screws

I <sub>sec</sub>	Cl.	RATED PRIMARY CURRENT I <sub>PR</sub>												A	
		60	75	80	100	125	150	200	250	300	400	500	600	750	
5A	3	1,25	1,25												VA
	1		1,25	2,5	2,5	2,5	2,5	2,5	2,5	2,5	2,5	2,5	2,5	2,5	
				3,75	3,75	5	5	5	5	5	5	5	5	5	
	0,5					7,5	7,5	10	10	10	10	10	10	10	
	0,5S											15	15	20	
	0,2														
	0,2S														
1A	3	1,25	1,25												VA
	1		1,25	2,5	2,5	2,5	2,5	2,5	2,5	2,5	2,5	2,5	2,5	2,5	
				3,75	5	5	5	5	5	5	5	5	5	5	
	0,5					7,5	7,5	7,5	10	10	10	10	10	10	
	0,5S											15	15	15	
	0,2														
	0,2S												10	10	

### OPTIONAL ACCESSORIES:

- Primary busbar quick fixing set (type 13-40)
- Snap-on mounting brackets for rail TS35 (DIN EN 60715)
- Copper busbars in different sizes
- Insulating protective caps for primary busbar mounting screws
- Mounting feet

### SPECIAL DESIGNS (UPON REQUEST):

- Other ratios, burdens or accuracy classes
- Secondary reconnection
- Cast resin encapsulation
- Highest voltage for equipment 1,2 kV

### [E] CONFORMITY ASSESSMENT

■ Available for grey-shaded variants

### OPTIONAL ACCESSORIES:

- Primary busbar quick fixing set (type 13-40)
- Snap-on mounting brackets for rail TS35 (DIN EN 60715)
- Copper busbars in different sizes
- Insulating protective caps for primary busbar mounting screws
- Mounting feet

### SPECIAL DESIGNS (UPON REQUEST):

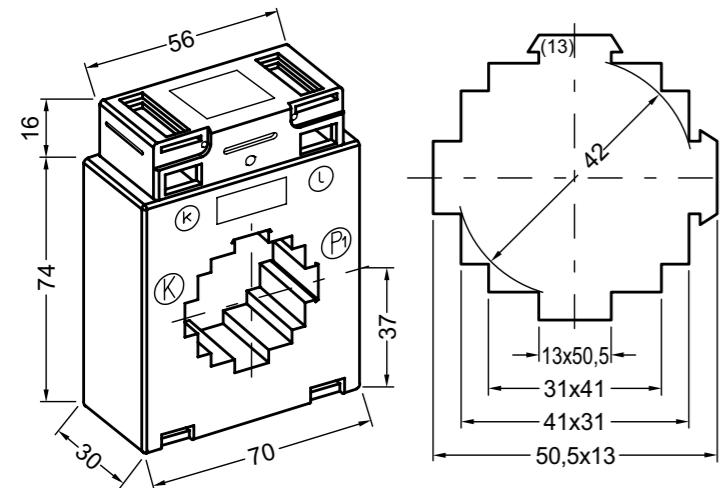
- Other ratios, burdens or accuracy classes
- Secondary reconnection
- Cast resin encapsulation
- Highest voltage for equipment 1,2 kV

### [E] CONFORMITY ASSESSMENT

■ Available for grey-shaded variants

## BUSBAR TYPE CURRENT TRANSFORMER

**7A512.3**



### INFORMATION:

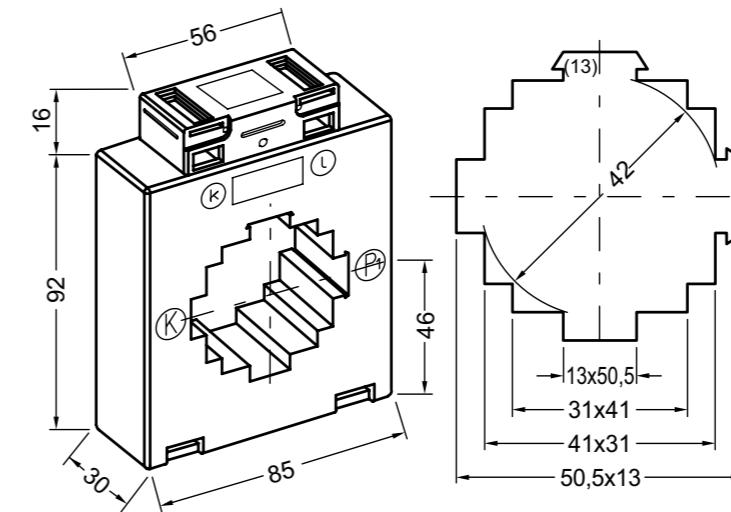
- Weight approx. 180 - 250 g
- Round conductor 42 mm
- Primary busbar 50 x 10 mm, 2 x 30 x 10 mm, 2 x 40 x 10 mm

### ACCESSORIES (INCLUDED):

- 1 pc. primary busbar fixing clamps (type 13)
- 2 pcs. mounting screws M5x35
- 2 pcs. secondary terminal cover (yellow sliders)
- 2 pcs. protective caps for primary busbar mounting screws

## BUSBAR TYPE CURRENT TRANSFORMER

**[E] 8A512.3**



### INFORMATION:

- Weight approx. 320 - 500 g
- Round conductor 42 mm
- Primary busbar 50 x 10 mm, 2 x 30 x 10 mm, 2 x 40 x 10 mm

### ACCESSORIES (INCLUDED):

- 1 pc. primary busbar fixing clamps (type 13)
- 2 pcs. mounting screws M5x35
- 2 pcs. secondary terminal cover (yellow sliders)
- 2 pcs. protective caps for primary busbar mounting screws

I <sub>sec</sub>	Cl.	RATED PRIMARY CURRENT I <sub>PR</sub>										A
		150	200	250	300	400	500	600	750	800	1000	
5A	1	1,25	1,25	2,5	2,5	1,25	2,5	2,5	2,5	2,5	2,5	VA
									3,75	3,75	5	
	0,5			1,25	1,25	1,25	1,25	2,5	2,5	2,5	2,5	VA
									3,75	3,75	5	
1A	1	1,25	1,25	2,5	2,5	1,25	2,5	2,5	2,5	2,5	2,5	VA
									3,75	3,75	5	
	0,5			1,25	1,25	2,5	1,25	2,5	2,5	2,5	2,5	VA
									3,75	3,75	5	

### OPTIONAL ACCESSORIES:

- Primary busbar quick fixing set (type 13-40 or 13-65)
- Snap-on mounting brackets for rail TS35 (DIN EN 60715)
- Copper busbars in different sizes
- Insulating protective caps for primary busbar mounting screws
- Copper sleeve bush  $d_a = 42$  mm,  $d_i = 14,2$  mm, L = 32 mm<sup>1)</sup>
- Protective cover to increase the clearance and creepage distance
- Mounting feet

### SPECIAL DESIGNS (UPON REQUEST):

- Other ratios, burdens or accuracy classes
- Secondary reconnection
- Cast resin encapsulation
- Highest voltage for equipment 1,2 kV

I <sub>sec</sub>	Cl.	RATED PRIMARY CURRENT I <sub>PR</sub>										A
		150	200	250	300	400	500	600	750	800	1000	
5A	1	2,5	2,5	2,5	2,5	2,5	5	5	5	5	5	VA
		3,75	5	5	5	5	10	10	10	10	10	
			7,5	7,5	10	10	15	15	15	15	15	
	0,5		10	15	20	20	20	30	30	30	30	VA
1A	1	2,5	2,5	2,5	2,5	2,5	5	5	5	5	5	VA
		3,75	5	5	5	5	10	10	10	10	10	
			7,5	10	10	15	20	20	30	30	30	
	0,5		15	20	20	20	20	30	30	30	30	VA

### OPTIONAL ACCESSORIES:

- Primary busbar quick fixing set (type 13-40 or 13-65)
- Snap-on mounting brackets for rail TS35 (DIN EN 60715)
- Copper busbars in different sizes
- Insulating protective caps for primary busbar set screws
- Copper sleeve bush  $d_a = 42$  mm,  $d_i = 14,2$  mm, L = 32 mm<sup>1)</sup>
- Protective cover to increase the clearance and creepage distance
- Mounting feet

### SPECIAL DESIGNS (UPON REQUEST):

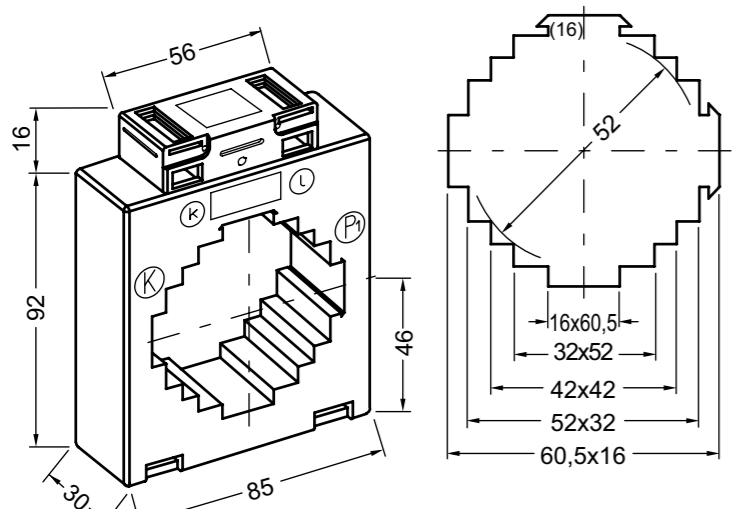
- Other ratios, burdens or accuracy classes
- Secondary reconnection
- Cast resin encapsulation
- Highest voltage for equipment 1,2 kV

### [E] CONFORMITY ASSESSMENT

■ Available for grey-shaded variants

## BUSBAR TYPE CURRENT TRANSFORMER

[E] 8A615.3



### INFORMATION:

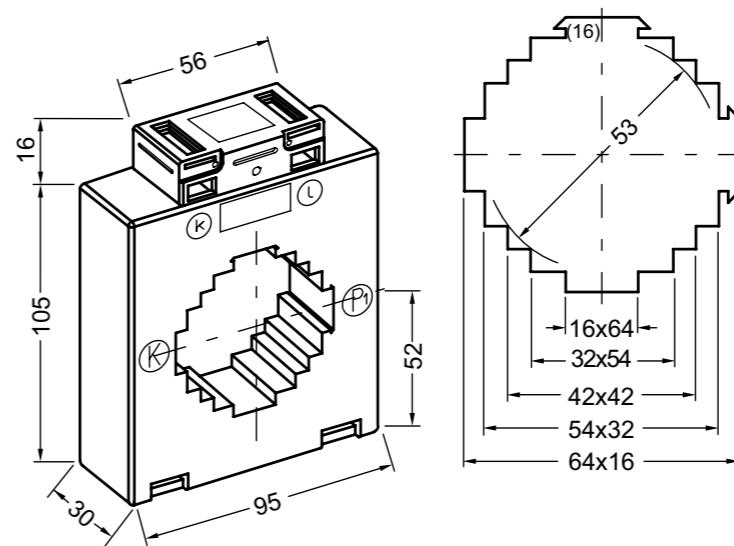
- Weight approx. 300 - 400 g
- Round conductor 52 mm
- Primary busbar 60 x 10 mm, 2 x 50 x 10 mm, 2 x 40 x 10 mm, 3 x 30 x 10 mm,

### ACCESSORIES (INCLUDED):

- 1 pc. primary busbar fixing clamps (type 16)
- 2 pcs. mounting screws M5x35
- 2 pcs. secondary terminal cover (yellow sliders)
- 2 pcs. protective caps for primary busbar mounting screws

## BUSBAR TYPE CURRENT TRANSFORMER

[E] 9A615.3



### INFORMATION:

- Weight approx. 400 - 550 g
- Round conductor 53 mm
- Primary busbar 60 x 10 mm, 2 x 50 x 10 mm, 2 x 40 x 10 mm, 3 x 30 x 10 mm,

### ACCESSORIES (INCLUDED):

- 1 pc. primary busbar fixing clamps (type 16)
- 2 pcs. mounting screws M5x35
- 2 pcs. secondary terminal cover (yellow sliders)
- 2 pcs. protective caps for primary busbar mounting screws

I <sub>sec</sub>	Cl.	RATED PRIMARY CURRENT I <sub>PR</sub>												A
		200	250	300	400	500	600	750	800	1000	1250	1500	1600	
5A	1	2,5	2,5	2,5	2,5	2,5	2,5	2,5	5	5	5	5	5	VA
		3,75	3,75	3,75	3,75	5	5	5	5	10	10	10	10	
		5	5	7,5	10	10	10	10	15	15	15	15	15	
	0,5	1	1	2,5	2,5	2,5	2,5	2,5	2,5	5	5	5	5	
		2,5	5	5	5	5	5	5	10	10	10	10	10	
		7,5	10	10	10	10	10	10	15	15	15	15	15	
	0,5S	1	2,5	2,5	2,5	2,5	2,5	2,5	5	5	5	5	5	
		2,5	5	5	5	5	10	10	10	10	10	10	10	
		10	10	15	15	15	15	15	20	20	20	20	20	
	0,2	1	2,5	2,5	2,5	2,5	2,5	2,5	5	5	5	5	5	
		2,5	2,5	2,5	2,5	2,5	2,5	2,5	5	10	10	10	10	
		10	10	15	15	15	15	15	20	20	20	20	20	
1A	1	2,5	2,5	2,5	2,5	2,5	2,5	2,5	2,5	2,5	2,5	2,5	2,5	VA
		3,75	3,75	5	5	5	5	5	5	5	5	5	5	
		7,5	7,5	7,5	7,5	7,5	7,5	7,5	7,5	7,5	7,5	7,5	7,5	
	0,5	1	1	1	2,5	2,5	2,5	2,5	2,5	2,5	2,5	2,5	2,5	
		2,5	2,5	3,75	5	5	5	5	5	5	5	5	5	
		5	5	7,5	7,5	7,5	7,5	7,5	7,5	7,5	7,5	7,5	7,5	
	0,5S	1,25	2,5	2,5	2,5	2,5	2,5	2,5	2,5	2,5	2,5	2,5	2,5	
		5	5	5	5	5	5	5	5	5	5	5	5	
		7,5	7,5	7,5	7,5	7,5	7,5	7,5	7,5	7,5	7,5	7,5	7,5	
	0,2	2,5	2,5	2,5	2,5	2,5	2,5	2,5	2,5	2,5	2,5	2,5	2,5	
		5	5	5	5	5	5	5	5	5	5	5	5	
		7,5	7,5	7,5	7,5	7,5	7,5	7,5	7,5	7,5	7,5	7,5	7,5	

### OPTIONAL ACCESSORIES:

- Primary busbar quick fixing set (type 16-40)
- Snap-on mounting brackets for rail TS35 (DIN EN 60715)
- Insulating protective caps for primary busbar mounting screws
- Mounting feet

### SPECIAL DESIGNS (UPON REQUEST):

- Other ratios, burdens or accuracy classes
- Secondary reconnection
- Cast resin encapsulation
- Highest voltage for equipment 1,2 kV

### [E] CONFORMITY ASSESSMENT

■ Available for grey-shaded variants

### OPTIONAL ACCESSORIES:

- Primary busbar quick fixing set (type 16-40)
- Snap-on mounting brackets for rail TS35 (DIN EN 60715)
- Insulating protective caps for primary busbar mounting screws
- Mounting feet

### SPECIAL DESIGNS (UPON REQUEST):

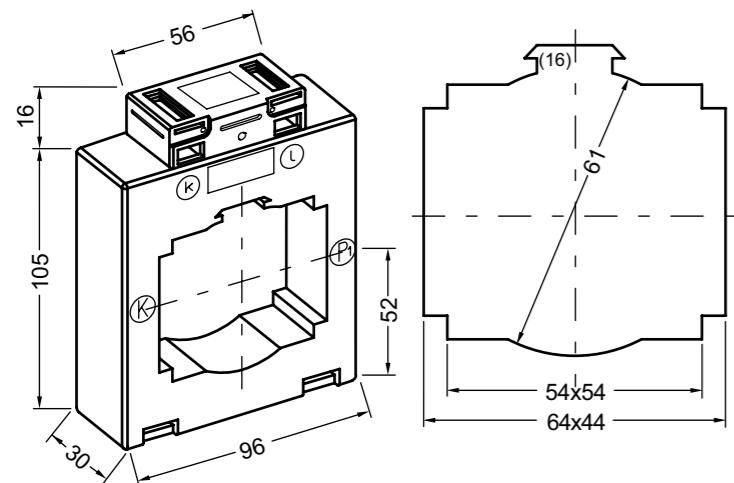
- Other ratios, burdens or accuracy classes
- Secondary reconnection
- Cast resin encapsulation
- Highest voltage for equipment 1,2 kV

### [E] CONFORMITY ASSESSMENT

■ Available for grey-shaded variants

## BUSBAR TYPE CURRENT TRANSFORMER

[E] 9A640.3



### INFORMATION:

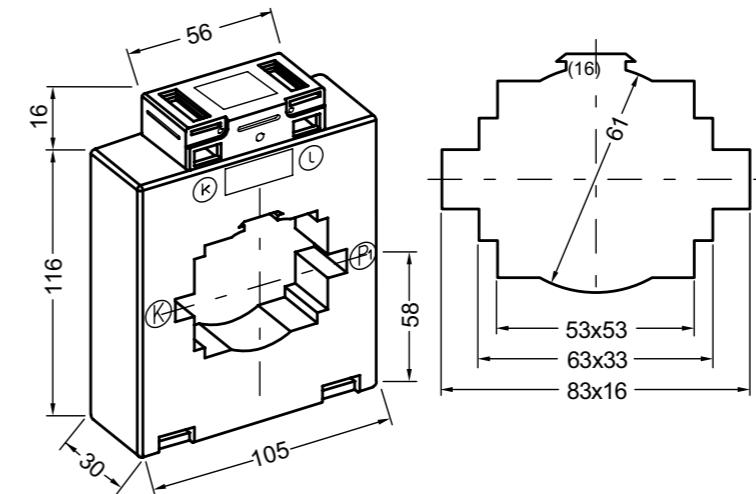
- Weight approx. 340 - 420 g
- Round conductor 61 mm
- Primary busbar 2 x 60 x 10 mm, 3 x 50 x 10 mm

### ACCESSORIES (INCLUDED):

- 1 pc. primary busbar fixing clamps (type 16)
- 2 pcs. mounting screws M5x35
- 2 pcs. secondary terminal cover (yellow sliders)
- 2 pcs. protective caps for primary busbar mounting screws

## BUSBAR TYPE CURRENT TRANSFORMER

[E] 10A815.3



### INFORMATION:

- Weight approx. 350 - 500 g
- Round conductor 61 mm
- Primary busbar 80 x 10 mm, 2 x 60 x 10 mm, 3 x 50 x 10 mm

### ACCESSORIES (INCLUDED):

- 1 pc. primary busbar fixing clamps (type 16)
- 2 pcs. mounting screws M5x35
- 2 pcs. secondary terminal cover (yellow sliders)
- 2 pcs. protective caps for primary busbar mounting screws

I <sub>sec</sub>	Cl.	RATED PRIMARY CURRENT I <sub>pr</sub>												A
		200	250	300	400	500	600	750	800	1000	1250	1500	1600	
5A	1	2,5 3,75	2,5 5	2,5 5	2,5 5	2,5 5	2,5 5	2,5 5	2,5 5	5 10	5 10	5 10	5 10	VA
	0,5		2,5 5	2,5 5	2,5 5	2,5 5	2,5 5	2,5 5	2,5 5	5 10	10 15	10 15	10 15	
	0,5S			2,5 5	2,5 5	2,5 5	2,5 5	2,5 5	2,5 5	5 10	10 15	10 15	10 15	
	0,2					7,5 2,5	10 2,5	10 2,5	10 2,5	10 2,5	15 10	15 10	15 10	
	0,2S										2,5 5	2,5 5	2,5 5	
1A	1	2,5 3,75	2,5 5	2,5 5	2,5 5	2,5 5	2,5 5	2,5 5	2,5 5	2,5 5				VA
	0,5		2,5 3,75	2,5 5	2,5 5	2,5 5	2,5 5	2,5 5	2,5 5	2,5 5	2,5 5	2,5 5	2,5 5	
	0,5S			2,5 5	2,5 5	2,5 5	2,5 5	2,5 5	2,5 5	2,5 5	2,5 5	2,5 5	2,5 5	
	0,2					7,5 2,5	10 2,5	10 2,5	10 2,5	10 2,5	15 10	15 10	15 10	
	0,2S										2,5 5	2,5 5	2,5 5	

If the distance between the current transformer and adjacent current-carrying conductors is short, the measuring accuracy may be influenced by magnetic external field effects.  
Please ensure sufficient distance (at least 0.2 m) when using current transformers especially from 2000 A or use optional design with external field protection (ffp5 / ffp10).

\* I<sub>cth</sub> = 1,0 x I<sub>pr</sub>

### OPTIONAL ACCESSORIES:

- Primary busbar quick fixing set (type 16-40)
- Snap-on mounting brackets for rail TS35 (DIN EN 60715)
- Insulating protective caps for primary busbar mounting screws
- Mounting feet

### SPECIAL DESIGNS (UPON REQUEST):

- Other ratios, burdens or accuracy classes
- Secondary reconnection
- Cast resin encapsulation
- Highest voltage for equipment 1,2 kV

### [E] CONFORMITY ASSESSMENT

■ Available for grey-shaded variants

I <sub>sec</sub>	Cl.	RATED PRIMARY CURRENT I <sub>pr</sub>											A
		400	500	600	750	800	1000	1250	1500	1600	2000	2500*	
5A	1	2,5 5	2,5 5	2,5 5	2,5 5	2,5 5	2,5 5	2,5 5	2,5 5	2,5 5	2,5 5	2,5 5	VA
	0,5		2,5 5										
	0,5S			2,5 5									
	0,2				2,5 5								
	0,2S					2,5 5							
1A	1	2,5 5	2,5 5	2,5 5	2,5 5	2,5 5	2,5 5	2,5 5	2,5 5	2,5 5	2,5 5	2,5 5	VA
	0,5		2,5 5										
	0,5S			2,5 5									
	0,2				2,5 5								
	0,2S					2,5 5							

If the distance between the current transformer and adjacent current-carrying conductors is short, the measuring accuracy may be influenced by magnetic external field effects.  
Please ensure sufficient distance (at least 0.2 m) when using current transformers especially from 2000 A or use optional design with external field protection (ffp5 / ffp10).

\* I<sub>cth</sub> = 1,0 x I<sub>pr</sub>

### OPTIONAL ACCESSORIES:

- Primary busbar quick fixing set (type 16-65)
- Snap-on mounting brackets for rail TS35 (DIN EN 60715)
- Insulating protective caps for primary busbar mounting screws
- Mounting feet

### SONDERAUSFÜHRUNGEN (AUF ANFRAGE):

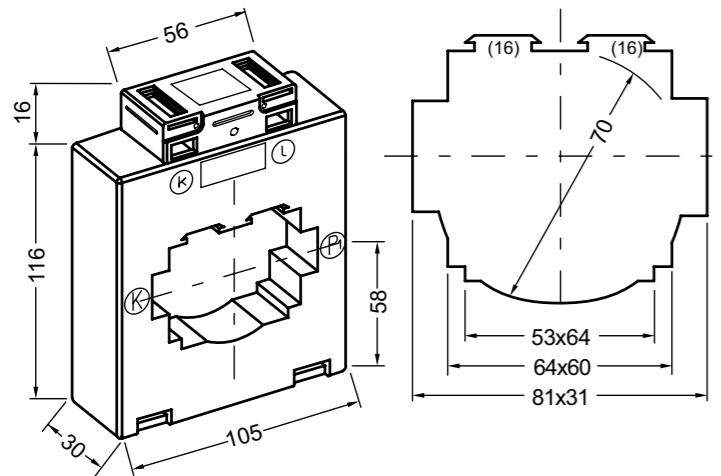
- Other ratios, burdens or accuracy classes
- Secondary reconnection
- Cast resin encapsulation
- Highest voltage for equipment 1,2 kV

### [E] CONFORMITY ASSESSMENT

■ Available for grey-shaded variants

## BUSBAR TYPE CURRENT TRANSFORMER

[E] 10A830.3



### INFORMATION:

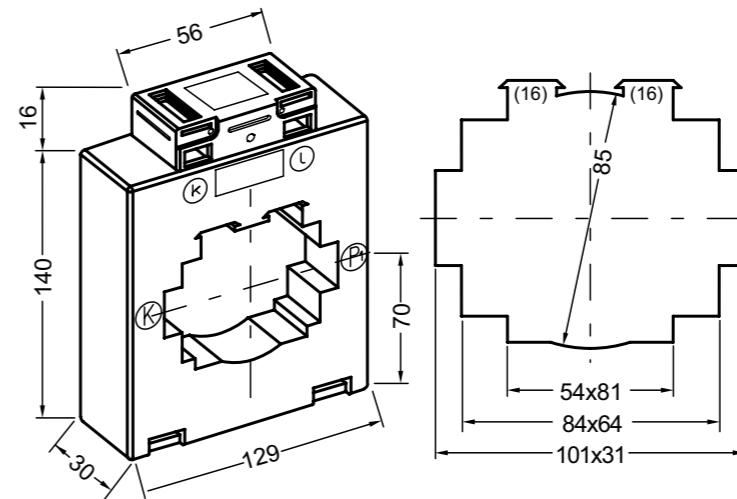
- Weight approx. 340 - 440 g
- Round conductor 70 mm
- Primary busbar 2 x 80 x 10 mm,  
3 x 60 x 10 mm, 3 x 50 x 10 mm

### ACCESSORIES (INCLUDED):

- 2 pcs. primary busbar fixing clamps (type 16)
- 4 pcs. mounting screws M5x55
- 2 pcs. secondary terminal cover (yellow sliders)
- 4 pcs. protective caps for primary  
busbar mounting screws

## BUSBAR TYPE CURRENT TRANSFORMER

[E] 13A1030.3



### INFORMATION:

- Weight approx. 440 - 680 g
- Round conductor 85 mm
- Primary busbar 2 x 100 x 10 mm,  
3 x 80 x 10 mm, 4 x 50 x 10 mm

### ACCESSORIES (INCLUDED):

- 2 pcs. primary busbar fixing clamps (type 16)
- 4 pcs. mounting screws M5x55
- 2 pcs. secondary terminal cover (yellow sliders)
- 4 pcs. protective caps for primary  
busbar mounting screws

I <sub>sec</sub>	Cl.	RATED PRIMARY CURRENT I <sub>PR</sub>											A
		400	500	600	750	800	1000	1250	1500	1600	2000*	2500*	
5A	1	2,5 5	2,5 5	2,5 5	2,5 5	2,5 5	2,5 5	2,5 5	2,5 5	2,5 5	2,5 5	2,5 5	VA
	0,5	2,5 5	2,5 5	2,5 5	2,5 5	2,5 5	2,5 5	2,5 5	2,5 5	2,5 5	2,5 5	2,5 5	
	0,5S	2,5 5	2,5 5	2,5 5	2,5 5	2,5 5	2,5 5	2,5 5	2,5 5	2,5 5	2,5 5	2,5 5	
	0,2				2,5 5								
	0,2S						2,5 5	2,5 5	2,5 5	2,5 5	2,5 5	2,5 5	
1A	1	2,5 5	2,5 5	2,5 5	2,5 5	2,5 5	2,5 5	2,5 5	2,5 5	2,5 5	2,5 5	2,5 5	VA
	0,5	2,5 5	2,5 5	2,5 5	2,5 5	2,5 5	2,5 5	2,5 5	2,5 5	2,5 5	2,5 5	2,5 5	
	0,5S	2,5 5	2,5 5	2,5 5	2,5 5	2,5 5	2,5 5	2,5 5	2,5 5	2,5 5	2,5 5	2,5 5	
	0,2				2,5 5								
	0,2S						2,5 5	2,5 5	2,5 5	2,5 5	2,5 5	2,5 5	

If the distance between the current transformer and adjacent current-carrying conductors is short, the measuring accuracy may be influenced by magnetic external field effects.  
Please ensure sufficient distance (at least 0.2 m) when using current transformers especially from 2000 A or use optional design with external field protection (ffp5 / ffp10).

$$* I_{\text{cth}} = 1,0 \times I_{\text{pr}}$$

### OPTIONAL ACCESSORIES:

- Primary busbar quick fixing set (type 16-65)
- Snap-on mounting brackets for rail TS35 (DIN EN 60715)
- Insulating protective caps for primary busbar mounting screws
- Mounting feet

### SPECIAL DESIGNS (UPON REQUEST):

- Other ratios, burdens or accuracy classes
- Secondary reconnection
- Cast resin encapsulation
- Highest voltage for equipment 1,2 kV

### [E] CONFORMITY ASSESSMENT

■ Available for grey-shaded variants

I <sub>sec</sub>	Cl.	RATED PRIMARY CURRENT I <sub>PR</sub>												A
		400	500	600	750	800	1000	1250	1500	1600	2000	2500	3000*	
5A	1	2,5 5	2,5 5	5	5	5	5	5	5	5	5	5	5	VA
	0,5	2,5 5	2,5 5	2,5 5	2,5 5	2,5 5	2,5 5	2,5 5	2,5 5	2,5 5	2,5 5	2,5 5	2,5 5	
	0,5S	2,5 5	2,5 5	2,5 5	2,5 5	2,5 5	2,5 5	2,5 5	2,5 5	2,5 5	2,5 5	2,5 5	2,5 5	
	0,2				2,5 5									
	0,2S					2,5 5								
1A	1	2,5 5	2,5 5	5	5	5	5	5	5	5	5	5	5	VA
	0,5	2,5 5	2,5 5	5	5	5	5	5	5	5	5	5	5	
	0,5S	2,5 5	2,5 5	5	5	5	5	5	5	5	5	5	5	
	0,2				2,5 5									
	0,2S					2,5 5								

If the distance between the current transformer and adjacent current-carrying conductors is short, the measuring accuracy may be influenced by magnetic external field effects.  
Please ensure sufficient distance (at least 0.2 m) when using current transformers especially from 2000 A or use optional design with external field protection (ffp5 / ffp10).

$$* I_{\text{cth}} = 1,0 \times I_{\text{pr}}$$

### OPTIONAL ACCESSORIES:

- Primary busbar quick fixing set (type 16-65)
- Snap-on mounting brackets for rail TS35 (DIN EN 60715)
- Insulating protective caps for primary busbar mounting screws
- Mounting feet

### SPECIAL DESIGNS (UPON REQUEST):

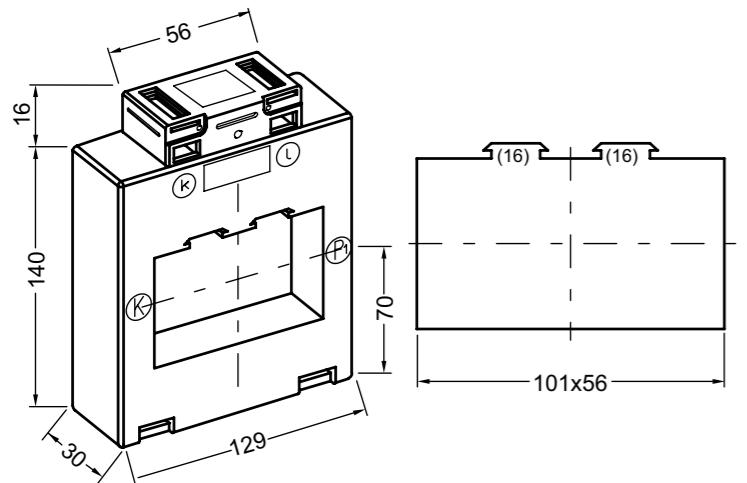
- Other ratios, burdens or accuracy classes
- Secondary reconnection
- Cast resin encapsulation
- Highest voltage for equipment 1,2 kV

### [E] CONFORMITY ASSESSMENT

■ Available for grey-shaded variants

## BUSBAR TYPE CURRENT TRANSFORMER

E] 13A1056.3



### INFORMATION:

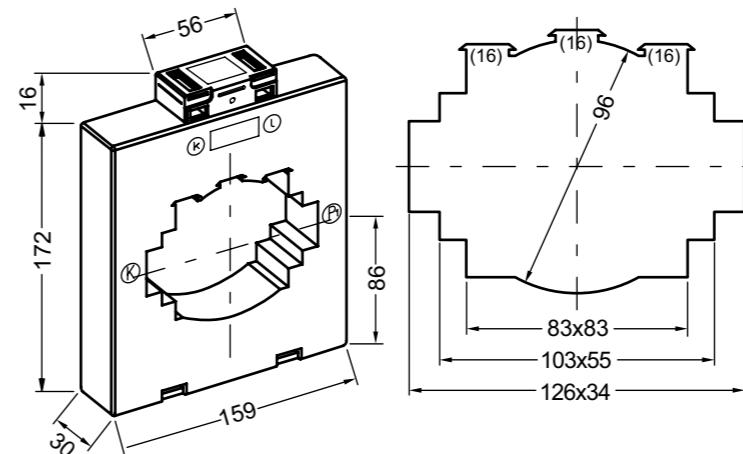
- Weight approx. 470 - 700 g
- Primary busbar 3 x 100 x 10 mm

### ACCESSORIES (INCLUDED):

- 2 pcs. primary busbar fixing clamps (type 16)
- 4 pcs. mounting screws M5x55
- 2 pcs. secondary terminal cover (yellow sliders)
- 4 pcs. protective caps for primary busbar mounting screws

## BUSBAR TYPE CURRENT TRANSFORMER

[E] 16A1234.3



### INFORMATION:

- Weight approx. 700 - 1050 g
- Round conductor 96 mm
- Primary busbar 2 x 120 x 10 mm, 3 x 100 x 10 mm, 4 x 80 x 10 mm

### ACCESSORIES (INCLUDED):

- 2 pcs. primary busbar fixing clamps (type 16)
- 4 pcs. mounting screws M5x75
- 2 pcs. secondary terminal cover (yellow sliders)
- 4 pcs. protective caps for primary busbar mounting screws

I <sub>sec</sub>	Cl.	RATED PRIMARY CURRENT I <sub>PR</sub>												A
		400	500	600	750	800	1000	1250	1500	1600	2000	2500	3000*	
5A	1	2,5 5	2,5 5	5 10	VA									
	0,5	2,5 5	2,5 5	2,5 5	2,5 5	2,5 5	2,5 5	2,5 5	2,5 5	2,5 5	2,5 5	2,5 5	2,5 5	
	0,5S	2,5 5	2,5 5	2,5 5	2,5 5	2,5 5	2,5 5	2,5 5	2,5 5	2,5 5	2,5 5	2,5 5	2,5 5	
	0,2	2,5 5	2,5 5	2,5 5	2,5 5	2,5 5	2,5 5	2,5 5	2,5 5	2,5 5	2,5 5	2,5 5	2,5 5	
	0,2S	2,5 5	2,5 5	2,5 5	2,5 5	2,5 5	2,5 5	2,5 5	2,5 5	2,5 5	2,5 5	2,5 5	2,5 5	
1A	1	2,5 5	2,5 5	5 10	VA									
	0,5	2,5 5	2,5 5	2,5 5	2,5 5	2,5 5	2,5 5	2,5 5	2,5 5	2,5 5	2,5 5	2,5 5	2,5 5	
	0,5S	2,5 5	2,5 5	2,5 5	2,5 5	2,5 5	2,5 5	2,5 5	2,5 5	2,5 5	2,5 5	2,5 5	2,5 5	
	0,2	2,5 5	2,5 5	2,5 5	2,5 5	2,5 5	2,5 5	2,5 5	2,5 5	2,5 5	2,5 5	2,5 5	2,5 5	
	0,2S	2,5 5	2,5 5	2,5 5	2,5 5	2,5 5	2,5 5	2,5 5	2,5 5	2,5 5	2,5 5	2,5 5	2,5 5	

If the distance between the current transformer and adjacent current-carrying conductors is short, the measuring accuracy may be influenced by magnetic external field effects.  
Please ensure sufficient distance (at least 0.2 m) when using current transformers especially from 2000 A or use optional design with external field protection (ffp5 / ffp10).

\* I<sub>ch</sub> = 1,0 x I<sub>pr</sub>

### OPTIONAL ACCESSORIES:

- Primary busbar quick fixing set (type 16-65)
- Snap-on mounting brackets for rail TS35 (DIN EN 60715)
- Insulating protective caps for primary busbar mounting screws
- Mounting feet

### SPECIAL DESIGNS (UPON REQUEST):

- Other ratios, burdens or accuracy classes
- Secondary reconnection
- Cast resin encapsulation
- Highest voltage for equipment 1,2 kV

### [E] CONFORMITY ASSESSMENT

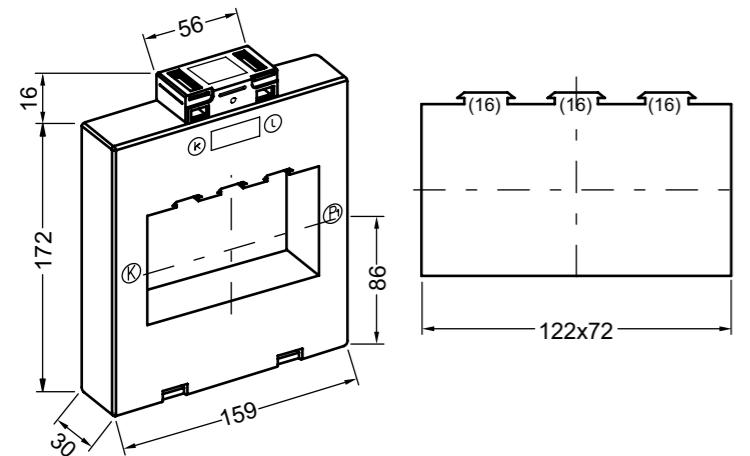
■ Available for grey-shaded variants

I <sub>sec</sub>	Cl.	RATED PRIMARY CURRENT I <sub>PR</sub>												A
		400	500	600	750	800	1000	1250	1500	1600	2000	2500	3000	
5A	1	2,5 5	5 10	VA										
	0,5	2,5 5	2,5 5	2,5 5	2,5 5	2,5 5	2,5 5	2,5 5	2,5 5	2,5 5	2,5 5	2,5 5	2,5 5	
	0,5S	2,5 5	2,5 5	2,5 5	2,5 5	2,5 5	2,5 5	2,5 5	2,5 5	2,5 5	2,5 5	2,5 5	2,5 5	
	0,2	2,5 5	2,5 5	2,5 5	2,5 5	2,5 5	2,5 5	2,5 5	2,5 5	2,5 5	2,5 5	2,5 5	2,5 5	
	0,2S	2,5 5	2,5 5	2,5 5	2,5 5	2,5 5	2,5 5	2,5 5	2,5 5	2,5 5	2,5 5	2,5 5	2,5 5	
1A	1	5 10	5 10	5 10	5 10	5 10	5 10	5 10	5 10	5 10	5 10	5 10	5 10	VA
	0,5	2,5 5	2,5 5	2,5 5	2,5 5	2,5 5	2,5 5	2,5 5	2,5 5	2,5 5	2,5 5	2,5 5	2,5 5	
	0,5S	2,5 5	2,5 5	2,5 5	2,5 5	2,5 5	2,5 5	2,5 5	2,5 5	2,5 5	2,5 5	2,5 5	2,5 5	
	0,2	2,5 5	2,5 5	2,5 5	2,5 5	2,5 5	2,5 5	2,5 5	2,5 5	2,5 5	2,5 5	2,5 5	2,5 5	
	0,2S	2,5 5	2,5 5	2,5 5	2,5 5	2,5 5	2,5 5	2,5 5	2,5 5	2,5 5	2,5 5	2,5 5	2,5 5	

If the distance between the current transformer and adjacent current-carrying conductors is short, the measuring accuracy may be influenced by magnetic external field effects.  
Please ensure sufficient distance (at least 0.2 m) when using current transformers especially from 2000 A or use optional design with external field protection (ffp5 / ffp10).

## BUSBAR TYPE CURRENT TRANSFORMER

[E] 16A1272.3



### INFORMATION:

- Weight approx. 920 - 960 g
- Primary busbar 4 x 120 x 10 mm

### ACCESSORIES (INCLUDED):

- 2 pcs. primary busbar fixing clamps (type 16)
- 4 pcs. mounting screws M5x75
- 2 pcs. secondary terminal cover (yellow sliders)
- 4 pcs. protective caps for primary busbar mounting screws

$I_{sec}$	Cl.	RATED PRIMARY CURRENT $I_{pr}$												A
		400	500	600	750	800	1000	1250	1500	1600	2000	2500	3000	
5A	1	2,5 5	2,5 5	5 10	5 10	5 10	5 10	5 10	5 10	5 10	10 15	15 20	15 20	VA
	0,5	2,5 5	2,5 5	2,5 5	5 10	5 10	5 10	5 10	5 10	5 10	10 15	10 15	10 15	
	0,5S							5 10	5 10	5 10	10 15	10 15	10 15	
	0,2							5 10	5 10	5 10	10 15	10 15	10 15	
	0,2S								5 10	5 10	10 15	10 15	10 15	
1A	1	2,5 5	2,5 5	5 10	5 10	5 10	5 10	5 10	5 10	10 15	10 15	10 15	10 15	VA
	0,5	2,5 5	2,5 5	2,5 5	5 10	5 10	5 10	5 10	5 10	10 15	10 15	10 15	10 15	
	0,5S							5 10	5 10	5 10	10 15	10 15	10 15	
	0,2							5 10	5 10	5 10	10 15	10 15	10 15	
	0,2S								5 10	5 10	10 15	10 15	10 15	

If the distance between the current transformer and adjacent current-carrying conductors is short, the measuring accuracy may be influenced by magnetic external field effects.  
Please ensure sufficient distance (at least 0.2 m) when using current transformers especially from 2000 A or use optional design with external field protection (ffp5 / ffp10).

### OPTIONAL ACCESSORIES:

- Primary busbar quick fixing set (type 16-65)
- Snap-on mounting brackets for rail TS35 (DIN EN 60715)
- Insulating protective caps for primary busbar mounting screw
- Mounting feet

### SPECIAL DESIGNS (UPON REQUEST):

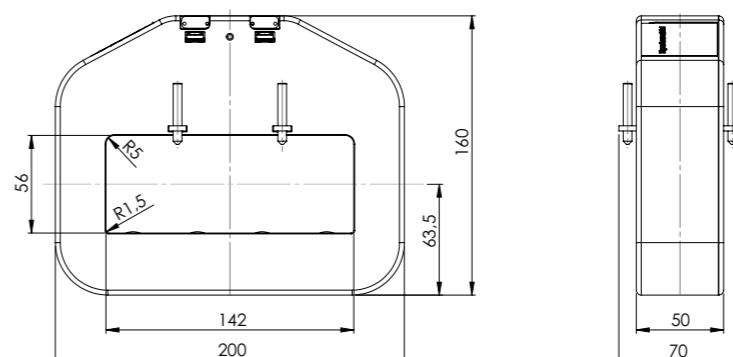
- Other ratios, burdens or accuracy classes
- Secondary reconnection
- Cast resin encapsulation
- Highest voltage for equipment 1,2 kV

### [E] CONFORMITY ASSESSMENT

■ Available for grey-shaded variants

## BUSBAR TYPE CURRENT TRANSFORMER

20A1456.5

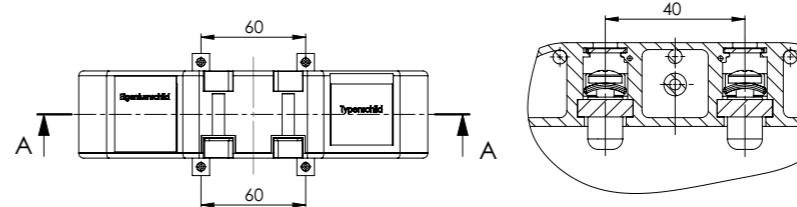


### INFORMATION:

- Weight approx. 2,1 - 2,7 kg
- Primary busbar 3 x 140 x 10 mm

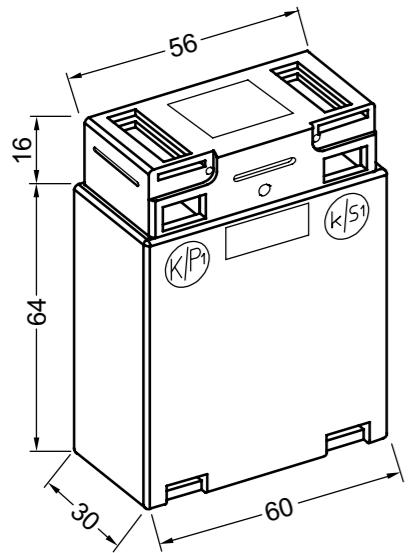
### ACCESSORIES (INCLUDED):

- 2 pcs. primary busbar fixing clamps
- 4 pcs. mounting screws M5x35
- 4 pcs. insulating protective caps for primary busbar mounting screws
- 2 pcs. secondary terminal cover (yellow sliders)
- 4 pcs. protective caps for primary busbar mounting screws



$I_{sec}$	Cl.	RATED PRIMARY CURRENT $I_{pr}$					A
		1000	2000	3000	4000	5000	
5A	1	5 10	10 20	10 20	10 20	10 20	VA
	0,5	5 10	10 15	10 15	10 15	10 15	
	0,5S	5 10	10 15	10 15	10 15	10 15	
	0,2	2,5 5	5 10	10 15	10 15	10 15	
	0,2S	2,5 5	5 10	10 15	10 15	10 15	

If the distance between the current transformer and adjacent current-carrying conductors is short, the measuring accuracy may be influenced by magnetic external field effects.  
Please ensure sufficient distance (at least 0.2 m) when using current transformers especially from 2000 A or use optional design with external field protection (ffp5 / ffp10).

**INFORMATION:**

- Weight approx. 200 - 270 g

**ACCESSORIES (INCLUDED):**

- 2 pcs. secondary terminal cover (yellow sliders)
- 2 pcs. mounting feet

I <sub>sec</sub>	Cl.	RATED PRIMARY CURRENT I <sub>pr</sub>														A
		1	2	2,5	4	5	6	7,5	10	12,5	15	20	25	30	40	
5A	1	2,5	2,5	2,5	2,5	2,5	2,5	2,5	2,5	2,5	2,5	2,5	2,5	2,5	2,5	VA
		5	5	5	5	5	5	5	5	5	5	5	5	5	5	
	0,5	2,5	2,5	2,5	2,5	2,5	2,5	2,5	2,5	2,5	2,5	2,5	2,5	2,5	2,5	VA
		5	5	5	5	5	5	5	5	5	5	5	5	5	5	
1A	1	2,5	2,5	2,5	2,5	2,5	2,5	2,5	2,5	2,5	2,5	2,5	2,5	2,5	2,5	VA
		5	5	5	5	5	5	5	5	5	5	5	5	5	5	
	0,5	2,5	2,5	2,5	2,5	2,5	2,5	2,5	2,5	2,5	2,5	2,5	2,5	2,5	2,5	VA
		5	5	5	5	5	5	5	5	5	5	5	5	5	5	

**OPTIONAL ACCESSORIES:**

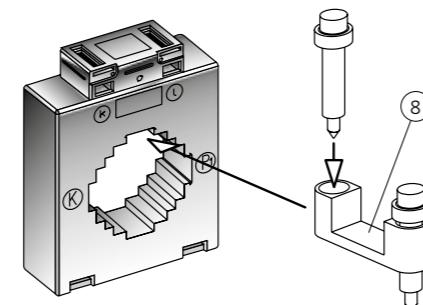
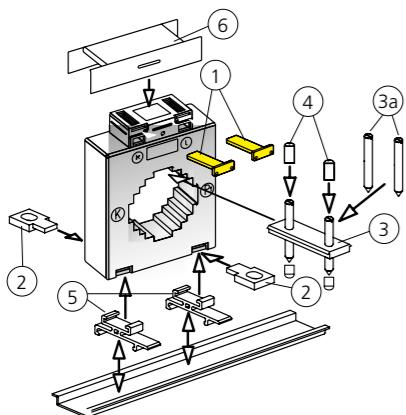
- Snap-on mounting brackets for rail TS35 (DIN EN 60715)

**SPECIAL DESIGNS (UPON REQUEST):**

- Other ratios, burdens or accuracy classes
- Cast resin encapsulation
- Highest voltage for equipment 1,2 kV

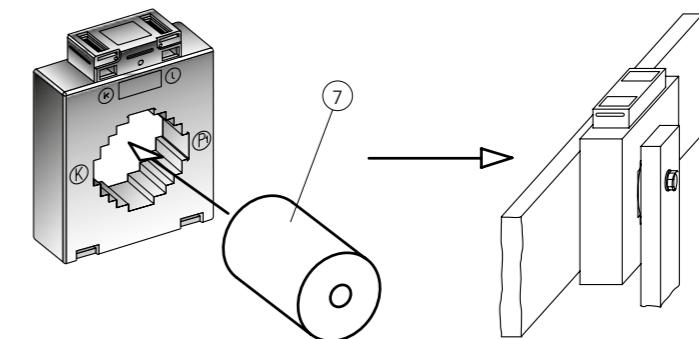
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## ACCESSORIES REGULUS SERIES



No.	Product	Picture	Order key
①	Secondary terminal covers (yellow sliders, 2 pieces included) For re-ordering		V0001693
②	Mounting feet (2 pieces included) For re-ordering		V0004452
	Mounting feet, 50 pieces (25 pairs) For re-ordering		V0004653
③	CT fixing set (Included in delivery) For re-ordering		
	2 mounting feet, 1 bus bar fixing clamp (type 13), 2 mounting screws M5 x 35 for 6A412.3, 7A412.3, 8A512.3		V0001655
	2 mounting feet, 1 bus bar fixing clamp (type 16), 2 mounting screws M5 x 35 for 6A315.3, 8A615.3, 9A615.3, 9A640.4		V0001654
	2 mounting feet, 1 bus bar fixing clamp (type 16), 2 mounting screws M5 x 55 for 10A815.3		V0001656
	2 mounting feet, 2 bus bar fixing clamp (type 16), 4 mounting screws M5 x 15 for 16A1234.3, 16A1272.3		V0001657
	2 mounting feet, 2 bus bar fixing clamp (type 16), 4 mounting screws M5 x 75 for 16A1234.3, 16A1272.3		V0001658
	2 mounting screws (stud bolts) M5 x 35		V0001492
③a	2 mounting screws (stud bolts) M5 x 55		V0001493
	4 mounting screws (stud bolts) M5 x 75		V0001494

## ACCESSORIES REGULUS SERIES



No.	Product	Picture	Order key
④	Insulating caps for bus bar mounting screws (2 pcs.)		W000003940
⑤	DIN rail adapter according to EN 50022-35 (2 pcs.)		V0001691
⑥	Extended secondary terminal cover for 4R21.3		V0001665
	Extended secondary terminal cover for 6A315.3, 7A512.3, 8A512.3		V0001667
⑦	Copper sleeve $d_o = 21$ mm, $d_i = 8.5$ mm, $L = 32$ mm <sup>1</sup> for 4R21.3		W000002854
	Copper sleeve $d_o = 21$ mm, $d_i = 12.5$ mm, $L = 32$ mm <sup>1</sup> for 4R21.3		W000002853
	Copper sleeve $d_o = 28$ mm, $d_i = 12.5$ mm, $L = 32$ mm <sup>1</sup> for 6A315.3		W000002855
	Copper sleeve $d_o = 42$ mm, $d_i = 14.5$ mm, $L = 32$ mm <sup>1</sup> for 7A512.3 or 8A512.3		W000002856
⑧	Busbar quick fixing set		
	Type 13-40 (1 pc.) with 40 mm pins for 6A412.3, 7A412.3, 7A512.3, 8A512.3		W000004626
	Type 16-40 (1 pc.) with 40 mm pins for 6A315.3, 8A615.3, 9A615.3, 9A640.3		W000004627
	Type 16-65 (1 pc.) with 65 mm pins for 10A815.3		W000004628
	Type 16-65 (2 pcs.) with 65 mm pins for 10A830.3, 13A1030.3, 13A1056.3, 16A1234.3, 16A1272.3		W000004629
	Type 16-65-9 (2 pcs.) with 100 mm pins for 13A1030.3, 13A1056.3, 16A1234.3, 16A1272.3		W000004630

# REGULUS

## FFP

### SERIES



The busbar typ CTs for indoor applications is characterised by its compactness, multifunctionality and high safety requirements. This type of CT minimises the influence of external magnetic fields, which can negatively impact the accuracy of current transformers at high currents and small distances between busbars. All current transformers comply with IEC 61869 (DIN EN 61869/VDE 0414, DIN 42600).

#### GENERAL MECHANICAL CHARACTERISTICS:

- Break-proof polyamide enclosure
- Flame retardant
- Nickel-plated crosshead screws (2 Nm)

#### GENERAL ELECTRICAL CHARACTERISTICS:

- Highest voltage for equipment  $U_m = 0,72 \text{ kV}$
- Rated power frequency withstand voltage  $(\text{r.m.s.})$   
3 kV / 1 min
- Rated frequency 50 / 60 Hz
- Rated continuous thermal current  $I_{cth} = 1,2 \times I_{pr}$
- Rated short-time thermal current  $I_{th} = 60 \times I_{pr}$  for 1 sec  
(max. 100 kA/1s)
- Rated dynamic current  $I_{dyn} = 2,5 \times I_{th}$
- Indoor use only
- Ambient air temperature (operating)  
 $-5^\circ\text{C} \dots +40^\circ\text{C}$  (other temperatures on request)
- Short-term temperature of primary conductor  
max. 170°C for 1 sec
- Instrument security factor FS5 or FS10
- Insulating class E / F / H

#### ACCESSORIES (INCLUDED):

- Secondary terminal cover
- Primary busbar fixing clamp
- Mounting screws
- Protective caps for primary busbar set screws

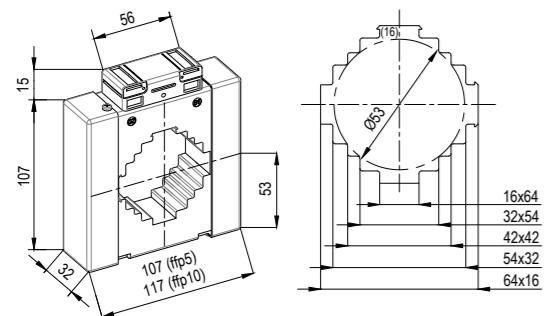
#### OPTIONAL:

- Snap-on mounting brackets for rail TS35 (DIN EN 60715)
- Copper busbars in different sizes
- Copper sleeve bushes in different sizes
- Insulating protective caps for primary busbar mounting screws
- Protective cover to increase the clearance and creepage distance
- Primary busbar quick fixing set
- Mounting feet

## BUSBAR TYPE CURRENT TRANSFORMER

EXTERNAL MAGNETIC FIELD PROTECTION

### [E] 9A615.3 ffp5 / ffp10



#### INFORMATION:

- Weight approx. 645 - 1040 g
- Round conductor 53 mm
- Primary busbar 60 x 10 mm, 2 x 50 x 10 mm, 2 x 40 x 10 mm, 3 x 30 x 10 mm

#### ACCESSORIES (INCLUDED):

- 1 pc. primary busbar fixing clamps (type 16)
- 2 pcs. mounting screws M5x35
- 2 pcs. secondary terminal cover (yellow sliders)
- 2 pcs. protective caps for primary busbar mounting screws

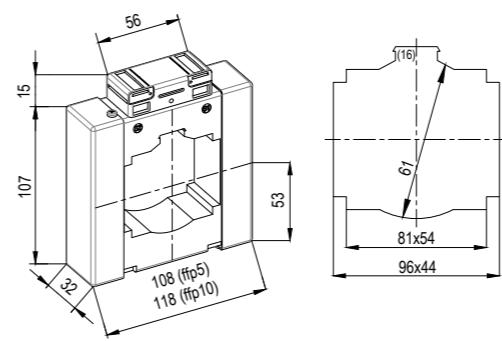
Current	Minimal Distance <sup>1</sup> from outer edge to outer edge of the busbars	Protection type
2000 A	50 mm	FFP5
2500 A	55 mm	FFP5

<sup>1</sup> Separate distance rules apply to the certified current transformers according to PTB type approval from 2000 A. Please also observe the installation instruction.

## BUSBAR TYPE CURRENT TRANSFORMER

EXTERNAL MAGNETIC FIELD PROTECTION

### [E] 9A640.3 ffp5 / ffp10



#### INFORMATION:

- Weight approx. 585 - 910 g
- Round conductor 61 mm
- Primary busbar 2 x 60 x 10 mm, 3 x 50 x 10 mm

#### ACCESSORIES (INCLUDED):

- 1 pc. primary busbar fixing clamps (type 16)
- 2 pcs. mounting screws M5x35
- 2 pcs. secondary terminal cover (yellow sliders)
- 2 pcs. protective caps for primary busbar mounting screws

Current	Minimal Distance <sup>1</sup> from outer edge to outer edge of the busbars	Protection type
2000 A	50 mm	FFP5

<sup>1</sup> Separate distance rules apply to the certified current transformers according to PTB type approval from 2000 A. Please also observe the installation instruction.

I <sub>sec</sub>	Cl.	RATED PRIMARY CURRENT I <sub>PR</sub>														A
		200	250	300	400	500	600	750	800	1000	1250	1500	1600	2000	2500	
5A	1	2,5	2,5	2,5	2,5	5	5	5	5	5	5	5	5	5	5	VA
	0,5	3,75	5	5	5	10	10	10	10	10	10	10	10	10	10	
	0,5S	7,5	10	10	15	15	15	15	15	15	15	15	15	15	15	
	0,2	15	20	20	20	20	20	20	20	20	20	20	20	20	20	
	0,2S	2,5	2,5	2,5	2,5	5	5	5	5	5	5	5	5	5	5	
	1	5	5	5	10	10	15	15	15	15	15	15	15	15	15	
	0,5	10	10	15	15	15	20	20	20	20	20	20	20	20	20	
	0,5S	15	15	20	20	20	30	30	30	30	30	30	30	30	30	
	0,2	20	20	20	20	20	30	30	30	30	30	30	30	30	30	
	0,2S	5	5	5	10	10	15	15	15	15	15	15	15	15	15	
1A	1	2,5	2,5	2,5	2,5	5	5	5	5	5	5	5	5	5	5	VA
	0,5	3,75	5	5	5	10	10	10	10	10	10	10	10	10	10	
	0,5S	7,5	10	10	10	15	15	15	15	15	15	15	15	15	15	
	0,2	15	20	20	20	20	20	20	20	20	20	20	20	20	20	
	0,2S	2,5	2,5	2,5	2,5	5	5	5	5	5	5	5	5	5	5	
	1	5	5	5	10	10	15	15	15	15	15	15	15	15	15	
	0,5	10	10	10	15	15	15	20	20	20	20	20	20	20	20	
	0,5S	15	15	20	20	20	30	30	30	30	30	30	30	30	30	
	0,2	20	20	20	20	20	30	30	30	30	30	30	30	30	30	
	0,2S	5	5	5	10	10	15	15	15	15	15	15	15	15	15	

#### OPTIONAL ACCESSORIES:

- Primary busbar quick fixing set (type 16-40)
- Snap-on mounting brackets for rail TS35 (DIN EN 60715)
- Insulating protective caps for primary busbar mounting screws
- Mounting feet

#### SPECIAL DESIGNS (UPON REQUEST):

- Other ratios, burdens or accuracy classes
- Secondary reconnection
- Cast resin encapsulation
- Highest voltage for equipment 1,2 kV

#### [E] CONFORMITY ASSESSMENT

■ Available for grey-shaded variants

#### OPTIONAL ACCESSORIES:

- Primary busbar quick fixing set (type 16-40)
- Snap-on mounting brackets for rail TS35 (DIN EN 60715)
- Insulating protective caps for primary busbar mounting screws
- Mounting feet

#### SPECIAL DESIGNS (UPON REQUEST):

- Other ratios, burdens or accuracy classes
- Secondary reconnection
- Cast resin encapsulation
- Highest voltage for equipment 1,2 kV

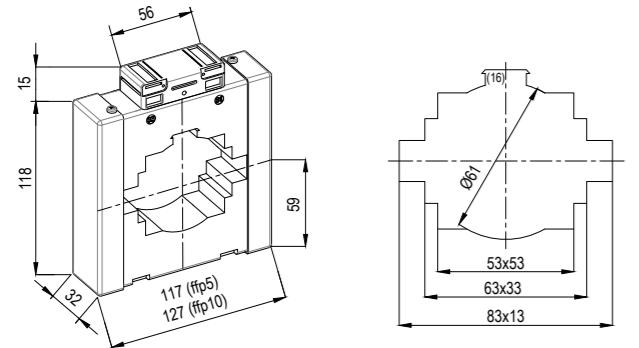
#### [E] CONFORMITY ASSESSMENT

■ Available for grey-shaded variants

## BUSBAR TYPE CURRENT TRANSFORMER

EXTERNAL MAGNETIC FIELD PROTECTION

### [E] 10A815.3 ffp5 / ffp10



Current	Minimal Distance <sup>1</sup> from outer edge to outer edge of the busbars	Protection type
2000 A	50 mm	FFP5
2500 A	55 mm	FFP5

#### INFORMATION:

- Weight approx. 615 - 1030 g
- Round conductor 61 mm
- Primary busbar 80 x 10 mm, 2 x 60 x 10 mm, 3 x 50 x 10 mm

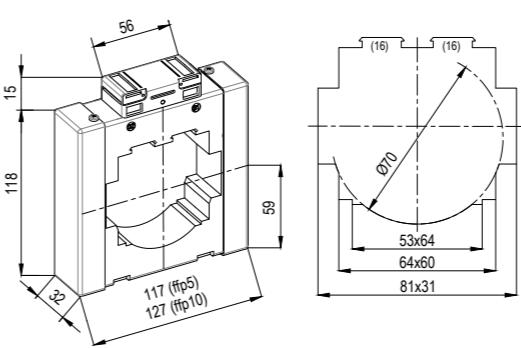
#### ACCESSORIES (INCLUDED):

- 1 pc. primary busbar fixing clamps (type 16)
- 2 pcs. mounting screws M5x55
- 2 pcs. secondary terminal cover (yellow sliders)
- 2 pcs. protective caps for primary busbar mounting screws

## BUSBAR TYPE CURRENT TRANSFORMER

EXTERNAL MAGNETIC FIELD PROTECTION

### [E] 10A830.3 ffp5 / ffp10



Current	Minimal Distance <sup>1</sup> from outer edge to outer edge of the busbars	Protection type
2000 A	50 mm	FFP5
2500 A	55 mm	FFP5

#### INFORMATION:

- Weight approx. 605 - 970 g
- Round conductor 70 mm
- Primary busbar 2 x 80 x 10 mm, 3 x 60 x 10 mm, 3 x 50 x 10 mm

#### ACCESSORIES (INCLUDED):

- 2 pcs. primary busbar fixing clamps (type 16)
- 4 pcs. mounting screws M5x55
- 2 pcs. secondary terminal cover (yellow sliders)
- 4 pcs. protective caps for primary busbar mounting screws

<sup>1</sup> Separate distance rules apply to the certified current transformers according to PTB type approval from 2000 A. Please also observe the installation instruction.

I <sub>sec</sub>	Cl.	RATED PRIMARY CURRENT I <sub>pr</sub>												A
		400	500	600	750	800	1000	1250	1500	1600	2000	2500*		
5A	1	2,5	2,5	2,5	2,5	2,5	2,5	2,5	2,5	2,5	5	10	VA	
		5	5	5	5	5	5	5	5	5	10	15		
		10	10	10	10	10	10	10	10	10	15	20		
		15	15	15	15	15	15	15	15	15	20	30		
	0,5	2,5	2,5	2,5	2,5	2,5	2,5	2,5	2,5	2,5	2,5	5		
0,5S	5	5	5	5	5	5	5	5	5	5	5	10	VA	
		10	10	10	10	10	10	10	10	10	10	15		
		15	15	15	15	15	15	15	15	15	15	20		
	0,2										2,5	5		
		5	5	5	5	5	5	5	5	5	5	10		
0,2S										10	10	15	VA	
		10	10	10	10	10	10	10	10	10	2,5	5		
										5	5	10		
										5	5	10		
										5	5	10		
1A	1	2,5	2,5	2,5	2,5	2,5	2,5	2,5	2,5	2,5	5	VA		
		5	5	5	5	5	5	5	5	5	10			
		10	10	10	10	10	10	10	10	10	15			
										15	15	20		
	0,5	2,5	2,5	2,5	2,5	2,5	2,5	2,5	2,5	2,5	2,5	5		
0,5S	5	5	5	5	5	5	5	5	5	5	10	10	VA	
		10	10	10	10	10	10	10	10	10	10	15		
										15	15	15		
	0,2									10	10	10		
		5	5	5	5	5	5	5	5	5	5	10		
0,2S										10	10	10	VA	
		10	10	10	10	10	10	10	10	2,5	2,5	2,5		
										5	5	5		
										5	5	10		
										5	5	10		

\* I<sub>ch</sub> = 1,0 x I<sub>pr</sub>

#### OPTIONAL ACCESSORIES:

- Primary busbar quick fixing set (type 16-65)
- Snap-on mounting brackets for rail TS35 (DIN EN 60715)
- Insulating protective caps for primary busbar mounting screws
- Mounting feet

#### SPECIAL DESIGNS (UPON REQUEST):

- Other ratios, burdens or accuracy classes
- Secondary reconnection
- Cast resin encapsulation
- Highest voltage for equipment 1,2 kV

#### [E] CONFORMITY ASSESSMENT

■ Available for grey-shaded variants

\* I<sub>ch</sub> = 1,0 x I<sub>pr</sub>

#### OPTIONAL ACCESSORIES:

- Primary busbar quick fixing set (type 16-65)
- Snap-on mounting brackets for rail TS35 (DIN EN 60715)
- Insulating protective caps for primary busbar mounting screws
- Mounting feet

#### SPECIAL DESIGNS (UPON REQUEST):

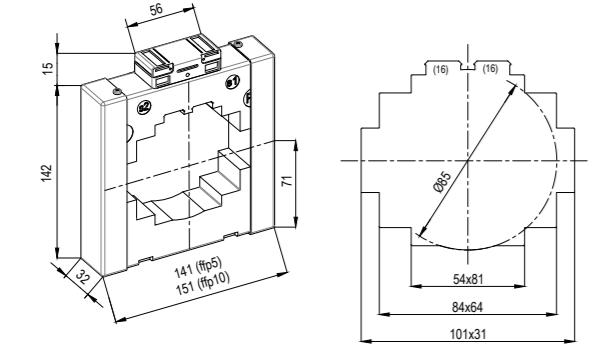
- Other ratios, burdens or accuracy classes
- Secondary reconnection
- Cast resin encapsulation
- Highest voltage for equipment 1,2 kV

#### [E] CONFORMITY ASSESSMENT

■ Available for grey-shaded variants

## BUSBAR TYPE CURRENT TRANSFORMER

EXTERNAL MAGNETIC FIELD PROTECTION



Current	Minimal Distance <sup>1</sup> from outer edge to outer edge of the busbars	Protection type
2000 A	50 mm	FFP5
2500 A	55 mm	FFP5
3000 A	60 mm (55 mm)	FFP5 (FFP10)
4000 A	90 mm (60 mm)	FFP5 (FFP10)

<sup>1</sup> Separate distance rules apply to the certified current transformers according to PTB type approval from 2000 A. Please also observe the installation instruction.

## [E] 13A1030.3 ffp5 / ffp10

### INFORMATION:

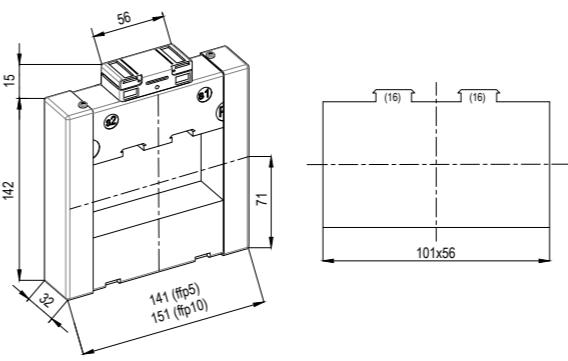
- Weight approx. 755 - 1310 g
- Round conductor 85 mm
- Primary busbar 2 x 100 x 10 mm, 3 x 80 x 10 mm, 4 x 50 x 10 mm

### ACCESSORIES (INCLUDED):

- 2 pcs. primary busbar fixing clamps (type 16)
- 4 pcs. mounting screws M5x55
- 2 pcs. secondary terminal cover (yellow sliders)
- 4 pcs. protective caps for primary busbar screws

## BUSBAR TYPE CURRENT TRANSFORMER

EXTERNAL MAGNETIC FIELD PROTECTION



Current	Minimal Distance <sup>1</sup> from outer edge to outer edge of the busbars	Protection type
2000 A	50 mm	FFP5
2500 A	55 mm	FFP5
3000 A	60 mm (55 mm)	FFP5 (FFP10)
4000 A	90 mm (60 mm)	FFP5 (FFP10)

<sup>1</sup> Separate distance rules apply to the certified current transformers according to PTB type approval from 2000 A. Please also observe the installation instruction.

## [E] 13A1056.3 ffp5 / ffp10

### INFORMATION:

- Weight approx. 785 - 1330 g
- Primary busbar 3 x 100 x 10 mm

### ACCESSORIES (INCLUDED):

- 2 pcs. primary busbar fixing clamps (type 16)
- 4 pcs. mounting screws M5x55
- 2 pcs. secondary terminal cover (yellow sliders)
- 4 pcs. protective caps for primary busbar mounting screws

I <sub>sec</sub>	Cl.	RATED PRIMARY CURRENT I <sub>PR</sub>													A
		400	500	600	750	800	1000	1250	1500	1600	2000	2500	3000*	4000*	
5A	1	2,5	2,5	5	5	5	5	5	5	5	5	5	5	5	VA
		5	5	10	10	10	10	10	10	10	10	10	10	10	
	0,5	2,5	2,5	2,5	2,5	2,5	2,5	2,5	2,5	2,5	5	5	5	5	
		5	5	5	5	5	5	5	5	5	10	10	10	10	
	0,5S														
	0,2														
	0,2S														
1A	1	2,5	2,5	5	5	5	5	5	5	5	5	5	5	5	VA
		5	5	10	10	10	10	10	10	10	10	10	10	10	
	0,5	2,5	2,5	5	5	5	5	5	5	5	5	5	5	5	
		5	10	10	10	10	10	10	10	10	10	10	10	10	
	0,5S														
	0,2														
	0,2S														

\* I<sub>ch</sub> = 1,0 x I<sub>pr</sub>

### OPTIONAL ACCESSORIES::

- Primary busbar quick fixing set (type 16-65)
- Snap-on mounting brackets for rail TS35 (DIN EN 60715)
- Insulating protective caps for primary busbar mounting screws
- Mounting feet

### SPECIAL DESIGNS (UPON REQUEST):

- Other ratios, burdens or accuracy classes
- Secondary reconnection
- Cast resin encapsulation
- Highest voltage for equipment 1,2 kV

### [E] CONFORMITY ASSESSMENT

■ Available for grey-shaded variants

\* I<sub>ch</sub> = 1,0 x I<sub>pr</sub>

### OPTIONAL ACCESSORIES::

- Primary busbar quick fixing set (type 16-65)
- Snap-on mounting brackets for rail TS35 (DIN EN 60715)
- Insulating protective caps for primary busbar mounting screws
- Mounting feet

### SPECIAL DESIGNS (UPON REQUEST):

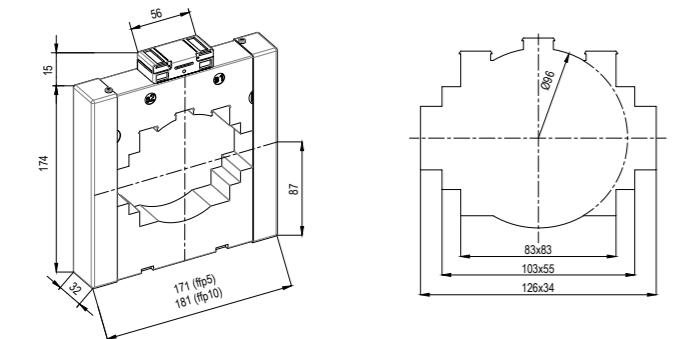
- Other ratios, burdens or accuracy classes
- Secondary reconnection
- Cast resin encapsulation
- Highest voltage for equipment 1,2 kV

### [E] CONFORMITY ASSESSMENT

■ Available for grey-shaded variants

## BUSBAR TYPE CURRENT TRANSFORMER

EXTERNAL MAGNETIC FIELD PROTECTION



Current	Minimal Distance <sup>1</sup> from outer edge to outer edge of the busbars	Protection type
2000 A	50 mm	FFP5
2500 A	55 mm	FFP5
3000 A	60 mm (55 mm)	FFP5 (FFP10)
4000 A	90 mm (60 mm)	FFP5 (FFP10)

<sup>1</sup> Separate distance rules apply to the certified current transformers according to PTB type approval from 2000 A. Please also observe the installation instruction.

### INFORMATION:

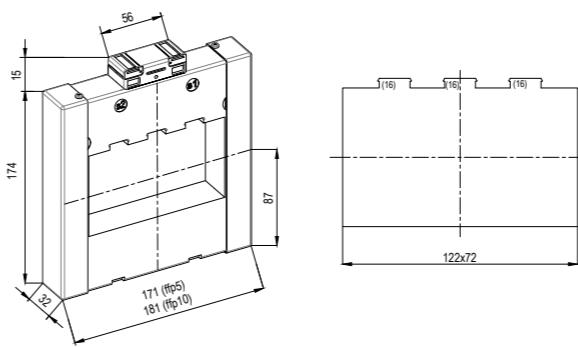
- Weight approx. 1080- 1820 g
- Round conductor 96 mm
- Primary busbar 2 x 120 x 10 mm, 3 x 100 x 10 mm, 4 x 80 x 10 mm

### ACCESSORIES (INCLUDED):

- 2 pcs. primary busbar fixing clamps (type 16)
- 4 pcs. mounting screws M5x75
- 2 pcs. secondary terminal cover (yellow sliders)
- 4 pcs. protective caps for primary busbar mounting screws

## BUSBAR TYPE CURRENT TRANSFORMER

EXTERNAL MAGNETIC FIELD PROTECTION



Current	Minimal Distance <sup>1</sup> from outer edge to outer edge of the busbars	Protection type
2000 A	50 mm	FFP5
2500 A	55 mm	FFP5
3000 A	60 mm (55 mm)	FFP5 (FFP10)
4000 A	90 mm (60 mm)	FFP5 (FFP10)

<sup>1</sup> Separate distance rules apply to the certified current transformers according to PTB type approval from 2000 A. Please also observe the installation instruction.

### INFORMATION:

- Weight approx. 1305 - 1730 g
- Primary busbar 4 x 120 x 10 mm

### ACCESSORIES (INCLUDED):

- 2 pcs. primary busbar fixing clamps (type 16)
- 4 pcs. mounting screws M5x75
- 2 pcs. secondary terminal cover (yellow sliders)
- 4 pcs. protective caps for primary busbar mounting screws

I <sub>sec</sub>	Cl.	RATED PRIMARY CURRENT I <sub>PR</sub>												A
		400	500	600	750	800	1000	1250	1500	1600	2000	2500	3000	
5A	1	2,5	5	5	5	5	5	5	10	5	5	10	10	VA
	0,5	5	10	10	10	10	10	10	10	10	10	15	15	
	0,5S	15	15	15	15	15	15	20	20	20	30	30	45	
	0,2	2,5	2,5	2,5	2,5	2,5	2,5	2,5	2,5	2,5	10	5	5	
	0,2S	5	5	5	5	5	5	5	5	5	15	15	45	
	1	10	10	10	10	10	10	10	10	10	10	15	15	
	0,5	15	15	15	15	15	15	15	15	15	30	30	45	
	0,5S	20	20	20	20	20	20	20	20	20	30	30	45	
	0,2	2,5	2,5	2,5	2,5	2,5	2,5	2,5	2,5	2,5	10	5	5	
	0,2S	5	5	5	5	5	5	5	5	5	15	15	30	
1A	1	5	5	5	5	5	5	5	5	5	10	10	10	VA
	0,5	10	10	10	10	10	10	10	10	10	10	15	15	
	0,5S	15	15	15	15	15	15	15	15	15	30	30	45	
	0,2	2,5	2,5	2,5	2,5	2,5	2,5	2,5	2,5	2,5	10	10	10	
	0,2S	5	5	5	5	5	5	5	5	5	15	15	45	
	1	20	20	20	20	20	20	20	20	20	30	30	45	
	0,5	25	25	25	25	25	25	25	25	25	10	10	10	
	0,5S	30	30	30	30	30	30	30	30	30	45	45	45	
	0,2	2,5	2,5	2,5	2,5	2,5	2,5	2,5	2,5	2,5	10	10	10	
	0,2S	5	5	5	5	5	5	5	5	5	15	15	30	

### OPTIONAL ACCESSORIES:

- Primary busbar quick fixing set (type 16-65)
- Snap-on mounting brackets for rail TS35 (DIN EN 60715)
- Insulating protective caps for primary busbar mounting screws
- Mounting feet

### SPECIAL DESIGNS (UPON REQUEST):

- Other ratios, burdens or accuracy classes
- Secondary reconnection
- Cast resin encapsulation
- Highest voltage for equipment 1,2 kV

### [E] CONFORMITY ASSESSMENT

■ Available for grey-shaded variants

### OPTIONAL ACCESSORIES:

- Primary busbar quick fixing set (type 16-65)
- Snap-on mounting brackets for rail TS35 (DIN EN 60715)
- Insulating protective caps for primary busbar mounting screws
- Mounting feet

### SPECIAL DESIGNS (UPON REQUEST):

- Other ratios, burdens or accuracy classes
- Secondary reconnection
- Cast resin encapsulation
- Highest voltage for equipment 1,2 kV

### [E] CONFORMITY ASSESSMENT

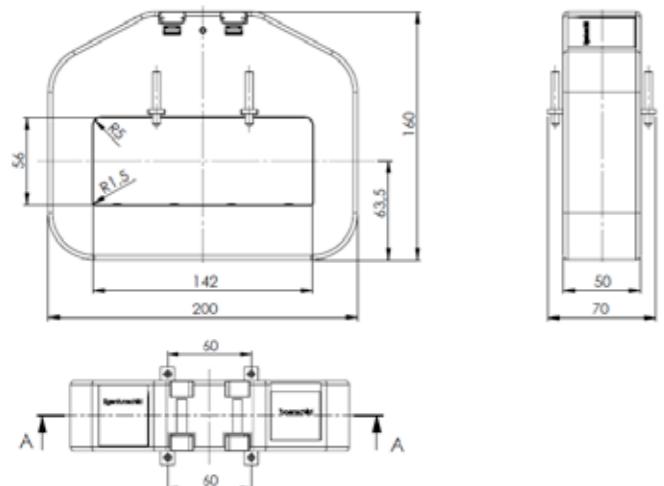
■ Available for grey-shaded variants

# BUSBAR TYPE CURRENT TRANSFORMER

EXTERNAL MAGNETIC FIELD PROTECTION

[E] 20A1456.5 k / ffp

## NOTES



Current	Minimal Distance <sup>1</sup> from outer edge to outer edge of the busbars	Protection type
≤ 5000 A	50 mm	k
1000 A	50 mm	ffp
2000 A	50 mm	ffp
3000 A	60 mm	ffp
4000 A	90 mm	ffp
5000 A	100 mm	ffp

<sup>1</sup> Separate distance rules apply to the certified current transformers according to PTB type approval from 2000 A. Please also observe the installation instruction.

### INFORMATION:

- Weight approx. 2,4 - 3 kg
- Primary busbar 3 x 140 x 10 mm

### ACCESSORIES (INCLUDED):

- 2 pcs. primary busbar fixing clamps
- 4 pcs. mounting screws M5x35
- 4 pcs. insulating protective caps for primary busbar mounting screws
- 2 pcs. secondary terminal cover (yellow sliders)
- 4 pcs. pressure protective caps for primary busbar mounting screws

[k] Compensation winding or

[ffp] External magnetic field protection

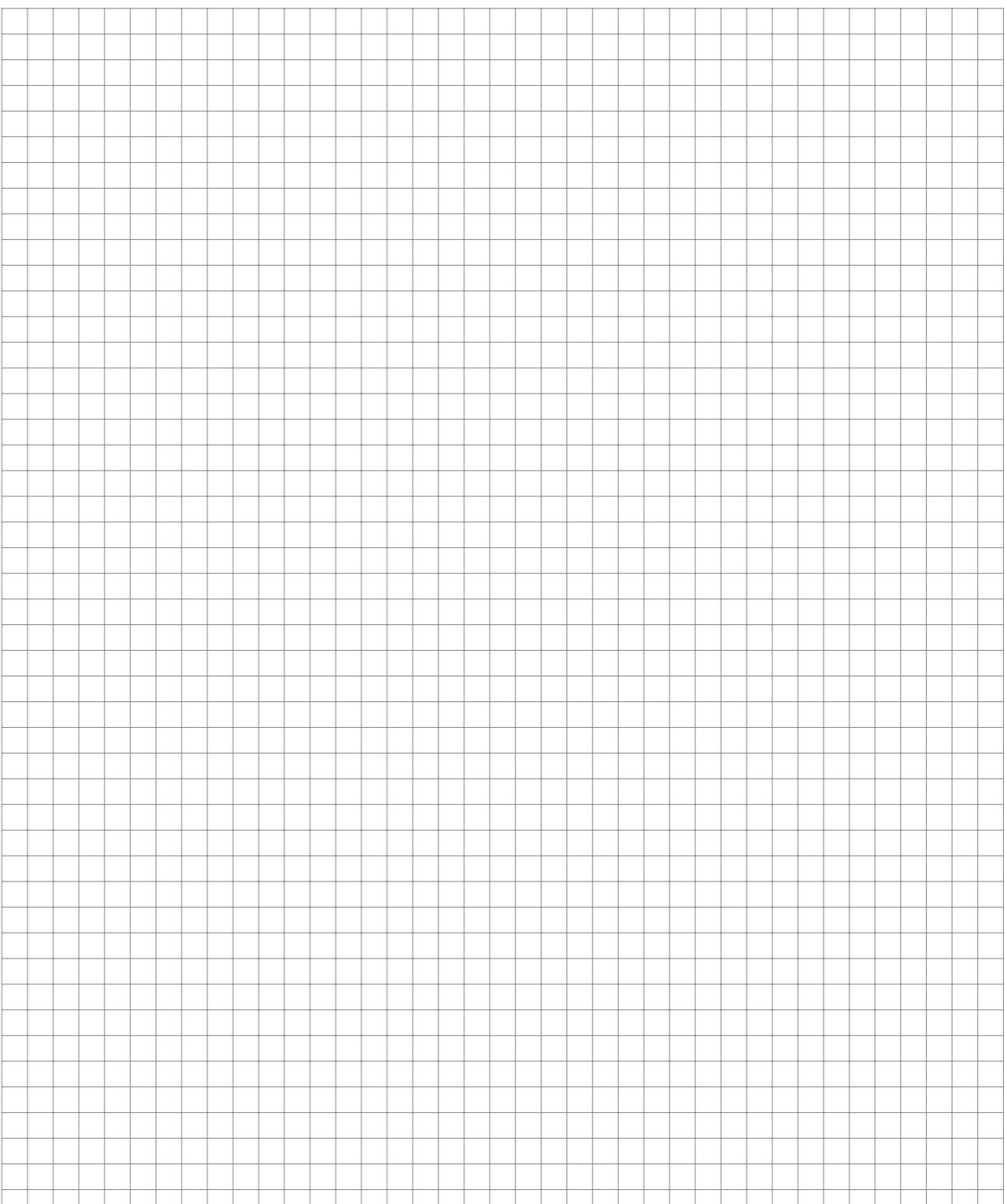
I <sub>sec</sub>	Cl.	RATED PRIMARY CURRENT I <sub>PR</sub>					A
		1000	2000	3000	4000	5000	
5A	1	5	10	10	10	10	VA
		10	20	20	20	20	
	0,5	5	10	10	10	10	
		10	15	15	15	15	
	0,5S	5	10	10	10	10	
		10	15	15	15	15	
	0,2	2,5	5	10	10	10	
		5	10	15	15	15	
	0,2S	2,5	2,5	10	10	10	
		5	5	15	15	15	

### SPECIAL DESIGNS (UPON REQUEST):

- Other ratios, burdens or accuracy classes
- Highest voltage for equipment 1,2kV

### [E] CONFORMITY ASSESSMENT

■ Available for grey-shaded variants



# IP SERIES



Our IP series is the perfect extension to our REGULUS series for current transformers with higher rated power values and for smaller primary currents. All current transformers comply with IEC 61869 (DIN EN 61869 / VDE 0414-9, DIN 42600)

#### GENERAL MECHANICAL CHARACTERISTICS:

- Break-proof polyamide enclosure
- Flame retardant
- Nickel-plated crosshead screws (2 Nm)

#### ACCESSORIES (INCLUDED):

- Secondary terminal cover
- Primary busbar fixing clamp
- Mounting screws
- Mounting feet

#### GENERAL ELECTRICAL CHARACTERISTICS:

- Highest voltage for equipment  $U_m = 0,72 \text{ kV}$
- Rated power frequency withstand voltage  $(\text{r.m.s.})$   
3 kV / 1 min
- Rated frequency 50 / 60 Hz
- Rated continuous thermal current  $I_{cth} = 1,2 \times I_{pr}$
- Rated short-time thermal current  $I_{th} = 60 \times I_{pr}$  for 1 sec  
(max. 50kA for IPA30 & IPA30.5,  
max. 60kA for IPA40 & IPA40.5)
- Rated dynamic current  $I_{dyn} = 2,5 \times I_{th}$
- Indoor use only
- Ambient air temperature (operating)  
 $-5^\circ\text{C} \dots +40^\circ\text{C}$  (other temperatures on request)
- Short-term temperature of primary conductor  
max. 170°C for 1 sec
- Instrument security factor FS5 or FS10
- Insulating class H

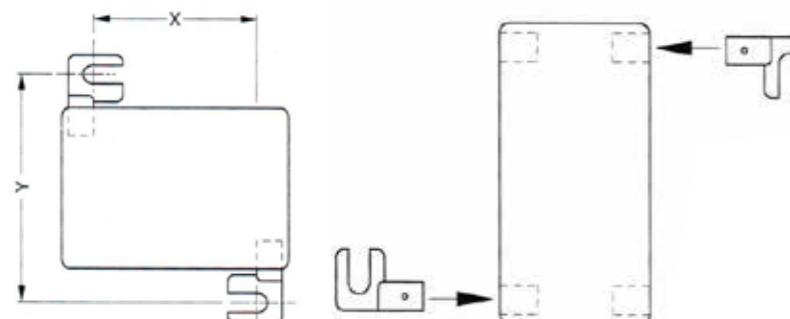
#### OPTIONAL:

- Snap-on mounting brackets for rail TS35 (DIN EN 60715)
- Copper busbars in different sizes
- Insulating protective caps for primary busbar mounting screws

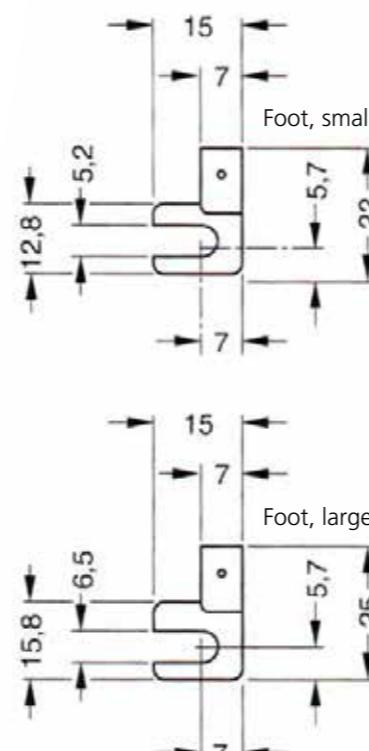
## GRID FOR WALL MOUNTING

### GRID FOR WALL MOUNTING

Our sophisticated design allows mounting of the current transformers on walls within seconds. The dimensions apply if the mounting feet are well inserted in the designated slots.



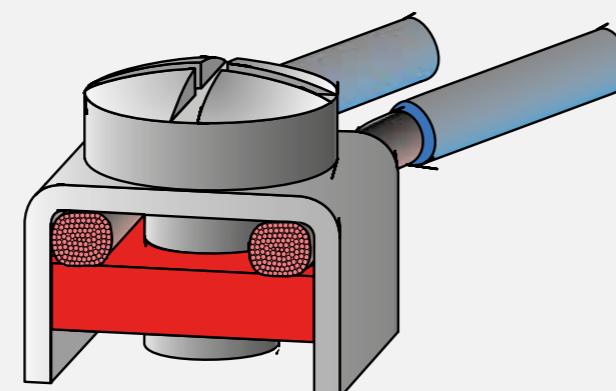
CT type	x	y	Mounting foot
IPN30	42 mm	52 mm	small
IPA30, IPA40	50 mm	52 mm	small
IPA30.5, IPA40.5	50 mm	65 mm	large



### REDUR SECONDARY TERMINAL

Our clamping system transmits the force by means of a nut (pad) to the wire ends of the conductor wire (lift principle). Therefore, the conductor wire is only exposed to pressure and cannot be damaged by rotating components. When open, there are two clamping spaces of 2,5 mm x 4 mm cross-section each.

The wire ends are clamped across a large area, thus ensuring a low contact resistance. Pressure forces of several hundred Newton are reached. Therefore, conductors even with multiple, fine and extremely fine wires are well compressed so that no corrosion can occur by penetrating harmful gases. Our secondary terminal provides therefore an extremely long-lasting connection even in aggressive industrial environments. The plus-minus slot of the M5 screw allows ease of handling. The fastening torque is 2 Nm. Both, screws and nuts are designed in such a way, that unintentional loosening is prevented.



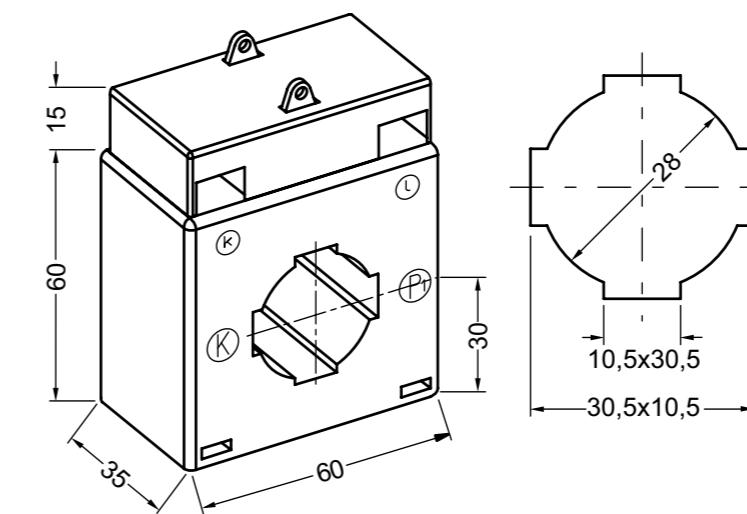
## ROUND CONDUCTOR / BUSBAR TYPE CURRENT TRANSFORMER IPN30

### INFORMATION:

- Round conductor 28 mm
- Primary busbar 30 x 10 mm
- Weight approx. 250 - 400 g

### ACCESSORIES (INCLUDED):

- 1 pc. primary busbar fixing clamps (type N30)
- 2 pcs. mounting screws M5 x18
- 1 pc. secondary terminal cover (transparent)
- 2 pcs. mounting feet
- 2 pcs. protective caps for primary busbar mounting screws



I <sub>sec</sub>	Cl.	RATED PRIMARY CURRENT I <sub>PR</sub>										A
		60	75	80	100	125	150	200	250	300	400	
5A	1	1,25	1,25	1,25	1,25	2,5	2,5	2,5	2,5	2,5	2,5	VA
					2,5	3,75	5	5	5	5	5	
	0,5							7,5	10	10	10	VA
					1,25	1,25	2,5	2,5	2,5	2,5	2,5	
1A	1				2		5	5	5	5	5	VA
		1,25	1,25	1,25	1,25	2,5	2,5	2,5	2,5	2,5	2,5	
	0,5							7,5	10	10	10	VA
					1,25	1,25	2,5	2,5	2,5	2,5	2,5	

### OPTIONAL ACCESSORIES:

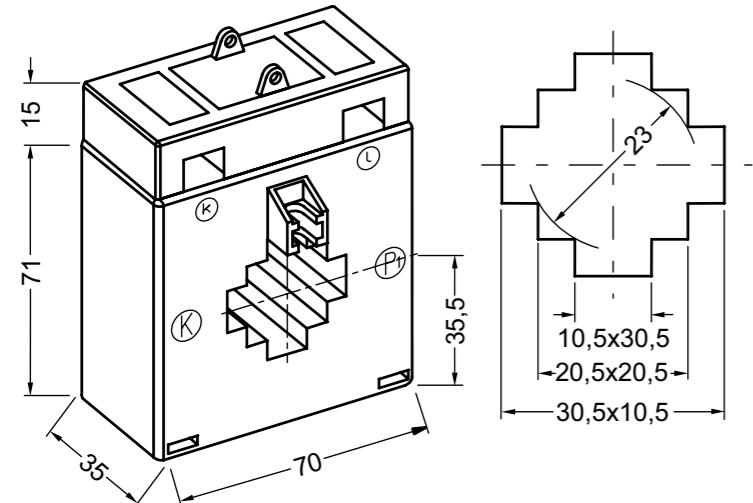
- Snap-on mounting brackets for rail TS35 (DIN EN 60715)
- Rotatable metal plate
- Rigid plastic clips
- Copper busbars in different sizes
- Insulating protective caps for primary busbar mounting screws
- Copper sleeve bush  $d_a = 28$  mm,  $d_i = 12,5$  mm,  $L = 37$  mm<sup>1)</sup>

### SPECIAL DESIGNS (UPON REQUEST):

- Other ratios, burdens or accuracy classes
- Cast resin encapsulation
- Highest voltage for equipment 1,2 kV

## BUSBAR TYPE CURRENT TRANSFORMER

[E] IPA30



### INFORMATION:

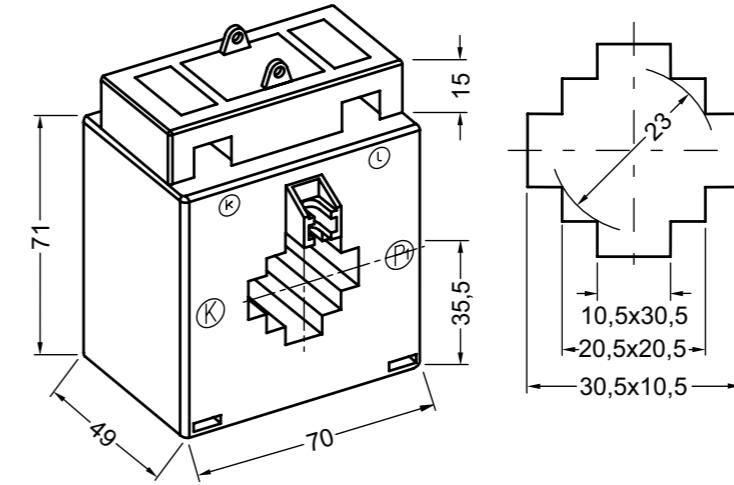
- Round conductor 23 mm
- Primary busbar 30 x 10 mm, 20 x 10 mm
- Weight approx. 250 - 500 g

### ACCESSORIES (INCLUDED):

- 1 pc. primary busbar fixing clamps (type A30)
- 2 pcs. mounting screws M5x35
- 1 pc. secondary terminal cover (black)
- 2 pcs. mounting feet
- 2 pcs. protective caps for primary busbar mounting screws

## BUSBAR TYPE CURRENT TRANSFORMER

[E] IPA30.5



### INFORMATION:

- Round conductor 23 mm
- Primary busbar 30 x 10 mm, 20 x 10 mm
- Weight approx. 500 - 800 g

### ACCESSORIES (INCLUDED):

- 1 pc. primary busbar fixing clamps (type A30)
- 2 pcs. mounting screws M5x35
- 1 pc. secondary terminal cover (black)
- 2 pcs. mounting feet
- 2 pcs. protective caps for primary busbar mounting screws

I <sub>sec</sub>	Cl.	RATED PRIMARY CURRENT I <sub>PR</sub>												A
		60	75	80	100	125	150	200	250	300	400	500	600	
5A	1	1,25	2,5	2,5	3,75	5	5	10	10	10	15	15	15	VA
								10	15	15				
	0,5	1,5	1,5	1	2,5	2,5	5	5	10	15	15	15	15	
								3,75	7,5	10	15	20	20	
	0,5S	1,5	1,5	1			2,5	2,5	5	10	15	15	15	
1A	0,2									5	10	10	15	VA
	0,2S										2,5	10	10	
												5		
	1	1,25	2,5	2,5	3,75	5	5	10	10	10	15	15	15	
1A	0,5	1,5	1,5	1	2,5	2,5	5	5	10	15	15	15	15	VA
											20	20	20	
	0,5S	1,5	1,5	1			2,5	2,5	5	10	15	15	15	
	0,2													
	0,2S													

### OPTIONAL ACCESSORIES:

- Snap-on mounting brackets for rail TS35 (DIN EN 60715)
- Rotatable metal plate
- Rigid plastic clips
- Copper busbars in different sizes
- Insulating protective caps for primary busbar mounting screws

### SPECIAL DESIGNS (UPON REQUEST):

- Other ratios, burdens or accuracy classes
- Cast resin encapsulation
- Highest voltage for equipment 1,2 kV

### [E] CONFORMITY ASSESSMENT

■ Available for grey-shaded variants

### OPTIONAL ACCESSORIES:

- Snap-on mounting brackets for rail TS35 (DIN EN 60715)
- Rotatable metal plate
- Rigid plastic clips
- Copper busbars in different sizes
- Insulating protective caps for primary busbar mounting screws

### SPECIAL DESIGNS (UPON REQUEST):

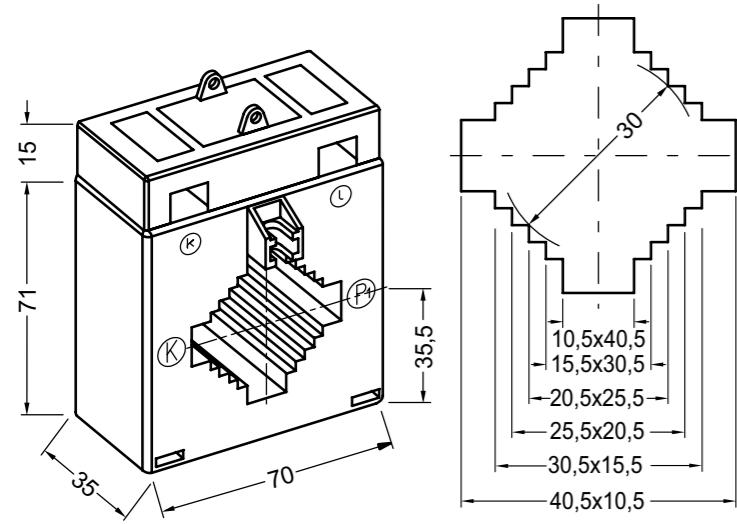
- Other ratios, burdens or accuracy classes
- Cast resin encapsulation
- Highest voltage for equipment 1,2 kV

### [E] CONFORMITY ASSESSMENT

■ Available for grey-shaded variants

## BUSBAR TYPE CURRENT TRANSFORMER

[E] IPA40



### INFORMATION:

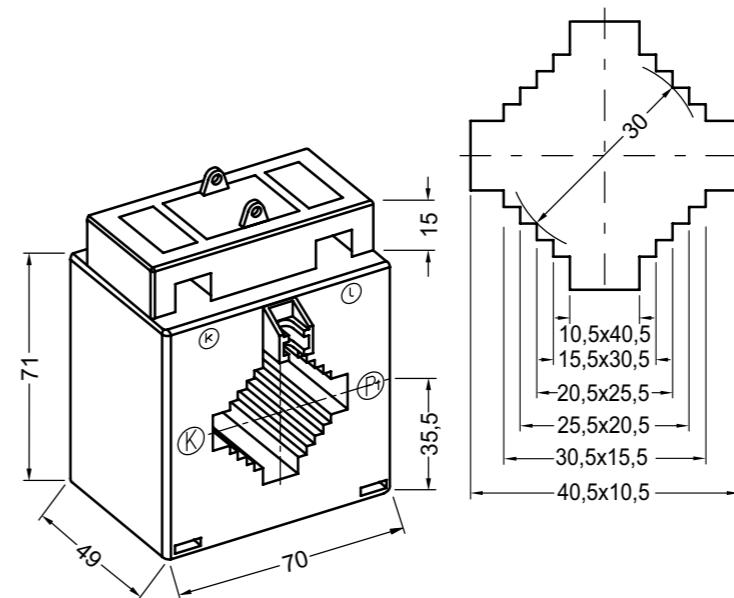
- Round conductor 30 mm
- Primary busbar 40 x 10 mm, 30 x 10 mm, 20 x 10 mm
- Weight approx. 250 - 450 g

### ACCESSORIES (INCLUDED):

- 1 pc. primary busbar fixing clamps (type A30)
- 2 pcs. mounting screws M5x35
- 1 pc. secondary terminal cover (black)
- 2 pcs. mounting feet
- 2 pcs. protective caps for primary busbar mounting screws

## BUSBAR TYPE CURRENT TRANSFORMER

[E] IPA40.5



### INFORMATION:

- Round conductor 30 mm
- Primary busbar 40 x 10 mm, 30 x 10 mm, 20 x 10 mm
- Weight approx. 400 - 700 g

### ACCESSORIES (INCLUDED):

- 1 pc. primary busbar fixing clamps (type A30)
- 2 pcs. mounting screws M5x35
- 1 pc. secondary terminal cover (black)
- 2 pcs. mounting feet
- 2 pcs. protective caps for primary busbar mounting screws

I <sub>sec</sub>	Cl.	RATED PRIMARY CURRENT I <sub>PR</sub>													A				
		50	60	75	80	100	125	150	200	250	300	400	500	600	750	800	1000		
5A	1			1,25	1,25	1,25	2,5	2,5	2,5	2,5	2,5	2,5	2,5	2,5	5	5	5	A	
							2,5	3,75	5	5	5	5	5	5	10	10	10	VA	
	0,5									7,5	10	10	10	10	10	15	15	15	VA
	0,5S									2,5	2,5	2,5	2,5	2,5	2,5	5	5	5	VA
	0,2									5	5	5	5	5	5	10	10	10	VA
1A	0,2S														2,5	2,5	2,5	10	VA
	1			1,25	1,25	1,25	2,5	2,5	2,5	2,5	2,5	2,5	2,5	2,5	5	5	5	VA	
							2,5	3,75	5	5	5	5	5	5	10	10	10	VA	
	0,5								1	1	2,5	2,5	2,5	2,5	2,5	5	5	5	VA
	0,5S									2,5	5	5	5	5	5	10	10	10	VA
1A	0,2									1	2,5	2,5	2,5	2,5	2,5	5	5	5	VA
	0,2S										5	5	5	5	5	5	10	10	VA

### OPTIONAL ACCESSORIES:

- Snap-on mounting brackets for rail TS35 (DIN EN 60715)
- Rotatable metal plate
- Rigid plastic clips
- Copper busbars in different sizes
- Insulating protective caps for primary busbar mounting screws

### SPECIAL DESIGNS (UPON REQUEST):

- Other ratios, burdens or accuracy classes
- Cast resin encapsulation
- Highest voltage for equipment 1,2 kV

### [E] CONFORMITY ASSESSMENT

■ Available for grey-shaded variants

### OPTIONAL ACCESSORIES:

- Snap-on mounting brackets for rail TS35 (DIN EN 60715)
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### SPECIAL DESIGNS (UPON REQUEST):

- Other ratios, burdens or accuracy classes
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- Highest voltage for equipment 1,2 kV

### [E] CONFORMITY ASSESSMENT

■ Available for grey-shaded variants

# AC & DC CURRENT TRANSFORMER RES 100



With our RES 100 current transformer, you can measure even the smallest current fluctuation in the grid, because it detects currents from 0 (DC) up to 500 kHz (AC) at 100 ppm accuracy. This superb accuracy is based on the Zero-Flux™ technology that guarantees a high linearity as well as small frequency and phase errors.

## TOP CHARACTERISTICS:

- Extremely high accuracy
- Large frequency range

## APPLICATIONS:

- Power Quality
- Electric mobility
- Measurement of differential currents
- Harmonics monitoring

## BASIC PRINCIPLE:

The primary current generates a magnetic flux that will be counteracted by the current in the secondary winding of the measuring head. Any remaining flux is sensed by the three toroidal ring cores located within the secondary winding volume. Two of them, N1 and N2, are used to sense the DC part of the remaining flux. N3 senses the AC part. The Zero-Flux™ current transformer has a double peak detector to find the DC flux. An oscillator drives the two DC flux-sensing cores into saturation in opposite directions. The resulting peaks are equal in both directions if the remaining DC flux is zero. If not, their difference is proportional to the residual DC flux.

After adding the AC component (N3), a control loop is set to generate the secondary current that makes the flux zero. A power amplifier provides this current  $I_{sr}$  to the secondary winding  $N_s$ .

Above several kHz, the power amplifier no longer has active control over its output current, but merely forms a short circuit. The Zero-Flux™ current transformer still performs as a wideband current measuring device but now with the measuring head as a passive current transformer.

If the core saturates due to the primary overload, the zero flux condition is lost and a search cycle is started automatically. This means the secondary current is swept between the minus and plus current limits in a slow triangle until zero flux is detected and normal tracking continues. The same happens when the auxiliary power is switched on with the primary current present.

The secondary current, which is a scaled image ( $1/N_s$ ) of the primary current, can be fed to an external burden resistor to convert the signal into voltage.

The unique design of the Zero-Flux™ current transformer system provides high accuracy and stability without the need for temperature control devices. The REDUR RES 100 is at least twice as accurate as required for CTs of class 0,1 according to IEC 61869-1. The high bandwidth of RES 100 is guaranteed through an optimal selection of the stray resistance and the capacitance of the measuring head inside the RES 100.

## TECHNICAL CHARACTERISTICS

MAIN CHARACTERISTICS (EXAMPLE*):	
Rated current $I_{pr}$	0 ... 150 A <sub>RMS</sub>
Permissible overcurrent	
(10 s)	120 % of $I_{pr}$
(0,1 s)	200 % of $I_{pr}$
Transformation ratio	1000 : 1
Output signal	N-Kanal MOSFET $I_{MAX} = 150 \text{ mA}$ , $V_{MAX} = 40 \text{ V}_p$
Output load	0 ... 50 $\Omega$ (burden resistor at $I_{pr}$ )
max.	300 mA <sub>pk</sub>
Small signal bandwidth (5% of $I_{pr}$ )	DC ... 500 kHz (-3 dB)
Output accuracy (related to $I_{pr}$ )	
BW = 10 kHz	< 0,01 %
Output offset error at 23°C	< 5 $\mu\text{A}$
Offsetdrift (TC)	< 15 $\mu\text{A}/\text{K}$
Offset error versus time	< 15 $\mu\text{A}/\text{month}$
Offset error versus supply voltage	< 5 nA/mV
Linearity error	< 50 $\mu\text{A}$
Induced voltage into a 1-turn primary bus bar	< 0,3 mVpp

GENERAL CHARACTERISTICS:	
Supply voltage	$\pm 14,0 \text{ V} \dots \pm 15,5 \text{ V}$
Power consumption at $I_{pr}$	< 3 W ( $R_b = 0 \Omega$ , $V_s = \pm 15 \text{ V}$ )
Output valid indicator	No
Polarity protection	Yes
Ambient operating temperature	0 ... +50°C
Relative humidity	20 ... 80 % (non-condensing)
Ambient storage temperature	0 ... 75°C
Pollution degree	2

## TECHNICAL CHARACTERISTICS

ENCLOSURE:	
Dimensions (LxBxH)	45 x 75 x 137 mm
Material	PC
Weight	approx. 350 g
SAFETY:	
Protection class	III (IEC 60950-1, supplied by external SELV source)
Protection degree	
Terminals	IP10 (Testfinger, EN 60529)
Enclosure	IP40 (Testfinger, EN 60529)
Flammability	class acc. to UL 94
	V-0
Isolation characteristics	
Creepage distance	45 mm (between primary bus bar and terminals)
Clearance distance	45 mm (between primary bus bar and terminals)
CTI (Comparative Tracking Index)	175
Isolation test voltage between primary bus bar and output	3 kV/50 Hz for 1 min (IEC 61010-1)

# RSC SERIES



## GENERAL MECHANICAL CHARACTERISTICS:

The split core current transformer has a robust and multifunctional polyamide, flame retardant enclosure (V2 acc. to UL94) with different fixing possibilities. Our click-off hinge\* can be removed which allows the complete removal of the top part of the current transformer. This facilitates the mounting even under difficult and tight installation conditions.

## TOP CHARACTERISTICS:

- Replaceable hinge
- Compact
- Simple mounting, also for installation on rail TS35 (DIN EN 60715)
- For cables up to 18, 28 or 42 mm in diameter
- Halogen-free cable

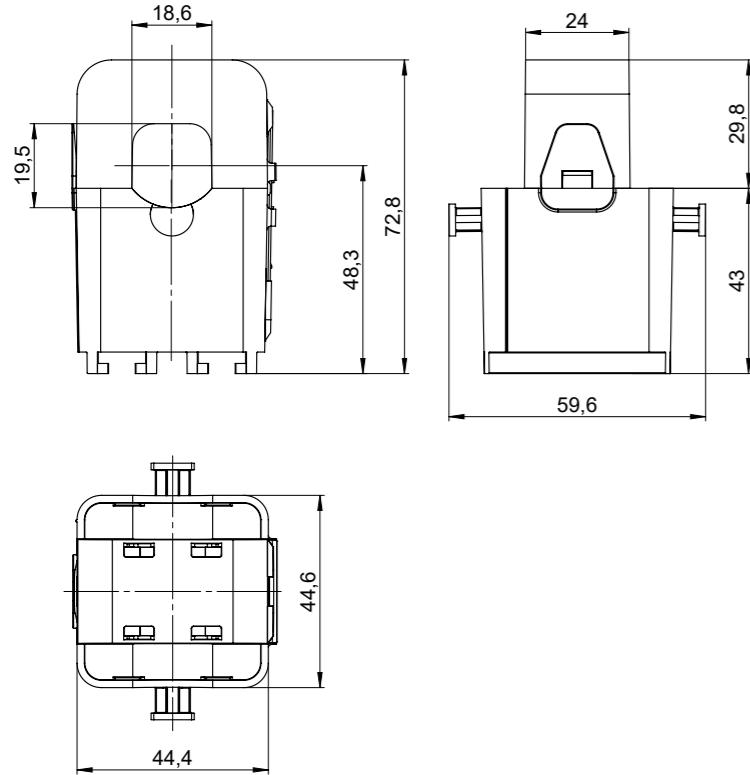
Due to our sophisticated spring system, a constant contact pressure of the core halves will always be applied. This guarantees long-term stable measuring values. Optionally, we offer plug-in feet for mounting on mounting plates or Snap-on mounting brackets for rail TS35 (DIN EN 60715).

## GENERAL ELECTRICAL DATA:

- Highest voltage for equipment  $U_m$  0,72 kV
- Rated power frequency withstand voltage  $(r.m.s.)$  3 kV / 1 min
- Rated frequency 50 / 60 Hz
- Rated continuous thermal current  $I_{cth}$   $1,2 \times I_{pr}$
- Instrument security factor FS5 / FS10 / FS15
- Rated short-time thermal current  $I_{th}$   $60 \times I_{pr}$  for 1 sec
- Rated dynamic current  $I_{dyn}$   $2,5 \times I_{th}$
- Indoor use only
- Ambient air temperature (operating) -5°C ... +40°C (other temperatures on request)
- Ambient air temperature (storage / transport) -40°C ... +60°C
- Insulating class H
- Standards DIN EN 61869 Section 1 + 2

## SPLIT CORE CURRENT TRANSFORMER

RSC18



### INFORMATION:

- 1,5 m halogen-free cable 2 x 2,5mm<sup>2</sup> for 5A
- 3 m halogen-free cable 2 x 0,75mm<sup>2</sup> for 1A
- Accuracy class and burden measured at the cable end

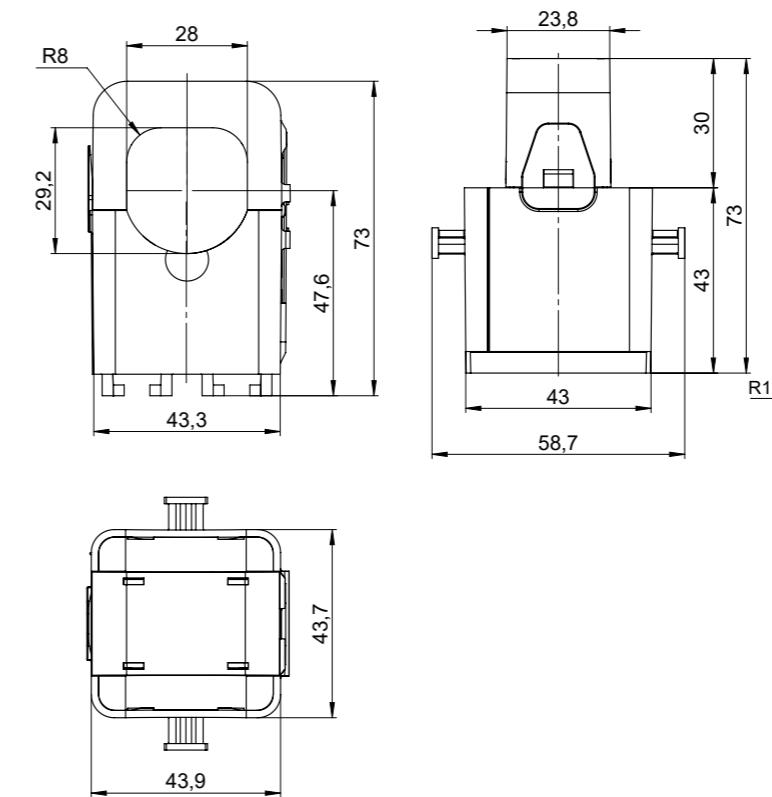
### ACCESSORIES (INCLUDED):

- Cable tie

For cables up to 18 mm in diameter

## SPLIT CORE CURRENT TRANSFORMER

RSC28



### INFORMATION:

- 1,5 m halogen-free cable 2 x 2,5 mm<sup>2</sup> for 5 A
- 3 m halogen-free cable 2 x 0,75 mm<sup>2</sup> for 1 A
- Accuracy class and burden measured at the cable end

### ACCESSORIES (INCLUDED):

- Cable tie

For cables up to 28 mm in diameter

I <sub>sec</sub>	Cl.	RATED PRIMARY CURRENT I <sub>PR</sub>										A
		50	60	63	75	80	100	125	150	200	250	
5A	3		0,6	0,6	0,6	0,6	0,6	0,6	0,6	1,5	2,5	VA
	1									0,6	0,6	
1A	3	1	1,25	1,25	1,25	1,25	1,5	1,5	2	2,5	3,75	VA
	1						0,2	0,4	0,6	1,25	2,5	

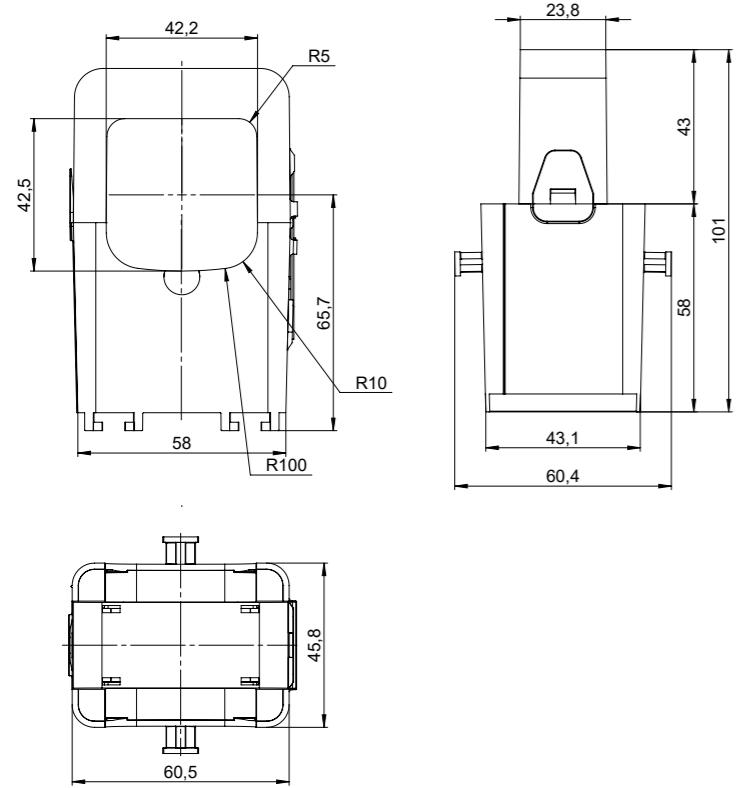
I <sub>sec</sub>	Cl.	RATED PRIMARY CURRENT I <sub>PR</sub>						A
		150	200	250	300	400	500	
5A	3	0,6	0,6	0,6	1	2	2,5	VA
	1				1	2	2,5	
1A	3	0,6	0,6	0,8	1	2	2,5	VA
	1				1	2	2,5	

### OPTIONAL ACCESSORIES:

- Mounting feet for fixing to mounting plate
- Snap-on mounting brackets for rail TS 35 (DIN EN 60715)
- Spare hinge
- Polyamide enclosure V0 acc. to UL 94 (flame retardant)

### OPTIONAL ACCESSORIES:

- Mounting feet for fixing to mounting plate
- Snap-on mounting brackets for rail TS 35 (DIN EN 60715)
- Spare hinge
- Polyamide enclosure V0 acc. to UL 94 (flame retardant)

**INFORMATION:**

- 1,5 m halogen-free cable 2 x 2,5 mm<sup>2</sup>  
for 5 A
- 3 m halogen-free cable 2 x 0,75 mm<sup>2</sup>  
for 1 A
- Accuracy class and burden measured  
at the cable end

**ACCESSORIES (INCLUDED):**

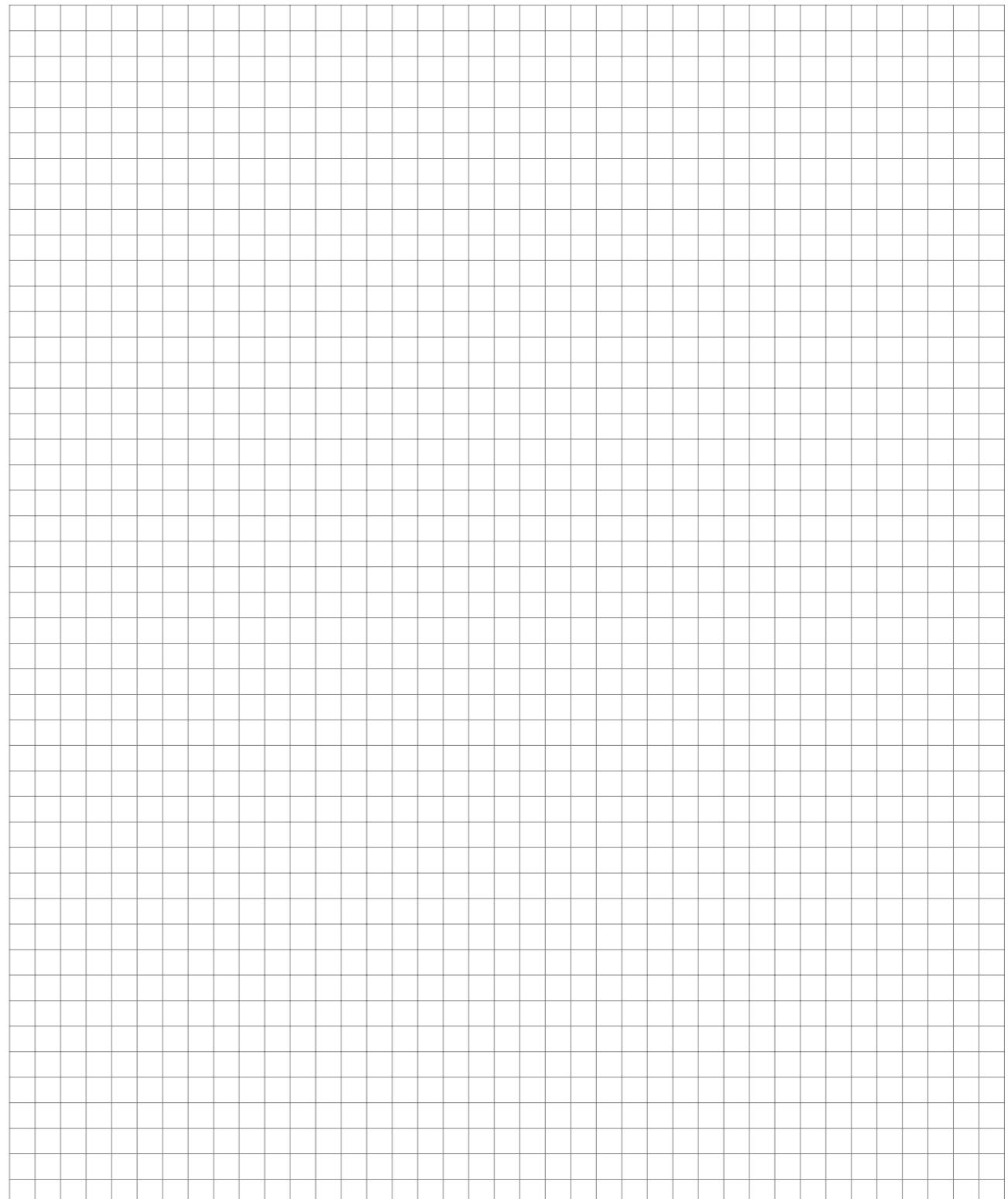
- Cable tie
- For cables up to 42 mm in diameter

I <sub>sec</sub>	Cl.	RATED PRIMARY CURRENT I <sub>pr</sub>						A
		400	500	600	750*	800*	1000*	
5A	3	3,75	3,75	5	5	5	5	VA
	1	2,5	2,5	3,75	5	5	5	
1A	3	5	5	5	7,5	7,5	7,5	VA
	1	3,75	3,75	5	5	5	5	

\* I<sub>ch</sub> = 1,0 x I<sub>pr</sub>

**OPTIONAL ACCESSORIES:**

- Mounting feet for fixing to mounting plate
- Snap-on mounting brackets for rail TS 35 (DIN EN 60715)
- Spare hinge
- Polyamide enclosure V0 acc. to UL 94 (flame retardant)



# IPS SERIES



All our summation current transformers comply with IEC 61869 (DIN EN 61869 / VDE 0414).

#### GENERAL MECHANICAL CHARACTERISTICS:

- Break-proof ABS enclosure, IP40
- Flame retardant according to UL 94
- Nickel-plated terminals with plus minus screws
- Integrated protection against contact, IP10

- for main CTs with equal or unequal primary currents
- primary current 5 or 1 A
- secondary current 5 or 1A
- accuracy class 1 or 0,5
- for up to 9 main CTs

#### GENERAL ELECTRICAL CHARACTERISTICS:

- Highest voltage for equipment  $U_m = 0,72 \text{ kV}$
- Rated power frequency withstand voltage  $(\text{r.m.s.})$   
 $3 \text{ kV} / 1 \text{ min}$
- Rated frequency 50 / 60 Hz
- Insulating class E (other on request)
- Rated short-time thermal current  $I_{th} = 60xI_{pr}/1\text{s}$
- Rated dynamic current  $I_{dyn} = 2,5 \times I_{th}$
- Instrument security factor FS5 or FS10
- Power consumption per input: 1 ... 4 W
- Weight:      2 - 4 main CTs      approx. 300 – 400 g  
                  5 - 9 main CTs      approx. 400 – 600 g

**GENERAL INFORMATION:**

Summation current transformers are used to add secondary currents of several main CTs in order to measure with one instrument only.

Summation current transformers generate a normalized output current signal. Input currents are added up and the sum is divided by the number of input currents.

Summation current transformers are available for equal and unequal transformation ratios of the main current transformers.

When ordering a summation current transformer for unequal transformation ratios, please indicate the transformation ratios of the main CTs since these are used to weight the input currents internally. Note that the highest to the lowest primary current ratio shall not exceed a ratio of 10 : 1.

Unused primary connections have to be open-circuited and may not be short-circuited in contrary to unused secondary connections.

Current addition in summation current transformers is always performed by vector addition, meaning that both vector magnitude and vector angle are considered. The sum of all currents can even result in zero, e.g. in residual current measurement applications. Normal application of summation current transformers is the addition of currents of the same phase element.

It is also possible to create differences by connecting main CTs in inverse direction of the summation current transformer.

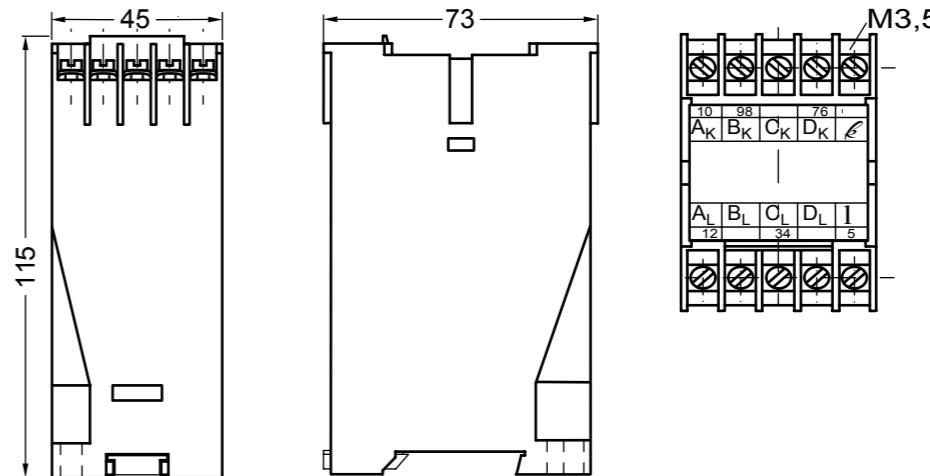
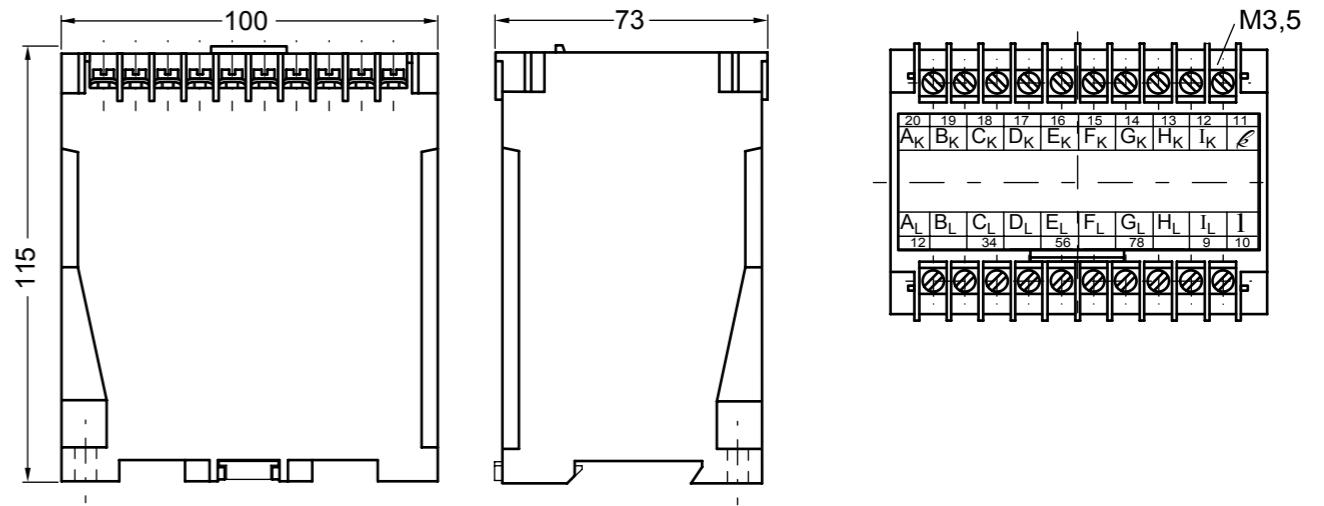
It does not matter to which input the main CTs are connected for summation current transformers for equal main CTs, in contrast to summation current transformers with unequal main CTs where each main CT has a defined input.

**ORDERING EXAMPLE:**

Four main CTs with equal current ratios of 1000/5A each shall be added-up. The rated power shall be 5 VA and the accuracy class 1. Please order the type IPS40 5+5+5+5/5A, 5VA, Cl. 1.

Five main CTs with unequal current ratios of 1000/5A, 600/5A, 600/5A, 250/5A, 250/5A shall be added-up. The rated power shall be 10 VA and the accuracy class 1. Please order the type IPS51 5+5+5+5+5/5A, 10VA, Cl. 1 and provide the ratios (1000/5A, 600/5A, 600/5A, 250/5A, 250/5A) in the ordering text.

No. of primary CTs	Current ratios of main CTs		Enclosure	Rated power	Accuracy class
	Equal	Unequal			
2	IPS 20	IPS 21	D10 D20	2,5 – 10 VA bis 30 VA	1 or 0,5 1 or 0,5
3	IPS 30	IPS 31	D10 D20	2,5 – 10 VA bis 30 VA	1 or 0,5 1 or 0,5
4	IPS 40	IPS 41	D10 D20	2,5 – 10 VA bis 30 VA	1 or 0,5 1 or 0,5
5	IPS 50	IPS 51	D20	2,5 – 10 VA	1 or 0,5
6	IPS 60	IPS 61	D20	2,5 – 10 VA	1 or 0,5
7	IPS 70	IPS 71	D20	2,5 – 10 VA	1 or 0,5
8	IPS 80	IPS 81	D20	2,5 – 10 VA	1 or 0,5
9	IPS 90	IPS 91	D20	2,5 – 10 VA	1 or 0,5

**ENCLOSURE D10 (2-4 MAIN CTs):****ENCLOSURE D20 (5-9 MAIN CTs):**

## **REDUR GMBH & CO. KG**

Neue Straße 20A  
52382 Niederzier  
Germany

Phone: +49 2428 90537-10  
Fax: +49 2428 90537-21  
E-Mail: info@redur.de  
Web: www.redur.de

### **SPECIALIST FOR:**

- Solid core current transformer
- Split core current transformers
- AC/DC current transformers
- High frequency current transformers
- Summation current transformers
- Measuring transducer for active and reactive power, current, voltage und frequency
- Current transformers with integrated measuring transducer
- Customized transformers

