

CONTENTS

Page

1. Description, use	1
2. Range, Cat. No. equivalence table	1
3. Dimensions	1
4. Positioning - Connection	1
5. General characteristics	2
6. Compliance and approvals	3

1. DESCRIPTION, USE

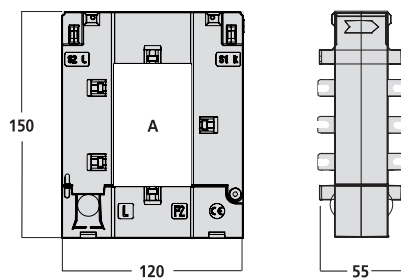
Open-type single-phase current transformers.
 Used with ammeters, electricity meters or measurement control units.
 For mounting on copper or aluminium busbars.
 Provide a 5 A current at the secondary, proportional to the primary current
 Secondary connected by terminals or lugs
 Accuracy class 0.5 - 1 - 3

2. RANGE

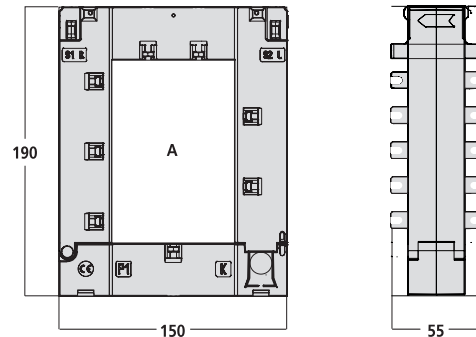
Cat. No.	Rating (A)
4 121 62	400
4 121 63	750
4 121 64	1000
4 121 65	1500
4 121 66	2000
4 121 67	2500
4 121 68	3000
4 121 69	4000

3. DIMENSIONS

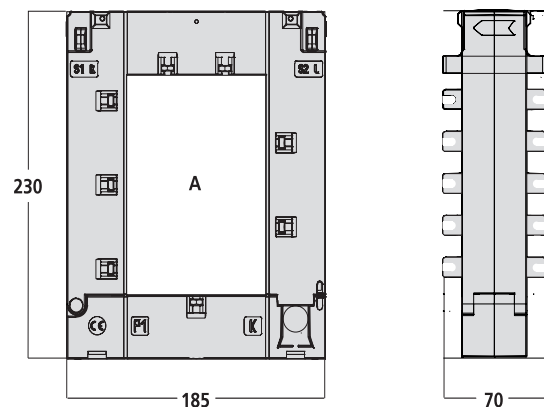
Cat. Nos. 4 121 62/63



Cat. Nos. 4 121 64/65



Cat. Nos. 4 121 66/67/68/69



4. POSITIONING - CONNECTION

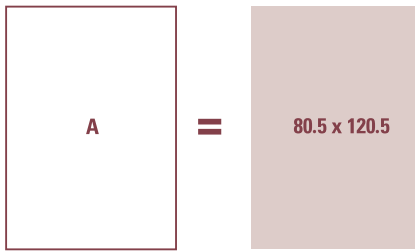
4.1 Conductor dimensions

The current transformer rating is selected according to the conductor dimensions, but also according to the maximum prospective current in the circuit to be measured. In order to minimise measurement errors, the rating must be selected as close as possible to this value.
 CTs cannot be used with a DC supply.

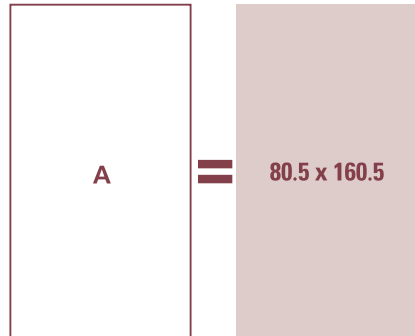
Cat. Nos. 4 121 62/63 for busbar:



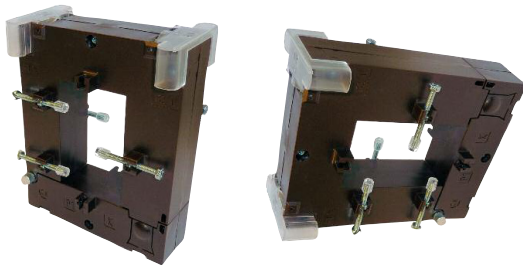
Cat. Nos. 4 121 64/65 for busbar:



Cat. Nos. 4 121 66/67/68/69 for busbar:

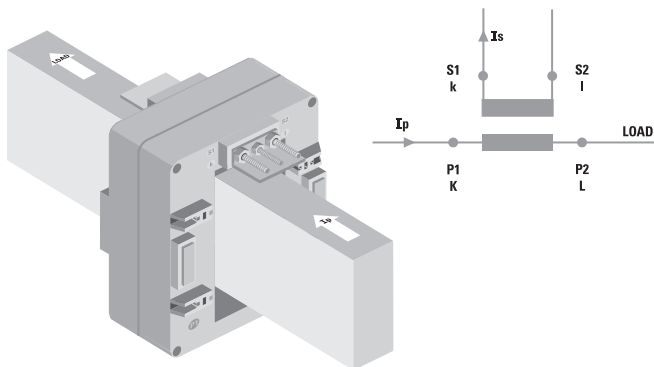


4.2 Fixing type
Fixing on vertical or horizontal busbar



4.3 Connection diagram

The secondary terminals (S1 and S2) should be connected to the corresponding inputs on the measuring device (meter or control unit). The value sent to the meter or measurement control unit depends on the direction of mounting on the busbar or cable. To avoid errors, it is essential to make sure that the CT is in the right position. The current flow must enter at P1 (coming from the source) and exit at P2 (going towards the load).



5. GENERAL CHARACTERISTICS

5.1 Technical characteristics

- Protection class (EN 60529):
 - Case: IP20
 - Terminals: IP00 (IP20 with sealable terminal shield)
- 96 hour salt spray resistance (red rust)
- Rated frequency: 50 Hz
- Operating frequency: 47 to 63 Hz
- Continuous rated thermal current in accordance with standard EN/IEC 61869
- Rated thermal short-circuit current: $I_{th} < 60 I_n$ **except for 4 121 66/67/68/69** $I_{th} < 90 kA$
- Rated dynamic current: $I_{dyn} = 2.5 I_{th}$
- Safety factor (SF): ≤ 15
- Rated secondary current: $I_{SN} = 5 A$
- Rated burden: see table 1
- Accuracy class: see table 1
- Maximum dissipated power:
 - 4 121 62/63: $\leq 10 W$
 - 4 121 64/65: $\leq 15 W$
 - 4 121 66/67/68/69: $\leq 26 W$

Table 1

Cat. No.	Rating (A)	CI 0.5/VA	CI 1/VA
4 121 62	400/5	1.5	3
4 121 63	750/5	3	7
4 121 64	1000/5	5	10
4 121 65	1500/5	8	15
4 121 66	2000/5	15	20
4 121 67	2500/5	15	20
4 121 68	3000/5	20	25
4 121 69	4000/5	20	25

5.2 Insulation characteristics

- Air-insulated dry-type transformer
- Maximum insulation voltage: $U_m = 0.72 kV$ rms value
- Rated insulation voltage level: 3 kV rms value 50 Hz/1 min
- Insulation class (EN/IEC 61869): B

5.3 Usage conditions

- Non-exposed installation (EN/IEC 61869)
- Reference temperature: $23^\circ C \pm 1^\circ C$
- Usage temperature: -25 to $50^\circ C$
- Daily average temperature: $\leq 30^\circ C$
- Storage temperature: -40 to $85^\circ C$
- Relative humidity: $\leq 85\%$
- Suitable for use in tropical climates

5.4 Limits of current error and phase displacement (EN 60044-1)

For class 0.5 - 1 the current error and phase displacement at rated frequency must not exceed the value stated in the table when the secondary winding represents a value from 25% to 100% of the rated burden.

For class 3 the current error and phase displacement at rated frequency must not exceed the value stated in the table when the secondary winding represents a value from 50% to 100% of the rated burden.

Table 2

Accuracy class	% current error (ratio) (±) as a percentage of the rated current stated below				
	5	20	50	100	120
0.5	1.5	0.75	-	0.5	0.5
1	3.0	1.5	-	1.0	1.0
3	-	-	3	-	3

Accuracy class	± Phase displacement at percentage of rated current shown below									
	Minutes					Centiradians				
	5	20	50	100	120	5	20	50	100	120
0.5	90	45	-	30	30	2.7	1.35	-	0.9	0.9
1	180	90	-	60	60	5.4	2.7	-	1.8	1.8
3	-	-	-	-	-	-	-	-	-	-

5.5 Materials

- Core: steel
- Flange: PA
- Winding: copper wire
- Terminals (blade + cage): iron
- Cage structure: PC
- Half-shells: PC
- Spring: iron
- Nut: iron
- Screws: iron
- Tie rod: iron
- Plug tip: brass
- Plug for clamping onto busbar: PA
- Lug for screw mounting: iron

5.6 Connection

- Primary: conducting busbar
- Busbar fixing: screws, with insulated terminals
- Recommended tightening torque: 0.1 Nm
- Secondary: 4 screw terminal blocks + 2 faston connectors
- Faston connectors: 4.8 x 0.8 mm
- Screw terminal block: max. cable cross-section 6 mm²
- Recommended tightening torque: 1 Nm

5.7 Weight

Cat. No.	Weight (g)
4 121 62	1100
4 121 63	
4 121 64	1550
4 121 65	
4 121 66	3500
4 121 67	
4 121 68	
4 121 69	

6. COMPLIANCE AND APPROVALS

Compliant with the following standards:

- EN/IEC 61869-1
- EN/IEC 61869-2
- EN 60529

Compliant with the following directives:

- REACH
- RoHS