

Index	Pages
1. Description - Use	2
2. Range	2
3. Overall dimensions	2
4. Preparation - Connection	2
5. General characteristics	3
6. Compliance and approvals	4

Open-type single-phase CT current transformers

Cat. Nos :
F8TL400/800/1000

1. DESCRIPTION - USE

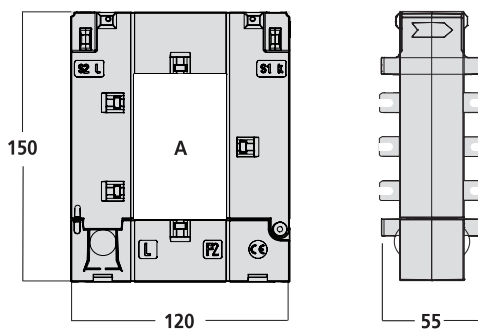
Open-type single-phase current transformers.
Used with ammeters, electricity meters or measurement control units.
For mounting on copper or aluminium busbars.
Provide a 5 A current at the secondary, proportional to the primary current.
Secondary connected by terminals or lugs.
Accuracy class 0.5 - 1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

2. RANGE

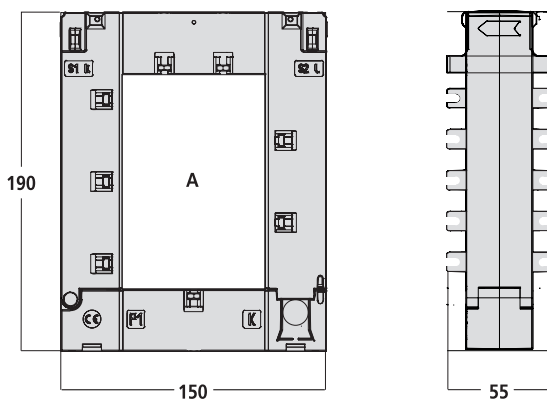
Cat. Nos.	Rating
F8TL400	400
F8TL800	800
F8TL1000	1000

3. OVERALL DIMENSIONS

Cat. Nos. F8TL400/800



Cat. Nos. F8TC1000



4. PREPARATION - CONNECTION

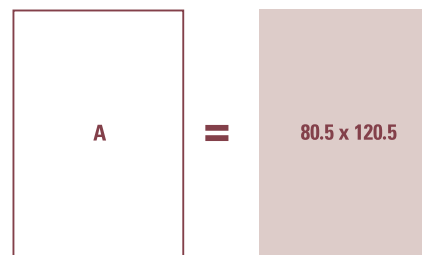
4.1 Conductor dimensions

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. F8TL400/800 for busbar :



Cat. Nos. F8TL1000 for busbar :

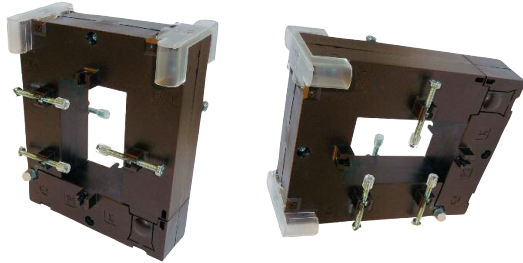


Open-type single-phase CT current transformers

Cat. Nos :
F8TL400/800/1000

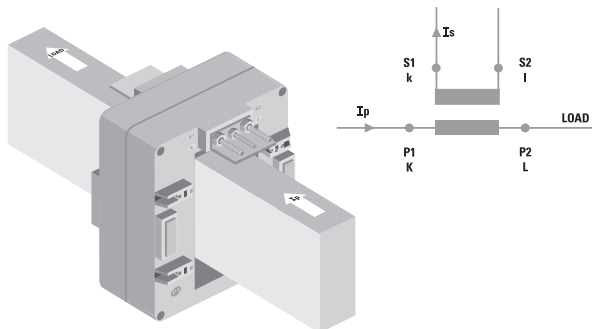
4.2 Fixing type

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 hours salt spray resistance (red rust)

Rated frequency : 50 Hz

Operating frequency : 47...63 Hz

Continuous rated thermal current in accordance with standard EN 61869-1 and EN 61869-2

Rated thermal short-circuit current : $I_{th} < 60 I_n$

Rated dynamic current : $I_{dyn} = 2,5 I_{th}$

Safety factor (SF) : ≤ 15

Rated secondary current : $I_{sn} = 5 A$

Rated burden : 1...25 VA (see table 1)

Accuracy class : 0,5 - 1 (see table 1)

Maximum dissipated power :

F8TL400/800 : $\leq 10 W$

F8TL1000 : $\leq 15 W$

Table 1

Cat. Nos.	Rating	CI 0.5 / VA	CI 1 / VA
F8TL400	400/5A	1.5	3
F8TL800	800/5A	3	7
F8TL1000	1000/5A	5	10

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 60044, EN 61869-1 et 2) : B

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 61869-1 et 2) : B

5.3 Usage conditions

Non-exposed installation (EN 61869-1 et 2)

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 61869-1 et 2)

For **classes 0,5 - 1** the current error and phase displacement at rated frequency shall not exceed the values given in table when the secondary burden is any value **from 25% to 100% of the rated burden**.

For **class 3** the current error and phase displacement at rated frequency shall not exceed the values given in table when the secondary burden is any value **from 50% to 100% of the rated burden**.

Table 2

Accuracy class	% current error (ratio) (\pm) 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	\pm 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

F8TL400/800 : 1100 g
 F8TL1000 : 1550 g

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