

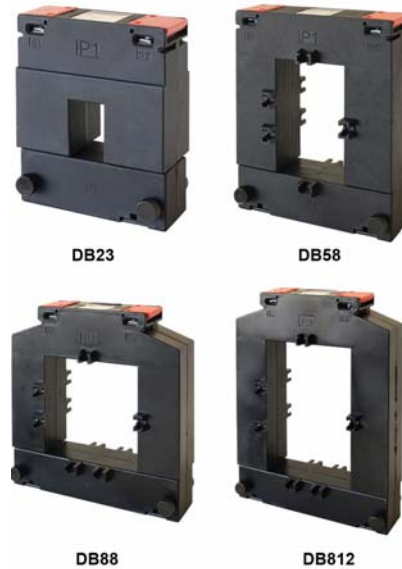
DB23/58/88/812 Split Core Current Transformers

A range of split core transformers designed for installation into existing plants where removal of busbars/cable lugs prevent installation of standard current transformers.

To measure a.c primary currents and produce a proportional secondary current signal.

Features

- For primary currents from 100A to up to 1600A
- For secondary currents of 5A
- Testing voltage 3kV for 1 minute
- Frequency of 50 up to 60Hz
- Precision Class 0.5 and 1 according to IEC 1036



Model Type	Model	Description
	DB23-100-5A	Split Core Current Transformer, Primary 100A/5A
	DB23-150-5A	Split Core Current Transformer, Primary 150A/5A
	DB23-200-5A	Split Core Current Transformer, Primary 200A/5A
	DB23-250-5A	Split Core Current Transformer, Primary 250A/5A
	DB23-300-5A	Split Core Current Transformer, Primary 300A/5A
	DB23-400-5A	Split Core Current Transformer, Primary 400A/5A
	DB58-250-5A	Split Core Current Transformer, Primary 250A/5A
	DB58-300-5A	Split Core Current Transformer, Primary 300A/5A
	DB58-400-5A	Split Core Current Transformer, Primary 400A/5A
	DB58-500-5A	Split Core Current Transformer, Primary 500A/5A
	DB58-600-5A	Split Core Current Transformer, Primary 600A/5A
	DB58-750-5A	Split Core Current Transformer, Primary 750A/5A
	DB58-800-5A	Split Core Current Transformer, Primary 800A/5A
	DB58-1000-5A	Split Core Current Transformer, Primary 1000A/5A
	DB88-250-5A	Split Core Current Transformer, Primary 250A/5A
	DB88-300-5A	Split Core Current Transformer, Primary 300A/5A
	DB88-400-5A	Split Core Current Transformer, Primary 400A/5A
	DB88-500-5A	Split Core Current Transformer, Primary 500A/5A
	DB88-600-5A	Split Core Current Transformer, Primary 600A/5A
	DB88-750-5A	Split Core Current Transformer, Primary 750A/5A
	DB88-800-5A	Split Core Current Transformer, Primary 800A/5A
	DB88-1000-5A	Split Core Current Transformer, Primary 1000A/5A
	DB812-1000-5A	Split Core Current Transformer, Primary 1000A/5A
	DB812-1200-5A	Split Core Current Transformer, Primary 1200A/5A

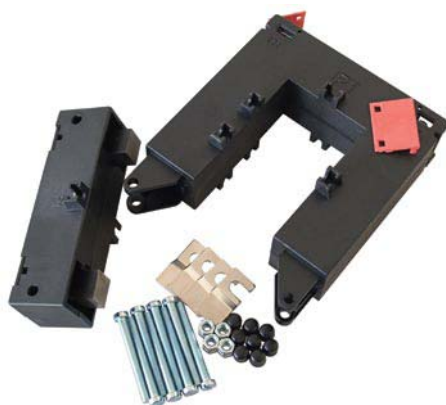
DB812-1250-5A	Split Core Current Transformer, Primary 1250A/5A
DB812-1500-5A	Split Core Current Transformer, Primary 1500A/5A
DB812-1600-5A	Split Core Current Transformer, Primary 1600A/5A

Technical Data

Primary Current	See Table Above
Secondary Current	5A
Frequency	50..60Hz
Precision Class	0.5 to 3 according to IEC 1036
Amb Temperature	-25..+60°C
Storage Temp	-40..+80°C
Housing	Self extinguishing thermoplastic according to V0 to UL94
Insulation	Class E
System Voltage	720V max.
Test Voltage	3kV for 1 Minute
Dynamic Short Circuit	$I_{dyn} = 2.5 I_{th}$
Saturation Co-Efficient	<5
Terminal Markings	Primary P1 and P2 (K & L) Secondary S1 & S2 (k & l)
Reference Standards	BS7626 1993, BS3938 CENELEC HD 533 S2 1993 IEC185, VDE 0414 CEI 38-1, UTE NF 42-502

Content of Package

All CT's have hinged terminal covers and are supplied with push-in fixing feet and busbar fixing clamps (see picture below).

**Important Notes**

1. It is essential with certain instrumentation that the CT is physically positioned correctly on the conductor. P1 (K) must face the supply feeder, and P2 (L) must face the load. It is also important to ensure that secondary connections are made in accordance with instrument diagrams.
2. The secondary terminals of the CT must NOT be open-circuited on load as dangerously high voltages may be present under these conditions. It is recommended that one side of the secondary windings is earthed.

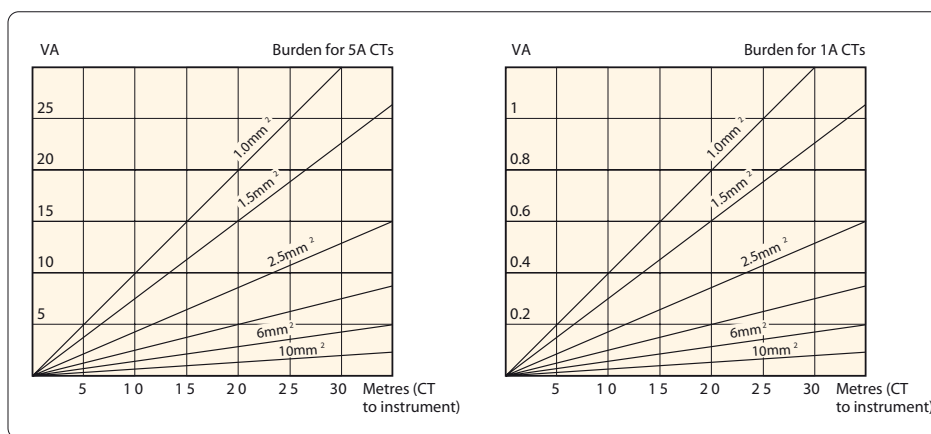
Application Note

When using CT's with an aperture, it is possible to reduce primary ratio by passing multiple turns of the primary conductor cable through the aperture. The resultant ratio will be CT primary divided by the number of turns, e.g. a 200/5A CT with the primary conductor passed through the aperture twice will produce a CT ratio of 100/5A.

Secondary Lead Burden

When selecting a current transformer, it is important to consider the power absorbed by the cables connected between the CT secondary terminals and the measuring instrument. The resultant cable burden should be added to the equipment burden, and the total should not exceed the available VA of the CT. Where the current transformer is to be mounted remotely, a -/1A secondary is recommended.

For every 10°C variation in temperature, the VA absorbed by the cables will increase by 4% (Ambient Reference Temp °C)



An example: Cable size for estimating burden. Cable size from CT to meter 10 mm². Length of cable 10m. Burden with 5A CTs is about 1VA. With 200A DB23 CT the maximum burden to reach accuracy class 1 is 1.5VA, hence the installation would achieve accuracy class 1 for the 200A CT.

Current Transformer Ratios

The below tables illustrate the burden for different sizes of the current transformers.

Primary Current A	Burden DB23		
	cl. 0.5 VA	cl. 1 VA	cl.3 VA
100	-	-	1.5
150	-	-	2
200	-	1.5	2.5
250	-	2	4
300	1.5	4	6
400	2.5	6	10

1A or 5A Secondary

Primary Current A	Burden DB58		
	cl. 0.5 VA	cl. 1 VA	cl.3 VA
250	1	2	4
300	1.5	3	6
400	1.5	3	10
500	2.5	5	15
600	2.5	5	15
750	3	6	20
800	3	7.5	20
1000	5	10	20

1A or 5A Secondary

Primary Current A	Burden DB88		
	cl. 0.5 VA	cl. 1 VA	cl.3 VA
250	1	2	4
300	1.5	3	6
400	1.5	3	10
500	2.5	5	15
600	2.5	5	15
750	3	6	20
800	3	7.5	20
1000	5	10	20

1A or 5A Secondary

Primary Current A	Burden DB812		
	cl. 0.5 VA	cl. 1 VA	cl.3 VA
1000	5	10	20
1200	6	12.5	25
1250	7.5	15	30
1500	8	17	30
1600	8	17	30

1A or 5A Secondary

Dimensions

