

What is a CT Chamber?

General

When an electrical installation, whether temporary or permanent, is provided with an electrical supply, there is always a need to meter the supply, to enable the Supplier to bill their client for the electricity consumed. When the supply is 400V TP&N and rated at 200A and above, the electricity meter generally works in combination with Current Transformers (CTs). The CTs are often provided by the electricity supplier but an all-insulated, tamper proof, sealable chamber to house the CTs is also required. This housing is referred to as a CT chamber. Some electricity Suppliers provide the CT chamber but some require the installer to provide the chamber.

Standard CT Chambers

We offer a range of standard CT chambers, the origins of which date back to the London Electricity Board (LEB). Although the LEB no longer exists, the proven performance of our all-insulated CT chamber range is accepted by a number of current electricity Suppliers and Meter Operators. Standard CT chambers can also be used for private metering applications. Please also see data sheet ref. DDS004.

Part Numbers for standard GRP CT Chambers

Part Number	Type Number	Rating	Entry / Exit
S030096	CTC/400/LR	2/400A	Bottom / Top
S030097	CTC/800/LR	800A	Bottom / Top
S030229	CTC/1600/LR	1600A	Bottom / Top

We also supply standard assemblies which combine a 400A, 800A or 1600A CT Chamber with a main MCCB (or switch). These assemblies provide a safe method of metering the supply but they also provide a main point of isolation for an installation.

Part Numbers for Combined Units for Permanent Installations

Cable Entry / Exit	Current Rating (Chamber & 4P MCCB)		
	400A	800A	1600A
Bottom / Top	S031132	S031135	S031138
Bottom / Bottom	S031133	S031136	S031139
Top / Top	S031334	S031137	S031140

Before ordering a CT chamber, it is imperative to confirm that the CTs and the chamber are compatible. GA drawings of the CT chambers can be downloaded from our website. We are also able to supply loose CTs if required.

CT Chambers for Scottish & Southern Electricity

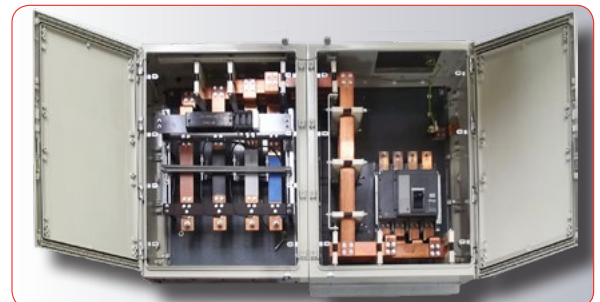
Some electricity suppliers, such as Scottish and Southern (SSE), have specific requirements for CT Chambers and we have standard part numbers for a range of SSE high current CT chambers (other variants can also be supplied).

Part Number	Type Number	Rating	Entry / Exit
S031338	CTC/800/SR/037	800A	Bottom / Top
S031339	CTC/1250/SR/037	1250A	Bottom / Top
S031349	CTC/2000/SR/084	2000A	Bottom / Top

Please see over the page for combined CT Chambers and RCDs for Temporary Builders Supplies.



CT Chamber, 400A, Part No. S030096



Combined CT Chamber / MCCB, 400A, Part No. S031132



SSE CT Chamber, 800A, Part No. S031338

THE POWER PROFESSIONALS

TDS11 - 10/16

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Assemblies for Temporary Builders Supplies (TT supply)

Temporary Builders Supplies are commonly provided for construction sites but most electricity Suppliers will not guarantee the integrity of the earth connection. Sites are therefore required to provide their own earthing system by means of an earth rod, mat or similar arrangement (a TT supply). To prevent the risk of a voltage appearing between the incoming earth and the site earth under fault conditions, it is necessary to keep the two earthing and protection systems separate. In addition, because the earth fault loop impedance of a TT installation is generally higher than that found with a TN-S supply, an RCD is required to achieve a one second disconnection time in the event of an earth fault (in accordance with BS7671). As a result of these various requirements, virtually every Temporary Builders Supply rated from 200A to 1600A requires a main RCD and CT chamber, housed in an all-insulated enclosure (as there is no upstream protection to provide automatic disconnection of the supply). When the CT chamber is NOT provided by the electricity supplier, we have developed a range of insulated assemblies that combine CT Chambers and RCDs in ratings from 200A to 1600A. We also offer a range of free-standing cabinets, to house the CT chambers and RCDs. Outline details are as follows:

(a) Combined CT Chambers and RCDs

To our standard (LR) and SSE requirements (SR). Cable entry and exit is through the base.

Part No.	Type No.	Rating
S031145	CTC/ARC/200/LR	200A
S030053	CTC/ARC/400/LR	400A
S030986	CTC/ARC/800/LR	800A
S031015	CTC/ARC/1600/LR	1600A
S031340	CTC/ARC/800/037/SR	800A
S031341	CTC/ARC/1250/037/SR	1250A
S031350	CTC/ARC/1600/037/SR	1600A



1250A Combined CTC & RCD, SSE specification, Part Number S031341

(b) ISIA series GRP Outer Housings

On a TT supply, the CT Chamber and RCD must not be housed within a metal cabinet and we offer a range of free-standing, outdoor, GRP, Site Intake Assemblies (ISIAs) to house this equipment. Due to their weight, ISIAs must be located on a level surface and bolted-down. Part numbers are as follows:

Part No.	Type Number
S050472	ISIA/400 (houses S031145 or S030053)
S050473	ISIA/1600 (houses S030986, S031015, S031340, S031341 and S031350)

Drawings of these cabinets can be downloaded from our website.

(c) Combined CT Chamber and RCD mounted within an ISIA Cabinet.

Due to the size and weight of combined assemblies, we can supply fully assembled ISIA cabinets fitted with CT chamber and RCD. This is particularly recommended for the 800A and 1600A variants. The part numbers of complete assemblies are as follows:

Part No.	Type Number	Rating
S201128	ISIA/CTC-ARC400/LR	2/400A
S201129	ISIA/CTC-ARC800/LR	800A
S201130	ISIA/CTC-ARC1600/LR	1600A

SSE versions can also be supplied to order. Please see data sheet DDS110 for further details on ISIA assemblies and PDS023 for high current GRP RCDs.



1250A Combined CTC & RCD, SSE specification, Housed in an S050473 ISIA GRP Cabinet