

Simplify Site Intakes with Combined CT Chambers and RCDs

The electrical supplies to construction sites (Temporary Builders Supplies) are generally TT supplies and in order to comply with the touch voltage and disconnection time requirements of BS7671, including Regulation 411.5.3, DNOs usually require an RCD to be installed at the main site intake point. Many DNOs require the primary RCD on a site to be of all-insulated construction, due to the risk of an insulation failure upstream of the main RCD. In addition, some DNOs require the CT chamber, which house the main metering CTs, to be of all-insulated construction. Many DNOs also require the kiosk that houses the overall site intake equipment to be of insulated construction - see over the page for suitable GRP kiosks.

In order to simplify metering and protection requirements, Blakley Electrics produces a range of all-insulated combined CT Chambers and RCDs, which can be used on Temporary Builders Supplies rated from 200A to 1600A. The combined assemblies are designed to mount within our ISIA GRP housings (see over the page). We have also supplied combined CT Chambers and RCDs in ratings up to 2500A but these are made to order and require a non-standard ISIA GRP housing.

General Specification

2/400A, 800A, 1250A or 1600A CT Chamber housed in an all insulated enclosure close coupled to a Blakley Electrics all-insulated protection assembly incorporating overcurrent, short-circuit and RCD protection. There is full segregation between the two compartments and the RCD section has sufficient cabling room for large, multicore, steel wire armoured cables to be terminated.

The 400A assembly incorporates a 4P MCCB with overcurrent adjustable from 400A to 144A (can be used for 200A or 400A services). The RCDs are adjustable from 0.1A to 30A and the time delay is adjustable from 0 to 10 seconds (for a TT supply the maximum time delay should be one second).

At 800A rating and above, assemblies incorporate 4P MCCBs with overcurrent trips that adjust from 1.0 to 0.4 times nominal rating i.e. 800A to 320A, 1250A to 500A and 1600A to 640A. The RCDs of all these assemblies have sensitivities adjustable from 0.3A to 30A and time delays adjustable from 0 to 10 seconds (for a TT supply the maximum time delay should be one second).

The CT chambers incorporated into the standard items listed below have been widely installed in the London and Scottish & Southern Regions. CT chambers to other specifications can be made to order. Overleaf are details of steel and GRP housings for Combined CT Chambers and RCDs.



Part No.	Description
S030053R	Combined CT Chamber & RCD, 400A, standard configuration (LR)
S030986R	Combined CT Chamber & RCD, 800A, standard configuration (LR)
S031340A	Combined CT Chamber & RCD, 800A, Scottish & Southern, 037
S031341A	Combined CT Chamber & RCD, 1250A, Scottish & Southern, 037
S031015R	Combined CT Chamber & RCD, 1600A, standard configuration (LR)
S031350A	Combined CT Chamber & RCD, 1600A, Scottish & Southern, 037

Combined CT Chamber & RCD, 800A, mounted on optional backboard

Experts in **high performance**
power and lighting products

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ISIA series Site Intake Assemblies

Site Intake Assemblies are free standing enclosures with wooden backboards and are designed to house the DNO Service Head, Meter, CT Chamber and Main Site RCD for Temporary Builders Supplies.

ISIA series

Due to concerns about an insulation failure on the supply side of a Site Intake Assembly (causing a steel enclosure to live up at mains voltage), some DNOs require Site Intake Assemblies for Temporary Builders Supplies to be of all insulated construction when used on TT supplies. Section 6B of the EDF Earthing Design Manual dated March 2009 clause 6B.5.1.3 refers.

ISIA series enclosures are free-standing, made from GRP, have a wooden backboard and padlockable doors. They are supplied fully assembled but are demountable to facilitate easier removal from site at the end of a project (they can be re-assembled for future use).

Unequipped ISIA Housings

Type ISIA 200, Single Door

Part No. S050471

Overall: 1925H x 990W x 505D; Backboard: 1220H x 850W mm

Type ISIA 400, Double Door

Part No. S050472

Overall: 2020H x 1590W x 572D; Backboard: 1220H x 1450W mm

Will accept standard 200A and 400A combined units

Type ISIA 1600, Double Door

Part No. S050473

Overall: 2460H x 2000W x 755D; Backboard: 2000H x 1850W mm

Will accept all standard 800A, 1250A and 1600A combined units.

ISIA Housings Equipped with Standard CT Chamber / RCD

Type ISIA/CTC/ARC/MRCD400/LR

Standard 400A CT Chamber / RCD mounted in ISIA 400 housing

Part No. S201128

Type ISIA/CTC/ARC/MRCD800/LR

Standard 800A CT Chamber / RCD mounted in ISIA 1600 housing

Part No. S201129

Type ISIA/CTC/ARC/MRCD1600/LR

Standard 1600A CT Chamber / RCD mounted in ISIA 1600 housing

Part No. S201130

ISIA Housings Equipped with SSE CT Chamber / RCD

Type ISIA/CTC/ARC/MRCD800/SSE

SSE 800A CT Chamber / RCD mounted in ISIA 1600 housing

Part No. S201351

Type ISIA/CTC/ARC/MRCD1250/SSE

SSE 1250A CT Chamber / RCD mounted in ISIA 1600 housing

Part No. S201352

Type ISIA/CTC/ARC/MRCD1600/SSE

SSE 1600A CT Chamber / RCD mounted in ISIA 1600 housing

Part No. S201353

SIA series

For installations where steel enclosures can be used, we can supply SIA series single and double door freestanding enclosures with wall securing brackets. Please contact us for details.



Part S201130
ISIA1600 complete with 1600A Combined CT Chamber and RCD



Part S050473
ISIA series GRP Site Intake Assembly