BLAKLEY ELECTRICS

CASE STUDY
DATA SHEET

Site Intake Assembly for Temporary Builders Supply Developed for a Project in the South-Eastern Region

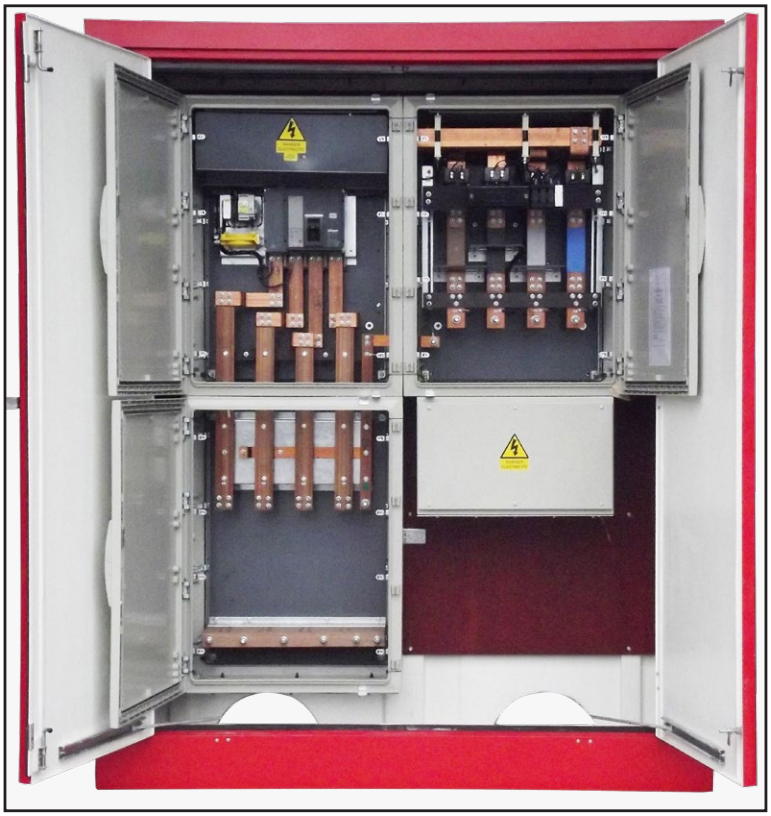
Temporary supplies for construction sites present some unique challenges for electricity suppliers, meter operators, electrical contractors and building contractors.

Provision has to be made for temporary supply cables to be terminated in a secure and robust manner, in strict accordance with the requirements of different electricity suppliers.

Most electricity suppliers will not guarantee the integrity of the supply earth and will only provide construction sites with a TT supply, necessitating the addition of an RCD to protect the overall installation and for all enclosures upstream of the RCD to be all-insulated.

Meter operators require a secure housing for their meter and a sealable compartment to house their current transformers.

Blakley Electrics introduced combined CT Chambers and RCDs a number of years ago. Initially these were rated at 200A / 400A but the range has now been expanded to include versions rated at 800A and 1600A.



These assemblies can either be supplied in wall mounting format (requiring a suitable wall / room to be found on site) or, more commonly, they can be supplied fitted into a robust, GRP housing, which can be positioned anywhere on the site without any further protection required.

The requirements of the different electricity providers differs from company to company but we have experience or producing combined assemblies to suit the requirements of many of the leading electricity suppliers.

South-Eastern Region

The image alongside shows an 800A Site Intake Assembly supplied for a Temporary Builders Supply in Kent. The assembly is fitted with incoming terminals which are punched for 4 hole fixing lugs. These terminals are designed to accept 740mm^2 single core, aluminium cables, either one or two per phase. A wooden clamp is incorporated at ground level to secure the cables.

In the South-Eastern Region configuration, the MCCB / RCD is “upstream” of the CT chamber, which is unlike the London Region arrangement where the MCCB / RCD is downstream of the CT chamber.

The CT chamber (main compartment on the right hand side) is sealable and incorporates removable links and shelves for the CTs. The electricity meter can be mounted on to the door of the CT chamber (there is a minimum distance of 150mm from the door of the CT chamber to the back of the door of the outer cabinet). The meter and CTs are provided and fitted by others.

The outgoing cables feeding the site terminate in the CT chamber. A steel extension box is fitted to the underside of the CT chamber allowing the glanding and termination of large, 4 core, steel wire armoured cables.

Please see over the page for dimensions, etc.

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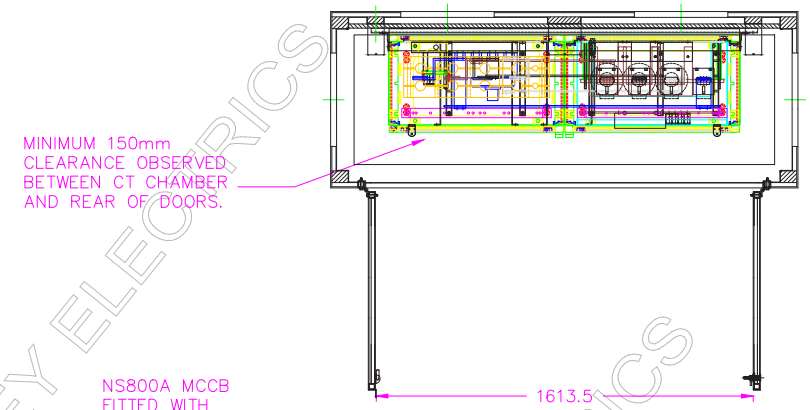
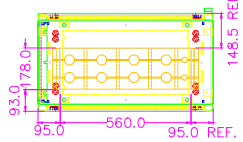
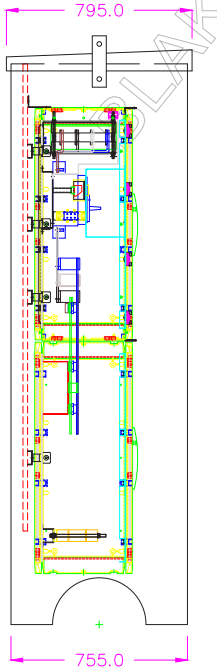
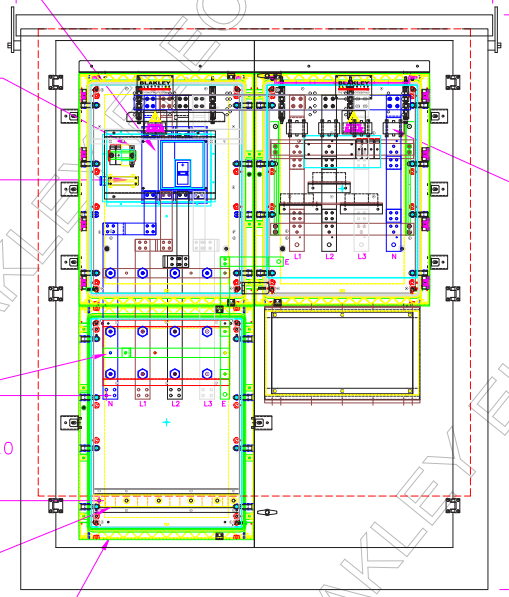




DETAIL 1
CUTOUT DETAILS FOR UNDERSIDE OF
INCOMER CABLE ENCLOSURE





NS800A MCCB
FITTED WITH
SHUNT TRIP.
EARTH LEAKAGE
PROTECTION IS
PROVIDED BY
RD1A UNIT.

RD1A UNIT
CONFIGURABLE FOR
RANGE OF EARTH
LEAKAGE CURRENTS
AND TIME.

DEL80NS MONITORING
VECTORIAL SUM OF
MATCHED CTs.

REMOVABLE NEUTRAL
LINK.(PNB ONLY)

WOODEN CABLE CLAMP
ARRANGEMENT MOUNTED
ON BACKPLATE 450mm
BELOW COPPERS.

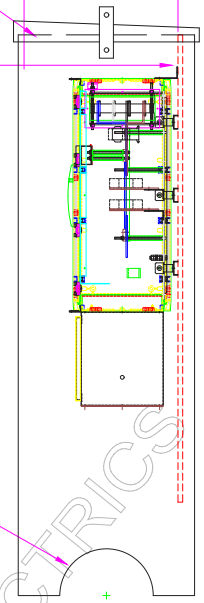
SEE DETAIL 1 FOR
INCOMER ENCLOSURE
CUTOUT DETAILS

SET OF 4 MATCHED
CTs (TAS 64)
CONNECTED IN
PARALLEL.

GRP ENCLOSURE TO BE
FINISHED IN GELCOAT
RED BS4800.

MINIMUM DEPTH
FROM BOARD
TO REAR OF
DOORS SHOULD
BE 600mm.

CT CHAMBER TO BE FIXED
TO BACK BOARD USING
M8 COACHBOLTS.
FIT AS HIGH AS POSSIBLE
ENSURING DOORS OPEN.



ENCLOSURE TO HAVE
CABLE ENTRY POINTS
ON REAR AND SIDES.

REV:	A
EDR:	5810
UNLESS OTHERWISE STATED:– ALL DIMENSIONS IN MM. TOLERANCES TO H30052 FIXING STANDARD TO H30051 WIRING STANDARD TO H20051 WELDING STANDARD TO QAI 61.	
DO NOT SCALE THIS DRAWING. IF IN DOUBT, ASK.	
TITLE	GEN ASSY ISIA/CTC/ARC800A UKPN SE REGION
MATERIAL	SIZE
REF.	A7083501
COPY ISSUED	
ORIGINAL SCALE	1:10
DATE.	15.11.12
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SHEET	1 OF 1

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