

# Electrolink N<sup>o</sup> 3

January 2011

## TEMPORARY ELECTRICAL CONNECTIONS FOR CONSTRUCTION SITES UP TO 20/60kVA

A Construction Site is an area where a building operation or work of engineering construction is being undertaken. Such a site often requires a connection to the electricity network for a short period on a temporary basis while the permanent electrical installation is being installed or refurbished. Because of its temporary nature, the site electrical installation may be inherently less well protected and more exposed to damage during building operations.

This Electrolink describes Electricity North West's policy for temporary connections with capacities up to 20kVA single-phase and 60kVA three-phase. Details of Electricity North West's requirements are shown below.

### EARLY NOTIFICATION OF REQUIREMENTS

Should you require a mains electricity connection for building purposes, it is essential that you contact Electricity North West's Connections office as soon as a future building development is considered and certainly not later than the planning application stage. We require to know precisely when and where the connection will be required, the maximum demand in kVA (and the nature of the load) which will be required for building construction and the installed load which is expected to be needed when the site is ultimately developed.

Another object of the discussions is to identify any existing electricity network on site so that the Site Operator may take all necessary precautions to avoid damage or accidental contact with existing overhead lines, underground cables and other equipment. Refer to Health and Safety Executive publications HSG141 "Electrical Safety on Construction Sites", HSG47 "Avoiding Danger from Underground Services" and GS6 "Avoidance of Danger from Overhead Electrical Lines".

### SITE ACCOMMODATION

It is the Site Operator's responsibility to provide a substantial, secure, weatherproof, enclosure to accommodate Electricity North West's service equipment. Full details of the required enclosure and its methods of construction are shown on Electricity North West's drawing A2-028/02B, a copy of which accompanies this Electrolink.

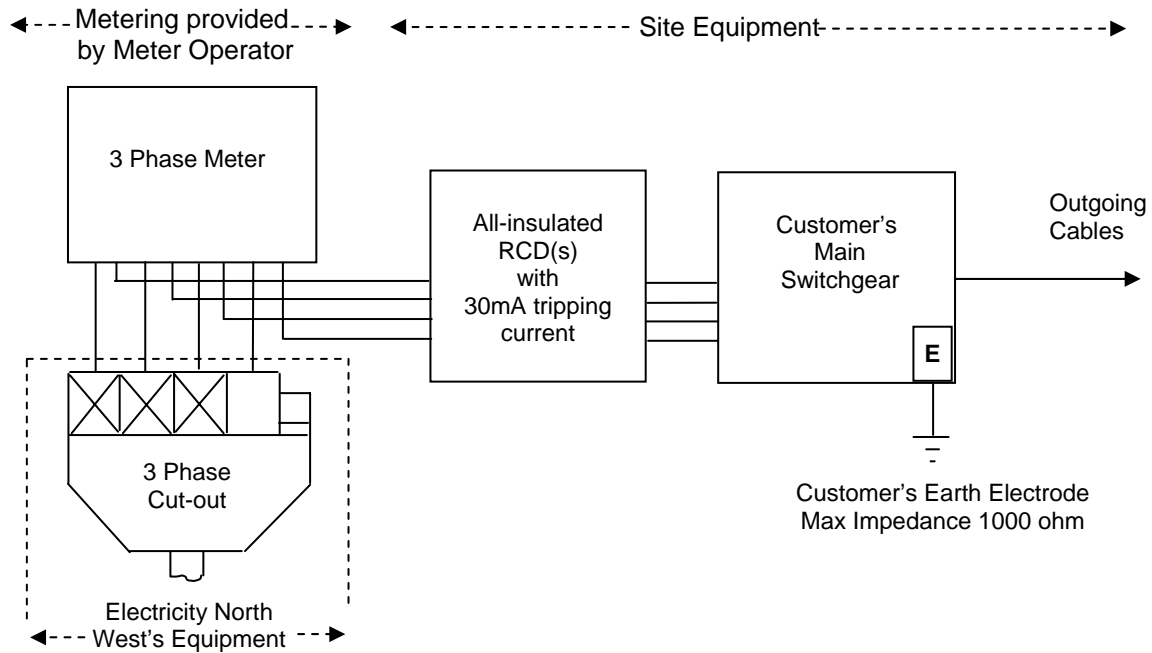
### INDEMNITY FORM

The connection will be installed only after receipt of a completed Indemnity Form from the Site Operator's Electrical Contractor, confirming that the electrical installation will comply with the Electricity Safety, Quality and Continuity Regulations 2002. Copies of the Indemnity Form can be obtained from any Electricity North West office on request. Where this form is used, a Wiring Completion Certificate is not required.

### ELECTRICITY SAFETY

It is the Site Operator's responsibility to ensure that the electrical installation on site complies with BS7671: 2008 - Requirements for Electrical Installations (IEE Wiring Regulations) and to provide an independent means of earthing, since an Electricity North West earth will not be provided. To protect site personnel, the installation must be fitted with Insulated Residual Current Device(s) (RCD) to disconnect the supply in the event of leakage to earth. The required wiring arrangements are shown in this Electrolink.

## WIRING ARRANGEMENTS



### NOTES

1. The customer shall appoint a 'Supplier' who shall arrange for a Meter Operator to install appropriate metering.
2. Connections between the Electricity North West service cut-out and the Supplier-provided meter(s) shall be provided by the appointed Supplier/Meter Operator. Interconnecting cables linking metering to the customer's switchgear shall be provided by the Site Operator. They should be as short as practicable and shall have stranded copper conductors of cross section 25 sq mm for 100A fuse-links. The cables shall be identified as follows:  
For 3-phase supplies, the phase conductors to be Brown, Black and Grey, neutral conductor to be Blue.  
For 1-phase supplies, the phase conductor to be Brown, neutral conductor to be Blue.
3. Only one cable shall be provided for connection into each outgoing terminal on the meter.
4. The Residual Current Device(s) must be all-insulated and have an operating current of not more than 30mA. The RCD(s) must be installed immediately after the meter(s) to give protection to the complete electrical installation.
5. For an RCD with an operating current of 30mA, the customer's earth electrode must have a resistance of 1000 ohm or less.

### ELECTRICITY NORTH WEST'S RESPONSIBILITY

The advice contained within this Electrolink is given in good faith based on information available. No guarantee can be given, however, that the information will not change in the future. Electricity North West cannot be held responsible for costs incurred due to inaccuracies or subsequent changes.

#### Other publications in the Electrolink series:

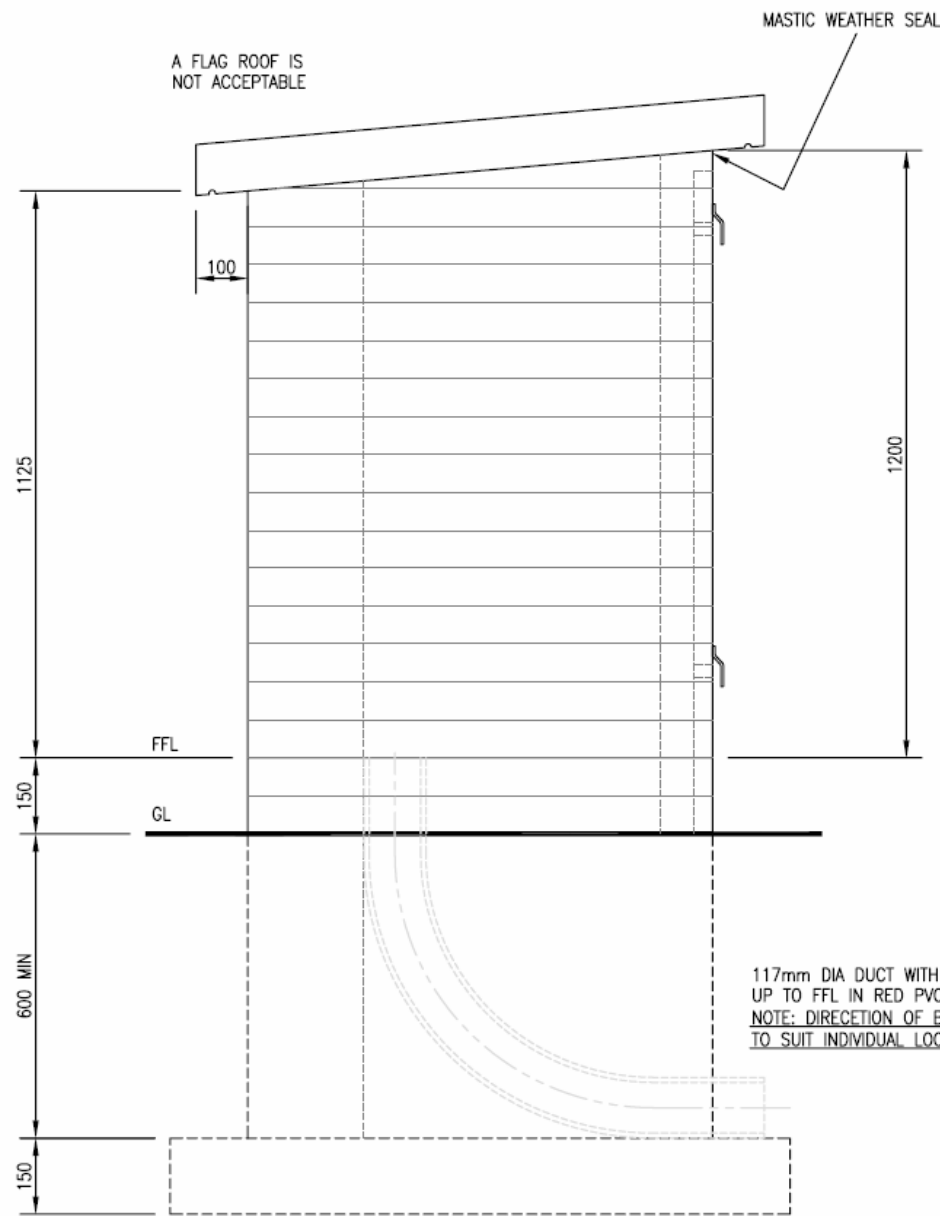
- Electrolink N<sup>o</sup> 1 - Application of PME to Customers' Electrical Installations.
- Electrolink N<sup>o</sup> 2 - Estimation of Prospective Short Circuit Current.
- Electrolink N<sup>o</sup> 4 - Meter Board Arrangements for New 1-Phase Domestic Supply up to 20kVA.
- Electrolink N<sup>o</sup> 5 - Outdoor Meter Reading Facilities.
- Electrolink N<sup>o</sup> 6 - Interference with Supply to other Customers.
- Electrolink N<sup>o</sup> 7 - Computers and Mains Electricity Supply.
- Electrolink N<sup>o</sup> 8 - Temporary Electricity Connections for Construction Sites (60kVA to 300kVA)

#### For further information on our temporary connections policy contact:

Electricity North West,  
Frederick Road,  
Salford,  
M6 6QH.

Telephone: 0871 687 0501

Email: [connections.enquiries@enwl.co.uk](mailto:connections.enquiries@enwl.co.uk)

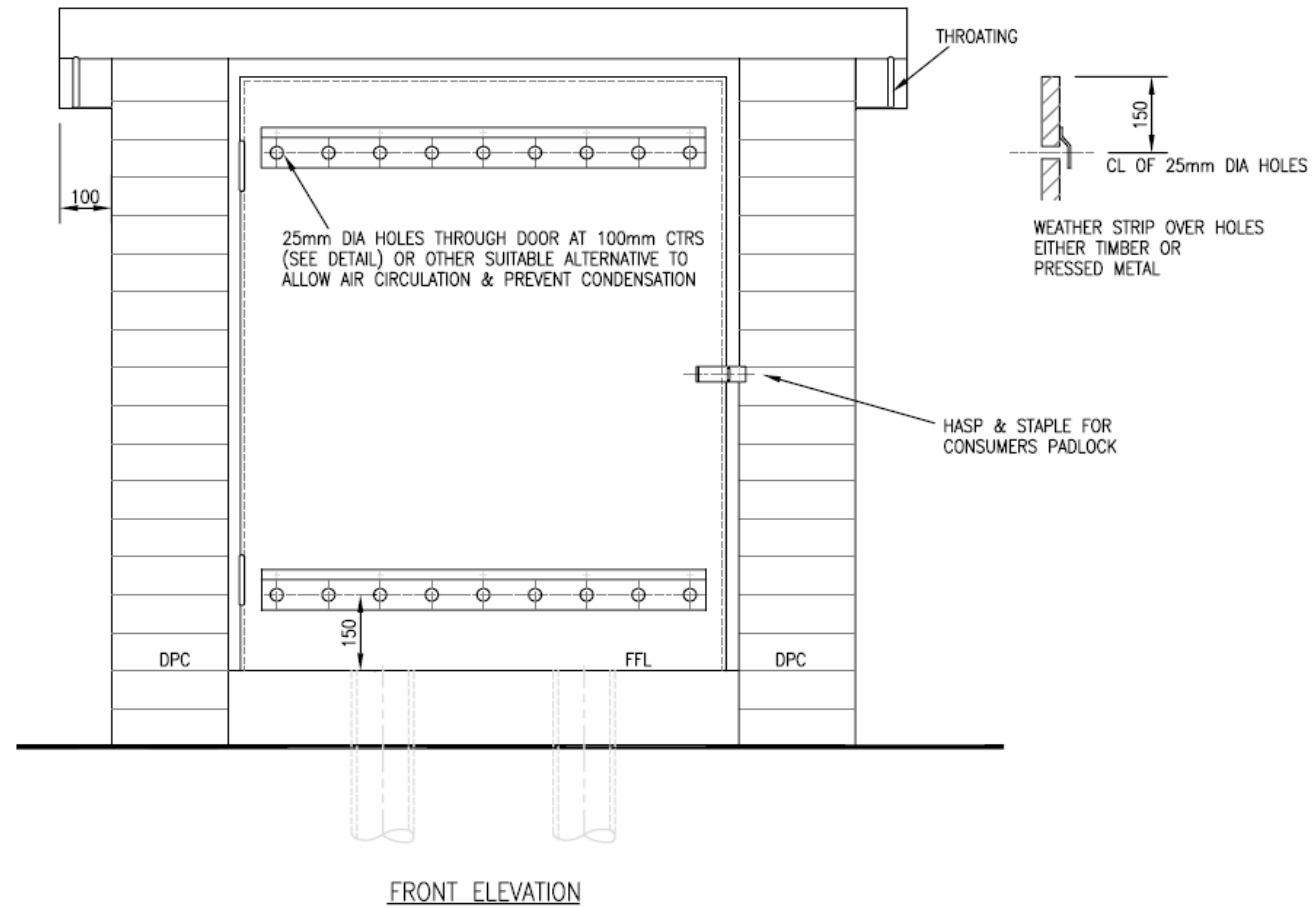


CONCRETE FOUNDATION SIZE & DEPTH TO SUIT SITE CONDITIONS

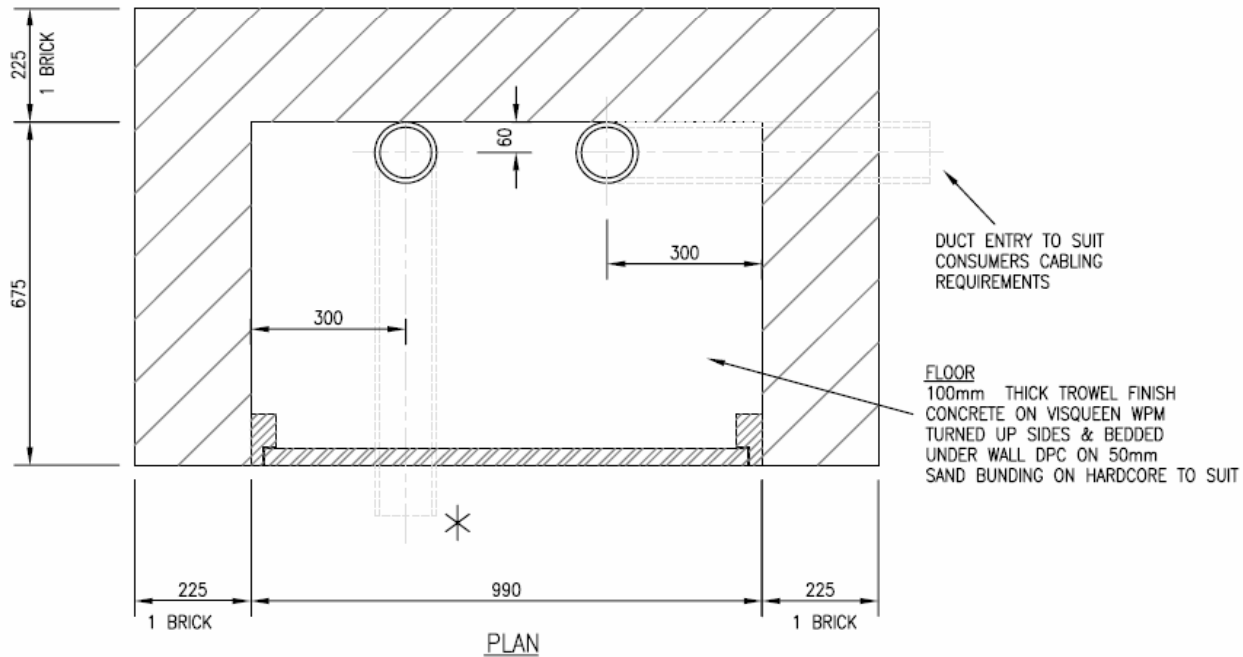
**SIDE ELEVATION**

**DOOR**

EXTERNAL QUALITY FLUSH DOOR HUNG ON 1 No PAIR CAST BUTT HINGES. 100 x 50mm REBATED FRAME PLUGGED & SCREWED TO THE WALL



**FRONT ELEVATION**



**PLAN**

**notes**

ALL DIMENSIONS IN mm

\* DIRECTION OF BEND & ENTRY POINT TO SUIT INDIVIDUAL LOCATION ie- IN 'PLAN' DUCT DIRECTION MAY BE POSITIONED ANYWHERE THROUGH 360°

ROOF & WALLS TO HAVE 'SILICONE' WATERPROOF TREATMENT EXTERNALLY. BRICKWORK TO BE 2nd ENGINEERING WITH WATERPROOF SAND/CEMENT MORTAR.

**ROOF**  
100mm THICK WATERPROOF CONCRETE WITH FALL OF 1 COURSE FRONT TO BACK.

CONCRETE FOR BASE TO BE 1:2:4 MIX OF ORDINARY PORTLAND CEMENT CONCRETE WITH 28 DAY STRENGTH OF 35N/mm<sup>2</sup>

CABLE DUCTS TO BE SEALED BY ELECTRICITY NORTH WEST AFTER INSTALLATION OF CABLES. SPARE DUCTS TO BE SEALED WITH EXPANDING FOAM AND DUCTS WITH CABLES TO BE SEALED WITH DENSOMATIC PUTTY.

**revisions**

- A) ISSUED FOR CIRCULATION
- B) DUCT SPEC & CONC STRENGTH ALTERED 16-01-06



**Electricity North West Limited**

drawn

approved G.H.SMITH date 25/11/03

STANDARD BRICK BUILT METERING CUBICLE FOR TEMPORARY SUPPLIES (100AMP PLASTIC INSULATED SUPPLY)

scale DO NOT SCALE

scheme number

drawing number sheet

A2-028/02B