WESTERN POWER DISTRIBUTION

Serving the Midlands, South West and Wales

Company Directive

ENGINEERING SPECIFICATION
EE SPEC: 207

Outdoor Freestanding Low Voltage Feeder Pillar to provide SNE or PNB Connections to Multiple EV Car Charging Hubs

Policy Summary

This specification covers Western Power Distribution's requirements for an SNE or PNB connected Stand Alone LV Metering Panel with Separate LV Consumer Section to be used in conjunction with a dedicated 1MVA or 1.6MVA transformer.

Author: **Andrew Reynolds**

Implementation Date: **January 2022**

Approved by

Carl Ketley-Lowe
Engineering Policy Manager

Date: **20th January 2022**

Target Staff Group	**Procurement Team, 11kV Planners,**
Impact of Change	**Amber**
Planned Assurance checks	**As these are initially to be used for development application then the Engineering Policy Team will ensure compliance with this EESPEC on an ongoing basis.**

IMPLEMENTATION PLAN

Introduction

This Engineering Equipment Specification (EESPEC) details the technical requirements for an outdoor freestanding Low Voltage feeder pillar to provide SNE or PNB connections to multiple EV car charging hubs. The pillar comprises a section for Western Power Distribution (WPD) use and to provide metering facilities and a separate LV customer section which will accommodate customer owned MCCBs used to supply EV Charging Hubs.

The LV pillar is used in conjunction with a dedicated sole use transformer capable of providing a sustained load rating of 1MVA or 1.6MVA.

Main Changes

This a new specification to enable the provision of equipment so as to permit the trial and development of large LV supplies for the connection of EV charging hubs for rapid DC chargers.

Impact of Changes

This new specification will have no impact on business as usual as it is to enable the purchase of units for trial and development purposes only.

Implementation Actions

- The Electricity System Development Team will work with Procurement and Engineering Policy to procure units required for trial and development purposes.
- The Electricity System Development Team will work with selected local 11kV planners to identify suitable sites for trial of the arrangement detailed in SD1K.
- Engineering Policy will create any new CROWN templates as required.
- Engineering Policy Team to maintain/develop this EESPEC for business as usual activity as required.

Implementation Timetable

To be used for tenders following the issue date.

REVISION HISTORY

Document Revision & Review Table		
Date	**Comments**	**Author**
January 2022	• This is a new document	Andrew Reynolds / Stephen Hennell

Contents

1.0 SCOPE

This EE SPEC details the technical requirements for an outdoor freestanding 1MVA Low Voltage feeder pillar to provide SNE or PNB connections to multiple EV car charging hubs. The pillar comprises a section for Western Power Distribution (WPD) use and to provide metering facilities with a separate LV Customer Section which will accommodate customer owned MCCBs used to supply EV Charging Hubs.

The LV pillar is used in conjunction with a dedicated sole use transformer capable of providing a sustained load rating of 1MVA or 1.6MVA.

[*Note: Whilst this EESPEC has been written to include a 1.6MVA transformer option, this is not available for use until aspects of ENA Rec P2 have been reviewed/revised***.]**

2.0 REFERENCES

This specification refers to, or should be read in conjunction with, the following documents:-

BS HD 60269 Part 1	Low-voltage fuses: General requirements
BS HD 60269 Part 2	Low-voltage fuses: Supplementary requirements for fuses for use by authorized persons (fuses mainly for industrial applications) – Examples of standardised systems of fuses A to I.
BS 6231	Electric cables. Single core PVC insulated flexible cables of rated voltage 600/1000 V for switchgear and controlgear wiring
BS EN 60529	Degrees of protection provided by enclosures (IP code)
BS EN 60947-2	Low-voltage switchgear and controlgear: Circuit-breakers
BS EN 60947-3	Low-voltage switchgear and controlgear: Switches, disconnectors, switch disconnectors and fuse combination units.
BS EN 61439-1	Low-voltage switchgear and controlgear assemblies: general rules.
BS EN 61439-5	Low-voltage switchgear and controlgear assemblies: Assemblies for power distribution in public networks.
BS EN 61439-7	Low-voltage switchgear and controlgear assemblies: Assemblies for specific applications such as marinas, camping sites, market squares, electric vehicle charging stations

BS EN 61869-1	Instrument transformers: General requirements
BS EN 61869-2	Instrument transformers: Additional requirements for current transformers
ENA TS 37-2	Electrical Networks Association Technical Specification 37-2: Public Electricity Network Distribution Assemblies
ENA TS 98-1	Electrical Networks Association Technical Specification 98-1: Surface preparation and coating systems for new plant and equipment.

3.0 ABBREVIATIONS

Abbreviation	Term
ACB	Air Circuit Breaker
DNO	Distribution Network Operator
MCCB	Moulded Case Circuit Breaker
WPD	Western Power Distribution

4.0 GENERAL REQUIREMENTS

The outdoor freestanding LV feeder pillar will be cable connected to a dedicated sole use transformer of 1MVA or 1.6MVA sustained load rating.

The connection between the transformer mounted cabinet and the outdoor freestanding LV feeder pillar will be such that it provides an SNE or PNB connection to an EV charging hub. There shall be no option for a PME connection.

An EV charging hub will consist of a group of car chargers, typically 150kW DC rapid chargers.

The outdoor freestanding LV feeder pillar shall be suitable for connecting to 3 Phase, 4 wire, supply with a nominal voltage of 400V between phases and a system frequency of 50 Hz.

Figures 1, 2, 3 & 4 below show the connection arrangements between the transformer mounted LV cabinet and the LV feeder pillar so as to provide an SNE or PNB connection for combined and separate HV and LV earthing respectively.

The stand-alone LV feeder pillar shall include separate compartments for WPD equipment, Meter Operator equipment and customer equipment.

[An alternative option that may be considered is for the WPD equipment and Meter Operator equipment to share a compartment. This compartment to be provided with a double locking facitlity that does not utilise a locking bar (such that one party or the other is prevented from accessing), and that the MCCB is provided with a locking facility that will prevent resetting and closing without the removal of a WPD operational lock.]

The WPD equipment compartment will include a suitably rated MCCB (see Table 1) for protection of customer owned assets (so as to comply with the requirements of the ESQCR), metering current transformers and facilities for the termination of tape armoured solidal or copper cables. This compartment shall be secured so as to restrict access to WPD authorised employees only.

Transformer Rating (kVA)	**MCCB Rating (A)**	**MCCB Trip Unit**
1000	1600	Micrologic 6.0 (or equivalent)
1600	2500	Micrologic 6.0 (or equivalent)

Table 1 -WPD MCCB Rating and Trip Unit Details

A separate compartment shall be provided for the tariff metering facility. This shall be able to be accessed by WPD, the meter operator, the data collector and the customer.

The customer equipment compartment shall contain an incoming isolating switch and the outgoing MCCBs feeding the individual car charging equipment's. This shall be secured so as to permit access to customer authorised employees only.

[*Note: The outgoing MCCBs may not be supplied at the time of the initial installation. They will be purchased and installed by a third party as and when the charger requirements are known*.]

As far as practical the LV feeder pillar shall be future proofed. Should the rating of chargers or the characteristics of the supply, e.g. from 3 phase to 3 phase and neutral, change in the future it shall be possible to easily exchange the feeding MCCBs without modifications to the enclosure, busbar system or circuit breaker mounting arrangements. In addition, it shall be possible, as requirements evolve, to add remote monitoring of all circuit breakers and loads, and the remote operation of circuit breakers.

5.0 ENVIRONMENTAL CONDITIONS

The stand-alone LV feeder pillar shall be suitable for installation in an outdoor climate as defined in BS EN 61439-7.

6.0 CONSTRUCTIONAL REQUIREMENTS

6.1 General

The LV feeder pillar shall consist of separate discrete compartments; one for the WPD equipment, one for the use of the meter operator, and one for the car charging providers equipment. Each compartment shall have separate access door(s). [This may be varied if the shared access option for WPD and Meter Operator option as in 4 above is adopted.]

The LV pillar shall provide protection in accordance with IP54 of BS EN 60529 with a minimum rating of IPXXb when any doors are open, and house:

6.1.1 WPD compartment: -

a) Facilities for terminating incoming single core cables as detailed in 6.3 and Table 2. The gland plate arrangement shall permit compliance with Figures 1, 2, 3 & 4 below and allow for solid bonding of cable armours.

b) MCCB for the protection of busbars and equipment up to the outgoing terminal of the customer owned circuit MCCBs.

c) All necessary connections to connect the incoming cable terminals to the incoming MCCB and onwards to the switch disconnector in the car charging providers compartment, including links to enable the metering CTs to be readily removed. See 6.5.

d) Earth bar and associated connections so as to allow the arrangements in Figures 1, 2, 3 & 4 below to be met.

e) No neutral – earth link shall be offered or provided.

f) Facility shall be provided for 2No 120mm^2 Cu PVC/PVC insulated earth cables to enter and terminate as Figures 1 & 2 below.

6.1.2 Meter operators compartment

Tariff metering facility. See 6.4

6.1.3 Car charging providers compartment: -

a) Incoming switch disconnector. See 6.6.
b) Busbars. See 6.7.
c) Outgoing MCCBs. See 6.8.
d) All necessary internal connections.

The mounting and connection arrangements for all MCCBs shall include a means of managing the emissions from the breakers when they interrupt a short circuit current. All emissions must be contained behind a solid barrier and away from operators. In addition, they must be ducted away from live busbars and dispersed within safe zones within the LV pillar.

The LV pillar shall have minimum rated operational voltage (U_e) of 415V and a minimum rated insulation voltage (U_i) of 690V. The rated impulse withstand voltage for the LV pillar shall be 8kV.

6.2 Enclosure

The enclosure shall be fabricated from hot dipped galvanised steel, and shall be of a robust construction and provide adequate support for all the enclosed equipment. The design of the enclosure shall include a watershed top.

The design of the enclosure shall permit the installation of cables without the need to thread cables through the base of the enclosure.

Adequate ventilation shall be provided to permit natural circulation of air. The ventilation apertures shall be suitably screened to prevent entry of vermin, foreign bodies and dust as required by the applicable IP protection, including bored third parties.

The enclosure shall be protected against corrosion. All welding, drilling, punching, etc. shall be carried out prior to pre-treatment and coating. As the LV pillar can be located in a coastal area the external surfaces of the LV feeder pillar shall comply with Electrical Networks Association Technical Specification 98-1, Scheme 4.

The LV feeder pillar shall be fitted with removable devices at each end, and as near as possible to the balance line, to facilitate handling during transport.

The centre of gravity (CoG) for both horizontal axis's shall be marked on one side and the rear of the feeder pillar. The mass in kilograms shall also be clearly marked adjacent to the CoG marking on the rear of the feeder pillar.

With the door(s) of the LV feeder pillar open and all covers in place, the minimum protection against accidental contact with hazardous live part shall be in accordance with IP XXB of BS EN 60529.

Storage facilities shall be provided for all loose devices, e.g. padlocking devices, within the enclosure.

The WPD standard LV feeder pillar finish colour shall be RAL 7033 Cement Grey. If local planning requirements dictate another colour then this should be available as required as a nil cost option.

6.2.1 LV Pillar enclosure

LV feeder pillar enclosures shall be manufactured from a minimum of 2.5 mm thick steel and be suitable for mounting on a flat base or pier, at or slightly above ground level. Provision shall be made for fixing the enclosure to the floor by the inclusion of a minimum of four clearance holes for M12 foundation bolts. The purchaser will supply the floor fixing bolts.

Incoming and outgoing cables shall be able to be screened between ground level and the base of the pillar.

Cable glands to be located above ground level.

Access to the front of the LV feeder pillar enclosure shall be by means hinged doors, one door for the DNO compartment and two doors for the car charging providers compartment. Rear access is not required. Locking arrangements at the top and bottom of the doors shall secure the doors in the closed position. Central handles that have provision for a security padlock shall operate the locking arrangements on each of the two compartments. The central handles shall be arranged to permit locking by means a security padlock as detailed in sub-clause 6.9.1 of this specification.

6.2.2 Notices and Labels

The feeder pillar shall be equipped with the following labels in a position determined by WPD during the supply of the initial feeder pillar. All subsequent feeder pillars supplied shall have labels placed as agreed.

All external notices shall be fixed using double sided tape so as to avoid affecting the IP rating of the feeder pillar. Internal notices and labels to be permanent self-adhesive.

Location	**Notice / Label Inscription**	
WPD Access Door	Warning electricity triangle with wording:- "In case of emergency contact Western Power Distribution 0800 nnn xxxx"	
WPD Access Door	Access for WPD Authorised Persons only	
Inside WPD chamber	IMPORTANT SNE / Cable Sheath Earth supply Do not connect neutral to cable screen wires.	
Customer Access Door	Warning electricity triangle with Customer contact details	
Inside Customer chamber	IMPORTANT SNE / Cable Sheath Earth supply No PME available from this pillar	

6.3 Cables connecting the LV cabinet to the LV pillar

The number and type of cables connecting the LV feeder cabinet to the LV mounted cabinet shall be as given in Table 3.

Cable glands and mechanical cable lugs will be supplied by the purchaser.

6.3.1 **Solidal cables**

Where single core Solidal cables are used, they will be terminated with aluminium glands and mechanical cable connectors.

The mechanical cable connectors are centre palm, shear head pinching screw type. Provision shall be made in the cable terminals for connecting the mechanical cable connectors by means of four M8 bolted fixings or one M16 bolted fixing. Bolts, nuts washers and spring washers for the mechanical connectors shall be provided by the LV pillar supplier.

The glands shall be located in split aluminium gland plate arrangement that avoids the need to thread the cable through the gland plate.

See Table 2 for details of the mechanical connectors and cable glands.

6.3.2 **Copper cables**

Where single core copper cables are used, they include an aluminium wire armour. These will be terminated with brass glands and mechanical cable connectors.

The mechanical cable connectors are of the Sicame Electrical ML 7 type. Provision shall be made in the cable terminals for connecting the mechanical cable connectors by means of four M8 bolted fixings or one M16 bolted fixing. Bolts, nuts washers and spring washers for the connectors shall be provided by the LV cabinet and LV pillar supplier.

The glands shall be located in split brass gland plate arrangement that avoids the need to thread the cable through the gland plate.

See Table 2 for details of the mechanical connectors and cable glands.

Cable type and size	**Mechanical connector**		**Cable gland**	
	Manufacturer	**Type**	**Manufacturer**	**Type**
600 mm^2 Solidal	Sicame Electrical	ML 7	Prysmian Group	442AL58
630 mm^2 Copper	Sicame Electrical	ML 7	Prysmian Group	442AL59

Table 2: Types of mechanical connectors and cable glands.

An earth busbar shall be provided in the DNO compartment (which shall extend across the car charging provider's compartment). The earth busbar shall include two M12 fixings for terminating the two, 120 mm^2 earth cables that connect to the LV transformer mounted cabinet plus one M8 terminals for terminating the earth conductor associated with each incoming single core cable. See 6.3. The earth bond between the cable gland and the earth busbar will be supplied by the purchaser.

6.4 **Tariff metering facility**

A tariff metering facility shall be provided within the LV pillar.

The metering facility shall include 3 metering CT's on the load side of the mains incoming MCCB terminals. Suitable mounting arrangements shall be made to facilitate changing of CT's using removable links in the main circuit connections.

Metering CT's shall have a ratio as detailed in Table 2. They shall be class 0.5s with 2.5VA burden in accordance with BSEN 61869-2. CTs shall be supplied already installed in the LV pillar and be complete with a test certificate. The Metering CTs shall be earthed (on the S2 side – D10/D30/D50) via a removable captive, accessible link within the DNO compartment.

The Meter Operators Compartment shall accommodate a Test Terminal Block and the tariff meter. The meter mounting plate shall be pre-drilled to accept all the following meters:

a) Secure Premier Meter

b) Elster A1700 Meter

c) Elster A1120/40 Meter

d) EDMI MK 10A

The meter shall be provided and installed by others.

Three insulated metering potential fuse carriers, fitted with 6A fuse links to BS88 Part 2 ref F1, shall be positioned within the DNO compartment and as close as practical to each main phase conductor. They shall be connected to the main phase conductor by a minimum 10 mm² cross section conductor, double insulated, cable.

A test terminal block containing captive links (e.g. Owen Brothers previously GEC or Campbell York Type KP0023 or equivalent) shall be supplied within the meter compartment for the termination of CT and metering potential wiring.

The meter protection fuses and the CT test terminal block shall be positioned such that the fuse links can be safely withdrawn and replaced, or the CT test terminal block cover removed and refitted whilst being protected against accidental contact with hazardous live part in accordance with IPXXB of BS EN 60529.

Test Certificates for the CT's shall be provided to meet requirements of the Balancing and Settlement Code Metering CoP5 (up to 1MW) or CoP3 (Up to 10MVA) and also CoP4 as detailed in ST: TP14J "*Management of CT & VT Test Certificates*".

6.6 Incoming switch disconnector

The incoming switch disconnector in the LV feeder pillar, car charging provider's compartment, shall three pole with a full size bolted neutral link and comply with the requirements of BS EN 60947-3, Category AC22B, as a minimum.

6.7 Busbars within the car charging provider's compartment

The number and rated current of outgoing MCCBs to be accommodated by the enclosure and busbar system shall be as specified in Table 3.

Busbars shall be three phase, neutral and earth, and be manufactured from hard drawn high conductivity copper. The earth busbar shall extend the full width of the pillar (across the DNO compartment and the car charging equipment providers compartment).

The neutral busbar shall have a current rating not less than the rating of the associated phase busbars.

The earth busbar shall be capable of carrying the rated short circuit current corresponding to that specified in clause Table 2 of this specification and as determined by BS EN 61439-1.

Phase and neutral busbars shall be situated above the outgoing MCCBs. The earth busbar shall be mounted in the lower part of the pillar; behind the cables and immediately above the gland plates.

The earth busbar shall be bolted to the enclosure and include an earth M12 terminal projecting through the right-hand end of the enclosure. Within the car charging provider's compartment, the earth busbar shall be provided with one M8 earth terminal for each MCCB, assuming the LV pillar is provided with the maximum number of 3 pole, 100A, MCCBs are detailed in Table 3.

Whist it is anticipated the MCCBs will normally be 3 pole with a nominal current rating of 400A, the busbars and enclosure system shall be of a modular construction designed to readily accept the installation of MCCB in any combination of 3 pole and 4 pole with current rating between 40A and 630A.

6.8 Outgoing MCCBs

MCCBs shall be three pole or four pole as dictated by the application, fixed pattern, and in accordance with BS EN 60947-2.

The rated service short circuit breaking capacity shall be at least equal to the short circuit withstand strength specified for the Assembly. Circuit breakers shall include integral, logic-based protection units. To provide flexibility in protection settings, protection units, as a minimum, shall; (i) permit overload settings that are selectable between 40% and 100%; (ii) include overload time delay adjustment; (iii) have short-time current pick-up and time delay adjustment and; (iv) include instantaneous short circuit operation that is selectable between 2 and 10 times the rated current of the MCCB.

When required by the application, each outgoing MCCB shall be equipped with residual earth leakage protection. The setting range shall be at least 30 mA to 1A and have an intentional delay between 0ms and 300ms for current setting above 30 mA.

MCCBs shall connect directly to the busbars by means of rigid copper connection.

All outgoing cables will approach from below. Each outgoing MCCB shall be suitable for the connection of one multi-core, copper conductor cable within the range given in Table AA.1 of BS EN 61439-5. Cables will be terminated using compression lugs. Cable terminals on each outgoing MCCB (3 phase or 3 phase and neutral when a neutral is provided) shall be protected with a single terminal shields. Removal of one terminal shield shall not expose hazardous live parts or terminals on adjacent circuits. An individual undrilled gland plate will be provided for each outgoing MCCB. Cable glands and lugs will be supplied by the purchaser. When LV pillars are supplied without the outgoing MCCBs they shall be equipped with gland plates to suit 400A, 3 pole MCCBs.

Each outgoing MCCB shall be provided with a circuit label made of insulating material. This label shall be mounted at the top of each circuit and securely held in place. The labels shall be suitable for engraving by the purchaser to show black letters on a white background.

6.9 **Padlocking facilities.**

The purchaser shall provide padlocks.

The padlocking facilities on the door handle shall be capable of accepting an 8mm hardened boron steel shank of E 5 number 61298 Abloy padlock shall be provided as follows.

6.9.1 **Security padlocks**

Facilities shall be provided for padlocking the doors of the LV feeder pillar closed.

Security padlocks have a body up to 63 mm square and, a 10mm diameter shackle having a clear inside width of 35 mm and an inside length of between 25 mm and 45 mm. The hole provided for the shackle shall be not less than 12mm diameter.

6.9.2 **Safety padlocks**

Each circuit breaker and switch disconnector shall be capable of being locked in the open position. This may require the use of a supplementary device. When a supplementary device is required, one device shall be provided for each circuit breaker and switch disconnector.

Safety padlocks have a body up to 38mm square and a 7mm-diameter shackle having a clear inside width of 20 mm and an inside length of between 16 mm and 30 mm. The hole provided for the shackle shall be not less than 8 mm diameter.

7.0 PERFORMANCE

Performance of the LV feeder pillar shall be in accordance with BS EN 61439-7 with the following specific requirements.

7.1 Short circuit rating

The short circuit strength of the LV feeder pillar shall be as specified in Table 3 and in accordance with BS EN 61439-7.

7.2 Temperature rise

The LV feeder pillar shall have a temperature rise performance in accordance with BS EN 61439-7, with a minimum diversity factor of 0.8.

8.0 TYPE TESTS

Evidence shall be submitted to the purchaser to confirm that a complete LV feeder pillar of each rating has satisfactorily completed the following type tests detailed in this specification and BS EN 61439-7.

9.0 ROUTINE TESTS

Routine tests shall be carried out on each LV feeder pillar as defined in BS EN 61439-7.

10.0 DOCUMENTATION

All documentation shall be provided in English and the contents shall follow the general principles of BS EN 62271-1.

If engineering drawings are requested to be supplied to WPD they shall be to scale and fully detailed, with dimensions on the drawings being metric units, if requested in digital form then the format of electronic drawings shall be in both AutoCAD .DWG and PDF formats.

Description	CC1000	CC1600
Rating of LV pillar (A)	1600	2500
Rating of tariff metering CT links and associated connections (A)	1600	2500
Rating of incoming switch when installed in the LV pillar (A)	1600	2500
Rating of busbar busbars in the LV pillar (A)	1600	2500
Short circuit current rating for 3.0s	35.5	50
Number, type and size of cables connecting the LV cabinet to the LV pillar	12 x single core 600 mm^2 Solidal	12 x single core 630 mm^2 Copper
Number of outgoing MCCBs. *[Note: user to specify number and ratings of outgoing MCCBs. Outgoing MCCBs if supplied with the LV pillar. Alternatively, they may be purchased and installed by a third party later.]*	8 x 400/630A 3 pole, or 6 x 400/630A 4 pole, or 11 x 100/250A 3 pole, or 8 x 100/250A 4 pole, or a combination of ratings and numbers of poles	14 x 400/630A 3 pole, or 10 x 400/630A 4 pole, or 19 x 100/250A 3 pole, or 14 x 100/250A 4 pole, or a combination of ratings and numbers of poles
Metering current transformer ratio.	1600/5	2500/5
Diversity factor for temperature rise test for outgoing MCCBs	0.8	0.8

Table 3: Requirements for individual LV feeder pillars

To be specified at time of order	
Current rating of the LV pillar	
Outgoing MCCBs 3 pole or 4 pole	
Number and rating of outgoing circuits	
Requirement for earth leakage protection on outgoing circuits	

Table 4: Items to be specified at time of order

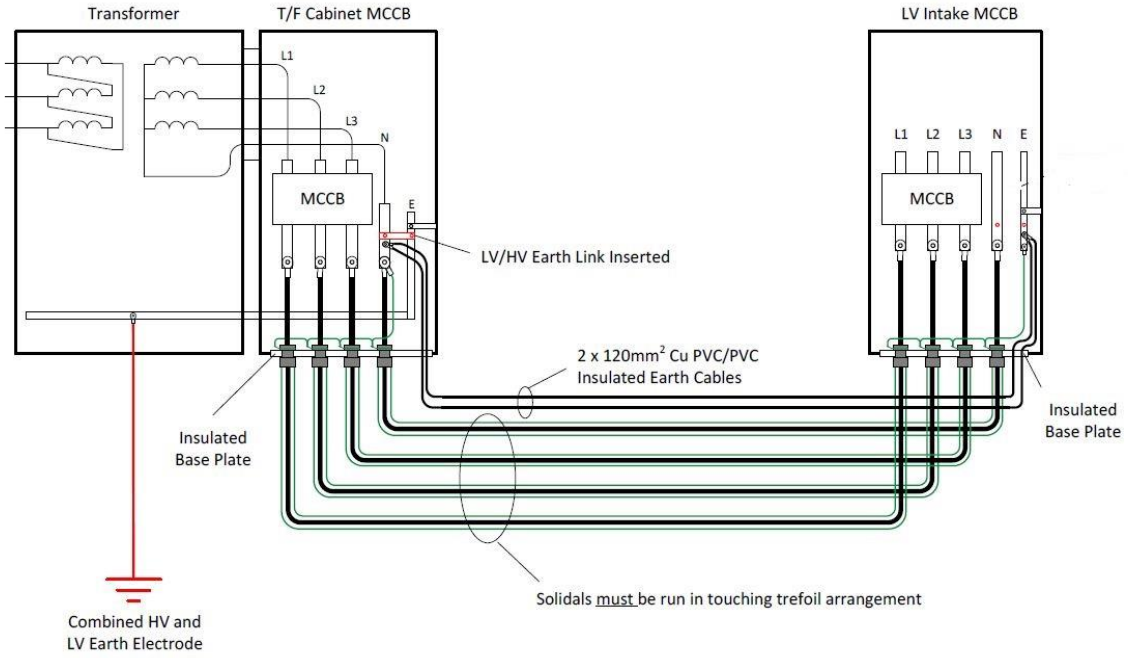

Figure 1 – Single Core Cable Earthing / Bonding – SNE Connection with Combined HV and LV Earthing

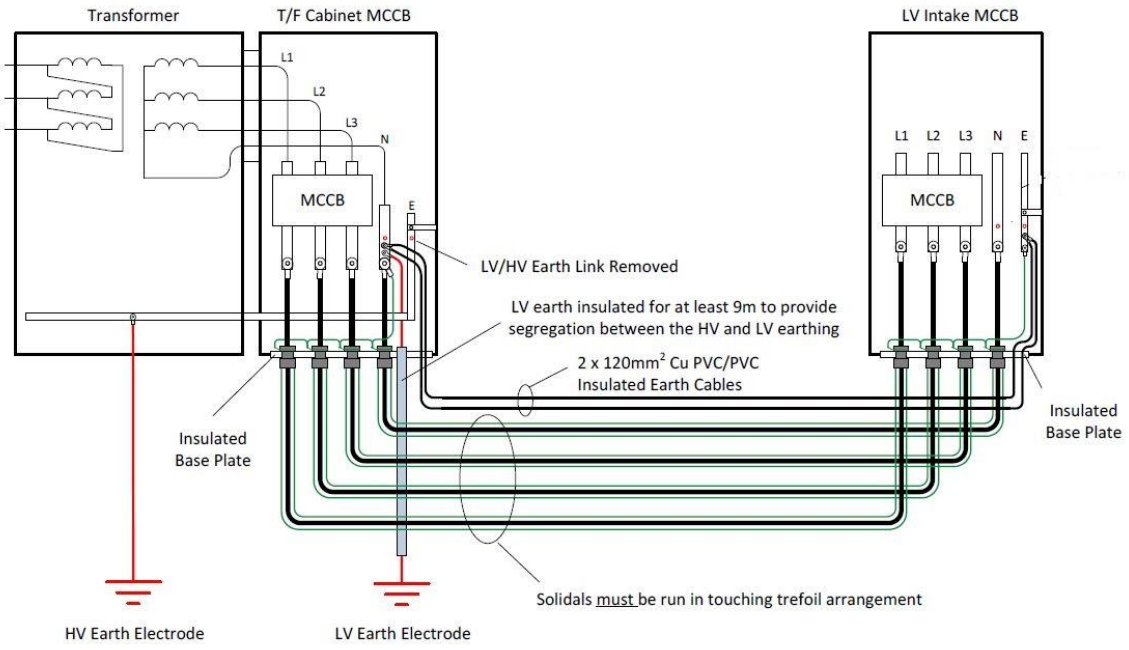

Figure 2 – Single Core Cable Earthing / Bonding – SNE Connection with Segregated HV and LV Earthing

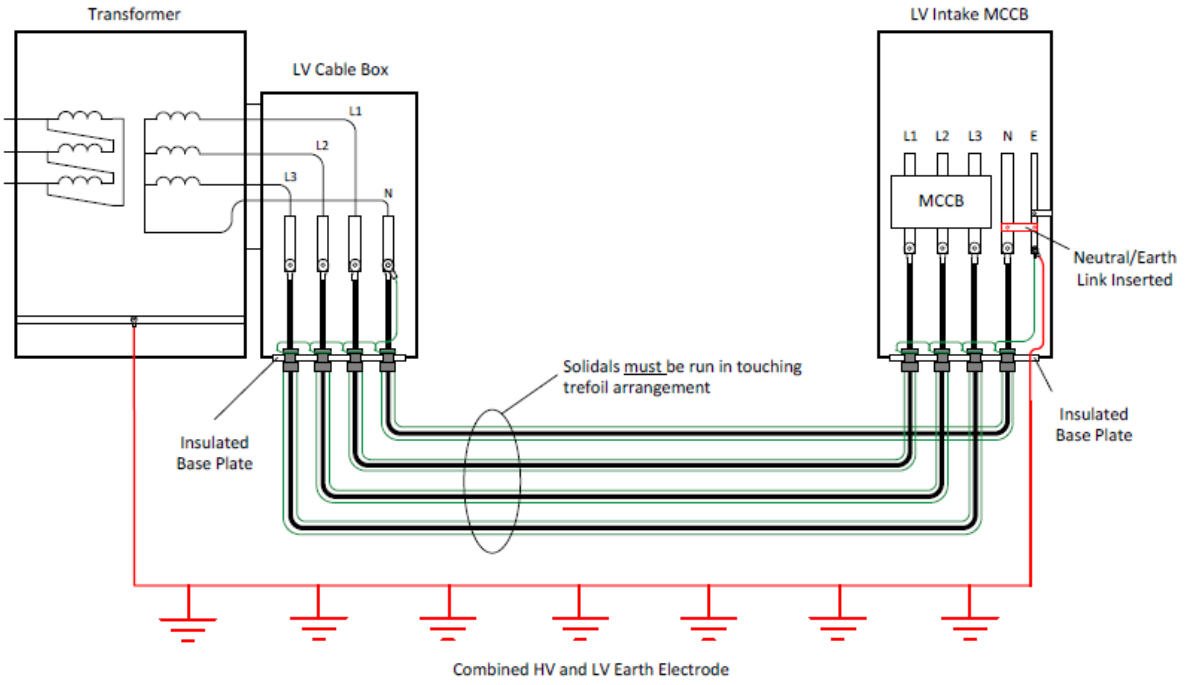

Figure 3 – Single Core Cable Earthing / Bonding – PNB Connection with Combined HV and LV Earthing

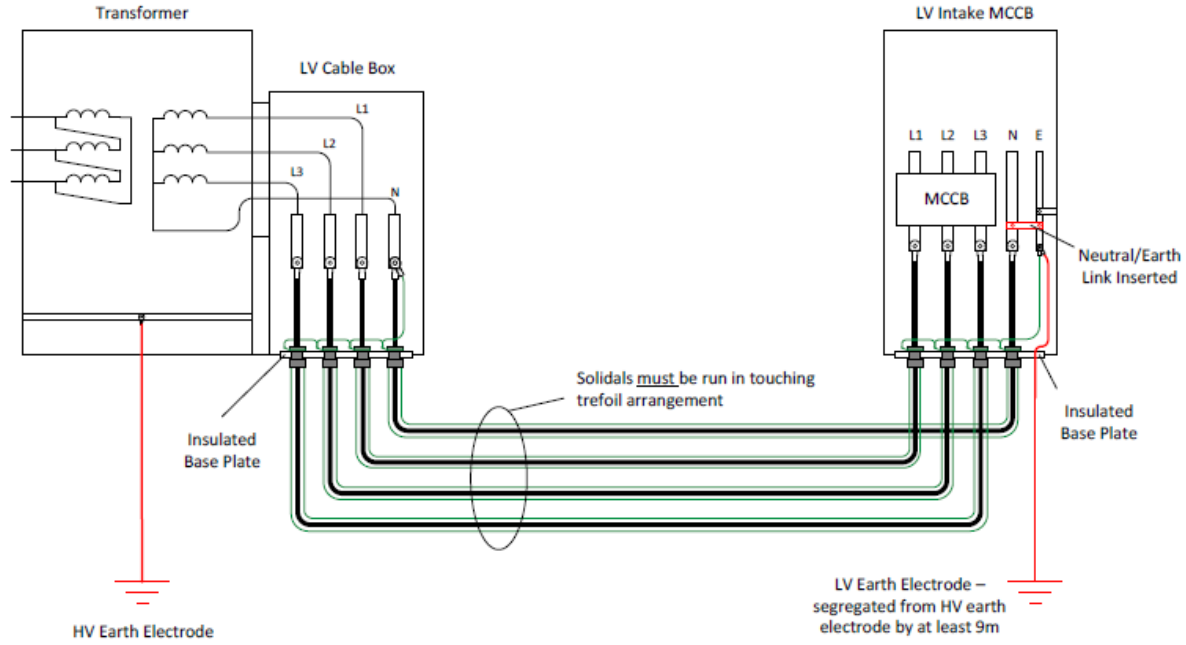

Figure 4 – Single Core Cable Earthing / Bonding – PNB Connection with Segregated HV and LV Earthing

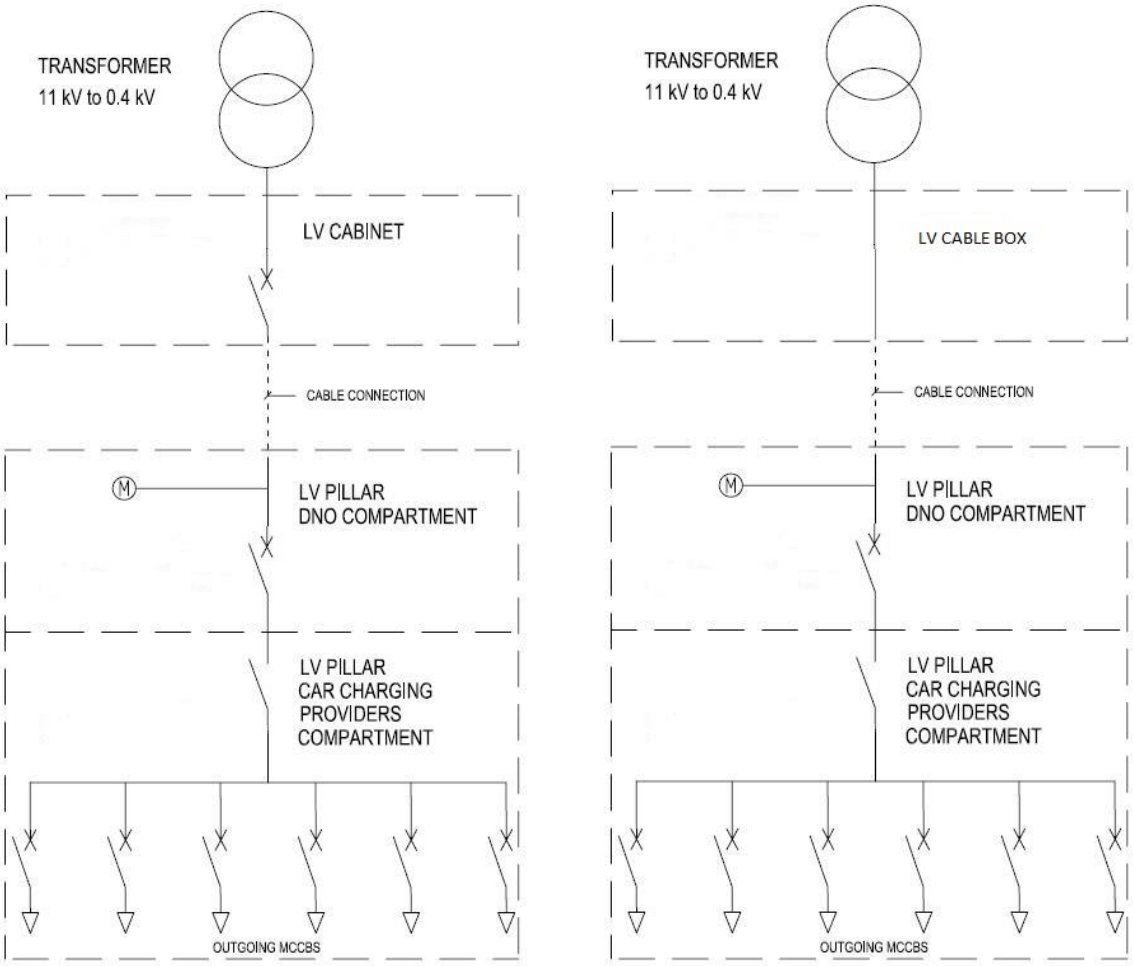

Figure 5: Outine Electrical circuits for SNE and PNB Connection Arrangments

ENA Technical Specification 37-2 - Self Certification Conformance Declaration for Public Electricity Network Distribution Assemblies shall be completed by the tenderer.

APPENDIX B

SUPERSEDED DOCUMENTATION

No documentation is superseded as this is a new specification.

APPENDIX C

RECORD OF COMMENT DURING CONSULTATION

No comments received.

APPENDIX D

ASSOCIATED DOCUMENTATION

SD1K - Installation of Sole Use Substations for Electric Vehicle Charging
SD5E – Design of Low Voltage Commercial and Industrial Connections
ENA Technical Specification 37-2 “Public Electricity Network Distribution Assemblies”
EE 16 – LV Distribution Fuseboards.
EE28 – Metering Intake Panels
EE 206 – 11kV Distribution Transformers with Non-oil Based Fluid for Electric Car Charging Hubs and Other Special Applications
EE208 - Unitised Assembly of Transformer, LV Transformer Mounted Cabinet and 12kV Switchgear, including Housing, as a Complete Unit for Direct to Site Delivery

APPENDIX E

KEY WORDS

Cabinet, Pillar, LV (Low Voltage), Fuse, Disconnector, EV, Car Charging Hub.