

Installation Instructions:

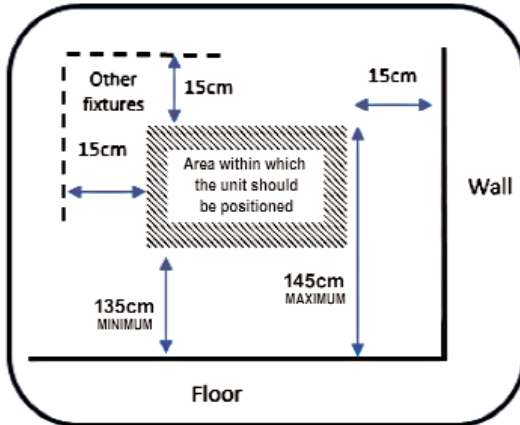
This unit must only be installed by a 'skilled/instructed' (electrical) person in accordance with BS7671. Special Installations or Locations: Persons involved in the installation of electrical equipment for specific applications, must have the appropriate training and experience to enable compliance with Statutory Regulations and Codes of Practice.

WARNING:

The installation of any other manufacturers' devices in this unit will invalidate the Doepke BSEN61439 Testing and CE Conformity.

Recommended Positioning:

The horizontal centre line of the enclosure should be between



135cm & 145cm above floor level with 15cm clearance from any other surface or fixture.

Specification:

Power Switchgear Assembly conforming to BSEN61439-2: Assembled by Doepke and out-going Doepke devices installed in accordance with manufacturing instructions
Standards, Rating and Selection: Refer to page 2.
Characteristics

Un/fn: 400V 50Hz
Ui: 400V
Uimp: 4kV
InA: 100A
Icp: 10kA (use of 4 Pole RCBO reduces to 6kA)
Fuse: 100 A gG / BS88
Main Sw: ISOL4/100
RCBO: Doepke B / C Curve 30mA Type A < 40A
RCCB: Doepke 2P 30mA Type A / B < 40A
MCB: Doepke B / C Curve < 40A

Ambient Temperature Range: -5 to +40°C
Daily Average Maximum: 35°C

For indoor use only.

Degree of Protection: IP2XC
Impact Rating: IK05

Operating Instructions:

Warning: This unit has no user serviceable parts, do not remove the cover.

This unit contains Residual Current Devices either RCCBs or RCBOs

Type A RCCB / RCBO : 722

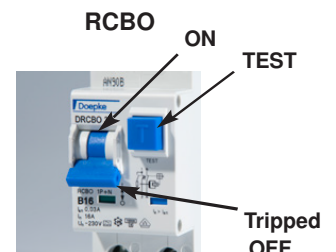
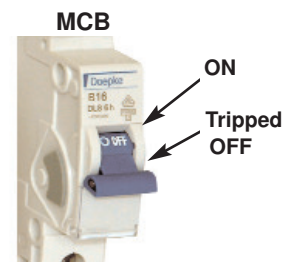
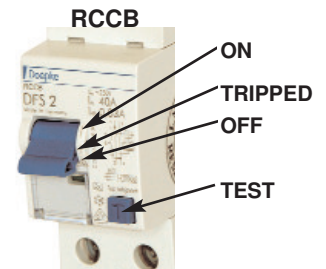
This equipment includes Type A RCD protection and is for use with Mode 3 EV charge points incorporate equipment meeting IEC 62955: Disconnection of the supply in case of DC fault currents above 6 mA.

RCCB / RCBO: This is a safety device designed to detect low levels of current flowing to earth (earth fault). In many situations they can reduce the risk of receiving a fatal electric shock. They also reduce the risk of electrical fires resulting from earth faults. RCCBs must be used in conjunction with MCBs. RCBOs include the function of an RCCB and MCB in the same device. Test RCCBs and RCBOs regularly, refer to the instruction on the front of the enclosure.

RCCB / RCBO Operation: If a unit trips, this may be due to a dangerous fault related to the down stream circuit or connected equipment.

DO NOT RESET THE UNIT until an electrically qualified person has checked the installation.

MCB: This is a safety device designed to detect levels of current flowing in the electrical installation, above the designed safe operating level of the circuit concerned. If the unit detects an over current or a short circuit it will trip. The MCB will only reset once the fault has been removed and the temperature in the MCB has returned to a safe level. Do not reset the MCB if the fault is still present in the installation.



CE Manufactured by Doepke UK Ltd

Electrical Safety Advice: Installations must be designed, installed and maintained in accordance with the required Regulations & Health and Safety advise issued by the Appropriate Bodies:
www.hse.gov.uk/pubns/books/hsr25.htm

Special Installations or Locations: Persons involved in the installation of electrical equipment for specific applications, must have the appropriate training and experience to enable compliance with Statutory Regulations and Codes of Practice.

Please leave this instruction sheet with the unit after installation.

Standards

DME28 Form 1	Doepke Assembly	BSEN 61439-2 ²
DME28 Enclosure + Flap	CR4 Mild Steel	N/A
Terminal Rail Material & GWT Temp.	PC / 960°C	IEC 60695-2-11
Incoming Main Switch	DHS 4-100	BSEN60947-3
RCCB	DFS2	BSEN61008-
MCB	DLS6 IB/ IC	BSEN6089
RCBO	FIC / DRCBO	BSEN61009-1
Integrity of Protective Circuits	DME28	BSEN61439-1

Outgoing Ratings: BSEN61439-1 / 2

Based on the above standard relating to the rating of Form1 Power Switchgear Assembly with Doepke devices installed on out-going circuits in accordance with these instructions and BS7671: Average ambient temperature 35°C / 24H.

Maximum demand and diversity: 722.311

Maximum demand must take into account voltage drop and thermal limits for reliable operation. 1 charge point socket per outgoing way. See Assembly rating InA and Inc.

Type A RCDs: 722.531.2

This equipment includes Type A RCD protection and is for use with Mode 3 EV charge points incorporate equipment meeting IEC 62955: Disconnection of the supply in case of DC fault currents above 6 mA.

Note 2: Doepke pre-assembled unit with Doepke outgoing devices installed in accordance with these instructions and BS7671. For location in industrial, commercial and similar applications where operation by ordinary persons is not intended.

Assembly Rating (InA): BSEN 61439 -1 Clause 10.10.3		
Product Reference	Incoming device	InA @35°C
DME 28 Spec	DHS 4-100 (Open air test 125A	100A*
Outgoing Unit Rating (Inc): BSEN 61439 -1 Clause 10.10.2.3.6&7		
Product Reference	Outgoing Unit	Inc @35°C
DFS2-040 (open air test 63A	Location as per original assembly	Device rating*
DLS6 IB/ IC < 40A	Location and rating as per original assembly	Device rating*
FIC / DRCBO 2P < 40A		
FIC 4 P < 32A		
*Load control required if the sum of the individual device ratings > 100A - See Regulation 722.311. Row 2: Continuous busbar loading 80 Amps @ 35°C		

Check all terminations have been correctly torqued

Correct Torque Setting	Product	Torque
Factory set connections are pre-torqued. Terminals may loosen following transport and installation. During Inspection & Testing terminals must be correctly torqued to ensure safe operation.	Main Switch	3 Nm
	RCCB	3 Nm
	MCB	2.2 Nm
	RCBO 2 Pole	2.2 Nm
	RCBO 4 Pole	2.2 Nm
	E Terminal Rail	1.5 Nm
	E Terminal Link	1.5 Nm

Installation Notes:

Install and test in accordance with the current requirements of BS7671 and "professional working practice": Reg 134.1.1 & 134.2.1.

Suitable glands must be used to protect installation cables and maintain the designed IP rating for the board (IP2XC).

For TT systems take note of the incoming cabling requirements, if the upstream supply is not protected by a suitable RCD.

Pre-Cabled Connections / Components

The position, type and number of pre-cabled (N, L & E) connections must not be moved, altered or replaced by other types of cable / conductor.

The position of components cables within the supplied assembly, may be different to the drawing opposite.

Existing components must not be replaced with devices of a higher rating.

Incoming & Outgoing cables

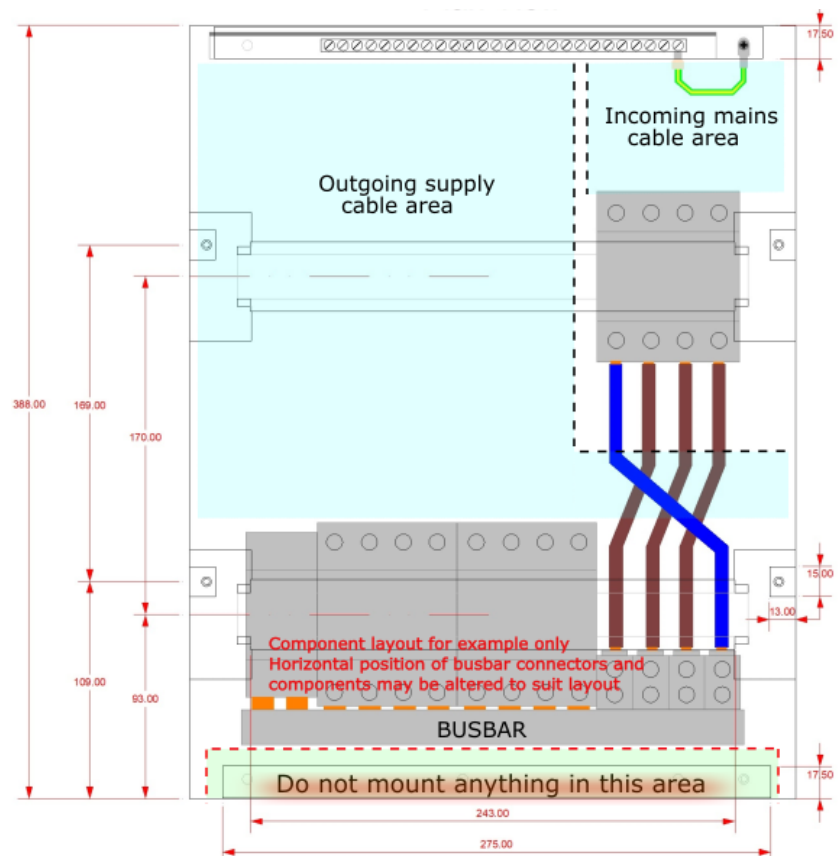
All ratings and performance figures are based on incoming mains cable and outgoing cables entering and leaving through the top of the assembly.

Protective Earthing Conductor:

DME metal enclosures must be earthed in accordance with the IET Regs. For TT systems special measures must be taken with regard to the risk of faults occurring on the supply side of the RCD protection; refer to the latest copy of the IET Regs.

Front Cover:

Ensure the front cover is correctly located with blanks installed in any unused ways. Please note the cover fixing screws on the metal enclosure (DME) provide earth continuity between the cover and the base of the enclosure and must be in place before Sign-Off.



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