

Technical Datasheet

MSDB 2.0

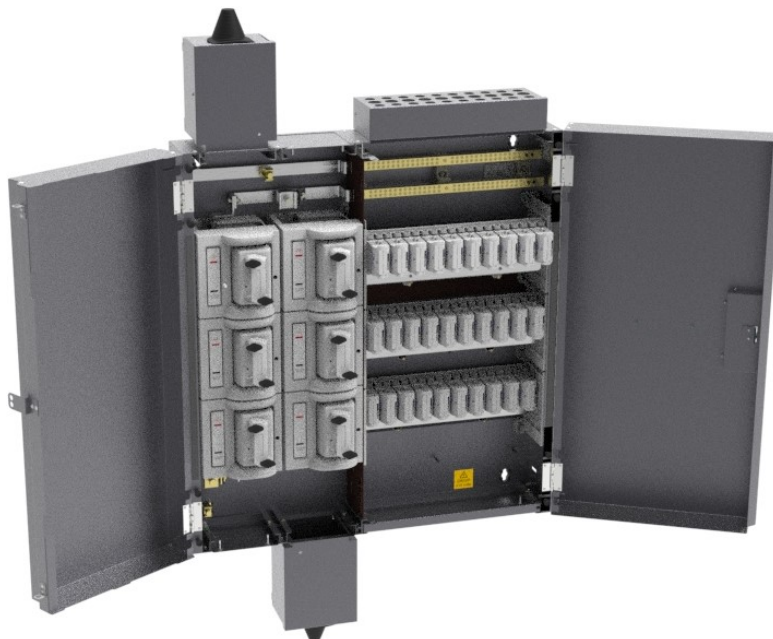
12 to 45 Way, Vertical, 1 and 2J Type, 500A Rated

Overview

Mild steel wall mounting distribution boards for use in multi service applications configurable with either a single incoming bank of triple pole J type 92mm slotted tag fuses or with an additional outgoing bank of triple pole J type fuses for mixed developments requiring a split supply greater than 100A. For indoor installation only.



Example: 1J version (RH supply)



Example: 2J version (LH supply)

engineering intelligent solutions

Specifications

- Top hat cable box extension for 100A service ways provides increased internal space for cabling
- Revised neutral and earth busbar routing improves SNE cabling with split concentric service cables
- Factory options include:
 - Left or right hand incoming supply
 - Single or twin bank of triple pole J type fuse links for one or two mains cables
 - Flat cable gland plate and conical rubber grommet supplied as standard in all variants
 - Option to purchase universal Main Cable Box with cable cleat to facilitate incoming and outgoing main cable management
- Site configurable for CNE or SNE cable systems (no need to fit additional 4-core kit)
- Distribution Network Operator (DNO) access to incoming J type fuses
- Improved cable identification and internal screening
- Service cable gland plate pre-drilled for single and three phase cables (one-third of entries are for three phase cables)
- Closed cell foam gasket for service cables protects cabinet from dust ingress
- Optional lifting handle kit renders the cabinet installation safer from an H&S perspective
- Lifting weight can be reduced by disassembling fuse handles and removing doors
- SICAME UT4 phase and neutral shear-off connectors accept 95 to 300mm² 3 or 4 core aluminium Wavecon cable
- BTCNE brass neutral/earth connectors accept 70 to 120mm² copper stranded conductors
- Optional gland kit for different cable types e.g. copper screened, aluminium or steel wire armoured*
- Optional kit available from Distributors for copper stranded cables*.

Note: * For further information, contact Lucy Electric.

Note: The equipment described in this data sheet must be installed by suitably qualified personnel according to applicable Local / National Wiring regulations currently in force.

Construction

- Enclosure.....Zinc coated mild steel 1.2mm thick
- Busbars.....Electro-tin plated copper
- Terminal blocks.....Brass
- Terminal shields.....Transparent polycarbonate
- 'J' type fuse holders..... Glass reinforced Polybutylene Terephthalate (PBT)
- 'J' type fuse bases.....Glass reinforced Polyamide 6
- Service way fuse holders....Thermoset glass filled polyester

Internal Equipment

- Equipped with BS 7657 100A rated SP outgoing ways (BS 88 30 x 57mm cylindrical cartridge fuses, not supplied)
- Serrated cable bores in 100A outgoing ways accepts up to 35mm² solid or stranded conductors
- Neutral and Earth bars fitted with twin hexagon drive M8 cable pinching screws per terminal
- SICAME UT4 connectors will accept solid aluminium sectorial Waveform conductors with 95 to 300mm² cross section
- BTCNE brass neutral/earth connectors accept 70 to 120mm² copper stranded conductors
- Accepts SWA type cables with additional gland kit
- BS 88 'J' type slotted tag fuses with 92mm² fixing centres fitted on incoming phases
- Fully rated Neutral and Earth bars

Operator Protection

- All shrouds and fuse handles in place..... IP2XB
- Operational condition, both doors closed... IP3X

Performance

- Incoming supply.....500A max
- Busbar rating..... 500A nominal
- Supply voltage.....400V a.c.
- Supply frequency..... 50Hz
- Rated insulation voltage.....690V a.c.
- Conditional Short circuit withstand strength.....35.5kA
- Recommended N/E bar terminal torque.....3.25Nm
- Recommended 2J 'U' link terminal torque....45Nm
- Recommended brass neutral earth connector torque.....28Nm

Conformity to Standards

- Third party tested to BSEN 61439-5
- Complies with ENA technical specifications for MSDB's, ENATS 37-4 Amd 1:2022
- IP rating to BSEN 60529
- Incoming fuses to BS 88 'J' type 92mm centres
- Outgoing fuse ways to BS 7657:2010

Enclosure Specification

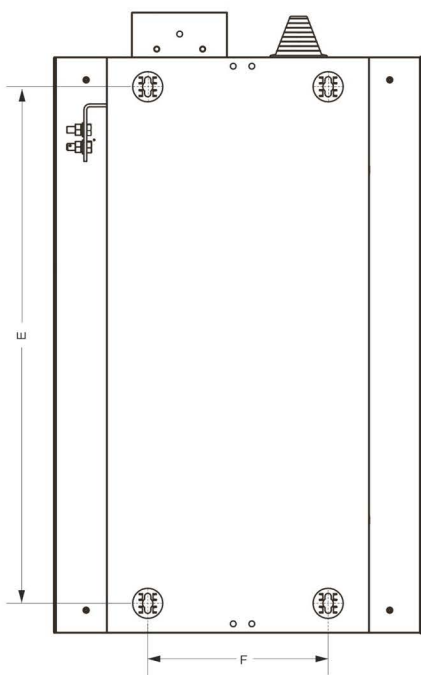
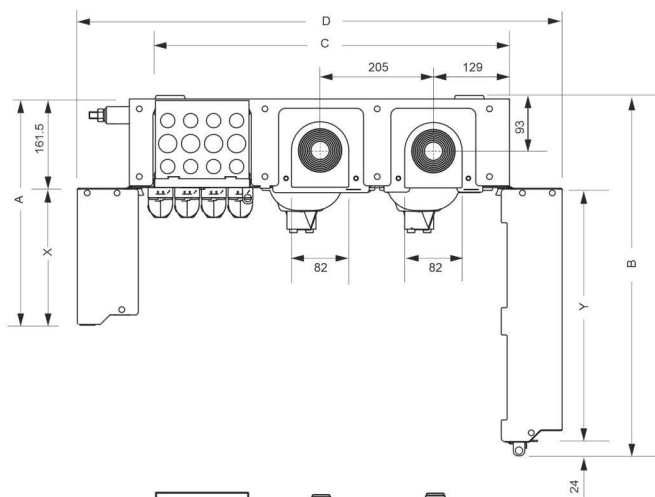
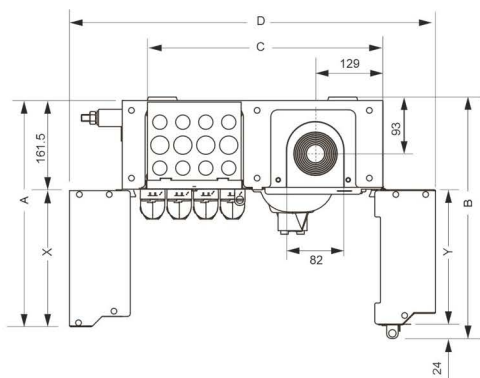
- Oven-cured epoxy powder coated finish with a minimum thickness of 50 microns
- Standard colour Admiralty Grey to BS 381C Shade No 632
- Two stage padlockable double doors enabling independent access to outgoing 100A fuse ways or Distribution Network Operators (DNO) access to incoming 'J' type fuses
- Quick release spring loaded hinge pins permit rapid door removal for improved access
- Overall 250mm depth enables installation in confined space
- External copper earth bar with two wire sealable M12 earth studs

Weight

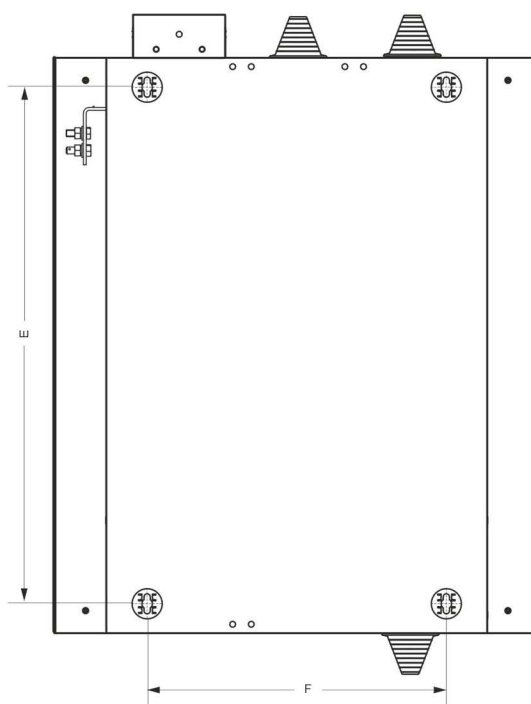
- Net weight.....see over

Dimensions and Weights (dims in mm)

Note: No cable containment accessories shown. Please refer to the table below for their dimensions.



1J version

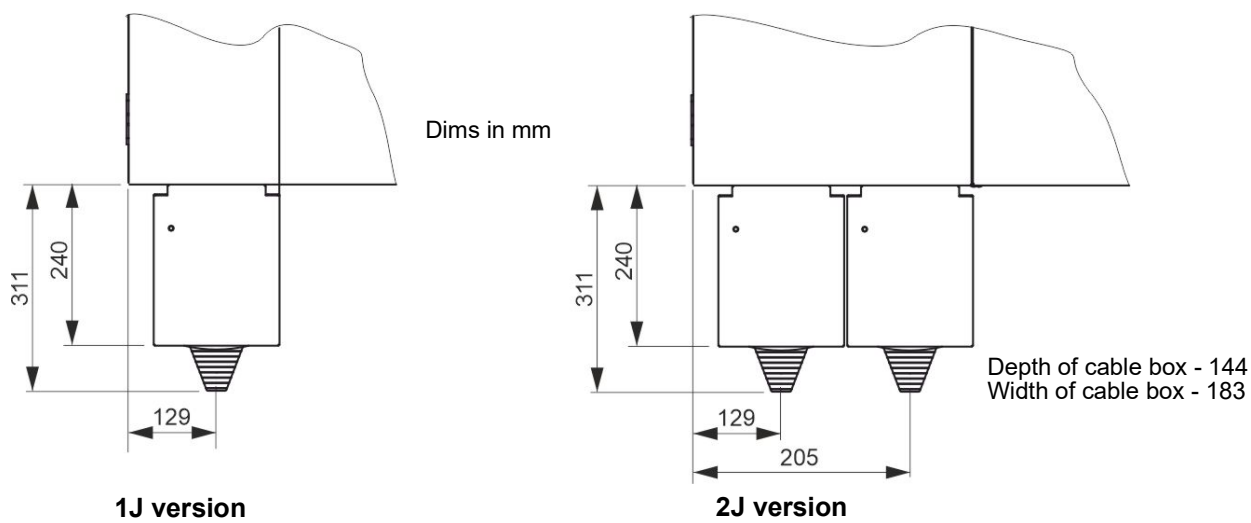


2J version

	Dimensions In mm						Fixing Centres		Gross Weight (kg)	Stripped Down Weight* (kg)
Configuration	X	Y	C	D	A	B	E	F		
12 - way 1J	239	235	457	639	401	397	900	314	42	25.6
12 - way 2J	239	442	664	846	401	604	900	521	56	34.4
15 - way 1J	285	235	503	685	447	397	900	361	44	26.5
15 - way 2J	285	442	710	893	447	604	900	568	58	35
18 - way 1J	331	235	550	732	493	397	900	407	46	27
18 - way 2J	331	442	756	938	493	604	900	614	62	35.8
24 - way 1J	424	235	642	825	586	397	900	500	53	31.2
24 - way 2J	424	442	849	1032	586	604	900	707	69	40
30 - way 1J	517	235	735	918	697	397	900	593	60	36.3
30 - way 2J	517	442	942	1125	679	604	900	800	76	46
36 - way 1J	610	235	828	1010	772	397	900	686	66	36
36 - way 2J	610	442	1035	1217	772	604	900	893	82	44.8
45 - way 1J	749	235	967	1150	911	397	900	825	74	48.3

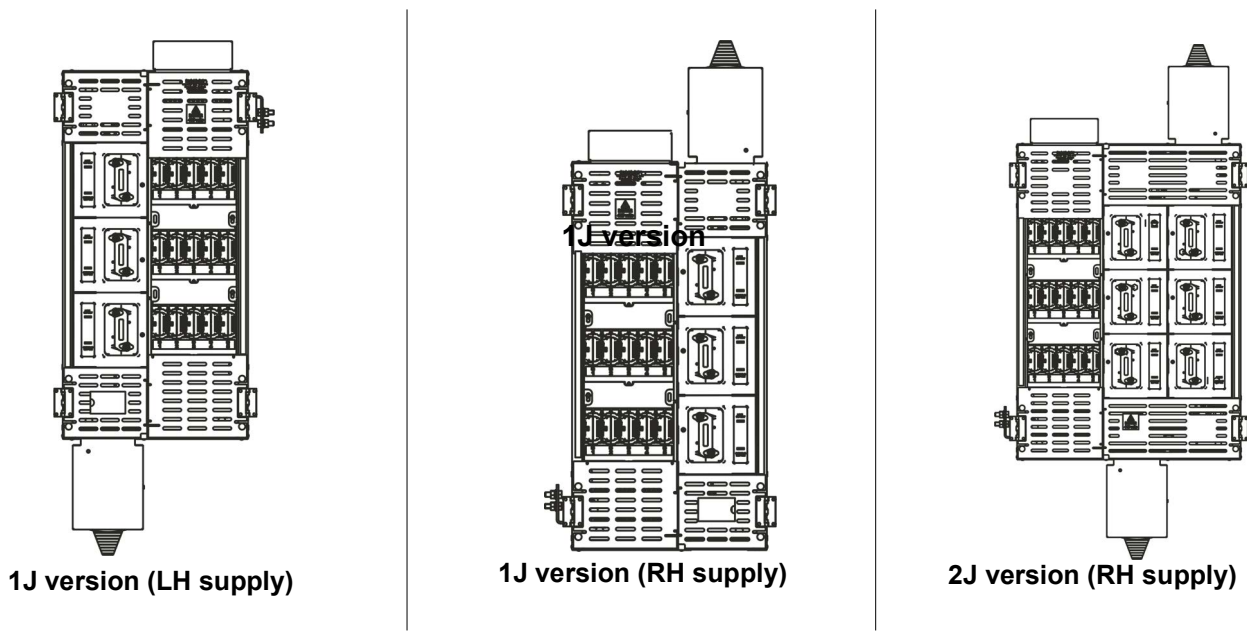
Depth (all): 250mm - Height (all): 1000mm

Main Cable Box Option (fitted dimensions)

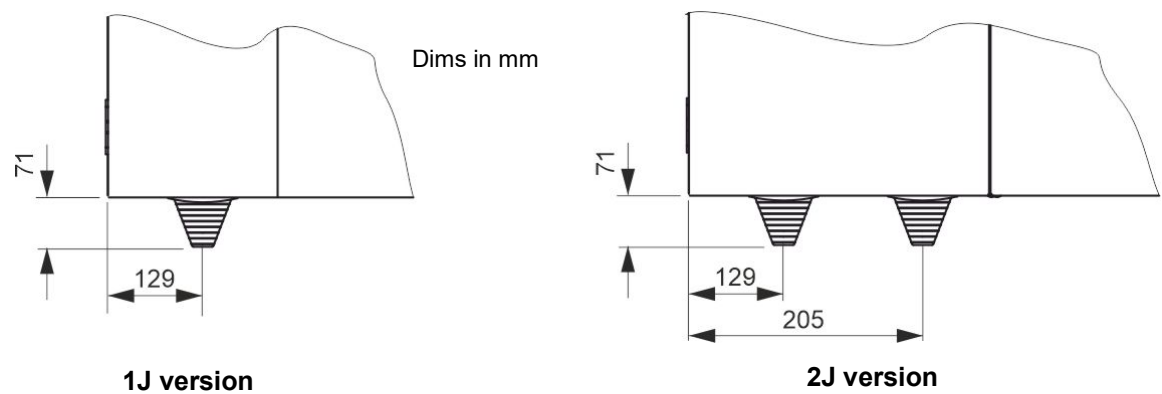


Note: The cable boxes can be fitted in any of the main cable entry/exit points that are provided on all cabinets.

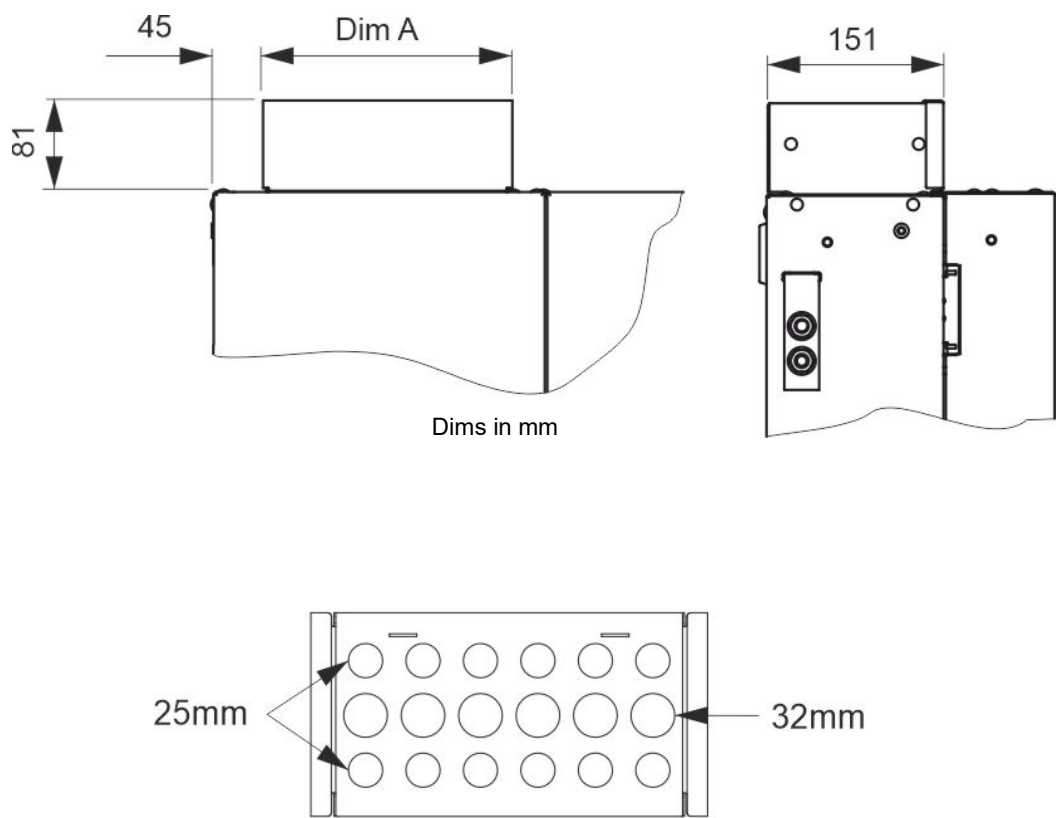
Some examples shown below:



Without Cable Boxes



Service Cable Extension Box



Example: 18-way Service Cable Box showing centre row sized for three phase cables

Service Cable Extension Box Dimension Width

No. of ways	Dimension A (mm)
12	168
15	215
18	261
24	354
30	446
36	539
45	678

Disclaimer: Lucy Electric has a policy of continuous research and development thus accordingly reserves the right to change the design and specifications of its products without prior notice or liability.