

Heavy Duty Fuse Boards to Sellafield Limited Specification

Distribution fuse boards are used where reliability in both operation and protection are paramount or where fault levels are very high. In the UK, the nuclear and power generation sectors are large users of these products, including Sellafield Limited and Magnox.

Blakley Electrics produces a range of heavy duty fuse boards, manufactured to the specific requirements of Sellafield Limited, for permanent or temporary installation. They can be supplied for 400V TP&N operation, 230V SP&N operation or 110V DP operation. Boards configured for TP&N and SP&N operation have a separate neutral bar and all boards have a separate earth bar.

Permanent Installations

For permanent installations, FB series fuse boards are wall mounting and incorporate Red Spot fuse banks, which are available in ratings of 20A, 32A, 63A and 100A and can be 4 way, 6 way, 8 way and 12 way (up to 63A). The fuse banks can be rotated for top entry connection. Standard enclosures provide protection to IP54, are of seam welded construction, incorporate side hinged, padlockable doors, have removable top and bottom gland plates and external fixing lugs. As standard they do not incorporate inset panels / shield plates and neutral / earth bars are unshrouded. Enclosures are made from mild steel and have a five stage, high quality, outdoor grade paint finish, comprising of degreasing in an acid bath, followed by total immersion in a zinc phosphate pre-treatment solution and an electrostatically applied top coat of polyester powder, oven dried, shade Dark Admiralty Grey. Boards can be supplied equipped with suitable HRC fuses to BS88 or they can be supplied unequipped. Please see over the page for the full range of FB series Sellafield specification fuse boards.

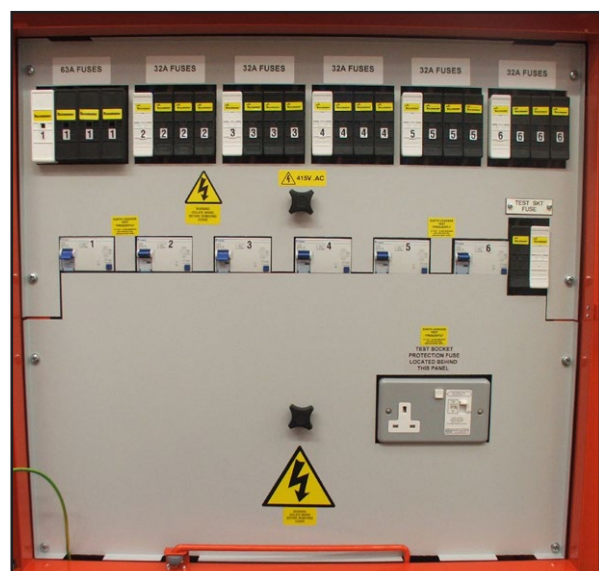
Temporary Installations

SDU series site distribution boards have been developed for Sellafield construction installations. They are free-standing assemblies with bottom cable entry and exit. Enclosures provide protection to IP54 and are suitable for permanent outdoor installation. Due to the exceptionally corrosive atmosphere, SDU enclosures are flame sprayed in zinc prior to painting, which extends the life of the enclosure to 10 to 20 years. SDUs can be used during the construction phase or decommissioning phase of a project. SDUs incorporate incoming switchgear, outgoing ways incorporate Safeloc fuse carriers and circuits are protected individually by RCD. Thermostatically controlled anti-condensation heaters and test sockets are fitted as standard.

If you have a requirement for heavy duty distribution boards incorporating BS88 fusegear, for installation at Sellafield or elsewhere, please contact our Crayford or Wakefield Customer Service Centres.



FB series wall mounting fuse board for a Sellafield permanent installation



Internal view of SDU series 250A Site Distribution Assembly to Sellafield Standard ES_1_2264_2.

Current rating and fuse acceptance of Red Spot fuse banks incorporated within Sellafield specification fuse boards.

No. of Ways per Fuse Bank	No. of Fuse Banks per Board			BS88 Fuse Size and Max Rating		Max Rating of Board / Supply Protection
	230V SP&N	110V DP	400V TP&N			
4	1	2	3	A1	20A	72A
6	1	2	3	A1	20A	96A
8	1	2	3	A1	20A	128A
12	1	2	3	A1	20A	158A
4	1	2	3	A2	32A	115A
6	1	2	3	A2	32A	154A
8	1	2	3	A2	32A	205A
12	1	2	3	A2	32A	253A
4	1	2	3	A3	63A	227A
6	1	2	3	A3	63A	302A
8	1	2	3	A3	63A	403A
12	1	2	3	A3	63A	499A
4	1	2	3	A4	100A	360A
6	1	2	3	A4	100A	480A
8	1	2	3	A4	100A	528A

Standard Fuse Ratings by Size, class gG

Fuse Size			
A1	A2	A3	A4
2A	2A	-	-
4A	4A	-	-
6A	6A	-	-
10A	10A	-	-
16A	16A	-	-
20A	20A	-	-
-	25A	-	-
-	32A	-	32A
-	-	40A	40A
-	-	50A	50A
-	-	63A	63A
-	-	-	80A
-	-	-	100A

Other fuse classes to BS88 are also available, including gM motor rated fuses.

To specify the type reference of a Sellafield specification FB series fuse board the following details need to be determined.

1. Is the supply SP&N (insert 1N), Double-pole (insert 2P) or TP&N (insert 3N).
 2. What is the current rating of the fuse bank i.e. 20A, 32A, 63A or 100A (insert 20, 32, 63 or 100).
 3. How many ways for each fuse bank: 4 way (4W), 6 way (6W), 8 way (8W) or 12 way (12W).
- Please note: the maximum number of ways for a 100A fuse bank is 8 (8W).

A typical part number is: FB/3N/100/8W/SELLAFIELD i.e. three phase and neutral supply, fitted with 3 no. 8 way, 100A fuse banks. Fuses are ordered separately; see above chart for range.