

AFDD Boards and devices

AFDD Enhanced fire protection, reduces the risk of electrically ignited fires and protects people, property, and assets

Eaton's AFDD distribution boards and devices are designed to protect people, property and assets against the effects of electrical faults and fire within commercial buildings. We offer a traditional vertical busbar style with associated high performance AFDDs, a wide range of accessories including SPD and a choice of metering solutions.



Powering Business Worldwide

SPN Type A board



The optimised design for 125A SPN applications provides a choice of dedicated AFDD boards and hybrid AFDD and MCB boards which are all 440mm wide. This allows them to be fitted together and also to be fitted on top of the EBM type B distribution board range.

- Additional boards can be stacked on top of each other using the connection kit EAMCK to achieve the required number of AFDD - MCB ways.
- Optional metering of a single load - 125A max.
- Optional metering of a split load - 100A max per channel. 125A max. total load.
- Verified by test to BS EN 61439-3.
- A wide range of accessories including full profile blanking modules for unused AFDD ways and door locking options.

DESCRIPTION	RATING (A)	NO AFDD OUTGOING WAYS	MCB/RCBO	EATON LIST NUMBER	ARTICLE NUMBER
AFDD Type A SPN Dist board	125	5	0	EAMAFDD5	501200
Hybrid AFDD & MCB Type A SPN Dist Board	125	2	9	EAMAFDD29	501201
Meter Hybrid AFDD & MCB Type A SPN Dist Board	125	2	6	EAMAFDD26M	501202
Split meter Hybrid AFDD & MCB Type A SPN Dist Board	125	1	6+3	EAMAFDDSL73M	501203

Fitting Internal SPD – 167594 - SPCT2-280/2

An internal SPD can be fitted in one of the AFDD positions as shown below. The Earth Terminal of the SPD needs to be connected to the Earth bar with 16mm² tri rated cable.

The SPCT2-280/2 is a CT1 common mode protection device where an SPD is between every live connection and earth potential. The CT1 version must not be fitted after an RCD.

TPN Type B AFDD Extension Board



The AFDD extension boards fit to the top of the EBM distribution board range to allow the addition of AFDD circuits to a MCB distribution board through the extension of the busbar.

- Extension busbar rated at 250A.
- The optimised design for 125A and 250A TPN applications provides a choice of extension boards in sizes – 6 and 12 AFDD ways.
- Additional Extension boards can be stacked on top of each other to achieve the required number of AFDD ways.
- Verified by test to BS EN 61439-3.
- A range of accessories including full profile blanking modules for unused AFDD ways and door locking options.
- Removable top rail to assist laying of cables in the board.

DESCRIPTIONS	RATING (A)	NO OF AFDD OUTGOING WAYS	EATON LIST NUMBER
AFDD extension board 6 way	250	6	EBMAFDDEXT6
AFDD extension board 12 way	250	12	EBMAFDDEXT12

- Additional Extension boards can be stacked on top of each other to achieve the required number of AFDD ways.
- Verified by test to BS EN 61439-3.

AFDD TPN Distribution Boards



High performance AFDDs to IEC/EN-62606: trip rated at 10kA up to 25A trip rated at 6kA for 32A and 40A 2 x 80A EVG busbars which accommodates incomer and AFDD feeders 125A incomer kits available as standard (TP and TPSN) Boards sizes combined to align top and bottom Optional internal

SPD: Type 2 surge arrester protection Type 1 and 2 combined lightning/surge arrester protection

A choice of metering solutions

A wide range of accessories including optional internal SPD, multi board separation kits and alignment spacer, full profile blanking modules for unused AFDD ways, and door locking options.

- Optimised compact design for 125A SPN and 250A TPN applications
- TPN type B boards sizes – 14, 24 and 36 AFDD ways
- TPN type B extension boards 6 and 12 AFDD ways
- SPN type A boards , up to 5 AFDD ways with options for split load, hybrid and metered
- High-performance AFDDs, trip rated at 10kA up to 25A and trip rated at 6kA for 32A and 40A

BOARD OPTIONS	EATON LIST NUMBER	RATING (A)	TOTAL NO. OF AFDD OUTGOING WAYS
14 way AFDD, TPN, type B distribution board	EBMAFDD141	125	14
24 way AFDD, TPN, type B distribution board	EBMAFDD241	125	24
36 way AFDD, TPN, type B distribution board	EBMAFDD361	125	36

- Enclosure will accept Eaton 2-pole, 3 modules, AFDDs
- Optional internal SPD
- Enclosure degree of protection IP4X (wall mounted)
- Short circuit rating 10kA

INCOMER OPTIONS	EATON LIST NUMBER	RATING (A)	POLE CONFIGURATION
Switch Disconnecter - 4 pole	EMS1253N	125	TPSN
Switch Disconnecter - 3 pole	EMS1253	125	TP
Neutral link kit - required when using 3 pole device	EBMAFDDN	125	-

- Incomer devices supplied separately to DBs
- Maximum cable capacity 50mm²

Accessories and SPDs

- Separation shield - to separate boards mounted on top of each other
- Single phasing kit
- Multi board alignment spacer - 20mm
- SPD Type 1&2 and Type 2

SPDS	EATON LIST NUMBER
SPDs kit for AFDD DB - type 2	EBMAFDDSPDT2
SPDs kit for AFDD DB - type 1&2	EBMAFDDSPDT12

ACCESSORIES	EATON LIST NUMBER
Separation shield	EBMAFDDSS
Single phasing kit	EBMAFDDSP
Multi board alignment spacer	EBMAFDDSS20

Outgoing AFDD+



- Combines three protective functions in one device
 - o Arc fault fire protection
 - o Short-circuit and overcurrent protection (cable protection)
 - o Residual current protection
- Saves time during troubleshooting with repetition of the error code
- In the event of a fault, only the affected final circuit is switched off
- Built-in displays indicate the device status and the trip reason:
 - o User-friendly display of the error code via LED
 - o The repetition of the error code saves time during trouble shooting
- The highly sensitive digital detection of arc faults exceeds the applicable product guidelines and prevents unintentional tripping
- AFDD+ busbar as accessory supports easy and flexible installation
- Complies with the guidelines set out in IEC 60364-4-42

DESCRIPTION	EATON ARTICLE NUMBER	RATING (A)	SHORT CIRCUIT RATING (KA)	TRIP TYPE
10A B 2P 30mA Type A	187168	10	10	B
13A B 2P 30mA Type A	187180	13	10	B
16A B 2P 30mA Type A	187204	16	10	B
20A B 2P 30mA Type A	187219	20	10	B
25A B 2P 30mA Type A	187225	25	10	B
32A B 2P 30mA Type A	187231	32	6	B
40A B 2P 30mA Type A	187237	40	6	B
10A C 2P 30mA Type A	187174	10	10	C
13A C 2P 30mA Type A	187186	13	10	C
16A C 2P 30mA Type A	187210	16	10	C
20A C 2P 30mA Type A	187222	20	10	C
25A C 2P 30mA Type A	187228	25	10	C
32A C 2P 30mA Type A	187234	32	6	C
40A C 2P 30mA Type A	187240	40	6	C

Eaton Electric Limited
252 Bath Road, Slough
Berkshire SL1 4DX, UK

Customer Support Centre
Tel: +44 (0)8700 545 333
Fax: +44 (0)8700 540 333
email: ukcommorders@eaton.com

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