

SIEMENS



LOW-VOLTAGE POWER DISTRIBUTION

ALPHA BSII 125 & 250A MCB **Distribution Boards**

[siemens.com](https://www.siemens.com)

Safe and Intelligent power distribution

ALPHA BSII. Totally Integrated Power Distribution.

Features

- Type tested & ASTA certified to BS EN 61439-3
- 10kA for 0.1 second short circuit rating
- Rated voltage 230/400V 50/60Hz
- Modular construction
- 1mm sheet steel enclosure painted in RAL 7035 light grey
- Degree of protection: IP3X
- Manufactured in the UK
- Full UK-based technical support available
- Utilises both 5SL MCB and 3VA MCCB technologies

Please click the product images to find out more



ALPHA BSII
Distribution
Boards from
125A to 250A

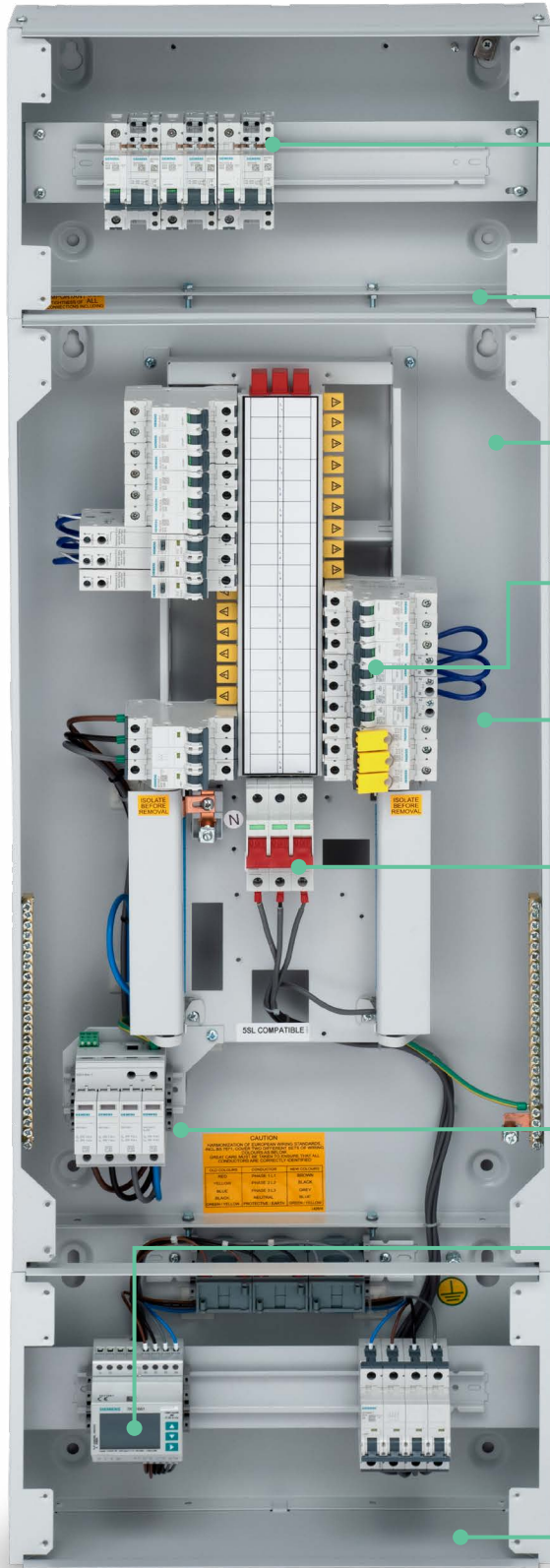
Sivacon S8
switchboard.
800A to 6300A.

Sivacon S4
switchboard.
800A to 3200A.

ALPHA BSIII 160
Panel Boards
250A to 800A

Specification Highlights

125A



Universal accessory range for 5SY, 5SV and 5SL devices

Modular construction

1.0mm thick mild steel powder coated construction

Accommodates 1 module wide AFDDs (6kA)

Slim, compact design with ample room for cable dressing

Fully type testing to IEC/BS EN 61439-3

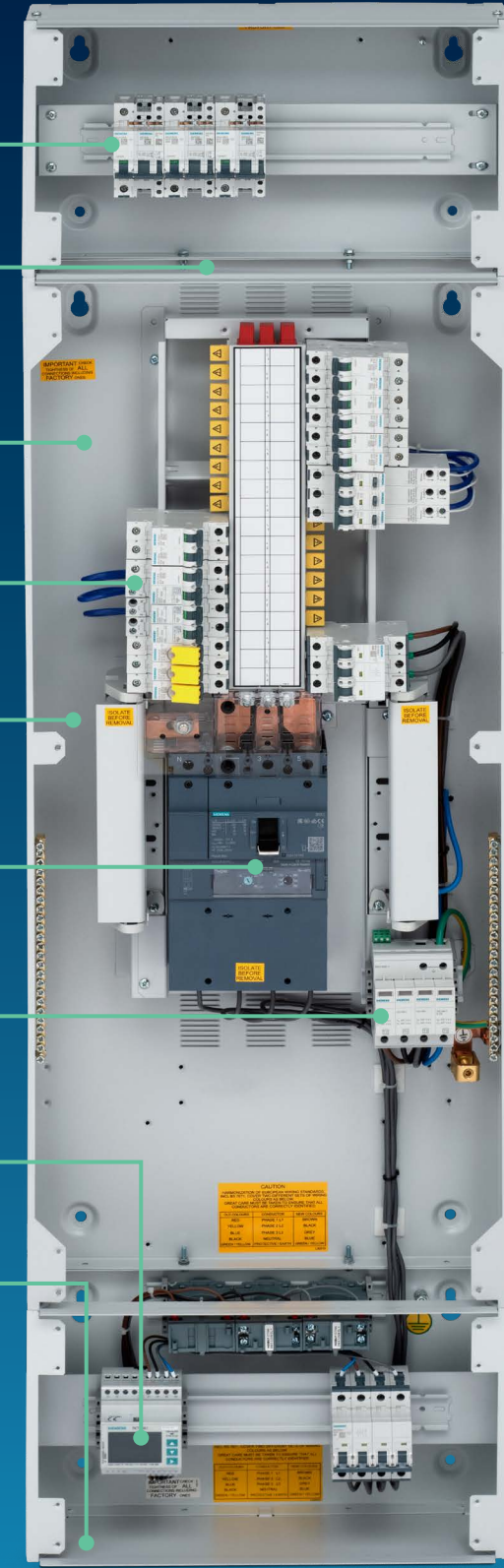
Integral Type 2 surge protection kits

Integral & Add-on meter options. Standard or MID

Removable gland plates for top and bottom cable entry exit

Specification Highlights

250A



Suitable Applications

- Offices
- Tall Buildings
- Hotels
- Campuses
- Entertainment and Leisure
- Healthcare
- Mixed-use developments

Distribution Boards

125A



8GP1212-2DA54

125A MCB Distribution Boards

Description	H (mm)	W (mm)	D (mm)	List No
4 Way	490	430	155	8GP1204-2DA54
6 Way	570	430	155	8GP1206-2DA54
8 Way	650	430	155	8GP1208-2DA54
12 Way	815	430	155	8GP1212-2DA54
16 Way	895	430	155	8GP1216-2DA54
20 Way	1000	430	155	8GP1220-2DA54
24 Way	1140	430	155	8GP1224-2DA54

Features

- 125A rated for use with 5SL or 5SY MCB
- Type tested & ASTA certified to IEC 61439-3
- IP3X (door closed)
- 230/415V AC 50/60Hz
- Integral meter kit options available
- Integral surge kit options available
- 1mm steel enclosure finished in RAL 7035 light grey

* Go to the Industry Mall for the full 5SY MCB range



STE1302-ODA

125A Incomer Options

Description	List No
125A 4P Switch Disconnecter **	5TE1402-ODA
125A 3P Switch Disconnecter	5TE1302-ODA
125A 2P Switch Disconnecter *	5TE1202-ODA
125A Direct Connection Kit	8GP1854-ODA10
125A 4P RCCB 30mA **	5SM3345-6
125A 4P RCCB 100mA **	5SM3445-6
125A 4P RCCB 300mA **	5SM3645-6

Features

- RCCB option is Type A residual earth leakage protection
- RCCB option is Instantaneous Trip
- Switch Disconnecter accepts up to 50mm²
- Direct Connection Kit accepts up to 50mm²
- RCCB accepts up to 50mm²

* Requires single pole connection kit: 8GP1853-ODA20

** Requires four pole connection kit: 8GP1886-ODA10

125A Incomer Options – Connection Kits

Description	List No
TP&N --> SP&N kit	8GP1853-ODA20
TP&N --> 4P kit (For RCCB)	8GP1886-ODA10
OverSize Incoming Cable Kit – 120mm ²	8GP1856-ODA10



8GP1886-ODA10

Distribution Boards

250A



8GP1212-4DA54

250A MCB Distribution Boards

Description	H (mm)	W (mm)	D (mm)	List No
4 Way	769	430	155	8GP1204-4DA54
6 Way	823	430	155	8GP1206-4DA54
8 Way	877	430	155	8GP1208-4DA54
12 Way	985	430	155	8GP1212-4DA54
16 Way	1093	430	155	8GP1216-4DA54
20 Way	1201	430	155	8GP1220-4DA54
24 Way	1309	430	155	8GP1224-4DA54

Features

- 250A rated for use with 5SL or 5SY MCB
- Type tested & ASTA certified to IEC 61439-3
- IP3X (door closed)
- 230/415V AC 50/60Hz
- Integral meter kit options available
- Integral surge kit options available
- 1mm steel enclosure finished in RAL 7035 light grey



8GP1601-4DA50

250A Incomer Options

Description	List No
250A 3P Switch Disconnecter	8GP1600-4DA40
250A 4P Switch Disconnecter	8GP1600-4DA50
250A 3P MCCB	8GP1601-4DA40
250A 4P MCCB	8GP1601-4DA50
250A Direct Connection Kit	8GP1867-ODA10

Features

- MCCB complete with Box Terminals
- MCCB is 3VA – TM240 – ATAM
- MCCB is adjustable 70% to 100% of I_n for Thermal Overload
- MCCB is adjustable 5x to 10x I_n for Magnetic Short-Circuit
- MCCB accepts 6mm² to 120mm²*
- Switch Disconnecter complete with Box Terminals
- Switch Disconnecter accepts 6mm² to 120mm²*
- Direct Connection Kit accepts 6mm² to 120mm²

*Go to the Industry Mall for the full 3VA Terminal Accessory range



3VA9214-0JC22

250A Incomer Accessories

Box Terminals	Conductor Capacity	List No
3 single terminals	6 ... 120mm ²	3VA9253-OJA11
	50 ... 185mm ²	3VA9253-OJA12
4 single terminals	6 ... 120mm ²	3VA9254-OJA11
	50 ... 185mm ²	3VA9254-OJA12
Nut keeper kits	Max. Busbar Capacity	List No
3 single terminals	25 x 8mm	3VA9213-OQA00
4 single terminals	25 x 8mm	3VA9214-OQA00
Circular conductor terminals	Conductor Capacity	List No
3P – One conductors*	50 ... 240mm ²	3VA9213-OJC13
3P – Two conductors*	25 ... 150mm ²	3VA9213-OJC22
4P – One conductors*	50 ... 240mm ²	3VA9214-OJC13
4P – Two conductors*	25 ... 150mm ²	3VA9214-OJC22

*Supplied with extended terminal shroud

Distribution Board Add-on Enclosures 125A & 250A



8GP1995-0DA13

Description	H (mm)	W (mm)	D (mm)	List No
Cable Spreader Box	245	430	155	8GP1910-0DA10
Service Centre – 18 Modular Width	245	430	155	8GP1995-0DA13
Service Centre – 36 Modular Width	410	430	155	8GP1995-0DA14

Features

- Service Centre contains DIN rail mounting for modular devices



8GP1903-0DA10

Description	H (mm)	W (mm)	D (mm)	List No
1 Row x 18 Modular Width Extension Box	245	430	155	8GP1901-0DA10
2 Row x 18 Modular Width Extension Box	410	430	155	8GP1902-0DA10
3 Row x 18 Modular Width Extension Box	570	430	155	8GP1903-0DA10
4 Row x 18 Modular Width Extension Box	735	430	155	8GP1904-0DA10
5 Row x 18 Modular Width Extension Box	815	430	155	8GP1905-0DA10

Features

- Contains Earth & Neutral Terminal bars for termination of devices



8GP1937-2DA50

Description	H (mm)	W (mm)	D (mm)	List No
12 Way Add-on for 125A 3P+N Distribution Board	675	430	155	8GP1937-2DA50
Vertical Connection Kit – 125A	-	-	-	8GP1981-2DA10
12 Way Add-on for 250A 3P+N Distribution Board	675	430	155	8GP1937-4DA50
Vertical Connection Kit – 250A	-	-	-	8GP1981-4DA10

Features

- Vertical Connection Kit required for either amperage of 12 Way Add-on Distribution Board
- Add-on 12 Way only suitable for 16 Way Boards and upwards



8GP1981-2DA10

Integral Surge Protection Kits 125A & 250A



8GP1904-0DA50

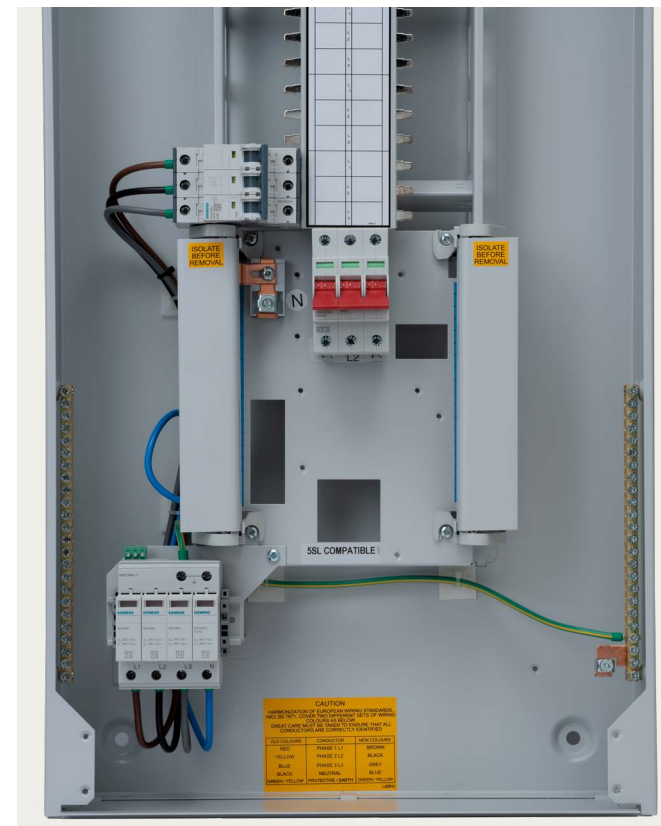
125 & 250A Integral Surge Protection Kits

Description	List No
125A Integral SPD kit with 10kA MCB	8GP1904-0DA50
125A Integral SPD kit with 15kA MCB	8GP1904-0DA51
250A Integral SPD kit with 10kA MCB	8GP1904-0DA52
250A Integral SPD kit with 15kA MCB	8GP1904-0DA53

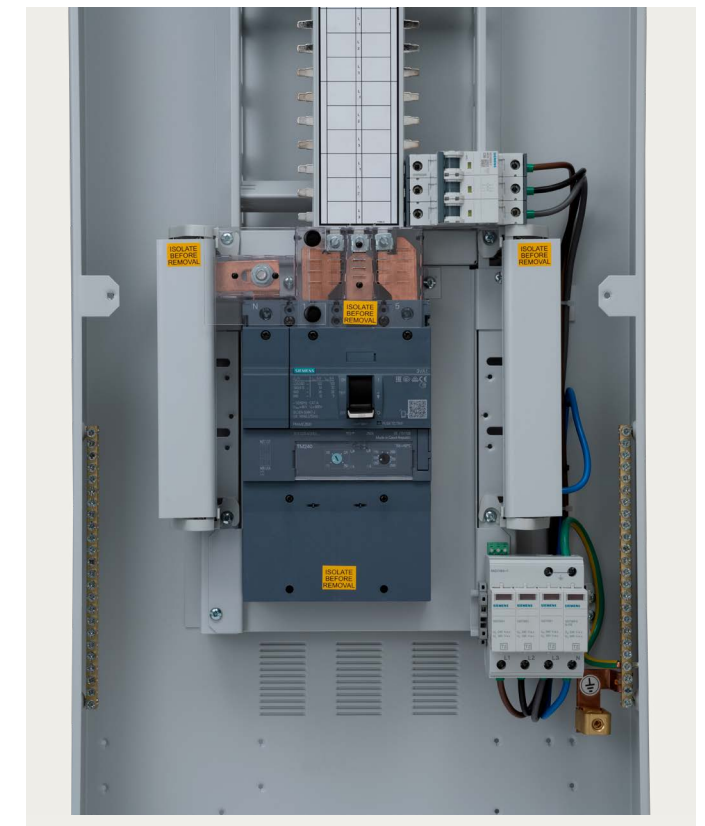
Features

- Complete with mounting bracket, cable looms & protective MCB
- 5SD7 Type 2 Surge Arrester
- Suitable for TNS earthing systems
- Remote signalling contact included
- Cannot be used in conjunction with integral meter kit. For use with add-on meter option only
- Cannot be installed within Lighting & Power Boards*

* Factory assembled options available for Lighting & Power boards complete with surge protection



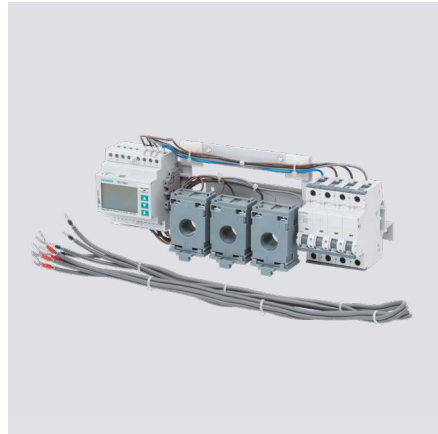
125A SPD Kit, assembled in board



250A SPD Kit, assembled in board

Integral Meter Kits

125A & 250A



8GP1921-2DA80

125A & 250A Integral Meter Kits

Description	List No
125A Integral Meter Pack – Std	8GP1921-2DA80
125A Integral Meter Pack – MID	8GP1991-2DA80
250A Integral Meter Pack – Std	8GP1933-0DA11
250A Integral Meter Pack – MID	8GP1933-0DA13

Features

- Contains PAC1600 energy meter
- Includes all cable looms, mounting bracket, protective MCB & CTs
- Meter output in Pulsed Output & Modbus RTU
- Measured values include: kWh, kvarh, V, A, kW, kvar, PF, Hz.

Horizontal Lighting & Power Add-on

125A & 250A



8GP1992-4DA10

125A & 250A Horizontal Lighting & Power Add-on

Description	H (mm)	W (mm)	D (mm)	List No
125A Twin Meter Horizontal L&P – Std	410	860	155	8GP1992-2DA10
125A Twin Meter Horizontal L&P – MID	410	860	155	8GP1993-2DA10
250A Twin Meter Horizontal L&P – Std	735	860	155	8GP1992-4DA10
250A Twin Meter Horizontal L&P – MID	735	860	155	8GP1993-4DA10

Features

- Includes painted steel enclosure
- Contains 2 x PAC1600 energy meter
- Pre-wired with all necessary cabling for out-of the box installation to DBs
- Dual power tail connections provided
- Meter output in Pulsed Output & Modbus RTU
- Measured values include: kWh, kvarh, V, A, kW, kvar, PF, Hz.

Add-on Meter Kits

125A & 250A



8GP1990-4DA10

125A & 250A Add-on Meter Kits

Description	H (mm)	W (mm)	D (mm)	List No
125A Add-on Meter Pack – Std	245	430	155	8GP1990-2DA10
125A Add-on Meter Pack – MID	245	430	155	8GP1991-2DA10
250A Add-on Meter Pack – Std	245	430	155	8GP1990-4DA10
250A Add-on Meter Pack – MID	245	430	155	8GP1991-4DA10
250A Add-on Meter Pack 185mm ² – Std	245	430	155	8GP1933-0DA12
250A Add-on Meter Pack 185mm ² – MID	245	430	155	8GP1933-0DA14

Features

- Includes painted steel enclosure
- Contains PAC1600 energy meter
- Includes all cable looms, mounting bracket, protective MCB & CTs
- Meter output in Pulsed Output & Modbus RTU
- Measured values include: kWh, kvarh, V, A, kW, kvar, PF, Hz.

Vertical Lighting & Power Distribution Boards

125A – STD & MID

		Standard Meter Option						
Top Board	24 Way	8GP1544-2DA44	8GP1545-2DA44	8GP1546-2DA44	8GP1547-2DA44	-	-	-
	20 Way	8GP1538-2DA44	8GP1540-2DA44	8GP1541-2DA44	8GP1542-2DA44	8GP1543-2DA44	-	-
	16 Way	8GP1532-2DA44	8GP1533-2DA44	8GP1534-2DA44	8GP1535-2DA44	8GP1536-2DA44	8GP1537-2DA44	-
	12 Way	8GP1524-2DA44	8GP1525-2DA44	8GP1526-2DA44	8GP1527-2DA44	8GP1528-2DA44	8GP1530-2DA44	8GP1531-2DA44
	8 Way	8GP1516-2DA44	8GP1517-2DA44	8GP1518-2DA44	8GP1520-2DA44	8GP1521-2DA44	8GP1522-2DA44	8GP1523-2DA44
	6 Way	8GP1508-2DA44	8GP1510-2DA44	8GP1511-2DA44	8GP1512-2DA44	8GP1513-2DA44	8GP1514-2DA44	8GP1515-2DA44
	4 Way	8GP1501-2DA44	8GP1502-2DA44	8GP1503-2DA44	8GP1504-2DA44	8GP1505-2DA44	8GP1506-2DA44	8GP1507-2DA44
		4 Way	6 Way	8 Way	12 Way	16 Way	20 Way	24 Way
		Bottom Board						

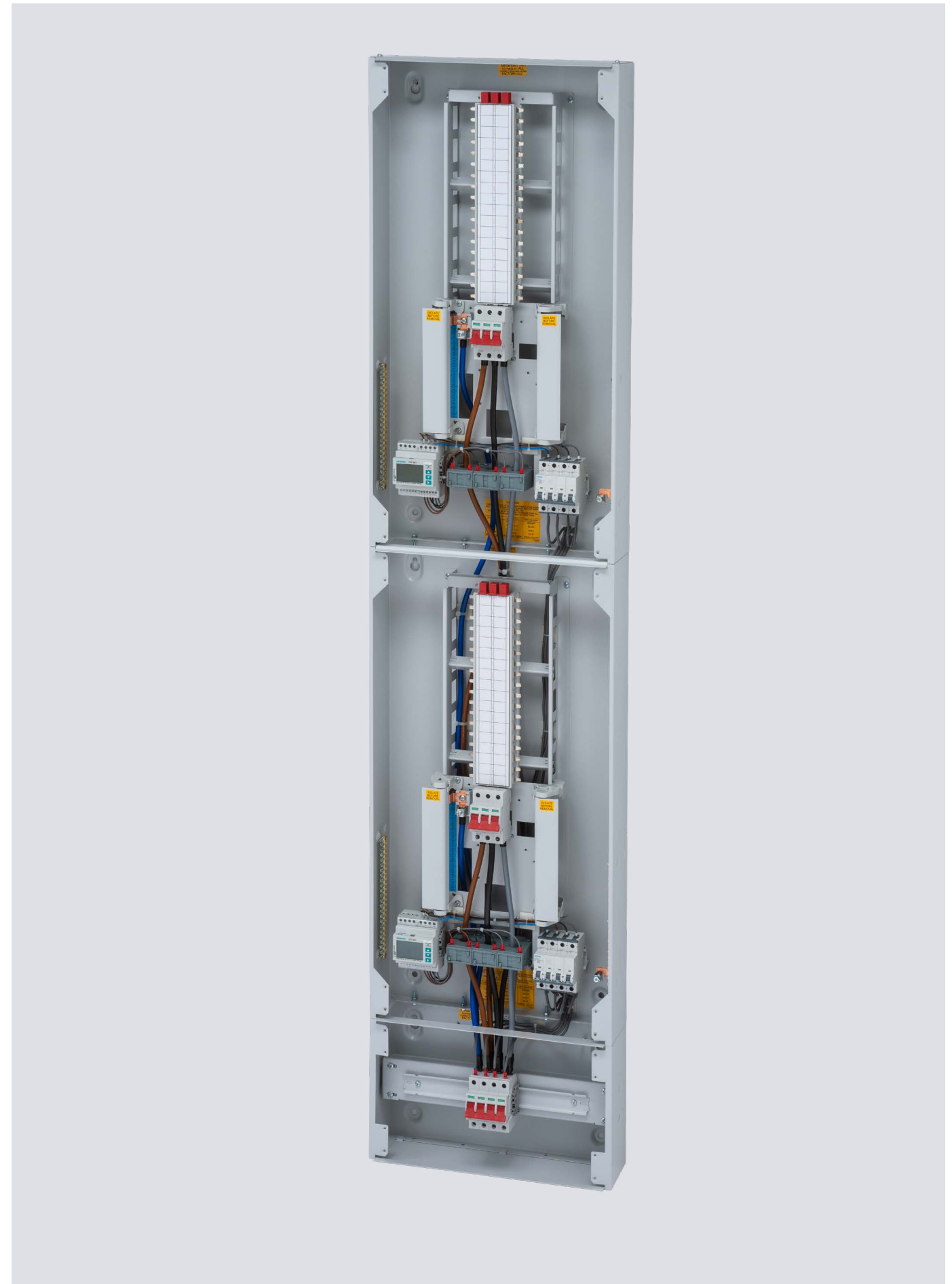
Features

- Pre-assembled solution complete with 2 x STD Integral Meter kits
- Contains 2 x PAC1600 energy meter
- Isolation of individual sections or total board
- Fully rated 125A top Distribution Board
- Part L2 compliant
- Meter output in Pulsed Output & Modbus RTU
- Measured values include: kWh, kvarh, V, A, kW, kvar, PF, Hz.

		MID Meter Option						
Top Board	24 Way	8GP1644-2DA44	8GP1645-2DA44	8GP1646-2DA44	8GP1647-2DA44	-	-	-
	20 Way	8GP1638-2DA44	8GP1640-2DA44	8GP1641-2DA44	8GP1642-2DA44	8GP1643-2DA44	-	-
	16 Way	8GP1632-2DA44	8GP1633-2DA44	8GP1634-2DA44	8GP1635-2DA44	8GP1636-2DA44	8GP1637-2DA44	-
	12 Way	8GP1624-2DA44	8GP1625-2DA44	8GP1626-2DA44	8GP1627-2DA44	8GP1628-2DA44	8GP1630-2DA44	8GP1631-2DA44
	8 Way	8GP1616-2DA44	8GP1617-2DA44	8GP1618-2DA44	8GP1620-2DA44	8GP1621-2DA44	8GP1622-2DA44	8GP1623-2DA44
	6 Way	8GP1608-2DA44	8GP1610-2DA44	8GP1611-2DA44	8GP1612-2DA44	8GP1613-2DA44	8GP1614-2DA44	8GP1615-2DA44
	4 Way	8GP1601-2DA44	8GP1602-2DA44	8GP1603-2DA44	8GP1604-2DA44	8GP1605-2DA44	8GP1606-2DA44	8GP1607-2DA44
		4 Way	6 Way	8 Way	12 Way	16 Way	20 Way	24 Way
		Bottom Board						

Features

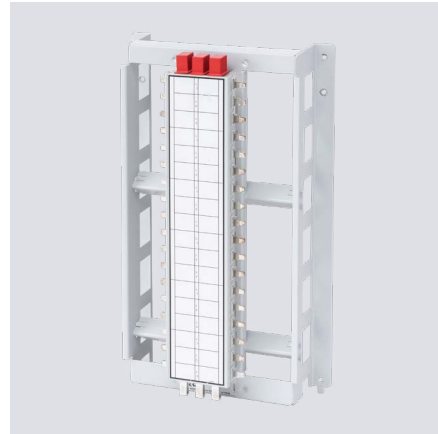
- Pre-assembled solution complete with 2 x MID Integral Meter kits
- Contains 2 x PAC1600 energy meter
- Isolation of individual sections or total board
- Fully rated 125A top Distribution Board
- Part L2 compliant
- Meter output in Pulsed Output & Modbus RTU
- Measured values include: kWh, kvarh, V, A, kW, kvar, PF, Hz.



8GP1527-2DA44

MCB Pan Assemblies

250A



8GP1940-4DA44

250A Pan Assemblies

Description	H (mm)	W (mm)	D (mm)	List No
4 Way	154	224	133*	8GP1940-4DA41
8 Way	262	224	133*	8GP1940-4DA43
12 Way	370	224	133*	8GP1940-4DA44
16 Way	478	224	133*	8GP1940-4DA45
20 Way	586	224	133*	8GP1940-4DA46
24 Way	694	224	133*	8GP1940-4DA47

Features

- 250A rated for use with 5SL or 5SY** MCB
- 230/415V AC 50/60Hz

* Depth is indicative of pan assembly with MCB fitted to busbar.

** Go to the Industry Mall for the full 5SY MCB range



8GP1603-4DA40

250A Pan Assembly Incomer Options

Description	List No
250A 3P Switch Disconnecter	8GP1603-4DA40
250A 3P MCCB	8GP1604-4DA40
250A Direct Connection Kit	8GP1605-4DA40

Features

- MCCB complete with Box Terminals
- MCCB is 3VA – TM240 – ATAM
- MCCB is adjustable 70% to 100% of I_n for Thermal Overload
- MCCB is adjustable 5x to 10x I_n for Magnetic Short-Circuit
- MCCB accepts 6mm² to 120mm² *
- Switch Disconnecter complete with Box Terminals
- Switch Disconnecter accepts 6mm² to 120mm² *
- Direct Connection Kit accepts 6mm² to 120mm²

* Go to the Industry Mall for the full 3VA Terminal Accessory range

Distribution Board

Accessories 125A & 250A



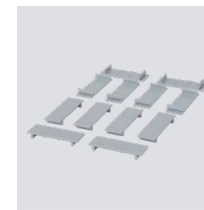
8GP1960-0DA10



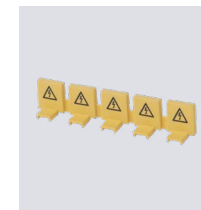
8GP1961-0DA10

Description

Description	List No
Door Cylinder Lock & Key	8GP1960-0DA10
Pad-Lockable Door Cylinder with Padlock & Key	8GP1961-0DA10



8GP1971-1DA11



8GP1976-0DA18

Description

Description	List No
Blanking Strip (6 x 1 Mod)	8GP1970-0DA11
Blanking Strip (12 x 1 Mod)	8GP1971-1DA11
Blanking Strip (4 x 3 Mod)	8GP1972-0DA12
Blanking Strip (2 x 12 Mod)	8GP1973-0DA15
1MW MCB Profile Blank	8GP1974-0DA11
Busbar Terminal Insulator Pack (5 pieces)	8GP1976-0DA18

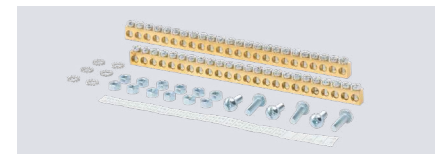


8GP1976-0DA17

Description

Description	List No
Spare Fixings Kit*	8GP1976-0DA17

*Contains all possible fixings supplied with 125 & 250A DBs. Does not include fixings for wall-mounting.



8GP1920-0DA44

Description

Description	List No
Additional Earth Bar Kit (4 Way TPN)	8GP1920-0DA41
Additional Earth Bar Kit (6 Way TPN)	8GP1920-0DA42
Additional Earth Bar Kit (8 Way TPN)	8GP1920-0DA43
Additional Earth Bar Kit (12 Way TPN)	8GP1920-0DA44
Additional Earth Bar Kit (16 Way TPN)	8GP1920-0DA45
Additional Earth Bar Kit (20 Way TPN)	8GP1920-0DA46
Additional Earth Bar Kit (24 Way TPN)	8GP1920-0DA47
Cable Clamp Assembly (Converts 16mm ² to 70mm ²)	8GP1976-0DA16



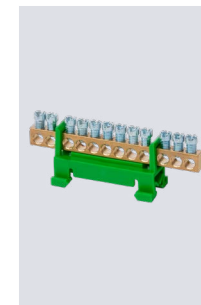
8GP1976-0DA16



8GP1962-0DA10

Description

Description	List No
Clean Earth Kit	8GP1962-0DA10



8GP1931-0DA47

DIN Rail Mounted Neutral Bar – 7 x 10mm ² Terminals	8GP1933-0DA47
DIN Rail Mounted Neutral Bar – 12 x 10mm ² Terminals	8GP1934-0DA47
DIN Rail Mounted Neutral Bar – 15 x 10mm ² Terminals	8GP1935-0DA47
DIN Rail Mounted Earth Bar – 7 x 10mm ² Terminals	8GP1930-0DA47
DIN Rail Mounted Earth Bar – 12 x 10mm ² Terminals	8GP1931-0DA47
DIN Rail Mounted Earth Bar – 15 x 10mm ² Terminals	8GP1932-0DA47

MCBs

1P



5SL4110-7

10kA Breaking Capacity @ 230/415V AC in accordance with BS EN 60898

Rated Current	Characteristic		
	B	C	D
0.3A	-	5SL4114-7	5SL4114-8
0.5A	-	5SL4105-7	5SL4105-8
1A	5SL4101-6	5SL4101-7	5SL4101-8
1.6A	-	5SL4115-7	5SL4115-8
2A	5SL4102-6	5SL4102-7	5SL4102-8
3A	5SL4103-6	5SL4103-7	5SL4103-8
4A	5SL4104-6	5SL4104-7	5SL4104-8
6A	5SL4106-6	5SL4106-7	5SL4106-8
8A	5SL4108-6	5SL4108-7	5SL4108-8
10A	5SL4110-6	5SL4110-7	5SL4110-8
13A	5SL4113-6	5SL4113-7	5SL4113-8
16A	5SL4116-6	5SL4116-7	5SL4116-8
20A	5SL4120-6	5SL4120-7	5SL4120-8
25A	5SL4125-6	5SL4125-7	5SL4125-8
32A	5SL4132-6	5SL4132-7	5SL4132-8
40A	5SL4140-6	5SL4140-7	5SL4140-8
50A	5SL4150-6	5SL4150-7	5SL4150-8
63A	5SL4163-6	5SL4163-7	5SL4163-8

Go to the Industry Mall for the full MCB range

MCBs

3P



5SL4310-7

10kA Breaking Capacity @ 415V AC in accordance with BS EN 60898

Rated Current	Characteristic		
	B	C	D
0.3A	-	5SL4314-7	5SL4314-8
0.5A	-	5SL4305-7	5SL4305-8
1A	5SL4301-6	5SL4301-7	5SL4301-8
1.6A	-	5SL4315-7	5SL4315-8
2A	5SL4302-6	5SL4302-7	5SL4302-8
3A	5SL4303-6	5SL4303-7	5SL4303-8
4A	5SL4304-6	5SL4304-7	5SL4304-8
6A	5SL4306-6	5SL4306-7	5SL4306-8
8A	5SL4308-6	5SL4308-7	5SL4308-8
10A	5SL4310-6	5SL4310-7	5SL4310-8
13A	5SL4313-6	5SL4313-7	5SL4313-8
16A	5SL4316-6	5SL4316-7	5SL4316-8
20A	5SL4320-6	5SL4320-7	5SL4320-8
25A	5SL4325-6	5SL4325-7	5SL4325-8
32A	5SL4332-6	5SL4332-7	5SL4332-8
40A	5SL4340-6	5SL4340-7	5SL4340-8
50A	5SL4350-6	5SL4350-7	5SL4350-8
63A	5SL4363-6	5SL4363-7	5SL4363-8

Go to the Industry Mall for the full MCB range

RCBOs

Standard Pigtail (600mm)



5SU9304-1KK20

10kA Breaking Capacity @ 230/240V AC in accordance with BS EN 61009
 Type AC
 1P+N (1MW)

Rated Residual Current	Rated Current	Characteristic		
		B	C	
10	10	-	5SU9104-1KK10	
	16	-	5SU9104-1KK16	
	20	-	5SU9104-1KK20	
	25	-	5SU9104-1KK25	
	32	-	5SU9104-1KK32	
	40	-	5SU9104-1KK40	
	45	-	5SU9104-1KK45	
	30	6	5SU9304-0KK06	5SU9304-1KK06
30	10	5SU9304-0KK10	5SU9304-1KK10	
	16	5SU9304-0KK16	5SU9304-1KK16	
	20	5SU9304-0KK20	5SU9304-1KK20	
	25	5SU9304-0KK25	5SU9304-1KK25	
	32	5SU9304-0KK32	5SU9304-1KK32	
	40	5SU9304-0KK40	5SU9304-1KK40	
	45	-	5SU9304-1KK45	
	100	6	-	5SU9404-1KK06
100	10	5SU9404-0KK10	5SU9404-1KK10	
	16	5SU9404-0KK16	5SU9404-1KK16	
	20	5SU9404-0KK20	5SU9404-1KK20	
	25	5SU9404-0KK25	5SU9404-1KK25	
	32	5SU9404-0KK32	5SU9404-1KK32	
	40	5SU9404-0KK40	5SU9404-1KK40	
	300	6	-	5SU9604-1KK06
	300	10	-	5SU9604-1KK10
16		-	5SU9604-1KK16	
20		-	5SU9604-1KK20	
25		-	5SU9604-1KK25	
32		-	5SU9604-1KK32	
40		-	5SU9604-1KK40	



5SU9304-7KK32

10kA Breaking Capacity @ 230/240V AC in accordance with BS EN 61009
 Type A
 1P+N (1MW)

Rated Residual Current	Rated Current	Characteristic	
		B	C
30	6	5SU9304-6KK06	5SU9304-7KK06
	10	5SU9304-6KK10	5SU9304-7KK10
	16	5SU9304-6KK16	5SU9304-7KK16
	20	5SU9304-6KK20	5SU9304-7KK20
	25	-	5SU9304-7KK25
	32	5SU9304-6KK32	5SU9304-7KK32
	40	5SU9304-6KK40	5SU9304-7KK40
	50	5SU9304-6KK50	5SU9304-7KK50

RCBOs

Extended Pigtail (1200mm)



5SU9304-6PK16

10kA Breaking Capacity @ 230/240V AC in accordance with BS EN 61009
 Type A
 1P+N (1MW)

Rated Residual Current	Rated Current	Characteristic	
		B	C
30	6	5SU9304-6PK06	5SU9304-7PK06
	10	5SU9304-6PK10	5SU9304-7PK10
	16	5SU9304-6PK16	5SU9304-7PK16
	20	5SU9304-6PK20	5SU9304-7PK20
	32	5SU9304-6PK32	5SU9304-7PK32
	40	5SU9304-6PK40	5SU9304-7PK40
	50	5SU9304-6PK50	5SU9304-7PK50

Arc Fault Detection Devices - a step forward in circuit protection

The Siemens portfolio of protective devices has been proving itself in the field for many years. This range of fuses, miniature circuit breakers and residual current protective devices has now been expanded to include AFDDs (arc fault detection devices).



These AFDDs detect arcing faults caused by serial faults or loose contacts or as a result of insulation faults that enable contact between phase conductors or between phase and protective conductors. They therefore offer extremely effective protection against fires started by electrical faults.

Generally speaking, arcing faults in the circuit can result from damage to cables and other insulations and from contamination. Insulation faults result, for example, from vibrations, thermal expansion and contraction, mechanical loads and aging. A distinction is made between 3 types of arcing faults:

Serial arcing faults

These are caused by breaks in the conductor or when a loose contact is in the circuit in series with the load. As the current flow in such cases is always lower than the operational load current, miniature circuit breakers and residual current protective devices are unable to detect such faults and initiate tripping.

The AFDD is specially designed to detect the specific characteristics of these arcing faults, and it reliably disconnects the affected circuit as soon as the limit values are exceeded.

Parallel arcing faults between phase conductor/neutral conductor or phase conductor/phase conductor

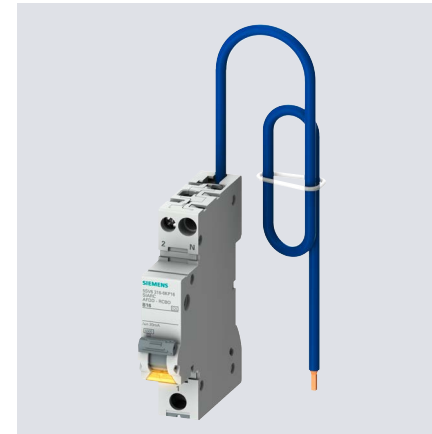
These are caused by electric arcs resulting from damage to the insulation that permits contact between the two conductors. In this case, the level of current is determined by the impedances in the circuit. Depending on the rated current of the overcurrent protection device (for instance a miniature circuit breaker), this can be disconnected. However, if the impedance in the circuit is too high to reach the trip current of the overcurrent protection device, no tripping takes place. AFDDs disconnect the currents of arcing faults upwards of 2.5 A, thus providing reliable protection in the case of such faults.

Parallel arcing faults between phase conductor/protective conductor

Arcing faults against the protective conductor are reliably detected and shut down by residual current protective devices. Residual current protective devices with rated residual currents up to max. 300 mA have already been providing effective fire protection in such cases for many years. AFDDs also detect these arcing faults and provide adequate fire protection where no residual current protective device is implemented.



AFDDs



5SV6316-7KP06



5SV6016-6KP16



5SM6024-2

RCBO + AFDD Combination Devices (6kA)

6kA Breaking Capacity @ 230V AC in accordance with BS EN 60898/62606

Rated Residual Current	Rated Current	Tripping Characteristic	
		B	C
30	6	5SV6316-6KP06	5SV6316-7KP06
	10	5SV6316-6KP10	5SV6316-7KP10
	13	5SV6316-6KP13	5SV6316-7KP13
	16	5SV6316-6KP16	5SV6316-7KP16
	20	5SV6316-6KP20	5SV6316-7KP20
	25	5SV6316-6KP25	5SV6316-7KP25
	32	5SV6316-6KP32	5SV6316-7KP32
	40	5SV6316-6KP40	5SV6316-7KP40

Features

- Can be used with 5ST Accessory Range
- See following pages for compatible accessories

MCB + AFDD Combination Devices (6kA)

6kA Breaking Capacity @ 230V AC in accordance with BS EN 60898/62606

Rated Current	Tripping Characteristic	
	B	C
6	5SV6016-6KP06	5SV6016-7KP06
10	5SV6016-6KP10	5SV6016-7KP10
13	5SV6016-6KP13	5SV6016-7KP13
16	5SV6016-6KP16	5SV6016-7KP16
20	5SV6016-6KP20	5SV6016-7KP20
25	5SV6016-6KP25	5SV6016-7KP25
32	5SV6016-6KP32	5SV6016-7KP32
40	5SV6016-6KP40	5SV6016-7KP40

Features

- Can be used with 5ST Accessory Range
- See following pages for compatible accessories

AFD Add-on Unit (10kA)

Rated Current	
1–16A	5SM6021-2
1–40A	5SM6024-2

Features

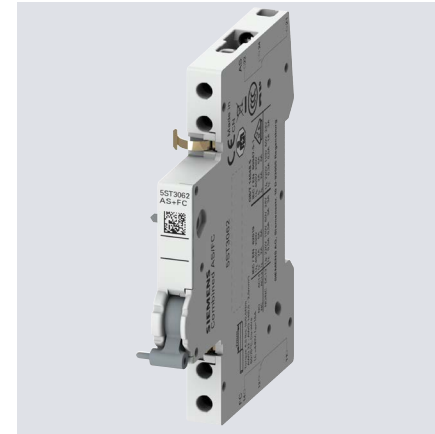
- To be used and compatible with 5SL4, 5SY4/6/7 & 5SU1
 - Can be used with 5ST Accessory Range
- See following pages for compatible accessories

MCB & AFDD Accessories



5ST3806

Description	List No
MCB Handle Lock-off Device	5ST3806
Padlock for the above (Supplied with 2 keys)	5ST3802



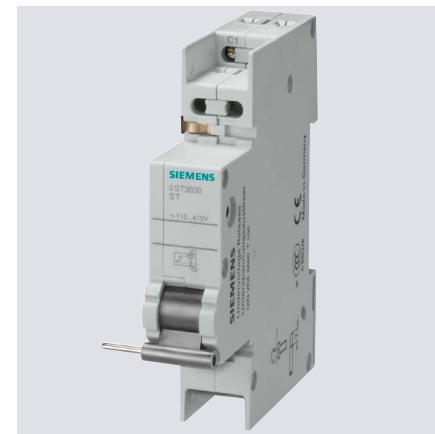
5ST3062

Auxiliary switches and fault signal contacts (AS+FC)	List No	5SL4	5SV6
1 CO (AS) + 1 CO (FC) Standard	5ST3062	•	•



5ST3010

Auxiliary switches	List No	5SL4	5SV6
1 NO + 1 NC Standard	5ST3010	•	•
For low power	5ST3013	•	•
For low power (with diode)	5ST3010-0XX01	•	•
2 NO Standard	5ST3011	•	•
For low power	5ST3014	•	•
2 NC Standard	5ST3012	•	•
For low power	5ST3015	•	•
1 CO Standard	5ST3016	•	•



5ST3030

Shunt trip (ST)	List No	5SL4	5SV6
110... 415 V AC, 110... 220 V DC	5ST3030	•	•
24... 48 V AC/DC	5ST3031	•	•
12 V DC	5ST3031-0XX01	•	•



5ST3020

Fault signal contacts (FC)	List No	5SL4	5SV6
1 NO + 1 NC	5ST3020	•	•
2 NO	5ST3021	•	•
2 NC	5ST3022	•	•

Go to the Industry Mall for the full MCB Accessory range



5ST3040

Undervoltage releases	List No	5SL4	5SV6	
With integrated auxiliary switch	230V AC	5ST3040	•	•
	110V DC	5ST3041	•	•
	24V DC	5ST3042	•	•
Without integrated auxiliary switch	230V AC	5ST3043	•	•
	110V AC	5ST3044	•	•
	24V DC	5ST3045	•	•

ALPHA BSII Distribution Boards

Technical Data

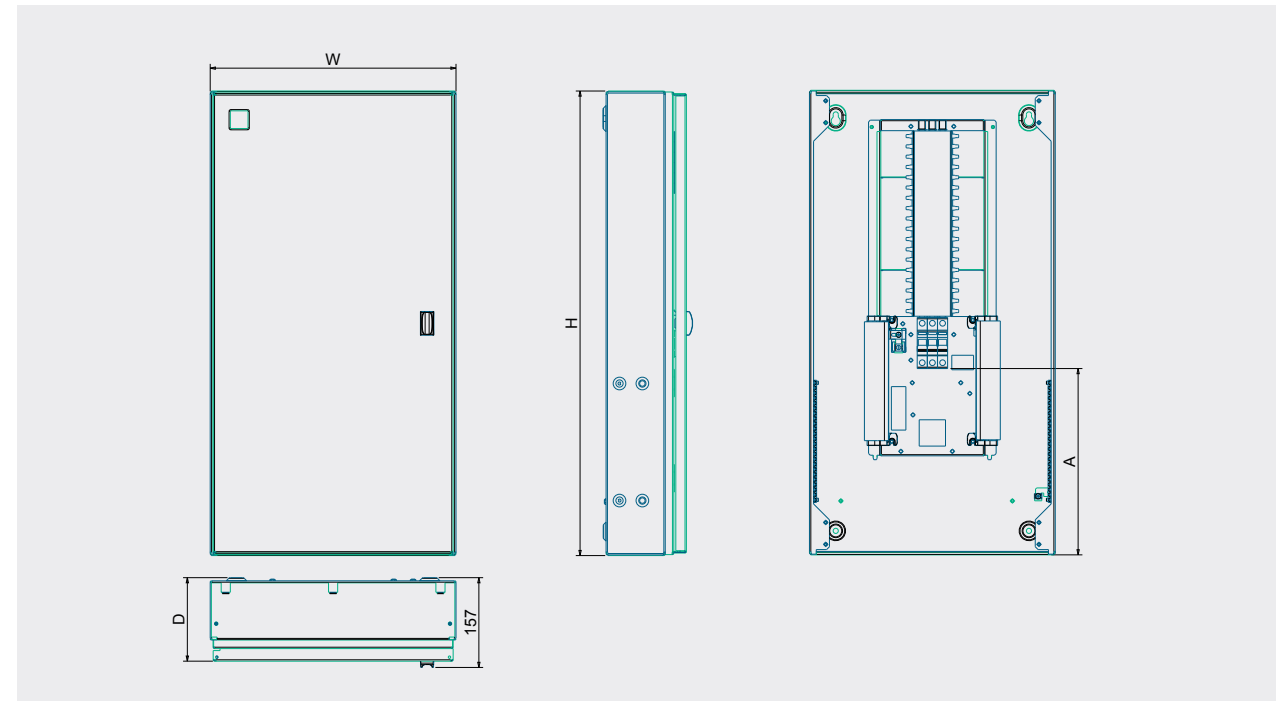
Distribution Boards

Description	Dimensions (mm)			Distance from Gland Plate to Incoming Terminals (mm)	
	(H)	(W)	(D)	A (Spreading Room)	
125A	4 Way	488	430	146	218
	6 Way	569	430	146	245
	8 Way	650	430	146	272
	12 Way	812	430	146	326
	16 Way	893	430	146	299
	20 Way	999	430	146	297
	24Way	1136	430	146	297
250A	4 Way	768	430	146	389
	6 Way	822	430	146	389
	8 Way	876	430	146	389
	12 Way	984	430	146	389
	16 Way	1092	430	146	389
	20 Way	1200	430	146	389
	24 Way	1308	430	146	389

	125A	250A
Compliance with:	IEC/BS EN 61439-3	
Short Circuit Withstand Rating:	10kA for 0.1s	
Rated Voltage:	230/415V AC, 3PH, 50Hz	
Mounting:	Wall	
Incoming Cable Entry:	Bottom	
Access Panels:	All Fascias	
Ingress Protection:	IP3X as Standard (Door Closed)	
Finish:	Powder Coated RA7035 Light Grey	

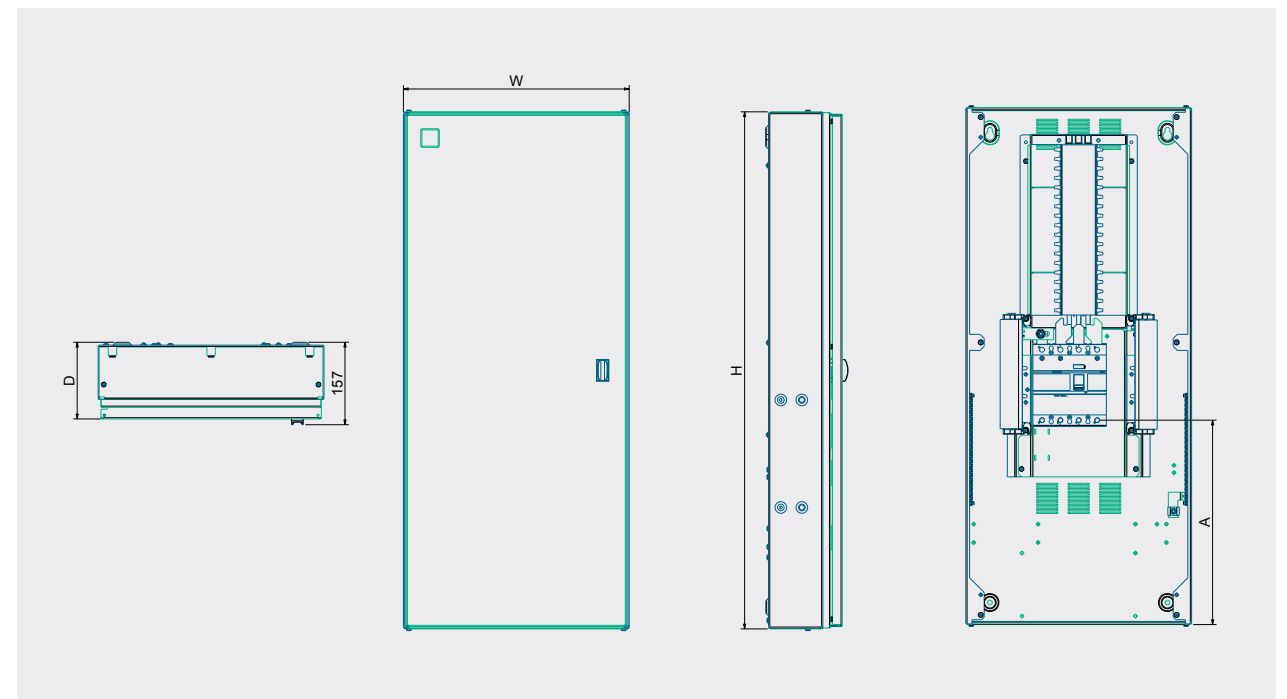
Distribution Boards

125A



Distribution Boards

250A



Add-on Units

Description	Dimensions (mm)		
	(H)	(W)	(D)
Cable Spreader Box	243	430	146
Service Centre – 18 Mod	243	430	146
Service Centre – 36 Mod	405	430	146
1x Rowboard	243	430	146
2x Rowboard	405	430	146
3x Rowboard	567	430	146
4x Rowboard	729	430	146
5x Rowboard	810	430	146
12 Way Add-on Board	675	430	146

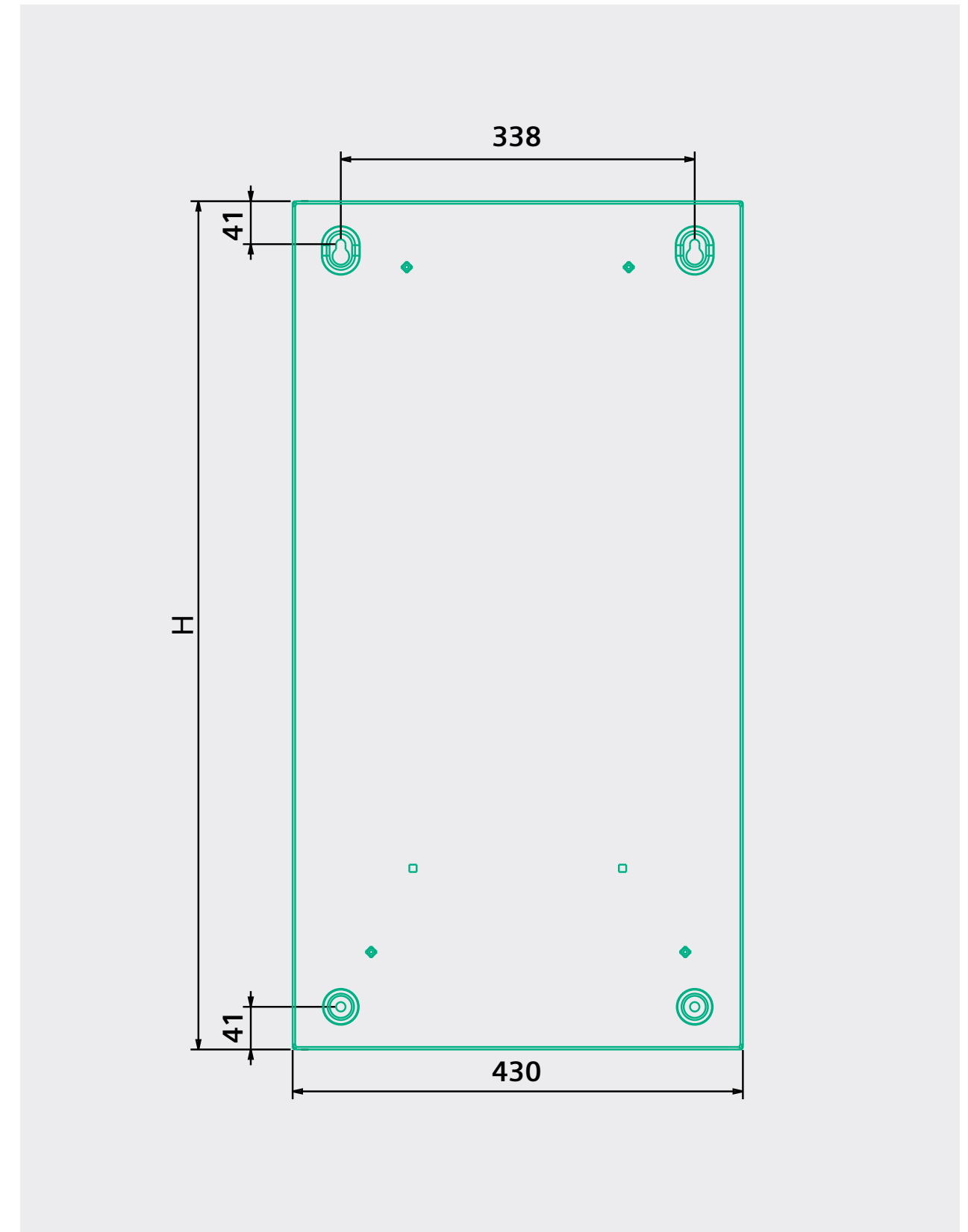
Add-on Meter Packs

Description	Dimensions (mm)			
	(H)	(W)	(D)	
125A	Single Meter - STD	243	430	146
	Single Meter - MID	243	430	146
	Dual Meter - STD	413	860	146
	Dual Meter - MID	413	860	146
250A	Single Meter - STD	243	430	146
	Single Meter - MID	243	430	146
	Single Meter - STD (185mm ²)	243	430	146
	Single Meter - MID (185mm ²)	243	430	146
	Dual Meter - STD	738	860	139
	Dual Meter - MID	738	860	139

Cable Capacity & terminal Connections – Maximum Stranded Copper Cable

	Incoming Options					Outgoing Options	
	Switch Disconnector	MCCB	RCCB	Neutral	Earth	Neutral	Earth
125A	50mm ²	-	35mm ²	70mm ²	70mm ²	25mm ²	25mm ²
250A	25 x 8mm Max. (Cable Lug)	25 x 8mm Max. (Cable Lug)	-	120mm ²	120mm ²	25mm ²	25mm ²

Distribution Board Mounting Dimensions



Additional information can be found in our online services

Information and Ordering

All the important things at a glance – Information to get you started

For information about miniature circuit breakers, please visit our website

[siemens.com/mcb](https://www.siemens.com/mcb)

[siemens.com/protection-concept](https://www.siemens.com/protection-concept)

[siemens.com/uk/en/products/energy/low-voltage](https://www.siemens.com/uk/en/products/energy/low-voltage)

Contact persons in your region – We are there when you need us

You can find your local contacts at

[siemens.com/lowvoltage/contact](https://www.siemens.com/lowvoltage/contact)

Your product in detail

The Siemens Industry Online Support portal provides comprehensive information

[siemens.com/lowvoltage/product-support](https://www.siemens.com/lowvoltage/product-support)

- [Technical basic information – SENTRON protection concept \(109767456\)](#)
- [Technology primer – Miniature circuit breakers \(109482304\)](#)

The relevant tender specifications can be found at

[siemens.com/lowvoltage/tenderspecifications](https://www.siemens.com/lowvoltage/tenderspecifications)

Use our conversion tool for quick and easy conversion to Siemens products

[siemens.com/conversion-tool](https://www.siemens.com/conversion-tool)

Siemens YouTube channel – Our video range

Miniature circuit breakers (general)

bit.ly/2kJP2Dq

Contact email for ordering

sales.gbi.industry@siemens.com

Please address as "FAO LV"

Commissioning and Operation

Your product in detail

The Siemens Industry Online Support portal provides detailed technical information

[siemens.com/lowvoltage/product-support](https://www.siemens.com/lowvoltage/product-support)

- Operating instructions
- Characteristic curves
- Certificates

Engineering data for CAD or CAE systems are available in the CAx Download Manager at [siemens.com/lowvoltage/cax](https://www.siemens.com/lowvoltage/cax)

Manuals

Manuals are available for downloading in Siemens Industry Online Support at [siemens.com/lowvoltage/manuals](https://www.siemens.com/lowvoltage/manuals)

[Configuration manual – Miniature circuit breakers \(45302792\)](#)

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Assistance with technical queries is provided at

[siemens.com/lowvoltage/support-request](https://www.siemens.com/lowvoltage/support-request)

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You can find further information on services at [siemens.com/service-catalog](https://www.siemens.com/service-catalog)

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Our training courses can be found at

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- Protection concept (WT-LVBPC)

Technical overview – miniature circuit breakers The fast way to get you to our online services

This page provides you with comprehensive information and links on miniature circuit breakers [siemens.com/lowvoltage/product-support \(109769082\)](https://www.siemens.com/lowvoltage/product-support(109769082))

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