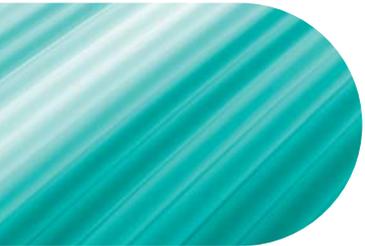


Loadlimiter 63

MCB Distribution Boards





Dorman Smith Switchgear Limited

With over 130 years of experience in switchgear design and production Dorman Smith Switchgear Limited continues to provide high quality equipment for low-voltage electrical distribution and circuit protection.

Our product range begins with single-pole and neutral distribution board systems and continues up to custom designed, factory built low-voltage electrical switchboards for a broad range of commercial, industrial and retrofit applications.

We continue to build on our extensive technical knowledge and awareness of customer and market demands, operating conditions and current regulations.

This breadth of experience supports the development and manufacturing techniques of our electrical products to exceed the industry standards.



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Loadlimiter 63

SP&N Distribution Boards

Key Features

The Dorman Smith Loadlimiter 63 single pole & neutral distribution board system includes a versatile range of MCB boards and components for constructing comprehensive circuit management solutions.

The busbars are rated at 125A and the distribution board is available in 6, 9, 12, 15, 18 and 22 single pole outgoing ways. The boards also feature a neutral and earth terminal for each single-pole outgoing way.

The system is designed for applications demanding up to 125A incoming supply and up to 63A outgoing capacity and the distribution board meets the requirements of EN 61439-3.

The system is designed for incomers as either a switch disconnecter up to 125A or double-pole RCCB up to 100A and for outgoing devices of single pole MCB and RCBOs up to a maximum of 63A. Modular devices such as surge protection and metering can be housed in a matching service centre mounted underneath the distribution board.

Busbar

The busbar system is rated at 125A.

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Compliance

Distribution Board	EN 61439-3
MCB	EN 60898
Contactors	EN 61095
RCBO	EN 61009
RCCB	EN 61008

Outgoing Devices

Options for this range are as below:

- Single Pole MCBs up to 63A
- Single Pole RCBOs up to 45A 30mA/100mA
- SP&SwN RCBOs up to 40A 30mA/100mA

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Add-on Enclosures

A matching service centre is available for this range allowing easy installation of modular devices such as surge suppression, contactors and metering.

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Metering

The Integra Ri3-01 DIN-rail multi-function meter can be installed in a service centre. This meter has pulse and Modbus communication protocol as standard.

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Modular Options

All of the distribution boards have a matching service centre available in order to build a specific modular system to meet your requirements. There is a standard height and depth to maintain system continuity.

PAGE 4

Surge Protection

Type 2 Class 2 surge protection is available in a two module wide DIN-rail mountable device. This is easily mounted in a matching service centre with line protection from a 63A C-type MCB.

PAGE 4

Modular Devices

There is a range of modular devices available for use with the Loadlimiter 63 SP&N system including: metering, contactors, surge protection and timers.

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Loadlimiter 63



A-Type Distribution Boards Boards and Service Centres

Distribution Boards

- Meets the requirements of EN 61439-3
- Busbars are 125A rated
- Neutral and earth terminal for each single-pole way
- Available in 6 to 22 single-pole outgoing ways
- IP4X Ingress Protection
- Height is 250mm and depth is 116mm. Width as per table below.

Outgoing Single Pole Ways	Width (mm)	Weight (kg)	Product Code
6	270	3.8	DA06X
9	323	4.3	DA09X
12	377	4.8	DA12X
15	430	5.3	DA15X
18	484	6	DA18X
22	555	7	DA22X

Service Centres

- Accepts all DIN-rail mounted devices
- Available in 8 to 24 modular ways
- IP4X Ingress Protection
- No earth or neutral bar provided
- Height is 250mm and depth is 116mm. Width as per table below.

Modular Single Pole Ways	Width (mm)	Weight (kg)	Product Code
8	270	3.8	DAS08X
11	323	4.3	DAS11X
14	377	4.8	DAS14X
17	430	5.3	DAS17X
20	484	6	DAS20X
24	555	7	DAS24X

Surge Protection

Type 1 Class 1

- Tested to withstand 10/350mS waveforms
- Maximum cable termination capacity is 35mm²

Device Type	Product Code
1 phase & neutral, 12.5kA L-N, 25kA surge arrester	DSPT1PN

Type 2 Class 2

- Type 2 Plug-in surge protection modules
- Tested to withstand 8/20mS waveforms
- Integral protection status indicator
- Operating range 200-300V rms maximum
- Plug-in replaceable modules
- Maximum cable termination capacity is 35mm²

Device Type	Product Code
Single Pole and Neutral/Earth protection	DSPM1PN
MOV replacement plug-in module	DSPML
MOV neutral/earth replacement plug-in module	DSPMNE

NOTE: It is recommended that surge protection devices are fed by a 63A Type C MCB, 63A MCCB or 63A fused disconnector to provide isolation and protection.

A-Type Distribution Boards Incoming Devices

Switch Disconnecter

- Meets the requirements of EN 60947-3
- Maximum cable termination capacity is 50mm²
- Utilization category of AC22

Current Rating (A)	Poles	Product Code
100	2	AV2100
125	2	AV2125

Double Pole RCCB

- Meets the requirements of EN 61008
- Equipped with transient suppression filter
- Voltage 230/400V and 50/60Hz
- Double module: Type AC
- Maximum cable termination capacity is 25mm² for ratings up to 63A and 35mm² for 80A/100A ratings

Current Rating (A)	Sensitivity (mA)	Poles	Product Code
63	30	2	EE63/30/2
63	100	2	EE63/100/2
63	300	2	EE63/300/2
80	30	2	EE80/30/2
100	30	2	EE100/30/2
100	100	2	EE100/100/2
100 time delay	100	2	EES100/100/2

A-Type Distribution Boards Accessories

Description	Product Code
Vertical Stacking Kits	
Stacking kit for 270mm width	DAXSK08
Stacking Kit for 323mm width	DAXSK11
Stacking Kit for 377mm width	DAXSK14
Stacking Kit for 430mm width	DAXSK17
Stacking Kit for 484mm width	DAXSK20
Stacking Kit for 555mm width	DAXSK24
Earth Bar Kits	
Earth Bar	DAXEB
Earth Bar isolation kit	DBXL
Door Lock Kits	
Cylinder door lock	DBXCL
Padlock bracket kit	DBXPL
Busbar Terminal Blanks	
Pack of 10 x busbar terminal blanks	DAXTP
MCB Blanks	
4 x Triple Pole MCB blanks and 12 x busbar terminal blanks	DBXBP
5 x Single Pole MCB blanks and 5 x busbar terminal blanks	DBXBM
5 x Half Pole MCB blanks	DBXBH

A-Type Distribution Boards Direct Connection Kits

Cable termination (mm ²)	Product Code
35	DBXD0
70	DBXD1

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A-Type Distribution Boards Outgoing Devices

Single Pole MCB

- Meets the requirements of EN 60898
- 10kA Rated breaking capacity to EN 60898
- 15kA Rated breaking capacity to EN 60947-2
- Contact position indicator
- Maximum cable termination capacity is 35mm²

Current Rating (A)	B Type Product Code	C Type Product Code	D Type Product Code
6	K1PB06	K1PC06	K1PD06
10	K1PB10	K1PC10	K1PD10
16	K1PB16	K1PC16	K1PD16
20	K1PB20	K1PC20	K1PD20
25	K1PB25	K1PC25	K1PD25
32	K1PB32	K1PC32	K1PD32
40	K1PB40	K1PC40	T1PD40 *
50	K1PB50	K1PC50	T1PD50 *
63	K1PB63	K1PC63	T1PD63 *

*6kA rated breaking capacity to EN 60898 and 10kA rated breaking capacity to EN 60947-2. Looks physically different to K series MCBs.

Single Module RCBO

- Meets the requirements of EN 61009
- Single module: Type AC
- 10kA Rated breaking capacity
- Maximum cable termination capacity is 10mm² for outgoing terminals and 35mm² for incoming terminals

Current Rating (A)	Sensitivity (mA)	B Type Product Code	C Type Product Code
6	30	KR1PB0630	KR1PC0630
10	30	KR1PB1030	KR1PC1030
16	30	KR1PB1630	KR1PC1630
20	30	KR1PB2030	KR1PC2030
32	30	KR1PB3230	KR1PC3230
40	30	KR1PB4030	KR1PC4030
45	30	KR1PB4530	KR1PC4530
6	100	-	KR1PC06100
10	100	-	KR1PC10100
16	100	-	KR1PC16100
20	100	-	KR1PC20100
32	100	-	KR1PC32100
40	100	-	KR1PC40100

Double Module RCBO

- Meets the requirements of EN 61009
- Single Pole and Switch Neutral configuration
- Double module: Type AC
- 10kA Rated breaking capacity
- Rated voltage 230V and rated frequency 50Hz
- Maximum cable termination capacity is 35mm² for incoming and outgoing terminals

Current Rating (A)	Sensitivity (mA)	B Type Product Code	C Type Product Code
6	30	KR2PB0630	KR2PC0630
10	30	KR2PB1030	KR2PC1030
16	30	KR2PB1630	KR2PC1630
20	30	KR2PB2030	KR2PC2030
32	30	KR2PB3230	KR2PC3230
40	30	KR2PB4030	KR2PC4030

NOTE: Please be advised that some varieties of double module RCBOs have a minimum order quantity. Please contact Customer Services to confirm before ordering.

A-Type Distribution Boards Meters and Current Transformers

Loadlimiter 63

MID Approved Meters

- Direct connection meters for kWh and kVAh
- MID approved
- DIN-rail mounted in Service Centres
- RS485 Modbus RTU / ASCII and SD-Card data logger available as an optional extra add-on communication modules

Input Current Rating (A)	Width (mm)	Product Code
80	54	DRM-80-1P
125	54	DRM-125-1P

Communication Modules

Modbus RTU / ASCII	18	DRM-MOD
SD-Card Data Logger	18	DRM-LOG
SD-Card Data Logger power supply unit	18	DRM-LOG-PS

DIN-rail Mounted Meters

- DIN-rail Mounted Meters

Device Type	Outputs	Width (mm)	Product Code
1 Phase or 3 Phase digital multi-function meter	Pulse and Modbus	71	Ri3-01

Current Transformers

- System voltage up to 720V
- Secondary output of 5A
- Provided with plug-in metal feet as standard
- DIN-rail clip kit available as optional accessory if required
- Operating temperature range of -20°C to $+70^{\circ}\text{C}$

Primary / Secondary Current Rating (A)	Cable Aperture (mm)	Height (mm)	Width (mm)	Product Code
100A / 5A	25	65	45	M53Q-100/5
125A / 5A	25	65	45	M53Q-125/5
DIN-rail clip	N/A	N/A	N/A	M30-DINCLIP

MCB and RCBO Accessories

Description	Product Code
Accessories	
240V AC Shunt Trip for MCB	KST240
Auxiliary/Alarm contact for MCB	KAUX1
Locking Devices	
Dolly locking device for MCB	KDL
Padlock for dolly locking device	XPL



Loadlimiter 63

TP&N Distribution Boards

Key Features

The Dorman Smith Loadlimiter 63 TP&N distribution board system excels in providing flexible and cost effective final circuit management solutions for commercial and industrial applications.

The range features a comprehensive variety of TP&N distribution boards rated at 250A and a wide array of circuit protection devices which ensures a simple configuration as well as quick assembly for new and retrofit applications.

To suit the current industry regulation requirements the range has been extended to offer a collection of metering options including factory assembled metered power and lighting distribution boards.

The standard finish is epoxy powder coating in light grey RAL 7035.

Busbar

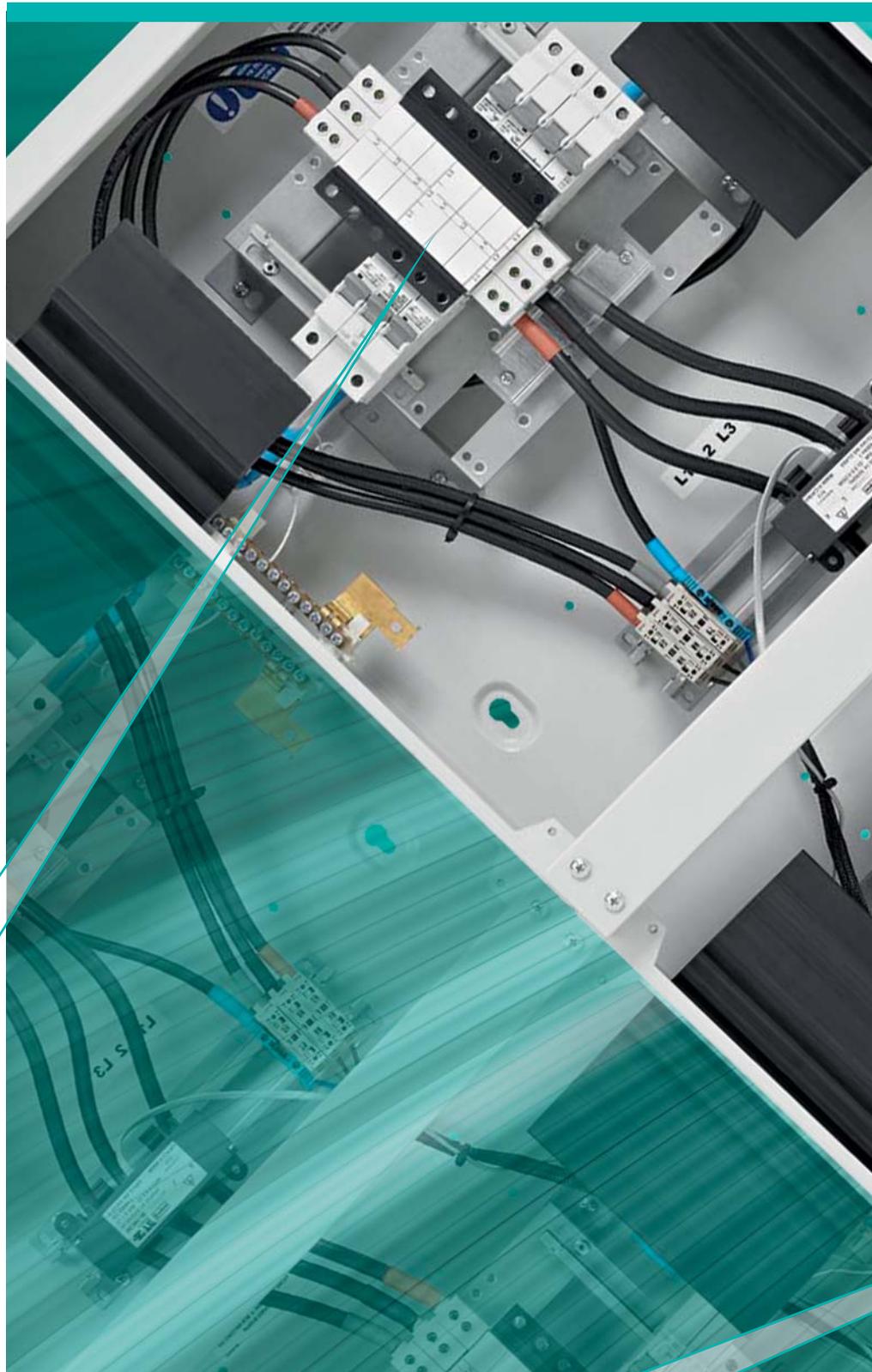
The busbar system for these boards is ASTA certified at 10kA for 250mS and rated at 250A.

Compliance

Distribution Board	EN 61439-3
MCB	EN 60898
Contactors	EN 61095
RCBO	EN 61009
RCCB	EN 61008

Outgoing Triple Pole Ways

The Loadlimiter 63 TP&N distribution boards are available with either 4, 6, 8, 12, 16, 20 or 24 outgoing triple-pole ways.



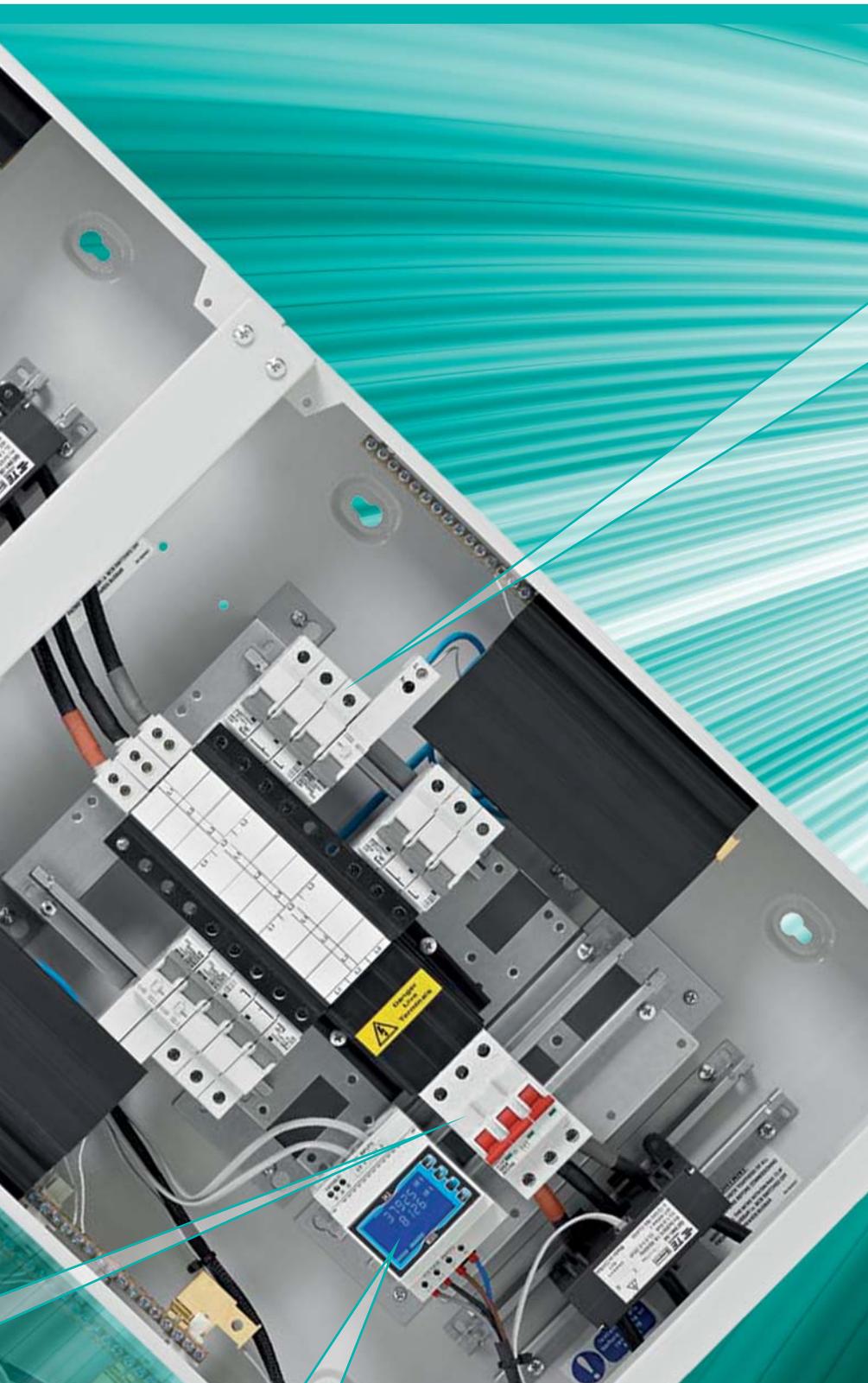
Ingress Protection

Our Loadlimiter 63 TP&N distribution boards have an ingress protection rating of IP4X.

Incoming Devices

There are multiple options for incoming devices for this range. You can install a 3-pole or 4-pole switch disconnector in ratings of 100A or 125A integral to the board. A 4-pole RCCB which is available in 40A, 63A or 100A with sensitivity ratings of 30mA, 100mA or 300mA can also be installed integral to the board. Using the DBXYA3 add-on enclosure you can also have a YB3 frame MCCB up to 250A or 250A YB3 frame switch disconnector.

PAGES 11-12



Outgoing Devices

Options for this range are as below:

- Single Pole and Triple Pole MCBs up to 63A
- Single Pole RCBOs up to 45A 30mA / 100mA
- SP&SWN RCBOs up to 40A 30mA / 100mA

PAGES 13-14

Add-on Enclosures

Matching service centres are available for this range in 18 or 36 modular ways allowing easy installation of modular DIN-rail devices. There is also a matching general purpose enclosure which allows for additional cable spreading room whilst also being able to house up to two panel mounted 96 DIN meters.

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Modular Devices

There is a range of modular devices available for use with the Loadlimiter 63 TP&N system including; metering, contactors, surge protection and timers.

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Surge Protection

Type 2 Class 2 surge protection is available in a four module wide DIN-rail mountable device. This is easily mounted in a matching service centre or integral to the board depending on the required application. A Type 1 Class 1 surge protection device is also available for DIN-rail mounting in a matching service centre.

PAGE 12

Metering

The Integra Ri3 DIN-rail multi-function meter can be installed integral to a single-metered board. Panel mount Integra Ci1, Ci3 and Ci5 meters can also be used in conjunction with a DBXYA3 or DBMSB add-on enclosure. We also offer a range of factory assembled metered Power & Lighting split boards made to match your requirements.

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Loadlimiter 63



B-Type TP&N Distribution boards Boards and Service Centres

Distribution Boards

- Meets the requirements of EN 61439-3
- ASTA Certified Busbars are rated at 10kA for 250ms
- Neutral and earth terminal at 25mm² for each single-pole way
- Integral clean earth facility
- Available in 4 to 24 Triple Pole outgoing ways
- IP4X Ingress Protection
- Width is 484mm and depth is 159mm. Height as per table below.
- Switch disconnecter up to 125A can be mounted integral to the board. Please see below for add on enclosure to house up to 250A MCCB as an incoming device.

Outgoing Triple Pole Ways	Height (mm)	Weight (kg)	Product Code
4	544	10	DBX04R
6	598	11	DBX06R
8	651	12	DBX08R
12	758	15	DBX12R
16	865	18	DBX16R
20	1025	22	DBX20R
24	1132	27	DBX24R

Incoming Enclosure for 250A MCCB - Product Code: DBXYA3

- Add on enclosure to house any 3 Pole or 4 Pole YB3 Frame MCCB up to 250A
- Enclosure has the facility to mount two panel mounted meters using available knockouts
- Dimensions: Width 484 x Height 321 x Depth 159 mm
- Incoming device to be ordered separately
- Neutral Link available if required for use with 3 pole MCCB - Product Code: YA3NL

Service Centres

- Accepts all DIN-rail mounted devices
- Available in 18 or 36 modular ways
- IP4X Ingress Protection
- Neutral and Earth bars fitted as standard
- Width is 484mm and depth is 159mm. Height as per table below.
- Supplied without end plates as designed to work with end plate of distribution board.
- End plates available as an optional extra when using Service Centre as stand-alone enclosure Product Code: DBXEP

No. of Modular Ways	Height (mm)	Weight (kg)	Product Code
18	213	5	DBS18X
36	427	8	DBS36X

Meter Enclosure (or Cable Spreader Box)

- IP4X Ingress Protection
- Width is 484mm and depth is 159mm. Height as per table below.
- Facility to mount two panel mounted meters using available knockouts
- Supplied without end plates as designed to work with the end plate of distribution board.
- End plates available as an optional extra when using Meter Enclosure as standalone enclosure Product Code: DBXEP

Height (mm)	Weight (kg)	Product Code
213	3	DBMSB

B-Type TP&N Distribution boards Incoming Devices

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Switch Disconnecter - Maximum 125A

- Meets the requirements of EN 60947-3
- Maximum cable termination is 50mm². Can accept incoming cables up to 70mm² by using Product Code: DBXD1 Direct Connection Kit

Current Rating (A)	No. of Poles	Product Code	Connection Kit
100	3	AV3100	N/A
100	4	AV4100	DBXCKR
125	3	AV3125	N/A
125	4	AV4125	DBXCKR

RCCB

- Meets the requirements of EN 61008
- Maximum cable termination for 40A to 63A is 25mm² and 100A is 35mm²
- Type AC
- Requires Product Code: DBXCKR Connection Kit for mounting and connection to the busbar
- Width: 70mm

Current Rating (A)	Sensitivity (mA)	No. of Poles	Product Code	Connection Kit
40	30	4	EE40/30/4	DBXCKR
40	100	4	EE40/100/4	DBXCKR
63	30	4	EE63/30/4	DBXCKR
63	100	4	EE63/100/4	DBXCKR
63	300	4	EE63/300/4	DBXCKR
100	30	4	EE100/30/4	DBXCKR
100	100	4	EE100/100/4	DBXCKR
100	300	4	EE100/300/4	DBXCKR
100 Time delay	100	4	EES100/100/4	DBXCKR

Contactor

- Meets the requirements of EN 61095
- Requires Product code: DBXCKR Connection Kit for mounting and connection to the busbar
- May require de-rating when used with inductive loads - please see Contactor de-rating table in the Technical Data catalogue for further information
- Width 54mm

Current Rating (A)	Contacts	No. of Poles	Product Code	Connection Kit
40	Normally Open	4	EE4P40CO	DBXCKR
63	Normally Open	4	EE4P63CO	DBXCKR



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B-Type TP&N Distribution boards Incoming Devices

YB3 Frame MCCB - Maximum 250A

- Exceeds the requirements of EN 60947-2
- Standard cable termination is 95mm²
- Maximum cable termination is 150mm² using reduced palm width M8 cable lugs
- Maximum cable termination with cable clamps is 120mm² (available as optional accessories)
- 3-pole and 4-pole MCCBs have adjustable overload and instantaneous trips except Switch Disconnectors
- Thermal overload adjusts to 1 x I_n, 0.8 x I_n and 0.63 x I_n
- Device needs to be mounted in incoming housing - Product Code: DBXYA3

Current Rating (A)	No. of Poles	I _{cu}	Product Code
50	3	25kA	YB3N3P50T
50	4	25kA	YB3N4P50T
63	3	25kA	YB3N3P63T
63	4	25kA	YB3N4P63T
100	3	25kA	YB3N3P100T
100	4	25kA	YB3N4P100T
125	3	25kA	YB3N3P125T
125	4	25kA	YB3N4P125T
160	3	25kA	YB3N3P160T
160	4	25kA	YB3N4P160T
200	3	25kA	YB3N3P200T
200	4	25kA	YB3N4P200T
250	3	25kA	YB3N3P250T
250	4	25kA	YB3N4P250T
250 Switch Disconnector	3	N/A	YB3B3P250D
250 Switch Disconnector	4	N/A	YB3B4P250D



B-Type TP&N Distribution boards Surge Protection

Type I/II Surge Protection

- Class 1, 10/350μs waveforms, I_{imp} 25kA L-N
- Class 2, 8/20μs waveforms, I_{max} 120kA L-N
- Maximum let through voltage U_p <1.3kV
- 3 Phase and Neutral
- Width 145mm
- DIN rail mounting

Device Type	Mounting	Product Code
Type 1 & 2, 3 Phase & Neutral	To be mounted in a service centre DBS18X or DBS36X	DSPT3PN



Type II Surge Protection

- Class 2, 8/20μs waveforms, I_{max} 40kA L-N
- Maximum let through voltage U_p <1.6kV
- Plug-in replaceable protection modules
- Integral protection status indicator
- 3 phase operational range 380-515 V rms maximum
- DIN rail mounting

Device Type	Mounting	Product Code
3 Pole and Neutral/Earth protection	DBXCKR mounting kit required for 125A distribution boards. Service centre required for 250A distribution boards.	DSPM3PN
Live phase replacement plug-in module	N/A	DSPML
Neutral/earth replacement plug-in module	N/A	DSPMNE

NOTE: It is recommended that Surge Protection devices are fed by a 63A Type C MCB, 63A MCCB or 63A fused disconnector to provide isolation and protection.

B-Type TP&N Distribution boards Outgoing Devices

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MCB

- Meets the requirements of EN 60898
- 10kA rated breaking capacity to EN 60898
- 15kA rated breaking capacity to EN 60947-2
- Contact position indicator
- Maximum cable termination is 35mm²
- Width: Single Pole = 17.5mm, Double Pole = 35mm and Triple Pole = 54mm

Current Rating (A)	B Type Product Code	C Type Product Code	D Type Product Code
Single Pole MCBs			
6	K1PB06	K1PC06	K1PD06
10	K1PB10	K1PC10	K1PD10
16	K1PB16	K1PC16	K1PD16
20	K1PB20	K1PC20	K1PD20
25	K1PB25	K1PC25	K1PD25
32	K1PB32	K1PC32	K1PD32
40	K1PB40	K1PC40	T1PD40 *
50	K1PB50	K1PC50	T1PD50 *
63	K1PB63	K1PC63	T1PD63 *
Double Pole MCBs			
6	K2PB06	K2PC06	K2PD06
10	K2PB10	K2PC10	K2PD10
16	K2PB16	K2PC16	K2PD16
20	K2PB20	K2PC20	K2PD20
25	K2PB25	K2PC25	K2PD25
32	K2PB32	K2PC32	K2PD32
40	K2PB40	K2PC40	T2PD40 *
50	K2PB50	K2PC50	T2PD50 *
63	K2PB63	K2PC63	T2PD63 *
Triple Pole MCBs			
1	-	K3PC01	-
6	K3PB06	K3PC06	K3PD06
10	K3PB10	K3PC10	K3PD10
16	K3PB16	K3PC16	K3PD16
20	K3PB20	K3PC20	K3PD20
25	K3PB25	K3PC25	K3PD25
32	K3PB32	K3PC32	K3PD32
40	K3PB40	K3PC40	T3PD40 *
50	K3PB50	K3PC50	T3PD50 *
63	K3PB63	K3PC63	T3PD63 *
High Current Triple Pole MCB			
125	-	K3PC125 **	-

* 6kA rated breaking capacity to EN 60898 and 10kA rated breaking capacity to EN 60947-2.

NOTE: These are "T" series MCBs look physically different to the K series.

** 125A K3PC125 breaker cannot be mounted integral to the board. A matching service centre is required for the installation of this product.



Loadlimiter 63



B-Type TP&N Distribution boards Outgoing Devices

Single Module RCBO

- Meets the requirements of EN 61009
- Single module: Type AC
- 10kA rated breaking capacity
- Maximum cable termination capacity is 10mm² for outgoing terminals and 35mm² for incoming terminals

Current Rating (A)	Sensitivity (mA)	B Type Product Code	C Type Product Code
6	30	KR1PB0630	KR1PC0630
10	30	KR1PB1030	KR1PC1030
16	30	KR1PB1630	KR1PC1630
20	30	KR1PB2030	KR1PC2030
32	30	KR1PB3230	KR1PC3230
40	30	KR1PB4030	KR1PC4030
45	30	KR1PB4530	KR1PC4530
6	100	-	KR1PC06100
10	100	-	KR1PC10100
16	100	-	KR1PC16100
20	100	-	KR1PC20100
32	100	-	KR1PC32100
40	100	-	KR1PC40100

Double Module RCBO

- Meets the requirements of EN 61009
- Single Pole and Switch Neutral configuration
- Single module: Type AC
- 10kA Rated breaking capacity
- Rated voltage 230V and rated frequency 50Hz
- Maximum cable termination capacity is 35mm² for outgoing terminals and incoming terminals

Current Rating (A)	Sensitivity (mA)	B Type Product Code	C Type Product Code
6	30	KR2PB0630	KR2PC0630
10	30	KR2PB1030	KR2PC1030
16	30	KR2PB1630	KR2PC1630
20	30	KR2PB2030	KR2PC2030
32	30	KR2PB3230	KR2PC3230
40	30	KR2PB4030	KR2PC4030

NOTE: Please be advised that some varieties of double module RCBOs have a minimum order quantity. Please contact Customer Services to confirm availability before ordering.

B-Type Distribution Boards MCB and RCBO Accessories

Description	Product Code
Accessories	
240V AC Shunt Trip for MCB	KST240
Auxiliary/Alarm contact for MCB	KAUX1
Locking Devices	
Dolly locking device for MCB	KDL
Padlock for dolly locking device	XPL

B-Type TP&N Distribution boards Modular Devices

RCCB

- Meets the requirements of EN 61008
- Voltage of 230/400V and frequency of 50/60Hz
- Type AC
- Maximum cable termination for 40A-63A is 25mm² and 100A is 35mm²
- Width: 35mm (2 pole) and 70mm (4 pole)

Current Rating (A)	Sensitivity (mA)	2 Pole Product Code	4 Pole Product Code
40	30	EE40/30/2	EE40/30/4
40	100	EE40/100/2	EE40/100/4
40	300	-	EE40/300/4
63	30	EE63/30/2	EE63/30/4
63	100	EE63/100/2	EE63/100/4
63	300	EE63/300/2	EE63/300/4
100	30	EE100/30/2	EE100/30/4
100	100	EE100/100/2	EE100/100/4
100	300	-	EE100/300/4
100 Time delay	100	EES100/100/2	EES100/100/4

Contactors

- Meets the requirements of EN 61095
- DIN-rail mountable
- May require de-rating when used with inductive loads - please see Contactor de-rating table in Technical catalogue for further information

Current Rating (A)	Contacts	No. of Poles	Width (mm)	Product Code
20	Normally Open	2	17.5	EE2P20CO
20	Normally Closed	2	17.5	EE2P20CC
25	Normally Open	4	35	EE4P25CO
25	Normally Closed	4	35	EE4P25CC
40	Normally Open	4	54	EE4P40CO
40	Normally Closed	4	54	EE4P40CC
63	Normally Open	4	54	EE4P63CO
63	Normally Closed	4	54	EE4P63CC
Venting Kit *	-	-	9	LLMV

* Ventilation module must be fitted between alternate pairs of contactors to prevent overheating

Programmable Timer

- DIN-rail mountable
- 250V AC and 50/60Hz
- Running reserve of 3 years
- Switching capacity of 150mA

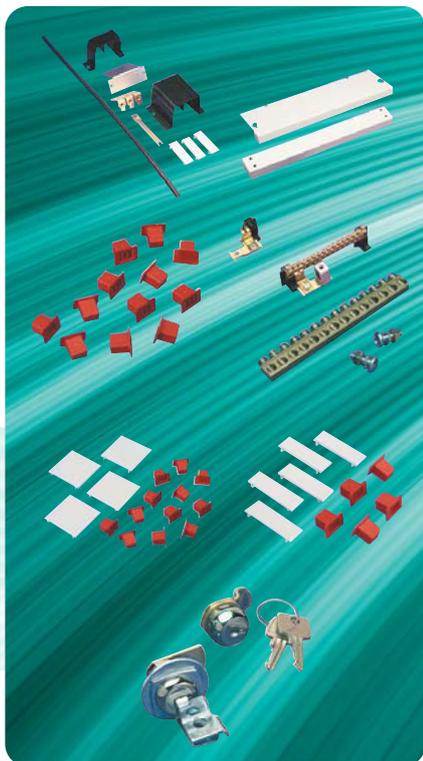
Current Rating (A)	Function	Width (mm)	Product Code
16A (AC7A)	1 or 2 Channel	35	DRT-DW2

When controlling highly inductive loads, a suitably rated contactor should be employed with timers, programmers and relays.

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B-Type TP&N Distribution boards Accessories

Description	Product Code
Conversion Kit	
TP&N to SP&N Conversion Kit	DBXTS
Spares	
End Plate	DBXEP
Fixing Kit up to 24 ways (includes grey door catch, cable clamps, way labels and ON/OFF label)	DBX24FK
Joining Kits	
DA18X to B Type Board Stacking Kit	DBXSKA
Vertical Stacking Kit	DBXJK
Terminal Bars	
6 x useable single pole ways	DBXT06
12 x useable single pole ways	DBXT12
18 x useable single pole ways	DBXT18
24 x useable single pole ways	DBXT24
Earth Bar Kits	
Earth Bar	DAXEB
Earth Bar isolation kit	DBXL
Double Earth Bar	
Earth bar kit with a terminal for each outgoing way where ** = 04, 06, 08, 12, 16 ,20 or 24 depending on distribution board)	DBXTE**X
Door Lock Kits	
Cylinder door lock with keys	DBXCL
Padlock bracket kit	DBXPL
Busbar Terminal Blanks	
Pack of 10 x busbar terminal blanks	DAXTP
MCB Blanks	
4 x Triple Pole blanks and 12 x busbar terminal blanks	DBXBP
5 x Single Pole blanks and 5 x busbar terminal blanks	DBXBM
5 x Half Pole blanks	DBXBH

B-Type Distribution Boards Direct Connection Kits

Cable termination (mm ²)	Product Code
35	DBXD0
70	DBXD1
150	DBXD2

B-Type TP&N Distribution boards Metering Options

Panel Mounted Meters - Incoming

- Fully programmable CT ratios
- Can be configured for Single or Three phase operation
- Dimensions 96 x 96 mm
- Add on plug-in communication module for Ci1-01 and Ci3-01 available as optional extra
- Requires additional enclosure DBMSB for installation

Device Type	Outputs	Product Code
Digital kWh Meter	None	Ci1-01
Digital Multi-function Meter	None	Ci3-01
Digital Multi-function Meter	Pulse & Modbus	INT-1630-M-5-M-110

Plug-In Communication Modules for Ci1-01 and Ci3-01 Meters

Device Type	Product Code
Option Modbus RS485 plug-in module	MOD-01
Optional Pulse plug-in module	PUL-01

DIN-rail Mounted Meter - Incoming

- Fully programmable CT ratios
- Can be configured for Single or Three phase operation
- Can be used as an incoming meter and installed integral
- Pulse and Modbus communication as standard
- Width 71 mm

Device Type	Outputs	Product Code
Single Phase / 3 Phase Digital Multi-function Meter	Pulse and Modbus	Ri3-01



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B-Type TP&N Distribution boards Current Transformers and Wiring Looms

3-in-1 Current Transformers

- Up to Class 0.5 accuracy
- System voltage up to 720V
- Secondary output to Meter of 5A
- Operating temperature of -20°C to $+70^{\circ}\text{C}$

Case Size	Current Rating (A)	Maximum Cable size (mm ²)	Product Code
3-in-1 CT Core Size 35mm	100	95	M3N1-35-100/5
3-in-1 CT Core Size 35mm	125	95	M3N1-35-125/5
3-in-1 CT Core Size 35mm	200	95	M3N1-35-200/5
3-in-1 CT Core Size 35mm	250	95	M3N1-35-250/5

Meter Wiring Loom Kit

Each kit contains:

- Voltage Tap Off loom with 1A fuses (rated at 400V)
- CT to Meter loom and Earth wires
- Suitable for use with any Crompton Instruments Meter
- Each kit will wire a single meter

Board Configuration	Distribution Board	Product Code
Single Board	DBX04R to DBX16R	DBXW16
Single Board	DBX20R and DBX24R	DBXW24
Top distribution board when vertically stacked	DBX04R to DBX16R	DBXW16T

Meter Wiring Loom Kit for Ri3-01 Meter integral to the board

Each kit contains:

- Power Loom, CT to Meter loom, earth wires and additional DIN-rail
- Suitable for use with the Ri3-01 DIN-rail mounted meter
- Each kit will wire a single meter

Board Configuration	Distribution Board	Product Code
Single Board with integral Ri3 DIN-rail mounted meter	DBX04R to DBX12R	DBXWSB12
Single Board with integral Ri3 DIN-rail mounted meter	DBX16R to DBX24R	DBXWSB24

Power loom for Sub-metered Distribution Boards

Description	Current Rating (A)	Product Code
Power Loom for single metered board	125	DBXWP125S
Power Loom connecting sub-metered distribution board	125	DBXWP125
Power Loom connecting sub-metered distribution board	250	DBXWP250

Please see our Metering Selection Charts in the following pages which detail all of the parts required in order to correctly meter our TP&N Distribution boards, both as single metered boards and as Power & Lighting Split boards.

B-Type TP&N Distribution boards Power and Lighting Assembled Range

Overview

Dorman Smith makes it easier to comply with UK Building Regulations Part L2 with their range of metered assembled power and lighting TP&N distribution system. These made to measure assembled board systems are designed specifically for split metering and can be tailored to meet your specific requirements and the space you have available for installation.

Incoming options can be 125A switch disconnecter or 250A MCCB / switch disconnector.

The boards can either be supplied in a horizontal format (side by side) or in vertical format (stacked one on top of the other) as required.

Metering options available are digital kWh meters and multi-function meters, both DIN-rail and panel mounted. Pulsed outputs, RS485 & Ethernet options are available as optional extras for connection to energy management systems.

The boards are supplied with all power and control wiring fully fitted and tested and the boards are delivered to site ready for installation. Outgoing devices to be ordered separately.

Available Options

- 125A and 250A incoming device options
- Horizontal or vertical format
- DIN-rail or Panel mounted multi-function meters and kWh meters with pulse and RS485 Modbus RTU communication protocol options
- Boards can have one or two meters as required
- Switch disconnecter up to 125A or MCCB incoming device up to 250A

Compliance

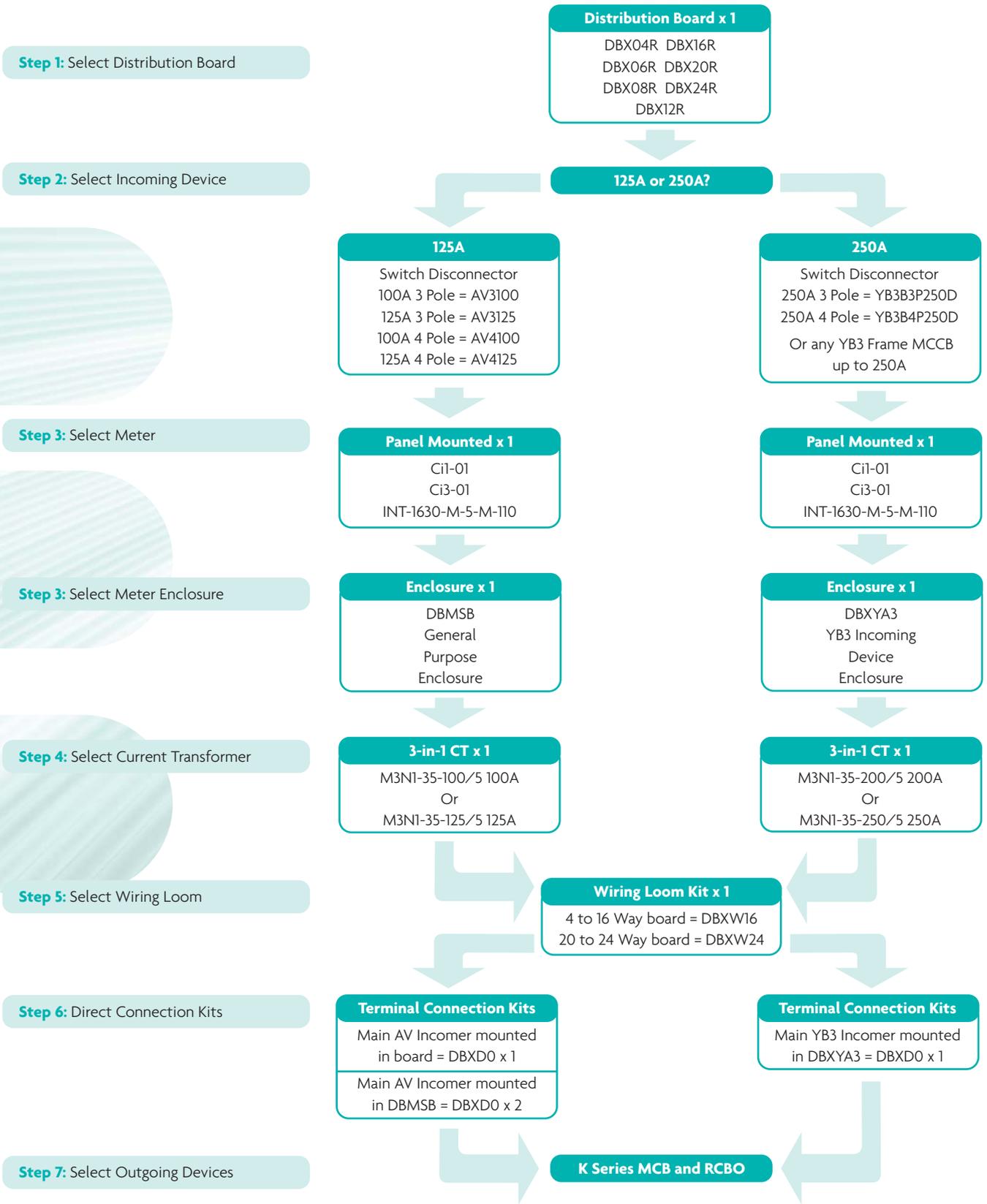
Meters	EN61010-1
Distribution Boards	EN61439-3
MCBs	EN60898
Contactors	EN61095
RCBOs	EN61009
RCCBs	EN61008

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B-Type TP&N Distribution boards Meter Selection Chart Single Metered Board

Result: Single TP&N Board with Panel Mounted meter in a General Purpose Enclosure below the distribution board



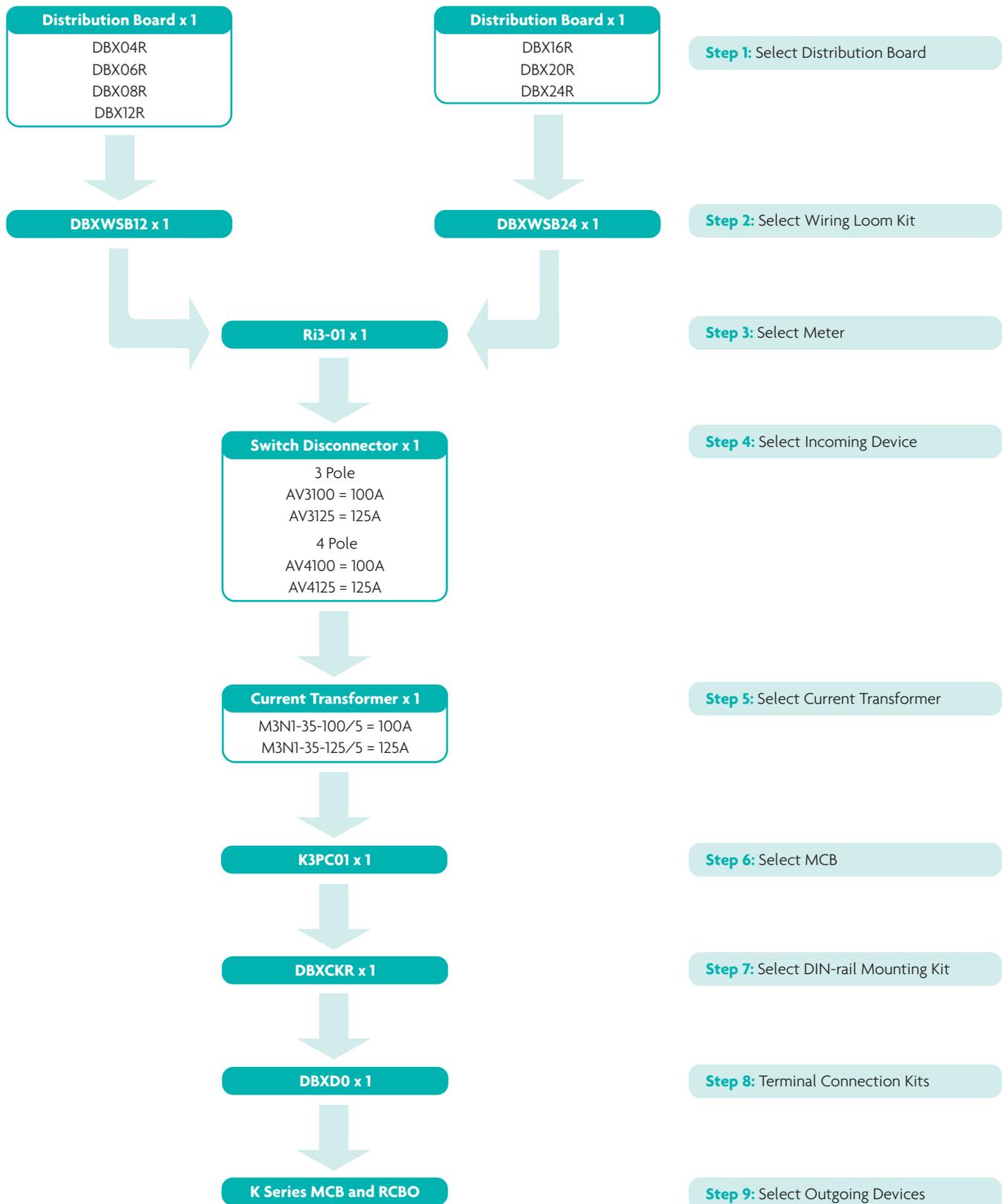
B-Type TP&N Distribution boards

Meter Selection Chart

Integral Ri3-01 Meter

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Result: Single TP&N Board with integral DIN-rail mounted Ri3-01 Meter



B-Type TP&N Distribution boards Meter Selection Chart Split Metered Board

Result: Power & Lighting Board consisting of two TP&N Boards mounted either horizontally or vertically with two meters

Step 1: Select Distribution Board

Distribution Board x 2
DBX04R DBX16R
DBX06R DBX20R
DBX08R DBX24R
DBX12R

Note: Maximum size for top board is 16 way in vertical arrangement

Step 2: Select Incoming Device

125A or 250A?

125A
Switch Disconnecter
100A 3 Pole = AV3100
125A 3 Pole = AV3125
100A 4 Pole = AV4100
125A 4 Pole = AV4125

250A
Switch Disconnecter
250A 3 Pole = YB3B3P250D
250A 4 Pole = YB3B4P250D
Or any YB3 Frame MCCB up to 250A

Step 3: Select Meter Enclosure

DBMSB x 1

DBXYA3 x 1

Step 4: Select Power Loom

DBXWP125 x 1

DBXWP250 x 1

Step 5: Select Current Transformer

3-in-1 CT x 2
M3N1-35-100/5
Or
M3N1-35-125/5

3-in-1 CT x 2
M3N1-35-200/5
Or
M3N1-35-250/5

Step 6: Select Meters

Panel Mounted x 2
Ci1-01
Ci3-01
INT-1630-M-5-M-110

Step 7: Confirm Board arrangement

Vertical
DBXJK Joining Kit x 1

Horizontal
DBMSB x 1

Step 8: Select Wiring Looms

Bottom Board x 1
4 to 16 Way board = DBXW16
20 to 24 Way board = DBXW24

Each board requires 1 x loom
4 to 16 Way board = DBXW16
20 to 24 Way board = DBXW24

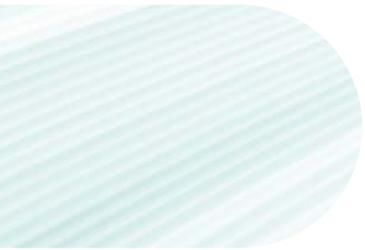
Step 9: Direct Connection Kits

Top Board x 1
4 to 16 Way board = DBXW16T
Maximum size for top board configuration is 16 Way

Terminal Connection Kits
1 x YB3 250A Incoming Device = DBXD0 x 3
2 x YB3 250A Incoming Devices = DBXD0 x 2
1 x AV 100A Incoming Device = DBXD0 x 5
2 x AV 100A Incoming Devices = DBXD0 x 4

Step 10: Select Outgoing Devices

K Series MCB and RCBO



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