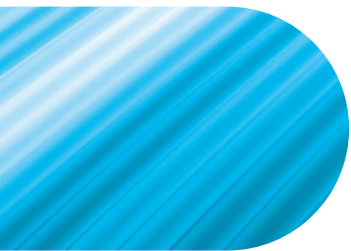
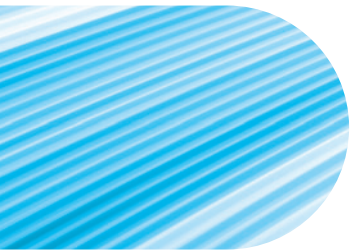
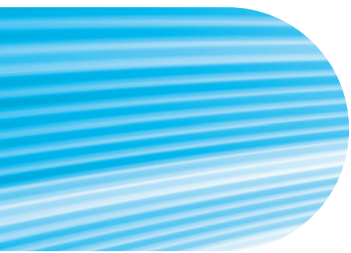


Loadbank 125, 200 and 250

Panel 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.

Index

Content	Page No
Introduction to Dorman Smith Switchgear Limited	1
Loadbank 125 Key Features	2-3
Loadbank 125 Panel Boards & Accessories	4-5
Loadbank 125 Outgoing Devices & TVSS	6
Loadbank 125 Meters & Current Transformers	7-8
Loadbank 200 Key Features	10-11
Loadbank 200 Panel Boards & Accessories	12
Loadbank 200 Outgoing Devices	13
Loadbank 200 Add on Enclosures	14
Loadbank 200 Meters, Current Transformers & TVSS	15-18
Loadbank 250 Key Features	20-21
Loadbank 250 Panel Boards & Accessories	22-24
Loadbank 250 Outgoing Devices	25-26
Loadbank 250 Add on Enclosures	27
Loadbank 250 Meters, Current Transformers & TVSS	28-31

Loadbank 125

250A and 400A MCCB Panel Boards - Outgoing devices up to 125A

Key Features

This panel board range features busbar ratings of 250A and 400A, outgoing devices up to 125A, seven panel board size options, surge protection mounted integral to the board and options to meter incoming and outgoing supply.

The busbars are ASTA certified with a short-circuit withstand rating of 25kA for 1 second for the 250A panel board and 25kA for 3 seconds for the 400A panel board.

Form 3 is standard on the 400A panel board and this can be achieved for the 250A panel board with terminal shields fitted to the outgoing devices.

The Loadbank 125 offers an uncomplicated solution for power distribution for commercial and industrial applications with the availability of add-on enclosures such as metering enclosures and service centres which match the dimensional profile of the panel board.

Outgoing devices consist of a single frame size utilising the Loadline YA2 frame MCCB up to 125A which are a cost effective option for circuit protection.

Standard finish is epoxy powder coating in light grey RAL 7035.

Compliance

Panel Boards	EN 61439-2
MCCBs	EN 60947-2

Busbar

The Loadbank 125 panel boards have an ASTA certified busbars with a short circuit rating of 25kA for 1 second for the 250A boards and 25kA for 3 seconds for the 400A boards.

PAGES 4-5

Outgoing Ways

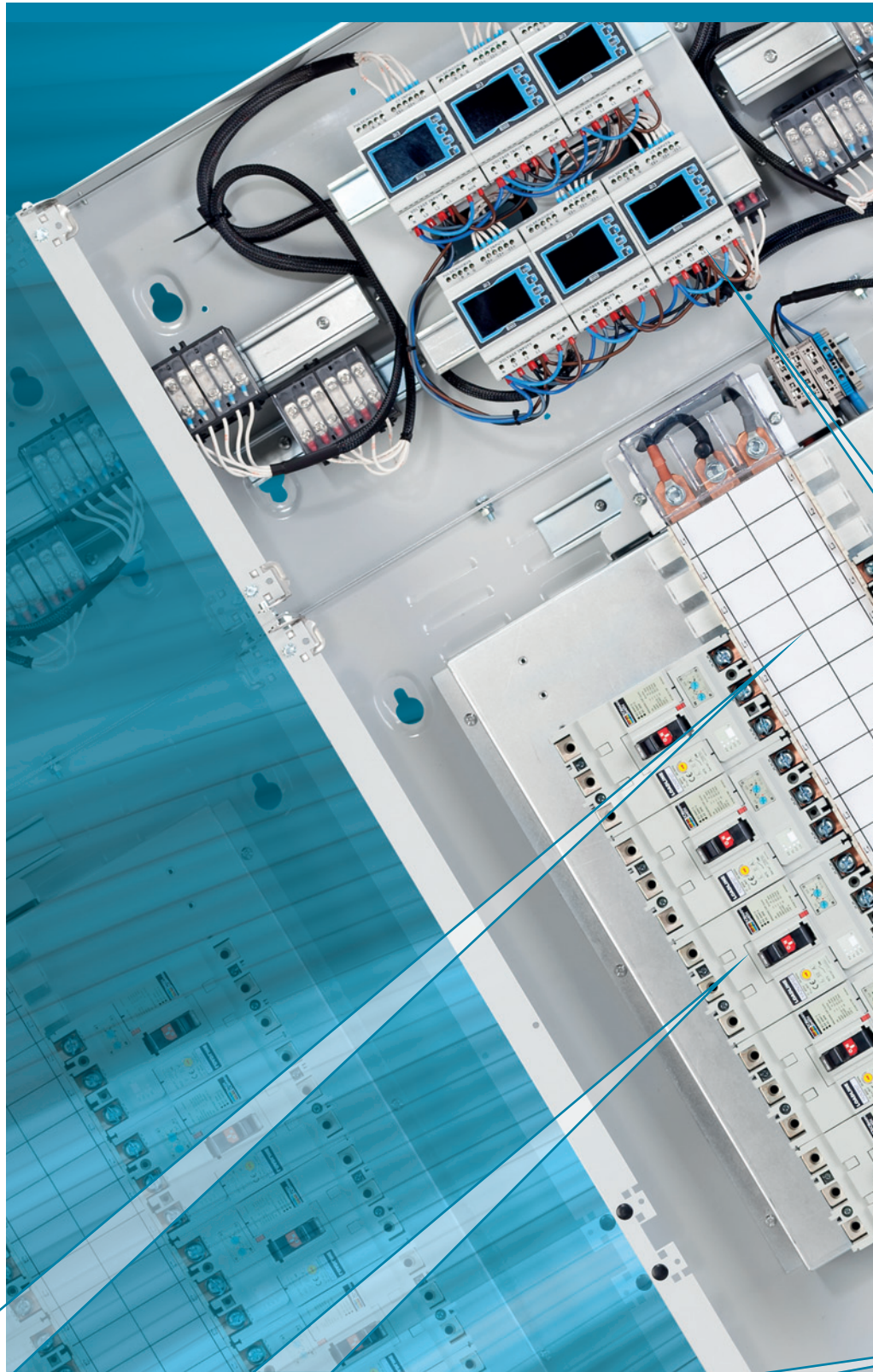
Our 250A panel boards are available with 6, 8 or 12 triple-pole outgoing ways and the 400A boards are available with 6, 8, 12 or 16 triple-pole outgoing ways for greater flexibility in design.

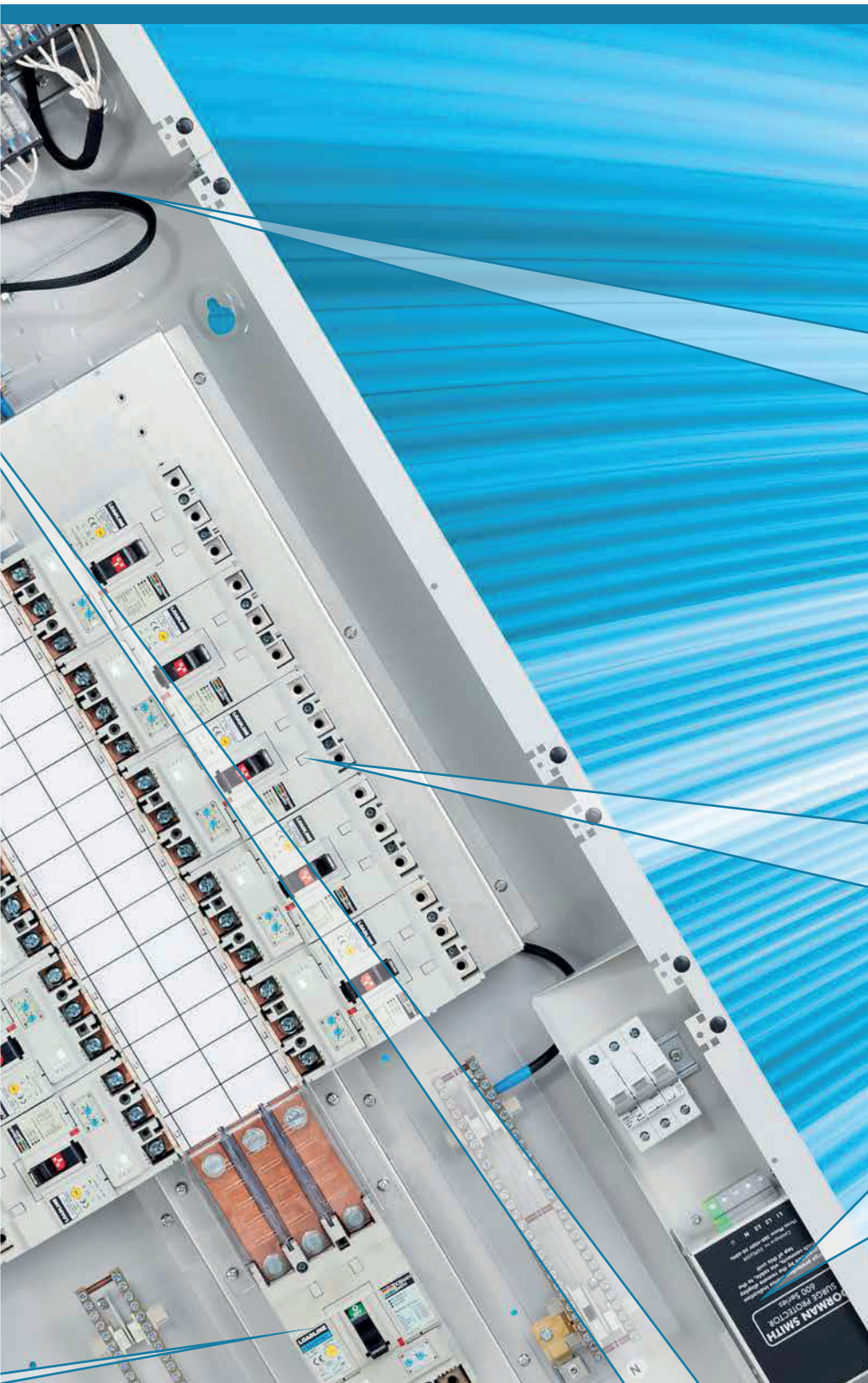
PAGE 6

Incoming Options

Our Loadbank 125 panel boards can have a variety of incoming options including; MCCB, switch disconnector or direct connection.

PAGES 4-5





Modular Options

This range has a common width and depth for the panel board and any add-on enclosures ensuring ease for using this range in panel building applications.

Add-on Enclosures

Panel building options for the Loadbank 125 range include; cable spreader box for additional cabling room, metering housing for incoming and outgoing DIN-rail meters, service centre and additional enclosure to house one Loadline YB3 MCCB up to 250A as an outgoing device.

PAGES 4-5

Form

The 400A panel board is a Form 3a as standard.

PAGES 4-5

Outgoing Devices

Both the 250A and the 400A share the same outgoing device type which is our Loadline YA2 frame MCCB. This is available as single-pole fixed breakers or three and four-pole adjustable breakers from 16A to 125A in 25kA. There are also a range of accessories for the Loadline YA2 MCCBs including; shunt trips, auxiliaries and UVRs.

PAGE 6

Surge Protection

A Type II Class II surge protection device can be internally installed in the Loadbank 125 panel boards. This device comes with a remote indicator panel which fits in a knockout in the front shield for easy surge protection monitoring. A Type I Class I device can also be used with this range via installation in a service centre.

PAGE 6

Modular Devices

There is a range of modular devices available for use with the Loadbank 125 system including; metering, contactors, surge protection and timers.

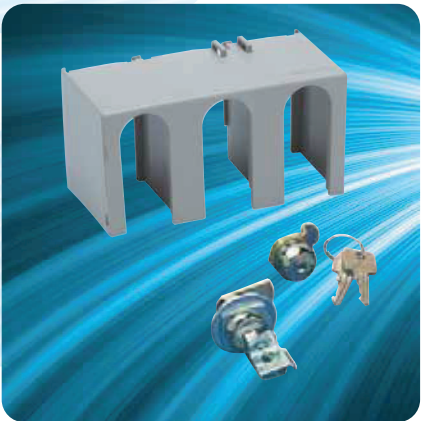
PAGES 6-8

Metering

By using the add-on metering enclosures this panel board system can be easily metered for incoming and outgoing circuits. The add-on metering enclosure can also house the current transformers and there are wiring looms available for this range pre-cut to the required length.

PAGE 7-8

Loadbank 125 MCCB Panel Boards 250A Form 3a 25kA for 1 second



MCCB Panel Boards 250A Form 3a 25kA for 1 second

Main features

- ASTA Certified busbars rated at 25kA for 1 second
- Form 3a as standard
- IP4X Ingress Protection rating
- Accepts YA2 frame MCCB up to 125A as outgoing devices
- Enclosure width is 700mm and depth 190mm. Height as per the table below.
- Incoming device is fitted integral to the board

Outgoing Ways	Incoming Device Type	Outgoing Device Type	Height (mm)	Weight (kg)	Product Code
6	YB3 Frame	YA2 Frame	904	36	PB206YA
8	YB3 Frame	YA2 Frame	994	39	PB208YA
12	YB3 Frame	YA2 Frame	1174	47	PB212YA

250A Panel Board Accessories

Device Type	Product Code
YB3 3-pole incoming terminal shroud	YB3TS3P
YB3 4-pole incoming terminal shroud	YB3TS4P
YB3 3-pole and 4-pole dolly locking device	YBDL1
YA2 1-pole outgoing terminal shroud	YA2TS1P
YA2 3-pole outgoing terminal shroud	YA2TS3P
YA2 1-pole dolly locking device	Y2DL
YA2 3-pole dolly locking device	YADL1
Cylinder door lock with keys	DBXCL
Door padlock device	DBXPL
3-pole blanking plate	LBYA2BP3P
Incoming connection Kit for 4-pole device	PB4PNC250
Spare neutral / earth bar clamps for cables up to 70mm ²	PBYA2NA

250A Panel Board Add-on units

Description	Height (mm)	Weight (kg)	Product Code
Cable spreader box	270	8.3	PBYA2CSB
Service centre for 24 x 1-pole ways	270	9	PBYA2SC24
Meter housing	450	12	PBYA2MB

250A Panel Board Incoming Device Options

YB3 Frame MCCB

- Exceeds the requirements of EN 60947-2
- MCCBs have adjustable overload and instantaneous trips, except switch disconnector
- Overload adjusts to 1 x I_n, 0.8 x I_n and 0.63 x I_n
- Standard cable termination is 95mm² and maximum 150mm² using M8 reduced palm width lugs
- Cable clamps available for YB3 MCCBs for maximum cable termination of 120mm²
- Four-pole incoming devices require additional connection kit of PB4PNC250

Device Type	Current Rating (A)	I _{cu} (kA)	No of Poles	Product Code
Switch Disconnecter	250	N/A	3	YB3B3P250D
MCCB	160	25	3	YB3N3P160T
MCCB	200	25	3	YB3N3P200T
MCCB	250	25	3	YB3N3P250T
Switch Disconnecter	250	N/A	4	YB3B4P250D
MCCB	160	25	4	YB3N4P160T
MCCB	200	25	4	YB3N4P200T
MCCB	250	25	4	YB3N4P250T

MCCB Panel Boards

400A Form 3a 25kA for 3 seconds

Main features

- ASTA Certified busbars rated at 25kA for 3 seconds
- Form 3a as standard
- IP4X Ingress Protection rating
- Accepts YA2 MCCB up to 125A as outgoing devices
- Enclosure width is 700mm and depth 190mm. Heights as per the table below.
- Incoming device is fitted integral to the board

Outgoing Ways	Incoming Device Type	Outgoing Device Type	Height (mm)	Weight (kg)	Product Code
6	YA5 Frame	YA2 Frame	1084	45	PB406YA
8	YA5 Frame	YA2 Frame	1174	48	PB408YA
12	YA5 Frame	YA2 Frame	1354	56	PB412YA
16	YA5 Frame	YA2 Frame	1534	65	PB416YA

400A Panel Board Accessories

Device Type	Product Code
YA5 3-pole incoming terminal shroud for spread type extension terminals and cable lugs	YA5TS3P
YA5 4-pole incoming terminal shroud for spread type extension terminals and cable lugs	YA5TS4P
YA5 3-pole spread type extension terminals	YA5XT3P
YA5 4-pole spread type extension terminals	YA5XT4P
YA2 1-pole outgoing terminal shroud	YA2TS1P
YA2 3-pole outgoing terminal shroud	YA2TS3P
YA2 1-pole dolly locking device	Y2DL
YA2 3-pole dolly locking device	YADL1
Cylinder door lock with keys	DBXCL
Door padlock device	DBXPL
3-pole blanking plate	LBYA2BP3P
Incoming connection kit for 4-pole device	PB4PNC400

400A Panel Board Add-on units

Description	Height (mm)	Weight (kg)	Product Code
Cable spreader box	270	8.3	PBYA2CSB
Service centre for 24 x 1-pole ways	270	9	PBYA2SC24
Meter Housing	450	12	PBYA2MB

400A Panel Board Incoming Device Options

YA5 Frame MCCB

- Exceeds the requirements for EN 60947-2
- MCCBs have adjustable overload and instantaneous trips, except switch disconnector
- Overload adjusts to 1 x In, 0.8 x In and 0.63 x In
- Standard cable termination is 95mm² and maximum 185mm² using M10 reduced palm width lugs
- Four-pole incoming devices require additional connection kit of PB4PNC400

Device Type	Current Rating (A)	Icu (kA)	No of Poles	Product Code
Switch Disconnector	400	N/A	3	YA5B3P400D
MCCB	250	25	3	YA5N3P250T
MCCB	400	25	3	YA5N3P400T
Switch Disconnector	400	N/A	4	YA5B4P400D
MCCB	250	25	4	YA5N4P250T
MCCB	400	25	4	YA5N4P400T
Direct Connection	400	N/A	N/A	PBYA2DC4

Loadbank 125
MCCB Panel Boards
400A Form 3a 25kA
for 3 seconds



Loadbank 125 MCCB Panel Boards 250A and 400A



MCCB Panel Boards Outgoing Devices

YA2 Frame Devices

- 25kA and 36kA Rated breaking capacity
- Exceeds the requirements of EN 60947-2
- 3-pole devices have adjustable overload and instantaneous trips
- Overload adjusts to $1 \times I_n$, $0.8 \times I_n$ and $0.63 \times I_n$
- 1-pole devices have fixed overload and instantaneous trips
- Standard cable termination is 50mm² using cable clamps (available as an optional extra)
- Maximum cable termination is 95mm² using M8 reduced palm width lugs
- Terminal shrouds available as optional extras

Current Rating (A)	1-pole Product Code (25kA Fixed)	3-pole Product Code (36kA Adjustable)
16	YA2NIP16T	-
20	YA2NIP20T	YA2S3P20T
32	YA2NIP32T	YA2S3P32T
40	YA2NIP40T	-
50	YA2NIP50T	YA2S3P50T
63	YA2NIP63T	YA2S3P63T
80	YA2NIP80T	-
100	YA2NIP100T	YA2S3P100T
125	YA2NIP125T	YA2S3P125T

MCCB Panel Boards Surge Protection

Class I Surge Protection

- Tested to withstand 10/350ms waveforms
- 3 Phase & neutral
- 25kA L-N
- 100kA surge protector

Device Description	Product Code	Mounting
Type I Class I 3 Phase & Neutral 25kA L-N, 100kA surge protector Tested to withstand 10/350ms waveforms Lightning impulse current (10/350ms) N-PE (Imp) 100kA	DSPT3PN	To be mounted in a service centre PBYA2SC24

Class II Surge Protection

- DIN-rail mounting for triple pole MCB
- Comes complete with 40kA Three Phase Class 2 surge protection device
- Knockout in the front shield for surge protection remote indication plate
- Mounting Plate height is 435mm

Device Description	Product Code	Mounting
Type II Class II 3 Phase & Neutral 40kA with remote indicator Low let through voltage of 600V Maximum surge current (8/20ms), I _{max} 40kA per phase	PBSM	Comes complete with back plate for integral mounting next to the main incoming device

NOTE: To provide isolation and protection it is recommended that Surge Protection devices are fed by either a 63A Type C MCB, 63A MCCB or 63A fused disconnector, dependant on the fault level.

MCCB Panel Boards

Meters, Current Transformers and Wiring Looms

Loadbank 125
MCCB Panel Boards
250A and 400A

Meter Housing Enclosure

- Stackable meter housing unit for up to six outgoing DIN-rail mounted meters and corresponding current transformers
- Can be mounted below or above the main panel board for incoming or outgoing metering options
- Includes DIN-rail for mounting meters, current transformers and fuses
- Meters, current transformers and wiring looms to be purchased separately
- Matching width and depth to correspond with main panel board

Height (mm)	Width (mm)	Depth (mm)	Weight (kg)	Product Code
450	700	190	13	PBYA2MB

DIN-rail Meter

Description	Product Code
1 Phase / 3 Phase DIN-rail Multi-function Meter RS485 Modbus and Pulse output communication as standard Total harmonic distortion (THD) measurement up to the 31st harmonic True rms measurement Programmable CT ratios from 1 to 9999 Backlit LCD display	Ri3-01

3-in-1 Measuring 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°C

Use	Description	Maximum cable aperture (mm ²)	Product Code
Incoming	250A 3-in-1 CT Core Size 45mm	150	M3N1-45-250/5
Incoming	400A 3-in-1 CT Core Size 45mm	150	M3N1-45-400/5
Outgoing	60A 3-in-1 CT Core Size 25mm	50	M3N1-25-60/5
Outgoing	100A 3-in-1 CT Core Size 25mm	50	M3N1-25-100/5
Outgoing	125A 3-in-1 CT Core Size 25mm	50	M3N1-25-125/5

Wiring Looms

- Quantity of 1 x PBWP fused voltage tap off loom required per board
- Fuse to Voltage loom PBWI required for incoming meter
- Fuse to Voltage loom PBWM6 required for up to six outgoing meters
- CT to Meter Loom PBWCT required for each outgoing meter

Description	Product Code
Fused Voltage Tap Off Loom	PBWP
Fuse to Voltage loom for Incoming meter	PBWI
Fuse to Voltage loom for up to six outgoing meters	PBWM6
CT to Meter Loom	PBWCT

Please see our Metering Selection Chart on the following page which details all of the parts required in order to correctly meter the Loadbank 125 Panel Board Range



Loadbank 125 MCCB Panel Boards 250A and 400A

Metering Selection Chart

Step 1: Select Panel Board

Step 2: Select Meter Housing

Step 3: Fused Voltage Tap off loom

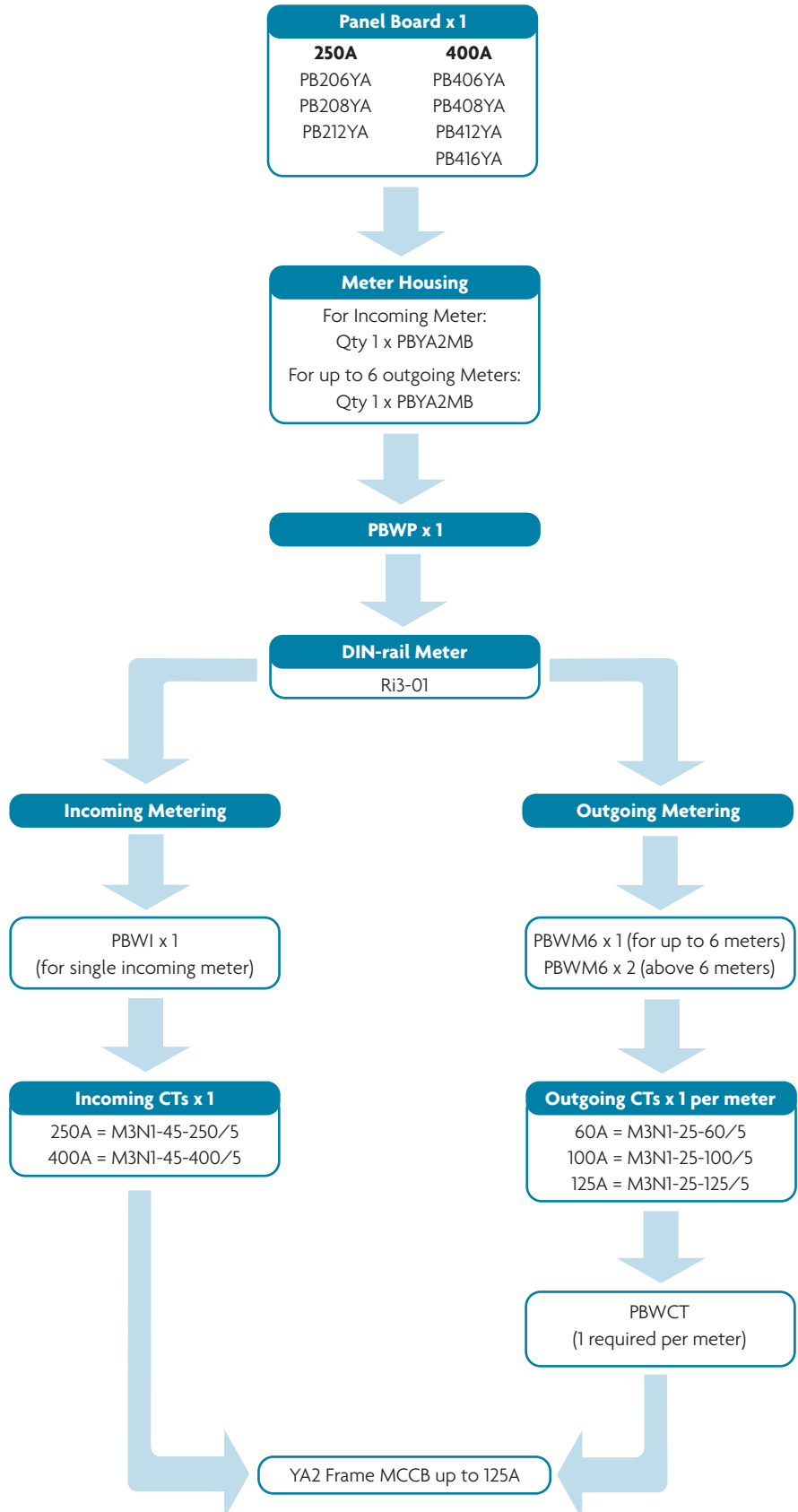
Step 4: Select Meter

Step 5: Incoming or Outgoing?

Step 5: Fuse to Voltage Loom

Step 6: Select Current Transformers

Step 7: Select CT to Meter Loom



Loadbank 200

800A Fuse Switch Panel
Boards Outgoing Devices
up to 200A



Loadbank 200

800A Fuse Switch Panel Boards

Outgoing devices up to 200A

Key Features

The Loadbank 200 range is a modular panel board system designed to fulfil the need for fuse switch panel boards that need up to 800A incoming devices and up to 200A outgoing devices.

Panel boards are available in either a 6 or 10 TP&N outgoing ways with Form 2b Type 2 as standard. Form 4a Type 2 can be achieved with shielding available as an optional accessory.

Several incoming options are available from 200A to 800A and a comprehensive range of metering facilities is available for compliance with the Building Regulations Part L2.

A variety of add-on enclosures is available to complement this range, including MCB distribution boards, general purpose enclosures and cableways to allow for metering and surge protection devices.

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



Compliance

Switch Fuse Panel Boards EN 61439-2
Fuse switches EN 60947-3

Busbar

The Loadbank 200 fuse switch panel board has an ASTA certified short circuit rating of 50kA for 1 second.

PAGE 12

Outgoing Ways

These boards are available with either 6 or 10 outgoing fuse switch ways to house skeleton fuse switches up to 200A.

PAGE 13

Incoming Options

Our Loadbank 200 fuse switch panel board system can house either a 400A, 630A or 800A fuse switch by selecting the required add-on incoming enclosure. Add-on incoming enclosures are supplied with all necessary copper connections and fully shrouded incoming terminations. For 200A incoming option you can install a 200A fuse switch in a spare outgoing way with no need for an additional add-on enclosure.

PAGE 12



Form

The Loadbank 200 fuse switch panel board is Form 2 as standard. This can easily be increased to Form 4 with optional shielding fitted.

PAGE 12

Ingress Protection

As standard these fuse switch panel boards have an ingress protection of IP4X as standard.

PAGE 12

Add-on Enclosures

The Loadbank 200 range is flexible and modular with standard width and depths for add-on enclosures. Our extensive add-on enclosure options for this range include; SP&N MCB distribution boards, TP&N MCB distribution boards, general purpose enclosures, side cableways, service centres, surge protection and incoming and outgoing metering.

PAGE 14

Surge Protection

Both Type I Class I and Type II Class II surge protection options are available for this range in either a specially designed 2 module high side cableway or as a mounting frame to be installed within a side cableway depending on application.

PAGE 16

Metering

By using side cableways and matching hinged cableway metering door kits our new Quick2Fit panel mount MID and Multi-function meters can be easily and quickly installed to meet your metering needs.

PAGES 15-18

Loadbank 200

Fuse Switch Panel Boards

800A Form 2 & 4

50kA for 1 second



Fuse Switch Panel Boards

800A Form 4a Type 2 (with shielding)

50kA for 1 second

Panel Boards

- Certified at 50kA for 1 second
- Form 2b, Type 2 as standard
- Form 4a Type 2 achieved with optional shielding fitted
- IP4X as standard
- Integral incoming option available using 200A fuse switch in an available outgoing way
- Width is 750mm and depth is 200mm. Height as per table below.

Outgoing Triple Pole Ways	Modular Height	Height (mm)	Weight (kg)	Panel Board Product Code
6	5	760	59	LF806A
10	8	1216	98	LF810A

Add-on Incoming Device Enclosures

- Supplied with all necessary copper connections to connect incoming device to the busbar system
- Incoming terminations are fully shrouded
- Supplied with two side plates and the end plate from the panel board can be used as the bottom plate
- IP4X Ingress Protection
- Incoming devices, connection kits and side plates to be ordered separately

Device Type and Current Rating	Modular Height	Height (mm)	Product Code	Connection Kit	Side Plates
400A L Frame Fuse Switch	5	760	MHFS400X1	LFC400FS	2 x MXPE5F
630A N Frame Fuse Switch	6	912	MHFS800X1	LFC800FS	2 x MXPE6F
800A N Frame Fuse Switch	6	912	MHFS800X1	LFC800FS	2 x MXPE6F

Incoming Device Options

- Exceeds the requirements of EN 60947-3
- 80kA rms fused short-circuit capacity
- AC23A Utilisation category
- Full uninterrupted duty
- 415V AC rated voltage

Current Rating (A)	No of Poles	Max. cable termination (mm ²)	Product Code	Enclosure required	Cable Terminals (if required)
400	TP&N	300	SL3P400N	MHFS400X1	N/A
400	4	300	SL4P400	MHFS400X1	N/A
630	TP&N	630	SN3P630N	MHFS800X1	SNCET
630	4	630	SN4P630	MHFS800X1	SNCET
800	TP&N	630	SN3P800N	MHFS800X1	SNCET
800	4	630	SN4P800	MHFS800X1	SNCET

Panel Board Accessories

Description	Product Code
Form 4 shielding for cable up to 70mm ² (1 required per device)	LFS41A
Form 4 shielding for cable up to 150mm ² (1 required per device)	LFS42A
Panel Board vertical stacking kit	LCFVK
Blank cover for fuse switch handle	LFXHBA
Spare End Plate	LGES

Fuse Switch Panel Boards Outgoing Devices

63A to 200A Skeleton Switches

- Exceeds the requirements of EN 60947-3
- 80kA rms fused short circuit capacity
- AC23A Utilisation Category
- Full uninterrupted duty
- 415V AC rated voltage

*All outgoing Skeleton fuse switches are supplied without fuses. Solid links for isolation are available as an optional accessory.

Current Rating (A)	3-pole Product Code	4-pole Product Code
63	SF3P63N	SF4P63
100	SF3P100N	SF4P100
125	SF3P125N	SF4P125
160	SF3P160N	SF4P160
200	SF3P200N	SF4P200

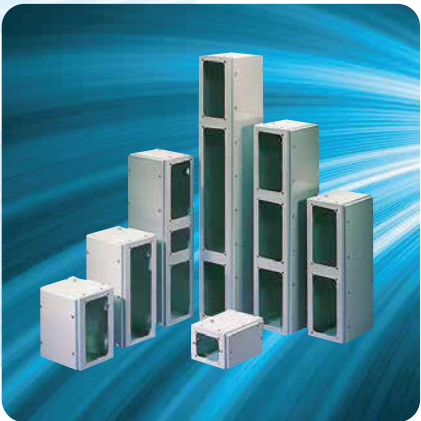
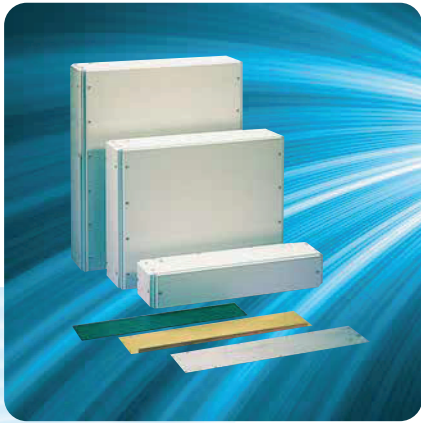
Accessories for Incoming and Outgoing Skeleton Switches

Description	Current Rating (A)	Product Code
Solid Links		
Solid Link (1 required per phase)	63	HFL63
Solid Link (1 required per phase)	100 to 200	HFL200A
Solid Link (1 required per phase)	315 and 400	HLL400
Solid Link (1 required per phase)	630 and 800	HNL800
Terminal Shrouds and Barriers		
Terminal shroud c/w barriers (Form 2 only)	63 to 200	SFTSS
Terminal barriers (Set of 3) Form 2 of Form 4 LFS42A only	63 to 200	SFTB
Terminal barriers (Set of 3)	400	SLTB
Extension Terminals		
Cable extension terminals (Set of 8)	630 and 800	SN CET

Loadbank 200 Fuse Switch Panel Boards 800A Form 2 & 4 50kA for 1 second



Loadbank 200 Fuse Switch Panel Boards 800A Form 2 & 4 50kA for 1 second



Fuse Switch Panel Boards Add-on enclosures

General Purpose Enclosures

- IP4X Ingress Protection
- Enclosures are 750mm wide and 200mm deep. Height as per table below.
- Supplied with two side and two end plates as standard
- Replacement top / bottom plate is product code LGES
- Replacement side plate is product code MXPE*F where the * represents the modular height
- Can be mounted above or below main panel board as required

Modular Height	Height (mm)	Weight (kg)	Product Code
1	152	4	LEBM1
2	305	10	LEBM2
3	457	16	LEBM3
4	609	22	LEBM4
5	762	28	LEBM5
6	914	34	LEBM6

Side Cableway Extension Enclosures

- IP4X Ingress Protection
- Recommended for cables over 70mm²
- Enclosures are 250mm wide and 200mm deep. Height as per table below.
- No side plates supplied as designed to use the side plate from the panel board
- Can be used with Cableway Metering Door Kits for panel mounted metering options

Cableway Metering Door Kits

- For incoming and outgoing panel mounted metering
- Metering door kit designed to be used with standard cableway
- Includes DIN-rail for mounting fuses and Current Transformers within cableway
- Meters, Current Transformers and wiring looms not supplied

Modular Height	Height (mm)	Weight (kg)	Cableway Product Code	Cableway Metering Door Kit (if required)
1	152	2	LECM1	N/A
2	305	4	LECM2	LECMD2
3	457	6	LECM3	LECMD3
4	609	8	LECM4	LECMD4
5	762	10	LECM5	LECMD5
6	914	12	LECM6	LECMD6
8	1219	14	LECM8	LECMD8

MCB Distribution Boards and Service Centres

- IP3X as standard and IP4X with doors fitted
- MCB Distribution boards have fully shielded busbars and interconnections
- Space saving twin option TP&N Distribution board option

Description	Modular Height	Height (mm)	Weight (kg)	Product Code	Door Kit Product Code
6 Way TP&N Distribution Board	2	305	23	LDT106X	LD1D06X
12 Way TP&N Distribution Board	3	457	30	LDT112X	LD1D12X
2 x 12 Way TP&N Distribution Board	4	609	35	LDT212X*	LD2D12X
24 Way Modular Service Centre	1	152	10	LDS24	LD1DS

* Only double module RCBOs can be fitted in this enclosure

Fuse Switch Panel Boards

Metering

Panel Mounted Meters - Incoming and Outgoing

- Single and three-phase compatible
- Fully programmable Voltage and CT ratios
- True RMS measurement
- Pulse and Modbus as standard
- Import and Export energy
- RJ45 connection for easy CT connection
- MPIM meter is MID B&D Certified (for use as outgoing metering only)

Meter Type	Metering	Product Code
Quick2Fit 1 & 3 Phase Panel Mounted MID Multi-function Meter	Outgoing only	MPIM
Quick2Fit 1 & 3 Phase Panel Mounted Multi-function Meter	Incoming and Outgoing	MP1

Single Current Transformers - Incoming

- Up to Class 0.5 accuracy
- System voltage up to 720V
- Secondary output to Meter of 5A
- Operating temperature of -20°C to +70°C
- Three single CTs required per incoming meter
- For use with Quick2Fit MPIM and MP1 Meters

Case Size	Current Rating	Incoming Device	Product Code
200A Single CT	200A	200A Fuse switch	M53J-200/5
250A Single CT	250A	250A YB3 MCCB	M53J-250/5
400A Single CT	400A	400A YA6 MCCB / 400A Fuse Switch	M63N-400/5
600A Single CT	600A	630A YA6 MCCB	M63N-600/5
800A Single CT	800A	800A YA7 MCCB	M63N-800/5
800A Single CT	800A	800A Fuse Switch	M93L-800/5

Quick2Fit 3-in-1 Current Transformers - Outgoing

- Class 1 to EN 60044-8 and EN 61869-2
- Secondary output to Meter of 330mV
- Sealable RJ45 connection
- Operating temperature of -25°C to +50°C
- One required per outgoing meter

Case Size	Current Rating (A)	Aperture size (mm)	Product Code	Outgoing Device Current Rating (A)
3-in-1 35mm Centres	60	25 x 21	RI-CT242-EW-060	0 – 63A
3-in-1 35mm Centres	100	25 x 21	RI-CT242-EW-100	63 – 100A
3-in-1 35mm Centres	125	25 x 21	RI-CT242-EW-125	80 – 125A
3-in-1 35mm Centres	200	25 x 21	RI-CT242-EW-200	160 – 200A
3-in-1 35mm Centres	250	25 x 21	RI-CT242-EW-250	160 – 250A

Quick2Fit Metering Looms

- 1 x LBWRPL fused meter supply loom required per cableway for outgoing meters
- 1 x LBWRCT required for the incoming meter
- Meter to meter supply cable and RJ45 CT cable to be purchased separately for outgoing meters

Description	Product Code
Quick2Fit Meter Supply Loom c/w fuses	LBWRPL
Quick2Fit 5A CT Connection Loom c/w single CT to RJ45 adaptor	LBWRCT
Quick2Fit RJ45 CT Cable PVC 0.5m	TAS-RJ45CC0.50P
Quick2Fit RJ45 CT Cable PVC 1.0m	TAS-RJ45CC1.00P
Quick2Fit RJ45 CT Cable PVC 1.5m	TAS-RJ45CC1.50P
Quick2Fit Meter to Meter Supply Cable PVC 0.3m	TAS-F-MTMSC0.30
Quick2Fit Meter to Meter Supply Cable PVC 0.5m	TAS-F-MTMSC0.50
Quick2Fit Meter to Meter Supply Cable PVC 1.0m	TAS-F-MTMSC1.00

Loadbank 200

Fuse Switch Panel Boards

800A Form 2 & 4
50kA for 1 second



Please see our Metering Selection Chart for the Loadbank Panel Board Range

Quick2Fit Metering Selection Chart

Loadbank 200 MPI & MPIM Meters

Step 1 Select cableways and cableway metering door kits

Cableways can be fitted to one or both sides of the board and incoming device enclosure, as per your cabling and metering requirements.
If metering is required then please order a metering door kit to suit the cableway.

Panel board	Modular Height	Height (mm)	Cableway	Meter Door
LB406YA3 / LB806YA3	4	609	LECM4	LECMD4
LB412YA3 / LB812YA3	6	914	LECM6	LECMD6
LB418YA3 / LB818YA3	8	1219	LECM8	LECMD8
LF806A / LF806YA3	5	762	LECM5	LECMD5
LF810A / LF810YA3	8	1219	LECM8	LECMD8

Step 2 Each Left or Right Hand cableway with meters requires: 1 x LBWRPL - Meter Supply Kit.

This can be connected to the incoming connections or to the top end of the busbars and contains connections and fuses for one meter. If the incoming meter is in the lower part of the board and the outgoing meters are towards the top (i.e. greater than 5 modules / 762mm away) we suggest using an additional LBWRPL to supply the incoming meter.

Step 3 Select Outgoing Meter Type:

MPI – Quick2Fit Multi-function Panel Mount Meter

OR

MPIM – Quick2Fit Multi-Function Panel Mount MID meter

Step 4 Each additional meter (not connected to LBWRPL) requires:

1 x **TAS-F-MTMSCO.3** - 0.3m long meter to meter supply cable, which is suitable for meters in adjacent knockouts in cableway at maximum 120mm apart. If the meters are not installed in adjacent knockouts then a selection of longer meter to meter supply cables are available in 0.5 and 1 metre lengths - replace figure at end of catalogue item with number e.g. 0.50 is 0.5m. Please refer to previous page for full product codes.



Step 5 Each outgoing meter also requires:-

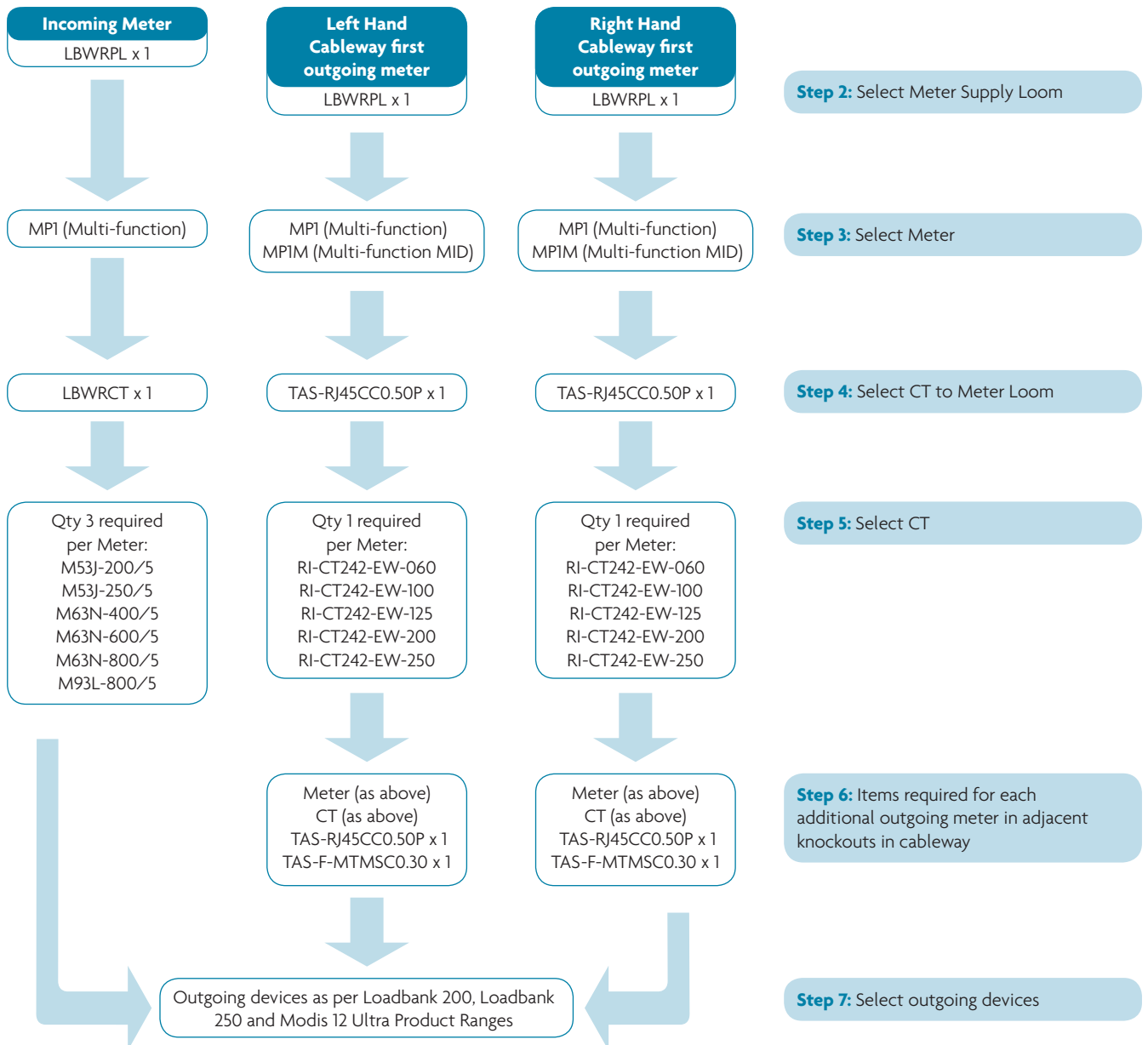
- 1 x **TAS-RJ45CC0.50P** - CT to meter RJ45 connection
- 1 x **3-Phase CT** either:-
 - RI-CT242-EW-060 for 0** - 63A outgoing device
 - RI-CT242-EW-100 for 63A** - 100A outgoing device
 - RI-CT242-EW-125 for 80A** - 125A outgoing device
 - RI-CT242-EW-200 for 160A** - 200A outgoing device
 - RI-CT242-EW-250 for 160A** - 250A outgoing device

Step 6 Incoming meter also requires:-

- 1 x **LBWRCT** - CT connection kit
- 1 x **MPI** – Quick2Fit Multi-function Panel Mount Meter
- 3 x **5A secondary CTs** either:-
 - M53J-200/5** for 200A Fuse switch
 - M53J-250/5** for 250A YB3 MCCB
 - M63N-400/5** for 400A YA6 MCCB/ Fuse switch
 - M63N-600/5** for 630A YA6 MCCB
 - M63N-800/5** for 800A YA7 MCCB
 - M93L-800/5** for 800A Fuse switch

Quick2Fit Metering Selection Chart

Loadbank 200 MPI & MPIM Meters



Loadbank 200

Fuse Switch Panel Boards

800A Form 2 & 4 50kA for 1 second



Fuse Switch Panel Boards

Surge Protection

Surge Suppression Device Mounting

There are two different ways of providing surge protection for the Loadbank 200 Panel Board range and both options are offered with Type I and Type II surge protection devices.

Option 1: 2 module high cableway complete with surge protection device

Option 2: Frame for mounting the surge protection device in a cableway larger than 2 modules high

Type I Class I Surge Suppression Device

- Additional hinged cableway door required to cover remaining part of cableway
- Three-phase & neutral, 25kA L-N, 100kA surge protector
- Maximum continuous operating voltage (Uc) is 275V AC rms
- Lightning impulse current 10/350ms, L-N (Iimp) is 25kA
- Lightning impulse current 10/350ms, N-PE (Iimp) is 100kA
- Total lightning impulse current 10/350ms, L1, L2, L3, N-PE (Itotal) is 100kA

Device Series	Mounting Option	Method of Mounting	Product Code
DSPT	Option 1	2 Module cableway complete with DSPT3PN Surge Suppression Device	LECM2SP
DSPT	Option 2	Frame for mounting inside a cableway complete with DSPT3PN Surge Suppression Device	LECM2SM

Type II Class II Surge Suppression Device

- Two stage (redundant) protection with pre-failure indication
- Maximum continuous operating voltage (Uc) L-N is 300V rms and L-L is 500V rms
- Maximum surge current (8/20ms) (Imax) is 30kA per phase
- Leakage current to earth is 600mA

Device Series	Mounting Option	Method of Mounting	Product Code
DSPE	Option 1	2 Module cableway complete with DSPE600R Surge Suppression Device	LECK2SP
DSPE	Option 2	Frame for mounting inside a cableway complete with DSPE600R Surge Suppression Device	LECK2SM

NOTE: To provide isolation and protection it is recommended that Surge Protection devices are fed by either a 63A Type C MCB, 63A MCCB or 63A fused disconnect, dependant on the fault level.

Loadbank 250

400A and 800A MCCB
Panel Boards, Outgoing
devices up to 250A



Loadbank 250

400A and 800A MCCB Panel Boards, Outgoing devices up to 250A

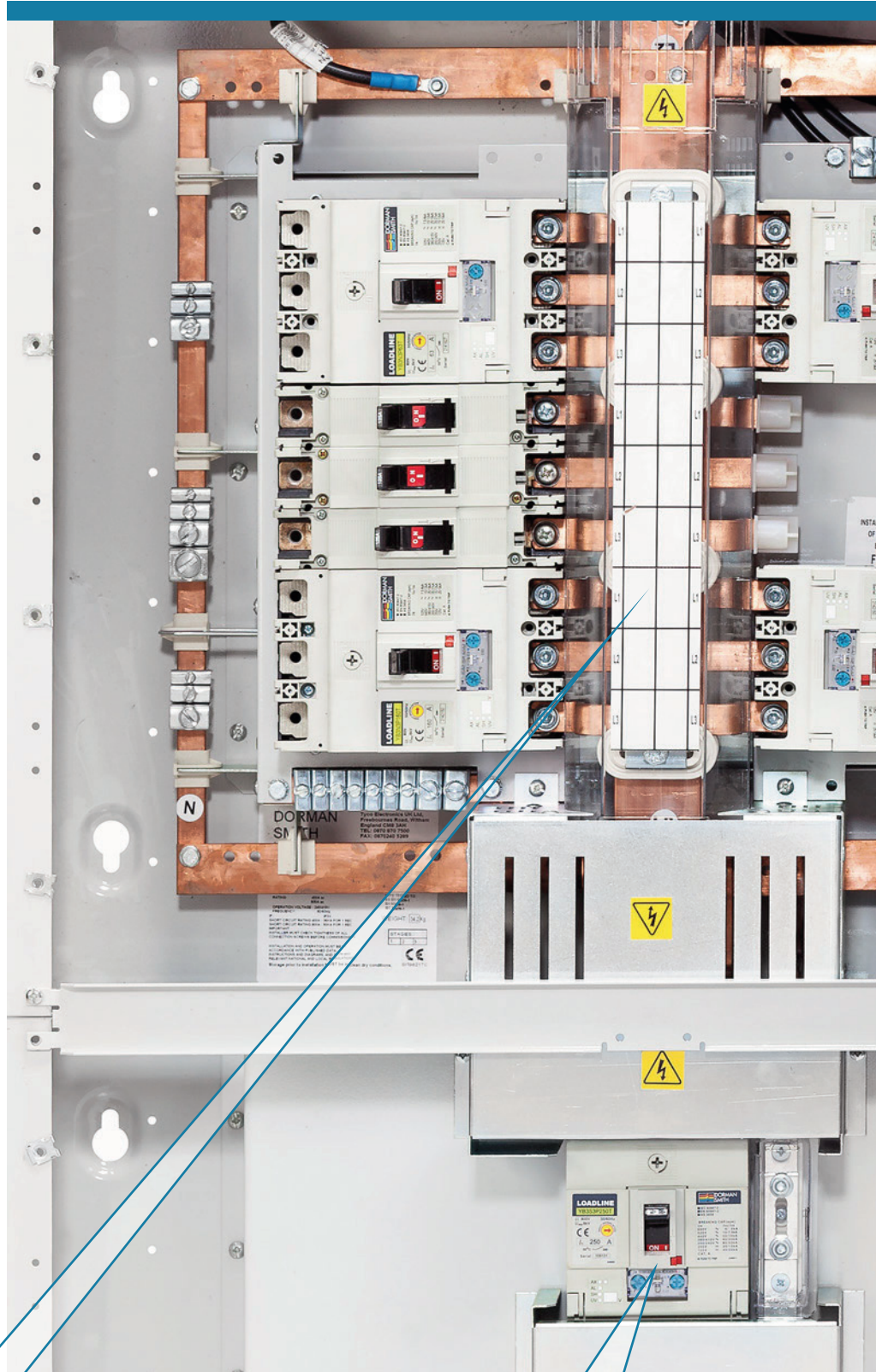
Key Features

The Loadbank 250 modular enclosure system is engineered to provide the unrivalled flexibility and build simplicity needed in order to produce a wide range of power distribution solutions. It consists of TP&N busbars of 400A and 800A with three different sizes of 6, 12 or 18 outgoing ways.

This range houses the incoming and outgoing devices in separate adjoining enclosures which then allows the widest range of possible circuit permutations, including oversized outgoing circuits, which can then be accommodated within a common format.

Incoming options range from 250A to 800A MCCB or Switch Disconnector depending on the board. There is a single frame size MCCB for outgoing devices which is the YB3 frame MCCB up to 250A.

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



Compliance

Panel Boards EN 61439-2
MCCBs EN 60947-2

Busbar

The Loadbank 250 panel boards have an ASTA certified busbars with a short-circuit withstand rating of 36kA for 1 second for the 400A boards and 50kA for 1 second for the 800A boards.

PAGES 22-24

Outgoing Ways

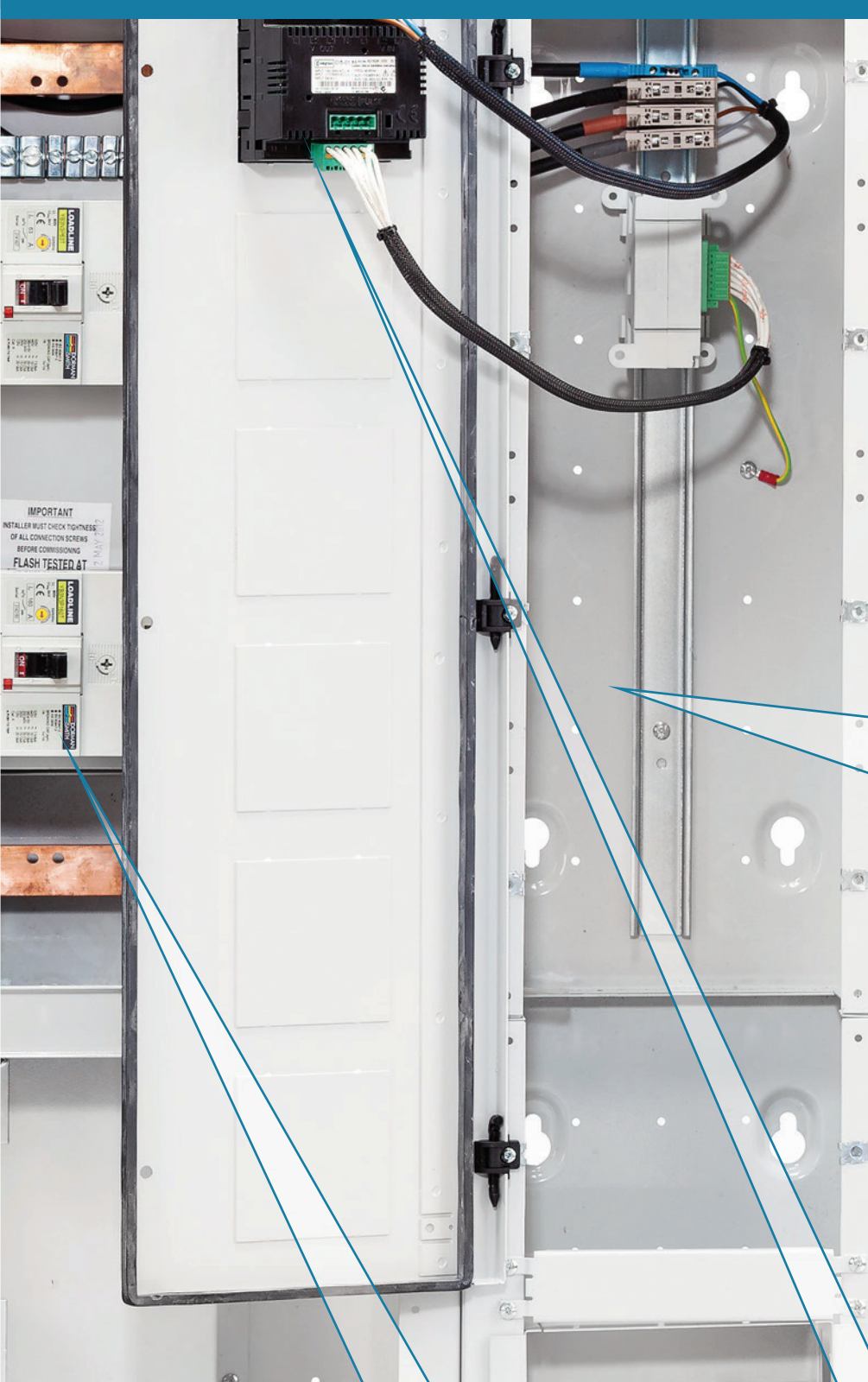
Both the 400A and 800A panel board versions are available with 6, 12 or 18 triple-pole outgoing ways.

PAGES 22-24

Incoming Options

There is a variety of incoming options for this range including: MCCBs and switch disconnectors up to 800A, and direct connection. Each incoming device has a matching add-on incoming enclosure which includes all necessary copper connections for installation.

PAGES 22-24



Form

The Loadbank 250 panel boards are available as Form 3a as standard, however we also produce a specialised Form 4a Type 2 panel board with 6 or 10 outgoing triple-pole ways.

PAGES 22-24

Ingress Protection

As standard the MCCB panel boards in this range have an ingress protection of IP3X and IP4X with the optional extra door kit fitted.

PAGES 22-24

Add-on Enclosures

The Loadbank 250 range is flexible and modular with standard width and depths for add-on enclosures. Our extensive add-on enclosure options for this range include; SP&N MCB distribution boards, TP&N MCB distribution boards, general purpose enclosures, side cableways, service centres, surge protection and incoming and outgoing metering.

PAGE 27

Surge Protection

Both Type I Class I and Type II Class II surge protection options are available for this range in either a specially designed 2 module high side cableway or as a mounting frame to be installed within a side cableway depending on application.

PAGE 29

Metering

By using side cableways and matching hinged cableway metering door kits our new Quick2Fit panel mount MID and Multi-function meters can be easily and quickly installed to meet your metering needs.

PAGES 28-33

Outgoing Devices

The outgoing ways are supported by a single device frame size up to 250A which is our Loadline YB3 MCCBs. These are available in single-pole and triple-pole versions and also as four-pole versions for the Loadbank Form 4 panel board. A range of accessories are available for the Loadline MCCBs to meet your specific requirements.

PAGES 25-26

Loadbank 250

400A MCCB

Panel Boards, Outgoing devices up to 250A



Fitted with incoming housing and metering



MCCB Panel Boards 250A/400A Form 3a 36kA for 1 second

Main Features

- ASTA certified busbars rated at 36kA for 1 second
- Form 3a as standard
- Width is 750mm and depth is 200mm. Height as per the table below.
- Supplied with top plate and two side plates as standard
- Ingress protection of IP3X. IP4X with door kit fitted (available as optional extra)

Outgoing Triple Pole Ways	Modular Height	Height (mm)	Weight (kg)	Panel Board Product Code	Door Kit Product Code
6	4	609	36	LB406YA3	LBDD06
12	6	914	52	LB412YA3	LBDD12
18	8	1219	66	LB418YA3	LBDD18

Add-on Incoming Device Enclosures

- Supplied with all necessary copper connections to connect incoming device to the busbar system
- Supplied with two side plates and one end plate as standard
- Incoming device and neutral link to be ordered separately

Current Rating (A)	Modular Height	Height (mm)	Weight (kg)	Incoming Device Type	Product Code
250	3	457	26	YB3 frame MCCB	LB1YA3
400	5	762	45	YA6 frame MCCB	LB1YA6
400	2	305	18	Direct connection	LBDR4

Incoming Device Options

Current Rating (A)	No of Poles	Device Type	Product Code	Enclosure required
160	3	25kA MCCB	YB3N3P160T	LB1YA3
200	3	25kA MCCB	YB3N3P200T	LB1YA3
250	3	25kA MCCB	YB3N3P250T	LB1YA3
160	3	36kA MCCB	YB3S3P160T	LB1YA3
200	3	36kA MCCB	YB3S3P200T	LB1YA3
250	3	36kA MCCB	YB3S3P250T	LB1YA3
250	3	Switch disconnecter	YB3B3P250D	LB1YA3
160	4	25kA MCCB	YB3N4P160T	LB1YA3
200	4	25kA MCCB	YB3N4P200T	LB1YA3
250	4	25kA MCCB	YB3N4P250T	LB1YA3
160	4	36kA MCCB	YB3S4P160T	LB1YA3
200	4	36kA MCCB	YB3S4P200T	LB1YA3
250	4	36kA MCCB	YB3S4P250T	LB1YA3
250	4	Switch disconnecter	YB3B4P250D	LB1YA3
400	3	50kA MCCB	YA6H3P400T	LB1YA6
400	4	50kA MCCB	YA6H4P400T	LB1YA6
400	3	Switch disconnecter	YA6B3P400D	LB1YA6
400	4	Switch disconnecter	YA6B4P400D	LB1YA6

Panel Board Accessories

Description	Product Code
3 pole blanking plate	LBBP3PYA3
Spare End Plate	LGES
Cylinder Door Lock	DBXCL
Padlocking Door Kit	DBXPL
Panel board stacking kit	LBCK4
Busbar extension terminals for top entry panelboards	LBSKE

MCCB Panel Boards

800A Form 3a 50kA for 1 second

Loadbank 250
800A MCCB

Panel Boards, Outgoing
devices up to 250A

Panel Boards

- ASTA certified busbars rated at 50kA for 1 second
- Form 3a as standard
- Width is 750mm and depth is 200mm. Height as per the table below.
- Supplied with top plate and two side plates as standard
- Ingress protection of IP3X. IP4X with door kit fitted (available as optional extra)

Outgoing Triple Pole Ways	Modular Height	Height (mm)	Weight (kg)	Panel Board Product Code	Door Kit Product Code
6	4	609	42	LB806YA3	LBDD06
12	6	914	62	LB812YA3	LBDD12
18	8	1219	78	LB818YA3	LBDD18

Add-on Incoming Device Enclosures

- Supplied with all necessary copper connections
- Incoming device and neutral link to be ordered separately

Current Rating (A)	Modular Height	Height (mm)	Weight (kg)	Incoming Device Type	Product Code
400/630	5	762	45	YA6 frame MCCB	LB1YA6
800	3	457	23	Direct Connection	LBDR8
800	6	912	69	YA7 frame MCCB	LB1YA7

Incoming Device Options

Current Rating (A)	No of Poles	Device Type	Product Code	Enclosure required
400	3	Switch disconnecter	YA6B3P400D	LB1YA6
630	3	50kA MCCB	YA6H3P630T	LB1YA6
630*	3	Switch disconnecter	YA6B3P800D	LB1YA6
400	4	Switch disconnecter	YA6B4P400D	LB1YA6
630	4	50kA MCCB	YA6H4P630T	LB1YA6
630*	4	Switch disconnecter	YA6B4P800D	LB1YA6
800	3	50kA Electronic MCCB	YA7H3P800E	LB1YA7
800	3	Switch disconnecter	YA7B3P800D	LB1YA7
800	4	50kA Electronic MCCB	YA7H4P800E	LB1YA7
800	4	Switch disconnecter	YA7B4P800D	LB1YA7

* Switch Disconnecter rating when installed in LB1YA6

Panel Board Accessories

Description	Product Code
3 pole blanking plate	LBPP3PYA3
Spare End Plate	LGES
Cylinder Door Lock	DBXCL
Padlocking Door Kit	DBXPL
Panel board stacking kit	LBCK8
Busbar extension terminals for top entry panelboards	LBSKE

Twin YA5 Outgoing Housing (not designed for use with Form 4 panel boards)

- Can be mounted direct to incoming enclosure without connection kit
- When mounting to 800A panelboard connection kits are required (LBSKE and LBCK8)
- Cableway extension enclosures are necessary to assist with cabling
- Devices to be ordered separately
- Optional outgoing terminal shroud YA5TS3P for spread extensions YA5XT3P if required (1 per MCCB)
- YA5 MCCB busbar terminal cover not required, however if internal degree of protection required is greater than IP2X then terminal cover YA5TC3P required (1 per MCCB)

Description	Modular Height	Height (mm)	Weight (kg)	Product Code	Door Kit Product Code
Twin YA5 (400A max each)	3	456	35	LB802YA5	LBDD02
Castell Kit (Excl. locks)				LB802CLK	
Castell Lock Type K Series Form 1, 6-4mm bolt protrusion					



Loadbank 250

800A MCCB

Panel Boards, Outgoing devices up to 250A



MCCB Panel Boards

800A Form 4 50kA for 1 second

Panel Boards

- ASTA certified busbars rated at 50kA for 1 second
- Form 3b Type 2 as standard and Form 4b Type 6 with optional shrouding fitted
- Exceeds the requirements of EN 61439-2
- IP4X Ingress protection with doors fitted
- Fully rated neutrals
- Panel board width is 750mm and depth is 200mm. Height is as per table below.
- Outgoing devices are:
 - 3-pole YA3 / YB3 frame MCCB with neutral link (available separately under product code YA3F4NL)
 - 4-pole YA3 / YB3 frame MCCB (can be fitted on left hand side only)
 - 1-pole YA3N 25kA MCCB (can be fitted on L2 phase only)

Outgoing Triple Pole Ways	Modular Height	Height (mm)	Weight (kg)	Panel Board Product Code	Door Kit Product Code
6	5	760	59	LF806YA3	LFD06
10	8	1216	98	LF810YA3	LFD10

Add-on Incoming Device Enclosures

- Incoming devices, neutral links and side plates to be ordered separately as required

Device Type and Current Rating	Modular Height	Height (mm)	Product Code	Connection Kit	Side Plates
400A L Frame Fuse Switch	5	762	MHFS400X1	LFC400FS	2 x MXPE5F
400/630A YA6 MCCB / Switch Disconnector	5	762	MHYA6X1	LFC630YA6	2 x MXPE5F
630/800A N Frame Fuse Switch	6	914	MHFS800X1	LFC800FS	2 x MXPE6F
800A YA7 MCCB / Switch Disconnector	6	914	MHYA7X1	LFC800YA7	2 x MXPE6F

Incoming Device

Current Rating (A)	No of Poles	Device Type	Max. cable termination (mm ²)	Product Code	Enclosure Required
400	TP&N	L Frame Fuse Switch	240	SL3P400N	MHFS400X1
400	4	L Frame Fuse Switch	240	SL4P400	MHFS400X1
400	3	YA6 Switch Disconnector	240	YA6B3P400D	MHYA6X1
400	4	YA6 Switch Disconnector	240	YA6B4P400D	MHYA6X1
400	3	YA6 50kA MCCB	240	YA6H3P400T	MHYA6X1
400	4	YA6 50kA MCCB	240	YA6H4P400T	MHYA6X1
630	TP&N	N Frame Fuse Switch	630	SN3P630N	MHFS800X1
630	4	N Frame Fuse Switch	630	SN4P630	MHFS800X1
630	3	YA6 Switch Disconnector	240	YA6B3P800D	MHYA6X1
630	4	YA6 Switch Disconnector	240	YA6B4P800D	MHYA6X1
630	3	YA6 50kA MCCB	240	YA6H3P630T	MHYA6X1
630	4	YA6 50kA MCCB	240	YA6H4P630T	MHYA6X1
800	TP&N	N Frame Fuse Switch	630	SN3P800N	MHFS800X1
800	4	N Frame Fuse Switch	630	SN4P800	MHFS800X1
800	3	YA7 Switch Disconnector	240	YA7B3P800D	MHYA7X1
800	4	YA7 Switch Disconnector	240	YA7B4P800D	MHYA7X1
800	3	YA7 50kA Electronic MCCB	240	YA7H3P800E	MHYA7X1
800	4	YA7 50kA Electronic MCCB	240	YA7H3P800E	MHYA7X1

Panel Board Accessories

Description	Product Code
Form 4 terminal shroud for 3-pole YA3 MCCB (1 per outgoing device)	YA3TS3P
Form 4 terminal shroud for 3-pole YB3 MCCB (1 per outgoing device)	YB3TS3P
Form 4 terminal shroud for 4-pole YA3 MCCB (1 per outgoing device)	YA3TS4P
Form 4 terminal shroud for 4-pole YB3 MCCB (1 per outgoing device)	YB3TS4P
Panel Board vertical stacking kit	LCFVK
Form 4 Neutral Link for use with YA3 / YB3 3-pole MCCB	YA3F4NL

MCCB Panel Boards Outgoing Devices

Loadbank 250
400A and 800A MCCB
Panel Boards, Outgoing
devices up to 250A

Main Features

- Exceeds the requirements of EN 60947-2
- 1-pole MCCBs have fixed thermal and instantaneous trips
- 3-pole and 4-pole MCCBs have both adjustable thermal and instantaneous trips
- Rated insulation voltage is 800V AC
- Standard cable termination is 95mm²
- Maximum cable termination is 150mm² using M8 reduced palm width lugs
- YA3NL Neutral Link for use on Form 4a Type 2 only

Current Rating (A)		YA3 MCCB		YA3/YB3 MCCB	
Max (A)	Min (A)	1-pole (fixed)	3-pole (adjustable)	4-pole (adjustable)	
Switch Disconnectors					
250	-	-	YB3B3P250D	YB3B4P250D	
Thermal / Magnetic 25kA					
16	16	YA3NIP16T	-	-	
20	13	YA3NIP20T	-	-	
32	20	YA3NIP32T	-	-	
40	25	YA3NIP40T	-	-	
50	32	YA3NIP50T	YB3N3P50T*	YB3N4P50T*	
63	40	YA3NIP63T	YB3N3P63T*	YB3N4P63T*	
80	50	YA3NIP80T	-	-	
100	63	YA3NIP100T	YB3N3P100T	YB3N4P100T	
125	80	YA3NIP125T	YB3N3P125T	YB3N4P125T	
160	100	YA3NIP160T	YB3N3P160T	YB3N4P160T	
200	125	-	YB3N3P200T	YB3N4P200T	
250	160	-	YB3N3P250T	YB3N4P250T	
Thermal / Magnetic 36kA					
50	32	-	YB3S3P50T*	YB3S4P50T*	
63	40	-	YB3S3P63T*	YB3S4P63T*	
100	63	-	YB3S3P100T	YB3S4P100T	
125	80	-	YB3S3P125T	YB3S4P125T	
160	100	-	YB3S3P160T	YB3S4P160T	
200	125	-	YB3S3P200T	YB3S4P200T	
250	160	-	YB3S3P250T	YB3S4P250T	
Thermal / Magnetic 65kA					
50	32	-	YA3J3P50T	YA3J4P50T	
63	40	-	YA3J3P63T	YA3J4P63T	
100	63	-	YA3J3P100T	YA3J4P100T	
125	80	-	YA3J3P125T	YA3J4P125T	
160	100	-	YA3J3P160T	YA3J4P160T	
200	125	-	YA3J3P200T	YA3J4P200T	
250	160	-	YA3J3P250T	YA3J4P250T	

YA5 MCCBs for LB802YA5 enclosure

- MCCBs have both adjustable thermal and instantaneous trips
- Standard cable termination is 95mm² or 185mm² using reduced palm width lugs
- For use with LB802YA5 enclosure

Current Rating (A)	25kA 3 Pole Product Code	50kA 3 Pole Product Code
160 to 250A	YA5N3P250T	YA5H3P250T
250A to 400A	YA5N3P400T	YA5H3P400T

* 50A and 63A MCCBs have fixed instantaneous trip



Loadbank 250 400A and 800A MCCB Panel Boards, Outgoing devices up to 250A



MCCB Panel Boards Accessories for outgoing devices

Accessories for YB3 MCCB outgoing devices

Description	YB3 3-pole Product Code	YB3 4-pole Product Code
Cable Clamps		
Cable Clamps	YB3CC3P	YB3CC4P
Terminal Protection		
Terminal Shroud for cable lugs	YB3TS3P	YB3TS4P
Interphase Barrier (Set of 1)		YB3TB
Terminal Shroud Cover Lock		YBTSCL
Dolly lock		YBDL1
Shunt Trips		
Shunt Trip 100-120V AC		YBST120AC
Shunt Trip 200-240V AC		YBST240AC
Shunt Trip 380-450V AC		YBST450AC
Shunt Trip 24V DC		YBST24DC
Shunt Trip 48V DC		YBST48DC
Shunt Trip 100-120V DC		YBST120DC
Shunt Trip 200-240V DC		YBST240DC
Under-voltage Release		
Under-voltage release 100-120V AC		YBUVR120AC
Under-voltage release 200-240V AC		YBUVR240AC
Under-voltage release 380-450V AC		YBUVR450AC
Under-voltage release 24V DC		YBUVR24DC
Under-voltage release 100-120V DC		YBUVR120DC
Under-voltage release 200-240V DC		YBUVR240DC

Accessories for YA5 MCCBs outgoing devices

Description	3-pole Product Code
Cable Clamps	
Cable Clamps	YA5CC3P
Terminal Protection	
Terminal Shroud for spread type extension terminals and cable lugs	YA5TS3P
Spread type extension terminals	YA5XT3P
Interphase Barrier (Set of 1)	YA5TB
Dolly lock	YA5DL
Shunt Trips	
Shunt Trip 100-120V AC	YAST115AC
Shunt Trip 200-240V AC	YAST240AC
Shunt Trip 380-450V AC	YAST450AC
Shunt Trip 24V DC	YAST24DC
Under-voltage Release	
Under-voltage release 100-120V AC	YAUVR120AC
Under-voltage release 200-240V AC	YAUVR240AC
Under-voltage release 380-450V AC	YAUVR450AC
Under-voltage release 24V DC	YAUVR24DC

MCCB Panel Boards

Add on enclosures

Loadbank 250
400A and 800A MCCB
Panel Boards, Outgoing
devices up to 250A

General Purpose Enclosures

- IP4X Ingress Protection
- Enclosures are 750mm wide and 200mm deep. Height as per table below.
- Supplied with two side and two end plates as standard
- Replacement top / bottom plate is product code LGES
- Replacement side plate is product code MXPE*F where the * represents the modular height
- Can be mounted above or below main panel board as required

Modular Height	Height (mm)	Weight (kg)	Product Code
1	152	4	LEBM1
2	305	10	LEBM2
3	457	16	LEBM3
4	609	22	LEBM4
5	762	28	LEBM5
6	914	34	LEBM6

Side Cableway Extension Enclosures

- IP4X Ingress Protection
- Recommended for cables over 70mm²
- Enclosures are 250mm wide and 200mm deep. Height as per table below.
- No side plates supplied as designed to use the side plate from the panel board
- Can be used with Cableway Metering Door Kits for panel mounted metering options

Cableway Metering Door Kits

- For incoming and outgoing panel mounted metering
- Metering door kit designed to be used with standard cableway
- Includes DIN-rail for mounting fuses and Current Transformers within cableway
- Meters, Current Transformers and wiring looms not supplied

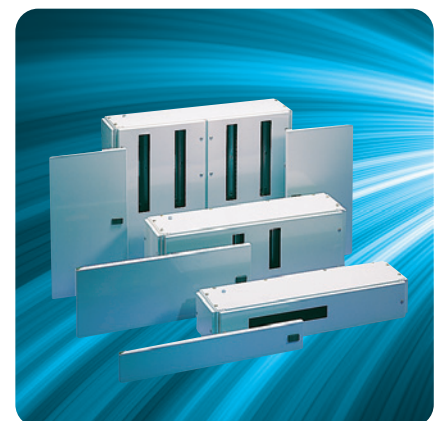
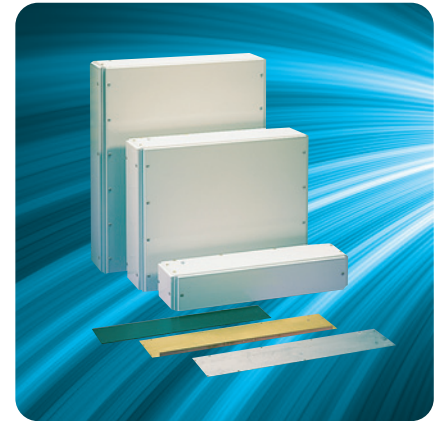
Modular Height	Height (mm)	Weight (kg)	Cableway Product Code	Cableway Metering Door Kit (if required)
1	152	2	LECM1	N/A
2	305	4	LECM2	LECMD2
3	457	6	LECM3	LECMD3
4	609	8	LECM4	LECMD4
5	762	10	LECM5	LECMD5
6	914	12	LECM6	LECMD6
8	1219	14	LECM8	LECMD8

MCB Distribution Boards and Service Centres

- IP3X as standard and IP4X with doors fitted
- MCB Distribution boards have fully shielded busbars and interconnections
- Space saving twin TP&N Distribution board option

Description	Modular Height	Height (mm)	Weight (kg)	Product Code	Door Kit Product Code
6 Way TP&N Distribution Board	2	305	23	LDT106X	LD1D06X
12 Way TP&N Distribution Board	3	457	30	LDT112X	LD1D12X
2 x 12 Way TP&N Distribution Board	4	609	35	LDT212X*	LD2D12X
24 Way Modular Service Centre	1	152	10	LDS24	LD1DS

* Only double module RCBOs can be fitted in this enclosure



Loadbank 250 400A and 800A MCCB Panel Boards, Outgoing devices up to 250A



Please see our Metering Selection Chart for the Loadbank Panel Board Range

MCCB Panel Boards Metering

Panel Mounted Meters - Incoming and Outgoing

- Single and three-phase compatible
- Fully programmable Voltage and CT ratios
- True RMS measurement
- Pulse and Modbus as standard
- Import and Export energy
- RJ45 connection for easy CT connection
- MP1M meter is MID B&D Certified (for use as outgoing metering only)

Meter Type	Metering	Product Code
Quick2Fit 1 & 3 Phase Panel Mounted MID Multi-function Meter	Outgoing only	MP1M
Quick2Fit 1 & 3 Phase Panel Mounted Multi-function Meter	Incoming and Outgoing	MP1

Single Current Transformers - Incoming

- Up to Class 0.5 accuracy
- System voltage up to 720V
- Secondary output to Meter of 5A
- Operating temperature of -20°C to +70°C
- Three single CTs required per incoming meter
- For use with Quick2Fit MP1M and MP1 Meters

Case Size	Current Rating	Incoming Device	Product Code
200A Single CT	200A	200A Fuse switch	M53J-200/5
250A Single CT	250A	250A YB3 MCCB	M53J-250/5
400A Single CT	400A	400A YA6 MCCB / 400A Fuse Switch	M63N-400/5
600A Single CT	600A	630A YA6 MCCB	M63N-600/5
800A Single CT	800A	800A YA7 MCCB	M63N-800/5
800A Single CT	800A	800A Fuse Switch	M93L-800/5

Quick2Fit 3-in-1 Current Transformers - Outgoing

- Class 1 to EN 60044-8 and EN 61869-2
- Secondary output to Meter of 330mV
- Sealable RJ45 connection
- Operating temperature of -25°C to +50°C
- One required per outgoing meter

Case Size	Current Rating (A)	Aperture size (mm)	Product Code	Outgoing Device Current Rating (A)
3-in-1 35mm Centres	60	25 x 21	RI-CT242-EW-060	0 – 63A
3-in-1 35mm Centres	100	25 x 21	RI-CT242-EW-100	63 - 100A
3-in-1 35mm Centres	125	25 x 21	RI-CT242-EW-125	80 – 125A
3-in-1 35mm Centres	200	25 x 21	RI-CT242-EW-200	160 – 200A
3-in-1 35mm Centres	250	25 x 21	RI-CT242-EW-250	160 – 250A

Quick2Fit Metering Looms

- 1 x LBWRPL fused meter supply loom required per cableway for outgoing meters
- 1 x LBWRCT required for the incoming meter
- Meter to meter supply cable and RJ45 CT cable to be purchased separately for outgoing meters

Description	Product Code
Quick2Fit Meter Supply Loom c/w fuses	LBWRPL
Quick2Fit 5A CT Connection Loom c/w single CT to RJ45 adaptor	LBWRCT
Quick2Fit RJ45 CT Cable PVC 0.5m	TAS-RJ45CC0.50P
Quick2Fit RJ45 CT Cable PVC 1.0m	TAS-RJ45CC1.00P
Quick2Fit RJ45 CT Cable PVC 1.5m	TAS-RJ45CC1.50P
Quick2Fit Meter to Meter Supply Cable PVC 0.3m	TAS-F-MTMSC0.30
Quick2Fit Meter to Meter Supply Cable PVC 0.5m	TAS-F-MTMSC0.50
Quick2Fit Meter to Meter Supply Cable PVC 1.0m	TAS-F-MTMSC1.00

Quick2Fit Metering Selection Chart

Loadbank MPI & MPIM Meters

Step 1 Select cableways and cableway metering door kits

Cableways can be fitted to one or both sides of the board and incoming device enclosure, as per your cabling and metering requirements.
If metering is required then please order a metering door kit to suit the cableway.

Panel board	Modular Height	Height (mm)	Cableway	Meter Door
LB406YA3 / LB806YA3	4	609	LECM4	LECMD4
LB412YA3 / LB812YA3	6	914	LECM6	LECMD6
LB418YA3 / LB818YA3	8	1219	LECM8	LECMD8
LF806A / LF806YA3	5	762	LECM5	LECMD5
LF810A / LF810YA3	8	1219	LECM8	LECMD8

Step 2 Each Left or Right Hand cableway with meters requires: 1 x LBWRPL - Meter Supply Kit.

This can be connected to the incoming connections or to the top end of the busbars and contains connections and fuses for one meter. If the incoming meter is in the lower part of the board and the outgoing meters are towards the top (i.e. greater than 5 modules / 762mm away) we suggest using an additional LBWRPL to supply the incoming meter.

Step 3 Select Outgoing Meter Type:

MPI – Quick2Fit Multi-function Panel Mount Meter

OR

MPIM – Quick2Fit Multi-Function Panel Mount MID meter

Step 4 Each additional meter (not connected to LBWRPL) requires:

1 x TAS-F-MTMSCO.3 - 0.3m long meter to meter supply cable, which is suitable for meters in adjacent knockouts in cableway at maximum 120mm apart. If the meters are not installed in adjacent knockouts then a selection of longer meter to meter supply cables are available in 0.5 and 1 metre lengths - replace figure at end of catalogue item with number e.g. 0.50 is 0.5m. Please refer to previous page for full product codes.



Step 5 Each outgoing meter also requires:-

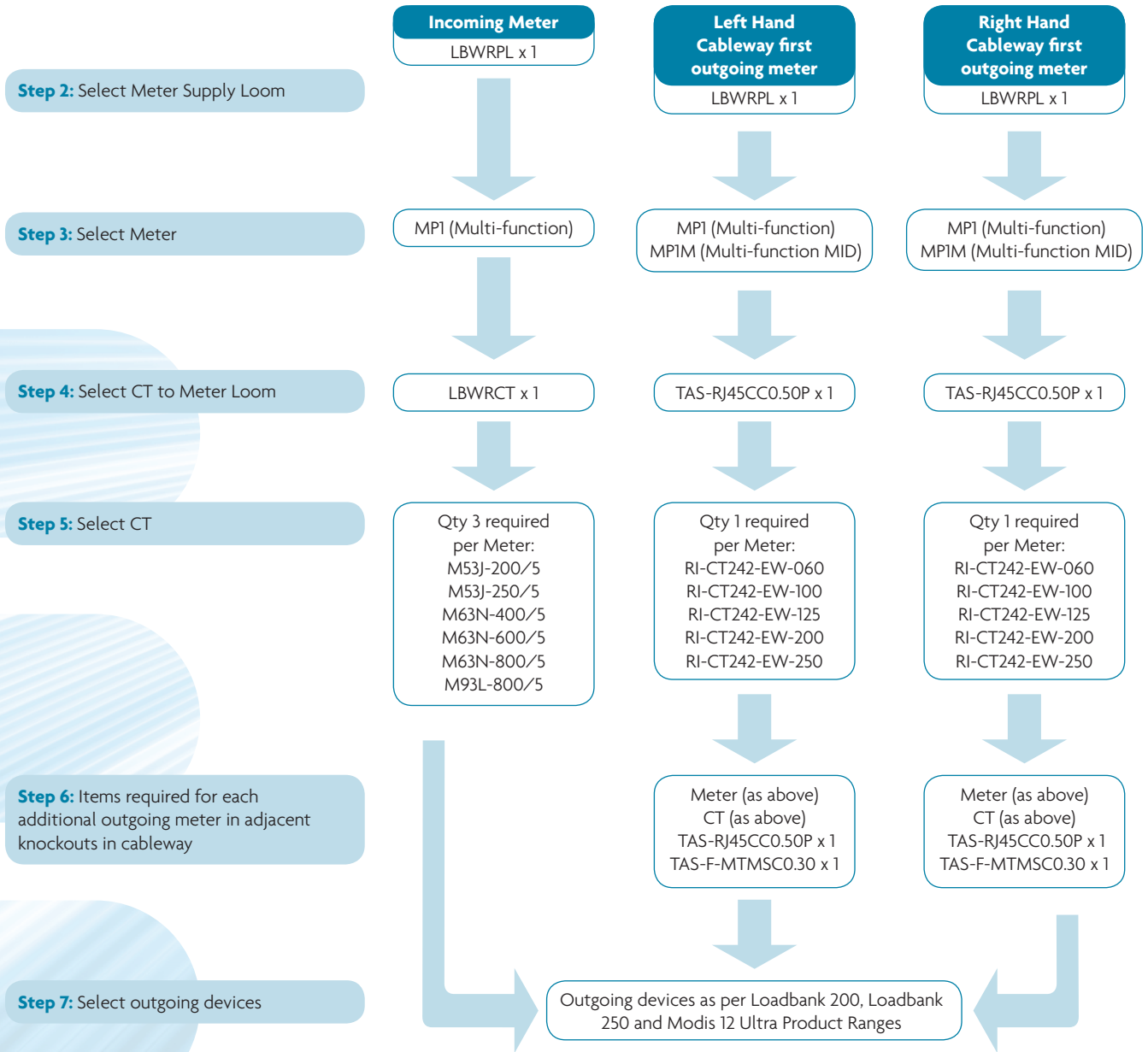
- 1 x TAS-RJ45CCO.50P - CT to meter RJ45 connection
- 1 x 3-Phase CT either:-
- RI-CT242-EW-060 for 0 - 63A outgoing device
- RI-CT242-EW-100 for 63A - 100A outgoing device
- RI-CT242-EW-125 for 80A - 125A outgoing device
- RI-CT242-EW-200 for 160A - 200A outgoing device
- RI-CT242-EW-250 for 160A - 250A outgoing device

Step 6 Incoming meter also requires:-

- 1 x LBWRCT - CT connection kit
- 1 x MPI – Quick2Fit Multi-function Panel Mount Meter
- 3 x 5A secondary CTs either:-
- M53J-200/5 for 200A Fuse switch
- M53J-250/5 for 250A YB3 MCCB
- M63N-400/5 for 400A YA6 MCCB/ Fuse switch
- M63N-600/5 for 630A YA6 MCCB
- M63N-800/5 for 800A YA7 MCCB
- M93L-800/5 for 800A Fuse switch

Loadbank 250 MPI & MPIM Meters

Quick2Fit Metering Selection Chart



MCCB Panel Boards

Surge Protection

Surge Suppression Device Mounting

There are two different ways of providing surge protection for the Loadbank 250 Panel Board range and both options are offered with Type I and Type II surge protection devices.

Option 1: 2 module high cableway complete with surge protection device

Option 2: Frame for mounting the surge protection device in a cableway larger than 2 modules high

Type I Class I Surge Suppression Device

- Additional hinged cableway door required to cover remaining part of cableway
- Three-phase & neutral, 25kA L-N, 100kA surge protector
- Maximum continuous operating voltage (Uc) is 275V AC rms
- Lightning impulse current 10/350ms, L-N (Iimp) is 25kA
- Lightning impulse current 10/350ms, N-PE (Iimp) is 100kA
- Total lightning impulse current 10/350ms, L1, L2, L3, N-PE (Itotal) is 100kA

Device Series	Mounting Option	Method of Mounting	Product Code
DSPT	Option 1	2 Module cableway complete with DSPT3PN Surge Suppression Device	LECM2SP
DSPT	Option 2	Frame for mounting inside a cableway complete with DSPT3PN Surge Suppression Device	LECM2SM



Type II Class II Surge Suppression Device

- Two stage (redundant) protection with pre-failure indication
- Maximum continuous operating voltage (Uc) L-N is 300V rms and L-L is 500V rms
- Maximum surge current (8/20ms) (Imax) is 30kA per phase
- Leakage current to earth is 600mA

Device Series	Mounting Option	Method of Mounting	Product Code
DSPE	Option 1	2 Module cableway complete with DSPE600R Surge Suppression Device	LECK2SP
DSPE	Option 2	Frame for mounting inside a cableway complete with DSPE600R Surge Suppression Device	LECK2SM



NOTE: To provide isolation and protection it is recommended that Surge Protection devices are fed by either a 63A Type C MCB, 63A MCCB or 63A fused disconnector, dependant on the fault level.

Contact Us

BRAINTREE

Departments: Customer Service, Logistics, Quality, Finance and HR

Dorman Smith Switchgear Limited Tel: +44 (0) 844 225 1063
8 Swinbourne Drive Fax: +44 (0) 844 225 1064
Springwood Industrial Estate Email: sales@dormansmith.co.uk
Braintree, Essex www.dormansmithswitchgear.com
CM7 2YG

PRESTON

Departments: Modis Estimation, Design / Product Management and Technical

Dorman Smith Switchgear Limited Tel: +44 (0) 1772 325380
1 Nile Close Fax: +44 (0) 1772 325385
Nelson Court Business Centre Email: sales@dormansmith.co.uk
Ashton on Ribble www.dormansmithswitchgear.com
Preston, Lancashire
PR2 2XU

DUBAI

Dorman Smith Switchgear LLC Tel: 00971 4 3470226
P.O. Box 12872 Fax: 00971 4 3470002
Dubai Email: dsdubai@dormansmith.co.uk
U.A.E. www.dormansmithswitchgear.com

For further information or to request one of our product catalogues please contact us from the information above. E&OA. Whilst every effort has been made to ensure accuracy, no liability is accepted for the consequences of any error or omissions in this catalogue. Dorman Smith Switchgear Ltd. reserve the right to change or amend any technical specification or product detail without prior notification.