

ZUCCHINI LB PLUS - LIGHTING AND POWER BUSBAR

Zucchini LB PLUS is a new range of 25 to 63 A busbars that are ideal for the distribution of power for lighting and low power applications. With a single product, LB PLUS replaces the LB, HL, and SL ranges, offering a busbar that is simpler, better performing, and easier to install.



A winning solution delivering performance and simplicity... with increased functionality, fewer part numbers and common accessories for all versions



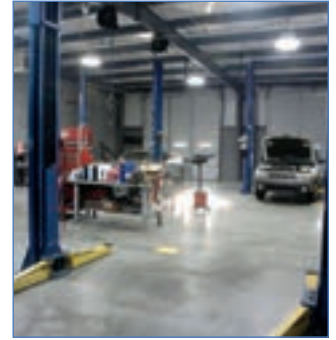
SHOPPING CENTRES,
STORES, OFFICES



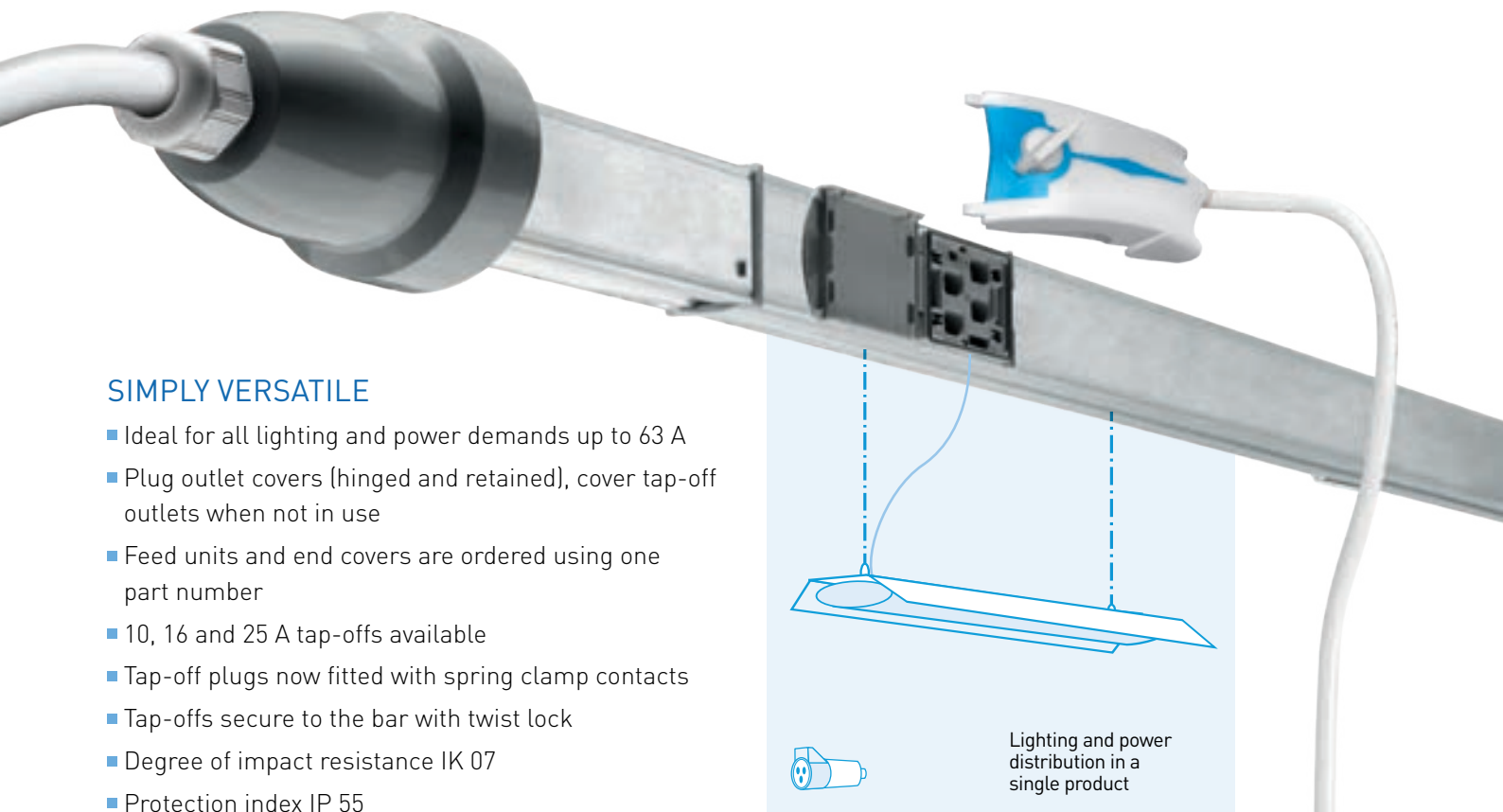
WAREHOUSES,
GYMS, UNDERGROUND
CAR PARKS



HOSPITALS,
LABORATORIES



WORKSHOPS,
MAINTENANCE AND
REPAIR FACILITIES,
PRODUCTION SITES

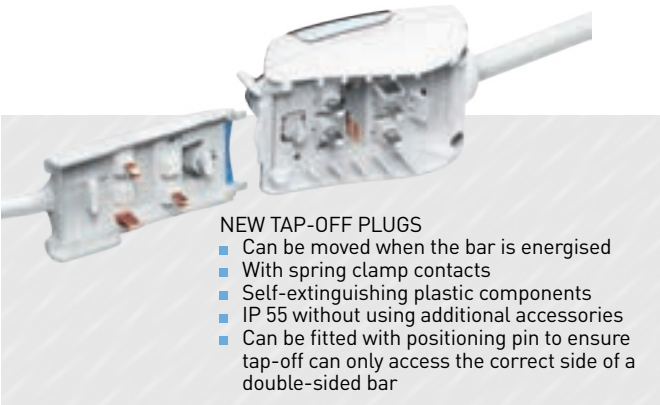


SIMPLY VERSATILE

- Ideal for all lighting and power demands up to 63 A
- Plug outlet covers (hinged and retained), cover tap-off outlets when not in use
- Feed units and end covers are ordered using one part number
- 10, 16 and 25 A tap-offs available
- Tap-off plugs now fitted with spring clamp contacts
- Tap-offs secure to the bar with twist lock
- Degree of impact resistance IK 07
- Protection index IP 55

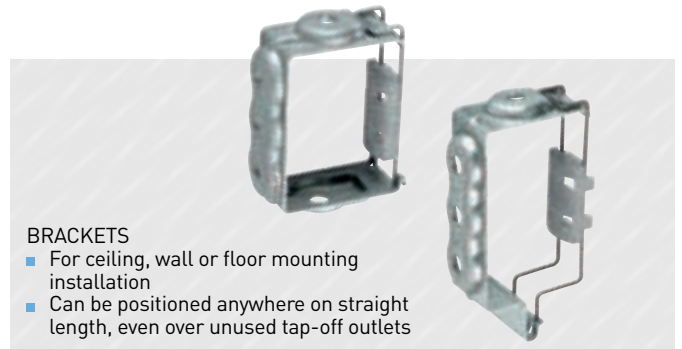


Lighting and power
distribution in a
single product



NEW TAP-OFF PLUGS

- Can be moved when the bar is energised
- With spring clamp contacts
- Self-extinguishing plastic components
- IP 55 without using additional accessories
- Can be fitted with positioning pin to ensure tap-off can only access the correct side of a double-sided bar



BRACKETS

- For ceiling, wall or floor mounting installation
- Can be positioned anywhere on straight length, even over unused tap-off outlets

LB PLUS busbar trunking systems

selection chart

	25 A				40 A		63 A
	2 conductors	4 conductors	6 conductors	8 conductors	4 conductors	8 conductors	4 conductors
LB PLUS STRAIGHT LENGTHS – TYPE A	252	254	256	258	404	408	634
3 m length – 2 outlets	75150101	75160101	–	–	75200101	–	–
3 m length – 4 outlets	–	75160102	–	–	75200102	–	–
3 m length – 2 + 2 outlets	–	–	75170101	75180101	–	75220101	75240101
3 m length – 4 + 4 outlets	–	–	–	75180102	–	75220102	75240102
1.5 m length – 2 outlets	75200111		–	–	75200111	–	–
1.5 m length – 1 + 1 outlets	–	–	75220111		–	75220111	75240111
LB PLUS STRAIGHT LENGTHS – TYPE B	252	254	256	258	404	408	634
3 m length – 4 outlets	75350102H	75360102H	–	–	75400102H	–	–
3 m length – 6 outlets	–	75360103H	–	–	75400103H	–	–
3 m length – 4 + 4 outlets	–	–	75370101H	75380101H	–	75420101H	75440101H
3 m length – 6 + 6 outlets	–	–	–	75380102H	–	75420102H	75440102H
1.5 m length – 2 outlets	75400111H		–	–	75400111H	–	–
1.5 m length – 1 + 1 outlets	–	–	75420111H		–	75420111H	75440111H
FEED UNITS	252	254	256	258	404	408	634
RH feed unit + end cover (reduced dimensions)	75201003		75221003		75201003	75221003	75241003
LH feed unit + end cover (reduced dimensions)	75201004		75221004		75201004	75221004	75241004
Fast fit – feed unit RH	75161001		–	–	–	–	–
Fast fit – feed unit LH	75161002		–	–	–	–	–
Centre feed unit + end covers (reduced dimensions)	75201151		75221151		75201151	75221151	75241151
FLEXIBLE JOINT	75201263		75221263		75201263	75221263	75241263
BRACKETS AND SUSPENSIONS	252	254	256	258	404	408	634
60 kg suspension bracket	75003000 (for TYPE A)			and	75003004 for (TYPE B)		
Hook for lamp				75003001			
Ring				75003002			
Pigtail for chain				75003005			
5 m steel cable with self locking clamp (TYPE B)				75003008 (TYPE B only)			
Bracket with 3 m steel cable (TYPE A)				75003009 (TYPE A only)			
CABLE CHANNEL	252	254	256	258	404	408	634
PVC cable channel with cover (3 m)				71000104			
Bracket for cable channel				75003006			

10 A SINGLE PHASE TAP-OFFS	252	254	256	258	404	408	634
10 A plug with 1 m cable - L1-N	75005011						
10 A plug with 1 m cable - L2-N	–	75005012					
10 A plug with 1 m cable - L3-N	–	75005013					
10 A plug with 1 m cable - L-N2	–	75005014					
10 A plug with 3 m cable - L1-N	75005021						
10 A plug with 3 m cable - L2-N	–	75005022					
10 A plug with 3 m cable - L3-N	–	75005023					
10 A plug with 3 m cable - L-N2	–	75005024					
16 A PHASE SELECTION TAP-OFFS	252	254	256	258	404	408	634
16 A plug (unfused)	75005000						
16 A plug + 1 x (5 x 20)	75005100						
16 A plug + 1 x (CH8)	75005200						
16 A PRE-WIRED TAP-OFFS	252	254	256	258	404	408	634
SP & N with 1.5 m cable and 6.3 A fuse - L1-N	750051001L1						
SP & N with 1.5 m cable and 6.3 A fuse - L2-N	–	750051001L2					
SP & N with 1.5 m cable and 6.3 A fuse - L3-N	–	750051001L3					
SP & N with 1.5 m cable and 6.3 A fuse - L-N2	–	750051001LN2					
DP & N with 1.5 m cable and 2 x 6.3 A fuse - L1+L3-N	–	7500510014C					
SP & N with 3 m cable and 6.3 A fuse - L1-N	750051003L1						
SP & N with 3 m cable and 6.3 A fuse - L2-N	–	750051003L2					
SP & N with 3 m cable and 6.3 A fuse - L3-N	–	750051003L3					
SP & N with 3 m cable and 6.3 A fuse - L-N2	–	750051003LN2					
DP & N with 3 m cable and 2 x 6.3 A fuse - L1+L3-N	–	7500510034C					
THREE-PHASE TAP-OFFS – 16 - 25 A	252	254	256	258	404	408	634
16 A 3 phase (unfused)	–	75005005					
25 A 3 phase (unfused)	–	75007005					
25 A 3 phase + 3 x (CH8)	–	75007205					
25 A 3 phase + 3 x (CH8) + 4 DIN BOX	–	75007206					
25 A 3 phase + (unfused) + 8 DIN BOX	–	75007207					
25 A 3 phase + (unfused) + 4 DIN BOX	–	75007006					
TAP-OFF ACCESSORIES	252	254	256	258	404	408	634
16 A mobile contact	75105000						
Window kit code	75105001						

LB PLUS straight lengths – Type A

straight lengths 25-63 A

LB PLUS straight lengths – Type B

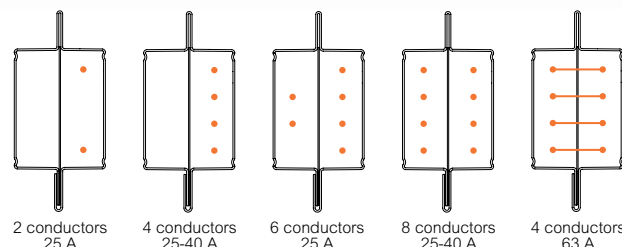
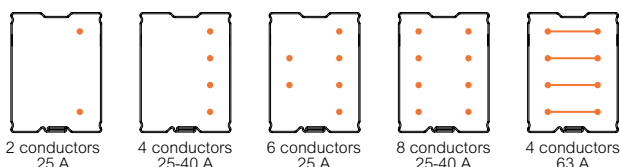
straight lengths 25-63 A



75160102



75360102H



Selection chart **p. 6-7**
 Technical data **p. 12**
 Dimensions and technical information **p. 14-15**



Selection chart **p. 6-7**
 Technical data **p. 13**
 Dimensions and technical information **p. 14-15**

Pack	Cat. Nos.	Straight lengths – Type A				
		Rigid galvanised steel casing 3 m maximum distance between suspension brackets Conductors insulated with self-extinguishing plastic (IEC 60695-2-12 and V0 according to UL94) Standard tap-off outlets with captive IP 55 plug-outlet covers Protection index : IP 55 Impact resistance : IK 07				
		252 with 2 x 25 A conductors				
1	75150101	Rating (A)	Conductors	Length (m)	Outlet points	Weight (kg)
		25	2	3-0	2	3-00
		254 with 4 x 25 A conductors				
1	75160101	Rating (A)	Conductors	Length (m)	Outlet points	Weight (kg)
		25	4	3-0	2	3-10
1	75160102	Rating (A)	Conductors	Length (m)	Outlet points	Weight (kg)
		25	4	3-0	4	3-20
		256 with 6 x 25 A conductors				
1	75170101	Rating (A)	Conductors	Length (m)	Outlet points	Weight (kg)
		25	6	3-0	2 + 2	3-65
		258 with 8 x 25 A conductors				
1	75180101	Rating (A)	Conductors	Length (m)	Outlet points	Weight (kg)
		25	8	3-0	2 + 2	3-75
1	75180102	Rating (A)	Conductors	Length (m)	Outlet points	Weight (kg)
		25	8	3-0	4 + 4	3-85
		404 with 4 x 40 A conductors				
1	75200101	Rating (A)	Conductors	Length (m)	Outlet points	Weight (kg)
		40	4	3-0	2	3-55
1	75200102	Rating (A)	Conductors	Length (m)	Outlet points	Weight (kg)
		40	4	3-0	4	3-65
1	75200111 ¹	Rating (A)	Conductors	Length (m)	Outlet points	Weight (kg)
		40	4	1-5	2	2-00
		408 with 8 x 40 A conductors				
1	75220101	Rating (A)	Conductors	Length (m)	Outlet points	Weight (kg)
		40	8	3-0	2 + 2	4-70
1	75220102	Rating (A)	Conductors	Length (m)	Outlet points	Weight (kg)
		40	8	3-0	4 + 4	4-80
1	75220111 ²	Rating (A)	Conductors	Length (m)	Outlet points	Weight (kg)
		40	8	1-5	1 + 1	2-50
		634 with 4 x 63 A conductors				
1	75240101	Rating (A)	Conductors	Length (m)	Outlet points	Weight (kg)
		63	4	3-0	2 + 2	4-70
1	75240102	Rating (A)	Conductors	Length (m)	Outlet points	Weight (kg)
		63	4	3-0	4 + 4	4-80
1	75240111	Rating (A)	Conductors	Length (m)	Outlet points	Weight (kg)
		63	4	1-5	1 + 1	2-50

1 : For use with both 25 and 40 A systems, and also 2 and 4 conductor versions
 2 : For use with both 25 and 40 A systems, and also 6 and 8 conductor versions

Pack	Cat. Nos.	Straight lengths – Type B				
		Reinforced highly rigid galvanised steel casing 7 m maximum distance between suspension brackets Conductors insulated with self-extinguishing plastic ZH (zero halogen) Standard tap-off outlets with captive IP 55 plug-outlet covers Mechanical separation of the 2 sides of the bar, (6 and 8 conductor versions) Protection index : IP 55 Impact resistance : IK 07				
		252 with 2 x 25 A conductors				
1	75350102H	Rating (A)	Conductors	Length (m)	Outlet points	Weight (kg)
		25	2	3-0	4	5-45
		254 with 4 x 25 A conductors				
1	75360102H	Rating (A)	Conductors	Length (m)	Outlet points	Weight (kg)
		25	4	3-0	4	5-55
1	75360103H	Rating (A)	Conductors	Length (m)	Outlet points	Weight (kg)
		25	4	3-0	6	5-60
		256 with 6 x 25 A conductors				
1	75370101H	Rating (A)	Conductors	Length (m)	Outlet points	Weight (kg)
		25	6	3-0	4 + 4	6-10
		258 with 8 x 25 A conductors				
1	75380101H	Rating (A)	Conductors	Length (m)	Outlet points	Weight (kg)
		25	8	3-0	4 + 4	6-20
1	75380102H	Rating (A)	Conductors	Length (m)	Outlet points	Weight (kg)
		25	8	3-0	6 + 6	6-35
		404 with 4 x 40 A conductors				
1	75400102H	Rating (A)	Conductors	Length (m)	Outlet points	Weight (kg)
		40	4	3-0	4	6-00
1	75400103H	Rating (A)	Conductors	Length (m)	Outlet points	Weight (kg)
		40	4	3-0	6	6-10
1	75400111H ¹	Rating (A)	Conductors	Length (m)	Outlet points	Weight (kg)
		40	4	1-5	2	3-20
		408 with 8 x 40 A conductors				
1	75420101H	Rating (A)	Conductors	Length (m)	Outlet points	Weight (kg)
		40	8	3-0	4 + 4	7-10
1	75420102H	Rating (A)	Conductors	Length (m)	Outlet points	Weight (kg)
		40	8	3-0	6 + 6	7-30
1	75420111H ²	Rating (A)	Conductors	Length (m)	Outlet points	Weight (kg)
		40	8	1-5	1 + 1	3-70
		634 with 4 x 63 A conductors				
1	75440101H	Rating (A)	Conductors	Length (m)	Outlet points	Weight (kg)
		63	4	3-0	4 + 4	7-10
1	75440102H	Rating (A)	Conductors	Length (m)	Outlet points	Weight (kg)
		63	4	3-0	6 + 6	7-30
1	75440111H	Rating (A)	Conductors	Length (m)	Outlet points	Weight (kg)
		63	4	1-5	1 + 1	3-70

1 : For use with both 25 and 40 A systems, and also 2 and 4 conductor versions
 2 : For use with both 25 and 40 A systems, and also 6 and 8 conductor versions

LB PLUS trunking components



75201003



75161001



75201004



75221263



Selection chart **p. 6-7**

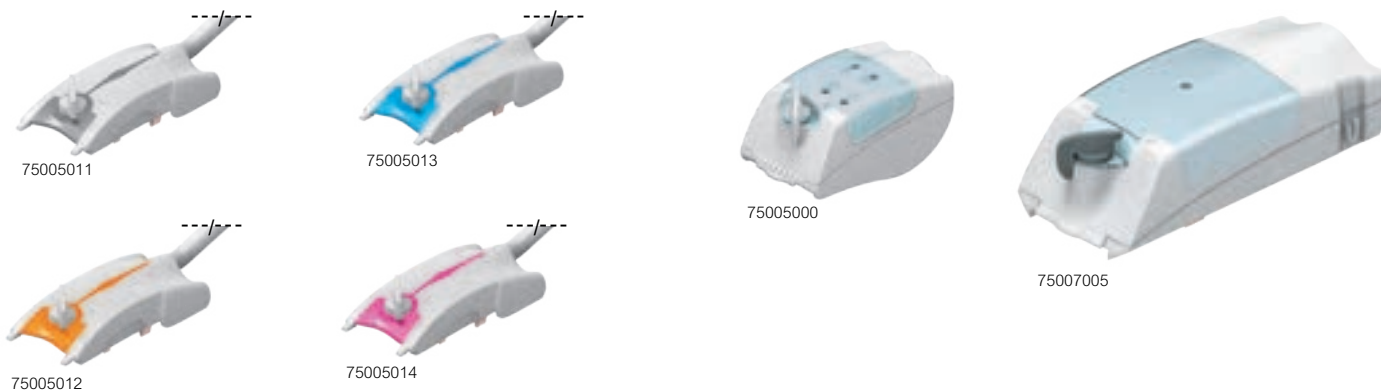
Technical data **p. 12-13**

Dimensions and technical information **p. 16-17**

Pack	Cat. Nos.	End feed units	
		Allow electrical powering of the LB PLUS busbar With terminals for the connection of stranded or solid copper wire cables Delivered with corresponding cable glands	
		Right hand feed units (reduced dimensions)	
		Supplied complete with corresponding end cover Cable terminal capacity 6 mm ² to 25 mm ² Max. cable Ø 32 mm	
		Type	Weight (kg)
1	75201003	25 / 40 A – 2 / 4 conductor version	0·80
1	75221003	25 / 40 A – 6 / 8 conductor version	0·90
1	75241003	63 A – 4 conductor version	0·80
		Left hand feed units (reduced dimensions)	
		Supplied complete with corresponding end cover Cable terminal capacity 6 mm ² to 25 mm ² Max. cable Ø 32 mm	
		Type	Weight (kg)
1	75201004	25 / 40 A – 2 / 4 conductor version	1·00
1	75221004	25 / 40 A – 6 / 8 conductor version	1·20
1	75241004	63 A – 4 conductor version	1·10
		Fast fit feed unit	
		Supplied complete with corresponding end cover Cable terminal capacity up to 6 mm ² Cable Ø from 12 mm to 18 mm	
		Type	Weight (kg)
1	75161001	25 A – 2 / 4 conductor version RH	0·45
1	75161002	25 A – 2 / 4 conductor version LH	0·85

Pack	Cat. Nos.	Centre feed units	
		Centre feed units can be used to power the busbar from an intermediate point of the line, reducing the voltage drop at the end of the line and/or facilitating the installation when the power supply point is near the centre of the line Complete with all internal wiring One set of terminals feeds both left hand and right hand feed sections Supplied with both end caps	
		Type	Weight (kg)
1	75201151	25 / 40 A – 2 / 4 conductor version	3·70
1	75221151	25 / 40 A – 6 / 8 conductor version	4·40
1	75241151	63 A – 4 conductor version	2·70
		Flexible joints (reduced dimensions)	
		Consists of a right hand and left hand unit Used to change direction, change level or overcome obstructions Flexible cable length : 940 mm	
		Type	Weight (kg)
1	75201263	25 / 40 A – 2 / 4 conductor version	2·00
1	75221263	25 / 40 A – 6 / 8 conductor version	3·10
1	75241263	63 A – 4 conductor version	2·50

LB PLUS tap-off plugs



Selection chart **p. 6-7**

Technical data **p. 12-13**

Dimensions and technical information **p. 16-17**

Pack	Cat. Nos.	10 A single phase tap-offs			
		For use with Type A and Type B busbar, all ratings			
		L1 colour code grey, cable type H05VVF			
		Phase	Length (m)	Weight (kg)	Fuseholder
1	75005011	L1-N	1	0.16	unfused
1	75005021	L1-N	3	0.38	unfused
		L2 colour code orange, cable type H05VVF			
		Phase	Length (m)	Weight (kg)	Fuseholder
1	75005012	L2-N	1	0.16	unfused
1	75005022	L2-N	3	0.38	unfused
		L3 colour code blue, cable type H05VVF			
		Phase	Length (m)	Weight (kg)	Fuseholder
1	75005013	L3-N	1	0.16	unfused
1	75005023	L3-N	3	0.38	unfused
		L-N2 colour code magenta, cable type H05VVF			
		Phase	Length (m)	Weight (kg)	Fuseholder
1	75005014	L-N2	1	0.16	unfused
1	75005024	L-N2	3	0.38	unfused

Pack	Cat. Nos.	16 A phase selection tap-offs	
		For use with Type A and Type B busbar, all ratings	
			Weight (kg)
1	75005000	16 A plug (unfused)	0.12
1	75005100	16 A plug + 1 x (5x20)	0.13
1	75005200	16 A plug + 1 x (CH8)	0.13

Pack	Cat. Nos.	16 A pre-wired tap-offs	
		For use with Type A and Type B busbar, all ratings	
		With 1.5 m cable	
			Phase
1	750051001L1	SP & N with 6.3 A fuse	L1-N
1	750051001L2	SP & N with 6.3 A fuse	L2-N
1	750051001L3	SP & N with 6.3 A fuse	L3-N
1	750051001LN2	SP & N with 6.3 A fuse	L-N2
1	7500510014C	DP & N with 2 x 6.3 A fuse	L1+L3-N
		With 3 m cable	
			Phase
1	750051003L1	SP & N with 6.3 A fuse	L1-N
1	750051003L2	SP & N with 6.3 A fuse	L2-N
1	750051003L3	SP & N with 6.3 A fuse	L3-N
1	750051003LN2	SP & N with 6.3 A fuse	L-N2
1	7500510034C	DP & N with 2 x 6.3 A fuse	L1+L3-N

Pack	Cat. Nos.	3 phase tap-offs – 16-25 A	
		For use with Type A and Type B busbar, all ratings	
			Weight (kg)
1	75005005	16 A 3 phase (unfused)	0.13
1	75007005	25 A 3 phase (unfused)	0.12
1	75007205	25 A 3 phase + 3 x (CH8)	0.12
1	75007206	25 A 3 phase + 3 x (CH8) + 4 DIN box	0.63
1	75007207	25 A 3 phase (unfused) + 8 DIN box	0.80
1	75007006	25 A 3 phase (unfused) + 4 DIN box	0.63

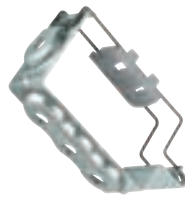
Pack	Cat. Nos.	Tap-off accessories	
		Used with Cat. Nos. 75005000 or 75005100 to make contact with additional conductors on the busbar	
10	75105000	16 A mobile contact	
		Enables tap-off to access a single designated side of the busbar	
20	75105001	Window kit code	

LB PLUS busbar trunking system

hangers and cable channel



75003000



75003004



71000104



75003006



75003002

75003001



75003005



EEA313



EEC353

 **Dimensions and technical information p. 18-19**

Pack	Cat. Nos.	Hangers
12 12	75003000 75003004	60 kg suspension bracket Bracket Cat. No. 75003000 can be used for the suspension of the line and the suspension of light fittings at the same time, while bracket Cat. No. 75003004 may only perform one of the two functions, depending on its rotation For Type A busbar – weight 0.045 kg For Type B busbar – weight 0.045 kg
10	75003001	Hook for lamp Must always be used with brackets Cat. Nos. 75003000 or 75003004, depending on the type of busbar Weight 0.015 kg
10	75003002	Ring Must always be used with brackets Cat. Nos. 75003000 or 75003004, depending on the type of busbar Weight 0.015 kg
10	75003005	Pigtail for chain Must always be used with brackets Cat. Nos. 75003000 or 75003004, depending on the type of busbar Weight 0.015 kg
1	75003007	Spacer on brackets For floor installation Weight 0.040 kg
12	75003008	5 m steel cable with self locking clamp For Type B busbar – weight 0.085 kg
12	75003009	Bracket with 3 m steel cable For Type A busbar – weight 0.05 kg

Pack	Cat. Nos.	PVC cable channel
1	71000104	PVC cable channel with cover 3 m – weight 0.884 kg
6	75003006	Bracket for cable channel Must always be used with brackets Cat. Nos. 75003000 or 75003004 depending on the type of busbar and cable channel Cat. No. 71000104 Weight 0.135 kg
1	EEC348	Steel cable tray Cable tray 3 m (L) x 50 mm (W) x 13 mm (H) Trunking suspended fixing bracket c/w cable tray stirrup. Used when running cable tray on top of busbar trunking Cable tray fixing bracket
1	EEA313	
1	EEC353	

LB PLUS busbar trunking systems

technical data

■ LB PLUS - Type A

Type		252	254	256	258	404	408	634
Number of live conductors		2	4	6	8	4	8	4
Casing overall dimensions	LxH [mm]	35 x 46	35 x 46	35 x 46	35 x 46	35 x 46	35 x 46	35 x 46
Rated current	I _n [A]	25	25	25	25	40	40	63
Operating voltage	U _e [V]	400	400	400	400	400	400	400
Insulation voltage	U _i [V]	500	500	500	500	500	500	500
Frequency	f [Hz]	50/60	50/60	50/60	50/60	50/60	50/60	50/60
Rated short-time current (0.1 s)	I _{cw} [kArms]	–	2.2	2.2	2.2	2.7	2.7	2.7
Peak current	I _{pk} [kA]	–	3.3	3.3	3.3	4.1	4.1	4.1
Single phase rated short-time current (0.1 s)	I _{cw} [kArms]	1.3	1.3	1.3	1.3	1.6	1.6	1.6
Single phase peak current	I _{pk} [kA]	2.0	2.0	2.0	2.0	2.4	2.4	2.4
Thermal limit	I ² t [A ² s x 10 ⁶]	0.174	0.484	0.484	0.484	0.729	0.729	0.729
20° C phase resistance	R ₂₀ [mΩ/m]	4.761	4.761	4.761	4.761	3.190	3.190	1.595
Phase resistance at thermal conditions	R _t [mΩ/m]	5.656	5.656	5.656	5.656	3.802	3.802	1.901
Phase reactance (50Hz)	X [mΩ/m]	0.229	0.229	0.229	0.229	0.236	0.236	0.118
Phase impedance	Z [mΩ/m]	4.767	4.767	4.767	4.767	3.199	3.199	1.599
Resistance of the protective conductor ¹	R _{PE} [mΩ/m]	1.695	1.695	1.695	1.695	1.695	1.695	1.695
Reactance of the protective conductor ¹ (50Hz)	X _{PE} [mΩ/m]	0.222	0.222	0.222	0.222	0.222	0.222	0.222
Resistance of the fault loop	R _o [mΩ/m]	6.456	6.456	6.456	6.456	4.885	4.885	3.290
Reactance of the fault loop (50Hz)	X _o [mΩ/m]	0.451	0.451	0.451	0.451	0.458	0.458	0.340
Impedance of the fault loop	Z _o [mΩ/m]	6.472	6.472	6.472	6.472	4.906	4.906	3.308
Voltage drop with distributed load referred to V3f ³	ΔV 10 ⁻³ cosφ = 0.70 [V/m/A]	4.123 ²	3.570	3.570	3.570	2.830	2.451	1.225
	ΔV 10 ⁻³ cosφ = 0.75 [V/m/A]	4.393 ²	3.805	3.805	3.805	3.008	2.605	1.302
	ΔV 10 ⁻³ cosφ = 0.80 [V/m/A]	4.662 ²	4.038	4.038	4.038	3.183	2.757	1.378
	ΔV 10 ⁻³ cosφ = 0.85 [V/m/A]	4.928 ²	4.268	4.268	4.268	3.356	2.906	1.453
	ΔV 10 ⁻³ cosφ = 0.90 [V/m/A]	5.190 ²	4.495	4.495	4.495	3.525	3.052	1.526
	ΔV 10 ⁻³ cosφ = 0.95 [V/m/A]	5.445 ²	4.715	4.715	4.715	3.686	3.192	1.596
	ΔV 10 ⁻³ cosφ = 1.00 [V/m/A]	5.656 ²	4.898	4.898	4.898	3.802	3.293	1.646
Weight	p [kg/m]	1.00	1.04	1.25	1.28	1.19	1.56	1.56
Fire load	[kWh/m]	1.0	1.0	1.9	1.9	1.0	1.9	1.9
Protection index	IP	55	55	55	55	55	55	55
Degree of impact-resistance	IK	07	07	07	07	07	07	07
Joule effect losses at rated current	P [W/m]	10.6	10.6	10.6	10.6	18.2	18.2	22.6
Ambient temperature min / MAX	t [°C]	-5/+50	-5/+50	-5/+50	-5/+50	-5/+50	-5/+50	-5/+50

1 : Metal casing

2 : Single phase values with distributed load

3 : Three phase

$$\Delta V_{3f} = \sqrt{3}/2 \times (R_t \cos\phi + X \sin\phi)$$

$$\Delta V_{3f}(I_n) = I \times L \times \Delta V_{3f} : (\text{knowing the current and length of the line})$$

$$\Delta V_{3f}(I_n)\% = (\Delta V_{3f}(I_n) / U_e) \times 100 (\%)$$

To calculate the ΔV1f (Single phase) on distributed load:

$$\Delta V_{1f} = 1/2 \times (2R_t \cos\phi + 2X \sin\phi)$$

$$\Delta V_{1f}(I_n) = I \times L \times \Delta V_{1f} : (\text{knowing the current and length of the line})$$

$$\Delta V_{1f}(I_n)\% = (\Delta V_{1f}(I_n) / U_e) \times 100 (\%)$$

I = operating current (A)

L = length (m)

Short circuit protection for Zucchini's product ranges (I_n ≤ 100A)

Zucchini busbar trunking systems with a rated current lower than or equal to 100A (LB PLUS-MS 63 and 100) are properly protected through an MCB (Miniature Circuit Breaker) with a rated current lower than or equal to that of the busbar. This protection is guaranteed up to the MCB breaking capacity

Product fully in compliance with IEC 61439-6

LB PLUS busbar trunking systems

technical data

■ LB PLUS – Type B

Type		252	254	256	258	404	408	634
Number of live conductors		2	4	6	8	4	8	4
Casing overall dimensions	LxH [mm]	35 x 77	35 x 77	35 x 77	35 x 77	35 x 77	35 x 77	35 x 77
Rated current	I _n [A]	25	25	25	25	40	40	63
Operating voltage	U _e [V]	400	400	400	400	400	400	400
Insulation voltage	U _i [V]	500	500	500	500	500	500	500
Frequency	f [Hz]	50/60	50/60	50/60	50/60	50/60	50/60	50/60
Rated short-time current (0.1 s)	I _{cw} [kArms]	–	2.2	2.2	2.2	2.7	2.7	2.7
Peak current	I _{pk} [kA]	–	3.3	3.3	3.3	4.1	4.1	4.1
Single phase rated short-time current (0.1 s)	I _{cw} [kArms]	1.3	1.3	1.3	1.3	1.6	1.6	1.6
Single phase peak current	I _{pk} [kA]	2.0	2.0	2.0	2.0	2.4	2.4	2.4
Thermal limit	I ² t [A ² s x 10 ⁶]	0.174	0.484	0.484	0.484	0.729	0.729	0.729
20 °C phase resistance	R ₂₀ [mΩ/m]	4.761	4.761	4.761	4.761	3.190	3.190	1.595
Phase resistance at thermal conditions	R _t [mΩ/m]	5.656	5.656	5.656	5.656	3.802	3.802	1.901
Phase reactance (50Hz)	X [mΩ/m]	0.229	0.229	0.229	0.229	0.236	0.236	0.118
Phase impedance	Z [mΩ/m]	4.767	4.767	4.767	4.767	3.199	3.199	1.599
Resistance of the protective conductor ¹	R _{PE} [mΩ/m]	1.195	1.195	1.195	1.195	1.195	1.195	1.195
Reactance of the protective conductor ¹ (50Hz)	X _{PE} [mΩ/m]	0.274	0.274	0.274	0.274	0.274	0.274	0.274
Resistance of the fault loop	R _o [mΩ/m]	5.956	5.956	5.956	5.956	4.385	4.385	2.790
Reactance of the fault loop (50Hz)	X _o [mΩ/m]	0.503	0.503	0.503	0.503	0.510	0.510	0.392
Impedance of the fault loop	Z _o [mΩ/m]	5.977	5.977	5.977	5.977	4.415	4.415	2.817
Voltage drop with distributed load referred to V3f ³	ΔV 10 ⁻³ cosφ = 0.70 [V/m/A]	4.123 ²	3.570	3.570	3.570	2.830	2.451	1.225
	ΔV 10 ⁻³ cosφ = 0.75 [V/m/A]	4.393 ²	3.805	3.805	3.805	3.008	2.605	1.302
	ΔV 10 ⁻³ cosφ = 0.80 [V/m/A]	4.662 ²	4.038	4.038	4.038	3.183	2.757	1.378
	ΔV 10 ⁻³ cosφ = 0.85 [V/m/A]	4.928 ²	4.268	4.268	4.268	3.356	2.906	1.453
	ΔV 10 ⁻³ cosφ = 0.90 [V/m/A]	5.190 ²	4.495	4.495	4.495	3.525	3.052	1.526
	ΔV 10 ⁻³ cosφ = 0.95 [V/m/A]	5.445 ²	4.715	4.715	4.715	3.686	3.192	1.596
	ΔV 10 ⁻³ cosφ = 1.00 [V/m/A]	5.656 ²	4.898	4.898	4.898	3.802	3.293	1.646
Weight	p [kg/m]	1.80	1.83	2.02	2.02	1.98	2.33	2.33
Fire load	[kWh/m]	1.1	1.1	2.1	2.1	1.1	2.1	2.1
Protection index	IP	55	55	55	55	55	55	55
Degree of impact-resistance	IK	07	07	07	07	07	07	07
Joule effect losses at rated current	P [W/m]	10.6	10.6	10.6	10.6	18.2	18.2	22.6
Ambient temperature min-/MAX	t [°C]	-5/+50	-5/+50	-5/+50	-5/+50	-5/+50	-5/+50	-5/+50

1 : Metal casing

2 : Single phase values with distributed load

3 : Three phase - see pg 12

Temperature rating schedule according to the room temperature

Room temperature [°C]	15	20	25	30	35	40	45	50	55	60
K1 Factor	1.15	1.12	1.08	1.05	1.025	1	0.975	0.95	0.93	0.89

Multiplier coefficient of rated current for room temperature values different from 40° C

Mechanical loads permitted table

The table shows the maximum weights (kg) that can be supported, both for concentrated, and distributed loads

LB PLUS – TYPE B	LB PLUS – TYPE A	Distance between suspension brackets	Concentrated load	Distributed load
		1.5	40	50 kg/m (75 kg) ⁴
	2.0	30	30 kg/m (60 kg) ⁴	
	3.0	20	13 kg/m (39 kg) ⁴	
	5.0	13	5 kg/m (25 kg) ⁴	
	7.0	7	2 kg/m (14 kg) ⁴	

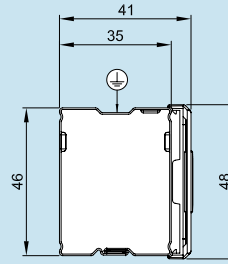
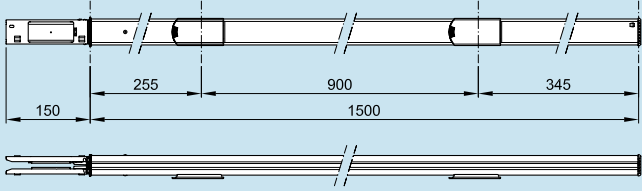
4 : Distributed load total weight

LB PLUS busbar trunking systems

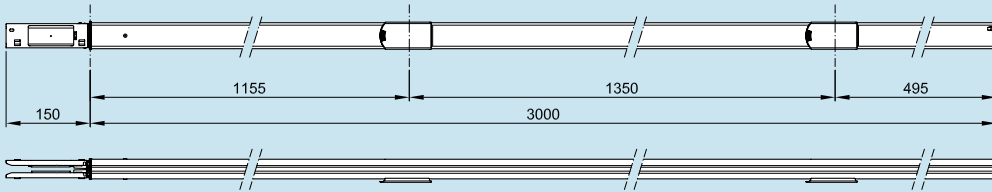
technical information

■ LB PLUS – Type A – 252/254/404

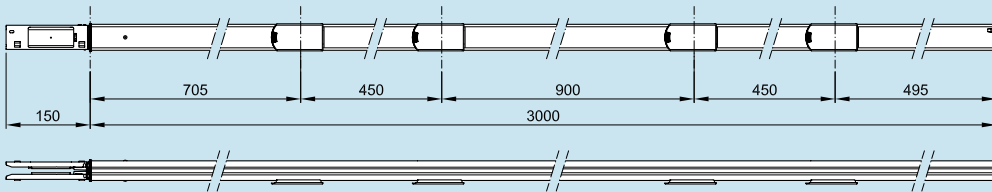
1.5 m - 2 outlets (single sided only)



3 m - 2 outlets (single sided only)

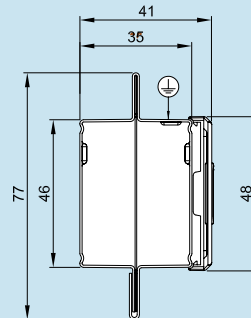
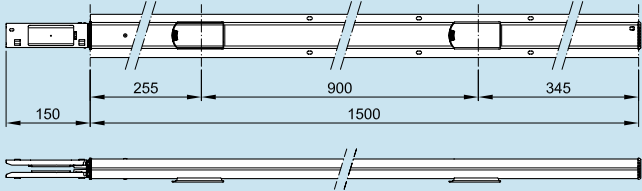


3 m - 4 outlets (single sided only)

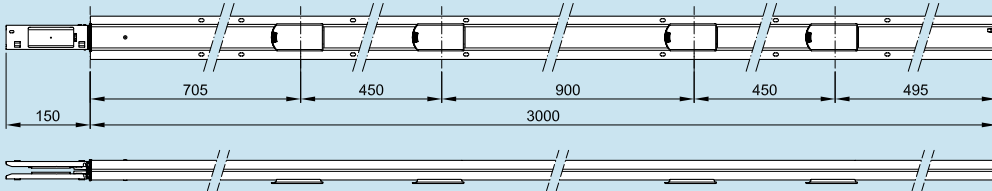


■ LB PLUS – Type B – 252/254/404

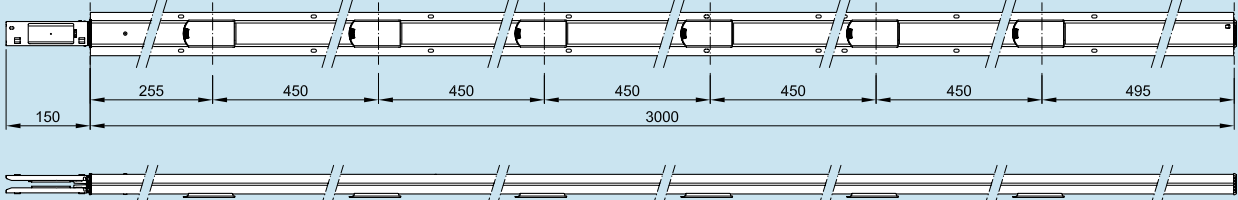
1.5 m - 2 outlets (single sided only)



3 m - 4 outlets (single sided only)



3 m - 6 outlets (single sided only)



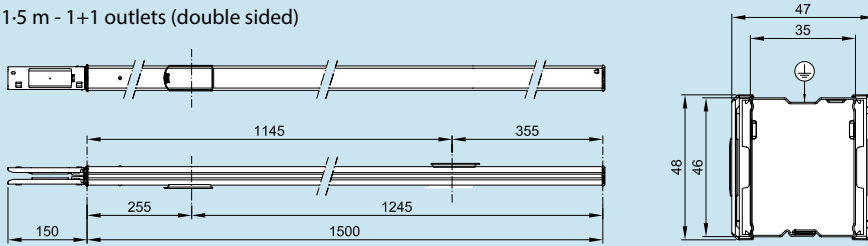
All dimensions (mm) are nominal

LB PLUS busbar trunking systems

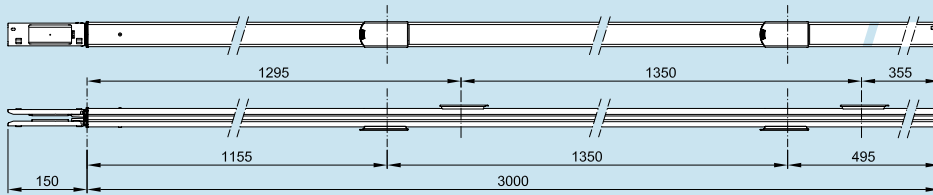
technical information

■ LB PLUS – Type A – 256/258/408/634

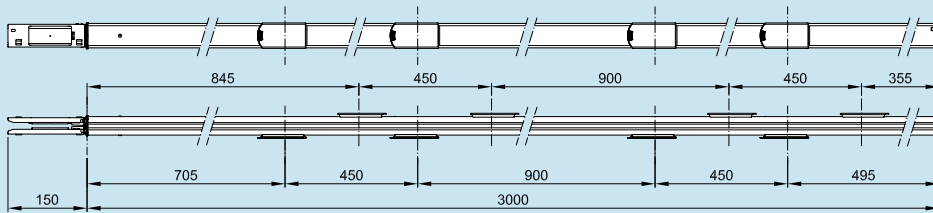
1.5 m - 1+1 outlets (double sided)



3 m - 2+2 outlets (double sided)

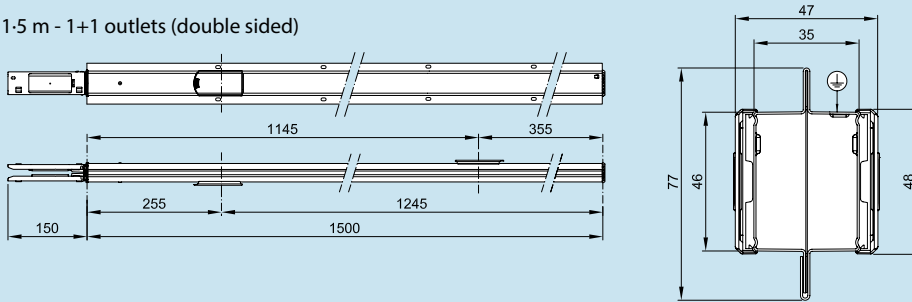


3 m - 4+4 outlets (double sided)

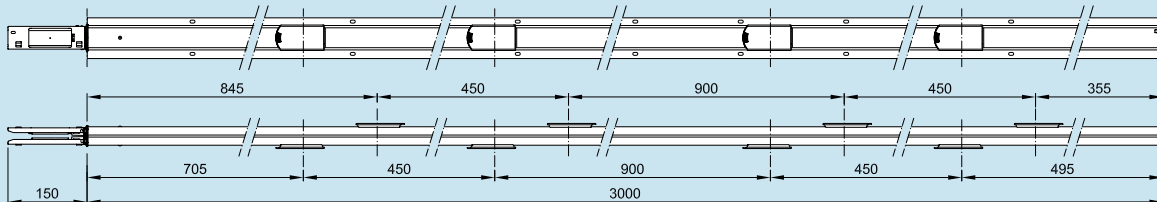


■ LB PLUS– Type B – 256/258/408/634

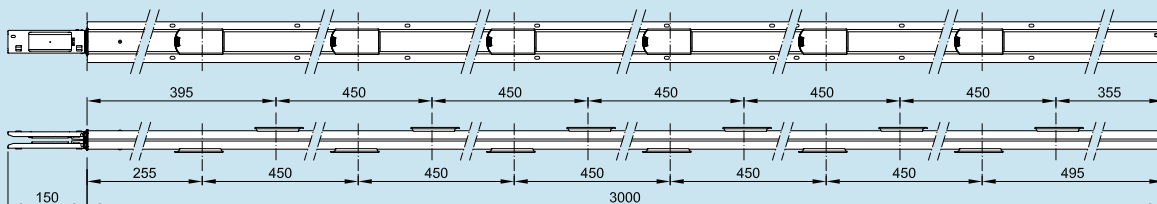
1.5 m - 1+1 outlets (double sided)



3 m - 4+4 outlets (double sided)



3 m - 6+6 outlets (double sided)



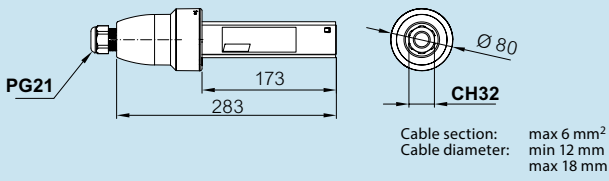
All dimensions (mm) are nominal

LB PLUS busbar trunking systems

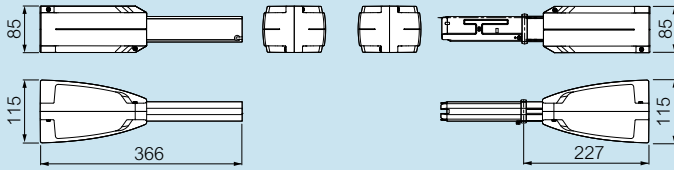
technical information

Trunking components

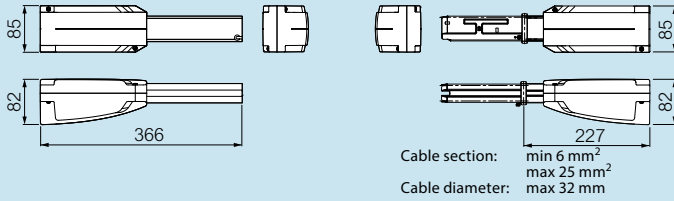
Feed unit 254



Feed unit (reduced dimensions) 40 / 63 A 408

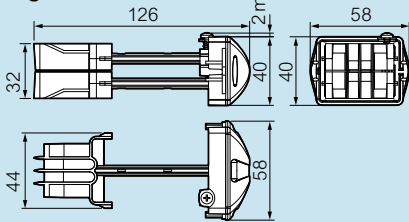


404 / 634

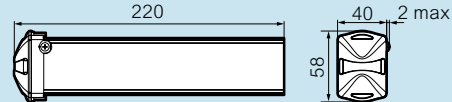


End cover

Right

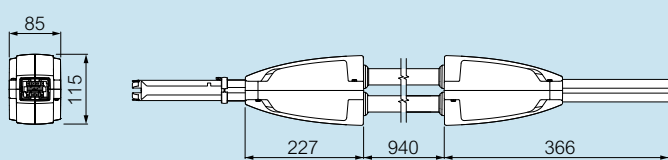


Left

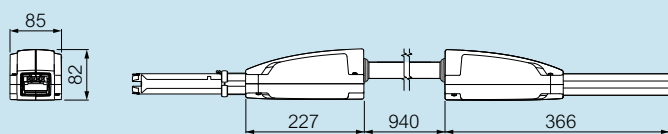


Flexible joint (reduced dimensions) 404 / 408 / 634

408



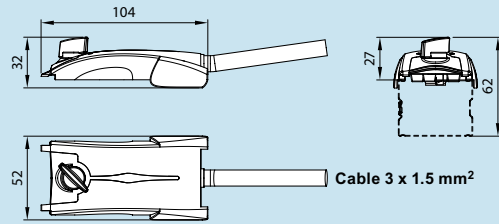
404 / 603



All dimensions (mm) are nominal

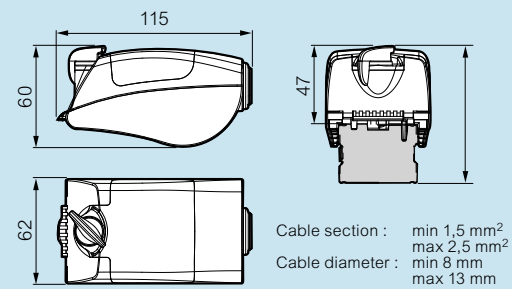
Tap-offs

Plug 10 A



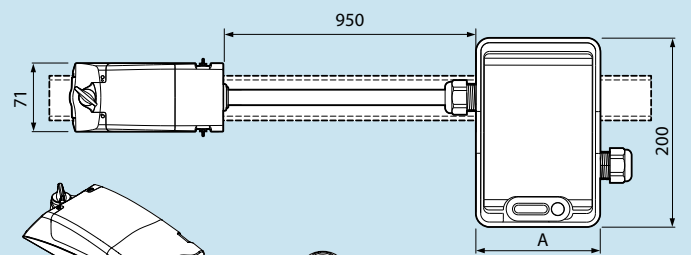
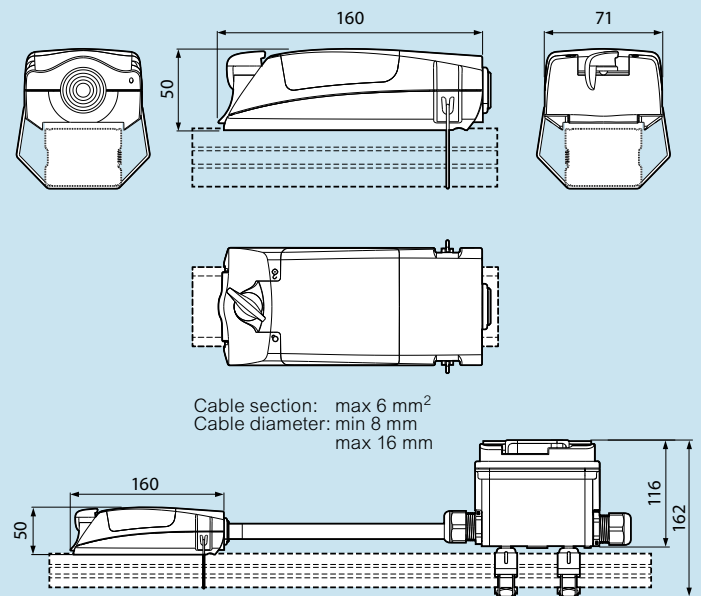
Plug 10 A
L1-N GREY
L2-N ORANGE
L3-N BLUE
L-N2 MAGENTA

Plug 16 A

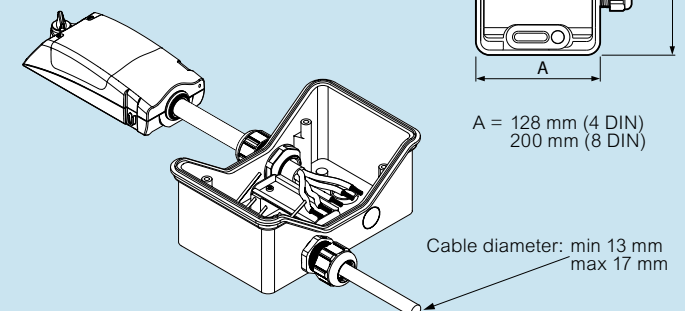


Plug 25 A

Cat. Nos. 75007005 / 75007205



A = 128 mm (4 DIN)
200 mm (8 DIN)

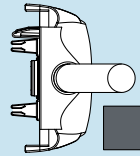
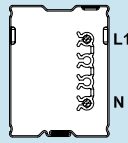


LB PLUS busbar trunking systems

technical information

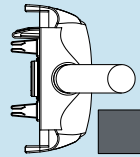
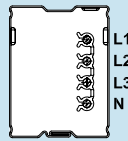
■ Colour coding for 10 A single phase tap-offs

2 CONDUCTORS

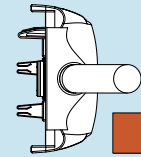


L1-N
75005011 / 75005021

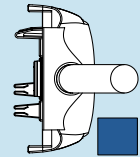
4 CONDUCTORS
three-phase



L1-N
75005011 / 75005021

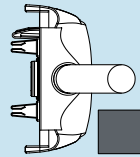
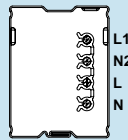


L2-N
75005012 / 75005022

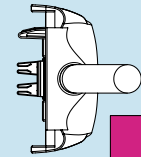


L3-N
75005013 / 75005023

4 CONDUCTORS
dual single phase

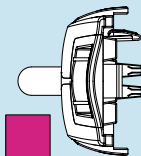


L1-N
75005011 / 75005021

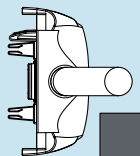
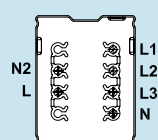


L-N2
75005014 / 75005024

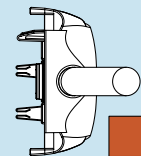
6 CONDUCTORS



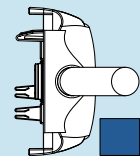
L-N2
75005014 / 75005024



L1-N
75005011 / 75005021

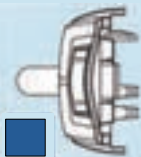


L2-N
75005012 / 75005022

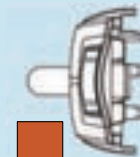


L3-N
75005013 / 75005023

8 CONDUCTORS



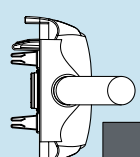
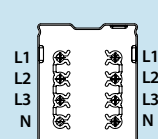
L3-N
75005013 / 75005023



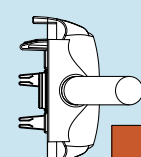
L2-N
75005012 / 75005022



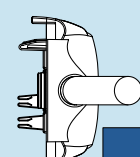
L1-N
75005011 / 75005021



L1-N
75005011 / 75005021

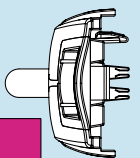


L2-N
75005012 / 75005022

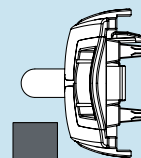


L3-N
75005013 / 75005023

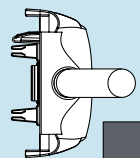
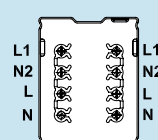
4 x SINGLE PHASE



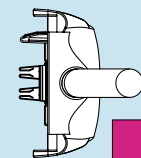
L-N2
75005014 / 75005024



L1-N
75005011 / 75005021



L1-N
75005011 / 75005021



L-N2
75005014 / 75005024

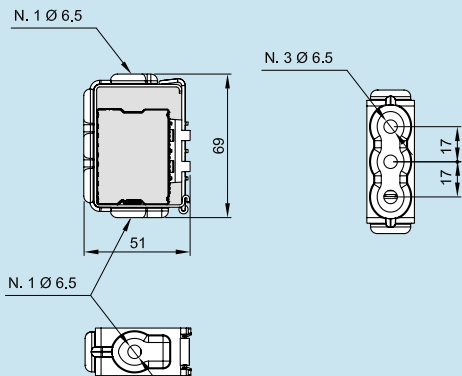
All dimensions (mm) are nominal

LB PLUS busbar trunking systems

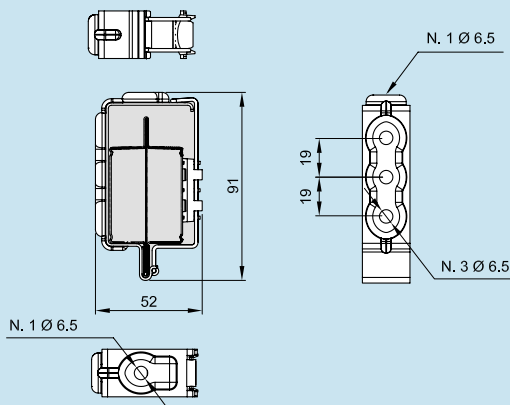
technical information

■ Hangers and cable channel

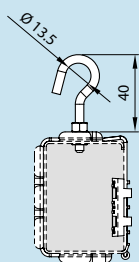
60 kg suspension bracket for Type A busbar Cat. No. 75003000



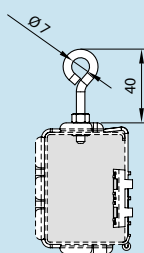
60 kg suspension bracket for Type B busbar Cat. No. 75003004



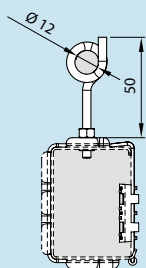
Hook for lamp Cat. No. 75003001



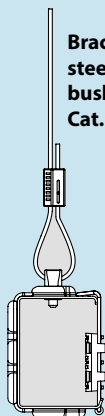
Ring Cat. No. 75003002



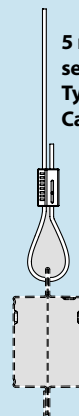
Pig tail for chain Cat. No. 75003005



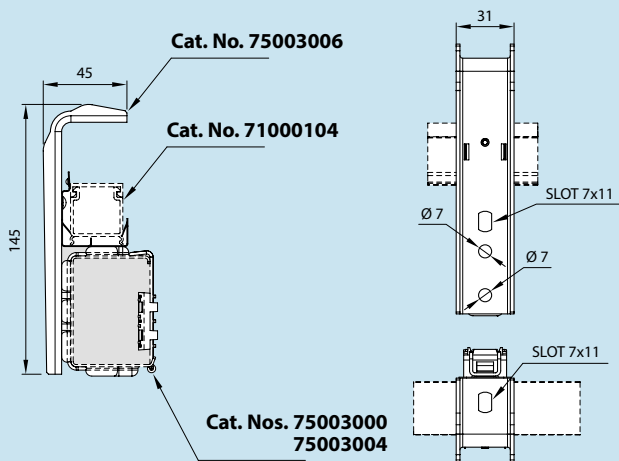
Bracket with 3 m steel cable for Type A busbar Cat. No. 75003009



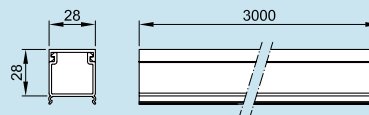
5 m steel cable with self-locking clamp for Type B busbar Cat. No. 75003008



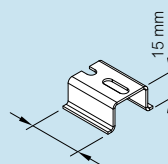
Bracket for cable channel



PVC cable channel with cover Cat. No. 71000104



Spacer on brackets for floor installation Cat. No. 75003007



All dimensions (mm) are nominal

LB PLUS busbar trunking systems

installation methods

LB PLUS requires a fixing bracket Cat. No. 75003000 for Type A and a fixing bracket Cat. No. 75003004 for Type B
Both brackets come with a 6.5 mm Ø hole and can be fixed to 6 mm² threaded rod

■ Suspension

For suspension, the bracket must be fitted with a range of appropriate accessories, which must be added according to the installation requirements

Ceiling suspension of LB PLUS Type A

Pigtail for chain

This solution is possible by ordering suspension bracket item Cat. No. 75003000 and accessory Cat. No. 75003005, preset for the connection of a chain



Bracket with steel cable

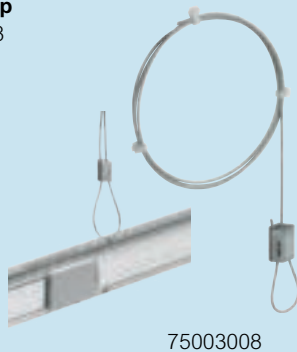
This solution is already supplied as a kit Cat. No. 75003009, consisting of a suspension bracket and a 3 m steel cable



Ceiling suspension of LB PLUS Type B

5 m cable with self locking clamp

This accessory Cat. No. 75003008 allows the suspension of the reinforced (Type B) straight lengths using the slots along the reinforcement plate at the top of the bar



■ Suspension of light fittings

LB PLUS - single and double sided

For the suspension of light fittings, use hook Cat. No. 75003001 or ring Cat. No. 75003002
These accessories can be installed on the brackets used for the suspension of the busbar (Cat. Nos. 75003000 and 75003004).

