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	In [A]	25	25	25	25	40	40	63
Section of protective conductor(1)	S_{PE} [mm²]	91·45	91·45	91·45	91·45	91·45	91·45	91·45
Section of protective conductor(1) eq.Cu	S_{PE} (=Cu) [mm²]	11	11	11	11	11	11	11
Operating voltage	Ue [V]	400	400	400	400	400	400	400
Insulation voltage	Ui [V]	690	690	690	690	690	690	690
Frequency	f [Hz]	5/6	5/6	5/6	5/6	5/6	5/6	5/6
Rated short-time current (0·1 s)	I_{CW} [kArms]	2·2	2·2	2·2	2·2	2·7	2·7	2·7
Allowable peak current	Ipk [kA]	4·4	4·4	4·4	4·4	5·4	5·4	5·4
Thermal limit	I^2t [A^2s x 106]	0·484	0·484	0·484	0·484	0·729	0·729	0·729
20° C phase resistance	R_{20} [mΩ/m]	5·278	5·278	5·278 | 5·278	5·278	2·891	2·891	2·639
Phase resistance at thermal conditions	R_t [mΩ/m]	6·798	6·798	6·798	6·798	3·793	3·793	3·399
Phase reactance (50Hz)	X [mΩ/m]	1·114	1·279	1·279 | 1·114	1·279	0·770	0·770	0·637
Phase impedance	Z [mΩ/m]	5·394	5·431	5·431 | 5·394	5·431	2·992	2·992	2·715
Resistance of the protective conductor¹	R_{PE} [mΩ/m]	0·203	0·203	0·203	0·203	0·203	0·203	0·203
Reactance of the protective conductor (50Hz)	X_{PE} [mΩ/m]	1·100	1·100	1·000	1·000	1·100	1·000	1·000
Resistance of the fault loop	R_o [mΩ/m]	5·482	5·482	5·482	5·482	3·094	3·094	2·843
Reactance of the fault loop (50Hz)	X_o [mΩ/m]	2·214	2·379	2·279	2·279	1·870	1·770	1·637
Impedance of the fault loop	Z_o [mΩ/m]	5·912	5·976	5·936	5·936	3·615	3·565	3·280
Voltage drop with distributed load	$\Delta V\ 10^{-3}$ cosφ = 0·70 [V/m/A]	4·81	3·99	3·99 | 3·89	3·99	2·23	2·23	1·99
	$\Delta V\ 10^{-3}$ cosφ = 0·75 [V/m/A]	5·05	4·16	4·16 | 4·07	4·16	2·32	2·32	2·08
	$\Delta V\ 10^{-3}$ cosφ = 0·80 [V/m/A]	5·29	4·32	4·32 | 4·24	4·32	2·40	2·40	2·16
	$\Delta V\ 10^{-3}$ cosφ = 0·85 [V/m/A]	5·51	4·47	4·47 | 4·39	4·47	2·48	2·48	2·23
	$\Delta V\ 10^{-3}$ cosφ = 0·90 [V/m/A]	5·72	4·60	4·60 | 4·53	4·60	2·54	2·54	2·30
	$\Delta V\ 10^{-3}$ cosφ = 0·95 [V/m/A]	5·89	4·69	4·69 | 4·64	4·69	2·59	2·59	2·34
	$\Delta V\ 10^{-3}$ cosφ = 1·00 [V/m/A]	5·89	4·57	4·57 | 4·57	4·57	2·50	2·50	2·29
Weight	p [kg/m]	1·00	1·04	1·25	1·28	1·19	1·56	1·56
Fire load	[kWh/m]	1·03	1·03	1·91	1·91	1·0	1·9	1·9
Protection index	IP	55	55	55	55	55	55	55
Degree of impact-resistance	IK	7	7	7	7	7	7	7
Joule effect losses at rated current	P [W/m]	12·7	12·7	12·7	12·7	18·2	18·2	40·5
Ambient temperature min / MAX	t [°C]	-5/+50	-5/+50	-5/+50	-5/+50	-5/+50	-5/+50	-5/+50

1 : metal casing

$$\Delta V1F = \frac{1}{2}\sqrt{}\ (2\ R_{20}\cos\varphi + 2\ X\ \text{sen}\phi)$$

$$\Delta V3F = \frac{3}{2}\sqrt{}\ (R_{20}\cos\varphi + X\ \text{sen}\phi)$$

Short circuit protection for Zucchini's product ranges (In≤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 (Modular 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 EN 60439-2