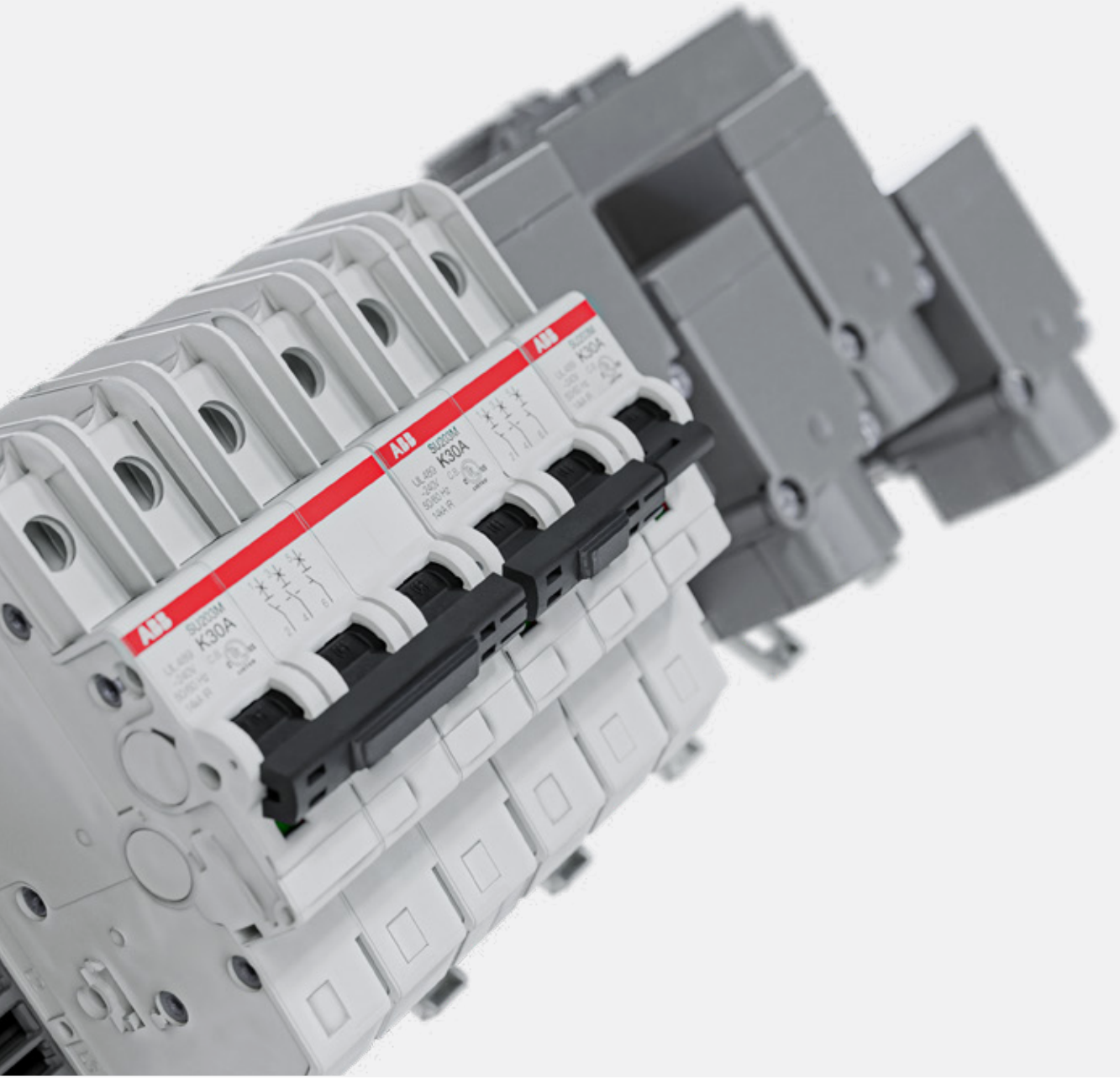


US CATALOG

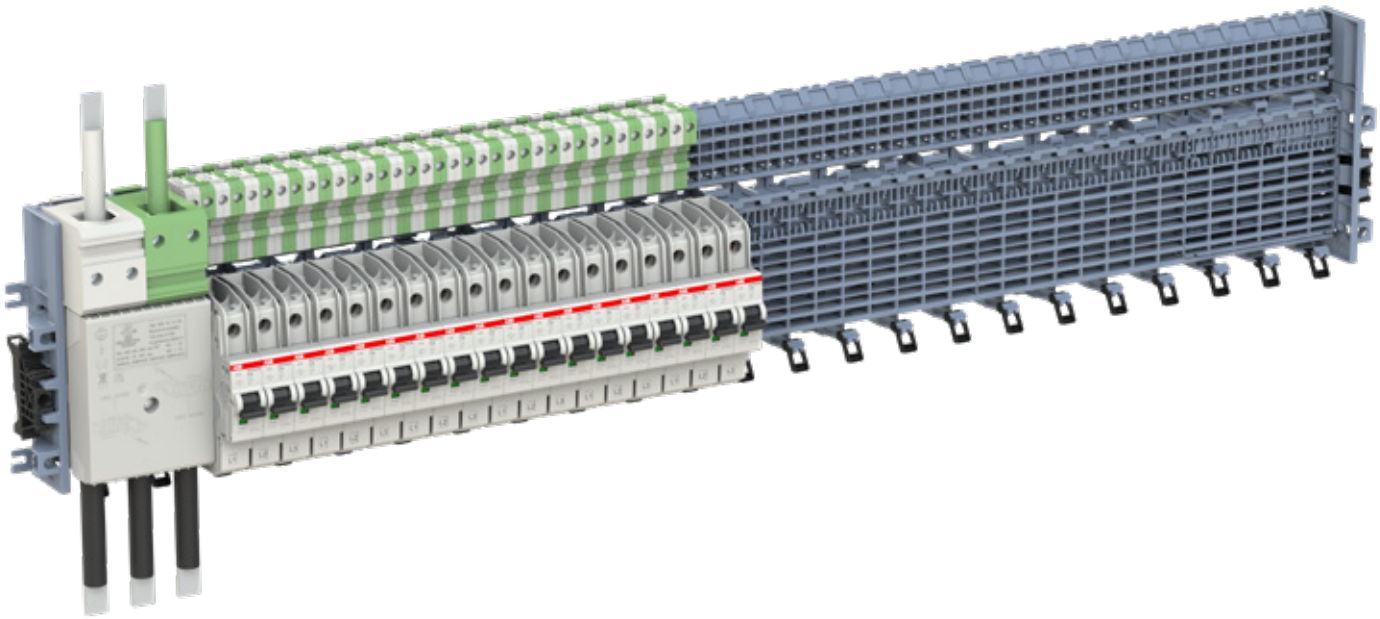
SMISSLINE TP TOUCH-PROOF SYSTEM

Power and safety

ENGINEERED
TO OUTRUN

SMISSLINE TP POWER BAR SYSTEM

More power with proven safety



SMISSLINE TP power bar system

- Busbar system, contact rails max. 125 A; incoming system with max. 250 A and power bar system contact rails max. 250 A; incoming system with max. 400 A
- Miniature circuit breakers available in 1-, 2-, 3- and 4-pole options
- Lateral power supply with 250 A for IEC 61439-6 and UL 508 applications; the additional socket is not UL-approved
- Power supply solution with threaded connection for a ring lug up to 150 mm^2
- Safe and strong option for connection to power supply circuit breaker
- Practice-oriented set-up and connection in distribution systems for vertical or horizontal applications
- Simple and quick assembly
- Devices can be arranged on the system in any order
- Systems set up vertically and in parallel: each with one power supply
- A wide range of accessories are available to meet design requirements

SMISSLINE TP at a glance

- **Safe** — IP20 touch-safe design for reliable maintenance
- **Flexible** — Rapid replacement, easy expansion and mixed-pole layout possible
- **Economical** — Saves time and space thanks to plug-in technology

01

Product ordering information

Product ordering information

Miniature circuit breaker (MCB) for UL 489

SUP400 series technical features

				SUP400M
General data	Standards			UL 489 CSA 22.2 No. 5
	Number of poles			1P, 2P, 3P
	Tripping characteristics			C, K
	Rated current I_n		A	2 … 40 A
	Rated frequency f		Hz	50 / 60 Hz
	Rated insulation voltage U_i acc. toIEC/EN 60664-1		V	440 V AC (240/415 V AC) 500 V AC (277/480 V AC)
	Overvoltage category			III
	Pollution degree			3 (240/415 V AC) 2 (277/480 V AC)
Data acc. to IEC/EN 60947-2	Rated operational voltage U_e		V	1P, 1P+NP: 240 V AC, 277 V AC 2P, 3P, 3P+NP: 240/415 V AC, 277/480 V AC
	Max. power frequency recovery voltage (U_{max})		V	
	Min. operating voltage		V	12 V AC – 12 V DC
	Rated ultimate short-circuit breaking capacity I_{cu}		kA	40 kA (2 ... 16 A, 240/415 V AC) 30 kA (20 ... 40 A, 240/415 V AC) 20 kA (50 … 63 A, 240/415 V AC) 20 kA (2 ... 16 A, 277/480 V AC) 15 kA (20 ... 40 A, 277/480 V AC) 5 kA (50 … 63 A, 277/480 V AC)
	Rated service short-circuit breaking capacity I_{cs}		kA	20 kA (2 ... 16 A, 240/415 V AC) 15 kA (20 ... 40 A, 240/415 V AC) 7.5 kA (50 …. 63 A, 240/415 V AC) 40 kA (2 ... 16 A, 277/480 V AC) 5 kA (20 ... 40 A, 277/480 V AC) 2.5 kA (50 … 63 A, 277/480 V AC)
	Rated impulse withstand voltage U_{imp}. (1.2/50 µs)		kV	4 kV
	Dielectric test voltage at ind. freq. for 1 min.		kV	
	Reference temperature for tripping characteristics		°C	40°C
	Electrical endurance		cycles (OFF-ON-OFF)	10,000 ops
Data acc. to UL 489 / CSA 22.2 No. 5	Rated voltage		V	1P: 60 V DC, 277 V AC 2P: 125 V DC, 480Y/277 V AC 3P: 480Y/277 V AC
	Application			
	Reference temperature for tripping characteristics		°C	40°C
	Electrical endurance		cycles (OFF-ON-OFF)	10,000 ops
Mechanical data	Housing			Insulation group I, light grey
	Toggle			Insulation group II, black, sealable
	Mechanical endurance		cycles (OFF-ON-OFF)	20,000 ops
	Contact position indication (CPI)			green OFF / red ON
	Protection degree acc. to EN 60529			IP20, IP40 in enclosure with cover
	Shock resistance acc. to IEC/EN 61373			Category 1, Class B
	Shock resistance acc. to IEC/EN 60068-2-27 (Test Ea)			5 g / 30 ms
	Vibration resistance acc. to IEC/EN 60068-2-6 (Test Fc)			5…13.2 Hz / 1 mm 13.2 …100 Hz / 0.7 g with load 80% x Ie
	Environmental conditions (damp heat) acc. toIEC/EN 60068-2-30		°C / RH	28 cycles with 55°C / 90…96% and 25°C / 95…100%
	Ambient temperature		°C	-40 … +70°C
	Storage temperature		°C	-40 … +70°C

Miniature circuit breaker (MCB) for UL 489

SUP400 series technical features

				SUP400M
Installation	Terminal type			Fail-safe bi-directional cylinder-lift terminal (shock-protected) with double slot 35/10 mm²
	Cross-section of conductors (top/bottom)	Solid/ Stranded	mm²	Single: 0.75 ÷ 35 mm² (front slot), 0.75 ÷ 6 mm² (rear slot) Multiple: 2x 0.75 ÷ 10 mm² (front slot), 2x 0.75 ÷ 6 mm² (rear slot), with cables of same type and size
		Flexible	mm²	Single: 0.75 ÷ 25 mm² (front side), 0.75 ÷ 6 mm² (rear slot) Multiple: 2x 0.75 ÷ 10 mm² (front slot), 2x 0.75 ÷ 6 mm² (rear slot), with cables of same type and size
			AWG	AWG 14 ... 8
	Cross-section of busbars (top/bottom)		mm²	
			AWG	
	Tightening torque		Nm	2.8 Nm
			in-lbs	
	Wire stripping length		mm	12.5 mm
	Screwdriver			No. 2 Pozidrive
	Mounting			SMISSLINE TP busbars system only
	Mounting position			Any
	Supply			Any
Dimensions and weight	Mounting dimensions acc. to DIN 43880			
	Pole dimensions (H x D x W)		mm	100 x 18 x 82 mm
	Pole weight		g	Approx. 120 g
Combination with auxiliary elements	Auxiliary contact			Yes
	Auxiliary/signal contact			No
	Bottom fitting auxiliary contact			No
	Shunt trip			No
	Undervoltage release			No
	Overvoltage release			No
	Motor operating device			No
	Auto-reclosing unit			No

Miniature circuit breaker (MCB) for UL 489

SUP400 C for branch circuit protection acc. to UL 489 File E312425

ORDERING DATA

	Number of poles	Rated current I_n	Bbn 761227	Order details		Price 1 piece	Weight 1 piece	Pack unit
		A	EAN	Type code	Order code		kg	pc.
 	1	2	1520809	SUP401M-C2	2CCG001611R0001		0.120	10
		3	1520816	SUP401M-C3	2CCG001612R0001		0.120	10
		4	1520823	SUP401M-C4	2CCG001613R0001		0.120	10
		5	1520830	SUP401M-C5	2CCG001614R0001		0.120	10
		6	1520847	SUP401M-C6	2CCG001615R0001		0.120	10
		8	1520854	SUP401M-C8	2CCG001616R0001		0.120	10
		10	1520861	SUP401M-C10	2CCG001617R0001		0.120	10
		13	1520878	SUP401M-C13	2CCG001618R0001		0.120	10
		15	1520885	SUP401M-C15	2CCG001619R0001		0.120	10
		16	1520892	SUP401M-C16	2CCG001620R0001		0.120	10
		20	1520908	SUP401M-C20	2CCG001621R0001		0.120	10
		25	1520915	SUP401M-C25	2CCG001622R0001		0.120	10
		30	1520922	SUP401M-C30	2CCG001623R0001		0.120	10
		35	1520939	SUP401M-C35	2CCG001624R0001		0.120	10
		40	1520731	SUP401M-C40	2CCG001604R0001		0.120	10
 	2	2	1520953	SUP402M-C2	2CCG001626R0001		0.240	5
		3	1520960	SUP402M-C3	2CCG001627R0001		0.240	5
		4	1520977	SUP402M-C4	2CCG001628R0001		0.240	5
		5	1520984	SUP402M-C5	2CCG001629R0001		0.240	5
		6	1520991	SUP402M-C6	2CCG001630R0001		0.240	5
		8	1521004	SUP402M-C8	2CCG001631R0001		0.240	5
		10	1521011	SUP402M-C10	2CCG001632R0001		0.240	5
		13	1521028	SUP402M-C13	2CCG001633R0001		0.240	5
		15	1521035	SUP402M-C15	2CCG001634R0001		0.240	5
		16	1521042	SUP402M-C16	2CCG001635R0001		0.240	5
		20	1521059	SUP402M-C20	2CCG001636R0001		0.240	5
		25	1521066	SUP402M-C25	2CCG001637R0001		0.240	5
		30	1521073	SUP402M-C30	2CCG001638R0001		0.240	5
		35	1521080	SUP402M-C35	2CCG001639R0001		0.240	5
		40	1520748	SUP402M-C40	2CCG001605R0001		0.240	5
 	3	2	1521103	SUP403M-C2	2CCG001641R0001		0.360	3
		3	1521110	SUP403M-C3	2CCG001642R0001		0.360	3
		4	1521127	SUP403M-C4	2CCG001643R0001		0.360	3
		5	1521134	SUP403M-C5	2CCG001644R0001		0.360	3
		6	1521141	SUP403M-C6	2CCG001645R0001		0.360	3
		8	1521158	SUP403M-C8	2CCG001646R0001		0.360	3
		10	1521165	SUP403M-C10	2CCG001647R0001		0.360	3
		13	1521172	SUP403M-C13	2CCG001648R0001		0.360	3
		15	1521189	SUP403M-C15	2CCG001649R0001		0.360	3
		16	1521196	SUP403M-C16	2CCG001650R0001		0.360	3
		20	1521202	SUP403M-C20	2CCG001651R0001		0.360	3
		25	1521219	SUP403M-C25	2CCG001652R0001		0.360	3
		30	1521226	SUP403M-C30	2CCG001653R0001		0.360	3
		35	1521233	SUP403M-C35	2CCG001654R0001		0.360	3
		40	1520755	SUP403M-C40	2CCG001606R0001		0.360	3

Miniature circuit breaker (MCB) SUP400

SUP400 for branch circuit protection acc. to UL 489 File E312425

ORDERING DATA

	I_n [A]	Type	ABB IT number	EAN number 761 227	Pkg. qty.	Module	Weight in grams
	2	SUP401M-K2	2CCG000142R0001	1506759	10	1	120
	3	SUP401M-K3	2CCG000143R0001	1506766	10	1	120
	4	SUP401M-K4	2CCG000144R0001	1506773	10	1	120
	5	SUP401M-K5	2CCG000153R0001	1506865	10	1	120
	6	SUP401M-K6	2CCG000145R0001	1506780	10	1	120
	8	SUP401M-K8	2CCG000146R0001	1506797	10	1	120
	10	SUP401M-K10	2CCG000147R0001	1506803	10	1	120
	13	SUP401M-K13	2CCG000148R0001	1506810	10	1	120
	15	SUP401M-K15	2CCG000154R0001	1506872	10	1	120
	16	SUP401M-K16	2CCG000149R0001	1506827	10	1	120
	20	SUP401M-K20	2CCG000150R0001	1506834	10	1	120
	25	SUP401M-K25	2CCG000151R0001	1506841	10	1	120
	30	SUP401M-K30	2CCG000152R0001	1506858	10	1	120
	35	SUP401M-K35	2CCG001141R0001	1516109	10	1	120
	2	SUP402M-K2	2CCG000106R0001	1506384	5	2	240
	3	SUP402M-K3	2CCG000107R0001	1506391	5	2	240
	4	SUP402M-K4	2CCG000108R0001	1506506	5	2	240
	5	SUP402M-K5	2CCG000117R0001	1506599	5	2	240
	6	SUP402M-K6	2CCG000109R0001	1506513	5	2	240
	8	SUP402M-K8	2CCG000110R0001	1506520	5	2	240
	10	SUP402M-K10	2CCG000111R0001	1506537	5	2	240
	13	SUP402M-K13	2CCG000112R0001	1506544	5	2	240
	15	SUP402M-K15	2CCG000118R0001	1506605	5	2	240
	16	SUP402M-K16	2CCG000113R0001	1506551	5	2	240
	20	SUP402M-K20	2CCG000114R0001	1506568	5	2	240
	25	SUP402M-K25	2CCG000115R0001	1506575	5	2	240
	30	SUP402M-K30	2CCG000116R0001	1506582	5	2	240
	35	SUP402M-K35	2CCG001142R0001	1516116	5	2	240
	2	SUP403M-K2	2CCG000119R0001	1506612	3	3	360
	3	SUP403M-K3	2CCG000120R0001	1506629	3	3	360
	4	SUP403M-K4	2CCG000121R0001	1506636	3	3	360
	5	SUP403M-K5	2CCG000130R0001	1506728	3	3	360
	6	SUP403M-K6	2CCG000122R0001	1506643	3	3	360
	8	SUP403M-K8	2CCG000123R0001	1506650	3	3	360
	10	SUP403M-K10	2CCG000124R0001	1506667	3	3	360
	13	SUP403M-K13	2CCG000125R0001	1506674	3	3	360
	15	SUP403M-K15	2CCG000131R0001	1506735	3	3	360
	16	SUP403M-K16	2CCG000126R0001	1506681	3	3	360
	20	SUP403M-K20	2CCG000127R0001	1506698	3	3	360
	25	SUP403M-K25	2CCG000128R0001	1506704	3	3	360
	30	SUP403M-K30	2CCG000129R0001	1506711	3	3	360
	35	SUP403M-K35	2CCG001143R0001	1516123	3	3	360

Miniature circuit breaker (MCB) SUP400

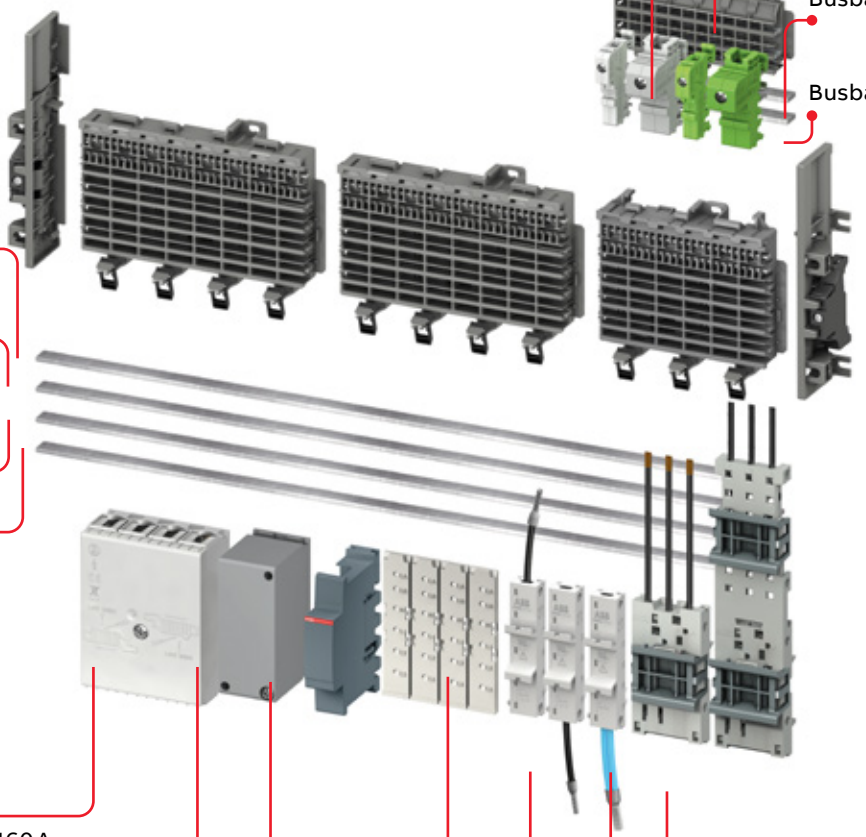
Auxiliary and signal contacts

AUXILIARY SWITCH.

	Type name	ABB IT number	EAN number	Pkg. qty.	Module	Weight in grams
Auxiliary switch for right side mounting						
Changeover contact	S2C-H6RU	2CDS200914R0001	401 677 961 5617	1	0.5	6
Signal switch for right side mounting						
Changeover contact	S2C-S6RU	2CDS200924R0001	401 677 961 5624	1	0.5	6
Dummy housing compensation to 18mm						
	E210-DHR	2CCA703488R0001	761 227 144 1708	1	0.5	18

Busbar system 125 A

Overview



N and PE terminals (red and orange terminals for DC)

End piece on left and right

Additional socket

Busbar 125 A PE

Busbar 125 A N

Busbar 125 A N

Busbar 125 A L1 or DC +, –

Busbar 125 A L2 or DC +, –

Busbar 125 A L3 or DC +, –

Incoming terminal block 160 A

Incoming terminal component, center power supply 200 A, maximum 95 mm²

Isolator

Combi module with current rating of 32 A

Adapter for DIN rail components

Spare way cover

Technical data data UL508; Approvals for US and CA: cULus

Busbar system 125 A

SMISSLINE TP SYSTEM FOR UL 508 – INDUSTRIAL CONTROL EQUIPMENT, CSA C22.2 NO. 14 – INDUSTRIAL CONTROL EQUIPMENT UL FILE E222110

Technical data UL 508 Industrial Control Equipment SMISSLINE TP busbar system	
Rated voltage	600 V AC, 125 V DC
Rated current	125 A
Rated current (end feed, left and right)	125 A left, 125 A right
Rated current (center)	250 A max. (double feed)
Rated current (center feed)	250 A max. if used with two feeder blocks
Short circuit ratings Tmax® XT series up to 250 A	50 kA, max. 480 V AC, 480 Y/277 V and 240 V AC or 35 kA, max. 600 V AC and 600 Y/347 V

TECHNICAL DATA UL 508 INDUSTRIAL CONTROL EQUIPMENT (ZLS906,ZLS908,ZLS920,ZLS926,ZLS928)

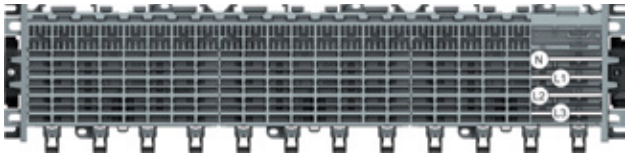
	Busbar ZLS200	Feeder ZLS924	Feeder block ZLS95X	DIN rail adapter ZLS97X	Terminals ZLS95XUL, 91XUL	Combi module ZMS132X	Adapter motor starter ZMS93X
Maximum rated voltage	600 V AC	600 V AC	600 V AC	600 V AC	600 V AC	600 V AC	600 V AC
Maximum rated current	125 A	150 A	150 A	32 A, 63 A	32 A, 100 A, 150 A	32 A	32 A

Terminals for 125 A SMISSLINE TP system

ZLS954UL – Terminal 150 A (neutral)
ZLS959UL – Terminal (PE)
ZLS913UL – Terminal 63 A (neutral)
ZLS918UL – Terminal 32 A (neutral)
ZLS919UL – Terminal (PE)
ZLS929UL – Terminal (PE)

Starter pack touch-proof 3LN

Busbar system 125 A



STARTER PACK 3LN: L1, L2, L3, N INCLUDING SOCKET END PIECE

Solutions available	Busbar length incl. socket end piece mm	Busbar length mm	Type name	ABB IT number	EAN number 761 227	Pkg. qty.	Weight in grams
28 PLE 3LN	545	501	ZLS905E28-3LN	2CCA183109R0001	141 3422	1	970
36 PLE 3LN	689	645	ZLS905E36-3LN	2CCA183117R0001	141 3507	1	1257
42 PLE 3LN	797	753	ZLS905E42-3LN	2CCA183123R0001	141 3569	1	1459
72 PLE 3LN	1338	1294	ZLS905E72-3LN	2CCA183153R0001	141 3866	1	2453

Additional socket touch-proof

Busbar system 125 A

Additional socket

The additional socket can easily be fitted onto the socket base to accommodate the external N and/or PE busbars. This enables neutral connections to be made where single-pole miniature circuit breakers are used with unswitched neutral.

Neutral terminals are clipped onto the additional socket and can be used as detachable neutral connections. One N busbar and/or one PE busbar can be fitted. Each socket base can be equipped with an additional socket.

ADDITIONAL SOCKET FOR EXTERNAL N AND PE BUSBARS

	Type name	ABB IT number	EAN number 761 227	Pkg. qty.	Modules	Weight in grams
– 8-module socket (suitable for 8-module socket)	ZLS928	2CCA183630R0001	142 0444	10	8	34
– 6-module socket (suitable for 6-module socket)	ZLS926	2CCA183635R0001	142 0437	10	6	26

Incoming devices and terminals

Technical data UL 508

INCOMING BLOCKS

	ZLS924
General data	
Rated voltage acc. UL	600 VAC
Rated current In acc. UL	150 A
Rated conditional short-circuit current (I_{cc})	100 kA (415 V), 50 kA (690 V)
Installation	
Terminal rigid UL connections	Single: 8 up to 1/0 AWG, Cu only Multiple: —
Torque	4.0 Nm (L, N); 1.2 Nm cover screw
Stripping length	18 mm (L, N)

Incoming terminal block

The 63 A and 160 A incoming terminal block can be used for the 125 A or the 250 A system.

INCOMING TERMINAL BLOCK INCL. COVER

	Type name	ABB IT number	EAN number 761 227	Pkg. qty.	Modules	Weight in grams
Incoming terminal block incl. cover						
3L left	ZLS924-3L	2CCF181816R0001	150 3086	1	4	140
3L+N left	ZLS924-3LN	2CCF181818R0001	150 3093	1	4	168


ZLS924


ZLS924

TERMINALS FOR INCOMING BLOCK

	Type name	ABB IT number	EAN number 761 227	Pkg. qty.	Modules	Weight in grams
Terminal L	ZLS936	2CCF181805R0001	150 3147	1	–	28

Terminals for additional sockets

Technical data UL508

TERMINALS

	3/0 AWG ZLS918UL, ZLS919UL	35 mm² IEC ZLS913, ZLS916, ZLS929	2 AWG ZLS913UL, ZLS929UL	95 mm² IEC ZLS954, ZLS959	8 AWG ZLS954UL, ZLS959UL
General data					
Rated voltage acc. UL	600 V AC	–	600 V AC	–	600 V AC
Rated current acc. UL	32 A	–	63 A	–	150 A
Rated conditional short-circuit current (I_{cc})	100 kA (415 V), 50 kA (690 V)	100 kA (415 V), 50 kA (690 V)	100 kA (415 V), 50 kA (690 V)	100 kA (415 V), 50 kA (690 V)	100 kA (415 V), 50 kA (690 V)
Installation					
Terminal UL connections	Single: 14 … 8 AWG Multiple: –	–	Single: 6 … 2 AWG Multiple: –	–	Single: 2 … 1/0 AWG Multiple: –
Torque	1.2 Nm	2.5 Nm	2.5 Nm	2.0 Nm	2.0 Nm
Stripping length:	12 mm	15 mm	15 mm	21 mm	21 mm

Terminal range UL for additional sockets

For 125 A system (use on ZLS926/928)

N terminal for additional sockets, light gray, for external busbars

	Type name	ABB IT number	EAN number 761 227	Pkg. qty.	Modules	Weight in grams
						
8 AWG	ZLS918UL	2CCA183446R0001	149 3301	1	0.5	11
2 AWG	ZLS913UL	2CCA183398R0001	148 6945	1	1	30
3/0 AWG	ZLS954UL	2CCA672511R0001	148 7188	1	2	88

PE terminal for additional sockets, gray-green, for external busbars

						
8 AWG	ZLS919UL	2CCA183447R0001	148 7140	1	0.5	11
2 AWG	ZLS929UL	2CCA183399R0001	148 6969	1	1	30
3/0 AWG	ZLS959UL	2CCA672512R0001	148 7201	1	2	88

Insulator block

The dark gray insulator block isolates the interrupted busbar ends from one another and simultaneously marks the disconnection point externally.

Insulator block for additional sockets

	Type name	ABB IT number	EAN number 761 227	Pkg. qty.	Modules	Weight in grams
						
Dark gray, to isolate the N busbar on the additional socket	ZLS927	2CCA183442R0001	148 7065	1	0.5	9

Socket accessories

These accessories can be used on either the 125 A or 250 A busbar systems.

INTERMEDIATE PIECE

		Type name	ABB IT number	EAN number 761 227	Pkg. qty.	Modules	Weight in grams
	Light gray, fills shock-proof empty module spaces 18 mm – bag containing 5 items	ZLS725	2CCS500900R0181	010 0989	1	1	100
	Compensation piece to 18 mm for NT 9 mm – bag containing 5 items	ZLS728	2CCS400900R0101	010 4710	1	1	70

BUSBAR INSULATOR

	Dark grey for isolation and spacing of separate busbar sections, 18 mm	ZLS938	2CCA205611R0001	141 8205	1	1	1

BUSBAR COVER

	Electrically protected covering of main and auxiliary busbars. The 4-module cover can be divided. Suitable to accept extension adapter ZLS 101 4x18 mm – bag containing 5 items	ZLS100	2CCF002762R0001	001 5603	1	1	95

ADD-ON ADAPTER

	18 mm wide, can be plugged on busbar cover ZLS100. To mount conventional DIN devices with 45 mm cap size. – bag containing 10 items	ZLS101	2CCF002763R0001	001 5610	10	1	2

LOCKING DEVICE FOR SUP400

	Padlock adapter 3 mm – Bag containing 10 items	SA 1	GJF1101903R0001	010 4833	1	–	23
	Padlock set (locking devices with 2 keys)	SA 2	GJF1101903R0002	010 4857	1	–	20

Combi module 32 A (I_N), 6 A (I_A, I_B)

MS116/132 + AF contactor

COMBI MODULE FOR MS116/MS132 AND AF CONTACTOR

Motor starter MS116/132 and AF contactors are not part of this catalog.

	Designation	Type name	ABB IT number	EAN number 761 227	Pkg. qty.	Modules	Weight in grams
	Combi module L1, L2, L3 top feed	ZMS132-3L	2CCA182500R0001	1414641	1	2,5	95
	Combi module L1, L2, L3 bottom feed	ZMS132-3LWB	2CCF182543R0001	150 3208	1		105

ADAPTER FOR MANUAL MOTOR STARTER MS116 AND MS132

	Designation	Type name	ABB IT number	EAN number 761 227	Pkg. qty.	Modules	Weight in grams
 Bottom feed	Adapter MS116/132 L123 wire bottom feed	ZMS930	2CCA182520R0001	141 4597	1	2,5	30
	Adapter MS116/132 L123 wire top feed	ZMS932	2CCA182524R0001	141 4573	1	2,5	30
	Adapter for AF contactor no wires	ZMS938	2CCA182510R0001	141 4542	1		34

Combi module: Starting solutions in kit form

Mounting possibilities

Direct-on-line starters
MS116
- + BEA16-4
- + AF09, AF12, AF16

MS116 ≤ 16 A
- + BEA26-4
- + AF26, AF30, AF38

MS116 > 16 A
- + BEA38-4
- + AF26, AF30, AF38

MS132
- + BEA16-4
- + AF09, AF12, AF16

MS132 ≤ 10 A
- + BEA26-4
- + AF26, AF30, AF38

MS132 > 10 A
- + BEA38-4
- + AF26, AF30, AF38

Without control voltage

Reversing starters
MS116
- + BEA16-4, BER16-4, VEM4
- + AF09, AF12, AF16

MS116 ≤ 16 A
- + BEA26-4, BER38-4, VEM4
- + AF26, AF30, AF38

MS116 > 16 A
- + BEA38-4, BER38-4, VEM4
- + AF26, AF30, AF38

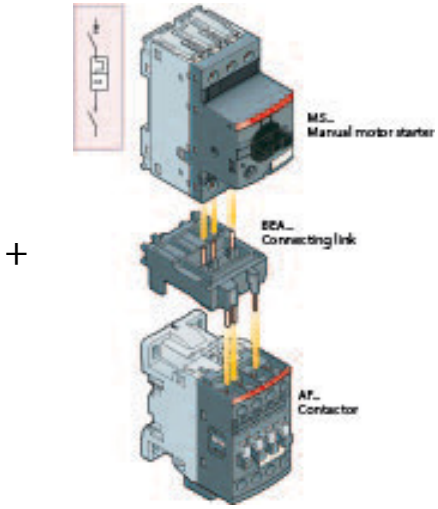
MS132
- + BEA16-4, BER16-4, VEM4
- + AF09, AF12, AF16

MS132 ≤ 10 A
- + BEA26-4, BER38-4, VEM4
- + AF26, AF30, AF38

MS132 > 10 A
- + BEA38-4, BER38-4, VEM4
- + AF26, AF30, AF38

Without control voltage

Mounting possibilities for the combi module:
The following combinations of contactor, motor circuit breaker and connector are possible with the combi module.



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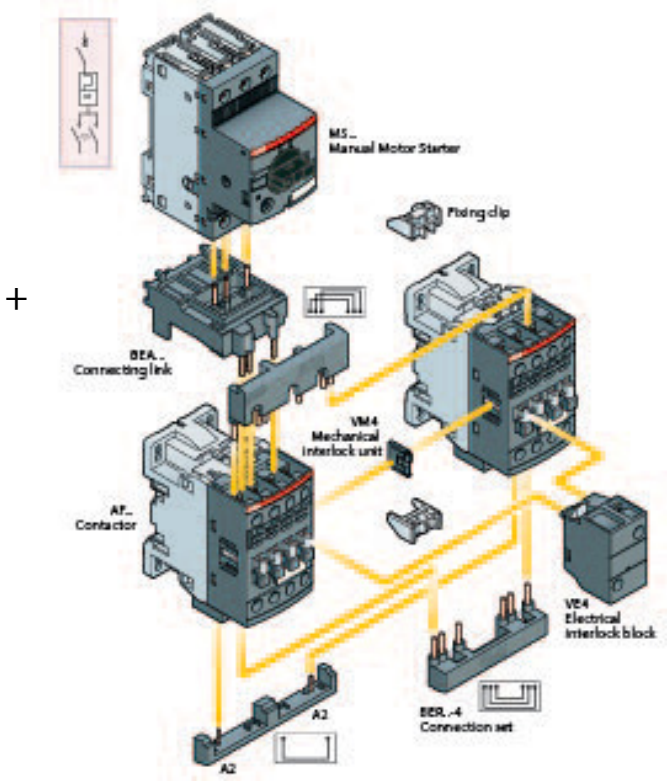

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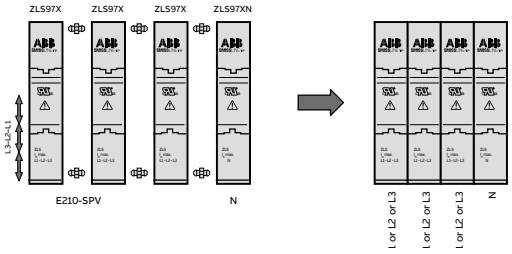
DIN adapters

IEC and UL 508 32 A, 63 A



Strand length — Bottom:
N: 68 mm
L1: 100 mm
L2: 114 mm
L3: 126 mm

ZLS97X Top:
N: 86 mm
L1: 94 mm
L2: 80 mm
L3: 88 mm

The multi-pole universal adapter can plugged together with single adapters and connection piece E210SPV.

If you require lengths near the longer limits, please add 20 mm (ferrule length).

DIN ADAPTERS 32 A AND 63 A, EN/IEC 61439-6 OR UL 508

Adapters can be used on either the 125 A or 250 A busbar systems.

Designation	Type name	ABB IT number	EAN number 761 227	Pkg. qty.	Modules	Weight in grams
Adapter 32 A						
L1 or L2 or L3 wire top	ZLS970	2CCA180551R0001	144 4563	10	1	20
L1 or L2 or L3 wire bottom	ZLS971	2CCA180552R0001	144 4570	10	1	20
N wire top	ZLS970N	2CCA180553R0001	144 4587	10	1	20
Adapter 63 A						
L1 or L2 or L3 wire top	ZLS972	2CCA180555R0001	144 4709	10	1	24
L1 or L2 or L3 wire bottom	ZLS973	2CCA180556R0001	144 4716	10	1	24
N wire top	ZLS972N	2CCA180557R0001	144 4723	10	1	24

Adapters for MCB SU200 and SUP200

UL 489 25 A, 45 A; circuit breaker accessories E257901

ADAPTERS

Adapters can be used on either the 125A or 250A busbar systems.

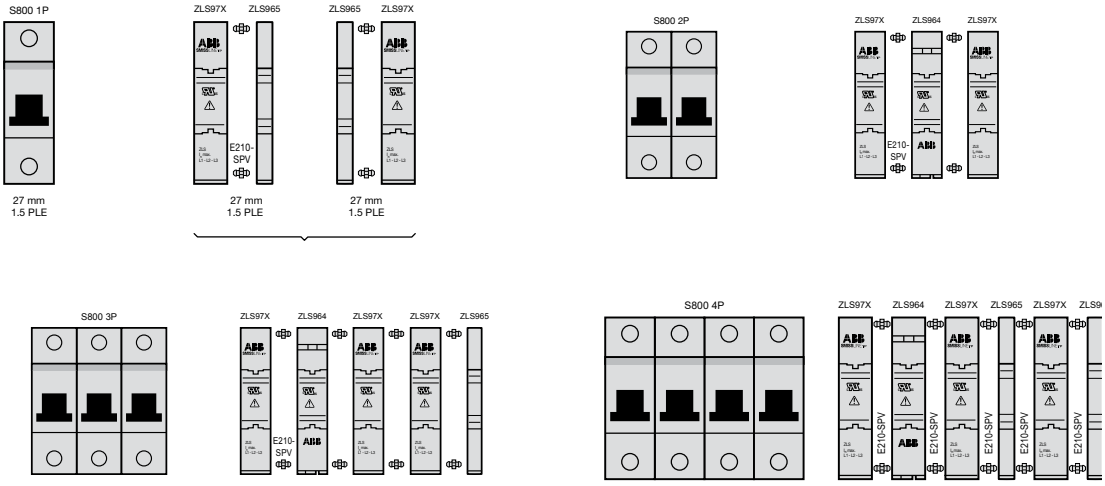
Designation	Type name	ABB IT number	EAN number 761 227	Pkg. qty.	Modules	Weight in grams
Adapter 25 A UL 489 (only for use with ABB MCB SU200 and SUP200)						
L1 or L2 or L3 wire top	ZLS970UL	2CCA337020R0001	144 4822	10	1	21
L1 or L2 or L3 wire bottom	ZLS971UL	2CCA337021R0001	144 4839	10	1	21
Adapter 45 A UL 489 (only for use with ABB MCB SU200 and SUP200)						
L1 or L2 or L3 wire top	ZLS972UL	2CCA337024R0001	144 4860	10	1	25
L1 or L2 or L3 wire bottom	ZLS973UL	2CCA337025R0001	144 4877	10	1	25

Adapter for S800

27 mm wide solution for S800

Simple mounting of the S800 MCB on SMISSLINE TP system with 27 mm wide DIN rail adapter.

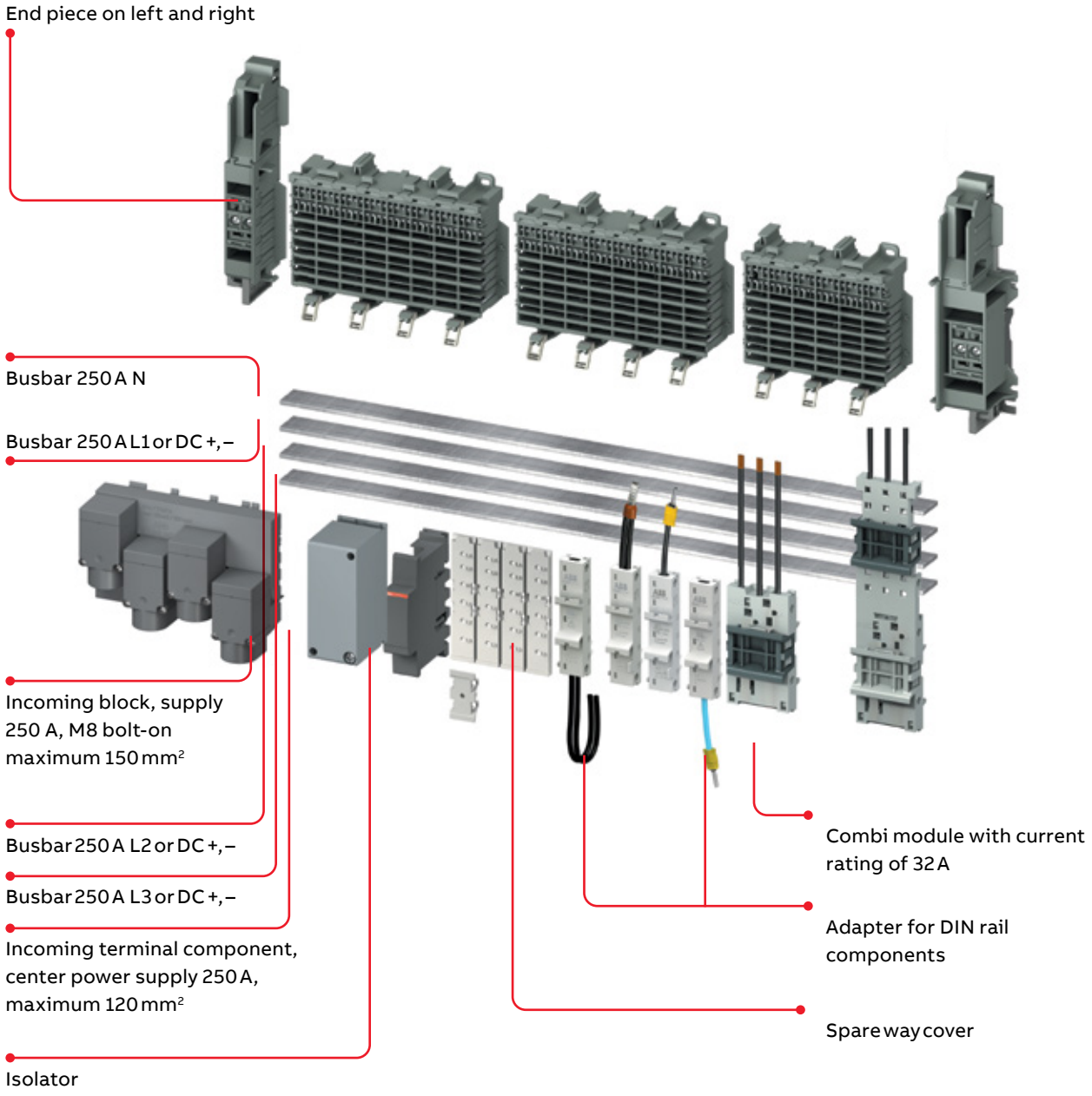
Assembly to plug-in socket system with DIN rail adapter and S800. Maximum rated current of outgoing circuits (I_{nc}) max. 50 A for S800 with ZLS972X, ZLS973X.



	Designation	Type name	ABB IT number	EAN number 761 227	Pkg. qty.	Modules	Weight in grams
	9 mm wide	ZLS965	2CCA180545R1001	150 1440	Set of 5	0.5	5

Power bar system 250 A

Overview



Technical data UL 508; approvals for US and CA: cULus

Busbar system 250 A

SMISSLINE TP SYSTEM FOR UL 508 – INDUSTRIAL CONTROL EQUIPMENT, CSA C22.2 NO. 14 – INDUSTRIAL CONTROL EQUIPMENT UL FILE E222110

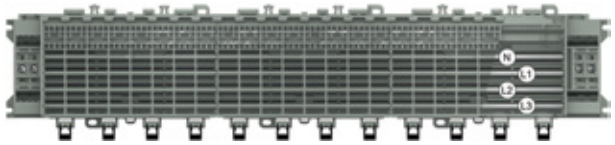
Rated voltage	600 V AC, 125 V DC
Rated current	250 A left or right
Short circuit ratings ABB Tmax® XT2, XT4	50 kA, max. 480 V AC, 480Y/277 V and 240 V AC or 35 kA, max. 600 V AC and 600Y/347 V

TECHNICAL DATA UL508 INDUSTRIAL CONTROL EQUIPMENT (ZLSP906, ZLSP908,ZLSP920)

	Busbar ZLSP200	Feeder ZLSP934	Feeder block ZLS95X	DIN rail adapter ZLS97X	Terminals ZLS95XUL, 91XUL	Combi module ZMS132X	Motor starter adapter ZMS93X
Maximum rated voltage	600 V AC	600 V AC	600 V AC	600 V AC	600 V AC	600 V AC	600 V AC
Maximum rated current	250 A	250 A	150 A	32 A, 63 A	32 A, 100 A, 150 A	32 A	32 A

Starter pack touch-proof 3LN

Power bar system 250 A



STARTER PACK 3LN: L1, L2, L3 INCLUDING SOCKET END PIECE

Solutions available	Busbar length incl. socket end piece mm	Type name	ABB IT number	EAN number 761 227	Pkg. qty.	Weight in grams
36 modules 3LN	715	ZLSP950E36-3LN	2CCF212303A0001	1489120	1	2527
42 modules 3LN	823	ZLSP950E42-3LN	2CCF212306A0001	1489182	1	2933
56 modules 3LN	1075	ZLSP950E56-3LN	2CCF212313A0001	1489328	1	3866
80 modules 3LN	1507	ZLSP950E80-3LN	2CCF212325A0001	1489564	1	5478

Power bar system 250 A socket system

Incoming bolt-on 250 A

Technical data IEC/EN 61439-6 and UL 508

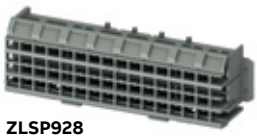
ZLSP934-3LN

ZLSP934-3L-1

	ZLSP934
Standards	IEC/EN 61439-6 and UL 508
Rated voltage Ue acc. IEC acc. IEC	690 V AC
Rated Voltage acc. UL	600 V AC
Rated current In acc.. IEC	250 A (center feed or side feed): 400 A max. when used with two feeder blocks
Rated current In acc. UL	250 A (short circuit protection 250 A circuit breaker (DIVQ/7) 50 kA (480 V); 35 kA (600 V)
Wire size IEC connections	Cable: 50 mm^2 up to 150 mm^2; no flat cable ring lug M8 (for example, Klauke 9SG8 for 120 mm^2 or 10SG8 for 150 mm^2)
Wire size UL connections	4/0 AWG – 250 kcmil
Torque	8 Nm cover 1,2 Nm
Stripping length	Ring lug M8; width: max. 22 mm

Power bar system 250 A socket system

Additional socket



ZLSP928

ZLSP926

ZLS938

ZLSP906

ZLSP906

Additional socket

The additional socket can easily be fitted onto the socket base to accommodate the external N and/or PE busbars. This enables neutral connections to be made where single-pole miniature circuit breakers are used with unswitched neutral. Neutral terminals are clipped onto the additional socket and can be used as detachable neutral connections. One N busbar and/or one PE busbar can be fitted. Each socket base can be equipped with an additional socket.

ADDITIONAL SOCKET FOR EXTERNAL N AND PE BUSBARS

Description	Bbn 761227 EAN	Order details		Pack unit	Module (1 PLE 18 mm)	Weight 1 piece kg
		Type code	Order code			
– 8-module socket (suitable for 8-module socket)	1487348	ZLSP928	2CCF212060A0001	10	8	0.67
– 6-module socket (suitable for 6-module socket)	1487362	ZLSP926	2CCF212061A0001	10	6	0.53

BUSBAR INSULATOR

Description	Bbn 761227 EAN	Order details		Pack unit	Module (1 PLE 18 mm)	Weight 1 piece kg
		Type code	Order code			
Dark gray, 20 for isolation and spacing of separate busbar sections, 18 mm	148205	ZLS938	2CCA205611R0001	1	1	0.1

BUSBAR COVER

Description	Bbn 761227 EAN	Order details		Pack unit	Module (1 PLE 18 mm)	Weight 1 piece kg
		Type code	Order code			
Electrically protected covering of main and auxiliary busbars. The 4 modules cover can be divided. Suitable to accept extension adapter ZLS 101 4x18 mm – bag containing 5 items	0015603	ZLS100	2CCF002762R0001	1	1	0.95

DIN RAIL CLIP

Description	Bbn 761227 EAN	Order details		Pack unit	Module (1 PLE 18 mm)	Weight 1 piece kg
		Type code	Order code			
Din rail clip ZLSP926 and ZLSP928. This item is need if the additional socket will be mounted on a DIN rail. 1 pcs. every 30 cm.	498306	ZLSP937	2CCA212012R0001	Bag of 5		0.18

Busbar system 250 A

Technical data according to UL 508
Direct-feed use with Tmax® XT4 plug-in version only

The direct-feed starter pack solution allows a direct connection from the 250 A power bar system to the installation for plug-in circuit-breaker Tmax® XT4 molded case circuit breaker. Lower part for plug-in for Tmax XT4, 3-pole (1SDA068196R1) or 4-pole (1SDA068198R1) is required.

For fixed Tmax XT4 version, a conversion kit for moving part plug-in is also needed, 3-pole (1SDA066282R1) and 4-pole (SDA066283R1).

The solution is built for a vertical design. The additional heat sink component is helpful to reduce heat on the system.

DIRECT FEED 250 A BUSBAR SYSTEM TOUCH-PROOF:

Use only for wall-mounted application (horizontal or vertical). When installed correctly, meets the requirements of EN/IEC 61439-2.

Number of poles	32 to 80 3P+N, additional socket N and PE
Rated operational voltage (U_e)	277/480 V AC
Rated insulation voltage (U_i)	690 V AC, 440 V DC
IP code	IP20B
Pollution degree	3 (690 V AC), 2 (1000 V DC)
Rated impulse voltage (U_{imp})	8 kV (L1, L2, L3N)
Rated current of the assembly (I_{nA})	250 A
Rated current of a circuit (I_{nc}): main circuit	250 A max.
Rated current of auxiliary circuit	40 A
Rated short-time withstand current (I_{cw})	15 kA/100 ms main circuit, 4 kA/50 ms auxiliary circuit
Rated peak withstand current main circuit (I_{pk})	30 kA
Rated peak withstand current auxiliary circuit (I_{pk})	6 kA
Rated frequency (f)	50/60 Hz
Rated conditional short-circuit current (I_{cc}):	See table below
Ambient air temperature	60 °C max.
Size of Cu bars 3P+N+PE	3 x 25 mm (75 mm²)
Size of Cu auxiliary bars La Lb	2 x 5 mm (10 mm²)
Environmental conditions (damp heat)	1 cycle with 55 °C/90…96 % and 25 °C/95…100 %
Ambient temperature	-13....+140°F
Storage temperature	-40....+158°F

TECHNICAL DATA UL 508; APPROVALS FOR US AND CA: CULUS DIRECT FEED 250 A

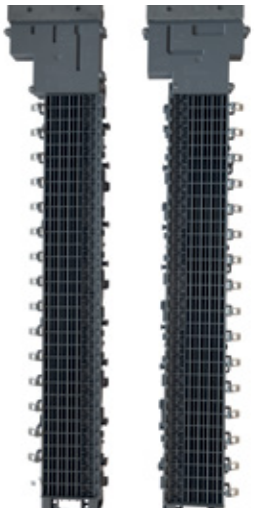
SMISSLINE TP system for UL 508 – Industrial Control Equipment, CSA C22.2 No. 14 – Industrial Control Equipment UL File E222110	**Control Equipment UL File E222110**
UL rated voltage	600 V AC
UL rated current (end feed)	250 A
UL short circuit rating	50 kA (480 V), 35 kA (600 V) with Tmax® XT4 250 A

Busbar system 250 A

Direct-feed touch-proof 3L and 3LN

For the first 12 module positions close to the Tmax® XT4 circuit breaker, a derating of 0.76 shall be applied. For other modules, the derating is according the data from the technical catalog for MCB, RCD and RCBOs. The specific deratings of devices for influence of adjacent poles and ambient temperature must still be carefully considered in any case.

ORDERING DATA



Solutions available	Direct-feed length incl. socket end piece mm	Type name	ABB IT number	EAN number 761 227	Pkg. qty.	Weight in grams
32PLE 3LN left	742	ZLSP960-3LN-32-L	2CCG000156R0001	150 7039	1	4258
32PLE 3LN right	742	ZLSP960-3LN-32-R	2CCG000158R0001	150 7053	1	4258
56PLE 3LN left	1174	ZLSP960-3LN-56-L	2CCG000168R0001	150 7152	1	5871
56PLE 3LN right	1174	ZLSP960-3LN-56-R	2CCG000170R0001	150 7176	1	5871
80PLE 3LN left	1606	ZLSP960-3LN-80-R	2CCG000204R0001	1507510	1	7483
80PLE 3LN right	1606	ZLSP960-3LN-80-L	2CCG000206R0001	1507534	1	7483

Busbar system 250 A

Direct-feed touch-proof 3L and 3LN and accessories

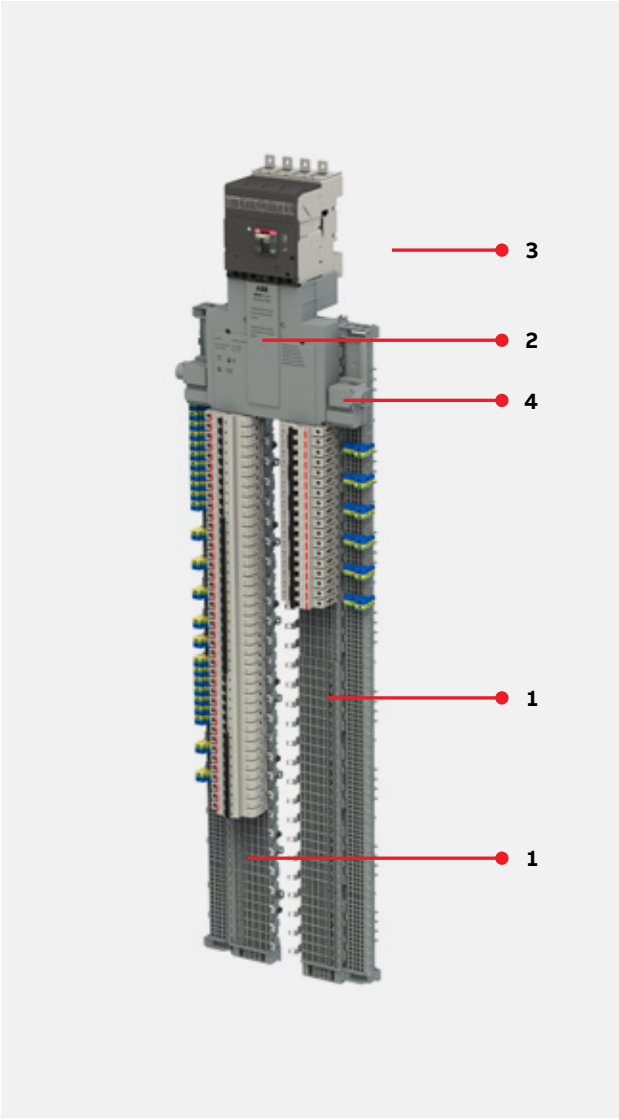
For the first 12 module positions close to the Tmax® XT4 circuit breaker, a derating of 0.76 shall be applied. For other modules, the derating is according the data from the technical catalog for MCB, RCD and RCBOs. The specific deratings of devices for influence of adjacent poles and ambient temperature must still be carefully considered in any case.

ACCESSORIES

	Solutions available	Type name	ABB IT number	EAN number 761 227	Pkg. qty.	Weight in grams
	Heat sink 3L	ZLSP960HS-3L	2CCG000736R0001	151 2446	1	197
	Heat sink 3LN	ZLSP960HS-3LN	2CCG000739R0001	151 2453	1	262
	Screws (for replacement only; all required screws are included in direct feed)	ZLSP960screw	2CCG000361R0001	150 8401		55

Busbar system 250 A

Dual feeder solution



The design provides a solution for directly connecting two 250 A SMISSLINE TP power bar systems to a pluggable Tmax® XT4 MCCB, thereby reducing labor time. The two 250 A SMISSLINE TP power bar systems are installed vertically for optimum use of space. The Tmax XT4 MCCB can be fitted above or below the SMISSLINE arrangement, depending on whether the incoming cables are fed from the top or the bottom of the enclosure. The complete system is IP20 touch proof and is tested according to IEC/EN 61439-6.

Step 1
Select the required power bar system 250 A starter pack. There is a wide selection of starter packs available, ranging from 30 up to 110 modules (ZLSP950....) in 3L and 3LN variations. The starter packs come with the busbars already fitted. You can also build up your 250 A SMISSLINE system individually, using the 6 and 8 module main sockets (ZLSP908/906) and the different lengths of available 250 A busbar. Additional sockets can be selected as well, if external N and/or PE busbars are needed.

Step 2
Select the Tmax XT4 MCCB to SMISSLINE system incoming connection kit (ZLSP940...), depending on top or bottom feed.

Step 3
Select the plug-in Tmax XT4 molded case circuit breaker.

A 3-pole (1SDA068196R1) or 4-pole (1SDA068198R1) plug-in base is also required.

Step 4
For application with additional socket (ZLSP940-3LN-N top 2CCG001562R0001), you need to order parts as well for the incoming additional socket: 1-piece ZLSP935-8NPE 2CCG000042R0001 and 1-piece ZLSP935-8NPE-R 2CCG000046R0001.

The height difference between XT4 and SMISSLINE is 60 mm. This means SMISSLINE must be mounted 60 mm higher.

Busbar system 250 A

Dual feeder use cases

3LN XT4 NO N NO ADDITIONAL SOCKET, TOP FITTING

	Solutions available	EAN number 761227	Type name	Order code	Weight 1 piece kg	Pack unit
	Plug-in Tmax XT4 molded case+ plug-in base 3 pole (1SDA068196R1) +bar system 250 A starter pack	1519629	ZLSP940-3LN1 top	2CCG001481R0001	1.35	1

3LN XT4 NO N NO ADDITIONAL SOCKET, BOTTOM FITTING

	Solutions available	EAN number 761227	Type name	Order code	Weight 1 piece kg	Pack unit
	Plug-in Tmax XT4 molded case+ plug-in base 3 pole (1SDA068196R1)	519650	ZLSP940-3LN1 bottom	2CCG001484R0001	1.659	1

Technical and order data

250 A

250 A

Number of poles	30 to 110 3p+N / 2 additional bars PE+N
Rated operational voltage (U_e)	277/480 V AC
Rated insulation voltage (U_i)	690 V AC
IP Code	IP20B IP
Pollution degree	3 (415 V AC)
Rated impulse voltage (U_{imp})	8 kV main busbars
Rated current of the assembly (I_{nA})	250 A
Rated current of a circuit (I_{nc}): main circuit	Max. 250 A
Rated current of auxiliary circuit	40 A
Rated short-time withstand current (I_{cw})	15 kA/100 ms main circuit, 4 kA/50 ms auxiliary circuit
Rated peak withstand current Main circuit (I_{pk})	30 kA
Rated peak withstand current Auxiliary circuit (I_{pk})	6 kA
Rated frequency (f)	50/60 Hz
Rated conditional short-circuit current (I_{cc})	see table below
Ambient air temperature	60 °C
Size of CU bars 3P+N+PE	3 x25 mm (75 mm²)
Size of CU auxiliary bars La Lb	2 x 5 mm (10 mm²)
Environmental conditions (damp heat)	2 cycles with 55 °C/90–96 % and 25 °C/95–100 % acc. to IEC/EN 60068-2-30
Tightening torque	8 Nm, Cover 1,2 Nm
Ambient temperature	-13....+140°F
Storage temperature	-40....+158°F

IEC	Rated conditional short-circuit current (I_{cc})	Voltage (V AC)	Rated conditional short-circuit current (I_{cc})	Incoming current of main busbars (L1, L2, L3, N)	Short circuit protection device (SCPD)
		415 V	50 kA	250 A	ABB Tmax XT4 250 A

TECHNICAL DATA DATA UL 508; APPROVALS FOR US AND CA: CULUS DIRECT FEED 250 A

SMISSLINE TP system for UL 508 – Industrial Control Equipment, CSA C22.2 No. 14 – Industrial Control Equipment UL File E222110	Control Equipment UL File E222110
UL rated voltage	600 V AC
UL rated current (end feed)	250 A
UL short circuit rating	50 kA (480 V), 35 kA (600 V) with XT4 250 A

02

Technical details

Technical details

SMISSLINE TP technical details

Busbar system 125 A incoming

General

The incoming terminal block is used to connect cables directly to the busbars. The terminals act directly on the busbars and, therefore, fix the incoming terminal block. Removable terminal tops permit the connection of continuous conductors (risers). Horizontal or vertical cable entry is also possible. Instead of using the incoming terminal block, the power supply can also be realized via a device (e.g., residual current operated circuit breaker, miniature circuit breaker or switch disconnector).

Incoming terminal blocks ZLS924

This is a standard incoming terminal block whose cover provides protection against accidental contact. Construction height 50 mm. The base plate can be fitted with a maximum of four main terminals L1, L2, L3 and N for the busbars, and two auxiliary terminals LA and LB for the auxiliary busbars.

Incoming terminal block left and right

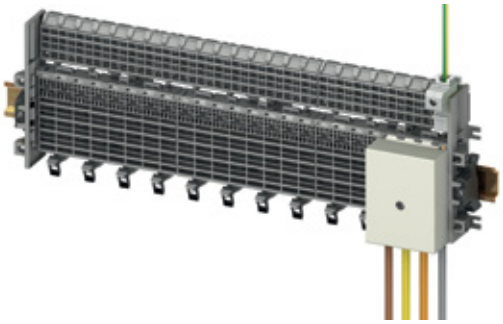
To prevent the cables from crossing when two sockets rows are connected, a good solution is to use a left and a right incoming block (see image at left).

Incoming bolt-on solution M8 50 mm² to 150 mm² or 4/0 AWG to 250 kcmil

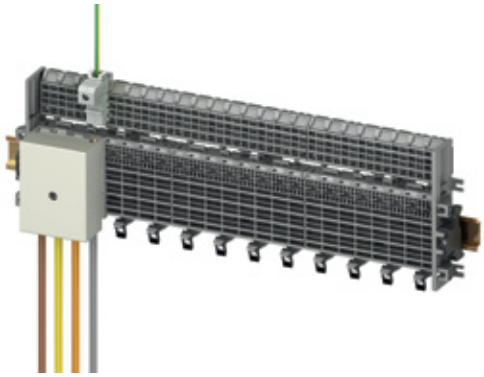
This Incoming block can be used for side-feed incoming with 250 A for IEC and UL applications. It is a bolt-on solution for a connection up to 150 mm² for a safe, strong connection to an incoming molded case circuit breaker upstream. Note that it can only used with the 250 A power bar system.

SMISSLINE TP technical details

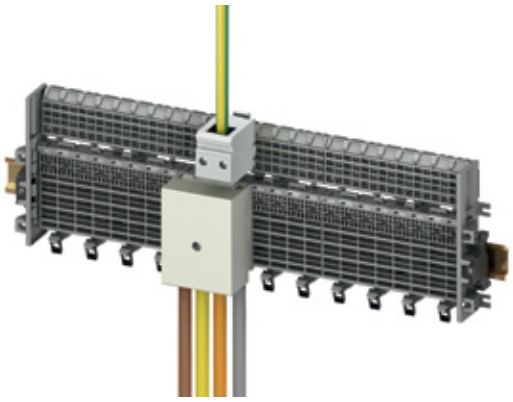
Busbar system 125 A incoming



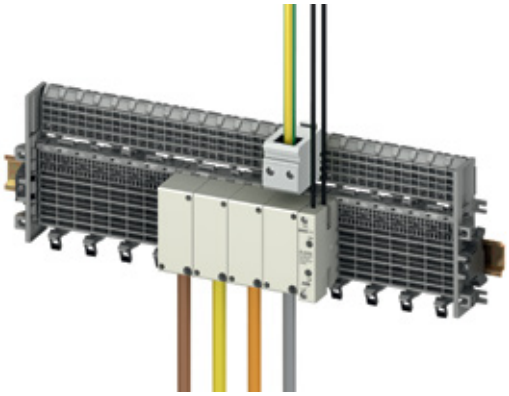
01 Power supply left or right, maximum 125 A.



02 Power supply left or right, maximum 125 A.



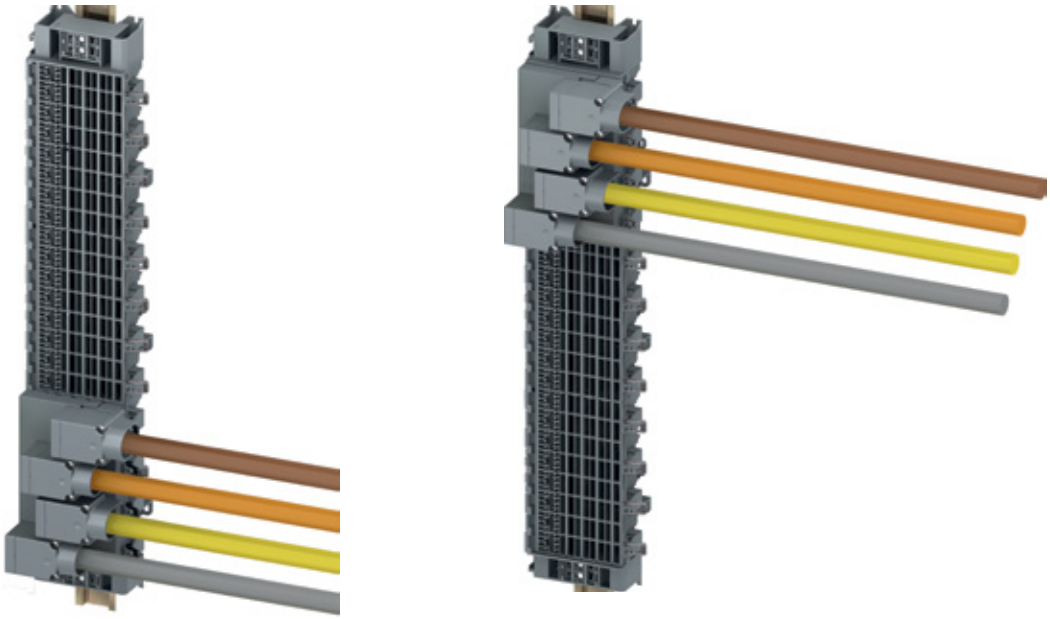
03 Power supply in center, maximum 160 A. A maximum of 125 A is permitted on either side. A total of 160 A must not be exceeded.



04 Incoming terminal component, in center, maximum 200 A. But on each side, not more than 125 A

SMISSLINE TP technical details

Power bar system 250 A for UL 508 – industrial control equipment



01 Incoming with Incoming solution ZLSP934 bolt-on M8 max. 4/0 AWG to 250 kcmil. 250 A side feed.

SMISSLINE TP technical details

Power supply: Overload and short-circuit protection

Overload and short-circuit protection of the plug-in socket system

Protection of the busbar system without upstream overcurrent protection

An important factor for the protection of the busbar system (sockets, incoming terminal block, incoming terminal component, adapter, combi module or terminals) is the characteristic of the rated peak withstand current I_{pk}. The rated peak withstand current I_{pk} of the SMISSLINE busbar system is 30 kA.

Protection of the busbar system with upstream overcurrent protection

The rated short-circuit current Icf of the SMISSLINE busbar system is 50 kA. If, on the power supply side, a circuit breaker of the type SACE® Tmax® 200 A, a high performance circuit breaker S800 or an NH fuse is positioned upstream of the busbar system, then due to the short-circuit current-limiting effect of this protection device, a larger prospective short-circuit current of up to 50 kA for the plug-in socket system is permissible.

Overload and short-circuit protection of devices on the busbar system

The rated short-circuit breaking capacity (or rated breaking capacity) of the protective devices, together with the maximum short-circuit current at the installation location of the devices on the busbar system, must be taken into consideration. This is not only relevant for the SMISSLINE busbar system, but is also applicable to the distribution construction.

Miniature circuit breaker

If the prospective short-circuit current at the installation location of a miniature circuit breaker is not greater than its rated breaking capacity, no back-up protection via an upstream overcurrent protection device is necessary. If the prospective short-circuit current at the installation location of a miniature circuit breaker is greater than its rated short-circuit breaking capacity, the current ratings of the upstream overcurrent protection device must not exceed the table values in the back-up tables (catalog page 41 onward).

Back-up fuses for devices with a DIN rail adapter

In principle, the same requirements apply as for directly plugged-in devices.

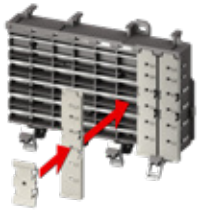
Smissline TP technical details

Busbar system 125 A accessories

Intermediate piece ZLS725
The light gray intermediate piece matches the device profile and fills empty module spaces.

Busbar insulator ZLS938
The dark gray busbar insulator electrically isolates the separated busbar ends from each other (e.g., when using several RCD-protected groups) and also identifies the isolation point from outside. It conforms with the device profile and its space requirement is 1 module.

Busbar cover ZLS100
If component modules or spare modules are not required, the busbar cover ensures electrically protected covering of the main and auxiliary busbars. The cover (4 modules) can be divided anywhere. The openings allow voltage measurements on the busbars without removing the cover.

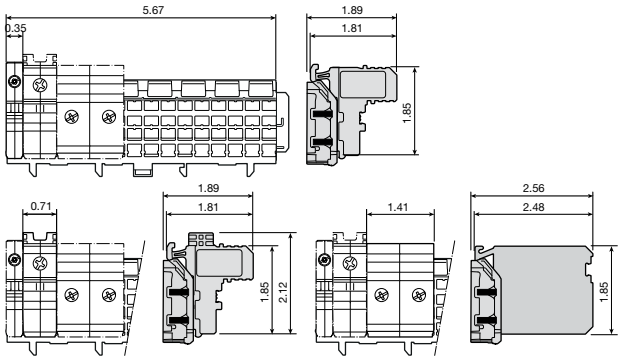


Extension adapter ZLS101
The extension adapter, single or several side by side, can be plugged into the busbar cover via the built-in holding device. This enables conventional DIN devices with 45 mm cap size to be snapped onto the SMISSLINE socket. By plugging in several extension adapters one on top of the other, heights can be adjusted in multiples of 7 mm.

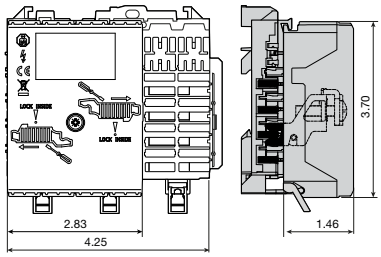
03

Dimensions

SMISSLINE dimensions (in.)

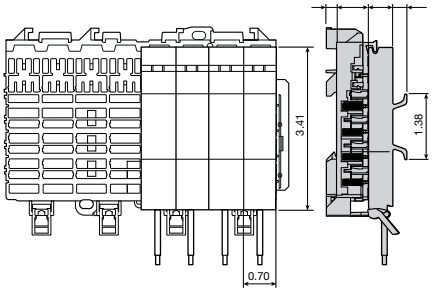


01 Terminal for additional socket

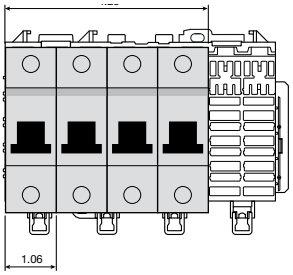


02 Incoming terminal block 160 A ZLS924

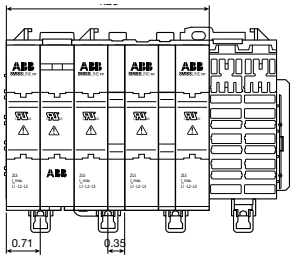
SMISSLINE dimensions (in.)



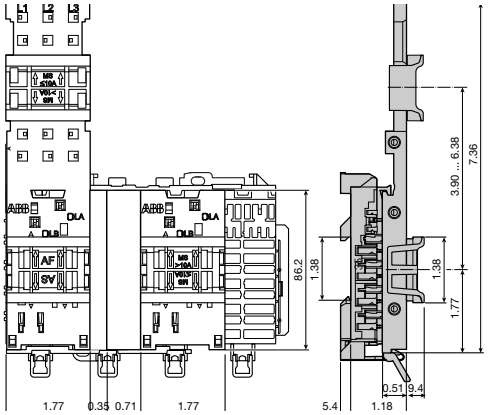
01 DIN rail adapters



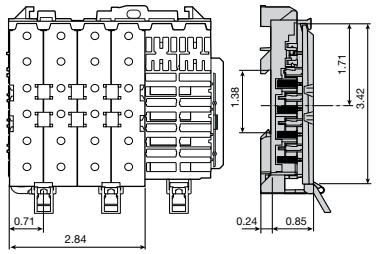
02 DIN rail adapters for S800



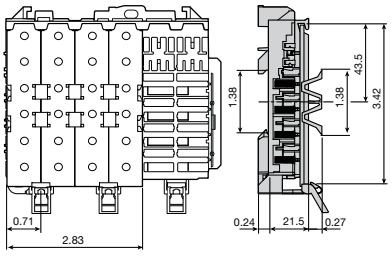
03 DIN rail adapters for S800



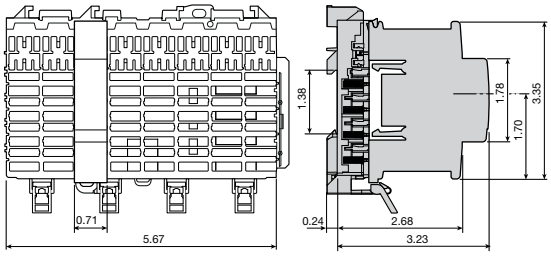
04 Combi module and adapter for manual motor starter MS116 and MS132



05 Covering of main and auxiliary busbars ZLS100

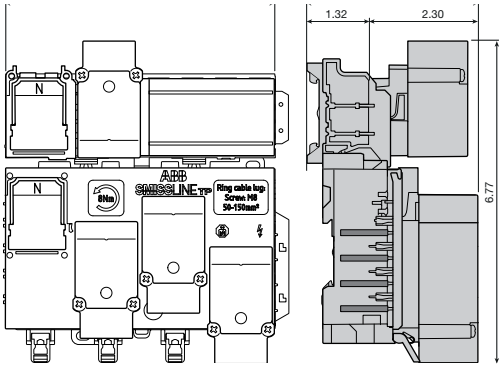


06 Covering of main and auxiliary busbars ZLS100 with DIN adapter ZLS101

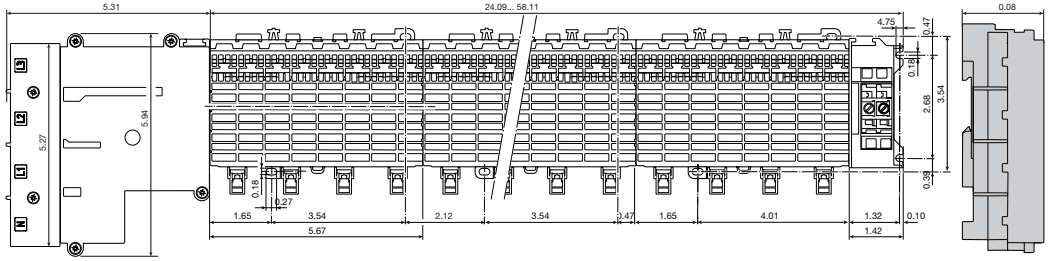


07 Intermediate piece ZLS725

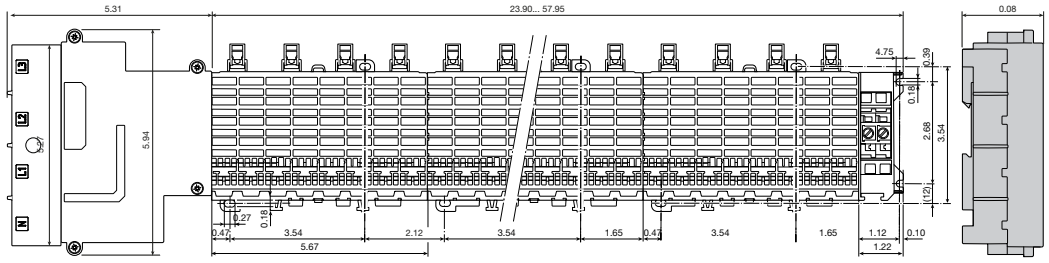
SMISSLINE dimensions (in.)



01 Incoming terminal block 250 A ZLSP934 right version

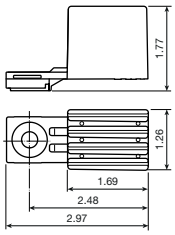


02 Busbar system 250 A direct feed ZLSP960 left version

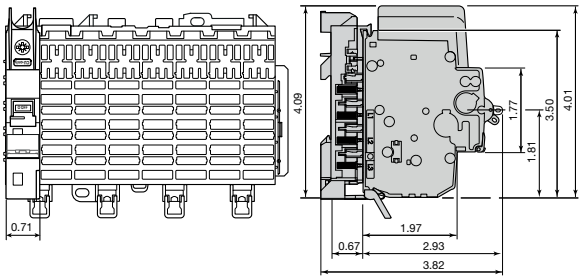


03 Busbar system 250 A direct feed ZLSP960 right version

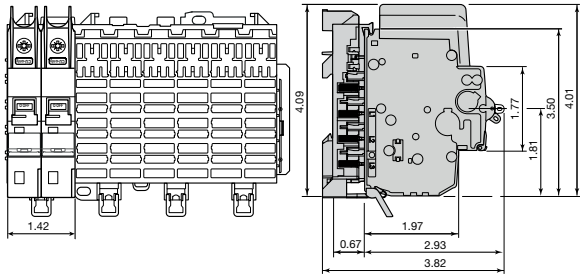
SMISSLINE dimensions (in.)



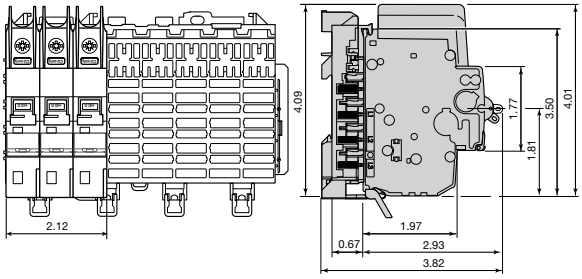
01 Direct-feed heat sink



02 Miniature circuit breaker SUP401



03 Miniature circuit breaker SUP402



04 Miniature circuit breaker SUP403

04

Approvals and standards

Approvals and standards

	UL 508	UL 489	UKCA	US CA	CH	CH	DE			CN	AU	IEC/EN 60947-2	IEC/EN 60898-1	IEC/EN 61008-1, EN 61008-2-1	IEC/EN/DIN EN 61009-1, EN/DIN EN 61009-2-1	IEC/EN 61008-1, IEC/EN 61008-2-1, IEC/EN 62423	EN 61643-11	IEC/EN 60947-3	IEC/EN 61439-6	IEC/EN 60947-5-1	IEC/EN 60947-4-1	EN 62423
SUP400 miniature circuit breaker (CCC only 2A...30A)		●	●	●						●												
Busbar system incl. incoming 125A			●	●			●	●	●										●			
Busbar system incl. incoming 250A ZLSP934			●	●			●												●			
Direct feed	●		●	●																		
Busbar system incl. incoming 250A	●		●	●															●			
DIN rail adapter IEC and UL 508 32A and 63A	●		●	●			●		●										●			
Adapter for motor starter and contactors	●		●	●					●										●			

Additional information
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1SXU451138C0201 REV G 05.2026