

Mini DC - Isolators for Photovoltaic

acc. to IEC 60364-7-712



Quality made in 

D1024E202



**Contactors
Motor-Starter**

Mini-Contactors
Contactors
Overload Relays
Compacitor Switching Contactors
Motor-Starters
Modular Contactors

Catalogue **D677E..**



**Circuit
Breakers**

M4-32T.. up to 32A
M4-32R.. up to 32A
M4-63R.. up to 63A
M4-100R.. up to 100A

Catalogue **D795E..**



Switches

On-Off-Switches
Changeover Switches
Motor Switches
Step Switches
Main Switches
Modular Switches
Key Operated Switches

Catalogue **D371E..**



**Main
Switches**

Emergency Off
Main Switches
On-Off-Switches
Add-On-Module

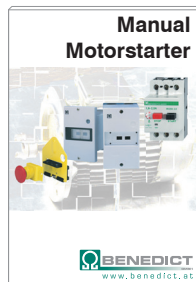
Catalogue **D656E..**



**Capacitor Switching
Contactors**

Contactors for reactive and
non reactive capacitor banks

Catalogue **D385E..**



**Manual
Motorstarter**

MU25A up to 32A
Auxiliary Contact Blocks
Trip Alarm Auxiliary Switches
Busbar Connectors
Enclosure

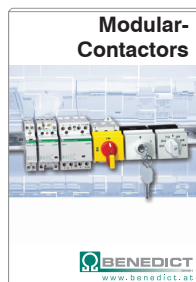
Catalogue **D509E..**



Push Buttons

Push Buttons
Emergency Stop
Key Operated Rotary Switches
Rotary Knobs
Illuminated Push Buttons
Assembled Stations

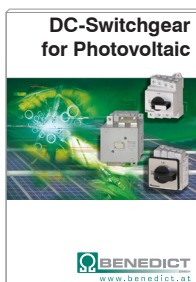
Catalogue **D580E..**



**Modular-
Contactors**

Modular Contactors
Accessories
Emergency Off Switches
Main Switches
On-Off Switches
Control Switches

Catalogue **D681E..**



**DC-Switchgear
for Photovoltaic**

Main Switches
On-Off-Switches
Contactors for DC-Switching

Catalogue **D911E..**



**Low Voltage
Control Gear**

Contactors
D.O.L. Starter
Overload Relays
Manual Motor Starter
Main Switches
Cam Switches
Push Buttons
Emergency Stop

Catalogue **D651E..**



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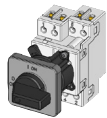
Mini DC-Isolators for Panel Mounting (4 holes)
Lockable Mini DC-Isolators for Panel Mounting (4 holes)

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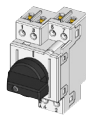
Mini DC-Isolators for Panel Mounting (2 holes)
Lockable Mini DC-Isolators for Panel Mounting (2 holes)

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Mini DC-Isolators for Single Hole Mounting (Ø22,5mm)
Lockable Mini DC-Isolators for Single Hole Mounting (Ø22,5mm)

8
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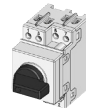
Mini DC-Isolators for Single Hole Mounting (Ø16mm)
Lockable Mini DC-Isolators for Single Hole Mounting (Ø16mm)

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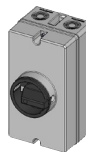
Mini DC-Isolators for Base Mounting
Lockable Mini DC-Isolators for Base Mounting

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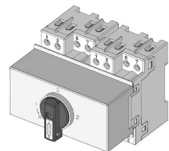
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Changeover Isolators for Panel Mounting, Base Mounting,
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Technical Data
Approvals
Dimensions

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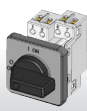
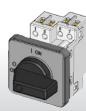
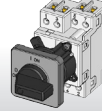
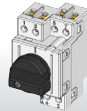
Ratings

Rated Current

Type	I_{th} open A	DC21B(DC-PV1) 4 poles in series A	at U_e V
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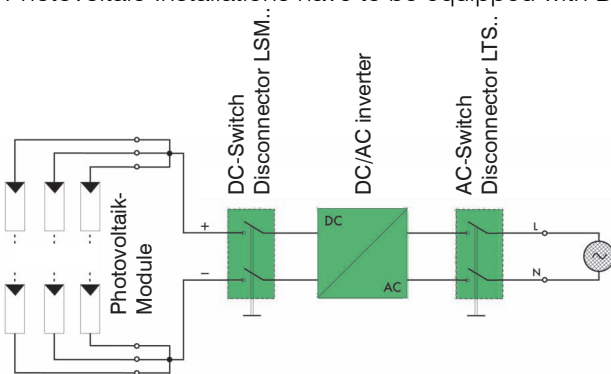
LSM16	16	16	1500	..E, EH4..	..E2, E2H1..	..Z(O), ZH1..	..Z16, Z16H448..
LSM25	25	25	1500	..E, EH4..	..E2, E2H1..	..Z(O), ZH1..	..Z16, Z16H448..
LSM32	32	32	1500	..E, EH4..	..E2, E2H1..	..Z(O), ZH1..	..Z16, Z16H448..
LSM38	45	45	1500	..E, EH4..	..E2, E2H1..	..Z(O), ZH1..	..Z16, Z16H448..
LSMO16	16	16	1500	..E, EH4..	..E2, E2H1..	..Z(O), ZH1..	..Z16, Z16H448..
LSMO25	25	25	1500	..E, EH4..	..E2, E2H1..	..Z(O), ZH1..	..Z16, Z16H448..
LSMO32	32	32	1500	..E, EH4..	..E2, E2H1..	..Z(O), ZH1..	..Z16, Z16H448..
LSMO38	45	45	1500	..E, EH4..	..E2, E2H1..	..Z(O), ZH1..	..Z16, Z16H448..

Mini DC-Switch Disconnectors

Design	Panel mounting 4 hole mounting IP66 ¹⁾ Type 3R	Panel mounting 2 hole mounting IP66 ¹⁾ Type 3R	Single hole Ø22,5mm IP66 ¹⁾ Type 4X	Single hole Ø16mm IP66 ¹⁾ Type 4X
				

Mini Switch Disconnectors for Photovoltaic

Mini Switch Disconnectors „LSM“ are switch gears for interrupting the DC/AC-Inverter from solar-panels. Photovoltaic-Installations have to be equipped with DC-Isolators acc. to IEC 60364-7-712.



Mini Switch Disconnectors LSM ensure a reliable switching up to 50A at 1200V in the category DC-PV1 (= DC21B).

The construction of the contacts and the material selection guarantee that no oxidations develop (because of small switching frequency) and further it is prevented that inadmissible heating-up is effected.

Mini Switch Disconnectors LSM are equipped with 2 or 4 switchable, singular contacts. By serial or parallel wiring of the contacts the contact rating will be increased. The switching speed by the manually driven handle does not have an effect on the switching attitude of the contacts.

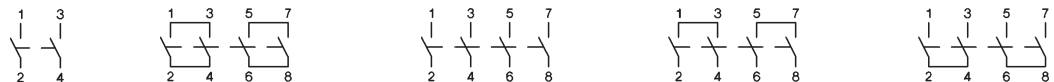
Mounting positions:

No limitations, all kind of positions allowed.

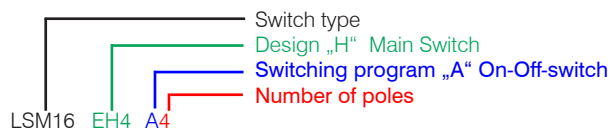
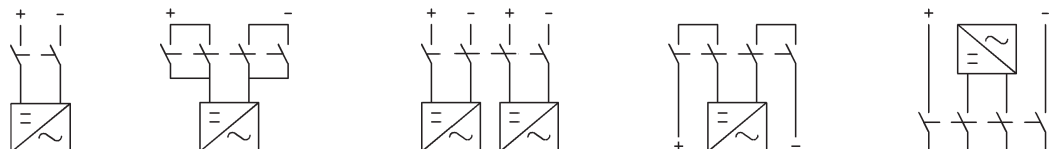
Switching programs

Type	2-pole	2+2-pole 2 poles in series + 2 Pole parallel	4-pole	4-pole 2 jumpers top Input and Output bottom	4-pole 2 jumpers bottom Input and Output top
LSM16 ... LSM38	.. A2	.. A2+2	.. A4(2 x A2)	.. A4O	.. A4U

Contact
Wiring diagram



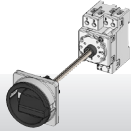
Switching example



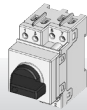
1) Protection in front and built in

Mini DC-Switch Disconnectors

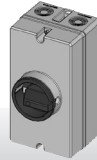
Base mounting with door coupling, single hole, Ø22,5mm, IP66¹⁾ Type 4X



Modular Switch IP40¹⁾ Open Type



Plastic enclosed PFL..IP67¹⁾ Type 4X



..VZV, VZVH4..	..SMA, SMAH1N..	..PFLH4..
..VZV, VZVH4..	..SMA, SMAH1N..	..PFLH4..
..VZV, VZVH4..	..SMA, SMAH1N..	..PFLH4..
..VZV, VZVH4..	..SMA, SMAH1N..	..PFLH4..

Technical data for DC, acc. to IEC 60947-3, VDE0660

Type			DC-PV1 (= DC21B)							DC-PV2				
			500V	600V	700V	800V	900V	1000V	1200V	1500V	500V	600V	800V	1000V
2 Poles in Series 	LSM16..	A	16	16	16	16	16	10	7	3	16	14	12	4
	LSM25..	A	25	25	25	20	17	11,5	8,5	5	25	21	15	5
	LSM32..	A	32	32	32	23	20	13	10	6	32	27	17	6
	LSM38..	A	45	45	36	30	25	20	10	6	38	31	19	7
2 Poles in Series + 2 parallel 	LSM16..	A	29	29	22	17	16	10	7	3	25	20	12	4
	LSM25..	A	45	36	27	20	17	11,5	8,5	5	39	32	15	5
	LSM32..	A	50	50	32	23	20	13	10	6	50	35	17	6
	LSM38..	A	50	50	36	30	25	20	10	6	50	38	19	7
4 Poles in Series 	LSM16..	A	16	16	16	16	16	16	16	16	16	16	16	16
	LSM25..	A	25	25	25	25	25	25	25	25	25	25	25	
	LSM32..	A	32	32	32	32	32	32	32	32	32	32	32	
	LSM38..	A	45	45	45	45	45	38	32	32	45	45	38	38
4 Poles in Series + 2 parallel 	LSMO16..	A	29	29	29	29	29	29	29	20	29	29	21	16
	LSMO25..	A	45	45	45	45	45	45	33	26	45	45	35	25
	LSMO32..	A	50	50	50	50	50	50	50	32	50	50	45	32
	LSMO38..	A	50	50	50	50	50	50	50	32	50	50	50	50

Switching programs

Type

6-poles

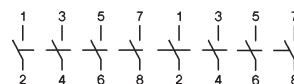
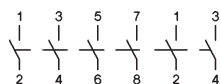
8-poles

LSMO16 ... LSMO38

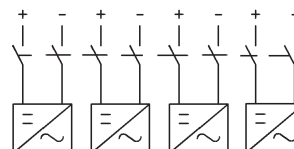
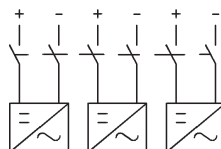
...A6

...A8

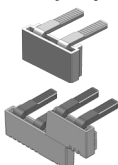
Contact Wiring diagram



Switching example



Isolated jumpers LSMV... for Series and Parallel switching of contacts (terminals 1-3, 5-7, 2-4, 6-8). Details see page 23.



for switches

Type

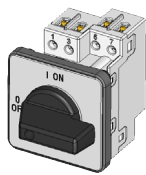
VPE

weight

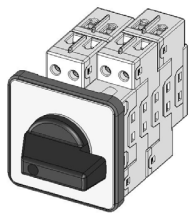
LSM(O)16 ... LSM(O)25 (A4O, A4U, A2+2)	LSMV-B1-1	100	4,80 g/pce.
LSM(O)32 ... LSM(O)38 (A4O, A4U, A2+2)	LSMV-B1-2	100	9,00 g/pce.
LSMO16 ... LSMO25 (A4+2)	LSMOV-B1	100	8,90 g/pce.

1) Protection in front and built in

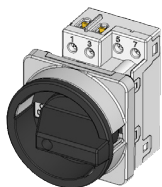
Mini DC-Isolators for Panel Mounting, 4 holes, Plate 64, IP66, Type 3R



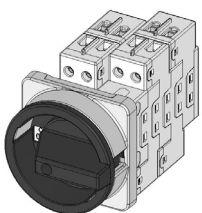
DC-PV1 (=DC21B)		Poles in Series	Number of Strings	Type	Pack pcs.	Weight kg/pce.
600V	1000V					
16A	10A	2	1	LSM16 E A2	1	0,18
25A	11,5A	2	1	LSM25 E A2	1	0,18
32A	13A	2	1	LSM32 E A2	1	0,18
45A	20A	2	1	LSM38 E A2	1	0,18
29A	10A	2	1	LSM16 E A2+2	1	0,24
36A	11,5A	2	1	LSM25 E A2+2	1	0,24
50A	13A	2	1	LSM32 E A2+2	1	0,24
50A	20A	2	1	LSM38 E A2+2	1	0,24
16A	16A	2	2	LSM16 E A4	1	0,23
25A	25A	2	2	LSM25 E A4	1	0,23
32A	32A	2	2	LSM32 E A4	1	0,23
45A	38A	2	2	LSM38 E A4	1	0,23
16A	16A	4	1	LSM16 E A4O	1	0,25
25A	25A	4	1	LSM25 E A4O	1	0,25
32A	32A	4	1	LSM32 E A4O	1	0,25
45A	38A	4	1	LSM38 E A4O	1	0,25
16A	16A	4	1	LSM16 E A4U	1	0,25
25A	25A	4	1	LSM25 E A4U	1	0,25
32A	32A	4	1	LSM32 E A4U	1	0,25
45A	38A	4	1	LSM38 E A4U	1	0,25
16A	10A	2	3	LSMO16 E A6	1	0,50
25A	11,5A	2	3	LSMO25 E A6	1	0,50
32A	13A	2	3	LSMO32 E A6	1	0,50
45A	20A	2	3	LSMO38 E A6	1	0,50
16A	10A	2	4	LSMO16 E A8	1	0,52
25A	11,5A	2	4	LSMO25 E A8	1	0,52
32A	13A	2	4	LSMO32 E A8	1	0,52
45A	20A	2	4	LSMO38 E A8	1	0,52



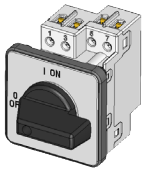
Lockable Mini DC-Isolators for Panel Mounting, 4 holes, Plate 64, IP66, Type 3R



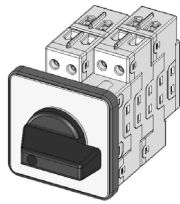
16A	10A	2	1	LSM16 EH4 A2	1	0,19
25A	11,5A	2	1	LSM25 EH4 A2	1	0,19
32A	13A	2	1	LSM32 EH4 A2	1	0,19
45A	20A	2	1	LSM38 EH4 A2	1	0,19
29A	10A	2	1	LSM16 EH4 A2+2	1	0,25
36A	11,5A	2	1	LSM25 EH4 A2+2	1	0,25
50A	13A	2	1	LSM32 EH4 A2+2	1	0,25
50A	20A	2	1	LSM38 EH4 A2+2	1	0,25
16A	16A	2	2	LSM16 EH4 A4	1	0,24
25A	25A	2	2	LSM25 EH4 A4	1	0,24
32A	32A	2	2	LSM32 EH4 A4	1	0,24
45A	38A	2	2	LSM38 EH4 A4	1	0,24
16A	16A	4	1	LSM16 EH4 A4O	1	0,26
25A	25A	4	1	LSM25 EH4 A4O	1	0,26
32A	32A	4	1	LSM32 EH4 A4O	1	0,26
45A	38A	4	1	LSM38 EH4 A4O	1	0,26
16A	16A	4	1	LSM16 EH4 A4U	1	0,26
25A	25A	4	1	LSM25 EH4 A4U	1	0,26
32A	32A	4	1	LSM32 EH4 A4U	1	0,26
45A	38A	4	1	LSM38 EH4 A4U	1	0,26
16A	10A	2	3	LSMO16 EH4 A6	1	0,51
25A	11,5A	2	3	LSMO25 EH4 A6	1	0,51
32A	13A	2	3	LSMO32 EH4 A6	1	0,51
45A	20A	2	3	LSMO38 EH4 A6	1	0,51
16A	10A	2	4	LSMO16 EH4 A8	1	0,53
25A	11,5A	2	4	LSMO25 EH4 A8	1	0,53
32A	13A	2	4	LSMO32 EH4 A8	1	0,53
45A	20A	2	4	LSMO38 EH4 A8	1	0,53



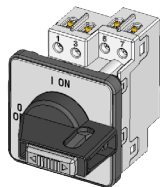
Mini DC-Isolators for Single Hole Mounting, 2 holes, Plate 64, IP66, Type 3R



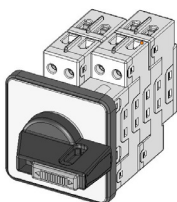
DC-PV1 (=DC21B)		Poles in Series	Number of Strings	Type	Pack pcs.	Weight kg/pce.
600V	1000V					
16A	10A	2	1	LSM16 E2 A2	1	0,18
25A	11,5A	2	1	LSM25 E2 A2	1	0,18
32A	13A	2	1	LSM32 E2 A2	1	0,18
45A	20A	2	1	LSM38 E2 A2	1	0,18
29A	10A	2	1	LSM16 E2 A2+2	1	0,24
36A	11,5A	2	1	LSM25 E2 A2+2	1	0,24
50A	13A	2	1	LSM32 E2 A2+2	1	0,24
50A	20A	2	1	LSM38 E2 A2+2	1	0,24
16A	16A	2	2	LSM16 E2 A4	1	0,23
25A	25A	2	2	LSM25 E2 A4	1	0,23
32A	32A	2	2	LSM32 E2 A4	1	0,23
45A	38A	2	2	LSM38 E2 A4	1	0,23
16A	16A	4	1	LSM16 E2 A40	1	0,25
25A	25A	4	1	LSM25 E2 A40	1	0,25
32A	32A	4	1	LSM32 E2 A40	1	0,25
45A	38A	4	1	LSM38 E2 A40	1	0,25
16A	16A	4	1	LSM16 E2 A4U	1	0,25
25A	25A	4	1	LSM25 E2 A4U	1	0,25
32A	32A	4	1	LSM32 E2 A4U	1	0,25
45A	38A	4	1	LSM38 E2 A4U	1	0,25
16A	10A	2	3	LSMO16 E2 A6	1	0,50
25A	11,5A	2	3	LSMO25 E2 A6	1	0,50
32A	13A	2	3	LSMO32 E2 A6	1	0,50
45A	20A	2	3	LSMO38 E2 A6	1	0,50
16A	10A	2	4	LSMO16 E2 A8	1	0,52
25A	11,5A	2	4	LSMO25 E2 A8	1	0,52
32A	13A	2	4	LSMO32 E2 A8	1	0,52
45A	20A	2	4	LSMO38 E2 A8	1	0,52



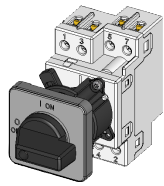
Mini DC-Isolators for Panel Mounting, 2 holes, Plate 64, IP66, Type 3R



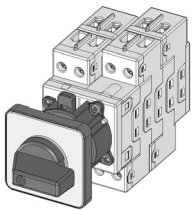
16A	10A	2	1	LSM16 E2H1 A2	1	0,19
25A	11,5A	2	1	LSM25 E2H1 A2	1	0,19
32A	13A	2	1	LSM32 E2H1 A2	1	0,19
45A	20A	2	1	LSM38 E2H1 A2	1	0,19
29A	10A	2	1	LSM16 E2H1 A2+2	1	0,25
36A	11,5A	2	1	LSM25 E2H1 A2+2	1	0,25
50A	13A	2	1	LSM32 E2H1 A2+2	1	0,25
50A	20A	2	1	LSM38 E2H1 A2+2	1	0,25
16A	16A	2	2	LSM16 E2H1 A4	1	0,24
25A	25A	2	2	LSM25 E2H1 A4	1	0,24
32A	32A	2	2	LSM32 E2H1 A4	1	0,24
45A	38A	2	2	LSM38 E2H1 A4	1	0,24
16A	16A	4	1	LSM16 E2H1 A40	1	0,26
25A	25A	4	1	LSM25 E2H1 A40	1	0,26
32A	32A	4	1	LSM32 E2H1 A40	1	0,26
45A	38A	4	1	LSM38 E2H1 A40	1	0,26
16A	16A	4	1	LSM16 E2H1 A4U	1	0,26
25A	25A	4	1	LSM25 E2H1 A4U	1	0,26
32A	32A	4	1	LSM32 E2H1 A4U	1	0,26
45A	38A	4	1	LSM38 E2H1 A4U	1	0,26
16A	10A	2	3	LSMO16 E2H1 A6	1	0,51
25A	11,5A	2	3	LSMO25 E2H1 A6	1	0,51
32A	13A	2	3	LSMO32 E2H1 A6	1	0,51
45A	20A	2	3	LSMO38 E2H1 A6	1	0,51
16A	10A	2	4	LSMO16 E2H1 A8	1	0,53
25A	11,5A	2	4	LSMO25 E2H1 A8	1	0,53
32A	13A	2	4	LSMO32 E2H1 A8	1	0,53
45A	20A	2	4	LSMO38 E2H1 A8	1	0,53



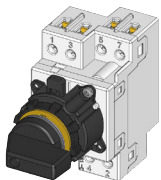
Mini DC-Isolators for Single Hole Mounting, Ø22,5mm, Plate 48, IP66, Type 4X cUL_{us}



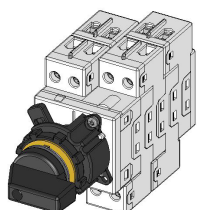
DC-PV1 (=DC21B)		Poles in Series	Number of Strings	Type	Pack pcs.	Weight kg/pce.
600V	1000V					
16A	10A	2	1	LSM16 Z A2	1	0,17
25A	11,5A	2	1	LSM25 Z A2	1	0,17
32A	13A	2	1	LSM32 Z A2	1	0,17
45A	20A	2	1	LSM38 Z A2	1	0,17
29A	10A	2	1	LSM16 Z A2+2	1	0,22
36A	11,5A	2	1	LSM25 Z A2+2	1	0,22
50A	13A	2	1	LSM32 Z A2+2	1	0,22
50A	20A	2	1	LSM38 Z A2+2	1	0,22
16A	16A	2	2	LSM16 Z A4	1	0,21
25A	25A	2	2	LSM25 Z A4	1	0,21
32A	32A	2	2	LSM32 Z A4	1	0,21
45A	38A	2	2	LSM38 Z A4	1	0,21
16A	16A	4	1	LSM16 Z A4O	1	0,23
25A	25A	4	1	LSM25 Z A4O	1	0,23
32A	32A	4	1	LSM32 Z A4O	1	0,23
45A	38A	4	1	LSM38 Z A4O	1	0,23
16A	16A	4	1	LSM16 Z A4U	1	0,23
25A	25A	4	1	LSM25 Z A4U	1	0,23
32A	32A	4	1	LSM32 Z A4U	1	0,23
45A	38A	4	1	LSM38 Z A4U	1	0,23
16A	10A	2	3	LSMO16 Z A6	1	0,50
25A	11,5A	2	3	LSMO25 Z A6	1	0,50
32A	13A	2	3	LSMO32 Z A6	1	0,50
45A	20A	2	3	LSMO38 Z A6	1	0,50
16A	10A	2	4	LSMO16 Z A8	1	0,52
25A	11,5A	2	4	LSMO25 Z A8	1	0,52
32A	13A	2	4	LSMO32 Z A8	1	0,52
45A	20A	2	4	LSMO38 Z A8	1	0,52



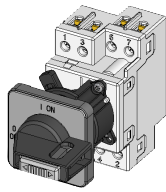
Mini DC-Isolators for Single Hole Mounting, Ø22,5mm, without Plate, IP66, Type 4X cUL_{us}



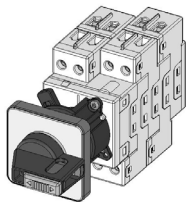
16A	10A	2	1	LSM16 ZO A2	1	0,15
25A	11,5A	2	1	LSM25 ZO A2	1	0,15
32A	13A	2	1	LSM32 ZO A2	1	0,15
45A	20A	2	1	LSM38 ZO A2	1	0,15
29A	10A	2	1	LSM16 ZO A2+2	1	0,19
36A	11,5A	2	1	LSM25 ZO A2+2	1	0,19
50A	13A	2	1	LSM32 ZO A2+2	1	0,19
50A	20A	2	1	LSM38 ZO A2+2	1	0,19
16A	16A	2	2	LSM16 ZO A4	1	0,18
25A	25A	2	2	LSM25 ZO A4	1	0,18
32A	32A	2	2	LSM32 ZO A4	1	0,18
45A	38A	2	2	LSM38 ZO A4	1	0,18
16A	16A	4	1	LSM16 ZO A4O	1	0,19
25A	25A	4	1	LSM25 ZO A4O	1	0,19
32A	32A	4	1	LSM32 ZO A4O	1	0,19
45A	38A	4	1	LSM38 ZO A4O	1	0,19
16A	16A	4	1	LSM16 ZO A4U	1	0,19
25A	25A	4	1	LSM25 ZO A4U	1	0,19
32A	32A	4	1	LSM32 ZO A4U	1	0,19
45A	38A	4	1	LSM38 ZO A4U	1	0,19
16A	10A	2	3	LSMO16 ZO A6	1	0,45
25A	11,5A	2	3	LSMO25 ZO A6	1	0,45
32A	13A	2	3	LSMO32 ZO A6	1	0,45
45A	20A	2	3	LSMO38 ZO A6	1	0,45
16A	10A	2	4	LSMO16 ZO A8	1	0,47
25A	11,5A	2	4	LSMO25 ZO A8	1	0,47
32A	13A	2	4	LSMO32 ZO A8	1	0,47
45A	20A	2	4	LSMO38 ZO A8	1	0,47



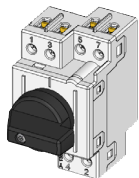
Mini DC-Isolators for Single Hole Mounting, Ø22,5mm, Plate 48, IP66, Type 4X



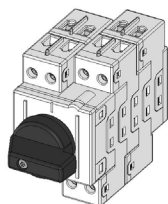
DC-PV1 (=DC21B)		Poles in Series	Number of Strings	Type	Pack pcs.	Weight kg/pce.
600V	1000V					
16A	10A	2	1	LSM16 ZH1 A2	1	0,17
25A	11,5A	2	1	LSM25 ZH1 A2	1	0,17
32A	13A	2	1	LSM32 ZH1 A2	1	0,17
45A	20A	2	1	LSM38 ZH1 A2	1	0,17
29A	10A	2	1	LSM16 ZH1 A2+2	1	0,22
36A	11,5A	2	1	LSM25 ZH1 A2+2	1	0,22
50A	13A	2	1	LSM32 ZH1 A2+2	1	0,22
50A	20A	2	1	LSM38 ZH1 A2+2	1	0,22
16A	16A	2	2	LSM16 ZH1 A4	1	0,21
25A	25A	2	2	LSM25 ZH1 A4	1	0,21
32A	32A	2	2	LSM32 ZH1 A4	1	0,21
45A	38A	2	2	LSM38 ZH1 A4	1	0,21
16A	16A	4	1	LSM16 ZH1 A4O	1	0,23
25A	25A	4	1	LSM25 ZH1 A4O	1	0,23
32A	32A	4	1	LSM32 ZH1 A4O	1	0,23
45A	38A	4	1	LSM38 ZH1 A4O	1	0,23
16A	16A	4	1	LSM16 ZH1 A4U	1	0,23
25A	25A	4	1	LSM25 ZH1 A4U	1	0,23
32A	32A	4	1	LSM32 ZH1 A4U	1	0,23
45A	38A	4	1	LSM38 ZH1 A4U	1	0,23
16A	10A	2	3	LSMO16 ZH1 A6	1	0,50
25A	11,5A	2	3	LSMO25 ZH1 A6	1	0,50
32A	13A	2	3	LSMO32 ZH1 A6	1	0,50
45A	20A	2	3	LSMO38 ZH1 A6	1	0,50
16A	10A	2	4	LSMO16 ZH1 A8	1	0,52
25A	11,5A	2	4	LSMO25 ZH1 A8	1	0,52
32A	13A	2	4	LSMO32 ZH1 A8	1	0,52
45A	20A	2	4	LSMO38 ZH1 A8	1	0,52



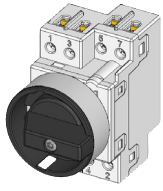
Mini DC-Isolators for Single Hole Mounting, Ø16mm, without Plate, IP66, Type 4X



16A	10A	2	1	LSM16 Z16 A2	1	0,15
25A	11,5A	2	1	LSM25 Z16 A2	1	0,15
32A	13A	2	1	LSM32 Z16 A2	1	0,15
45A	20A	2	1	LSM38 Z16 A2	1	0,15
29A	10A	2	1	LSM16 Z16 A2+2	1	0,19
36A	11,5A	2	1	LSM25 Z16 A2+2	1	0,19
50A	13A	2	1	LSM32 Z16 A2+2	1	0,19
50A	20A	2	1	LSM38 Z16 A2+2	1	0,19
16A	16A	2	2	LSM16 Z16 A4	1	0,18
25A	25A	2	2	LSM25 Z16 A4	1	0,18
32A	32A	2	2	LSM32 Z16 A4	1	0,18
45A	38A	2	2	LSM38 Z16 A4	1	0,18
16A	16A	4	1	LSM16 Z16 A4O	1	0,19
25A	25A	4	1	LSM25 Z16 A4O	1	0,19
32A	32A	4	1	LSM32 Z16 A4O	1	0,19
45A	38A	4	1	LSM38 Z16 A4O	1	0,19
16A	16A	4	1	LSM16 Z16 A4U	1	0,19
25A	25A	4	1	LSM25 Z16 A4U	1	0,19
32A	32A	4	1	LSM32 Z16 A4U	1	0,19
45A	38A	4	1	LSM38 Z16 A4U	1	0,19
16A	10A	2	3	LSMO16 Z16 A6	1	0,45
25A	11,5A	2	3	LSMO25 Z16 A6	1	0,45
32A	13A	2	3	LSMO32 Z16 A6	1	0,45
45A	20A	2	3	LSMO38 Z16 A6	1	0,45
16A	10A	2	4	LSMO16 Z16 A8	1	0,47
25A	11,5A	2	4	LSMO25 Z16 A8	1	0,47
32A	13A	2	4	LSMO32 Z16 A8	1	0,47
45A	20A	2	4	LSMO38 Z16 A8	1	0,47

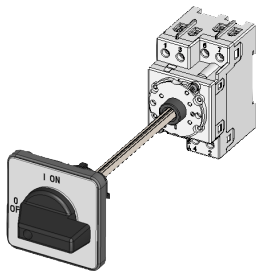


Lockable Mini DC-Isolators for Single Hole Mounting, Ø16mm, Plate 48, IP66, Type 4X



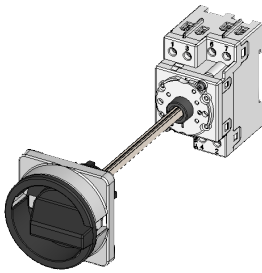
DC-PV1 (=DC21B)		Poles in Series	Number of Strings	Type	Pack pcs.	Weight kg/pce.
600V	1000V					
16A	10A	2	1	LSM16 Z16H448 A2	1	0,19
25A	11,5A	2	1	LSM25 Z16H448 A2	1	0,19
32A	13A	2	1	LSM32 Z16H448 A2	1	0,19
45A	20A	2	1	LSM38 Z16H448 A2	1	0,19
29A	10A	2	1	LSM16 Z16H448 A2+2	1	0,25
36A	11,5A	2	1	LSM25 Z16H448 A2+2	1	0,25
50A	13A	2	1	LSM32 Z16H448 A2+2	1	0,25
50A	20A	2	1	LSM38 Z16H448 A2+2	1	0,25
16A	16A	2	2	LSM16 Z16H448 A4	1	0,24
25A	25A	2	2	LSM25 Z16H448 A4	1	0,24
32A	32A	2	2	LSM32 Z16H448 A4	1	0,24
45A	38A	2	2	LSM38 Z16H448 A4	1	0,24
16A	16A	4	1	LSM16 Z16H448 A4O	1	0,26
25A	25A	4	1	LSM25 Z16H448 A4O	1	0,26
32A	32A	4	1	LSM32 Z16H448 A4O	1	0,26
45A	38A	4	1	LSM38 Z16H448 A4O	1	0,26
16A	16A	4	1	LSM16 Z16H448 A4U	1	0,26
25A	25A	4	1	LSM25 Z16H448 A4U	1	0,26
32A	32A	4	1	LSM32 Z16H448 A4U	1	0,26
45A	38A	4	1	LSM38 Z16H448 A4U	1	0,26
16A	10A	2	3	LSMO16 Z16H448 A6	1	0,51
25A	11,5A	2	3	LSMO25 Z16H448 A6	1	0,51
32A	13A	2	3	LSMO32 Z16H448 A6	1	0,51
45A	20A	2	3	LSMO38 Z16H448 A6	1	0,51
16A	10A	2	4	LSMO16 Z16H448 A8	1	0,53
25A	11,5A	2	4	LSMO25 Z16H448 A8	1	0,53
32A	13A	2	4	LSMO32 Z16H448 A8	1	0,53
45A	20A	2	4	LSMO38 Z16H448 A8	1	0,53

Mini DC-Isolators for Base Mounting, w. Door Clutch, Single Hole, Plate 64, IP66, Type 4X



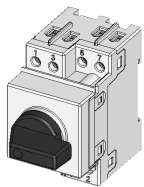
16A	10A	2	1	LSM16 VZV A2	1	0,20
25A	11,5A	2	1	LSM25 VZV A2	1	0,20
32A	13A	2	1	LSM32 VZV A2	1	0,20
45A	20A	2	1	LSM38 VZV A2	1	0,20
29A	10A	2	1	LSM16 VZV A2+2	1	0,26
36A	11,5A	2	1	LSM25 VZV A2+2	1	0,26
50A	13A	2	1	LSM32 VZV A2+2	1	0,26
50A	20A	2	1	LSM38 VZV A2+2	1	0,26
16A	16A	2	2	LSM16 VZV A4	1	0,24
25A	25A	2	2	LSM25 VZV A4	1	0,24
32A	32A	2	2	LSM32 VZV A4	1	0,24
45A	38A	2	2	LSM38 VZV A4	1	0,24
16A	16A	2	1	LSM16 VZV A4O	1	0,26
25A	25A	2	1	LSM25 VZV A4O	1	0,26
32A	32A	2	1	LSM32 VZV A4O	1	0,26
45A	38A	2	1	LSM38 VZV A4O	1	0,26
16A	16A	2	1	LSM16 VZV A4U	1	0,26
25A	25A	2	1	LSM25 VZV A4U	1	0,26
32A	32A	2	1	LSM32 VZV A4U	1	0,26
45A	38A	2	1	LSM38 VZV A4U	1	0,26

Lockable Mini DC-Isolators for Base Mounting, w. Door Clutch, Single Hole, Plate 64, IP66, Type 4X



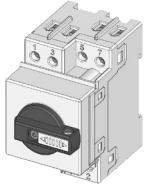
DC-PV1 (=DC21B)		Poles in Series	Number of Strings	Type	Pack pcs.	weight kg/pce.
600V	1000V					
16A	10A	2	1	LSM16 VZVH4 A2	1	0,21
25A	11,5A	2	1	LSM25 VZVH4 A2	1	0,21
32A	13A	2	1	LSM32 VZVH4 A2	1	0,21
45A	20A	2	1	LSM38 VZVH4 A2	1	0,21
29A	10A	2	1	LSM16 VZVH4 A2+2	1	0,27
36A	11,5A	2	1	LSM25 VZVH4 A2+2	1	0,27
50A	13A	2	1	LSM32 VZVH4 A2+2	1	0,27
50A	20A	2	1	LSM38 VZVH4 A2+2	1	0,27
16A	16A	2	2	LSM16 VZVH4 A4	1	0,25
25A	25A	2	2	LSM25 VZVH4 A4	1	0,25
32A	32A	2	2	LSM32 VZVH4 A4	1	0,25
45A	38A	2	2	LSM38 VZVH4 A4	1	0,25
16A	16A	4	1	LSM16 VZVH4 A4O	1	0,27
25A	25A	4	1	LSM25 VZVH4 A4O	1	0,27
32A	32A	4	1	LSM32 VZVH4 A4O	1	0,27
45A	38A	4	1	LSM38 VZVH4 A4O	1	0,27
16A	16A	4	1	LSM16 VZVH4 A4U	1	0,27
25A	25A	4	1	LSM25 VZVH4 A4U	1	0,27
32A	32A	4	1	LSM32 VZVH4 A4U	1	0,27
45A	38A	4	1	LSM38 VZVH4 A4U	1	0,27

Mini DC-Isolators for Distribution Boards, IP40, Open Type



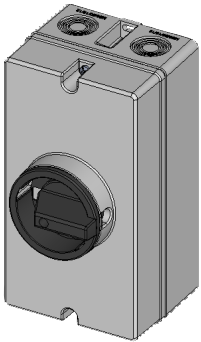
16A	10A	2	1	LSM16 SMA A2	1	0,18
25A	11,5A	2	1	LSM25 SMA A2	1	0,18
32A	13A	2	1	LSM32 SMA A2	1	0,18
45A	20A	2	1	LSM38 SMA A2	1	0,18
29A	10A	2	1	LSM16 SMA A2+2	1	0,22
36A	11,5A	2	1	LSM25 SMA A2+2	1	0,22
50A	13A	2	1	LSM32 SMA A2+2	1	0,22
50A	20A	2	1	LSM38 SMA A2+2	1	0,22
16A	16A	2	2	LSM16 SMA A4	1	0,20
25A	25A	2	2	LSM25 SMA A4	1	0,20
32A	32A	2	2	LSM32 SMA A4	1	0,20
45A	38A	2	2	LSM38 SMA A4	1	0,20
16A	16A	4	1	LSM16 SMA A4O	1	0,22
25A	25A	4	1	LSM25 SMA A4O	1	0,22
32A	32A	4	1	LSM32 SMA A4O	1	0,22
45A	38A	4	1	LSM38 SMA A4O	1	0,22
16A	16A	4	1	LSM16 SMA A4U	1	0,22
25A	25A	4	1	LSM25 SMA A4U	1	0,22
32A	32A	4	1	LSM32 SMA A4U	1	0,22
45A	38A	4	1	LSM38 SMA A4U	1	0,22

Lockable Mini DC-Isolators for Distribution Boards, IP40, Open Type



DC-PV1 (=DC21B)		Poles in Series	Number of Strings	Type	Pack pcs.	Weight kg/pce.
600V	1000V					
16A	10A	2	1	LSM16 SMAH1N A2	1	0,18
25A	11,5A	2	1	LSM25 SMAH1N A2	1	0,18
32A	13A	2	1	LSM32 SMAH1N A2	1	0,18
45A	20A	2	1	LSM38 SMAH1N A2	1	0,18
29A	10A	2	1	LSM16 SMAH1N A2+2	1	0,22
36A	11,5A	2	1	LSM25 SMAH1N A2+2	1	0,22
50A	13A	2	1	LSM32 SMAH1N A2+2	1	0,22
50A	20A	2	1	LSM38 SMAH1N A2+2	1	0,22
16A	16A	2	2	LSM16 SMAH1N A4	1	0,20
25A	25A	2	2	LSM25 SMAH1N A4	1	0,20
32A	32A	2	2	LSM32 SMAH1N A4	1	0,20
45A	38A	2	2	LSM38 SMAH1N A4	1	0,20
16A	16A	4	1	LSM16 SMAH1N A4O	1	0,22
25A	25A	4	1	LSM25 SMAH1N A4O	1	0,22
32A	32A	4	1	LSM32 SMAH1N A4O	1	0,22
45A	38A	4	1	LSM38 SMAH1N A4O	1	0,22
16A	16A	4	1	LSM16 SMAH1N A4U	1	0,22
25A	25A	4	1	LSM25 SMAH1N A4U	1	0,22
32A	32A	4	1	LSM32 SMAH1N A4U	1	0,22
45A	38A	4	1	LSM38 SMAH1N A4U	1	0,22

Mini DC-Isolators in Plastic Enclosure, IP67, Type 4X



16A	10A	2	1	LSM16 PFLH4 A2	1	0,42
25A	11,5A	2	1	LSM25 PFLH4 A2	1	0,42
32A	13A	2	1	LSM32 PFLH4 A2	1	0,42
45A	20A	2	1	LSM38 PFLH4 A2	1	0,42
29A	10A	2	1	LSM16 PFLH4 A2+2	1	0,50
36A	11,5A	2	1	LSM25 PFLH4 A2+2	1	0,50
50A	13A	2	1	LSM32 PFLH4 A2+2	1	0,50
50A	20A	2	1	LSM38 PFLH4 A2+2	1	0,50
16A	16A	2	2	LSM16 PFLH4 A4	1	0,49
25A	25A	2	2	LSM25 PFLH4 A4	1	0,49
32A	32A	2	2	LSM32 PFLH4 A4	1	0,49
45A	38A	2	2	LSM38 PFLH4 A4	1	0,49
16A	16A	4	1	LSM16 PFLH4 A4O	1	0,51
25A	25A	4	1	LSM25 PFLH4 A4O	1	0,51
32A	32A	4	1	LSM32 PFLH4 A4O	1	0,51
45A	38A	4	1	LSM38 PFLH4 A4O	1	0,51
16A	16A	4	1	LSM16 PFLH4 A4U	1	0,51
25A	25A	4	1	LSM25 PFLH4 A4U	1	0,51
32A	32A	4	1	LSM32 PFLH4 A4U	1	0,51
45A	38A	4	1	LSM38 PFLH4 A4U	1	0,51

Changeover Isolators for Panel Mounting, 4 holes, Plate 64, IP66, Type 3R cUL^{us}

	DC-PV1 (=DC21B) 600V	1000V	AC21B 440V	Poles in Series	Type	Pack pcs.	Weight kg/pce.	
								1
		16A	16A	16A	4	LSM16 E U4 ¹⁾	1	0,40
		25A	25A	25A	4	LSM25 E U4 ¹⁾	1	0,40
		32A	32A	32A	4	LSM32 E U4 ¹⁾	1	0,40
		45A	38A	45A	4	LSM38 E U4 ¹⁾	1	0,40
		16A	16A	16A	4	LSM16 E U4ACDC ²⁾	1	0,40
		25A	25A	25A	4	LSM25 E U4ACDC ²⁾	1	0,40
		32A	32A	32A	4	LSM32 E U4ACDC ²⁾	1	0,40
		45A	38A	45A	4	LSM38 E U4ACDC ²⁾	1	0,40
		16A	16A	-	4	LSM16 E U4DC ³⁾	1	0,48
		25A	25A	-	4	LSM25 E U4DC ³⁾	1	0,48
		32A	32A	-	4	LSM32 E U4DC ³⁾	1	0,48
		45A	38A	-	4	LSM38 E U4DC ³⁾	1	0,48

Changeover Isolators for Panel Mounting, 4 holes, lockable, Plate 64, IP66, Type 3R cUL^{us} LISTED

	DC-PV1 (=DC21B) 600V	1000V	AC21B 440V	Poles in Series	Type	Pack pcs.	Weight kg/pce.	
								1
		16A	16A	16A	4	LSM16 EH4 U4 ¹⁾	1	0,43
		25A	25A	25A	4	LSM25 EH4 U4 ¹⁾	1	0,43
		32A	32A	32A	4	LSM32 EH4 U4 ¹⁾	1	0,43
		45A	38A	45A	4	LSM38 EH4 U4 ¹⁾	1	0,43
		16A	16A	16A	4	LSM16 EH4 U4ACDC ²⁾	1	0,43
		25A	25A	25A	4	LSM25 EH4 U4ACDC ²⁾	1	0,43
		32A	32A	32A	4	LSM32 EH4 U4ACDC ²⁾	1	0,43
		45A	38A	45A	4	LSM38 EH4 U4ACDC ²⁾	1	0,43
		16A	16A	-	4	LSM16 EH4 U4DC ³⁾	1	0,51
		25A	25A	-	4	LSM25 EH4 U4DC ³⁾	1	0,51
		32A	32A	-	4	LSM32 EH4 U4DC ³⁾	1	0,51
		45A	38A	-	4	LSM38 EH4 U4DC ³⁾	1	0,51

Changeover Isolators for Panel Mounting, 2 holes, Plate 64, IP66, Type 3R cUL^{us}

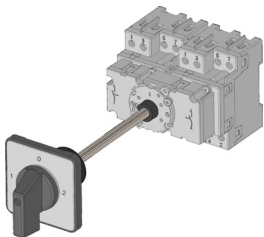

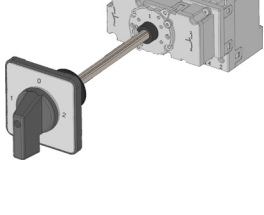



	DC-PV1 (=DC21B) 600V	1000V	AC21B 440V	Poles in Series	Type	Pack pcs.	Weight kg/pce.	
								1
		16A	16A	16A	4	LSM16 E2 U4 ¹⁾	1	0,40
		25A	25A	25A	4	LSM25 E2 U4 ¹⁾	1	0,40
		32A	32A	32A	4	LSM32 E2 U4 ¹⁾	1	0,40
		45A	38A	45A	4	LSM38 E2 U4 ¹⁾	1	0,40
		16A	16A	16A	4	LSM16 E2 U4ACDC ²⁾	1	0,40
		25A	25A	25A	4	LSM25 E2 U4ACDC ²⁾	1	0,40
		32A	32A	32A	4	LSM32 E2 U4ACDC ²⁾	1	0,40
		45A	38A	45A	4	LSM38 E2 U4ACDC ²⁾	1	0,40
		16A	16A	-	4	LSM16 E2 U4DC ³⁾	1	0,48
		25A	25A	-	4	LSM25 E2 U4DC ³⁾	1	0,48
		32A	32A	-	4	LSM32 E2 U4DC ³⁾	1	0,48
		45A	38A	-	4	LSM38 E2 U4DC ³⁾	1	0,48

Changeover Isolators for Panel Mounting, lockable, 2 holes, Plate 64, IP66, Type 3R cUL^{us} LISTED

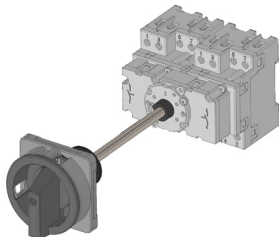

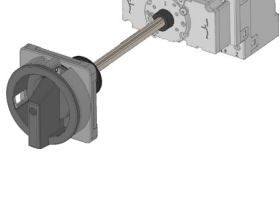

	DC-PV1 (=DC21B) 600V	1000V	AC21B 440V	Poles in Series	Type	Pack pcs.	Weight kg/pce.	
								1
		16A	16A	16A	4	LSM16 E2H1 U4 ¹⁾	1	0,41
		25A	25A	25A	4	LSM25 E2H1 U4 ¹⁾	1	0,41
		32A	32A	32A	4	LSM32 E2H1 U4 ¹⁾	1	0,41
		45A	38A	45A	4	LSM38 E2H1 U4 ¹⁾	1	0,41
		16A	16A	16A	4	LSM16 E2H1 U4ACDC ²⁾	1	0,41
		25A	25A	25A	4	LSM25 E2H1 U4ACDC ²⁾	1	0,41
		32A	32A	32A	4	LSM32 E2H1 U4ACDC ²⁾	1	0,41
		45A	38A	45A	4	LSM38 E2H1 U4ACDC ²⁾	1	0,41
		16A	16A	-	4	LSM16 E2H1 U4DC ³⁾	1	0,49
		25A	25A	-	4	LSM25 E2H1 U4DC ³⁾	1	0,49
		32A	32A	-	4	LSM32 E2H1 U4DC ³⁾	1	0,49
		45A	38A	-	4	LSM38 E2H1 U4DC ³⁾	1	0,49

- 1) For all applications, jumpers not included
 2) Changeover Isolators AC/DC, 2 jumpers for DC side are enclosed
 3) Changeover Isolators for DC, prewired

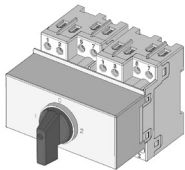

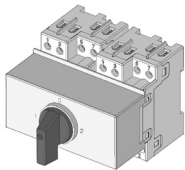



Changeover Isolators for Base Mounting, w. Door Clutch, Single Hole, Plate 64, IP66, Type 4X

	DC-PV1 (=DC21B)		AC21B 440V	Poles in Series	Type	Pack pcs.	Weight kg/pce.	
	600V	1000V						
		16A	16A	16A	4	LSM16 VZV U4 ¹⁾	1	0,45
		25A	25A	25A	4	LSM25 VZV U4 ¹⁾	1	0,45
		32A	32A	32A	4	LSM32 VZV U4 ¹⁾	1	0,45
		45A	38A	45A	4	LSM38 VZV U4 ¹⁾	1	0,45
		16A	16A	16A	4	LSM16 VZV U4ACDC ²⁾	1	0,45
		25A	25A	25A	4	LSM25 VZV U4ACDC ²⁾	1	0,45
		32A	32A	32A	4	LSM32 VZV U4ACDC ²⁾	1	0,45
		45A	38A	45A	4	LSM38 VZV U4ACDC ²⁾	1	0,45
		16A	16A	-	4	LSM16 VZV U4DC ³⁾	1	0,50
		25A	25A	-	4	LSM25 VZV U4DC ³⁾	1	0,50
		32A	32A	-	4	LSM32 VZV U4DC ³⁾	1	0,50
		45A	38A	-	4	LSM38 VZV U4DC ³⁾	1	0,50

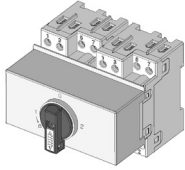

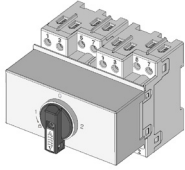

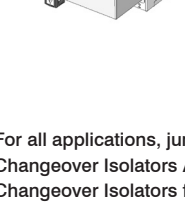

Changeover Isolators for Base Mounting, lockable, w. Door Clutch, Single Hole, Plate 64, IP66, Type 4X

		16A	16A	16A	4	LSM16 VZVH4 U4 ¹⁾	1	0,45
		25A	25A	25A	4	LSM25 VZVH4 U4 ¹⁾	1	0,45
		32A	32A	32A	4	LSM32 VZVH4 U4 ¹⁾	1	0,45
		45A	38A	45A	4	LSM38 VZVH4 U4 ¹⁾	1	0,45
		16A	16A	16A	4	LSM16 VZVH4 U4ACDC ²⁾	1	0,45
		25A	25A	25A	4	LSM25 VZVH4 U4ACDC ²⁾	1	0,45
		32A	32A	32A	4	LSM32 VZVH4 U4ACDC ²⁾	1	0,45
		45A	38A	45A	4	LSM38 VZVH4 U4ACDC ²⁾	1	0,45
		16A	16A	-	4	LSM16 VZVH4 U4DC ³⁾	1	0,50
		25A	25A	-	4	LSM25 VZVH4 U4DC ³⁾	1	0,50
		32A	32A	-	4	LSM32 VZVH4 U4DC ³⁾	1	0,50
		45A	38A	-	4	LSM38 VZVH4 U4DC ³⁾	1	0,50

Changeover Isolators for Distribution Boards, IP40, Open Type

		16A	16A	16A	4	LSM16 SMA U4 ¹⁾	1	0,40
		25A	25A	25A	4	LSM25 SMA U4 ¹⁾	1	0,40
		32A	32A	32A	4	LSM32 SMA U4 ¹⁾	1	0,40
		45A	38A	45A	4	LSM38 SMA U4 ¹⁾	1	0,40
		16A	16A	16A	4	LSM16 SMA U4ACDC ²⁾	1	0,40
		25A	25A	25A	4	LSM25 SMA U4ACDC ²⁾	1	0,40
		32A	32A	32A	4	LSM32 SMA U4ACDC ²⁾	1	0,40
		45A	38A	45A	4	LSM38 SMA U4ACDC ²⁾	1	0,40
		16A	16A	-	4	LSM16 SMA U4DC ³⁾	1	0,45
		25A	25A	-	4	LSM25 SMA U4DC ³⁾	1	0,45
		32A	32A	-	4	LSM32 SMA U4DC ³⁾	1	0,45
		45A	38A	-	4	LSM38 SMA U4DC ³⁾	1	0,45

Changeover Isolators for Distribution Boards, lockable, lower handle, IP40, Open Type

		16A	16A	16A	4	LSM16 SMAH1N U4 ¹⁾	1	0,40
		25A	25A	25A	4	LSM25 SMAH1N U4 ¹⁾	1	0,40
		32A	32A	32A	4	LSM32 SMAH1N U4 ¹⁾	1	0,40
		45A	38A	45A	4	LSM38 SMAH1N U4 ¹⁾	1	0,40
		16A	16A	16A	4	LSM16 SMAH1N U4ACDC ²⁾	1	0,40
		25A	25A	25A	4	LSM25 SMAH1N U4ACDC ²⁾	1	0,40
		32A	32A	32A	4	LSM32 SMAH1N U4ACDC ²⁾	1	0,40
		45A	38A	45A	4	LSM38 SMAH1N U4ACDC ²⁾	1	0,40
		16A	16A	-	4	LSM16 SMAH1N U4DC ³⁾	1	0,45
		25A	25A	-	4	LSM25 SMAH1N U4DC ³⁾	1	0,45
		32A	32A	-	4	LSM32 SMAH1N U4DC ³⁾	1	0,45
		45A	38A	-	4	LSM38 SMAH1N U4DC ³⁾	1	0,45

1) For all applications, jumpers not included

2) Changeover Isolators AC/DC, 2 jumpers for DC side are enclosed

3) Changeover Isolators for DC, prewired

Technical Data

Kind of current	Category		Typical applications	Test conditions for the number of on-load operating cycles (normal service)						Test conditions for making and breaking capacities (operation in fault case)					
				Make			Break			Make			Break		
				I/I _e	U/U _e	L/R	I _c /I _e	U _r /U _e	L/R	I/I _e	U/U _e	L/R	I _c /I _e	U _r /U _e	L/R
Direct current	DC21A frequent operation	DC21B infrequent operation	Switching of resistive loads including moderate overloads	1	1	1ms	1	1	1ms	1,5	1,05	1ms	1,5	1,05	1ms
	DC22A frequent operation	DC22B infrequent operation	Switching of mixed resistive a.induct. loads incl. moderate overloads (shunt motors)	1	1	2ms	1	1	2ms	4	1,05	2,5ms	4	1,05	2,5ms
	DC-PV1		Switching of single PV string(s) without reverse- and overcurrents.	1	1	1ms	1	1	1ms	1,5	1,05	1ms	1,5	1,05	1ms
	DC-PV2		Switching of several PV strings with reverse- and overcurrents.	1	1	1ms	1	1	1ms	4	1,05	1ms	4	1,05	1ms

Data according to IEC 60947-3, VDE 0660, GB14048.3 (CCC China)




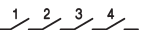
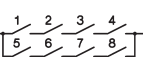
Main contacts		Type	LSM(O)16	LSM(O)25	LSM(O)32	LSM(O)38
Rated thermal current I _{th}		A	16	25	32	38
Rated insulation voltage U _i ¹⁾		V	1000	1000	1000	1000
Rated insulation voltage U _i ²⁾		V	1500	1500	1500	1500
Distance of contacts (per pole)		mm	8	8	8	8
Rated operational current I_e						
DC21B						
1 pole						
	300V	A	-	-	-	-
	400V	A	-	-	-	-
A1						
	500V	A	-	-	-	-
	600V	A	-	-	-	-
	700V	A	-	-	-	-
	800V	A	-	-	-	-
	900V	A	-	-	-	-
	1000V	A	-	-	-	-
2 poles in series						
A2						
	500V	A	16	25	32	45
	600V	A	16	25	32	45
	700V	A	16	25	32	36
	800V	A	16	20	23	30
	900V	A	16	17	20	25
	1000V	A	10	11,5	13	20
	1200V	A	7	8,5	10	10
	1500V	A	3	5	6	6
2 poles in series + 2 poles parallel						
A2 + 2						
	500V	A	29	45	50	50
	600V	A	29	45	50	50
	700V	A	22	27	32	36
	800V	A	17	20	23	30
	900V	A	16	17	20	25
	1000V	A	10	11,5	13	20
	1200V	A	7	8,5	10	10
	1500V	A	3	5	6	6
4 poles in series						
A4						
	500V	A	16	25	32	45
	600V	A	16	25	32	45
	700V	A	16	25	32	45
	800V	A	16	25	32	45
	900V	A	16	25	32	45
	1000V	A	16	25	32	38
	1200V	A	16	25	32	32
	1500V	A	16	20	32	32
Rated operational current I_e						
AC21B						
A2, A4	U _e max. 440V	A	16	25	32	45
A2 + 2	U _e max. 440V	A	29	45	50	50

1) Suitable at overvoltage category I to III, pollution degree 3 (standard-industry): U_{imp} = 8kV.

2) Suitable at overvoltage category I to III, pollution degree 2 (min. IP55): U_{imp} = 8kV.




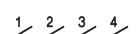
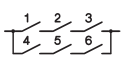
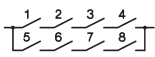
Technical Data

Data acc. to IEC 60947-3, VDE 0660

Main Contacts		Type	LSM(O)16	LSM(O)25	LSM(O)32	LSM(O)38	
Rated operational current I_e DC-PV1	1 pole	300V	A	16	23	27	-
		400V	A	14	22	25	-
	A1 	500V	A	10	17	20	-
		600V	A	7	12	15	-
		700V	A	5	6	7,5	-
		800V	A	3	4	5	-
		900V	A	3	3	4	-
		1000V	A	2	2	3	-
		2 poles in series A2 	500V	A	16	25	32
	600V		A	16	25	32	45
	700V		A	16	25	32	36
	800V		A	16	20	23	30
	900V		A	16	17	20	25
	1000V		A	10	11,5	13	20
	1100V		A	8	10	-	-
	1200V		A	7	8,5	10	10
	1300V		A	6	7	-	-
	1400V		A	5	6	-	-
	1500V		A	3	5	6	6
	2 poles in series + 2 poles parallel A2+2 	500V	A	29	45	50	50
600V		A	29	36	50	50	
700V		A	22	27	32	36	
800V		A	17	20	23	30	
900V		A	16	17	20	25	
1000V		A	10	11,5	13	20	
1100V		A	8	10	-	-	
1200V		A	7	8,5	10	10	
1300V		A	6	7	-	-	
1400V		A	5	6	-	-	
1500V		A	3	5	6	6	
4 poles in series A4 	500V	A	16	25	32	45	
	600V	A	16	25	32	45	
	700V	A	16	25	32	45	
	800V	A	16	25	32	45	
	900V	A	16	25	32	45	
	1000V	A	16	25	32	38	
	1100V	A	16	25	-	-	
	1200V	A	16	25	32	32	
	1300V	A	16	25	-	-	
	1400V	A	16	25	-	-	
	1500V	A	16	25	32	32	
4 poles in series + 2 poles parallel A4+2 	500V	A	29	45	50	50	
	600V	A	29	45	50	50	
	700V	A	29	45	50	50	
	800V	A	29	45	50	50	
	900V	A	29	45	50	50	
	1000V	A	29	45	50	50	
	1100V	A	29	-	-	-	
	1200V	A	29	33	50	50	
	1300V	A	29	-	-	-	
	1400V	A	29	-	-	-	
	1500V	A	20	26	32	32	

Technical Data

Data acc. to IEC 60947-3, VDE 0660

Main Contacts		Type	LSM(O)16	LSM(O)25	LSM(O)32	LSM(O)38	
Rated operational current I_e DC-PV2	300V	A	16	23	27	27	
	400V	A	15	18	20	20	
1 pole A1 	500V	A	10	12	14	14	
	600V	A	5	6	8	8	
	700V	A	1,5	2	3	3	
	800V	A	1,5	2	3	3	
	900V	A	1	1,5	2	2	
	1000V	A	1	1,5	2	2	
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	2 poles in series A2 	500V	A	16	25	32	38
600V		A	14	21	27	31	
700V		A	13	19	22	25	
800V		A	12	15	17	19	
900V		A	8	10	12	14	
1000V		A	4	5	6	7	
1100V		A	3	4	-	-	
1200V		A	2	3	4	4	
1300V		A	1,5	2	-	-	
1400V		A	1	2	-	-	
1500V		A	1	1,5	2	2	
<hr/>							
2 poles in series + 2 poles parallel A2+2 	500V	A	25	39	50	50	
	600V	A	20	32	35	38	
	700V	A	13	19	22	25	
	800V	A	12	15	17	19	
	900V	A	8	10	12	14	
	1000V	A	4	5	6	7	
	1100V	A	3	4	-	-	
	1200V	A	2	3	4	4	
	1300V	A	1,5	2	-	-	
	1400V	A	1	2	-	-	
	1500V	A	1	1,5	2	2	
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4 poles in series A4 	500V	A	16	25	32	45	
	600V	A	16	25	32	45	
	700V	A	16	25	32	45	
	800V	A	16	25	32	38	
	900V	A	16	25	32	38	
	1000V	A	16	25	32	38	
	1100V	A	16	25	-	-	
	1200V	A	13,5	21	27	27	
	1300V	A	12	19	-	-	
	1400V	A	10,5	16	-	-	
	1500V	A	9	14	18	18	
	<hr/>						
	3 poles in series + 2 poles parallel A3+2 	500V	A	28	45	50	50
		600V	A	22	38	44	48
700V		A	20	30	34	35	
800V		A	18	26	29	31	
900V		A	16	22	24	24	
1000V		A	15	18	20	20	
1100V		A	-	-	-	-	
1200V		A	11	13,5	15	15	
1300V		A	-	-	-	-	
1400V		A	-	-	-	-	
1500V		A	4	6,5	8	8	
<hr/>							
4 poles in series + 2 poles parallel A4+2 		500V	A	29	45	50	50
		600V	A	29	45	50	50
	700V	A	25	40	50	50	
	800V	A	21	35	45	50	
	900V	A	18	30	37	50	
	1000V	A	16	25	32	50	
	1100V	A	-	-	-	-	
	1200V	A	13,5	21	27	27	
	1300V	A	-	-	-	-	
	1400V	A	-	-	-	-	
	1500V	A	9	14	18	18	





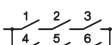
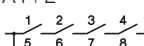
Technical Data

Data according to IEC 60947-3, VDE 0660






Main contacts			Type	LSM(O)16	LSM(O)25	LSM(O)32	LSM(O)38
Rated conditional short-circuit current			kA _{eff}	5	5	5	5
Max. fuse size		gL (gG)	A	40	63	80	80
Mechanical life			x10 ³	10	10	10	10
Rated short-time withstand current (1s)	I _{cw}	A2, A4 A2+2	A	800	900	1000	1000
			A	1300	1500	1700	1700
Short circuit making capacity	I _{cm}	A2, A4 A2+2	A	800	900	1000	1000
			A	1300	1500	1700	1700
Maximum cable cross sections (incl. jumper LSMV-B1)							
solid or stranded			mm ²	1,5 - 10	1,5 - 10	1,5 - 10	1,5 - 10
flexible			mm ²	1,5 - 6	1,5 - 6	1,5 - 6	1,5 - 6
flexible (+ multicore cable end)			mm ²	1,5 - 6	1,5 - 6	1,5 - 6	1,5 - 6
Size of terminal screw				M4 Pz1	M4 Pz1	M4 Pz1	M4 Pz1
Tightening torque			Nm	1,4	1,4	1,4	1,4
2 cables per clamp without jumper LSMV-B1							
solid or stranded			mm ²	10+(1,5-2,5) / 6+(1,5-6) / 4+(1,5-4)			
flexible			mm ²	(0,5-6)+(0,5-6)			
stranded			AWG	6+(20-14) / 8+(20-12) / 10+(20-10) 12+(20-12)			
solid			AWG	10+(16-10) / 12+(16-12) 14+(16-14)			
Maximum ambient temperature							
Operation	open	enclosed	°C	-40 to +65			
			°C				
Storage			°C	-40 to +45			
			°C				
Power loss per switch at I _e max.							
A2			(A)/W	(16)/1	(25)/2,3	(32)/3,7	(45)/7,1
A4			(A)/W	(16)/2	(25)/4,6	(32)/7,4	(45)/14,2
A2+2			(A)/W	(29)/1,5	(45)/3,7	(50)/4,4	(50)/4,4
Contact resistance per pole			mΩ	1,75	1,75	1,75	1,75

Technical Data

Data according to UL508I  File E359344, Category no.: NMSJ, and UL508 c  File E332938, Category no.: NRNT2, NRNT8

Main contacts			Type	LSM(O)16	LSM(O)25	LSM(O)32	LSM(O)38
Ampere-Rating	"General use"	DC					
1 pole	350V		A	4	5	6	6
	500V		A	4	5	6	6
	600V		A	4	5	6	6
2 poles in series	350V		A	16	25	32	38
A2	500V		A	16	25	32	38
	600V		A	16	25	32	38
2 poles in series + 2 poles parallel	350V		A	29	45	50	50
500V		A	29	38	43	45	
A2+2	600V		A	21	27	33	36
							
4 poles in series	350V		A	16	25	32	38
A4	500V		A	16	25	32	38
	600V		A	16	25	32	36
3 poles in series + 2 poles parallel	350V		A	16	25	50	50
500V		A	16	25	50	50	
A3+2	600V		A	16	25	45	45
							
4 poles in series + 2 poles parallel	350V		A	16	25	50	50
500V		A	16	25	50	50	
A4+2	600V		A	16	25	50	50
							
Fuse size (RK5) Industrial Control Switch	5kA / 600V		A	40	60	80	80
Maximum cable cross sections (incl. jumper LSMV-B1)							
solid or stranded		AWG		16 - 10	16 - 10	16 - 10	16 - 10
flexible		AWG		20 - 6	20 - 6	20 - 6	20 - 6
flexible (+ multicore cable end)		AWG		20 - 6	20 - 6	20 - 6	20 - 6
Size of terminal screw				M4 Pz1	M4 Pz1	M4 Pz1	M4 Pz1
Tightening torque		lb.inch		12,4	12,4	12,4	12,4
Protection class of terminals ¹⁾				IP20	IP20	IP20	IP20

Approvals

Country	USA, UL508I 	US, Canada UL508 	Europe 	China CCC 	CB- certificates	EAC 
Type						
LSM16	o	o	/	o	x	o
LSM25	o	o	/	o	x	o
LSM32	o	o	/	o	x	o
LSM38	o	o	/	o	x	o

o In standard version approved

/ No testing required CE

x pending

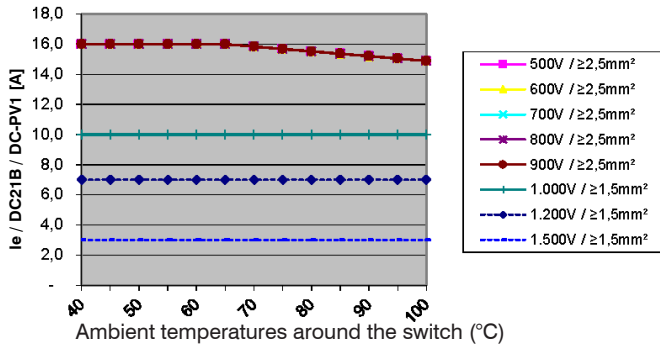
- not provided for testing till now

1) Protection degree of the terminals with connected insulated conductor.

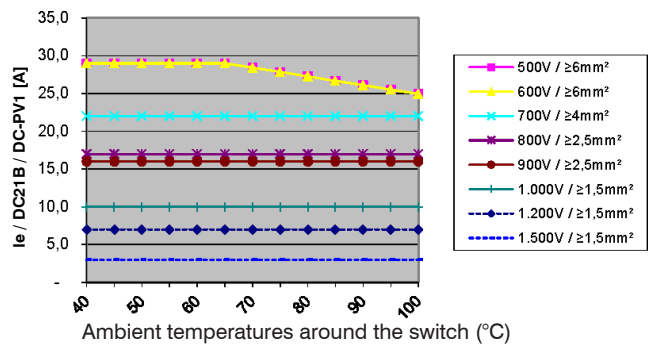
Technical Data

Example for maximum currents according to ambient temperatures and cable cross sections:

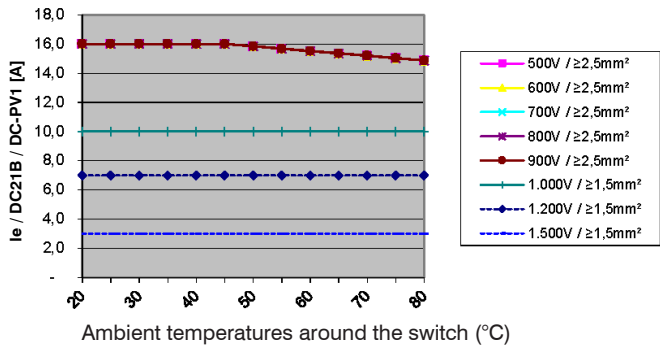
Switch **open** LSM(O)16..., 2 contacts in series (A2)



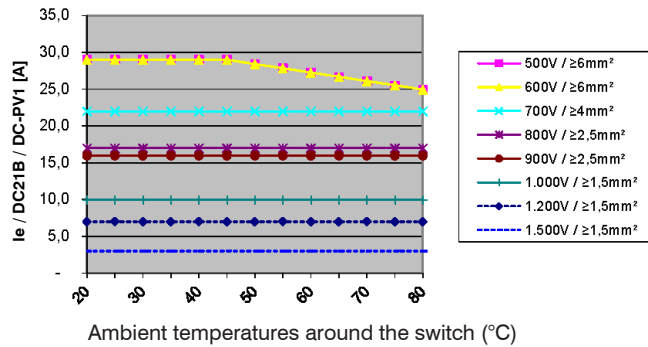
Switch **open** LSM(O)16 ..., 2 contacts in series + 2 parallel (A2+2)



Switch **enclosed** LSM(O)16 PFL..., 2 contacts in series (A2)



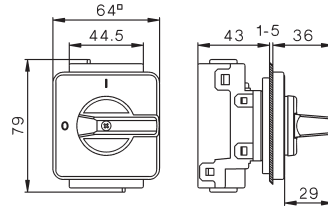
Switch **enclosed** LS16(M)O PFL..., 2 contacts in series + 2 parallel (A2+2)



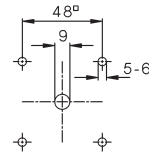
All data about maximum currents according to ambient temperatures and cable cross sections for switches LSM(O)16.. to LSM(O)38.. (open or enclosed) please find under ➡ www.benedict.at (Button "Customers").

Dimensions:

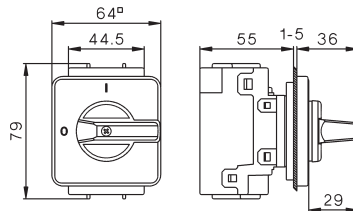
**LSM16 E.. up to LSM38 E..
..A2**



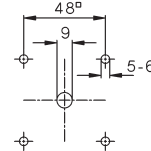
Mounting hole



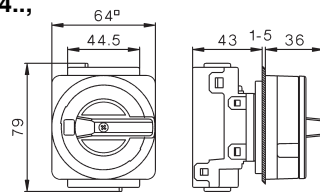
**LSM16 E.. up to LSM38 E..
..A2+2, ..A4**



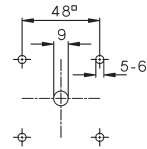
Mounting hole



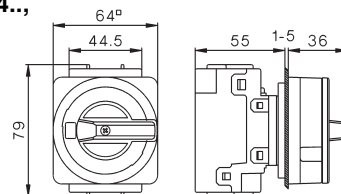
**LSM16 EH4.. up to LSM38 EH4..
..A2**



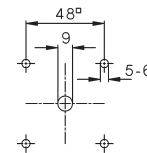
Mounting hole



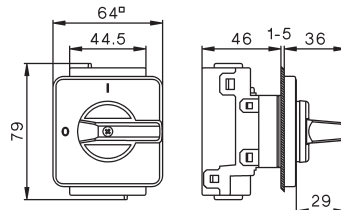
**LSM16 EH4.. up to LSM38 EH4..
..A2+2, ..A4**



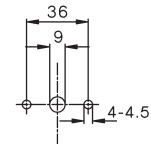
Mounting hole



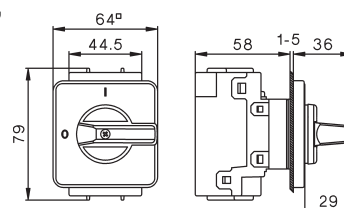
**LSM16 E2.. up to LSM38 E2..
..A2**



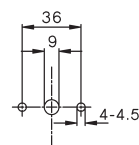
Mounting hole



**LSM16 E2.. up to LSM38 E2..
..A2+2, ..A4**

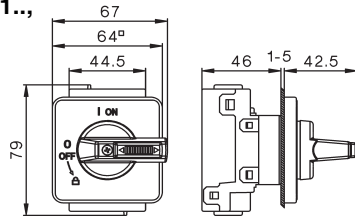


Mounting hole

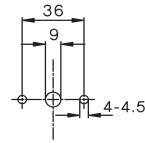


Dimensions:

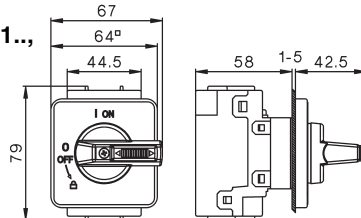
**LSM16 E2H1.. up to LSM38 E2H1...
..A2**



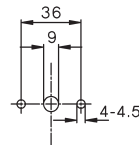
Mounting hole



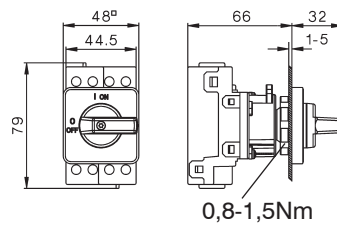
**LSM16 E2H1.. up to LSM38 E2H1...
..A2+2, ..A4**



Mounting hole

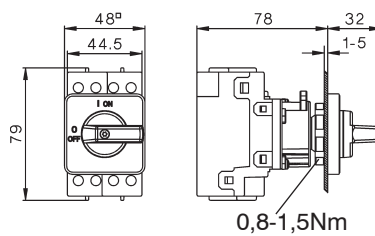


**LSM16 Z.. up to LSM38 Z...
..A2**



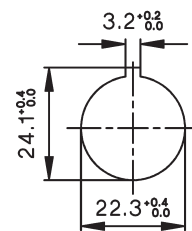
0,8-1,5Nm

**LSM16 Z.. up to LSM38 Z...
..A2+2, ..A4**

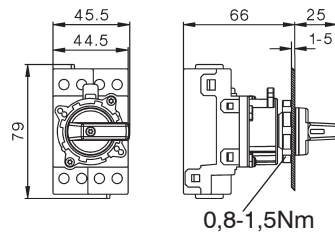


0,8-1,5Nm

Detailed view - Mounting hole for LSM16 Z(O).. up to LSM38 Z(O)..

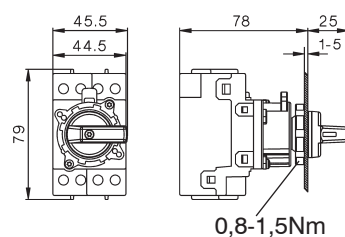


**LSM16 ZO.. up to LSM38 ZO...
..A2**



0,8-1,5Nm

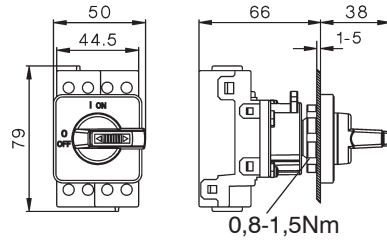
**LSM16 ZO.. up to LSM38 ZO...
..A2+2, ..A4**



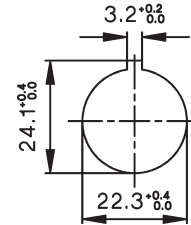
0,8-1,5Nm

Dimensions:

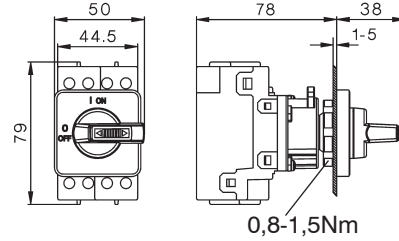
**LSM16 ZH1.. up to LSM38 ZH1..,
..A2**



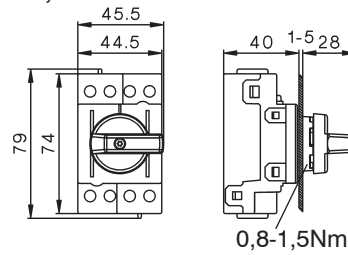
Detailed view - Mounting hole for LSM16 ZH1.. up to LSM38 ZH1..



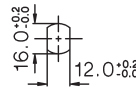
**LSM16 ZH1.. up to LSM38 ZH1..,
..A2+2, ..A4**



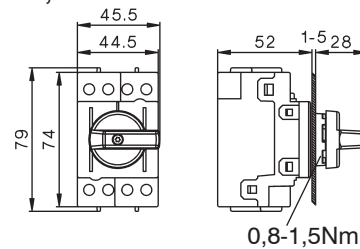
**LSM16 Z16.. up to LSM38 Z16..,
..A2**



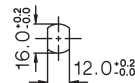
Mounting hole



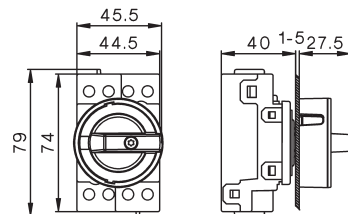
**LSM16 Z16.. up to LSM38 Z16..,
..A2+2, ..A4**



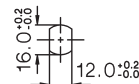
Mounting hole



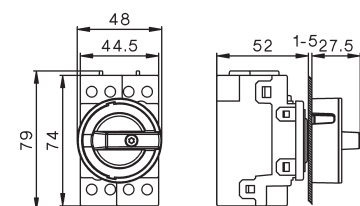
**LSM16 ZH448.. up to LSM38 Z16H448..,
..A2**



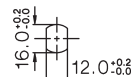
Mounting hole



**LSM16 ZH448.. up to LSM38 ZH448..,
..A2+2, ..A4**

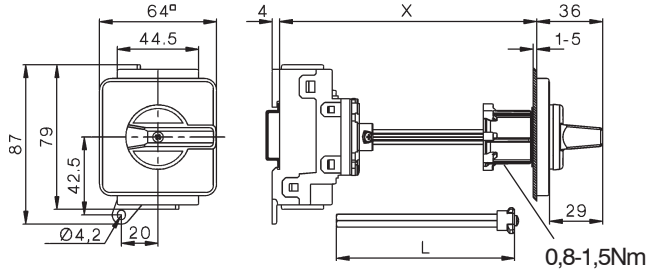


Mounting hole



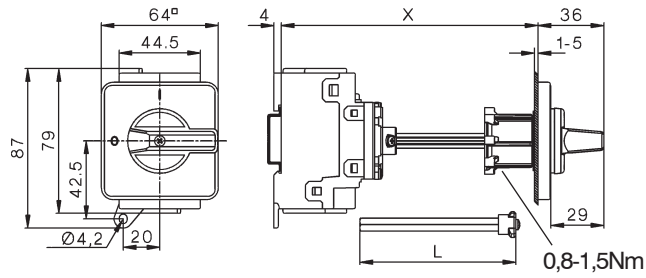
Dimensions:

**LSM16 VZV.. up to LSM38 VZV..
..A2**



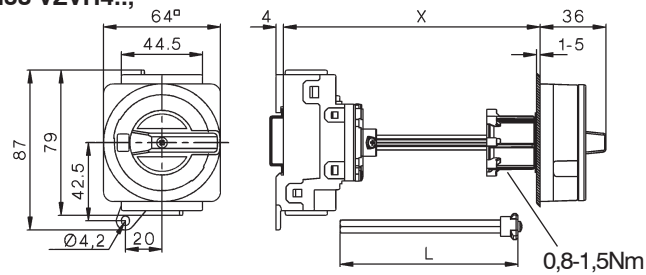
$X_{max} = 182, L = 155,5$
 $(X_{min} = 59,5)$
 $L = X - 26,5 \pm 3$

**LSM16 VZV.. up to LSM38 VZV..
..A2+2, ..A4**



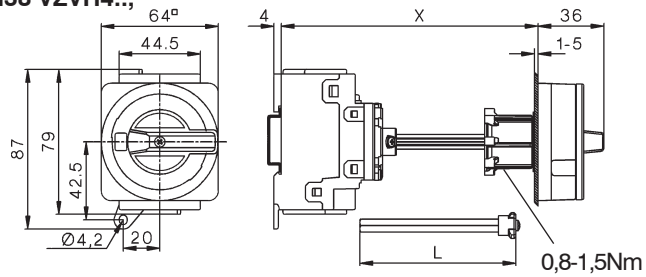
$X_{max} = 194, L = 155,5$
 $(X_{min} = 71,5)$
 $L = X - 38,5 \pm 3$

**LSM16 VZVH4.. up to LSM38 VZVH4..
..A2**



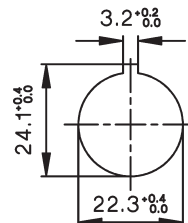
$X_{max} = 182, L = 155,5$
 $(X_{min} = 59,5)$
 $L = X - 26,5 \pm 3$

**LSM16 VZVH4.. up to LSM38 VZVH4..
..A2+2, ..A4**



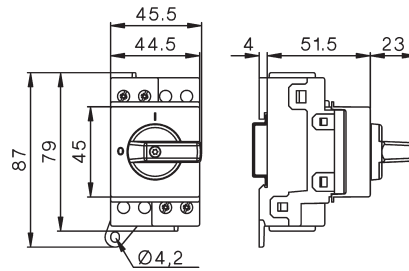
$X_{max} = 194, L = 155,5$
 $(X_{min} = 71,5)$
 $L = X - 38,5 \pm 3$

Detailed view - Mounting hole for LSM16 VZV(H).. up to LSM38 VZV(H)..

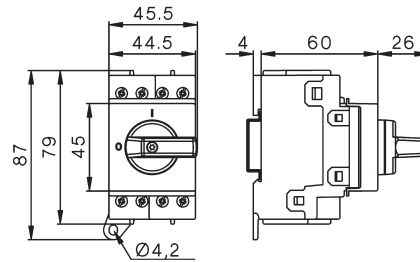


Dimensions:

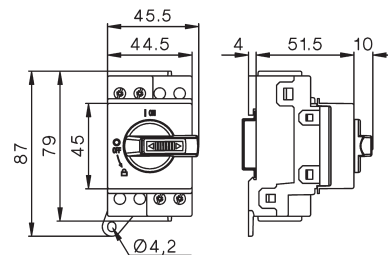
LSM16 SMA.. up to LSM38 SMA..
..A2



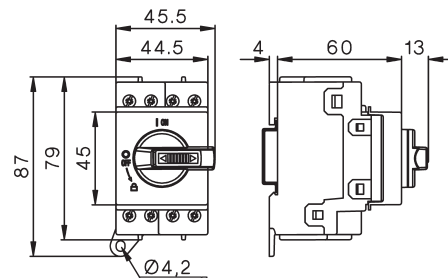
LSM16 SMA.. up to LSM38 SMA..
..A2+2, ..A4



LSM16 SMAH1N.. up to LSM38 SMAH1N..
..A2

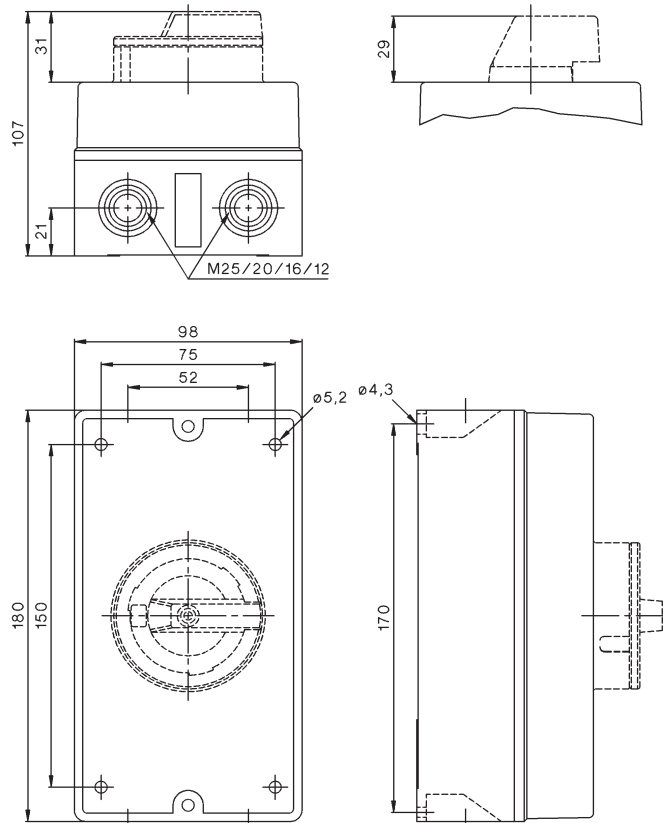


LSM16 SMAH1N.. up to LSM38 SMAH1N..
..A2+2, ..A4

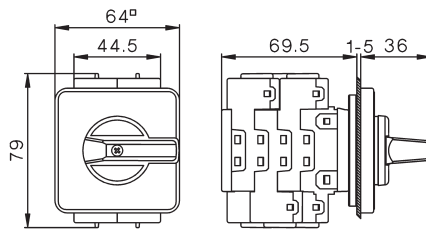


Dimensions:

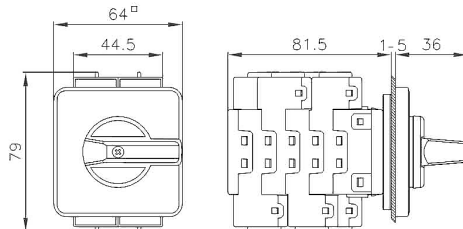
**LSM16 PFLH4.. up to LSM38 PFLH4..
..A2, ..A2+2, ..A4**



**LSM016 E.. up to LSM038 E..
..A6**

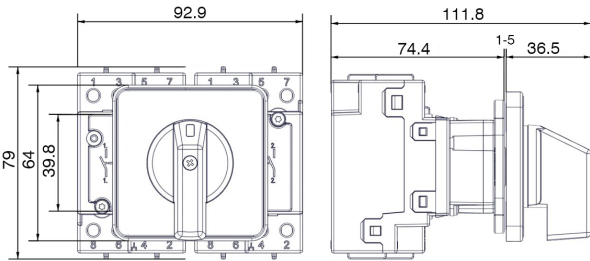


**LSM016 E.. up to LSM038 E..
..A8**

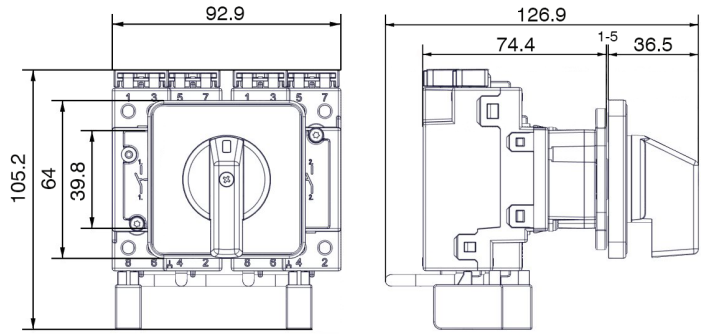


Dimensions:

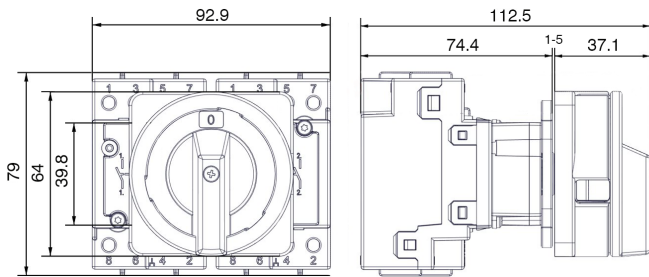
**LSM16 E U4 up to LSM38 E U4,
LSM16 E U4ACDC up to LSM38 E U4ACDC**



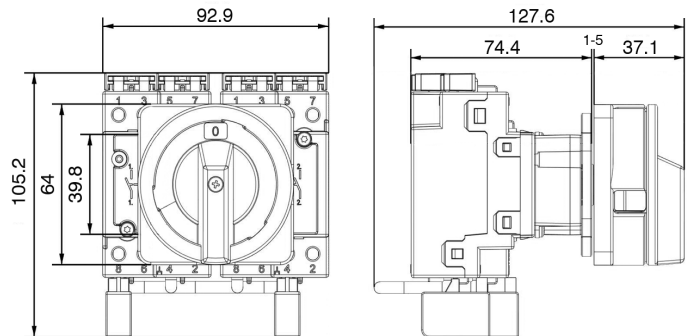
LSM16 E U4DC up to LSM38 E U4DC



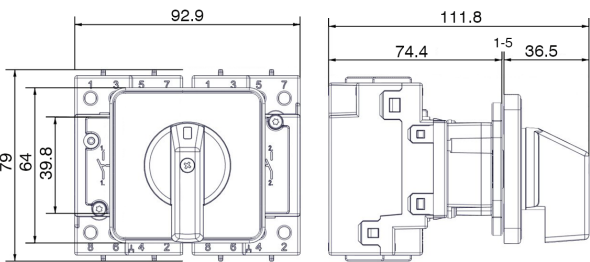
**LSM16 EH4 U4 up to LSM38 EH4 U4,
LSM16 EH4 U4ACDC up to LSM38 EH4 U4ACDC**



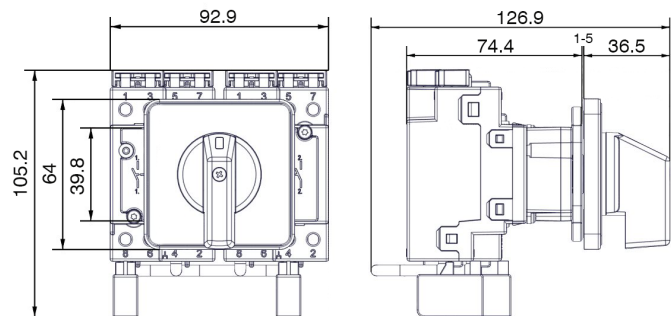
LSM16 EH4 U4DC up to LSM38 EH4 U4DC



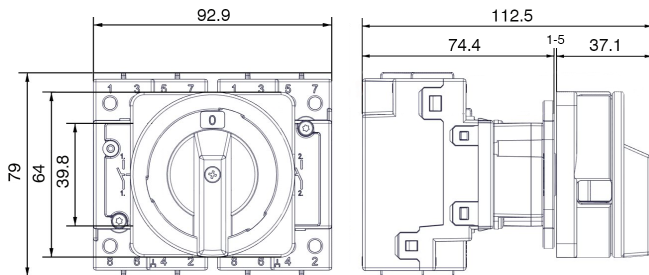
**LSM16 E2 U4 up to LSM38 E U4,
LSM16 E2 U4ACDC up to LSM38 E U4ACDC**



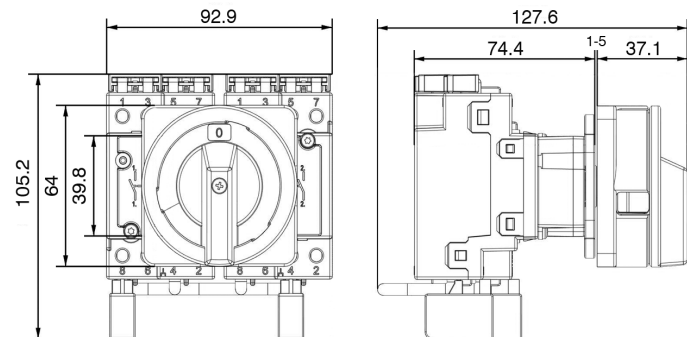
LSM16 E2 U4DC up to LSM38 E U4DC



**LSM16 E2H4 U4 up to LSM38 EH4 U4,
LSM16 E2H4 U4ACDC up to LSM38 EH4 U4ACDC**

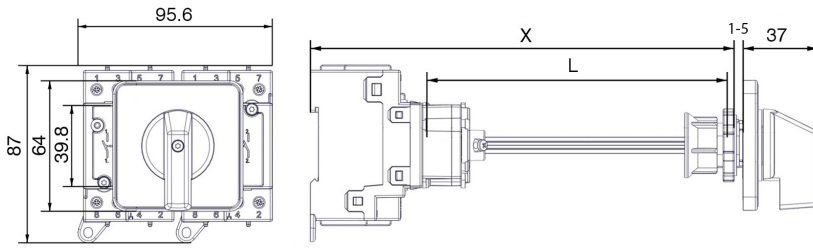


LSM16 E2H4 U4DC up to LSM38 EH4 U4DC

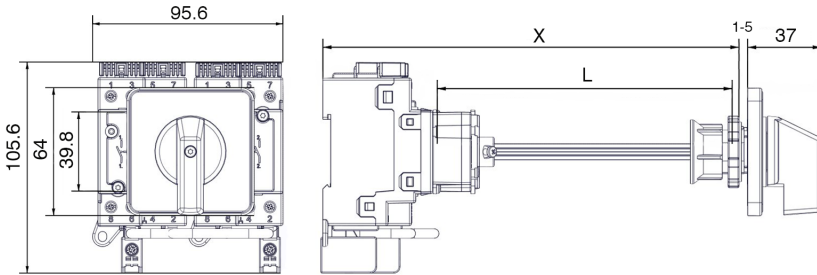


Dimensions:

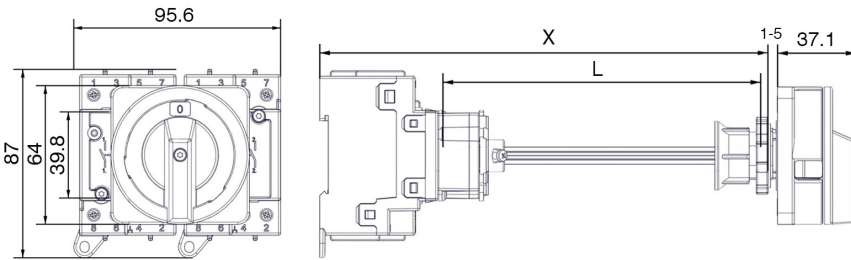
**LSM16 VZV U4 up to LSM38 VZV U4,
LSM16 VZV U4ACDC up to LSM38 VZV U4ACDC**



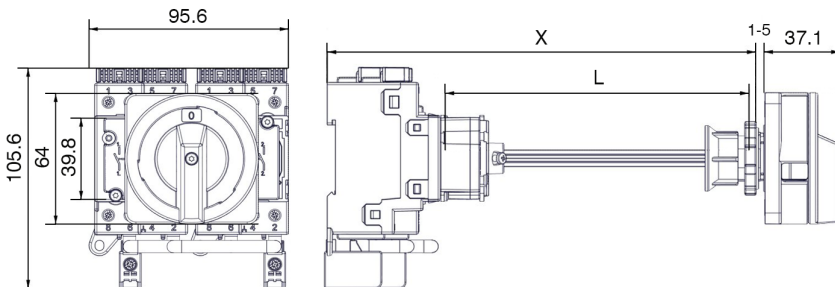
LSM16 VZV U4DC up to LSM38 VZV U4DC



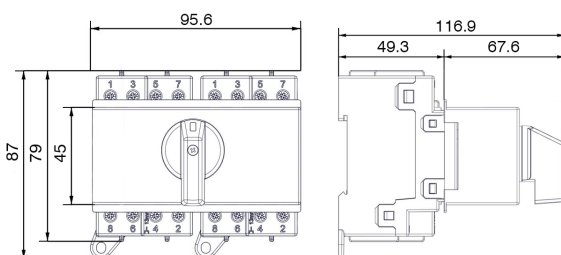
**LSM16 VZVH4 U4 up to LSM38 EH4 U4,
LSM16 VZVH4 U4ACDC up to LSM38 EH4 U4ACDC**



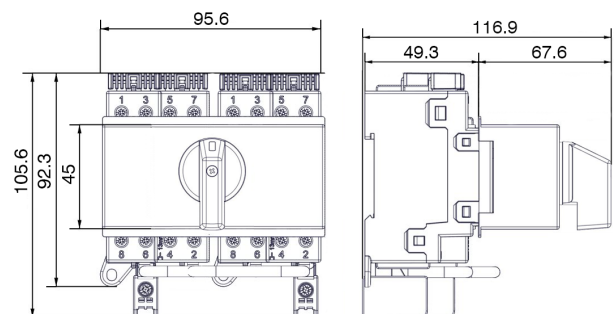
LSM16 VZVH4 U4DC up to LSM38 VZVH4 U4DC



**LSM16 SMA U4 up to LSM38 SMA U4,
LSM16 SMA U4ACDC up to LSM38 SMA U4ACDC**

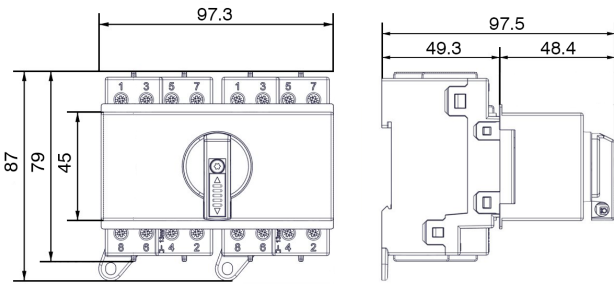


LSM16 SMA U4DC up to LSM38 SMA

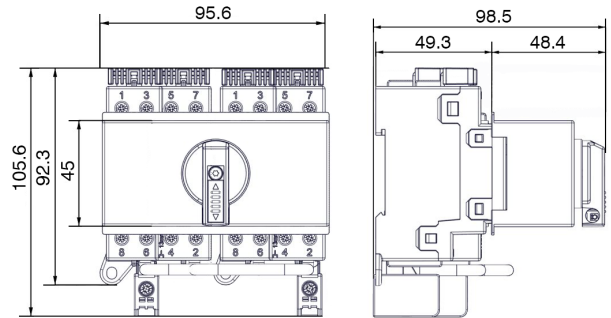


Dimensions:

LSM16 SMAH1N U4 up to LSM38 SMAH1N U4,
LSM16 SMAH1N U4ACDC up to LSM38 SMAH1N U4ACDC

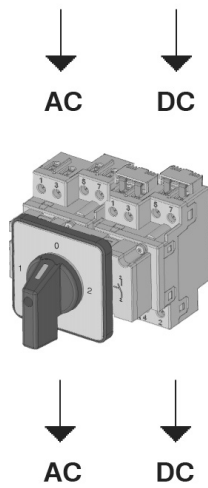


LSM16 SMAH1N U4DC up to LSM38 SMAH1N U4DC

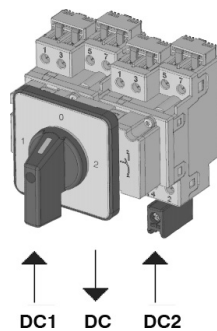


Changeover Isolators - Applications:

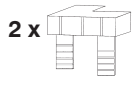
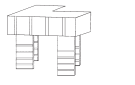

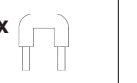

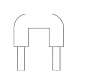
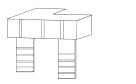
LSM.. U4ACDC (2 pcs. jumpers attached)





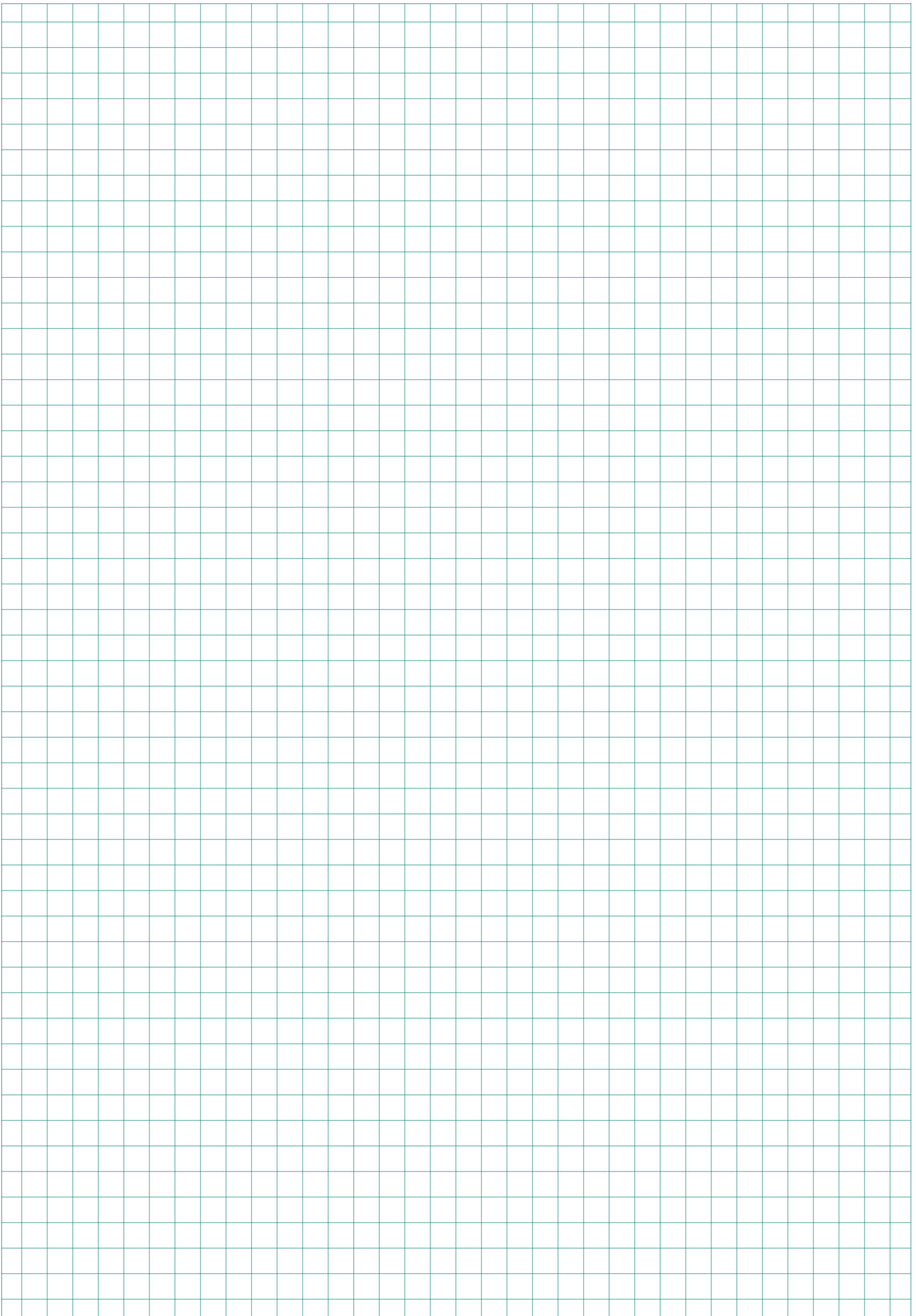
LSM.. U4DC (prewired)



Isolated jumpers LSMV-.. for Series and Parallel switching of contacts:

Type	LSM16	LSM25	LSM32	LSM38
A4O A4U	 2 x LSMV-B1		 2 x LSMV-B1-2	
A4B	 1 x LSMV-B1-1	 1 x LG11852	 1 x LSMV-B1-2	 1 x LG11852
A4+2	 4 x LSMV-B1-1			

Type	LSMO16	LSMO25	LSMO32	LSMO38
A4+2	 4 x LSMV-B1-1			
	 2 x LSMOV-B1			





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