

DC-Switches and Contactors for Photovoltaic

acc. to IEC 60364-7-712

Made in  AUSTRIA



D911E141

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- 1500V DC Rated operational voltage
- 58A Rated operational current
- 2- 4- 6- and 8-pole
- Oxydation proof contacts
- Cable cross sections up to 16mm²


| Type | I_{th} open A | DC21B 4 poles in series A | at U_e V |
|------|--------------------|---------------------------------|---------------|
| LS16 | 16 | 16 | 1000 |
| LS25 | 25 | 25 | 1000 |
| LS32 | 32 | 32 | 1000 |
| LS40 | 40 | 25 | 1000 |
| LS55 | 55 | 32 | 1000 |

DC-Switch Disconnectors


Panel mounting




Single hole mounting
Ø22,5mm



Base mounting
w. door coupling



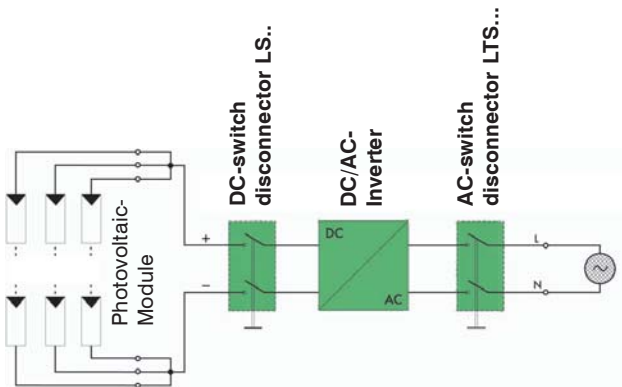
Modular switch



| Design | Panel mounting | Single hole mounting Ø22,5mm | Base mounting w. door coupling | Modular switch |
|---------|----------------|---------------------------------|-----------------------------------|----------------|
| .. E .. | .. Z(O) .. | .. VZV .. | .. SMA .. | |
| .. E .. | .. Z(O) .. | .. VZV .. | .. SMA .. | |
| .. E .. | .. Z(O) .. | .. VZV .. | .. SMA .. | |
| .. E .. | - | .. VZV .. | .. SMA .. | |
| .. E .. | - | .. VZV .. | .. SMA .. | |

Switch Disconnectors for Photovoltaic

Switch disconnectors „LS..“ are switch gears for interrupting the DC/AC-Inverter from the solar-panels. Photovoltaic-installations have to be equipped with DC-isolators according to IEC 60364-7-712.



Switch disconnectors „LS..“ ensures a reliable switching up to 58A with 1000V in the category DC21B.

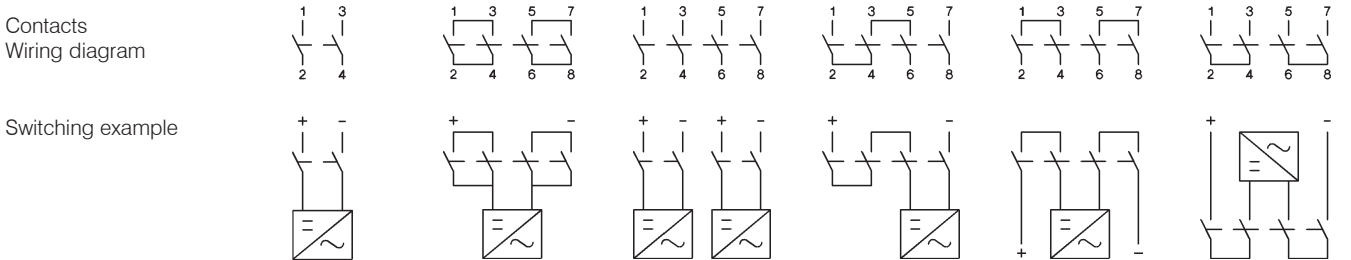
The construction of the contacts and the material selection guarantee that no oxidation (small switching frequency) develops, and is thus prevented inadmissible heating-up.

The switch disconnecter has 2, 4, 6 or 8 contacts, by serial or parallel wiring of the contacts the contact rating will be increased.

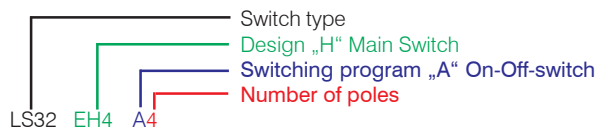
The switching speed at the manually operated handle does not have an effect on the switching attitude of the contacts.

Switching programs

| Type | 2-pole | 2+2-pole 2 poles in series +2 poles parallel | 4-pole | 4-pole with jumpers Input on top Output bottom | 4-pole with jumpers Input and Output bottom | 4-pole with jumpers Input and Output on top |
|------|--------|--|--------|---|--|--|
| LS16 | .. A2 | .. A2+2 | .. A4 | .. A4B | .. A4O | .. A4U |
| LS25 | .. A2 | .. A2+2 | .. A4 | .. A4B | .. A4O | .. A4U |
| LS32 | .. A2 | .. A2+2 | .. A4 | .. A4B | .. A4O | .. A4U |
| LS40 | .. A2 | .. A2+2 | .. A4 | .. A4B | .. A4O | .. A4U |
| LS55 | .. A2 | .. A2+2 | .. A4 | .. A4B | .. A4O | .. A4U |



Ordering



DC-Main Switch

Panel mounting

Single hole mounting
Ø22,5mm

Base mounting
with door coupling

Modular switch

Plastic enclosed



| | | | | |
|------------|--------------|-------------|-------------|-------------|
| .. EH4. .. | .. Z(O)H1 .. | .. VZVH4 .. | .. SMAH1 .. | .. PFLH4 .. |
| .. EH4. .. | .. Z(O)H1 .. | .. VZVH4 .. | .. SMAH1 .. | .. PFLH4 .. |
| .. EH4. .. | .. Z(O)H1 .. | .. VZVH4 .. | .. SMAH1 .. | .. PFLH4 .. |
| .. EH4. .. | - | .. VZVH4 .. | .. SMAH1 .. | .. PFLH4 .. |
| .. EH4. .. | - | .. VZVH4 .. | .. SMAH1 .. | .. PFLH4 .. |

Technical data for DC, according to IEC 60947-3, VDE0660, more data see page 13

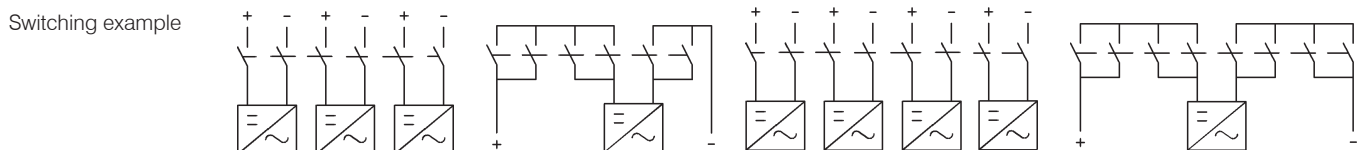
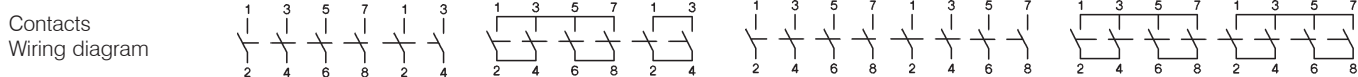
| Type | | DC21B | | | | | | | | DC22B | | | |
|----------------------------------|----------------|-------|------|------|------|------|-------|-------|-------|-------|-------|-------|-------|
| | | 500V | 600V | 700V | 800V | 900V | 1000V | 1200V | 1500V | 500V | 600V | 800V | 1000V |
| 2 poles in series | LS16 .. | 16A | 16A | 16A | 16A | 13A | 9A | 6A | 3A | 7A | 5,5A | 2A | 1A |
| | LS25.. | 25A | 25A | 23A | 20A | 16A | 11A | 8A | 4A | 8A | 6A | 2,5A | 1,5A |
| | LS32 .. | 32A | 32A | 27A | 23A | 20A | 13A | 10A | 5A | 9A | 6,5A | 3A | 2A |
| | LS40 .. | 40A | 40A | 35A | 30A | 25A | 20A | 15A | 10A | - | - | - | - |
| | LS55.. | 55A | 55A | 55A | 45A | 35A | 25A | 20A | 15A | - | - | - | - |
| 2 poles in series+2 parallel | LS16 .. | 29A | 29A | 16A | 16A | 13A | 9A | 6A | 3A | - | - | - | - |
| | LS25.. | 45A | 45A | 23A | 20A | 16A | 11A | 8A | 4A | - | - | - | - |
| | LS32 .. | 58A | 50A | 27A | 23A | 20A | 13A | 10A | 5A | - | - | - | - |
| | LS40 .. | 72A | 64A | 35A | 30A | 25A | 20A | - | - | - | - | - | - |
| | LS55.. | 85A | 80A | 55A | 45A | 35A | 25A | - | - | - | - | - | - |
| 4 poles in series | LS16 .. | 16A | 16A | 16A | 16A | 16A | 16A | 16A | 16A | 16A | 16A | 11,5A | 8A |
| | LS25.. | 25A | 25A | 25A | 25A | 25A | 25A | 25A | 20A | 25A | 25A | 12A | 9A |
| | LS32 .. | 32A | 32A | 32A | 32A | 32A | 32A | 32A | 23A | 32A | 27,5A | 12,5A | 10A |
| | LS40 .. | 40A | 40A | 40A | 40A | 40A | 40A | 40A | - | - | - | - | - |
| | LS55.. | 55A | 55A | 55A | 55A | 55A | 55A | - | - | - | - | - | - |
| 4 poles in series+2 parallel | LS16 .. | 29A | 29A | 29A | 29A | 29A | 29A | 29A | 16A | - | - | - | - |
| | LS25.. | 45A | 45A | 45A | 45A | 45A | 45A | 45A | 20A | - | - | - | - |
| | LS32 .. | 58A | 58A | 58A | 58A | 58A | 58A | 50A | 23A | - | - | - | - |

DC21B Switching of DC-resistive loads including moderate overloads, Time constant L/R≤1ms

DC22B Switching of DC-resistive and inductive loads including moderate overloads, Time constant L/R≤2,5ms (e. g: shunt-motors)

Switching programs

| Type | 6-pole | 3+2-pole 3 poles in series +2 poles parallel | 8-pole | 4+2-pole 4 poles in series +2 poles parallel |
|-------------|--------|--|--------|--|
| LS16 | ...A6 | .. A3+2 | ...A8 | .. A4+2 |
| LS25 | ...A6 | .. A3+2 | ...A8 | .. A4+2 |
| LS32 | ...A6 | .. A3+2 | ...A8 | .. A4+2 |
| LS40 | - | - | - | - |
| LS55 | - | - | - | - |



Insulated Jumper LSV-B1 for series and parallel switching of contacts

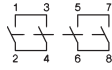


| Type | Pack | Weight |
|------------------|------|------------|
| LS16, LS25, LS32 | 100 | 6,6 g/pc. |
| LS40, LS55 | 100 | 9,64 g/pc. |

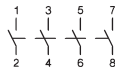
ON-OFF Switches for Panel Mounting, Escutcheon plate 64□, IP66, c Typ 3R



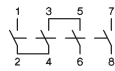
| DC21B 600V DC | 1000V DC | Poles in series | Number of Strings | Type | Pack pcs | Weight kg/pcs. |
|------------------|----------|--------------------|----------------------|------------------|-------------|-------------------|
| 16A | 9A | 2 | 1 | LS16 E A2 | 1 | 0,20 |
| 25A | 11A | 2 | 1 | LS25 E A2 | 1 | 0,20 |
| 32A | 13A | 2 | 1 | LS32 E A2 | 1 | 0,20 |
| 40A | 20A | 2 | 1 | LS40 E A2 | 1 | |
| 55A | 25A | 2 | 1 | LS55 E A2 | 1 | |



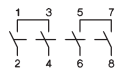
| | | | | | | |
|-----|-----|---|---|--------------------|---|------|
| 29A | 9A | 2 | 1 | LS16 E A2+2 | 1 | 0,25 |
| 45A | 11A | 2 | 1 | LS25 E A2+2 | 1 | 0,25 |
| 50A | 13A | 2 | 1 | LS32 E A2+2 | 1 | 0,25 |
| 64A | 20A | 2 | 1 | LS40 E A2+2 | 1 | |
| 80A | 25A | 2 | 1 | LS55 E A2+2 | 1 | |



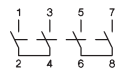
| | | | | | | |
|-----|-----|---|---|------------------|---|------|
| 16A | 9A | 2 | 2 | LS16 E A4 | 1 | 0,23 |
| 25A | 11A | 2 | 2 | LS25 E A4 | 1 | 0,23 |
| 32A | 13A | 2 | 2 | LS32 E A4 | 1 | 0,23 |
| 40A | 20A | 2 | 2 | LS40 E A4 | 1 | |
| 55A | 25A | 2 | 2 | LS55 E A4 | 1 | |



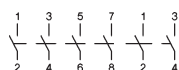
| | | | | | | |
|-----|-----|---|---|-------------------|---|------|
| 16A | 16A | 4 | 1 | LS16 E A4B | 1 | 0,24 |
| 25A | 25A | 4 | 1 | LS25 E A4B | 1 | 0,24 |
| 32A | 32A | 4 | 1 | LS32 E A4B | 1 | 0,24 |
| 40A | 40A | 4 | 1 | LS40 E A4B | 1 | |
| 55A | 55A | 4 | 1 | LS55 E A4B | 1 | |



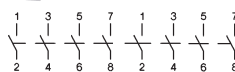
| | | | | | | |
|-----|-----|---|---|-------------------|---|------|
| 16A | 16A | 4 | 1 | LS16 E A4O | 1 | 0,24 |
| 25A | 25A | 4 | 1 | LS25 E A4O | 1 | 0,24 |
| 32A | 32A | 4 | 1 | LS32 E A4O | 1 | 0,24 |
| 40A | 40A | 4 | 1 | LS40 E A4O | 1 | |
| 55A | 55A | 4 | 1 | LS55 E A4O | 1 | |



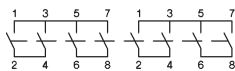
| | | | | | | |
|-----|-----|---|---|-------------------|---|------|
| 16A | 16A | 4 | 1 | LS16 E A4U | 1 | 0,24 |
| 25A | 25A | 4 | 1 | LS25 E A4U | 1 | 0,24 |
| 32A | 32A | 4 | 1 | LS32 E A4U | 1 | 0,24 |
| 40A | 40A | 4 | 1 | LS40 E A4U | 1 | |
| 55A | 55A | 4 | 1 | LS55 E A4U | 1 | |



| | | | | | | |
|-----|-----|---|---|------------------|---|------|
| 16A | 9A | 2 | 3 | LS16 E A6 | 1 | 0,36 |
| 25A | 11A | 2 | 3 | LS25 E A6 | 1 | 0,36 |
| 32A | 13A | 2 | 3 | LS32 E A6 | 1 | 0,36 |



| | | | | | | |
|-----|-----|---|---|------------------|---|------|
| 16A | 9A | 2 | 4 | LS16 E A8 | 1 | 0,41 |
| 25A | 11A | 2 | 4 | LS25 E A8 | 1 | 0,41 |
| 32A | 13A | 2 | 4 | LS32 E A8 | 1 | 0,41 |



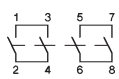

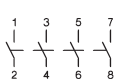
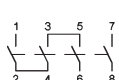
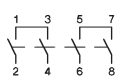
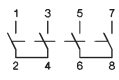

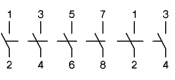
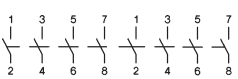
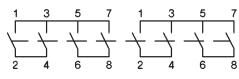


| | | | | | | |
|-----|-----|---|---|--------------------|---|------|
| 29A | 29A | 4 | 1 | LS16 E A4+2 | 1 | 0,46 |
| 45A | 45A | 4 | 1 | LS25 E A4+2 | 1 | 0,46 |
| 58A | 58A | 4 | 1 | LS32 E A4+2 | 1 | 0,46 |

Extended Switch Shaft for all switches for panel mounting

type suffix **+VW"x"** x = panel thickness

ON-OFF Switches for Single Hole Mounting Ø22mm, Escutcheon plate 48□, IP66, c us Typ 3R

| | | DC21B 600V DC | 1000V DC | Poles in series | Number of Strings | Type | Pack pcs | Weight kg/pcs. |
|---|---|------------------|----------|--------------------|----------------------|--------------------|-------------|-------------------|
|  |  | 16A | 9A | 2 | 1 | LS16 Z A2 | 1 | 0,21 |
| | | 25A | 11A | 2 | 1 | LS25 Z A2 | 1 | 0,21 |
| | | 32A | 13A | 2 | 1 | LS32 Z A2 | 1 | 0,21 |
| |  | 29A | 9A | 2 | 1 | LS16 Z A2+2 | 1 | 0,26 |
| | | 45A | 11A | 2 | 1 | LS25 Z A2+2 | 1 | 0,26 |
| | | 50A | 13A | 2 | 1 | LS32 Z A2+2 | 1 | 0,26 |
|  |  | 16A | 9A | 2 | 2 | LS16 Z A4 | 1 | 0,23 |
| | | 25A | 11A | 2 | 2 | LS25 Z A4 | 1 | 0,23 |
| | | 32A | 13A | 2 | 2 | LS32 Z A4 | 1 | 0,23 |
| |  | 16A | 16A | 4 | 1 | LS16 Z A4B | 1 | 0,25 |
| | | 25A | 25A | 4 | 1 | LS25 Z A4B | 1 | 0,25 |
| | | 32A | 32A | 4 | 1 | LS32 Z A4B | 1 | 0,25 |
|  | 16A | 16A | 4 | 1 | LS16 Z A4O | 1 | 0,25 | |
| | 25A | 25A | 4 | 1 | LS25 Z A4O | 1 | 0,25 | |
| | 32A | 32A | 4 | 1 | LS32 Z A4O | 1 | 0,25 | |
|  | 16A | 16A | 4 | 1 | LS16 Z A4U | 1 | 0,25 | |
| | 25A | 25A | 4 | 1 | LS25 Z A4U | 1 | 0,25 | |
| | 32A | 32A | 4 | 1 | LS32 Z A4U | 1 | 0,25 | |
|  |  | 16A | 9A | 2 | 3 | LS16 Z A6 | 1 | 0,38 |
| | | 25A | 11A | 2 | 3 | LS25 Z A6 | 1 | 0,38 |
| | | 32A | 13A | 2 | 3 | LS32 Z A6 | 1 | 0,38 |
| |  | 16A | 9A | 2 | 4 | LS16 Z A8 | 1 | 0,43 |
| | | 25A | 11A | 2 | 4 | LS25 Z A8 | 1 | 0,43 |
| | | 32A | 13A | 2 | 4 | LS32 Z A8 | 1 | 0,43 |
|  | 29A | 29A | 4 | 1 | LS16 Z A4+2 | 1 | 0,48 | |
| | 45A | 45A | 4 | 1 | LS25 Z A4+2 | 1 | 0,48 | |
| | 58A | 58A | 4 | 1 | LS32 Z A4+2 | 1 | 0,48 | |

ON-OFF Switches for Single Hole Mounting Ø22mm, without Escutcheon plate, IP66, c us Typ 3R

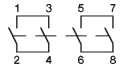
Replace at the Type „Z“ with „ZO“ **LS.. ZO A.**

ON-OFF Switches f. Base Mounting w. Door Clutch f. Single Hole, Plate 64□, IP66, c Typ 3R

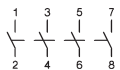


| DC21B 600V DC | 1000V DC | Poles in series | Number of Strings | Type | Pack pcs | Weight kg/pcs. |
|------------------|----------|--------------------|----------------------|--------------------|-------------|-------------------|
| 16A | 9A | 2 | 1 | LS16 VZV A2 | 1 | 0,22 |
| 25A | 11A | 2 | 1 | LS25 VZV A2 | 1 | 0,22 |
| 32A | 13A | 2 | 1 | LS32 VZV A2 | 1 | 0,22 |
| 40A | 20A | 2 | 1 | LS40 VZV A2 | 1 | |
| 55A | 25A | 2 | 1 | LS55 VZV A2 | 1 | |

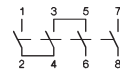
Depth is adjustable
see page 25



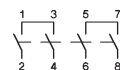
| | | | | | | |
|-----|-----|---|---|----------------------|---|------|
| 29A | 9A | 2 | 1 | LS16 VZV A2+2 | 1 | 0,27 |
| 45A | 11A | 2 | 1 | LS25 VZV A2+2 | 1 | 0,27 |
| 50A | 13A | 2 | 1 | LS32 VZV A2+2 | 1 | 0,27 |
| 64A | 20A | 2 | 1 | LS40 VZV A2+2 | 1 | |
| 80A | 25A | 2 | 1 | LS55 VZV A2+2 | 1 | |



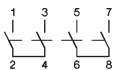
| | | | | | | |
|-----|-----|---|---|--------------------|---|------|
| 16A | 9A | 2 | 2 | LS16 VZV A4 | 1 | 0,25 |
| 25A | 11A | 2 | 2 | LS25 VZV A4 | 1 | 0,25 |
| 32A | 13A | 2 | 2 | LS32 VZV A4 | 1 | 0,25 |
| 40A | 20A | 2 | 2 | LS40 VZV A4 | 1 | |
| 55A | 25A | 2 | 2 | LS55 VZV A4 | 1 | |



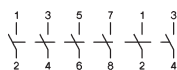
| | | | | | | |
|-----|-----|---|---|---------------------|---|------|
| 16A | 16A | 4 | 1 | LS16 VZV A4B | 1 | 0,26 |
| 25A | 25A | 4 | 1 | LS25 VZV A4B | 1 | 0,26 |
| 32A | 32A | 4 | 1 | LS32 VZV A4B | 1 | 0,26 |
| 40A | 40A | 4 | 1 | LS40 VZV A4B | 1 | |
| 55A | 55A | 4 | 1 | LS55 VZV A4B | 1 | |



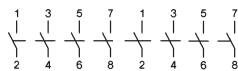
| | | | | | | |
|-----|-----|---|---|---------------------|---|------|
| 16A | 16A | 4 | 1 | LS16 VZV A4O | 1 | 0,26 |
| 25A | 25A | 4 | 1 | LS25 VZV A4O | 1 | 0,26 |
| 32A | 32A | 4 | 1 | LS32 VZV A4O | 1 | 0,26 |
| 40A | 40A | 4 | 1 | LS40 VZV A4O | 1 | |
| 55A | 55A | 4 | 1 | LS55 VZV A4O | 1 | |



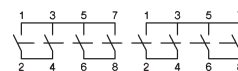
| | | | | | | |
|-----|-----|---|---|---------------------|---|------|
| 16A | 16A | 4 | 1 | LS16 VZV A4U | 1 | 0,26 |
| 25A | 25A | 4 | 1 | LS25 VZV A4U | 1 | 0,26 |
| 32A | 32A | 4 | 1 | LS32 VZV A4U | 1 | 0,26 |
| 40A | 40A | 4 | 1 | LS40 VZV A4U | 1 | |
| 55A | 55A | 4 | 1 | LS55 VZV A4U | 1 | |



| | | | | | | |
|-----|-----|---|---|--------------------|---|------|
| 16A | 9A | 2 | 3 | LS16 VZV A6 | 1 | 0,38 |
| 25A | 11A | 2 | 3 | LS25 VZV A6 | 1 | 0,38 |
| 32A | 13A | 2 | 3 | LS32 VZV A6 | 1 | 0,38 |




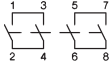

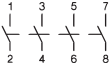

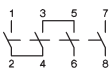

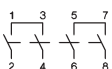

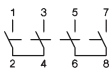

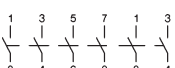
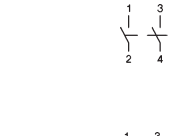
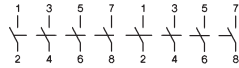
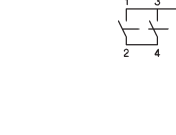
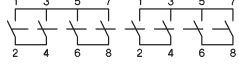


| | | | | | | |
|-----|-----|---|---|--------------------|---|------|
| 16A | 9A | 2 | 4 | LS16 VZV A8 | 1 | 0,43 |
| 25A | 11A | 2 | 4 | LS25 VZV A8 | 1 | 0,43 |
| 32A | 13A | 2 | 4 | LS32 VZV A8 | 1 | 0,43 |




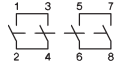

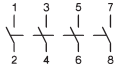

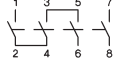

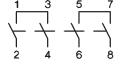

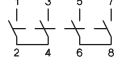
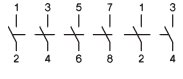
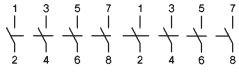
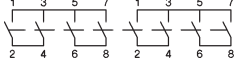


| | | | | | | |
|-----|-----|---|---|----------------------|---|------|
| 29A | 29A | 4 | 1 | LS16 VZV A4+2 | 1 | 0,48 |
| 45A | 45A | 4 | 1 | LS25 VZV A4+2 | 1 | 0,48 |
| 58A | 58A | 4 | 1 | LS32 VZV A4+2 | 1 | 0,48 |

ON-OFF Switches for Distribution Boards, IP40,

| | DC21B 600V DC | 1000V DC | Poles in series | Number of Strings | Type | Pack pcs | Weight kg/pcs. | |
|---|---|----------|--------------------|----------------------|------|----------------------|-------------------|------|
|  |  | 16A | 9A | 2 | 1 | LS16 SMA A2 | 1 | 0,19 |
| | | 25A | 11A | 2 | 1 | LS25 SMA A2 | 1 | 0,19 |
| | | 32A | 13A | 2 | 1 | LS32 SMA A2 | 1 | 0,19 |
| | | 40A | 20A | 2 | 1 | LS40 SMA A2 | 1 | |
| | | 55A | 25A | 2 | 1 | LS55 SMA A2 | 1 | |
|  |  | 29A | 9A | 2 | 1 | LS16 SMA A2+2 | 1 | 0,24 |
| | | 45A | 11A | 2 | 1 | LS25 SMA A2+2 | 1 | 0,24 |
| | | 50A | 13A | 2 | 1 | LS32 SMA A2+2 | 1 | 0,24 |
| | | 64A | 20A | 2 | 1 | LS40 SMA A2+2 | 1 | |
| | | 80A | 25A | 2 | 1 | LS55 SMA A2+2 | 1 | |
|  |  | 16A | 9A | 2 | 2 | LS16 SMA A4 | 1 | 0,22 |
| | | 25A | 11A | 2 | 2 | LS25 SMA A4 | 1 | 0,22 |
| | | 32A | 13A | 2 | 2 | LS32 SMA A4 | 1 | 0,22 |
| | | 40A | 20A | 2 | 2 | LS40 SMA A4 | 1 | |
| | | 55A | 25A | 2 | 2 | LS55 SMA A4 | 1 | |
|  |  | 16A | 16A | 4 | 1 | LS16 SMA A4B | 1 | 0,23 |
| | | 25A | 25A | 4 | 1 | LS25 SMA A4B | 1 | 0,23 |
| | | 32A | 32A | 4 | 1 | LS32 SMA A4B | 1 | 0,23 |
| | | 40A | 40A | 4 | 1 | LS40 SMA A4B | 1 | |
| | | 55A | 55A | 4 | 1 | LS55 SMA A4B | 1 | |
|  |  | 16A | 16A | 4 | 1 | LS16 SMA A4O | 1 | 0,23 |
| | | 25A | 25A | 4 | 1 | LS25 SMA A4O | 1 | 0,23 |
| | | 32A | 32A | 4 | 1 | LS32 SMA A4O | 1 | 0,23 |
| | | 40A | 40A | 4 | 1 | LS40 SMA A4B | 1 | |
| | | 55A | 55A | 4 | 1 | LS55 SMA A4B | 1 | |
|  |  | 16A | 16A | 4 | 1 | LS16 SMA A4U | 1 | 0,23 |
| | | 25A | 25A | 4 | 1 | LS25 SMA A4U | 1 | 0,23 |
| | | 32A | 32A | 4 | 1 | LS32 SMA A4U | 1 | 0,23 |
| | | 40A | 40A | 4 | 1 | LS40 SMA A4B | 1 | |
| | | 55A | 55A | 4 | 1 | LS55 SMA A4B | 1 | |
|  |  | 16A | 9A | 2 | 3 | LS16 SMA A6 | 1 | 0,35 |
| | | 25A | 11A | 2 | 3 | LS25 SMA A6 | 1 | 0,35 |
| | | 32A | 13A | 2 | 3 | LS32 SMA A6 | 1 | 0,35 |
|  |  | 16A | 9A | 2 | 4 | LS16 SMA A8 | 1 | 0,40 |
| | | 25A | 11A | 2 | 4 | LS25 SMA A8 | 1 | 0,40 |
| | | 32A | 13A | 2 | 4 | LS32 SMA A8 | 1 | 0,40 |
|  |  | 29A | 29A | 4 | 1 | LS16 SMA A4+2 | 1 | 0,43 |
| | | 45A | 45A | 4 | 1 | LS25 SMA A4+2 | 1 | 0,43 |
| | | 58A | 58A | 4 | 1 | LS32 SMA A4+2 | 1 | 0,43 |

Main Switches for Panel Mounting, Escutcheon plate 64□, IP66,

| | | DC21B 600V DC | 1000V DC | Poles in series | Number of Strings | Type | Pack pcs | Weight kg/pcs. |
|--|---|------------------|----------|--------------------|----------------------|----------------------|-------------|-------------------|
|  |  | 16A | 9A | 2 | 1 | LS16 EH4 A2 | 1 | 0,21 |
| | | 25A | 11A | 2 | 1 | LS25 EH4 A2 | 1 | 0,21 |
| | | 32A | 13A | 2 | 1 | LS32 EH4 A2 | 1 | 0,21 |
| | | 40A | 20A | 2 | 1 | LS40 EH4 A2 | 1 | |
| | | 55A | 25A | 2 | 1 | LS55 EH4 A2 | 1 | |
|  |  | 29A | 9A | 2 | 1 | LS16 EH4 A2+2 | 1 | 0,26 |
| | | 45A | 11A | 2 | 1 | LS25 EH4 A2+2 | 1 | 0,26 |
| | | 50A | 13A | 2 | 1 | LS32 EH4 A2+2 | 1 | 0,26 |
| | | 64A | 20A | 2 | 1 | LS40 EH4 A2+2 | 1 | |
| | | 80A | 25A | 2 | 1 | LS55 EH4 A2+2 | 1 | |
|  |  | 16A | 9A | 2 | 2 | LS16 EH4 A4 | 1 | 0,24 |
| | | 25A | 11A | 2 | 2 | LS25 EH4 A4 | 1 | 0,24 |
| | | 32A | 13A | 2 | 2 | LS32 EH4 A4 | 1 | 0,24 |
| | | 40A | 20A | 2 | 2 | LS40 EH4 A4 | 1 | |
| | | 55A | 25A | 2 | 2 | LS55 EH4 A4 | 1 | |
|  |  | 16A | 16A | 4 | 1 | LS16 EH4 A4B | 1 | 0,25 |
| | | 25A | 25A | 4 | 1 | LS25 EH4 A4B | 1 | 0,25 |
| | | 32A | 32A | 4 | 1 | LS32 EH4 A4B | 1 | 0,25 |
| | | 40A | 40A | 4 | 1 | LS40 EH4 A4B | 1 | |
| | | 55A | 55A | 4 | 1 | LS55 EH4 A4B | 1 | |
|  |  | 16A | 16A | 4 | 1 | LS16 EH4 A4O | 1 | 0,25 |
| | | 25A | 25A | 4 | 1 | LS25 EH4 A4O | 1 | 0,25 |
| | | 32A | 32A | 4 | 1 | LS32 EH4 A4O | 1 | 0,25 |
| | | 40A | 40A | 4 | 1 | LS40 EH4 A4O | 1 | |
| | | 55A | 55A | 4 | 1 | LS55 EH4 A4O | 1 | |
|  |  | 16A | 16A | 4 | 1 | LS16 EH4 A4U | 1 | 0,25 |
| | | 25A | 25A | 4 | 1 | LS25 EH4 A4U | 1 | 0,25 |
| | | 32A | 32A | 4 | 1 | LS32 EH4 A4U | 1 | 0,25 |
| | | 40A | 40A | 4 | 1 | LS40 EH4 A4U | 1 | |
| | | 55A | 55A | 4 | 1 | LS55 EH4 A4U | 1 | |
| |  | 16A | 9A | 2 | 3 | LS16 EH4 A6 | 1 | 0,37 |
| | | 25A | 11A | 2 | 3 | LS25 EH4 A6 | 1 | 0,37 |
| | | 32A | 13A | 2 | 3 | LS32 EH4 A6 | 1 | 0,37 |
| |  | 16A | 9A | 2 | 4 | LS16 EH4 A8 | 1 | 0,42 |
| | | 25A | 11A | 2 | 4 | LS25 EH4 A8 | 1 | 0,42 |
| | | 32A | 13A | 2 | 4 | LS32 EH4 A8 | 1 | 0,42 |
| |  | 29A | 29A | 4 | 1 | LS16 EH4 A4+2 | 1 | 0,47 |
| | | 45A | 45A | 4 | 1 | LS25 EH4 A4+2 | 1 | 0,47 |
| | | 58A | 58A | 4 | 1 | LS32 EH4 A4+2 | 1 | 0,47 |

Extended Switch Shaft for all switches for panel mounting

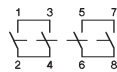
type suffix **+VW"x"** x = panel thickness

Main Switches for Single Hole Mounting Ø22mm, Escutcheon plate 48□, IP66,

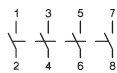


| DC21B 600V DC | 1000V DC | Poles in series | Number of Strings | Type | Pack pcs | Weight kg/pcs. |
|------------------|----------|--------------------|----------------------|--------------------|-------------|-------------------|
| 16A | 9A | 2 | 1 | LS16 ZH1 A2 | 1 | 0,21 |
| 25A | 11A | 2 | 1 | LS25 ZH1 A2 | 1 | 0,21 |
| 32A | 13A | 2 | 1 | LS32 ZH1 A2 | 1 | 0,21 |

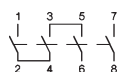
padlock device SV1



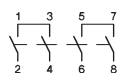
| | | | | | | |
|-----|-----|---|---|----------------------|---|------|
| 29A | 9A | 2 | 1 | LS16 ZH1 A2+2 | 1 | 0,27 |
| 45A | 11A | 2 | 1 | LS25 ZH1 A2+2 | 1 | 0,27 |
| 50A | 13A | 2 | 1 | LS32 ZH1 A2+2 | 1 | 0,27 |



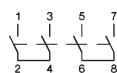
| | | | | | | |
|-----|-----|---|---|--------------------|---|------|
| 16A | 9A | 2 | 2 | LS16 ZH1 A4 | 1 | 0,24 |
| 25A | 11A | 2 | 2 | LS25 ZH1 A4 | 1 | 0,24 |
| 32A | 13A | 2 | 2 | LS32 ZH1 A4 | 1 | 0,24 |



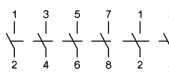
| | | | | | | |
|-----|-----|---|---|---------------------|---|------|
| 16A | 16A | 4 | 1 | LS16 ZH1 A4B | 1 | 0,25 |
| 25A | 25A | 4 | 1 | LS25 ZH1 A4B | 1 | 0,25 |
| 32A | 32A | 4 | 1 | LS32 ZH1 A4B | 1 | 0,25 |



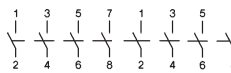
| | | | | | | |
|-----|-----|---|---|---------------------|---|------|
| 16A | 16A | 4 | 1 | LS16 ZH1 A4O | 1 | 0,25 |
| 25A | 25A | 4 | 1 | LS25 ZH1 A4O | 1 | 0,25 |
| 32A | 32A | 4 | 1 | LS32 ZH1 A4O | 1 | 0,25 |



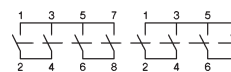
| | | | | | | |
|-----|-----|---|---|---------------------|---|------|
| 16A | 16A | 4 | 1 | LS16 ZH1 A4U | 1 | 0,25 |
| 25A | 25A | 4 | 1 | LS25 ZH1 A4U | 1 | 0,25 |
| 32A | 32A | 4 | 1 | LS32 ZH1 A4U | 1 | 0,25 |



| | | | | | | |
|-----|-----|---|---|--------------------|---|------|
| 16A | 9A | 2 | 3 | LS16 ZH1 A6 | 1 | 0,39 |
| 25A | 11A | 2 | 3 | LS25 ZH1 A6 | 1 | 0,39 |
| 32A | 13A | 2 | 3 | LS32 ZH1 A6 | 1 | 0,39 |



| | | | | | | |
|-----|-----|---|---|--------------------|---|------|
| 16A | 9A | 2 | 4 | LS16 ZH1 A8 | 1 | 0,44 |
| 25A | 11A | 2 | 4 | LS25 ZH1 A8 | 1 | 0,44 |
| 32A | 13A | 2 | 4 | LS32 ZH1 A8 | 1 | 0,44 |



| | | | | | | |
|-----|-----|---|---|----------------------|---|------|
| 29A | 29A | 4 | 1 | LS16 ZH1 A4+2 | 1 | 0,49 |
| 45A | 45A | 4 | 1 | LS25 ZH1 A4+2 | 1 | 0,49 |
| 58A | 58A | 4 | 1 | LS32 ZH1 A4+2 | 1 | 0,49 |

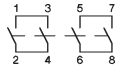
Main Switches for Single Hole Mounting Ø22mm, without Escutcheon plate, IP66,

Replace at the Type „ZH1“ with „ZOH1“ **LS.. ZOH1 A.**

Main Switches f. Base Mounting, Door Clutch f. Single Hole, Escutcheon plate 64□, IP66,   Typ 3R

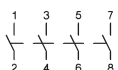


| DC21B 600V DC | 1000V DC | Poles in series | Number of Strings | Type | Pack pcs | Weight kg/pcs. |
|------------------|----------|--------------------|----------------------|---------------|-------------|-------------------|
| 16A | 9A | 2 | 1 | LS16 VZVH4 A2 | 1 | 0,23 |
| 25A | 11A | 2 | 1 | LS25 VZVH4 A2 | 1 | 0,23 |
| 32A | 13A | 2 | 1 | LS32 VZVH4 A2 | 1 | 0,23 |
| 40A | 20A | 2 | 1 | LS40 VZVH4 A2 | 1 | |
| 55A | 25A | 2 | 1 | LS55 VZVH4 A2 | 1 | |

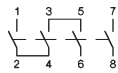


| | | | | | | |
|-----|-----|---|---|-----------------|---|------|
| 29A | 9A | 2 | 1 | LS16 VZVH4 A2+2 | 1 | 0,28 |
| 45A | 11A | 2 | 1 | LS25 VZVH4 A2+2 | 1 | 0,28 |
| 50A | 13A | 2 | 1 | LS32 VZVH4 A2+2 | 1 | 0,28 |
| 64A | 20A | 2 | 1 | LS40 VZVH4 A2+2 | 1 | |
| 80A | 25A | 2 | 1 | LS55 VZVH4 A2+2 | 1 | |

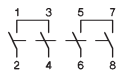
Depth is adjustable
see page 25
padlock device SV4



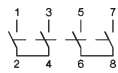
| | | | | | | |
|-----|-----|---|---|---------------|---|------|
| 16A | 9A | 2 | 2 | LS16 VZVH4 A4 | 1 | 0,26 |
| 25A | 11A | 2 | 2 | LS25 VZVH4 A4 | 1 | 0,26 |
| 32A | 13A | 2 | 2 | LS32 VZVH4 A4 | 1 | 0,26 |
| 40A | 20A | 2 | 2 | LS40 VZVH4 A4 | 1 | |
| 55A | 25A | 2 | 2 | LS55 VZVH4 A4 | 1 | |



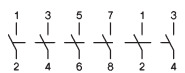
| | | | | | | |
|-----|-----|---|---|----------------|---|------|
| 16A | 16A | 4 | 1 | LS16 VZVH4 A4B | 1 | 0,27 |
| 25A | 25A | 4 | 1 | LS25 VZVH4 A4B | 1 | 0,27 |
| 32A | 32A | 4 | 1 | LS32 VZVH4 A4B | 1 | 0,27 |
| 40A | 40A | 4 | 1 | LS40 VZVH4 A4B | 1 | |
| 55A | 55A | 4 | 1 | LS55 VZVH4 A4B | 1 | |



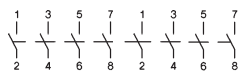
| | | | | | | |
|-----|-----|---|---|----------------|---|------|
| 16A | 16A | 4 | 1 | LS16 VZVH4 A4O | 1 | 0,27 |
| 25A | 25A | 4 | 1 | LS25 VZVH4 A4O | 1 | 0,27 |
| 32A | 32A | 4 | 1 | LS32 VZVH4 A4O | 1 | 0,27 |
| 40A | 40A | 4 | 1 | LS40 VZVH4 A4O | 1 | |
| 55A | 55A | 4 | 1 | LS55 VZVH4 A4O | 1 | |



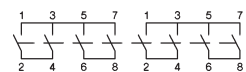
| | | | | | | |
|-----|-----|---|---|----------------|---|------|
| 16A | 16A | 4 | 1 | LS16 VZVH4 A4U | 1 | 0,27 |
| 25A | 25A | 4 | 1 | LS25 VZVH4 A4U | 1 | 0,27 |
| 32A | 32A | 4 | 1 | LS32 VZVH4 A4U | 1 | 0,27 |
| 40A | 40A | 4 | 1 | LS40 VZVH4 A4U | 1 | |
| 55A | 55A | 4 | 1 | LS55 VZVH4 A4U | 1 | |



| | | | | | | |
|-----|-----|---|---|---------------|---|------|
| 16A | 9A | 2 | 3 | LS16 VZVH4 A6 | 1 | 0,39 |
| 25A | 11A | 2 | 3 | LS25 VZVH4 A6 | 1 | 0,39 |
| 32A | 13A | 2 | 3 | LS32 VZVH4 A6 | 1 | 0,39 |




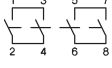

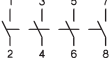

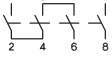

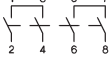

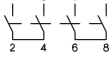
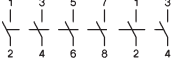
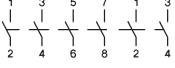


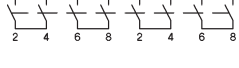
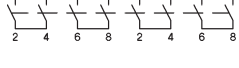


| | | | | | | |
|-----|-----|---|---|---------------|---|------|
| 16A | 9A | 2 | 4 | LS16 VZVH4 A8 | 1 | 0,44 |
| 25A | 11A | 2 | 4 | LS25 VZVH4 A8 | 1 | 0,44 |
| 32A | 13A | 2 | 4 | LS32 VZVH4 A8 | 1 | 0,44 |



| | | | | | | |
|-----|-----|---|---|-----------------|---|------|
| 29A | 29A | 4 | 1 | LS16 VZVH4 A4+2 | 1 | 0,49 |
| 45A | 45A | 4 | 1 | LS25 VZVH4 A4+2 | 1 | 0,49 |
| 58A | 58A | 4 | 1 | LS32 VZVH4 A4+2 | 1 | 0,49 |

Main Switches for Distribution Boards, IP40, Typ 1

| | DC21B 600V DC | 1000V DC | Poles in series | Number of Strings | Type | Pack pcs | Weight kg/pcs. |
|---|---|----------|--------------------|----------------------|--------------------------------------|-------------|-------------------|
|  |  | | 2 | 1 | LS16 SMAH1 A2 | 1 | 0,19 |
| | | | 2 | 1 | LS25 SMAH1 A2 | 1 | 0,19 |
| | | | 2 | 1 | LS32 SMAH1 A2 | 1 | 0,19 |
| | | | 2 | 1 | LS40 SMAH1 A2 | 1 | |
| | | | 2 | 1 | LS55 SMAH1 A2 | 1 | |
| padlock device SV1  |  | | 2 | 1 | LS16 SMAH1 A2+2 ¹⁾ | 1 | 0,25 |
| | | | 2 | 1 | LS25 SMAH1 A2+2 ¹⁾ | 1 | 0,25 |
| | | | 2 | 1 | LS32 SMAH1 A2+2 ¹⁾ | 1 | 0,25 |
| | | | 2 | 1 | LS40 SMAH1 A2+2 | 1 | |
| | | | 2 | 1 | LS55 SMAH1 A2+2 | 1 | |
|  |  | | 2 | 2 | LS16 SMAH1 A4 ¹⁾ | 1 | 0,22 |
| | | | 2 | 2 | LS25 SMAH1 A4 ¹⁾ | 1 | 0,22 |
| | | | 2 | 2 | LS32 SMAH1 A4 ¹⁾ | 1 | 0,22 |
| | | | 2 | 2 | LS40 SMAH1 A4 | 1 | |
| | | | 2 | 2 | LS55 SMAH1 A4 | 1 | |
|  |  | | 4 | 1 | LS16 SMAH1 A4B ¹⁾ | 1 | 0,23 |
| | | | 4 | 1 | LS25 SMAH1 A4B ¹⁾ | 1 | 0,23 |
| | | | 4 | 1 | LS32 SMAH1 A4B ¹⁾ | 1 | 0,23 |
| | | | 4 | 1 | LS40 SMAH1 A4B | 1 | |
| | | | 4 | 1 | LS55 SMAH1 A4B | 1 | |
|  |  | | 4 | 1 | LS16 SMAH1 A4O ¹⁾ | 1 | 0,23 |
| | | | 4 | 1 | LS25 SMAH1 A4O ¹⁾ | 1 | 0,23 |
| | | | 4 | 1 | LS32 SMAH1 A4O ¹⁾ | 1 | 0,23 |
| | | | 4 | 1 | LS40 SMAH1 A4B | 1 | |
| | | | 4 | 1 | LS55 SMAH1 A4B | 1 | |
|  |  | | 4 | 1 | LS16 SMAH1 A4U ¹⁾ | 1 | 0,23 |
| | | | 4 | 1 | LS25 SMAH1 A4U ¹⁾ | 1 | 0,23 |
| | | | 4 | 1 | LS32 SMAH1 A4U ¹⁾ | 1 | 0,23 |
| | | | 4 | 1 | LS40 SMAH1 A4B | 1 | |
| | | | 4 | 1 | LS55 SMAH1 A4B | 1 | |
|  |  | | 2 | 3 | LS16 SMAH1 A6 | 1 | 0,36 |
| | | | 2 | 3 | LS25 SMAH1 A6 | 1 | 0,36 |
| | | | 2 | 3 | LS32 SMAH1 A6 | 1 | 0,36 |
|  |  | | 2 | 4 | LS16 SMAH1 A8 | 1 | 0,41 |
| | | | 2 | 4 | LS25 SMAH1 A8 | 1 | 0,41 |
| | | | 2 | 4 | LS32 SMAH1 A8 | 1 | 0,41 |
|  |  | | 4 | 1 | LS16 SMAH1 A4+2 | 1 | 0,46 |
| | | | 4 | 1 | LS25 SMAH1 A4+2 | 1 | 0,46 |
| | | | 4 | 1 | LS32 SMAH1 A4+2 | 1 | 0,46 |










¹⁾ Main Switches for Distribution Boards with low height handle, IP40, Typ 1

Type with Type-suffix „+SV1N“ e.g. **LS.. SMAH1 A2+2 +SV1N**

Main Switches in Plastic Enclosure Escutcheon plate 64□, IP66, c Typ 1




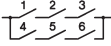
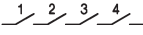
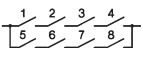


padlock device SV4

| | DC21B 600V DC | 1000V DC | Poles in series | Number of Strings | Type | Pack pcs | Weight kg/pcs. |
|---|------------------|----------|--------------------|----------------------|------------------------|-------------|-------------------|
|  | 16A | 9A | 2 | 1 | LS16 PFLH4 A2 | 1 | 0,43 |
| | 25A | 11A | 2 | 1 | LS25 PFLH4 A2 | 1 | 0,43 |
| | 32A | 13A | 2 | 1 | LS32 PFLH4 A2 | 1 | 0,43 |
| | 40A | 20A | 2 | 1 | LS40 PFH4 A2 | 1 | 1,59 |
| | 55A | 25A | 2 | 1 | LS55 PFH4 A2 | 1 | 1,59 |
|  | 29A | 9A | 2 | 1 | LS16 PFLH4 A2+2 | 1 | 0,49 |
| | 45A | 11A | 2 | 1 | LS25 PFLH4 A2+2 | 1 | 0,49 |
| | 50A | 13A | 2 | 1 | LS32 PFLH4 A2+2 | 1 | 0,49 |
| | 64A | 20A | 2 | 1 | LS40 PFH4 A2+2 | 1 | |
| | 80A | 25A | 2 | 1 | LS55 PFH4 A2+2 | 1 | |
|  | 16A | 9A | 2 | 2 | LS16 PFLH4 A4 | 1 | 0,46 |
| | 25A | 11A | 2 | 2 | LS25 PFLH4 A4 | 1 | 0,46 |
| | 32A | 13A | 2 | 2 | LS32 PFLH4 A4 | 1 | 0,46 |
| | 40A | 20A | 2 | 2 | LS40 PFH4 A4 | 1 | |
| | 55A | 25A | 2 | 2 | LS55 PFH4 A4 | 1 | |
|  | 16A | 16A | 4 | 1 | LS16 PFLH4 A4B | 1 | 0,47 |
| | 25A | 25A | 4 | 1 | LS25 PFLH4 A4B | 1 | 0,47 |
| | 32A | 32A | 4 | 1 | LS32 PFLH4 A4B | 1 | 0,47 |
| | 40A | 40A | 4 | 1 | LS40 PFH4 A4B | 1 | |
| | 55A | 55A | 4 | 1 | LS55 PFH4 A4B | 1 | |
|  | 16A | 16A | 4 | 1 | LS16 PFLH4 A4O | 1 | 0,47 |
| | 25A | 25A | 4 | 1 | LS25 PFLH4 A4O | 1 | 0,47 |
| | 32A | 32A | 4 | 1 | LS32 PFLH4 A4O | 1 | 0,47 |
| | 40A | 40A | 4 | 1 | LS40 PFH4 A4O | 1 | |
| | 55A | 55A | 4 | 1 | LS55 PFH4 A4O | 1 | |
|  | 16A | 16A | 4 | 1 | LS16 PFLH4 A4U | 1 | 0,47 |
| | 25A | 25A | 4 | 1 | LS25 PFLH4 A4U | 1 | 0,47 |
| | 32A | 32A | 4 | 1 | LS32 PFLH4 A4U | 1 | 0,47 |
| | 40A | 40A | 4 | 1 | LS40 PFH4 A4U | 1 | |
| | 55A | 55A | 4 | 1 | LS55 PFH4 A4U | 1 | |
|  | 16A | 9A | 2 | 3 | LS16 PFH4 A6 | 1 | 1,53 |
| | 25A | 11A | 2 | 3 | LS25 PFH4 A6 | 1 | 1,53 |
| | 32A | 13A | 2 | 3 | LS32 PFH4 A6 | 1 | 1,53 |
|  | 16A | 9A | 2 | 4 | LS16 PFH4 A8 | 1 | 1,58 |
| | 25A | 11A | 2 | 4 | LS25 PFH4 A8 | 1 | 1,58 |
| | 32A | 13A | 2 | 4 | LS32 PFH4 A8 | 1 | 1,58 |
|  | 29A | 29A | 4 | 1 | LS16 PFH4 A4+2 | 1 | 1,63 |
| | 45A | 45A | 4 | 1 | LS25 PFH4 A4+2 | 1 | 1,63 |
| | 58A | 58A | 4 | 1 | LS32 PFH4 A4+2 | 1 | 1,63 |

Technical Datas

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



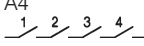
| Main contacts | | Type | LS16 | LS25 | LS32 | LS40 | LS55 | | |
|---|---|---|-----------------|------|------|------|------|----|----|
| Rated thermal current I_{the} | | A | 16 | 25 | 32 | 40 | 55 | | |
| Rated insulation voltage U_i ¹⁾ | | V | 1000 | 1000 | 1000 | 1500 | 1500 | | |
| Rated insulation voltage U_i ²⁾ | | V | 1500 | 1500 | 1500 | - | - | | |
| Distance of contacts (per pole) | | mm | 8 | 8 | 8 | | | | |
| Rated operational current I_e | 300V | A | 16 | 23 | 27 | 40 | 55 | | |
| | 400V | A | 12 | 14 | 16 | 30 | 40 | | |
| DC21A and DC21B | A1  | 500V | A | 9 | 11 | 13 | 19 | 25 | |
| | | 600V | A | 6 | 8 | 10 | 15 | 20 | |
| | | 700V | A | 4,5 | 6 | 7,5 | 10 | 15 | |
| | | 800V | A | 3 | 4 | 5 | 8 | 10 | |
| L/R = 1ms | DC21B | 900V | A | 2,5 | 3 | 4 | 6 | 8 | |
| | | 1000V | A | 1,5 | 2 | 2,5 | 4 | 6 | |
| | | 2 pole in series | 500V | A | 16 | 25 | 32 | 40 | 55 |
| | | A2  | 600V | A | 16 | 25 | 32 | 40 | 55 |
| | | | 700V | A | 16 | 23 | 27 | 35 | 55 |
| | | | 800V | A | 16 | 20 | 23 | 30 | 45 |
| | | | 900V | A | 13 | 16 | 20 | 25 | 35 |
| | | | 1000V | A | 9 | 11 | 13 | 20 | 25 |
| | | | 1200V | A | 6 | 8 | 10 | 15 | 20 |
| | | | 1500V | A | 3 | 4 | 5 | 10 | 15 |
| 2 poles in series + 2 poles parallel | A2+2  | 500V | A | 29 | 45 | 58 | 72 | 85 | |
| | | 600V | A | 29 | 45 | 50 | 64 | 80 | |
| | | 700V | A | 16 | 23 | 27 | 35 | 55 | |
| | | 800V | A | 16 | 20 | 23 | 30 | 45 | |
| | | | 900V | A | 13 | 16 | 20 | 25 | 35 |
| | | | 1000V | A | 9 | 11 | 13 | 20 | 25 |
| | | | 1200V | A | 6 | 8 | 10 | 15 | 20 |
| | | | 1500V | A | 3 | 4 | 5 | 10 | 15 |
| 3 poles in series + 2 poles parallel | A3+2  | 500V | A | 29 | 45 | 58 | - | - | |
| | | 600V | A | 29 | 45 | 50 | - | - | |
| | | 700V | A | 29 | 38 | 45 | - | - | |
| | | 800V | A | 29 | 38 | 45 | - | - | |
| | | | 900V | A | 29 | 38 | 45 | - | - |
| | | | 1000V | A | 29 | 38 | 45 | - | - |
| | | | 1200V | A | 12 | 14 | 16 | - | - |
| | | | 1500V | A | 9 | 11 | 13 | - | - |
| 4 poles in series | A4  | 500V | A | 16 | 25 | 32 | 40 | 55 | |
| | | 600V | A | 16 | 25 | 32 | 40 | 55 | |
| | | 700V | A | 16 | 25 | 32 | 40 | 55 | |
| | | 800V | A | 16 | 25 | 32 | 40 | 55 | |
| | | | 900V | A | 16 | 25 | 32 | 40 | 55 |
| | | | 1000V | A | 16 | 25 | 32 | 40 | 55 |
| | | | 1200V | A | 16 | 25 | 32 | 40 | 20 |
| | | | 1500V | A | 16 | 20 | 23 | 30 | 15 |
| 4 poles in series + 2 poles parallel | A4+2  | 500V | A | 29 | 45 | 58 | - | - | |
| | | 600V | A | 29 | 45 | 58 | - | - | |
| | | 700V | A | 29 | 45 | 58 | - | - | |
| | | 800V | A | 29 | 45 | 58 | - | - | |
| | | | 900V | A | 29 | 45 | 58 | - | - |
| | | | 1000V | A | 29 | 45 | 58 | - | - |
| | | | 1200V | A | 29 | 45 | 50 | - | - |
| | | | 1500V | A | 16 | 20 | 23 | - | - |
| Rated operational current I_e | AC21B | A2, A4 | U_e max. 440V | A | 16 | 25 | 32 | 40 | 55 |
| | | A2+2 | U_e max. 440V | A | 29 | 45 | 58 | 72 | 85 |

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 Datas

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




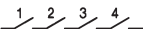
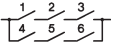
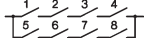


| Main contacts | | | Type | LS16 | LS25 | LS32 | LS40 | LS55 |
|---|---|------------------|-------------------|---|-----------|------------|----------|----------|
| Rated operational current I_e | | 500V | A | 1 | 1,25 | 1,5 | | 2,5 |
| DC22B | 1 pole | 600V | A | 0,5 | 0,75 | 1 | | 2,0 |
| L/R = 2,5ms | A1 | 800V | A | 0,3 | 0,4 | 0,5 | | 1,5 |
| |  | 1000V | A | 0,15 | 0,2 | 0,25 | | 1,0 |
| | | 1200V | A | | | | | |
| | | 1500V | A | | | | | |
| | 2 poles in series | | | A | 7 | 8 | 9 | |
|  | A2 | 500V | A | | | | | |
| | | 600V | A | 5,5 | 6 | 6,5 | | |
| | | 800V | A | 2 | 2,5 | 3 | | |
| | | 1000V | A | 1 | 1,5 | 2 | | |
| | | 1200V | A | | | | | |
| | 1500V | A | | | | | | |
| 4 poles in series | | | A | 16 | 25 | 32 | | |
|  | A4 | 500V | A | 16 | 25 | 27,5 | | |
| | | 600V | A | | | | | |
| | | 800V | A | 11,5 | 12 | 12,5 | | |
| | | 1000V | A | 8 | 9 | 10 | | |
| | | 1200V | A | | | | | |
| | 1500V | A | | | | | | |
| Rated conditional short-circuit current | | | kA _{eff} | 5 | 5 | 5 | 5 | 5 |
| Max. fuse size | | gL (gG) | A | 40 | 63 | 80 | 90 | 125 |
| Mechanical life | | | x10 ³ | 10 | 10 | 10 | | |
| Rated short-time withstand current (1s) | I_{cw} | A2, A4, A6, A8 | A | 800 | 900 | 1000 | | |
| | | A2+2, A3+2, A4+2 | A | 1300 | 1500 | 1700 | | |
| Short circuit making capacity | I_{cm} | A2, A4, A6, A8 | A | 800 | 900 | 1000 | | |
| | | A2+2, A3+2, A4+2 | A | 1300 | 1500 | 1700 | | |
| Maximum cable cross sections | (incl. jumper LSV-B1) | | | | | | | |
| solid or stranded | | | mm ² | 4 - 16 | 4 - 16 | 4 - 16 | 2,5 - 25 | 2,5 - 25 |
| flexible | | | mm ² | 4 - 10 | 4 - 10 | 4 - 10 | 4 - 16 | 4 - 16 |
| flexible (+ multicore cable end) | | | mm ² | 4 - 10 | 4 - 10 | 4 - 10 | 2,5 - 16 | 2,5 - 16 |
| Size of terminal screw | | | | M4 Pz2 | M4 Pz2 | M4 Pz2 | M5 Pz2 | M5 Pz2 |
| Tightening torque | | | Nm | 1,2 - 1,8 | 1,2 - 1,8 | 1,2 - 1,8 | 2,5 - 3 | 2,5 - 3 |
| 2 cables per clamp without jumper LSV-B1 | | | | | | | | |
| solid or stranded | | | mm ² | 16+(1,5-2,5) / 10+(1,5-6) / 6+(1,5-10) / 4+(1,5-10) | | | x | x |
| flexible | | | mm ² | 16+2,5 / 10+(2,5-4) / 6+(2,5-6) | | | x | x |
| flexible (+ multicore cable end) | | | mm ² | 16+(1,5-2,5) / 10+(1,5-4) / 6+(1,5-6) | | | x | x |
| solid or stranded | | | AWG | 8+(16-12) / 10+(16-10) / 12+(16-8) 14+(16-8) | | | x | x |
| flexible | | | AWG | 10+(16-12) / 12+(16-10) 14+(16-10) | | | x | x |
| Maximum ambient temperature | | | | | | | | |
| Operation | open | | °C | | | -40 to +65 | | |
| | | enclosed | °C | | | -40 to +45 | | |
| Storage | | | °C | | | -50 to +90 | | |
| Power loss per switch at I_e max. DC21B | | | | | | | | |
| A2 | | | W | 2 | 5 | 8 | | |
| A4 | | | W | 4 | 10 | 16 | | |
| A6 | | | W | 6 | 15 | 24 | | |
| A8 | | | W | 8 | 20 | 32 | | |
| A2+2 | | | W | 3,5 | 8,5 | 14 | | |
| A3+2 | | | W | 5,5 | 13 | 21 | | |
| A4+2 | | | W | 7 | 17 | 28 | | |

Technical Datas






Daten nach UL5081 

File E359344, und UL508 

File E332938, Category no.: NRNT2, NRNT8

| Type | LS16 | LS25 | LS32 | LS40 | LS55 |
|--|---------|---------|---------|---------|---------|
| Ampere-Rating "General use" | | | | | |
|  1 pole | | | | | |
| 350V A | 4 | 5 | 6 | 9 | 10 |
| 500V A | 4 | 5 | 6 | 8 | 9 |
| 600V A | 4 | 5 | 6 | 7 | 8 |
| 700V A | - | - | - | 6 | 7 |
| 800V A | - | - | - | 5 | 6 |
| 900V A | - | - | - | 4 | 5,5 |
| 1000V A | - | - | - | 3 | 5 |
|  2 poles in series | | | | | |
| 350V A | 16 | 20 | 25 | 40 | 55 |
| 500V A | 16 | 20 | 25 | 40 | 55 |
| 600V A | 16 | 20 | 25 | 40 | 55 |
| 700V A | - | - | - | 32 | 46 |
| 800V A | - | - | - | 26 | 37 |
| 900V A | - | - | - | 20 | 28 |
| 1000V A | - | - | - | 16 | 20 |
|  2 poles in series + 2 poles parallel | | | | | |
| 350V A | 29 | 45 | 58 | 72 | 85 |
| 400V A | - | - | - | 67 | 73 |
| 500V A | 29 | 38 | 40 | 53 | 57 |
| 600V A | 21 | 23 | 25 | 42 | 46 |
| 700V A | - | - | - | 35 | 38 |
| 800V A | - | - | - | 30 | 33 |
| 900V A | - | - | - | 26 | 28 |
| 1000V A | - | - | - | 22 | 25 |
|  4 poles in series | | | | | |
| 350V A | 16 | 25 | 32 | 40 | 55 |
| 500V A | 16 | 25 | 32 | 40 | 55 |
| 600V A | 16 | 25 | 32 | 40 | 55 |
| 700V A | - | - | - | 40 | 55 |
| 800V A | - | - | - | 40 | 55 |
| 900V A | - | - | - | 40 | 55 |
| 1000V A | - | - | - | 40 | 55 |
|  3 poles in series + 2 poles parallel | | | | | |
| 350V A | 29 | 45 | 58 | - | - |
| 500V A | 29 | 38 | 50 | - | - |
| 600V A | 21 | 38 | 45 | - | - |
|  4 poles in series + 2 poles parallel | | | | | |
| 350V A | 29 | 45 | 58 | - | - |
| 500V A | 29 | 45 | 58 | - | - |
| 600V A | 29 | 45 | 50 | - | - |
| AC-Rating "General use" | | | | | |
| 2 poles in series  | | | | | |
| 600V A | 16 | 25 | 32 | - | - |
| 2 poles in series + 2 poles parallel  | | | | | |
| 277V A | - | - | 50 | - | - |
| 3 poles parallel | | | | | |
| 3x480V A | - | - | 32 | - | - |
| Fuse size (RK5)Industrial Control Switch | | | | | |
| 5kA / 600V A | 40 | 60 | 80 | x | x |
| 5KA/1000V A | - | - | - | 90 | 125 |
| Maximum cable cross sections (incl. jumper LSV-B1) | | | | | |
| solid or stranded AWG | 12 - 10 | 12 - 10 | 12 - 10 | 16 - 10 | 16 - 10 |
| flexible AWG | 12 - 6 | 12 - 6 | 12 - 6 | 14 - 4 | 14 - 4 |
| flexible (+ multicore cable end) AWG | 12 - 6 | 12 - 6 | 12 - 6 | - | - |
| Size of terminal screw | M4 Pz2 | M4 Pz2 | M4 Pz2 | M5 Pz2 | M5 Pz2 |
| Tightening torque lb.inch | 11 - 16 | 11 - 16 | 11 - 16 | 22 - 26 | 22 - 26 |

Approvals

| Country | USA, UL5081  | US, Canada UL508  | Europe  | TÜVRheinland  | China CCC  | CB-Zertifikate |
|---------|---|--|--|--|---|----------------|
| Type | | | | | | |
| LS16 | o | o | / | o | o | o |
| LS25 | o | o | / | o | o | o |
| LS32 | o | o | / | o | o | o |
| LS40 | x | x | / | - | - | - |
| LS55 | x | x | / | - | - | - |

o In standard version approved
- Not provided for test till now

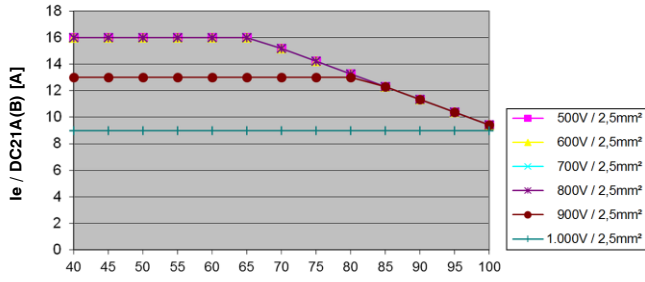
/ No testing required CE

x In test

Technical Datas

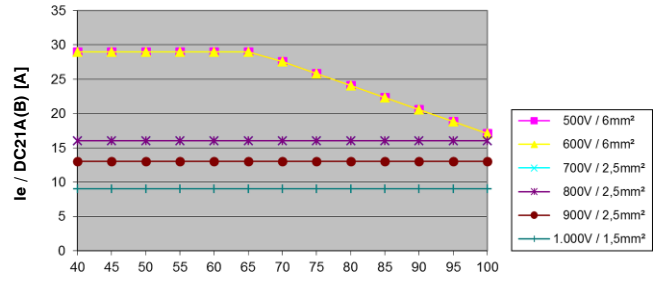
Maximum current according to ambient temperature and cable cross section

Switch LS16..., 2 contacts in series, open



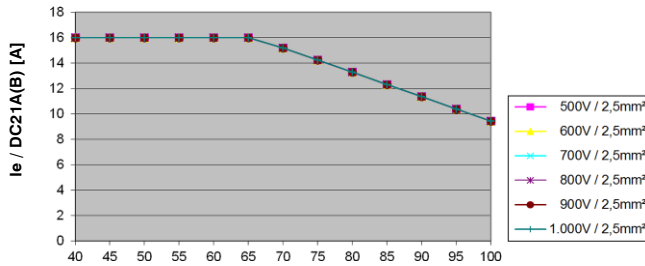
Ambient temperature around the switch (°C)

Switch LS16 ..., 2 contacts in series + 2 parallel, open



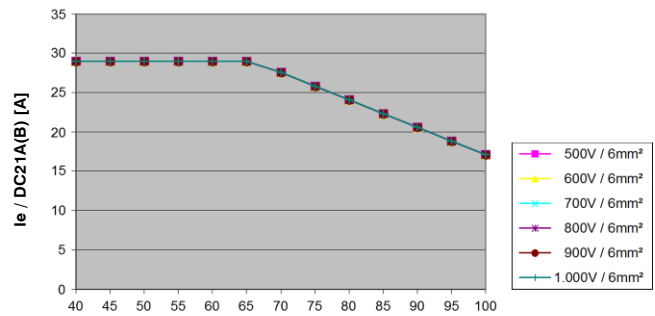
Ambient temperature around the switch (°C)

Switch LS16..., 4 contacts in series, open



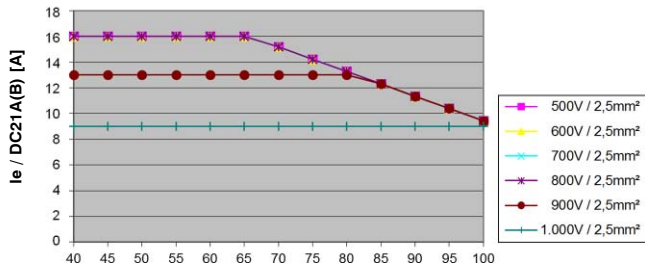
Ambient temperature around the switch (°C)

Switch LS16 ..., 4 contacts in series + 2 parallel, open



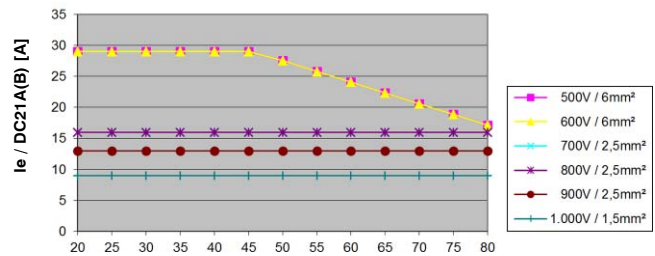
Ambient temperature around the switch (°C)

Enclosed switch LS16 PFL..., 2 contacts in series



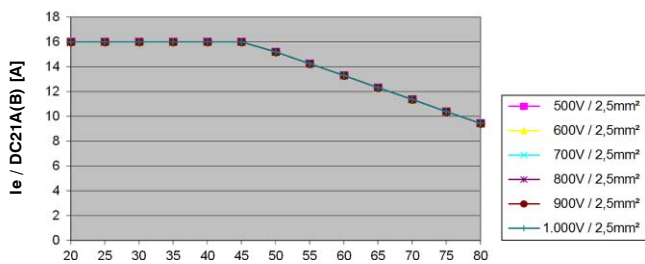
Ambient temperature around the switch (°C)

Enclosed switch LS16 PFL..., 2 contacts in series + 2 parallel



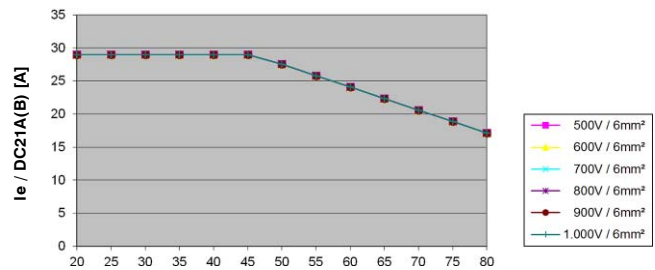
Ambient temperature around the switch (°C)

Enclosed switch LS16 PFL..., 4 contacts in series



Ambient temperature around the switch (°C)

Enclosed switch LS16 PFL..., 4 contacts in series + 2 parallel

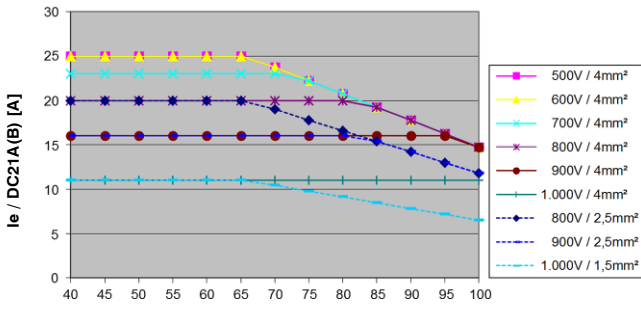


Ambient temperature around the switch (°C)

Technical Datas

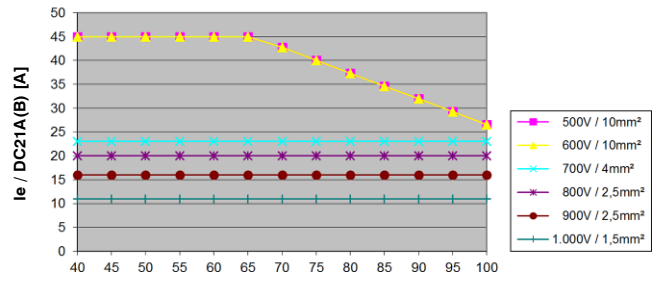
Maximum current according to ambient temperature and cable cross section

Switch LS25..., 2 contacts in series, open



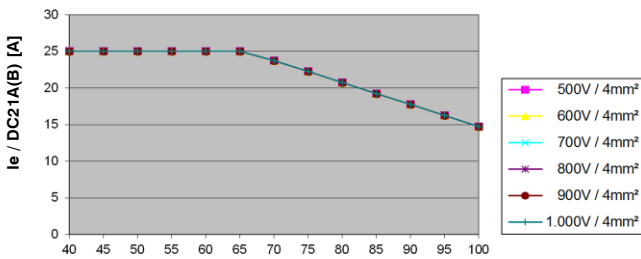
Ambient temperature around the switch (°C)

Switch LS25 ..., 2 contacts in series + 2 parallel, open



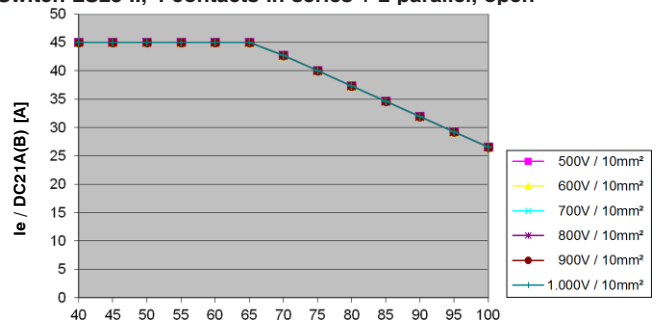
Ambient temperature around the switch (°C)

Switch LS25..., 4 contacts in series, open



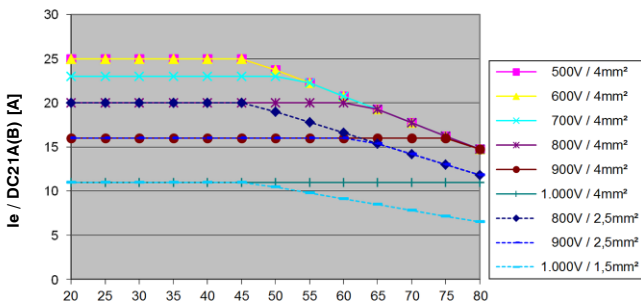
Ambient temperature around the switch (°C)

Switch LS25 ..., 4 contacts in series + 2 parallel, open



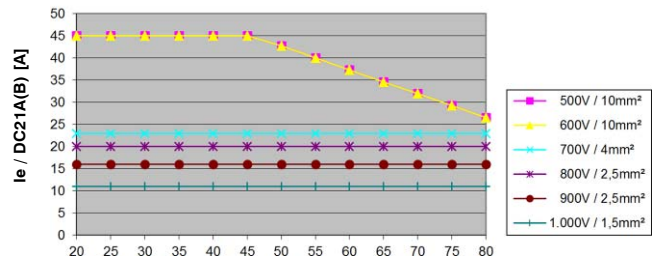
Ambient temperature around the switch (°C)

Enclosed switch LS25 PFL..., 2 contacts in series



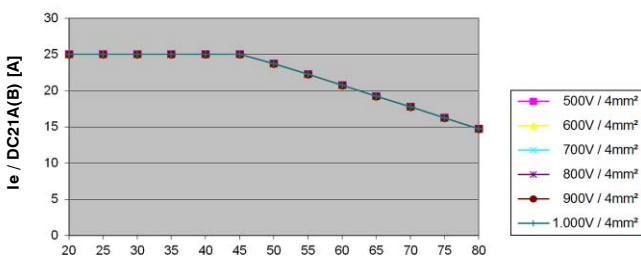
Ambient temperature around the switch (°C)

Enclosed switch LS25 PFL..., 2 contacts in series + 2 parallel



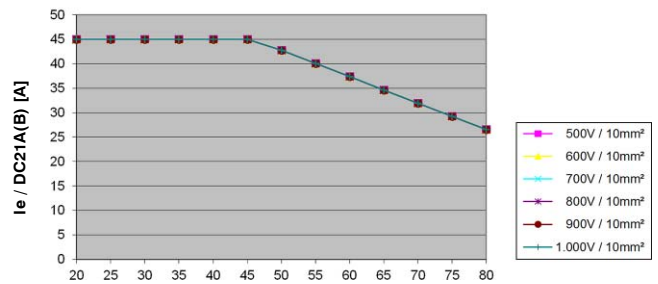
Ambient temperature around the switch (°C)

Enclosed switch LS25 PFL..., 4 contacts in series



Ambient temperature around the switch (°C)

Enclosed switch LS25 PFL..., 4 contacts in series + 2 parallel

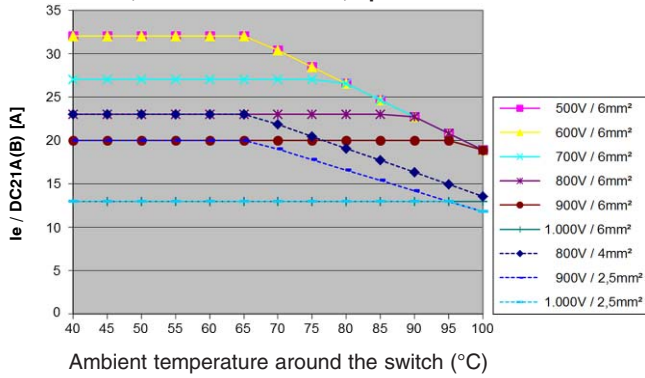


Ambient temperature around the switch (°C)

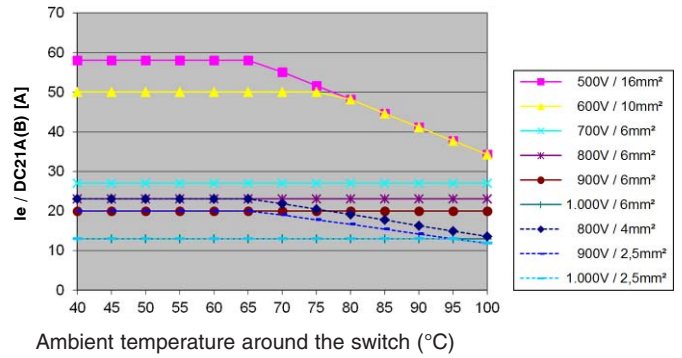
Technical Datas

Maximum current according to ambient temperature and cable cross section

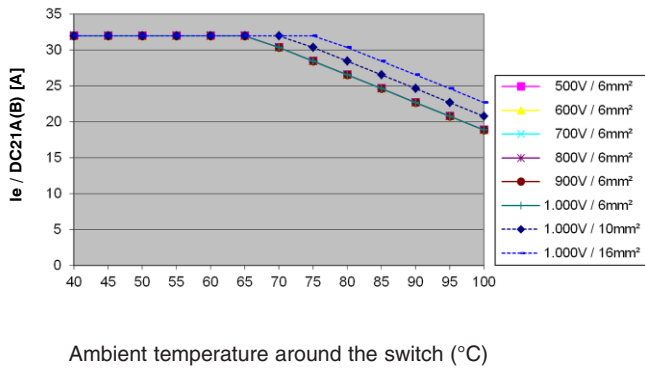
Switch LS32..., 2 contacts in series, open



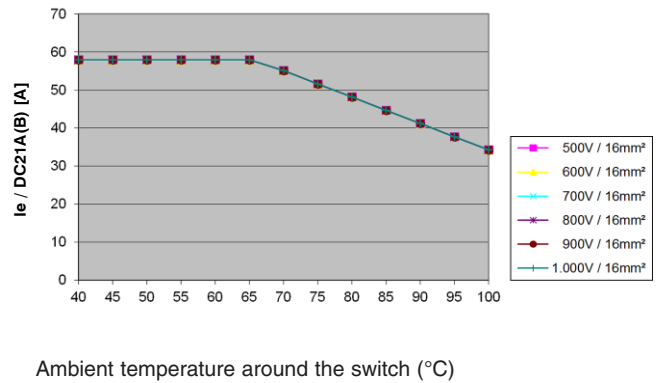
Switch LS32 ..., 2 contacts in series + 2 parallel, open



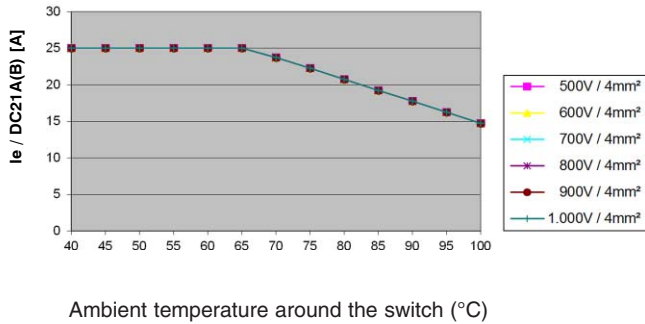
Switch LS32..., 4 contacts in series, open



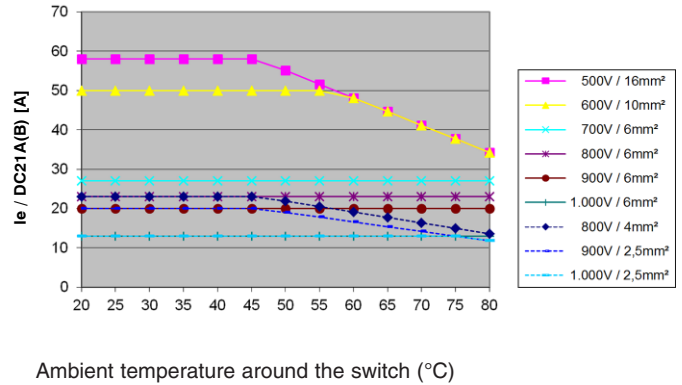
Switch LS32 ..., 4 contacts in series + 2 parallel, open



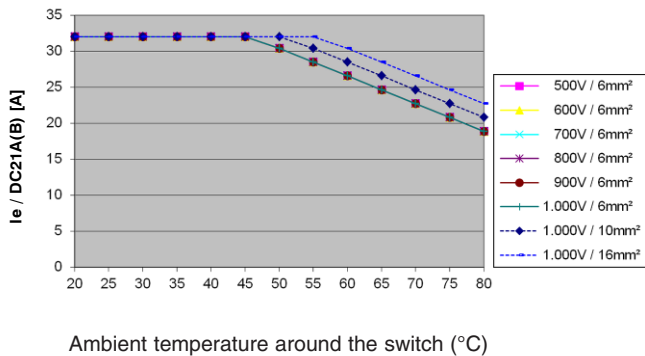
Enclosed switch LS32 PFL..., 2 contacts in series



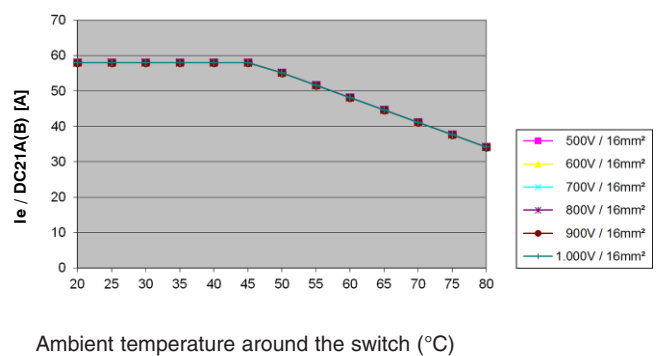
Enclosed switch LS32 PFL..., 2 contacts in series + 2 parallel



Enclosed switch LS32 PFL..., 4 contacts in series

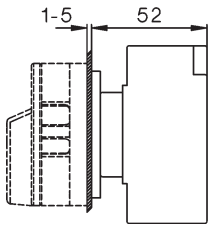


Enclosed switch LS32 PFL..., 4 contacts in series + 2 parallel

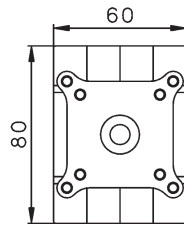
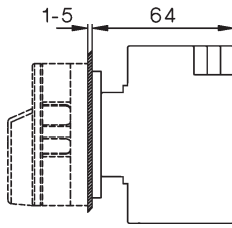


Dimensions

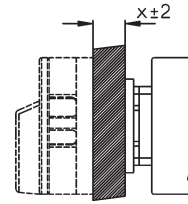
LS16 E..., LS25 E..., LS32 E...
..A2



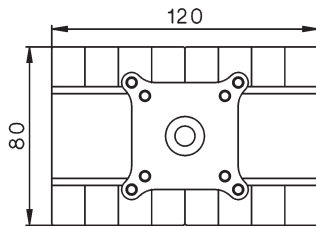
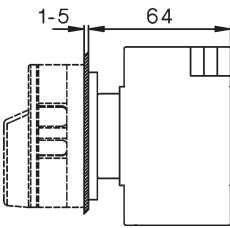
..A2+2, ..A4.



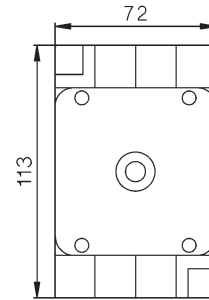
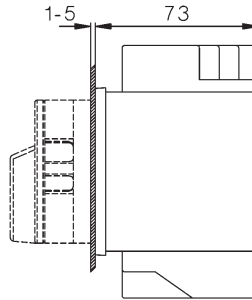
LS... +WW"x"
Extended Switch Shaft



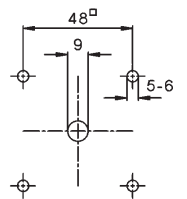
LS16 E..., LS25 E..., LS32 E...
..A6, ..A8, ..A3+2, ..A4+2



LS40 E..., LS55 E..
..A2, ..A2+2, ..A4.

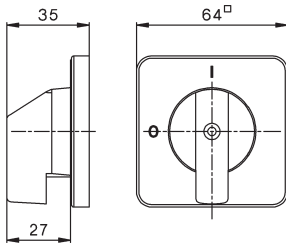


Mounting hole

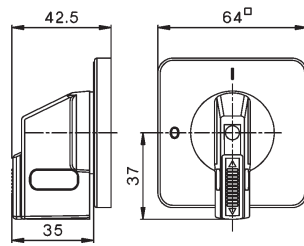


Escutcheon plate 64□

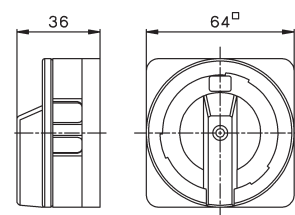
Handle



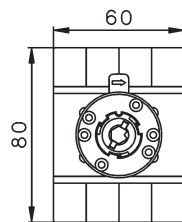
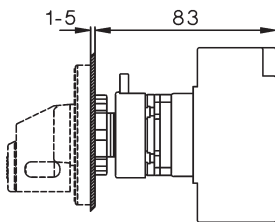
Padlock device SV1.



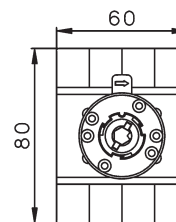
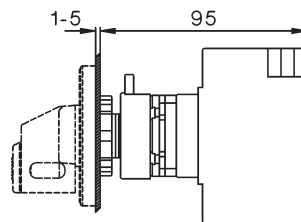
Padlock device SV4.



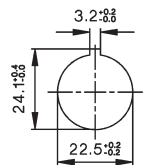
LS16 Z..., LS25 Z..., LS32 Z...
..A2



..A2+2, ..A4.

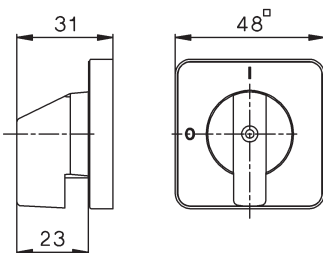


Mounting hole

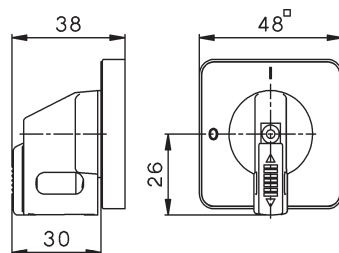


Escutcheon plate 48□

Handle

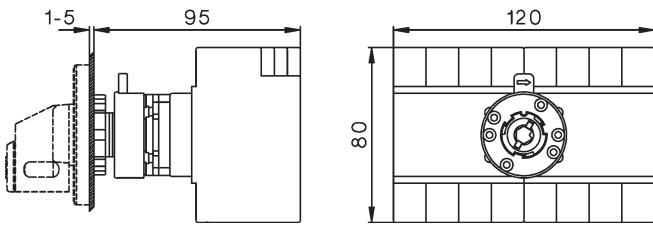


Padlock device SV1.

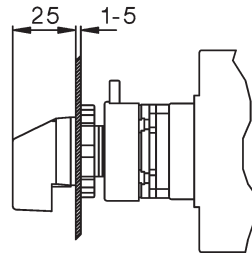


Dimensions

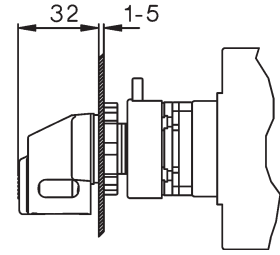
LS16 Z.., LS25 Z.., LS32 Z..,
..A6, ..A8, ..A3+2, ..A4+2



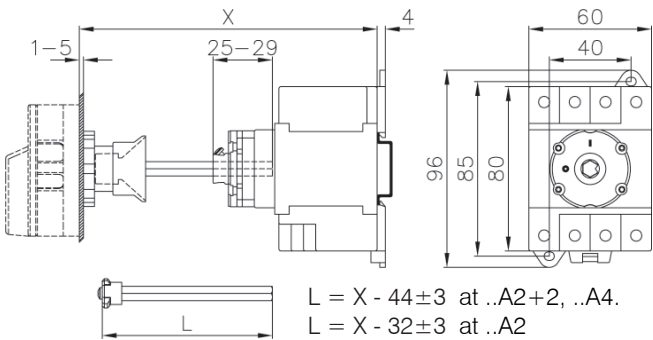
LS.. ZO..



LS.. ZOH1..,



LS16 VZV.., LS25 VZV.., LS32 VZV..,



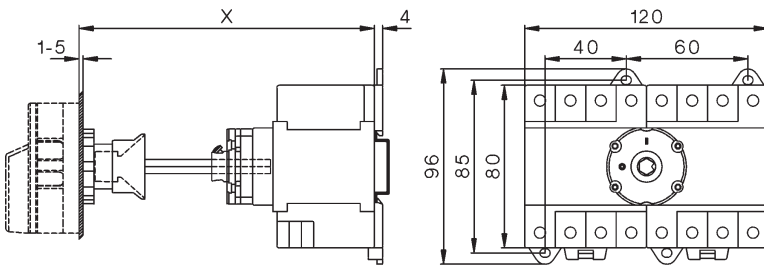
$L = X - 44 \pm 3$ at ..A2+2, ..A4.
 $L = X - 32 \pm 3$ at ..A2

delivered with: ..A2+2, ..A4.
 $X_{max.} = 194, L = 150$
($X_{min.} = 89$)

delivered with: ..A2
 $X_{max.} = 182, L = 150$
($X_{min.} = 77$)

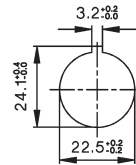
greater X-Dimensions on request

LS16 VZV.., LS25 VZV.., LS32 VZV..,
..A6, ..A8, ..A3+2, ..A4+2



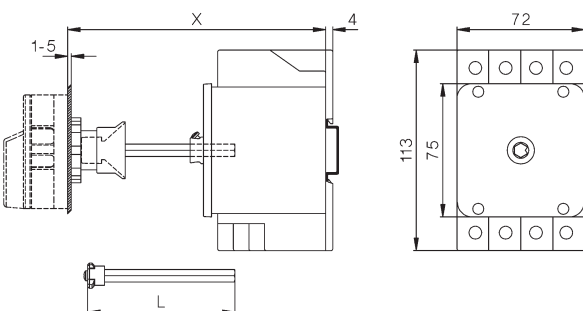
delivered with: ..A4+2, ..A6, ..A8
 $X_{max.} = 194, L = 150$
($X_{min.} = 95$)

Mounting hole



$L = X - 44 \pm 3$

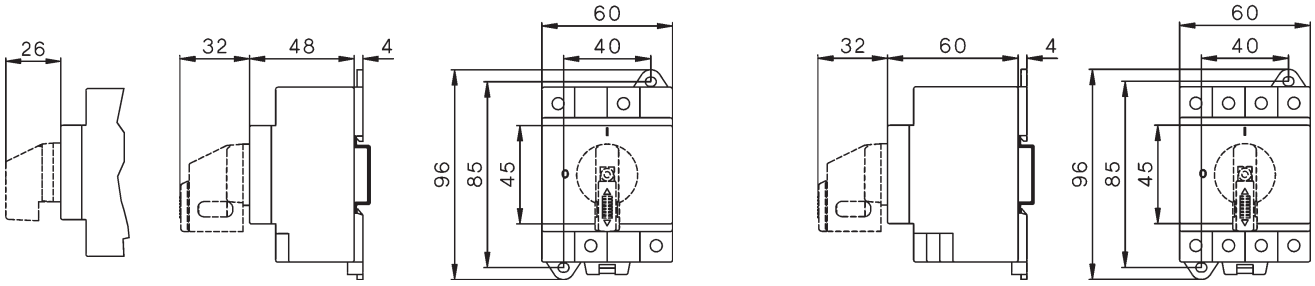
LS40 VZV.., LS55 VZV..
..A2, ..A2+2, ..A4.



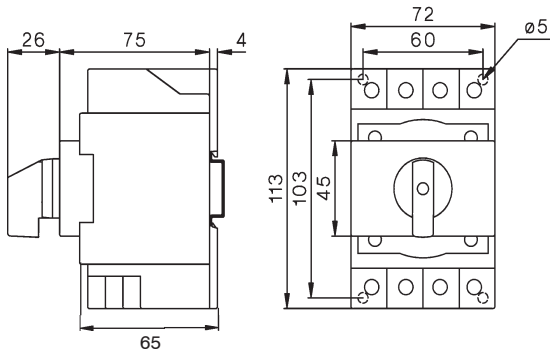
Dimensions

LS16 SMA..., LS25 SMA..., LS32 SMA...,
..A2 ..

A2+2, ..A4.

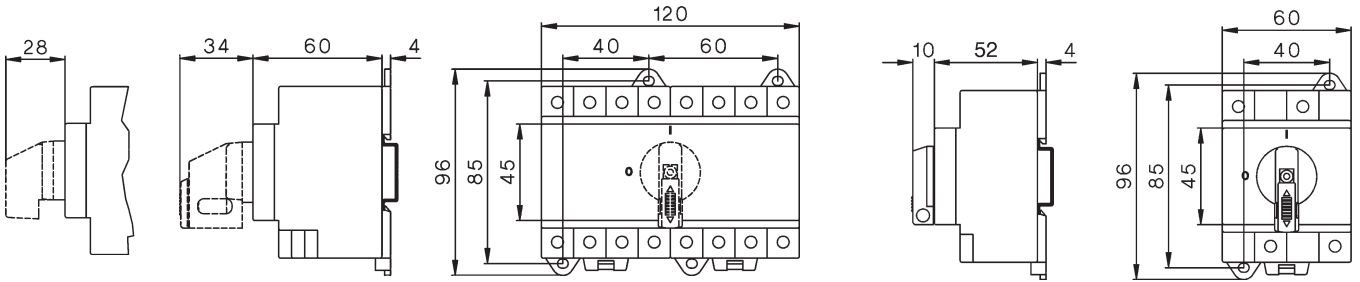


LS40 SMA..., LS55 SMA..
..A2, ..A2+2, ..A4.



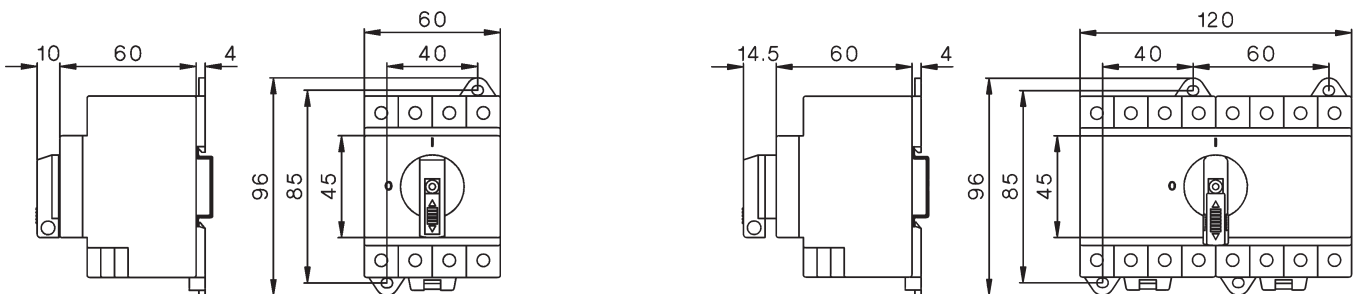
LLS16 SMA..., LS25 SMA..., LS32 SMA...,
..A6, ..A8, ..A3+2, ..A4+2

LS.. SMAH1.. with low height handle
A2+SV1N



LS16 SMAH1..., LS25 SMAH1, LS32 SMAH1 with low height handle
A2+2 +SV1N, A4.+SV1N

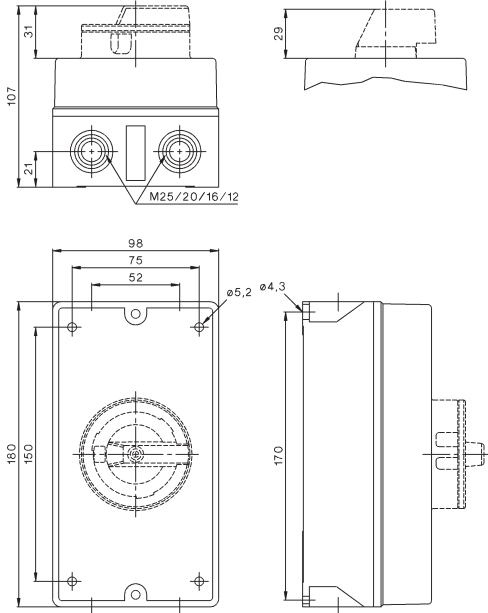
A4+2 +SV1N, A6+SV1N, A8+SV1N



Dimensions:

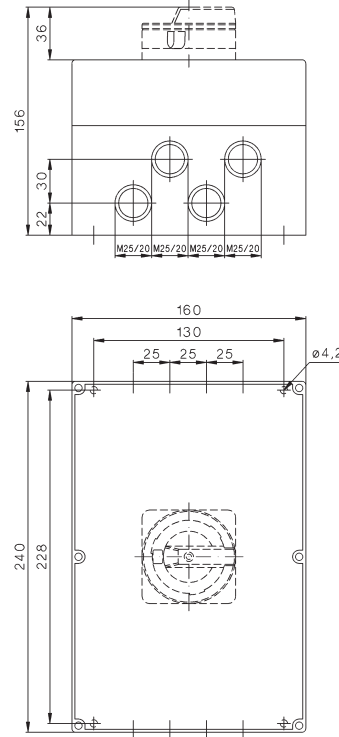
LS16 PFL., LS25 PFL., LS32 PFL..
..A2, ..A2+2, ..A4.

Main-Switch (lockable)
LS..PFLH4 A..

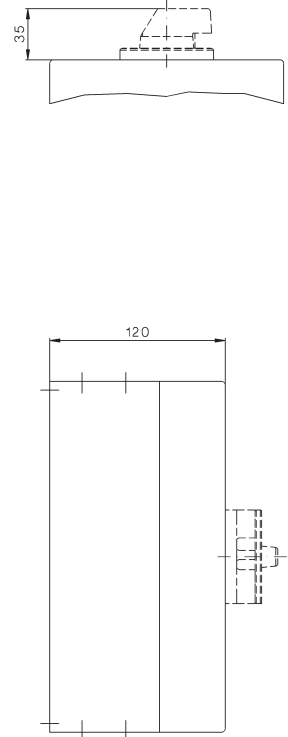


LS16 PF., LS25 PF., LS32 PF..
..A6, ..A8, ..A3+2, ..A4+2

Main-Switch (lockable)
LS..PFH4 A..



LS40 PF., LS55 PF..
A2, A2+2, A4



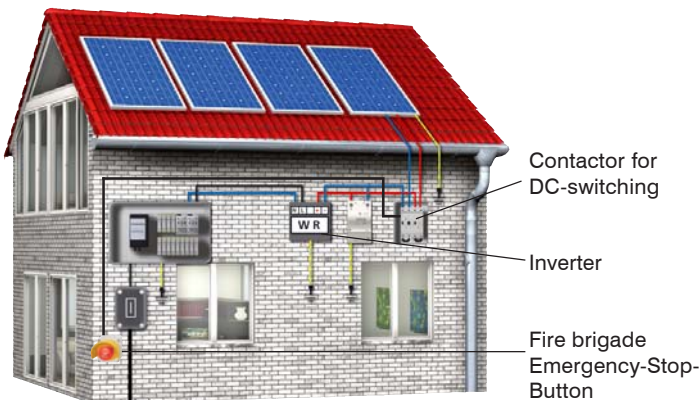
Contactors for DC-Switching

AC-operated



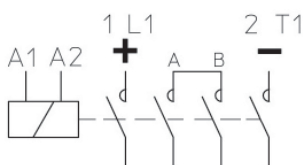
| Rated Operational Current | | | Additional Aux. Contacts | Type | Coil voltage ¹⁾ 230 ↓ 220-230V 50Hz, 240V 60Hz | Pack pcs. | Weight kg/pc. | Wiring diagram |
|---------------------------|------|-------|--------------------------|--------------------|--|-----------|---------------|----------------|
| DC1 | 600V | 1000V | | | | | | |
| | 20A | - | - | 2 HKA11 | K3DC-20A00 ... | 1 | 0,45 | |
| | 48A | - | - | +1 HKT. | K3DC-48A00 ... | 1 | 0,45 | |
| | 80A | 35A | - | 2 HKA11 | K3DC-80A00 ... | 1 | 1,17 | |
| | 100A | - | - | +1 HKT. | K3DC-100A00 ... | 1 | 1,8 | |
| | 12A | 12A | 6A | 2 HKA11 +2 HKT. | K3PV-12A00 ... | 1 | 0,8 | |
| | 30A | 30A | - | 2 HKA11 | K3PV-30A00 ... | 1 | 0,9 | |
| | 60A | 60A | - | +2 HKT. | K3PV-60A00 ... | 1 | 0,9 | |
| | 80A | 80A | - | 2 HKA11 | K3PV-80A00 ... | 1 | 1,35 | |
| | 100A | 100A | - | +1 HKT. | K3PV-100A00 ... | 1 | 2,3 | |
| | 150A | 150A | - | 2 HKA11 | K3PV-150A00 ... | 1 | 5 | |
| | 200A | 200A | - | +1 HKT. | K3PV-200A00 ... | 1 | 5 | |
| | 240A | 240A | - | | K3PV-240A00 ... | 1 | 5 | |
| | 300A | 300A | - | 2 HKA11 | K3PV-300A00 ... | 1 | 7,5 | |
| | 400A | 400A | - | +1 HKT. | K3PV-400A00 ... | 1 | 7,5 | |
| | 450A | 450A | - | | K3PV-450A00 ... | 1 | 7,5 | |

Contactors for DC-Switching for PV-installations, as remote controlled fire protection defeat device

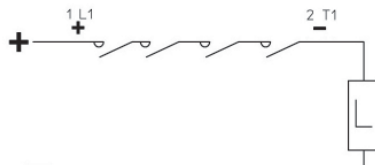


In most Photovoltaic-installations, the switch disconnectors according to IEC 60364-7-712 are integrated in the DC/AC-inverter. So the wires between solar-panels and inverter are continuously under voltage. According to ÖVE-R11-1: 2013, Photovoltaic-installations must have a fire protection defeat device. For this purpose, BENEDICT contactors for DC-switching, used as a fire protection defeat device, can switch off the Photovoltaic-installation with a remote controlled fire brigade Emergency-Stop-button.

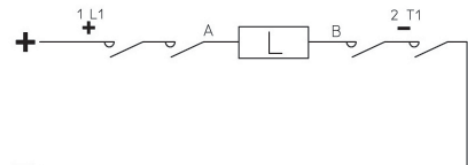
Switch diagram (4 contacts)



Connection diagram 1-pole




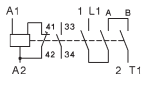



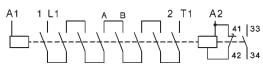

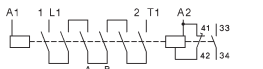

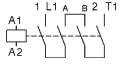

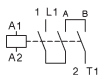

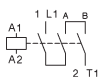
For using as two-poles contactor remove connection A-B








1) 1) Other coil voltages from 24 to 600V ac, on request

Contactors for DC-Switching

DC-operated

| Typ | Coil voltage ¹⁾ 24 24V DC | | Aux. Contacts build in additional | | Pack pcs. | Weight kg/pc. | Wiring diagram | |
|---|---|----|--------------------------------------|---|--------------|------------------|----------------|---|
| | NO | NC | Type | | | | | |
|  | K3DC-20A10= ... | | 1 | - | 1 HKA11 | 1 | 0,5 |  |
| | K3DC-48A10= ... | | 1 | - | +1 HKT. | 1 | 0,5 | |
|  | K3DC-80A00= ... | | - | - | 1 HKA11 | 1 | 1,17 |  |
| | K3DC-100A00= ... | | - | - | +1 HKT. | 1 | 1,8 | |
|  | K3PV-12A10= ... | 1 | - | - | 1 HKA11 | 1 | 0,85 |  |
| | | | | | +2 HKT. | | | |
|  | K3PV-30A10= ... | | 1 | - | 1 HKA11 | 1 | 0,95 |  |
| | K3PV-60A10= ... | | 1 | - | +2 HKT. | 1 | 0,95 | |
|  | K3PV-80A00= ... | | - | - | 2 HKA11 | 1 | 1,35 |  |
| | K3PV-100A00= ... | | - | - | +1 HKT. | 1 | 2,3 | |
|  | K3PV-150A00= ... | | - | - | 2 HKA11 | 1 | 5 |  |
| | K3PV-200A00= ... | | - | - | +1 HKT. | 1 | 5 | |
| | K3PV-240A00= ... | | - | - | | 1 | 5 | |
|  | K3PV-300A00= ... | | - | - | 2 HKA11 | 1 | 7,5 |  |
| | K3PV-400A00= ... | | - | - | +1 HKT. | 1 | 7,5 | |
| | K3PV-450A00= ... | | - | - | | 1 | 7,5 | |

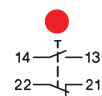
Auxiliary Contact Blocks for contactors K3DC-.. and K3PV-..

| Type | Rated Operational Current | | | For contactors | Pack pcs. | Weight kg/pc. | Wiring diagram |
|---|---------------------------|-------------------|------------------|-------------------------|--------------|------------------|---|
| | AC15 230V A | AC15 400V A | AC1 690V A | | | | |
|  | 3 | 2 | 10 | K3-DC, K3PC-... top | 1 | 0,04 |  |
|  | 3 | 2 | 10 | K3-DC, K3PC-... top | 1 | 0,05 |  |
| | 3 | 2 | 10 | K3-DC, K3PC-... outside | 1 | 0,05 |  |

Accessories



| | | |
|---|--------------------------|------|
| Fire Brigade-EMERGENCY STOP key operated button Ø40mm, according to EN418, unlock by key | BG10P44S3-11 +SK1 | 0,22 |
|---|--------------------------|------|



1) Other coil voltages from 24 to 250V dc, on request

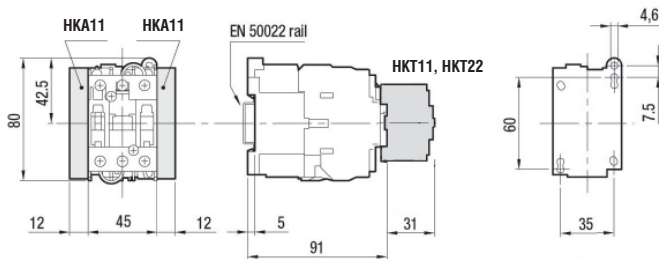
Technical Data

Data according to IEC 60947-4-1, VDE 0660

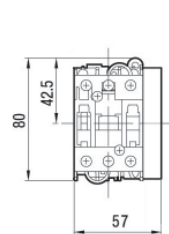
| Type | | K3DC-20.. | K3DC-48.. | K3DC-80.. | K3DC-100.. | K3PV-12.. | K3PV-30.. | K3PV-60.. | K3PV-80.. | K3PV-100.. | K3PV-150.. | K3PV-200.. | K3PV-240.. | K3PV-300.. | K3PV-400.. | K3PV-450.. |
|---------------------------------------|-----------------|--------------------------------|-----------|-----------|-----------------|--------------------|--------------|-----------|-----------|-----------------|------------|---------------------------|-------------------------------|----------------------------|------------|-----------------------|
| Rated insulation voltage. $V=U_{imp}$ | kV | 600 8 | 600 8 | 1000 8 | 600 8 | 1200 8 | 1000 8 | 1000 8 | 1000 8 | 1000 8 | 1000 8 | 1000 8 | 1000 8 | 1000 8 | 1000 8 | 1000 8 |
| poles in series | | 3 | 3 | 3 | 3 | 8 | 6 | 6 | 4 | 4 | 3 | 3 | 3 | 3 | 3 | 3 |
| DC1 600V dc I_e | A | 20 | 48 | 80 | 100 | 12 | 30 | 60 | 80 | 100 | 150 | 200 | 240 | 300 | 400 | 450 |
| DC1 1000V dc I_e | A | - | - | 35 | 100 | 12 | 30 | 60 | 80 | 100 | 150 | 200 | 240 | 300 | 400 | 450 |
| DC1 1200V dc I_e | A | - | - | - | - | 6 | - | - | - | - | - | - | - | - | - | - |
| Main pole resistance | mOhm | 2,5 | 2,3 | | 3 | 13 | 8,5 | 8,5 | | 4 | 1,5 | 1,5 | 1,5 | 0,85 | 0,85 | 0,85 |
| Mechanical life | 10^6 | 10 | | 10 | | 10 | | | 10 | | 10 | | | 8 | | |
| Protection degree | | IP20 | | IP20 | | IP20 | | | IP20 | | IP20 | | IP00 IP20 w. terminal lug. | IP00 | | IP20 w. terminal lug. |
| Weight | kg | 0,45 | | 1,17 | 1,8 | | 0,9 | | 1,35 | 2,3 | | 5 | | | 7,5 | |
| Main poles | | | | | | | | | | | | | | | | |
| Cable cross-sections | mm ² | 2 x 1,5 - 10 | | 2,5-35 | 4 - 35 +4-50 | 2x 1,5-2,5 | 2 x 1,5 - 10 | | 2,5-35 | 4 - 35 +4-50 | | busbar 18 x 4 screw M8 | | busbar 25 x 6 screw M10 | | |
| Tightening torque | Nm | 2,3 | | 5 | 8 | 1,4 | 2,3 | | 5 | 8 | | 17 | | 35 | | |
| Montage | | DIN-rail or screw | | screw | | DIN-rail or screws | | | | Screws | | | | | | |
| Operating range of coils | U_c | 0,85 - 1,1 | | | | | | | | | | | | | | |
| Power consumption of coils | | | | | | | | | | | | | | | | |
| AC inrush | VA | 90 | | 250 | | 200 | | | 250 | | 350 | | | 360 | | |
| AC sealed | VA/W | 9 / 4 | | 18 / 6,3 | | 18 / 8 | | | 18 / 6,3 | | 5 / 5 | | | 5 / 5 | | |
| DC inrush | W | 120 | | 230 | | 230 | | | 230 | | 350 | | | 360 | | |
| DC sealed | W | 2 | | 4 | | 4 | | | 4 | | 5 | | | 5 | | |
| Switching time at ac voltage | | | | | | | | | | | | | | | | |
| make time | ms | 10 - 25 | | 15 - 50 | | 10 - 25 | | | 15 - 50 | | 30 - 60 | | | 40 - 60 | | |
| release time | ms | 6 - 18 | | 30 - 80 | | 6 - 18 | | | 30 - 80 | | 30 - 80 | | | 40 - 60 | | |
| Maximum ambient temperature | | | | | | | | | | | | | | | | |
| Operation | °C | -25 to +40 (+70) ¹⁾ | | | | | | | | | | | | | | |
| Storage | °C | -25 to +70 | | | | | | | | | | | | | | |

Dimensions (mm)

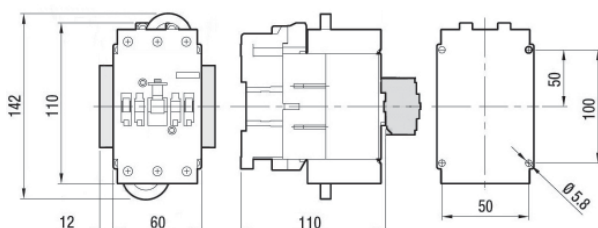
K3DC-20A00, K3DC-48A00



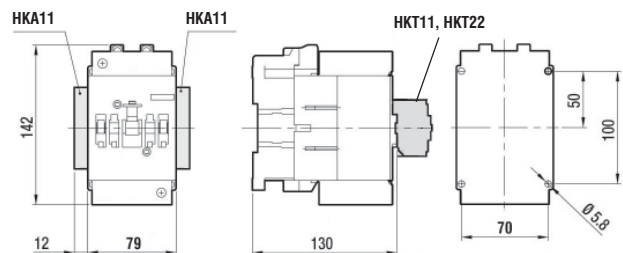
K3DC-20A10=, K3DC-48A10=



K3DC-80A00(=)



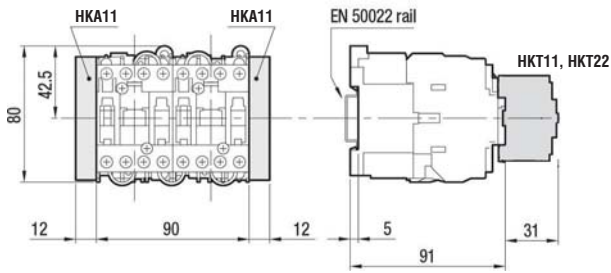
K3DC-100A00(=)



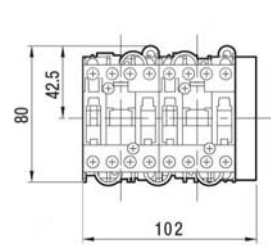
1) > 40° ... 1% / °C de-rating (eg. at 60°C 20% de-rating)

Dimensions (mm)

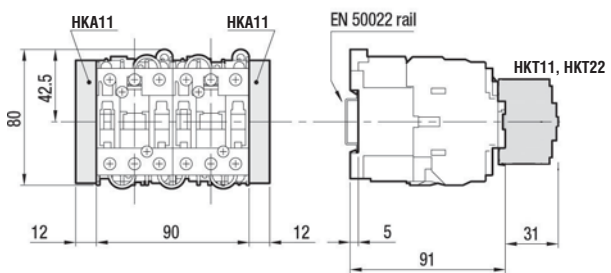
K3PV-12A00



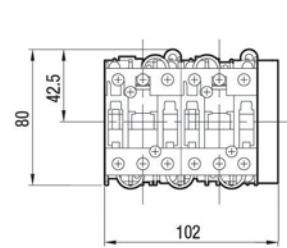
K3PV-12A10=



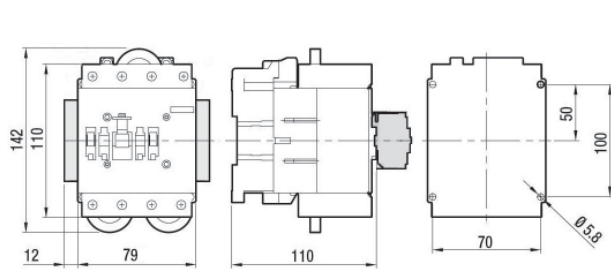
K3PV-30A00, K3PV-60A00



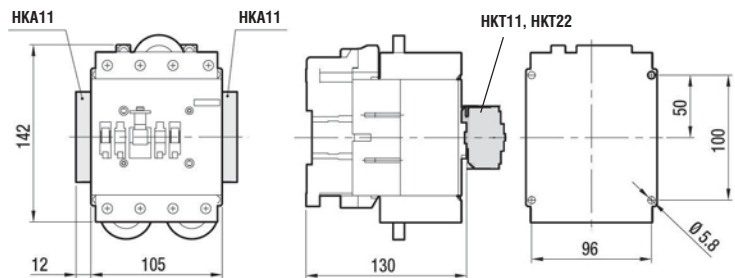
K3PV-30A10=, K3PV-60A10=



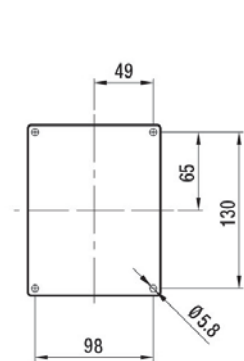
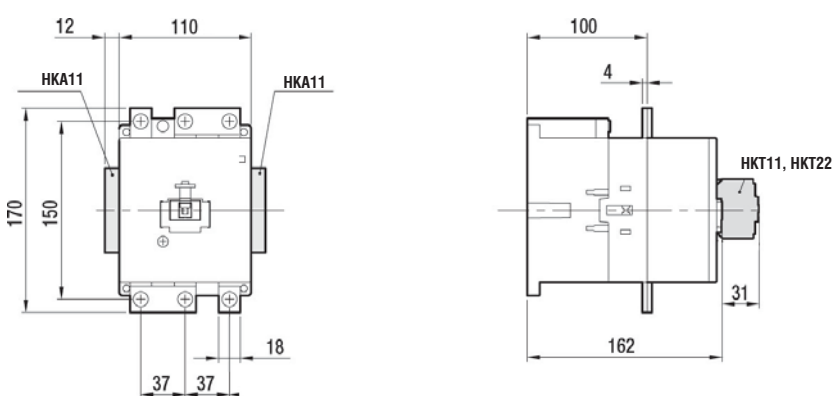
K3PV-80A00(=)



K3PV-100A00(=)



K3PV-150A00(=), K3PV-200A00(=), K3PV-240A00(=)



K3PV-300A00(=), K3PV-400A00(=), K3PV-450A00(=)

