

# DSX switch disconnecter DIN rail mounting

Reference(s) :

 4 240 00; 4 240 01; 4 240 02; 4 240 03; 4 240 04; 4 240 05;  
 4 240 06; 4 240 07; 4 240 08; 4 240 09; 4 240 46; 4 240 47


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## 1. USE

DSX platform has been developed to give a new solution for switch disconnection, providing a complete platform in standard market segments.

Suitable for long-life projects due to its large electrical duration, DSX range offers optimum performances in Open and Close operation and in operation quality, giving also a complete range of accessories, at a competitive cost.

## 2. RANGE

DSX - DIN rail mounting			
Frame	$I_n$ [A]	3P	4P
1	32	424000	424006
	40	424001	424007
	63	424002	424008
2	100	424003	424009
	125	424004	424046
	160	424005	424047

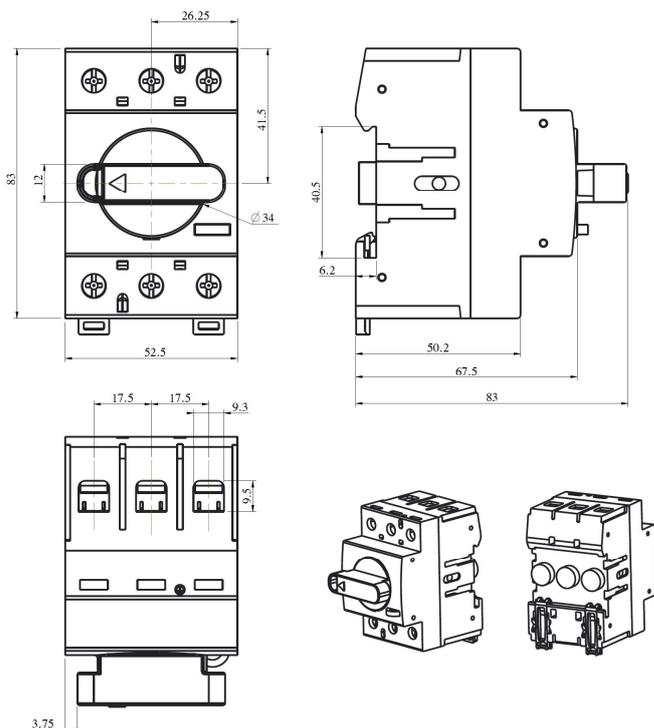
For "Frame 1", each pole is 1 DIN module wide

For "Frame 2", each pole is 1 DIN module wide

## 3. DIMENSIONS AND WEIGHTS

### 3.1 Dimensions

Frontal, upper and lateral view (Frame 1 - 3 poles)

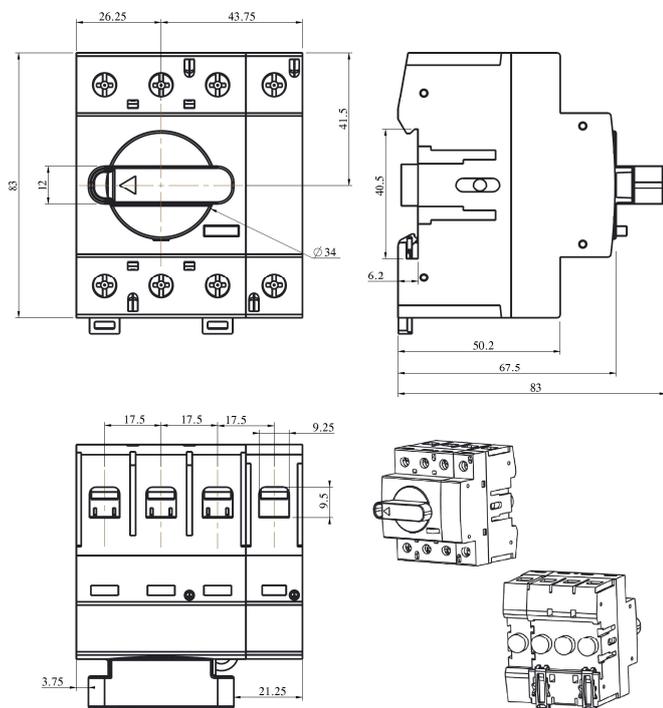


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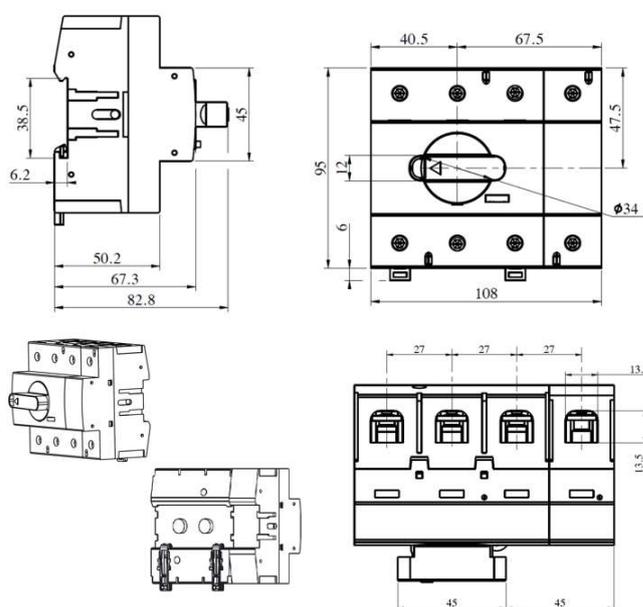
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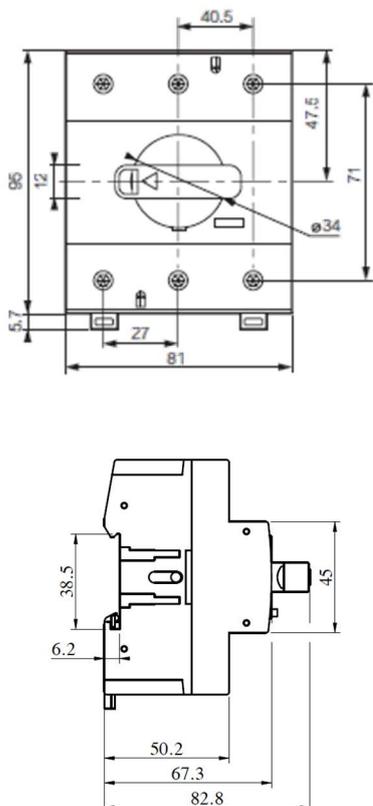
Frontal, upper and lateral view (Frame 1 - 4 poles)



Frontal, upper and lateral view (Frame 2 - 4 poles)



Frontal, upper and lateral view (Frame 2 - 3 poles)



## 3.2 Weights

Weights [kg]			
Frame	$I_n$ [A]	3 poles	4 poles
1	from 32 to 63	0.29	0.37
2	from 100 to 160	0.59	0.68

## 4. OVERVIEW

### 4.1 Supply material

All DIN switch disconnectors in frame 1 and 2, have no need to have supplied material.

## 5. ELECTRICAL CONNECTIONS

### 5.1 Mounting possibilities

On DIN rail:

- Vertical
- Horizontal
- Supply inverter type

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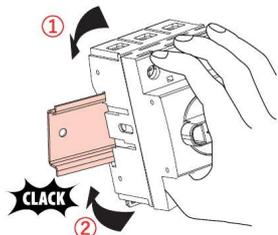
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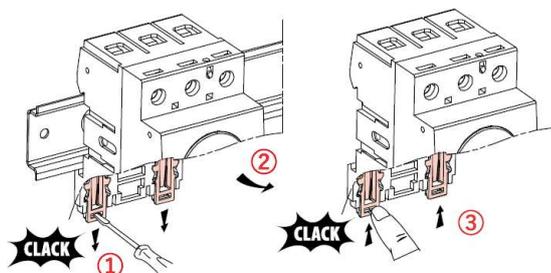
## 5.2 Mounting procedures

(see instruction sheet for detailed mounting procedures)

Mounting



Dismounting



## 6. ELECTRICAL AND MECHANICAL CHARACTERISTICS

### 6.1 Technical values

DIN switch disconnecter - Size 1&2	Frame 1 - 63A	Frame 2 - 160A
Rated current $I_n$ [A]	32A, 40A, 63A	100A, 125A, 160A
Number of poles	3P-4P	3P-4P
Rated insulation voltage $U_i$ [V]	690	690
Rated impulse withstand voltage $U_{imp}$ [kV]	8	8
Dielectric strength 50 Hz 1 min [kV]	6	6
Rated operational voltage (AC) $U_c$ [V]	690	500
Rated operational voltage (DC) $U_e$ [V]	250	250
Short circuit making capacity $I_{cm}$ [kA]	2.1	3.5
Maximal withstand peak current (while protection breaks short circuit) [kA]	3	3.5
Power pole dissipation (at rated operational current) [W/pole]	0.8 @ 32A 1.1 @ 40A 1.73 @ 63A	6 @ 100A 8.2 @ 125A 13 @ 160A
Short time withstand current (1 s) $I_{cw}$ [kA]	1.5	2.5
Mechanical endurance [No. of operations]	20000	7000
Electrical endurance [No. of operations]	2500	1000
Rated Ambient temperature $T_a$ [°C]	40/50	40/50
Temperature Withstand range [°C]	-25/+70	-25/+70
Terminal type	Cage	Cage
Maximal copper cable mm <sup>2</sup>	35/50	70/95

## 6.2. Degree of protection device (IP), with terminal shields

- IP20 - Standalone
- IP40 - With Terminal Shield
- IP40 - With Terminal Shield inside panel
- IP55 - With Terminal Shield & VD Handle inside panel

## 6.3 Category of use

Category of use DIN switch disconnecter - Size 1&2		Frame 1 - 63A			Frame 2 - 160A		
AC 20 A/B	415 VA AC	32	40	63	100	125	160
AC 21 A/B		32	40	63	100	125	160
AC 22 A/B		32	40	63	100	125	160
AC 23 A/B		32	40	63	100	125	160
AC 20 A/B	500 VA AC	32	40	63	100	125	160
AC 21 A/B		32	40	63	100	125	160
AC 22 A/B		32	40	40	100	125	125
AC 23 A/B		25	25	25	63	63	63
AC 20 A/B	690 VA AC	32	40	63	-	-	-
AC 21 A/B		32	40	63	-	-	-
AC 22 A/B		32	40	40	-	-	-
AC 23 A/B		25	25	25	-	-	-
DC 20 A/B	250 V DC	32	40	63	100	125	160
DC 21 A/B		32	40	63	100	125	160
DC 22 A/B		32	40	40	100	125	125
DC 23 A/B		25	25	25	63	63	63

## 6.4 DERATINGS

according to IEC/EN 60947-1

### 6.4.1 Temperature

Rated current and his adjustment must be considered relating to a rise or fall of ambient temperature and to a different version or installation conditions.

### 6.4.2 Specific condition use

*Climatic conditions*

according to IEC/EN 60947-1 Annex Q, Cat. F subject to temperature, humidity, vibration, shock and salt mist.

*Pollution degree*

for DSX transfer switched, degree 3, according to IEC/EN 60947-3.

### 6.4.3 Altitude

Altitude derating for DSX switch disconnecter.

Altitude [m]	2000	3000	4000	5000
Rated Voltage [V]	690	590	520	460

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## 7. CONFORMITY

DSX range of product concerning switch-disconnectors exceed compliance with the IEC/EN standard 60947-1 and 60947-3 respectively. Certification available by IECEE CB-scheme. DSX respect the European Directives REACH, RoHS, RAEE.

*For specific information, please contact Legrand support.*

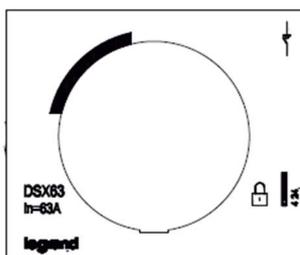
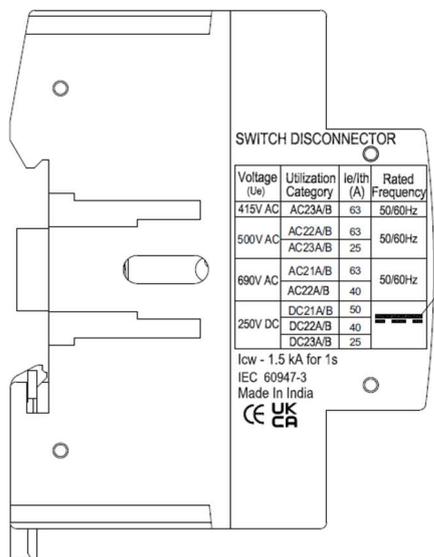
### 7.1 Marking

Product are provided with labelling in full conformity to the referred standard and directives requirements by laser or sticker labels (for illustrative purposes only) as:

#### Product laser label lateral and on front

- Denomination and type product
- Mark/Licence (if any)
- Directive requirements
- Made in
- Standard conformity

*Below markings images refer to Ref. 4 240 02 as an example, data marked on Frame 1 and Frame 2 may differ according to results coming from validation tests.*



#### Product sticker label on side

- Manufacturer responsible
- Denomination and type product
- Directive requirements
- QR code identification product
- Manufacturing Country
- EAN code and traceability code



#### Packaging sticker label

- Reference number
- Manufacturer responsible
- Denomination and type product
- Mark/Licence (if any)
- Directive requirements
- Bar code identification product
- Manufacturing Country
- Standard conformity



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## 8. EQUIPMENTS AND ACCESSORIES

### 8.1 Additional poles (neutral)

To be clipped onto left or right side of a 3-pole switch-disconnectors

Maximum 1 additional pole per switch

- Frame 1 & rated current  $I_n = 32A$  *ref. 4 242 04*
- Frame 1 & rated current  $I_n = 40A$  *ref. 4 242 05*
- Frame 1 & rated current  $I_n = 63A$  *ref. 4 242 06*
  
- Frame 2 & rated current  $I_n = 100A$  *ref. 4 242 19*
- Frame 2 & rated current  $I_n = 125A$  *ref. 4 242 20*
- Frame 2 & rated current  $I_n = 160A$  *ref. 4 242 21*

### 8.2 Auxiliary contacts

- Auxiliary contact Simultaneous (1 NO + 1 NC) *ref. 4 242 08*  
(Also usable with TSE's (transfer switch equipment))

Used to show the state of the contacts

Electrical characteristics: 5 A - 230 VA

Can be mounted on both sides of the switches: maximum 4 auxiliaries per switch (2 on each side)

### 8.3 Rotary handles (for front operation)

*Direct on DSX switch disconnector*

- Standard (black) *ref. 4 242 15*
- For emergency use (red / yellow) *ref. 4 242 16*

*Vari-depth handle IP54*

(Also usable with TSE's (transfer switch equipment))

Comprising: connection rod, bracket, self-adhesive drilling template, mounting accessories and door lock mechanism

Pad lockable in open position (up to 3 Ø 8 mm padlocks)

- Standard (black) *ref. 4 242 09*
- For emergency use (red/yellow) *ref. 4 242 10*

### 8.3 Sealable terminal shields (IP20)

(Also usable with TSE's (transfer switch equipment))

- Frame 1 & 1-pole switch *ref. 4 242 03*
- Frame 1 & 3-pole switch *ref. 4 242 02*
  
- Frame 2 & 1-pole switch *ref. 4 242 14*
- Frame 2 & 3-pole switch *ref. 4 242 13*

Data indicated in this document refers exclusively to test conditions according to product standards, unless otherwise indicated in the documentation.

For the different conditions of use of the product, inside electrical equipment or in any case inserted in the installation context, refer to the regulatory requirements of the equipment, local regulations, and design specifications of the system.