

DSX switch disconnecter Plate mounting

Cat.Nos : **424010 - 424011 - 424012 - 424013**
424014 - 424015 - 424020 - 424021
424022 - 424023 - 424024 - 424025



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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

Frame	I _n [A]	2P	3P	4P
1	63	424060	-	-
	80	424061	-	-
	100	424062	424010	424013
	125	424063	424011	424014
	160	424064	424012	424015
2	200	424065	424020	424023
	250	424066	424021	424024
	320	424067	424022	424025

3. TECHNICAL DATAS

■ 3.1 Category of use

Plate switch disconnecter - Size 1 and 2 2P		Frame 1 - 160A					Frame 2 - 320A		
DC 20 A/B	at 250V DC	63	80	100	125	160	200	250	320
DC 21 A/B		63	80	100	125	160	200	250	320
DC 22 A/B		63	80	100	125	160	200	250	320

Plate switch disconnecter - Size 1 and 2 3P-4P		Frame 1 - 160A			Frame 2 - 320A		
AC 20 A/B	at 415V AC	100	125	160	200	250	320
AC 21 A/B		100	125	160	200	250	320
AC 22 A/B		100	125	160	200	250	320
AC 23 A/B		100	125	160	200	250	320
AC 20 A/B	at 690V AC	100	125	160	200	250	320
AC 21 A/B		100	125	160	200	250	320
AC 22 A/B		100	125	160	200	250	320
AC 23 A/B		100	125	125	200	250	250

3. TECHNICAL DATAS (continued)

■ 3.1 Category of use (continued)

Plate switch disconnecter - Size 1 and 2 3P-4P		Frame 1 - 160A			Frame 2 - 320A		
DC 20 A/B	at 250V DC	100	125	160	200	250	320
DC 21 A/B		100	125	160	200	250	320
DC 22 A/B		100	125	160	200	250	320
DC 23 A/B		100	125	125	200	250	250

■ 3.2 Electrical and mechanical characteristics

Plate disconnectors - Size 1 and 2				
	Frame 1 - 160A		Frame 2 - 320A	
Rated operational current I_e	63A, 80A, 100A, 125A, 160A	100A, 125A, 160A	200A, 250A, 320A	200A, 250A, 320A
Number of poles	2P	3P - 4P	2P	3P-4P
Rated insulation voltage U_i (V)	1000	1000	1000	1000
Rated impulse withstand voltage U_{imp} (kV)	8	8	12	12
Dielectric strength 50 Hz 1 min (kV)	8	8	12	12
Rated operational voltage (AC) U_e (V)	-	690	-	690
Rated operational voltage (DC) U_e (V)	250	250	250	250
Short circuit making capacity I_{cm} peak (kA)	14	14	25	25
Rated frequency (Hz)	N/A	50 - 60	N/A	50-60
Maximal withstand peak current (while protection breaks short circuit) (kA)	10kA at 250V DC with DPX ³ 160A MCCB	25kA _{rms} at 415V with DPX ³ 160A MCCB 10kA _{rms} at 690V with DPX ³ 160A MCCB 10kA at 250VDC with DPX ³ 160A MCCB	10kA at 250V DC with DPX ³ 250A MCCB	50kA _{rms} at 415V with DPX ³ 630A MCCB 18kA _{rms} at 690V with DPX ³ 630A MCCB 35kA at 250V DC with DPX ³ 630A MCCB
Current admissible with fuse I_{cc} (kA)	-	50kA at 415V with Legrand gG type Fuse	-	100kA at 415V with Legrand gG type Fuse
Max. rating of fuse (gG - aM)	-	50kA at 415V	-	100kA at 415V
Power pole dissipation (at rated operational current) (W/pole)	0.5 at 63A 0.8 at 80A 1.2 at 100A 1.9 at 125A 3.3 at 160A	0.55 at 100A 0.70 at 125A 0.88 at 160A	1.4 at 200A 2.1 at 250A 3.4 at 320A	1.6 at 200A 2.0 at 250A 2.56 at 320A
Short time withstand current (1 s) I_{cw} (kA)	8	8	12.5	12.5
Mechanical endurance (No. of operations)	10000	10000	10000	10000
Electrical endurance (No. of operations) at U_e and I_e	2500	2500	1000	2500
Operating torque (Nm)	4.9	4.9	9	9
Reference Ambient temperature T_a (°C)	40/50	40/50	40/50	40/50
Operating temperature (range) (°C)	-50/+70	-50/+70	-50/+70	-50/+70
Temperature storage (range) (°C)	-50/+70	-50/+70	-50/+70	-50/+70
Terminal type	Extended	Extended	Extended	Extended
Terminal width (mm)	20	20	30	30
Terminal thickness (mm)	3	3	4	4
Terminal height (mm)	25	25	32,5	32,5
Bolt size (screw)	M8	M8	M10	M10
Maximal copper lug/bar connection mm	16 (for 63A) 25 (for 80A) 35 (for 100A) 50 (for 125A) 70 (for 160A)	35 (for 100A) 50 (for 125A) 70 (for 160A)	95 (for 200A) 120 (for 250A) 185 (for 320A)	95 (for 200A) 120 (for 250A) 185 (for 320A)

3. TECHNICAL DATAS (continued)

■ 3.2 Electrical and mechanical characteristics (continued)

Plate disconnectors - Size 1 and 2				
	Frame 1 - 160A		Frame 2 - 320A	
Maximal aluminium lug/bar connection mm	50 (for < 100A) 70 (for 125A) 120 (for 160A)	50 (for 100A) 70 (for 125A) 120 (for 160A)	150 (for 200A) 185 (for 250A) 240 (for 320A) 2x120 (for 320A)	150 (for 200A) 185 (for 250A) 240 (for 320A) 2x120 (for 320A)
Flexible cable (Cu) (mm²)	70	70	185	185
Rigid cable (Cu) (mm²)	95	95	240	240
Rigid cable (Al) (mm²)	2x70	2x70	2x120	2x120
Maximal copper (Cu) lug / bar size (thickness & width) (mm)	3/20	3/20	4/30	4/30
Maximal aluminium (Al) lug / bar size (thickness & width) (mm)	2x3/20	2x3/20	2x4/30	2x4/30
Overall Width - W (mm)	149	184 (3P) 219 (4P)	181	224.5 (3P) 268 (4P)
Overall Height -H (without terminals) (mm)	80	80	100	100
Overall Depth - D (mm)	74	74	86	86
Pole pitch (mm)	35	35	43.5	43.5
Fixation (horizontal) (mm)	132.5	167.5 (3P) 202.5 (4P)	161.5	205 (3P) 248.5 (4P)
Fixation (vertical) (mm)	64	64	80	80
Degree of protection device / with terminal shields	IP 20 - Standalone IP 30 - With Terminal Shield IP 40 - With Terminal Shield inside panel IP 55 - With Terminal Shield & VD Handle inside panel»			

■ 3.3 Deranting

According to IEC/EN 60947-1:

Temperature

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

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 switch disconnectors, degree 3, according to IEC/EN 60947-3.

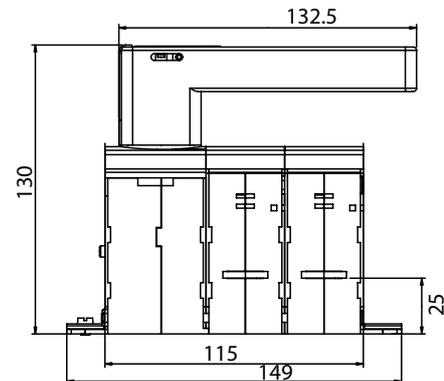
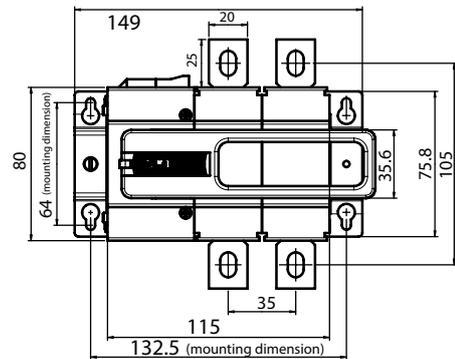
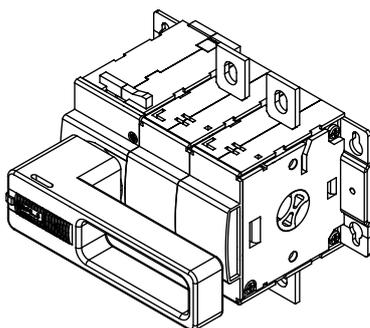
Altitude

Altitude (m)	2000	3000	4000
Rated voltage (V)	690	590	520

4. DIMENSIONS AND WEIGHT

Dimensions

Frontal, upper and lateral view (Frame 1 - 2 poles):

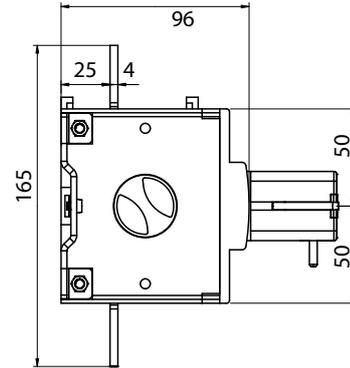
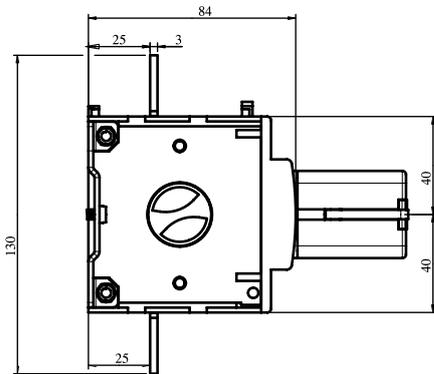


DSX switch disconnector
Plate mounting

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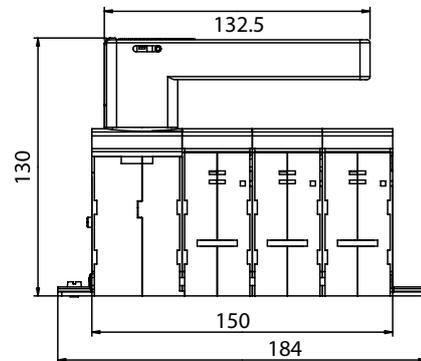
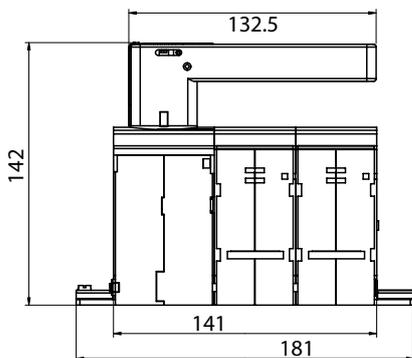
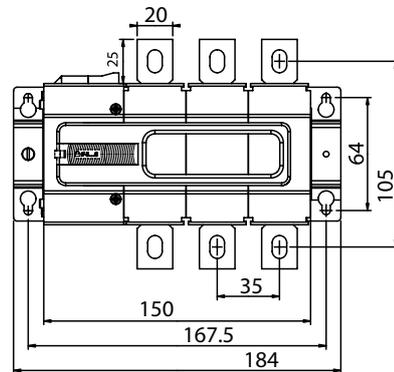
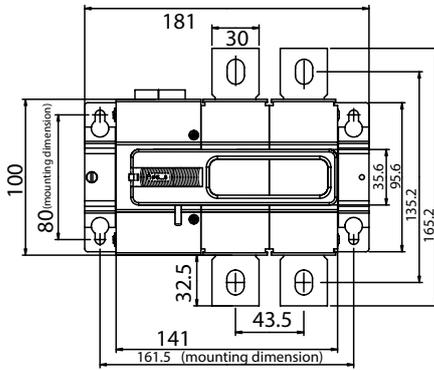
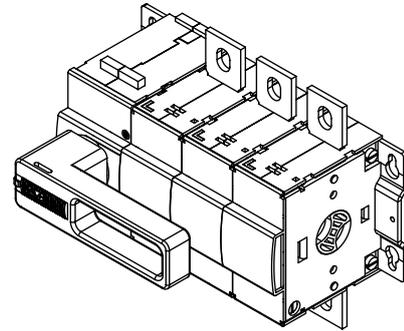
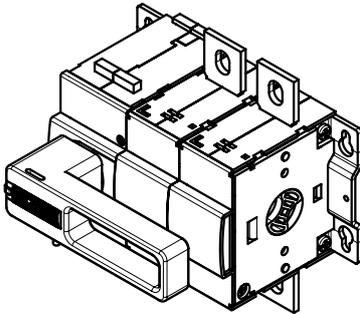
4. DIMENSIONS AND WEIGHT (continued)

Frontal, upper and lateral view (Frame 1 - 2 poles)



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

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

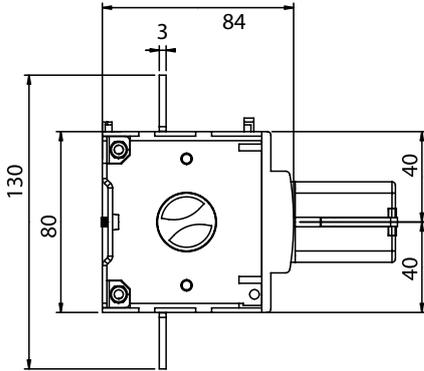


DSX switch disconnector
Plate mounting

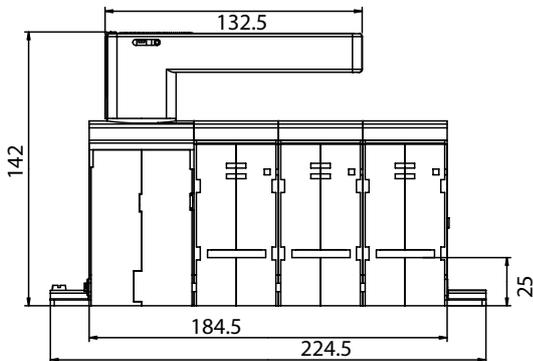
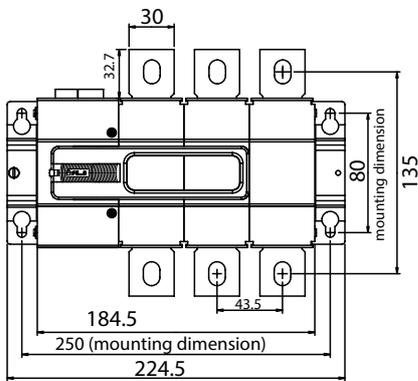
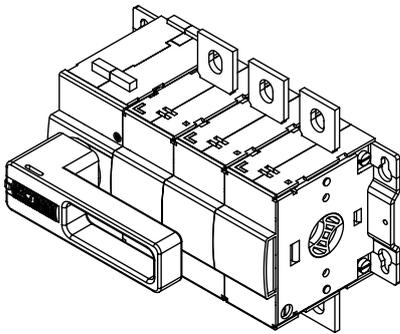
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4. DIMENSIONS AND WEIGHT (continued)

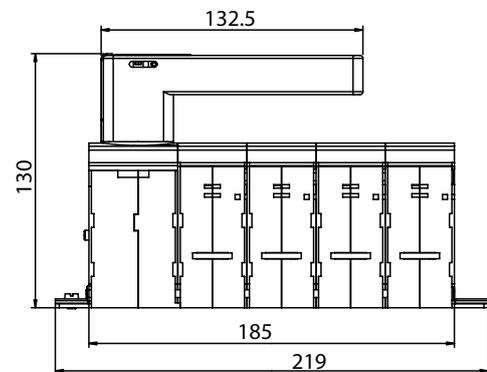
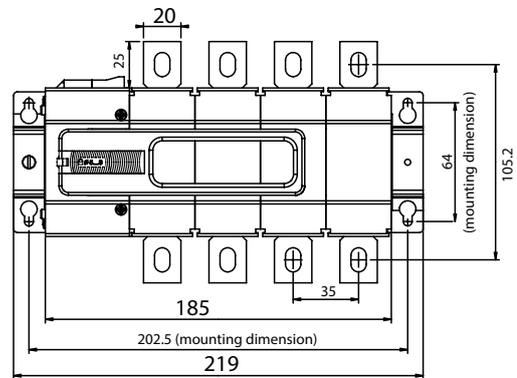
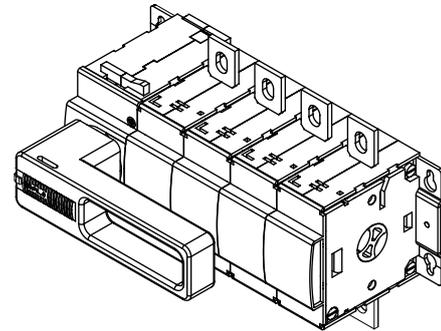
Frontal, upper and lateral view (Frame 1 - 3 poles):



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



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

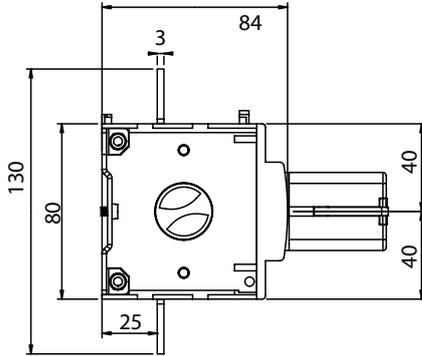


DSX switch disconnector Plate mounting

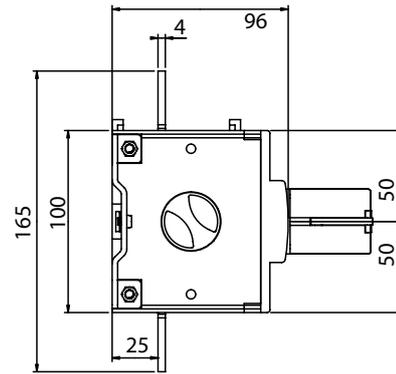
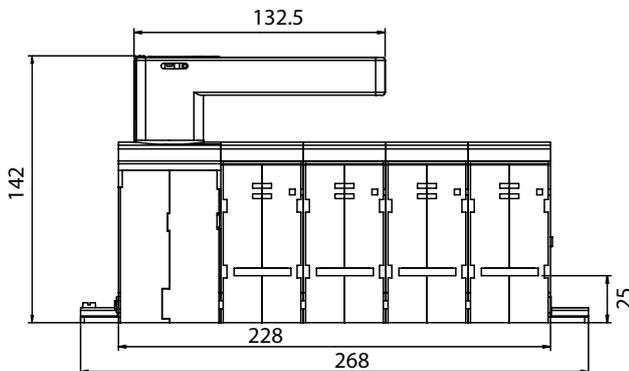
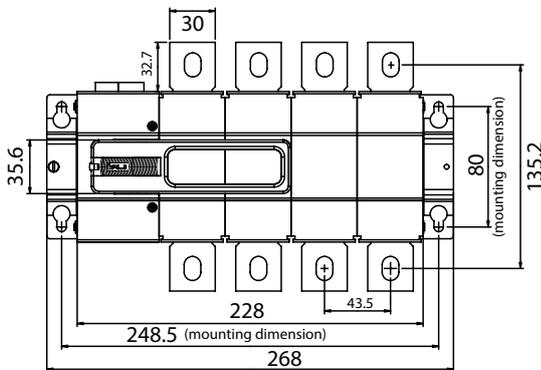
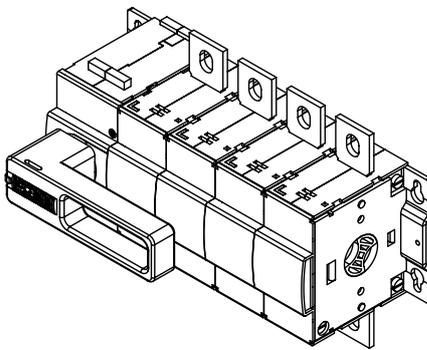
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4. DIMENSIONS AND WEIGHT (continued)

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



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



Weight (kg)

Without accessories

Frame	I_e	2 Poles	3 poles	4 poles
1	from 100A to 160A	0.87	1.2	1.5
2	from 200A to 320A	1.7	2.2	2.7

4.1 Supply material

All plate switch disconnector in Frame 1 and 2, do not need to have supplied material.

5. ELECTRICAL CONNECTIONS

5.1 Mounting possibilities

It is possible to mount the product on plate:

- vertically;
- horizontally;
- upside down;
- on the side.

For mounting procedures, see instruction sheet.

6. EQUIPMENTS AND ACCESSORIES

6.1 Auxiliary contacts

They are used to show the state of the contacts.
Maximum 2 auxiliaries per switch: 1 of each type.
Electrical characteristics: 5 A - 230VA.

- Early Make/Break auxiliary 4 (NO+NC) Cat.No 4 242 44
- Also usable with TSE's (transfer switch equipment)
- Simultaneous auxiliary 2 (NO+NC) Cat.No 4 242 45
- Also usable with TSE's (transfer switch equipment)

Auxiliary contact parameters:

	Values	
Electrical	Rated operational voltage (AC)	250V AC
	Rated operational voltage (DC)	80V DC
	Rated operational current (AC)	6A
	Rated operational current (DC)	0.1A
	Electrical endurance AC 50/60Hz (cycles)	2500 Operations
Ambient conditions	Reference ambient temperature	40/50
	Temperature storage	-25/+70
	Maximum altitude	2000m
Connections	Stranded wire cable	1 sq. mm Max

6. EQUIPMENTS AND ACCESSORIES (continued)

■ 6.2 Rotary handles (for front operation)

Padlockable in open position (up to 3 Ø8mm padlocks)
There are two types of rotary handle:

Direct on DSX switch disconnecter

Also usable with TSE's (transfer switch equipment)

- Standard (black) (Frame 1 and 2) Cat.No 4 242 30
- For emergency use (red / yellow) (Frame 1 and 2) Cat.No 4 242 32

Vari-depth handle IP 54

Also usable with TSE's (transfer switch equipment)
Supplied with: connection rod, bracket, selfadhesive drilling template, mounting accessories and door lock mechanism.

- Standard (black) (Frame 1 and 2) Cat.No 4 242 31
- For emergency use (Red/Yellow) (Frame 1 and 2) Cat.No 4 242 33

■ 6.3 Sealable terminal shields (IP 30)

They are usable with TSE's (transfer switch equipment).

- Frame 1 and 2-pole switch Cat.No 4 242 23
- Frame 1 and 3-pole switch Cat.No 4 242 46
- Frame 1 and 4-pole switch Cat.No 4 242 47

- Frame 2 and 2-pole switch Cat.No 4 242 22
- Frame 2 and 3-pole switch Cat.No 4 242 35
- Frame 2 and 4-pole switch Cat.No 4 242 36

■ 6.4 Locking accessory

Direct key lock Cat.No 4 242 34
Supplied with: key, barrel and mechanical support.

■ 6.5 Insulated shields

Insulated shields are made for isolating the connections between each pole. They are made of flexible thermoplastic – PVC.
They are also usable with TSE's (transfer switch equipment).

- Frame 1 and 3-pole switch (set of 2) Cat.No 4 242 50
- Frame 1 and 4-pole switch (set of 3) Cat.No 4 242 51

- Frame 2 and 3-pole switch (set of 2) Cat.No 4 242 42
- Frame 2 and 4-pole switch (set of 3) Cat.No 4 242 43

■ 6.6 Spreaders

Spreaders enable an easier connection of aluminium cables.
Incoming/outgoing spreaders are supplied with U clamps.

- Frame 1 and 3-pole switch (set of 3) Cat.No 4 242 53
- Frame 1 and 4-pole switch (set of 4) Cat.No 4 242 54

- Frame 2 and 3-pole switch (set of 3) Cat.No 4 242 37
- Frame 2 and 4-pole switch (set of 4) Cat.No 4 242 38

7. MARKING

Product are provided with labelling in full conformity to the referred standards and directives required by laser or sticker labels (for illustrative purposes only).

- Laser marking and pad printing Frame 1 - 2P/3P/4P

Side laser Marking

Voltage (U _e)	Utilization Category	I _n (mA)	I _{ow}
250DC	DC 22A	63	= 8 kA for 1s

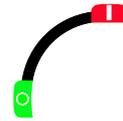
U_{imp} = 8 kV
U_i = 1000V
IEC 60947-3
Made in India 

Front Cover laser Marking

DSX160



legrand



- Laser marking and pad printing Frame 2 - 2P/3P/4P

Side laser Marking

Voltage (U _e)	Utilization Category	I _n (mA)	I _{ow}
250DC	DC 22A	200	= 12.5 kA for 1s

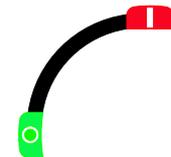
U_{imp} = 12 kV
U_i = 1000V
IEC 60947-3
Made in India 

Front Cover laser Marking

DSX320



legrand

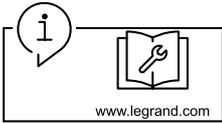


8. CONFORMITY

DSX range concerning switch-disconnectors exceed is compliant with the IEC/EN standard 60947-3. Certification available by IECCE CB-scheme or LOVAG Compliance scheme.

DSX range respects the European Directives REACH, RoHS, RAEE.

9. OTHER INFORMATION



Instruction sheet: detailed mounting procedures, available on e-catalog.

For specific information, please contact Legrand support.

Unless otherwise indicated, data reported in this document refers exclusively to test conditions according to product standards.

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