Panel mounting switches IEC 60947-3

Product Guide

- Rotary switches
- Switch-fuses & fuse-holders
- Switch-disconnectors
- Fused combination switches
- Knobs and handles

Flexible solutions for isolating and switching resistive or inductive loads

Eaton's Electrical operations

As a market-leading manufacturer of circuit protection and control equipment, Eaton's world leading switch and fuse-gear, circuit breaker and wiring accessory products are distributed across the globe. Incorporating the latest technological advances, Eaton products are the result of a comprehensive ongoing development programme and comply with the industry's most rigorous quality standards. This all serves to make Eaton an industry benchmark, with unsurpassed quality and performance guaranteed. This extensive product range, together with a lengthy experience and specialist knowledge serves to make Eaton your first source solutions provider.

Find out more on www.eatonelectrical.com

World-Class Support

At Eaton, our goal is to deliver world-class support as well as products.

This is why we continue to invest in our customer service capability to ensure you have easy access to the services you need, when you need them.

Integrated service strategy

Our integrated service strategy is based upon linking key locations and personnel along with a complete range of services to provide you "one-call" customer service.
A central support number allows you to access these support services by selecting the product group and service required. We then ensure it is quickly routed to a qualified support agent. The result is service that delivers you solutions … fast.
A single point of contact for all your enquiries is just one of the benefits you can look forward to as an Eaton customer.

Services Portfolio

Extensive support services

Our service strategy includes an extensive selection of technical and commercial services designed to help you specify, order and receive products quickly and efficiently.

Price & Availability
- Prompt Product Pricing
- Up-to-date stock availability

Order & Shipment status
- Order Checking and Status
- Shipment details

Technical Support
- "Over the phone" resolution
- Technical data assistance
- Selection and cross-reference

After Sales Support
- Debit/Credit note resolution
- Policy Returns support

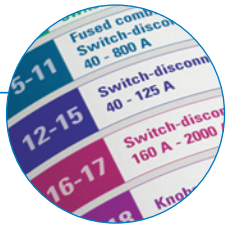
Project Co-Ordination
- Order tracking for Systems based orders
- On-site Project Management service
- Tailored Delivery service

Engineered Site Services
- Installation and Commissioning
- Maintenance and Service Solution support
- 24 hour "call out" emergency service

Distributor Product Training
- Individual or Group Product training forums
- Use of "In house" training facilities

How to use this Product Guide

Two steps to find your product



STEP 1

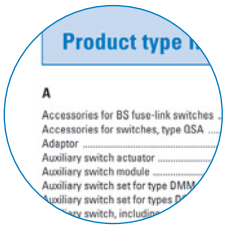
Choose main group

STEP 2

Choose list number

Indexes

Search by product name or list number.



Product type index

Eaton list number index

Legend

QPC = Quantity Per Carton

1P = 1-pole (SP)
1P+swN = 1-pole + switched neutral (SPSN)
1P+sldN = 1-pole + solid neutral (SPN)
2P = 2-pole (DP)
3P = 3-pole (TP)
3P+swN = 3-pole + switched neutral (TPSN)
3P+sldN = 3-pole + solid neutral (TPN)
4P = 4-pole (FP)

NO = Normally open
NC = Normally closed

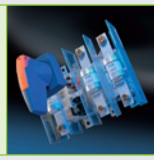
Function of coloured text bars:

Products

Accessories

Technical data, drawings & specifications

Product Guide index



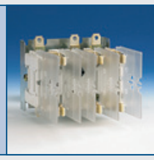






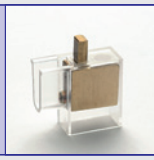
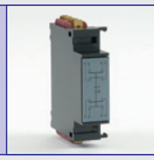




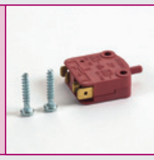
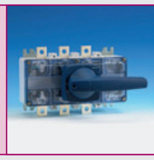
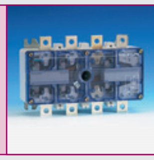







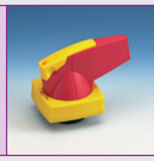











Eaton panel mounting switches, general

Flexible solutions for isolating and switching resistive or inductive loads

Eaton has earned a worldwide reputation for reliable, high quality switches and fuses – an area in which we are clear market leaders. Incorporating the latest technological advances, our switches are the result of a comprehensive ongoing development program and complies with the industry's most rigorous standards. This all serves to make Eaton an industry benchmark, with unsurpassed quality and performance guaranteed. Our extensive product range, together with our lengthy experience and specialist knowledge serves to make Eaton the only source for your panel mounting switches.

Switches for any application

This product guide contains high quality switches ideally suited to manufacturers of switchboards and motor control centres. Eaton's switches for panel mounting can be used for any type of load, including motor loads and capacitive loads. They can be applied for:
- All isolating and disconnecting applications such as incoming and outgoing feeders;
- Bus couplers in switchgear and control gear assemblies;
- Safety switches with interlocking facilities;
- Motor emergency switches in motor starter units.

Highly reliable

Eaton's panel mounting switches have been designed and tested for the following operation utilisation categories:
AC21 – Switching of resistive loads including moderate overloads;
AC22 – Switching of mixed resistive and inductive loads including moderate overloads;
AC23 – Switching of motor, or other highly inductive loads.

Dedicated technical support

It is recognised that connectivity and operation of the standard switch range will sometimes require that special or unique application considerations, to meet your needs. To help you select the right equipment and discuss your own particular application, Eaton offers the back up of a dedicated and experienced technical team to work with you.

Quality

Quality assurance is of paramount importance to all at Eaton. The quality and reliability demanded by the electrical installation industry is reflected both in the design of products as well as the level of customer service that is provided. Our manufacturing sites have stringent quality systems and are independently assessed and accredited to BS and ISO 9000 standards.

Type RSD, 25 A, 230 V_{ac}, 2P

Product range contains rotary switches, type RSD, 25 A, 230 V_{ac}, 2P

Standards
- Type RSD rotary switches comply with IEC 60947-3.
- Certification: KEMA-KEUR-approval.

Technical characteristics
- Semi-independant manual operating mechanism for ON and OFF.
- Silver-plated butt contacts.
- Corrosion-proof contact springs.
- Switch angle: 90°.
- High short circuit capacity.

See page 50 for technical details of rotary switches, type RSD.

1313207

Rotary switches, for screw fixing, without operating knob

■ ***Type RSD, 230 V_{ac}, 2P***

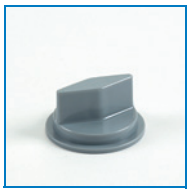
Description	Thermal current I_{the}	Pole configurations	Height (excl. knob)	Type	QPC	Eaton list number
Rotary switch	25 A	2P, screw version	54 mm	RSD 25	6	**1313207**
Rotary switch	25 A	2P, screw version	67 mm	RSD 25	6	**1313208**

1313209

Rotary switches, for DIN mounting rail, without operating knob

■ ***Type RSD, 230 V_{ac}, 2P***

Description	Thermal current I_{the}	Pole configurations	Height (excl. knob)	Type	QPC	Eaton list number
Rotary switch	25 A	2P, DIN mounting rail	54 mm	RSD 25	6	**1313209**
Rotary switch	25 A	2P, DIN mounting rail	67 mm	RSD 25	6	**1313210**



1055503

Operating knobs, without screw fixing

■ ***For rotary switches***

Description	Colour	Dimensions	QPC	Eaton list number
Operating knob, without screw fixing	grey	ø 30 mm	10	**1055503**
Operating knob, without screw fixing	grey	ø 40 mm	10	**1055504**
Operating knob, without screw fixing	green	ø 30 mm	10	**1055505** [1)]

[1)] For RCD protected groups, when applicable.

1313211

Operating knobs, with door coupling

■ ***For rotary switches***

Degree of protection IP 56 in accordance with IEC 10529

Description	QPC	Eaton list number
Operating knob, with doorcoupling	1	**1313211** [1)]

[1)] Set, comprising: 1 self-locating knob, 1 locking ring, 1 coupling shaft, 1 pressure ring. 5 x M3 screw with cylindricle head. Items packed in plastic bag.

1020728

Mounting strips

For rotary switches

Description	QPC	Eaton list number
For mounting of rotary switch type RSD on studs or mounting plate.	10	**1020728**

Type LSC, 25 - 100 A, 230 / 400 V_{ac}

The modular switch-disconnector type LSC can be applied in residential and utility applications.
Switch-disconnectors, type LSC are available at:
- 25, 40, 63, 80 and 100 A.
- 2P (230 V_{ac})
- 3P & 4P (400 V_{ac})

Standards
- Eaton switch-disconnectors type LSC, comply with IEC / EN 60947-3.
- Certification: KEMA-KEUR-approval.

Technical characteristics
- Utilisation category: AC-22 A.
- Suitable for DIN rail mounting.
- Operating by means of toggle operation.

See page 51 for technical details of modular switch-disconnector, type LSC, 25 - 100 A.

1815273

Switch-disconnectors, type LSC, 2 pole

■ ***Type LSC, 230 V_{ac}***

Description	Pole configuration	Current rating	Width	Type	QPC	Eaton list number
Switch-disconnector	2P	25 A	36 mm	LSC 25/2	1	**1815272**
Switch-disconnector	2P	40 A	36 mm	LSC 40/2	1	**1815273**
Switch-disconnector	2P	63 A	36 mm	LSC 63/2	1	**1815274**
Switch-disconnector	2P	80 A	36 mm	LSC 80/2	1	**1815281**
Switch-disconnector	2P	100 A	36 mm	LSC 100/2	1	**1815284**

1815277

Switch-disconnectors, type LSC, 3 pole

■ ***Type LSC, 400 V_{ac}***

Description	Pole configuration	Current rating	Width	Type	QPC	Eaton list number
Switch-disconnector	3P	25 A	54 mm	LSC 25/3	1	**1815275**
Switch-disconnector	3P	40 A	54 mm	LSC 40/3	1	**1815276**
Switch-disconnector	3P	63 A	54 mm	LSC 63/3	1	**1815277**
Switch-disconnector	3P	80 A	54 mm	LSC 80/3	1	**1815282**
Switch-disconnector	3P	100 A	54 mm	LSC 100/3	1	**1815285**

1815279

Switch-disconnectors, type LSC, 4 pole

■ ***Type LSC, 400 V_{ac}***

Description	Pole configuration	Current rating	Width	Type	QPC	Eaton list number
Switch-disconnector	4P	25 A	72 mm	LSC 25/4	1	**1815278**
Switch-disconnector	4P	40 A	72 mm	LSC 40/4	1	**1815279**
Switch-disconnector	4P	63 A	72 mm	LSC 63/4	1	**1815280**
Switch-disconnector	4P	80 A	72 mm	LSC 80/4	1	**1815283**
Switch-disconnector	4P	100 A	72 mm	LSC 100/4	1	**1815286**

Switch-fuses Pasco and fuse-holder Paco, DIN fuse-links

Typ LPC & PHM, 25 - 50 A, 230 V_{ac} / 400 V_{ac}

Pasco switches product range contains:
- 1P+switchedN, 2P+switchedN and 3P+switchedN configurations with 230 / 400 V_{ac}.

Paco fuse-holder product range contains:
- 1P configuration with 400 V_{ac}.

Standards
- Switch-fuses comply with IEC 60947-3.
- Certification: KEMA-KEUR-approval.

Technical characteristics
- Suitable for D-type DIN fuse-links.
- Double break poles per pole.
- Silverplated contacts.
- Stainless steel contact springs.
- Fuse-base contact is not live once fuse-link is removed.
- Terminals protected against accidental touch.
- High short circuit capacity.

See page 52 for the technical details of switch-fuses Pasco and fuse-holders Paco, DIN fuse-links.

Unique feature: neon-light indicates blown fuse

Switch-fuses Pasco and fuse-holders Paco have a unique feature. The switch-fuses and fuse-holders are equiped with a neon light that operates like a fuse-indicator. The neon-light turns from green to red when the fuse is blown, making it easy to spot a blown fuse from a distance by visual inspection of the neon light.

1713610

Switch-fuses Pasco

■ ***Type LPC, 25 - 50 A, DIN fuse-link, 230 V_{ac}***

Description	Fuse-holder size	Current rating	Pole configuration	Width	Type	QPC	Eaton list number
Switch-fuse Paco, DIN fuse-link	D II	25 A	1P+swN, incl. 16 A fuse	36 mm	LPC 25	1	**1713610**
Switch-fuse Paco, DIN fuse-link	D II	25 A	1P+swN	36 mm	LPC 25	1	**1713612**
Switch-fuse Paco, DIN fuse-link	D III	50 A	1P+swN	36 mm	LPC 63	1	**1713613**

1713616

Switch-fuses Pasco, cooker group

■ ***Type LPC, 25 A, DIN fuse-link, 230 V_{ac}***

Description	Fuse-holder size	Current rating	Pole configuration	Width	Type	QPC	Eaton list nummer
Switch-fuse Paco, for cooker group, DIN fuse-link	D II	25 A	2P+2swN	72 mm	LPC 25/2	1	**1713616**

1713617

Switch-fuses Pasco, power group

■ ***Type LPC, 25 - 50 A, DIN fuse-link, 230 / 400 V_{ac}***

Description	Fuse-holder size	Current rating	Pole configuration	Width	Type	QPC	Eaton list number
Switch-fuse Pasco, for power group, DIN fuse-link	D II	25 A	3P+swN	108 mm	LPC 25/3	1	**1713617**
Switch-fuse Pasco for power group, DIN fuse-link	D III	50 A	3P+swN	108 mm	LPC 63/3	1	**1713618**

1713611

Fuse-holder Paco

■ ***Type PHM, DIN fuse-link, 25 - 50 A, 400 V_{ac}***

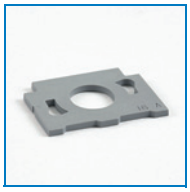
Description	Fuse-holder size	Current rating	Pole-configuration	Width	Type	QPC	Eaton list number
Fuse-holder Paco, DIN fuse-link	D II	25 A	1P, incl. 16 A fuse	36 mm	PHM 25	1	**1713611**
Fuse-holder Paco, DIN fuse-link	D II	25 A	1P	36 mm	PHM 25	1	**1713614**
Fuse-holder Paco, DIN fuse-link	D III	50 A	1P	36 mm	PHM 63	1	**1713615**

1012790, -794

Links between phase and neutral terminals for Pasco, fork, isolated

- Pole pitch: 36 mm.
- Can not be shortened.

Description	Type	QPC	Eaton list number
Links between phase and neutral terminals for Pasco	For 2 components	5	**1012790**
Links between phase and neutral terminals for Pasco	For 3 components	5	**1012791**
Links between phase and neutral terminals for Pasco	For 4 components	5	**1012792**
Links between phase and neutral terminals for Pasco	For 5 components	5	**1012793**
Links between phase and neutral terminals for Pasco	For 6 components	5	**1012794**



1713624

Fuse rating keying for Pasco and Paco

Description	Current rating	Fuse-holder size	Colour	QPC	Eaton list number
Fuse rating keying for Pasco and Paco	6 A	D II	Green	10	**1713622**
Fuse rating keying for Pasco and Paco	10 A	D II	Red	10	**1713623**
Fuse rating keying for Pasco and Paco	16 A	D II	Grey	10	**1713624**
Fuse rating keying for Pasco and Paco	20 A	D II	Blue	10	**1713625**
Fuse rating keying for Pasco and Paco	25 A	D II	Yellow	10	**1713626**
Fuse rating keying for Pasco and Paco	35 A	D III	Black	10	**1713627**
Fuse rating keying for Pasco and Paco	50 A	D III	White	10	**1713628**

1713629

Fuse rating keying mounting tool

- Mounting tool for connecting and releasing of fuse rating keying plate.

Description	QPC	Eaton list number
Mounting tool for fuse rating keying	1	**1713629**

1713607

Dummy draw for Pasco/Paco

- Draw for maintenance purposes. Details on request.
- Device with red front which is marked with Dutch text "Niet inschakelen, wordt aan gewerkt" (translated as: "Do no switch, work in progress")
- For safety reasons this device is not supplied with fuse-brackets.

Description	QPC	Eaton list number
Dummy draw for Pasco/Paco	1	**1713607**

Switch-disconnector-fuses, type QSA, general characteristics

Type QSA, 40 - 800 A, 690 V_{ac}

Type QSA flexible Fused Combination Switches (FCS) are different from S-line FCS in regards to specifications, dimensions, flexibility features and benefits. The product range contains 3P-configurations.
This chapter gives information on **standard DIN fuse-link and standard BS fuse-link, type QSA fused combination switches**.

Information on special type QSA fused combination switches is available on request.
The special switch product range contains plug units, side termination left or right or a combination of plug units and side termination.

Standards

- The range complies with IEC / EN 60947-3.
- Certification: KEMA-KEUR-approval (note: DIN fuse-link only up to 315 A), Lloyd's (LR), Veritas and CSA.

Technical characteristics

Type QSA switch-fuses are characterized by the following features:

- All standard switches have a 3-pole frame.
- Switches will accommodate BS or DIN fuse-links.
- Separate switched or bolted neutrals can be mounted to the switch on location.
- Totally enclosed compact housing made of creepage-proof, heat-resistant, insulation material.
- Spring-loaded silver-plated roller contacts.
- Independent manual operation.
- Double current interruption.
- Easy to install in any position.
- Optional solid or switched neutral pole.
- Optional side termination, left, right or both sides.
- Optional 3- or 4-pole plug-unit for direct mounting on busbars. Details available on request.

See page 15 for accessories of type QSA switch-disconnnector fuses.

Type QSA, 40 - 800 A, 690 V_{ac}

Type QSA flexible fused combination switches are different from S-line FCS in regards to specifications, dimensions, flexibility features and benefits. The product range contains 3P configurations (with optional switched and solid neutral).
This chapter gives information on **standard (DIN fuse-link) type QSA switches**.
Information on special QSA switches is available on request.

Standards

- The range complies with IEC 60947-3 and has KEMA-KEUR-approval up to 315 A, Lloyd's (LR), Veritas and CSA.
- Switches will accommodate DIN fuse-links.

See page 15 for accessories for type QSA fused combination switches.
See page 53 for technical details of switch-disconnector-fuses, type QSA.
See page 42 for K-line handles & shafts.

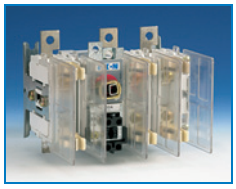
1320203

Switch-disconnector-fuses, frame size 0

■ ***Type QSA, 3P, 690 V_{ac}, DIN fuse-links***

Suitable for DIN fuse-links (blade contacts type).

Description	Thermal current I_{the}	Pole configuration	Frame size	Type	QPC	Eaton list number
Switch-disconnector-fuse, DIN fuse-link	40 A	3P	0	QSA 40N0-00/3	1	**1320201**
Switch-disconnector-fuse, DIN fuse-link	63 A	3P	0	QSA 63N0-00/3	1	**1320203**
Switch-disconnector-fuse, with pillars, DIN fuse-link	40 A	3P	0	QSA 40N0-00/3	1	**1320205**
Switch-disconnector-fuse, with pillars, DIN fuse-link	63 A	3P	0	QSA 63N0-00/3	1	**1320207**



1318033

Switch-disconnector-fuses, frame size 1

■ ***Type QSA, 3P, 690 V_{ac}, DIN fuse-links***

Suitable for DIN fuse-links (blade contacts type).

Description	Thermal current I_{the}	Pole configuration	Frame size	Type	QPC	Eaton list number
Switch-disconnector-fuse, DIN fuse-link	63 A	3P	1	QSA 63N1-00/3	1	**1318027**
Switch-disconnector-fuse, DIN fuse-link	100 A	3P	1	QSA 100N1-00/3	1	**1318546**
Switch-disconnector-fuse, DIN fuse-link	125 A	3P	1	QSA 125N1-00/3	1	**1318030**
Switch-disconnector-fuse, DIN fuse-link	160 A	3P	1	QSA 160N1-00/3	1	**1318033**

1318520

Switch-disconnector-fuses, frame size 2

■ ***Type QSA, 3P, 690 V_{ac}, DIN fuse-links***

Suitable for DIN fuse-links (blade contacts type).

Description	Thermal current I_{the}	Pole configuration	Frame size	Type	QPC	Eaton list number
Switch-disconnector-fuse, DIN fuse-link	160 A	3P	2	QSA 160N-00/3	1	**1318520**
Switch-disconnector-fuse, DIN fuse-link	200 A	3P	2	QSA 200N-2/3	1	**1318547**
Switch-disconnector-fuse, DIN fuse-link	250 A	3P	2	QSA 250N-2/3	1	**1318526**
Switch-disconnector-fuse, DIN fuse-link	315 A	3P	2	QSA 315N-2/3	1	**1318548**
Switch-disconnector-fuse, DIN fuse-link	400 A	3P	2	QSA 400N-2/3	1	**1318533** [1)]

[1)] In ventilated enclosure.

1318542

Switch-disconnector-fuses, frame size 3

■ *Type QSA, 3P, 690 V_{ac}, DIN fuse-links*

Suitable for DIN fuse-links (blade contacts type).

Description	Thermal current I_{the}	Pole configuration	Frame size	Type	QPC	Eaton list number
Switch-disconnector-fuse, DIN fuse-link	400 A	3P	3	QSA 400-3/3	1	**1318549**
Switch-disconnector-fuse, DIN fuse-link	630 A	3P	3	QSA 630-3/3	1	**1318542**
Switch-disconnector-fuse, DIN fuse-link	800 A	3P	3	QSA 800-3/3	1	**1318543** [1)]

[1)] I_{the} 750 A

Accessories for switches, type QSA

Additional accessories include safety handles with standard interlocking and padlocking facility, auxiliary switches, protective terminal covers and change-over mechanisms.
See chapter 8 Accessories for switch-disconnector-fuses for more information.

Shielding
Wide range of terminal covers, front and rear covers as well as fuse cassettes are available.

Knobs & handles
To optimise the application of different switch and handle mechanisms, without the burden of high inventories, the switches and handles are packaged and ordered as separate items.
A wide range of K-line handles is available for any application.
See chapter 16 K-line knobs & handles for different shafts with various lengths for type QSA switches.

Locking facilities for switches, type QSA

Locking to the switch mechanism is possible on frame size 1 switches.

Extended locking facilities are possible in combination with K-line handles.

Figure locking is possible with a special adaptor device. Ask for the details.

Type QSA, 40 - 630 A, 690 V_{ac}

Type QSA flexible fused combination switches are different from S-line FCS in regards to specifications, dimensions, flexibility features and benefits. Product range contains 3P configurations.
This chapter gives information on **standard (BS fuse-link) type QSA switches.**

Information on special QSA switches is available on request. The special switch product range contains plug units, side termination left or right or a combination of plug units and side termination.

Standards

- The range complies with IEC 60947-3 and has KEMA-KEUR-approval up to 315 A;
- Switches will accommodate BS 88 fuse-links.

See page 15 for accessories LQSA switch-disconnector- fuses.
See page 53 for technical details of switch-disconnector-fuses, type QSA.
See page 42 for K-line handles & shafts.

1320202

Switch-disconnector-fuses, frame size 0

Type QSA, 3P, 690 V_{ac}, BS fuse-links

Suitable for BS fuse-links (solid connection type)

Description	Thermal current I_{the}	Pole configurations	Frame size	Type	QPC	Eaton list number
Switch-disconnector-fuse, BS fuse-link	40 A	3P	0	QSA 40N0-A3/3	1	**1320200**
Switch-disconnector-fuse, BS fuse-link	63 A	3P	0	QSA 63N0-A3/3	1	**1320202**
Switch-disconnector-fuse, with pillars, BS fuse-link	40 A	3P	0	QSA 40N0-A3/3	1	**1320204**
Switch-disconnector-fuse, with pillars, BS fuse-link	63 A	3P	0	QSA 63N0-A3/3	1	**1320206**

1318011

Switch-disconnector-fuses, frame size 1

Type QSA, 3P, 690 V_{ac}, BS fuse-links

Suitable for BS (solid connection type) fuse-links

Description	Thermal current I_{the}	Pole configuration	Frame size	Type	QPC	Eaton list number
Switch-disconnector-fuse, BS fuse-link	63 A	3P	1	QSA 63N1-A3/3	1	**1318011**
Switch-disconnector-fuse, BS fuse-link	100 A	3P	1	QSA 100N1-A4/3	1	**1318016**
Switch-disconnector-fuse, BS fuse-link	125 A	3P	1	QSA 125N1-B2/3	1	**1318020**
Switch-disconnector-fuse, BS fuse-link	160 A	3P	1	QSA 160N1-B2/3	1	**1318023**

1319056

Switch-disconnector-fuses, frame size 2

Type QSA, 3P, 690 V_{ac}, BS fuse-link

Suitable for BS fuse-links (solid connection type)

Description	Thermal current I_{the}	Pole configuration	Frame size	Type	QPC	Eaton list number
Switch-disconnector-fuse, BS fuse-link	160 A	3P	2	QSA 160N-B2/3	1	**1319056**
Switch-disconnector-fuse, BS fuse-link	200 A	3P	2	QSA 200N-B2/3	1	**1319065**
Switch-disconnector-fuse, BS fuse-link	250 A	3P	2	QSA 250N-B4/3	1	**1319074**
Switch-disconnector-fuse, BS fuse-link	315 A	3P	2	QSA 315N-B4/3	1	**1319095**
Switch-disconnector-fuse, BS fuse-link	400 A	3P	2	QSA 400N-B4/3	1	**1319103** [1)]

[1)] In ventilated enclosure.

1318537

Switch-disconnector-fuses, frame size 3

■ *Type QSA, 3P, 690 V_{ac}, BS fuse-links*

Suitable for BS fuse-links (solid connection type)

Description	Thermal current I_{the}	Pole configuration	Frame size	Type	QPC	Eaton list number
Switch-disconnector-fuse, BS fuse-link	400 A	3P	3	QSA 400-C3/3	1	**1318537**
Switch-disconnector-fuse, BS fuse-link	630 A	3P	3	QSA 630-C3/3	1	**1318544**
Switch-disconnector-fuse, BS fuse-link	800 A	3P	3	QSA 800-C3/3	1	**1319175**

Accessories for switches, type QSA

Additional accessories include safety handles with standard interlocking and padlocking facility, auxiliary switches, protective terminal covers and change-over mechanisms.
See chapter 8 Accessories for switch-disconnector-fuses for more information.

Shielding
Wide range of terminal covers, front and rear covers as well as fuse cassettes are available.

Knobs & handles
To optimise the application of different switch and handle mechanisms, without the burden of high inventories, the switches and handles are packaged and ordered as separate items.
A wide range of K-line handles is available for any application.
See chapter 16 K-line knobs & handles for different shafts with various lengths for type QSA switches.

Locking facilities for switches, type QSA

Locking to the switch mechanism is possible on frame size 1 switches.

Extended locking facilities possible in combination with K-line handles.

Figure locking is possible with a special adaptor device. Ask for the details.

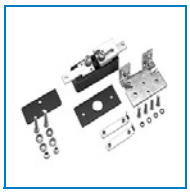
DIN and BS fuse-links

Additional accessories include safety handles with standard interlocking and padlocking facility, auxiliary switches, protective terminal covers and change-over mechanisms.

Shielding
Wide range of terminal covers, front and rear covers as well as fuse cassettes are available.

Knobs & handles
To optimise the application of different switch and handle mechanisms, without the burden of high inventories, the switches and handles are packaged and ordered as separate items.
A wide range of K-line handles is available for any application.

See page 61 for dimensional drawings of solid and switched neutrals.
See page 46 for shafts with various lengths for QSA switches.



1319460

Solid neutrals

Solid neutrals are designed for mounting on-site.

Description	Thermal current I_{the}	For switch-disconnector- fuse type	QPC	Eaton list number
Solid neutral	40 / 63 A	QSA 40N0 - QSA 63N0 - QSA 63N1	1	**1319460**
Solid neutral	100 /125 A	QSA 100N1 - QSA125N1	1	**1319466**
Solid neutral	160 A	QSA 160N1	1	**1319472**
Solid neutral	160 / 200 A	QSA 160N - QSA200N	1	**1319473**
Solid neutral	250 / 315 / 400 A	QSA 250N - QSA 315N - QSA 400N	1	**1319480**
Solid neutral	400 / 630 / 800 A	QSA 400 - QSA 630 - QSA 800	1	**1319486**

1319482

Switched neutrals

Switched neutrals are designed for mounting on-site.

Description	Thermal current I_{the}	For switch-disconnector-fuse type	QPC	Eaton list number
Switched neutral	40 / 63 A	QSA 40N0 - QSA 63N0 - QSA 63N1	1	**1319462**
Switched neutral	100 / 125 A	QSA 100N1 - QSA 125N1	1	**1319467**
Switched neutral	160 A	QSA 160N1	1	**1319474**
Switched neutral	160 / 200 A	QSA 160N - QSA 200N	1	**1319476**
Switched neutral	250 / 315 / 400 A	QSA 250N - QSA 315N - QSA 400N	1	**1319482**
Switched neutral	400 / 630 / 800 A	QSA 400 - QSA 630 - QSA 800	1	**1319662**

1319667

Auxiliary switches, including adaptor

- For mounting max 3 switches above each other (for more than 3 auxiliary switches contact Eaton).
- Auxiliary switches including adaptor.

Description	For switch-disconnector-fuse type	Number of contacts	QPC	Eaton list number
Auxiliary switch, including adaptor	For all QSA-types	1 NC +1 NO	1	**1319667** [1)]
Auxiliary switch, including adaptor	For all QSA-types	1 NO	1	**1319666** [1)]
Auxiliary switch, including adaptor	For all QSA-types	1 NC	1	**1319665** [1)]

[1)] For use with adaptor.

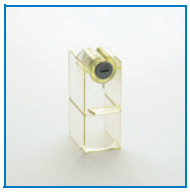
1319446

Auxiliary switches, without adaptor

Adaptors to be ordered seperately.
For auxiliary switches mounted on frame size 3 switch-disconnector-fuses, an actuator is needed (adaptor not required).

Description	For switch-disconnector-fuse type	Number of contacts	QPC	Eaton list number
Auxiliary switch, without adaptor	For all QSA types	1 NO	1	**1319446** [1)]
Auxiliary switch, without adaptor	For all QSA types	1 NC	1	**1319444** [1)]

[1)] For auxiliary switches mounted on frame size 3 switch-disconnector-fuses, an switch-actuator is needed (adaptor not required).



1319411

Terminal covers, 1P (transparant)

For QSA types

- Terminal cover for cable lugs on connection terminals of QSA types.

Description	For switch-disconnector- type	Bolt	QPC	Eaton list number
Terminal cover for cable lugs on connection terminal (transparent)	QSA 40N0, QSA 63N0, QSA 100N1, QSA 125N1	M6	1	**1319409**
Terminal cover for cable lugs on connection terminal (transparent)	QSA 160N1, QSA 160N, QSA 200N (BS)	M8	1	**1319411**
Terminal cover for cable lugs on connection terminal (transparent)	QSA 200N (DIN) - QSA 250N, QSA 315N, QSA 400N	M10	1	**1319413**
Terminal cover for cable lugs on connection terminal (transparent)	QSA 400, QSA 630, QSA 800	M12	1	**1319415**

1318362

Adaptor

Description	QPC	Eaton list number
Adaptor for switch-disconnector fuse (bag of 25 pieces)	1	**1318362**

1319796

Auxiliary switch actuator

Description	QPC	Eaton list number
Auxiliary switch-actuator for frame size 3	1	**1319796** [1)]

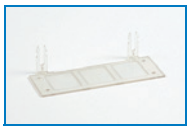
[1)] To be used in combination with shaft with Eaton list nr. 1319331.
For auxiliary switches on switch-disconnectors frame size 3 a switch-actuator is needed.

1319439

Rear cover, 1P, for switch-disconnector-fuse

Rear cover to shield live parts on rear of switch-disconnector-fuse.

Description	Pole configuration	For switch-disconnector fuse type	QPC	Eaton list number
Rear cover, for switch-disconnector-fuse	1P	QSA 63N1-00/3, QSA 63N1-A3/3 QSA 100N1-A4/3, QSA 125N1-00/3QSA 125N1-B2/3, QSA 160N1-B2/3, QSA 160 N1-00/3	1	**1319439**
Rear cover, for switch-disconnector-fuse	1P	QSA 160N-00/3, QSA 160N-B2/3, QSA 200N-2/3 QSA 200N-B2/3, QSA 250N-2/3, QSA 250N-B4/3, QSA 315-2/3, QSA 315N-B4/3, QSA 400N-B4/3	1	**1319441**

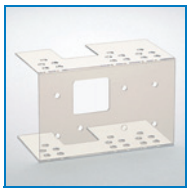


1319432

Terminal covers, 3P (transparent)

For cable lugs on connection terminals of QSA-types.

Description	For pole-configuration	For switch-disconnector-fuse type	QPC	Eaton list number
Terminal cover (transparent)	3P	QSA 40N0, QSA 63N0	1	**1320239**
Terminal cover (transparent)	3P	QSA 63N1, QSA 100N1, QSA 125N1, QSA 160N1	1	**1319432**
Terminal cover (transparent)	3P	QSA 160N, QSA 200N, QSA 250N, QSA 315N, QSA 400N	1	**1319418**



1319435

Front cover (transparent) for switch-disconnector-fuse

To shield live parts on front of switch-disconnector-fuse.

Description	For switch-disconnector fuse type	QPC	Eaton list number
Front cover for switch-disconnector fuse (transparent)	QSA 40N0, QSA 63N0, QSA 63N1, QSA 100N1-00/3	1	**1320237**
Front cover for switch-disconnector fuse (transparent)	QSA 63N1-00/3, QSA100N1-00/3, QSA 125N1-00/3	1	**1319435**
Front cover for switch-disconnector fuse (transparent)	QSA 160N1-00/3	1	**1318476**
Front cover for switch-disconnector fuse (transparent)	QSA 100N1-A4/3	1	**1319423**
Front cover for switch-disconnector fuse (transparent)	QSA 125N1-B2/3, QSA 160N1-B2/3	1	**1319438**
Front cover for switch-disconnector fuse (transparent))	QSA 160N, QSA 200N, QSA 250N, QSA 315N, QSA 400N	1	**1319429**
Front cover for switch-disconnector fuse (transparent)	QSA 400, QSA 600, QSA 800	1	**1319426**

1319417

Rear cover, for switch-disconnector-fuse

Rear cover to shield live parts on rear of switch-disconnector-fuse.

Description	For switch-disconnector fuse type	QPC	Eaton list number
Rear cover for switch-disconnector-fuse	QSA 400-3/3, QSA 400-C3/3, QSA 630-3/3. QSA 630-C3/3, QSA 800-C3/3	1	**1319417**

Fused combination switches, S-line, general characteristics

The S-line Fused combination switches (FCS) represents a complete range of standard and special switches. Six compact frame sizes cover nominal ratings from 32 to 800 A.

The product range comprises:
a) Standard operation switches;
b) Switches with side operation
c) Change-over switches;
d) Standard operation test switches;

Additional accessories include safety handles, extended shafts, auxiliary switches, push in terminal plugs, etc. (see chapter 11).

Standards
The range complies with BS-EN 60947-3, VDE 0660 has KEMA-KEUR- approval and has also been ASTA certified to category of duty AC 23.

Application area
All distribution and motor control applications.

Technical characteristics
- Each Fused combination switch and switch-disconnector has been designed to provide a high performance switch rating in both distribution (AC 22) and motor control (AC 23) applications.
- Units will accommodate BS 88- and DIN fuse-links.
- All switches are designed for base mounting;
- Switches are available in:
  - 1-pole + switched N (1P+swN)
  - 1-pole + bolted N (1P+sldN)
  - 3-pole (3P)
  - 3-pole + solid neutral (3P+sldN)
  - 3-pole + switched neutral (3P+swN);
- Operating mechanisms are on the right side of the switch;
- Each S-line FCS switch is provided as standard with an IP 54 black handle and operating shaft;
- Clear 'ON' and 'OFF' is provided and up to 3 padlocks may be fitted in the 'OFF' position;
- IP 65 handles are available on request.

Handles and shafts
- Door interlocking in the 'ON' position is defeatable to enable access in emergencies;
- Operating shafts have flexible arrowheads to aid handle alignment and panel depth adjustment;
- Special handles with "test" position indication are available.

Neutrals
- Solid or switched neutrals are situated next to the switch mechanism. Units can be supplied with neutrals positioned at the furthest pole position from the mechanism. Suffix order references /D1. Neutrals on the left side.

Figure locking device
- Special cam to be mounted to the shaft for adaptation to Castell or Fortress figure locks.

Mechanism padlocking device
- To lock switch in "OFF" position when enclosure is open.

32 - 800 A, BS fuse-links

The S-line fused combination switches (FCS) represents a complete range of standard and special switches. Six compact frame sizes cover nominal ratings from 32 to 800 A.

Standards

The range complies with BS-EN 60947-3, VDE 0660 has KEMA-KEUR- approval and has also been ASTA certified to category of duty AC 23.

See page 63 for the technical details of Fused combination switches, S-line.

63S1N63

Standard operation - BS fuse-link, 1P + solid N

Description	Enclosed rating I_{th}	Pole configurations	Frame size	BS fuse-link	QPC	Eaton list number
Fused combination switch - Standard operation	32 A	1P+sldN	1	A1	1	**32S1N32**
Fused combination switch - Standard operation	63 A	1P+sldN	1	A2	1	**63S1N63**
Fused combination switch - Standard operation	63 A	1P+sldN	2	A3	1	**63S1N45**
Fused combination switch - Standard operation	100 A	1P+sldN	2	A3	1	**100S1N63**
Fused combination switch - Standard operation	100 A	1P+sldN	2	A3	1	**100S1N100**
Fused combination switch - Standard operation	125 A	1P+sldN	3	A4	1	**125S1N125**
Fused combination switch - Standard operation	160 A	1P+sldN	3	A4	1	**200S1N160**
Fused combination switch - Standard operation	200 A	1P+sldN	4	B2	1	**200S1N200**

32S1SN32

Standard operation - BS fuse-link, 1P + switched N

Description	Enclosed rating I_{th}	Pole configurations	Frame size	BS fuse-link	QPC	Eaton list number
Fused combination switch - Standard operation	32 A	1P+swN	1	A1	1	**32S1SN32**
Fused combination switch - Standard operation	63 A	1P+swN	1	A2	1	**63S1SN63**
Fused combination switch - Standard operation	63 A	1P+swN	2	A3	1	**63S1SN45**
Fused combination switch - Standard operation	100 A	1P+swN	2	A3	1	**100S1SN63**
Fused combination switch - Standard operation	100 A	1P+swN	2	A3	1	**100S1SN100**
Fused combination switch - Standard operation	125 A	1P+swN	3	A4	1	**125S1SN125**
Fused combination switch - Standard operation	160 A	1P+swN	3	A4	1	**200S1SN160**
Fused combination switch - Standard operation	200 A	1P+swN	4	B2	1	**200S1SN200**

32S332

Standard operation - BS fuse-link, 3P

Description	Enclosed rating I_{th}	Pole configurations	Frame size	BS fuse-link	QPC	Eaton list number
Fused combination switch - Standard operation	32 A	3P	1	A1	1	**32S332**
Fused combination switch - Standard operation	63 A	3P	1	A2	1	**63S363**
Fused combination switch - Standard operation	63 A	3P	2	A3	1	**63S345**
Fused combination switch - Standard operation	100 A	3P	2	A3	1	**100S363**
Fused combination switch - Standard operation	100 A	3P	2	A3	1	**100S3100**
Fused combination switch - Standard operation	125 A	3P	3	A4	1	**125S3125**
Fused combination switch - Standard operation	160 A	3P	3	A4	1	**200S3160**
Fused combination switch - Standard operation	200 A	3P	4	B2	1	**200S3200**
Fused combination switch - Standard operation	220 A	3P	4a	B3	1	**250S3250**
Fused combination switch - Standard operation	315 A	3P	4b	B4	1	**315S3315**
Fused combination switch - Standard operation	400 A	3P	5	B4	1	**400S3400**
Fused combination switch - Standard operation	630 A	3P	6	C3	1	**630S3630**
Fused combination switch - Standard operation	800 A	3P	6	C3	1	**800S3710**

32S3N32

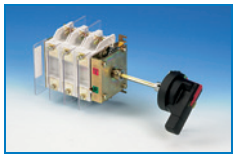
Standard operation - BS fuse-link, 3P + solid N

Description	Enclosed rating I_{th}	Pole configurations	Frame size	BS fuse-link	QPC	Eaton list number
Fused combination switch - Standard operation	32 A	3P+sldN	1	A1	1	**32S3N32**
Fused combination switch - Standard operation	63 A	3P+sldN	1	A2	1	**63S3N63**
Fused combination switch - Standard operation	63 A	3P+sldN	2	A3	1	**63S3N45**
Fused combination switch - Standard operation	100 A	3P+sldN	2	A3	1	**100S3N63**
Fused combination switch - Standard operation	100 A	3P+sldN	2	A3	1	**100S3N100**
Fused combination switch - Standard operation	125 A	3P+sldN	3	A4	1	**125S3N125**
Fused combination switch - Standard operation	160 A	3P+sldN	3	A4	1	**200S3N160**
Fused combination switch - Standard operation	200 A	3P+sldN	4	B2	1	**200S3N200**
Fused combination switch - Standard operation	220 A	3P+sldN	4a	B3	1	**250S3N250**
Fused combination switch - Standard operation	315 A	3P+sldN	4b	B4	1	**315S3N315**
Fused combination switch - Standard operation	400 A	3P+sldN	5	B4	1	**400S3N400**
Fused combination switch - Standard operation	630 A	3P+sldN	6	C3	1	**630S3N630**
Fused combination switch - Standard operation	800 A	3P+sldN	6	C3	1	**800S3N710**

32S3SN32

Standard operation - BS fuse-link, 3P + switched N

Description	Enclosed Rating I_{the}	Pole configurations	Frame size	BS fuse-link	QPC	Eaton list number
Fused combination switch - Standard operation	32 A	3P+swN	1	A1	1	**32S3SN32**
Fused combination switch - Standard operation	63 A	3P+swN	1	A2	1	**63S3SN63**
Fused combination switch - Standard operation	63 A	3P+swN	2	A3	1	**63S3SN45**
Fused combination switch - Standard operation	100 A	3P+swN	2	A3	1	**100S3SN63**
Fused combination switch - Standard operation	100 A	3P+swN	2	A3	1	**100S3SN100**
Fused combination switch - Standard operation	125 A	3P+swN	3	A4	1	**125S3SN125**
Fused combination switch - Standard operation	160 A	3P+swN	3	A4	1	**200S3SN160**
Fused combination switch - Standard operation	200 A	3P+swN	4	B2	1	**200S3SN200**
Fused combination switch - Standard operation	220 A	3P+swN	4a	B3	1	**250S3SN250**
Fused combination switch - Standard operation	315 A	3P+swN	4b	B4	1	**315S3SN315**
Fused combination switch - Standard operation	400 A	3P+swN	5	B4	1	**400S3SN400**
Fused combination switch - Standard operation	630 A	3P+swN	6	C3	1	**630S3SN630**
Fused combination switch - Standard operation	800 A	3P+swN	6	C3	1	**800S3SN710**



63SM345

Side operation - BS fuse-link, 3P

Description	Enclosed rating I_{th}	Pole configurations	Frame size	BS fuse-link	QPC	Eaton list number
Fused combination switch - Side operation	32 A	3P	1	A1	1	**32SM332**
Fused combination switch - Side operation	63 A	3P	1	A2	1	**63SM363**
Fused combination switch - Side operation	63 A	3P	2	A3	1	**63SM345**
Fused combination switch - Side operation	100 A	3P	2	A3	1	**100SM363**
Fused combination switch - Side operation	100 A	3P	2	A3	1	**100SM3100**
Fused combination switch - Side operation	125 A	3P	3	A4	1	**125SM3125**
Fused combination switch - Side operation	160 A	3P	3	A4	1	**200SM3160**

63SM3N45

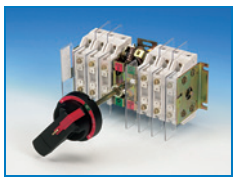
Side operation - BS fuse-link, 3P + solid N

Description	Enclosed rating I_{th}	Pole configurations	Frame size	BS fuse-link	QPC	Eaton list number
Fused combination switch - Side operation	32 A	3P+sldN	1	A1	1	**32SM3N32**
Fused combination switch - Side operation	63 A	3P+sldN	1	A2	1	**63SM3N63**
Fused combination switch - Side operation	63 A	3P+sldN	2	A3	1	**63SM3N45**
Fused combination switch - Side operation	100 A	3P+sldN	2	A3	1	**100SM3N63**
Fused combination switch - Side operation	100 A	3P+sldN	2	A3	1	**100SM3N100**
Fused combination switch - Side operation	125 A	3P+sldN	3	A4	1	**125SM3N125**
Fused combination switch - Side operation	160 A	3P+sldN	3	A4	1	**200SM3N160**

63SM3SN45

Side operation - BS fuse-link, 3P + switched N

Description	Enclosed rating I_{th}	Pole configurations	Frame size	BS fuse-link	QPC	Eaton list number
Fused combination switch - Side operation	32 A	3P+swN	1	A1	1	**32SM3SN32**
Fused combination switch - Side operation	63 A	3P+swN	1	A2	1	**63SM3SN63**
Fused combination switch - Side operation	63 A	3P+swN	2	A3	1	**63SM3SN45**
Fused combination switch - Side operation	100 A	3P+swN	2	A3	1	**100SM3SN63**
Fused combination switch - Side operation	100 A	3P+swN	2	A3	1	**100SM3SN100**
Fused combination switch - Side operation	125 A	3P+swN	3	A4	1	**125SM3SN125**
Fused combination switch - Side operation	160 A	3P+swN	3	A4	1	**200SM3SN160**



32SC332

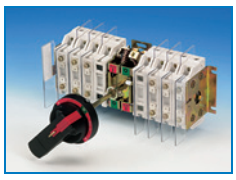
Change-over switches, BS fuse-link, 3P

Description	Enclosed rating I_{th}	Pole configurations	Frame size	BS fuse-link	QPC	Eaton list number
Fused combination switch - Change-over switches	32 A	3P	1	A1	1	**32SC332**
Fused combination switch - Change-over switches	63 A	3P	1	A2	1	**63SC363**
Fused combination switch - Change-over switches	63 A	3P	2	A3	1	**63SC345**
Fused combination switch - Change-over switches	100 A	3P	2	A3	1	**100SC363**
Fused combination switch - Change-over switches	100 A	3P	2	A3	1	**100SC3100**
Fused combination switch - Change-over switches	125 A	3P	3	A4	1	**125SC3125**
Fused combination switch - Change-over switches	160 A	3P	3	A4	1	**200SC3160**
Fused combination switch - Change-over switches	200 A	3P	4	B2	1	**200SC3200**
Fused combination switch - Change-over switches	220 A	3P	4a	B3	1	**250SC3250**
Fused combination switch - Change-over switches	315 A	3P	4b	B4	1	**315SC3315**
Fused combination switch - Change-over switches	345 A	3P	4b	B4	1	**400SC3400**

100SC3N63

Change-over switches, BS fuse-link, 3P + solid N

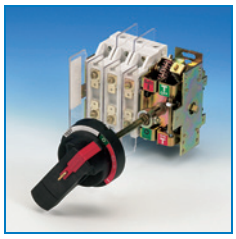
Description	Enclosed Rating I_{the}	Pole configurations	Frame size	BS fuse-link	QPC	Eaton list number
Fused combination switch - Change-over switches	32 A	3P+sldN	1	A1	1	**32SC3N32**
Fused combination switch - Change-over switches	63 A	3P+sldN	1	A2	1	**63SC3N63**
Fused combination switch - Change-over switches	63 A	3P+sldN	2	A3	1	**63SC3N45**
Fused combination switch - Change-over switches	100 A	3P+sldN	2	A3	1	**100SC3N63**
Fused combination switch - Change-over switches	100 A	3P+sldN	2	A3	1	**100SC3N100**
Fused combination switch - Change-over switches	125 A	3P+sldN	3	A4	1	**125SC3N125**
Fused combination switch - Change-over switches	160 A	3P+sldN	3	A4	1	**200SC3N160**
Fused combination switch - Change-over switches	200 A	3P+sldN	4	B2	1	**200SC3N200**
Fused combination switch - Change-over switches	220 A	3P+sldN	4a	B3	1	**250SC3N250**
Fused combination switch - Change-over switches	315 A	3P+sldN	4b	B4	1	**315SC3N315**
Fused combination switch - Change-over switches	345 A	3P+sldN	4b	B4	1	**400SC3N400**



32SC3SN32

Change-over switches, BS fuse-link, 3P + switched N

Description	Enclosed Rating I_{the}	Pole configurations	Frame size	BS fuse-link	QPC	Eaton list number
Fused combination switch - Change-over switches	32 A	3P+swN	1	A1	1	**32SC3SN32**
Fused combination switch - Change-over switches	63 A	3P+swN	1	A2	1	**63SC3SN63**
Fused combination switch - Change-over switches	63 A	3P+swN	2	A3	1	**63SC3SN45**
Fused combination switch - Change-over switches	100 A	3P+swN	2	A3	1	**100SC3SN63**
Fused combination switch - Change-over switches	100 A	3P+swN	2	A3	1	**100SC3SN100**
Fused combination switch - Change-over switches	125 A	3P+swN	3	A4	1	**125SC3SN125**
Fused combination switch - Change-over switches	160 A	3P+swN	3	A4	1	**200SC3SN160**
Fused combination switch - Change-over switches	200 A	3P+swN	4	B2	1	**200SC3SN200**
Fused combination switch - Change-over switches	220 A	3P+swN	4a	B3	1	**250SC3SN250**
Fused combination switch - Change-over switches	315 A	3P+swN	4b	B4	1	**315SC3SN315**
Fused combination switch - Change-over switches	345 A	3P+swN	4b	B4	1	**400SC3SN400**



32ST332

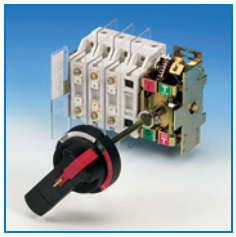
Standard operation test switches - BS fuse-link, 3P

Description	Enclosed Rating I_{the}	Pole confi-gurations	Frame size	BS fuse-link	QPC	Eaton list number
Fused combination switch - Standard operation test switch	32 A	3P	1	A1	1	**32ST332**
Fused combination switch - Standard operation test switch	63 A	3P	1	A2	1	**63ST363**
Fused combination switch - Standard operation test switch	63 A	3P	2	A3	1	**63ST345**
Fused combination switch - Standard operation test switch	100 A	3P	2	A3	1	**100ST363**
Fused combination switch - Standard operation test switch	100 A	3P	2	A3	1	**100ST3100**
Fused combination switch - Standard operation test switch	125 A	3P	3	A4	1	**125ST3125**
Fused combination switch - Standard operation test switch	160 A	3P	3	A4	1	**200ST3160**
Fused combination switch - Standard operation test switch	200 A	3P	4	B2	1	**200ST3200**
Fused combination switch - Standard operation test switch	220 A	3P	4a	B3	1	**250ST3200**
Fused combination switch - Standard operation test switch	315 A	3P	4b	B4	1	**315ST3315**
Fused combination switch - Standard operation test switch	345 A	3P	4b	B4	1	**400ST3400**

63ST3N63

Standard operation test switches - BS fuse-link, 3P + solid N

Description	Enclosed rating I_{the}	Pole confi-gurations	Frame size	BS fuse-link	QPC	Eaton list number
Fused combination switch - Standard operation test switch	32 A	3P+sldN	1	A1	1	**32ST3N32**
Fused combination switch - Standard operation test switch	63 A	3P+sldN	1	A2	1	**63ST3N63**
Fused combination switch - Standard operation test switch	63 A	3P+swN	2	A3	1	**63ST3SN45**
Fused combination switch - Standard operation test switch	100 A	3P+sldN	2	A3	1	**100ST3N63**
Fused combination switch - Standard operation test switch	100 A	3P+sldN	2	A3	1	**100ST3N100**
Fused combination switch - Standard operation test switch	125 A	3P+sldN	3	A4	1	**125ST3N125**
Fused combination switch - Standard operation test switch	160 A	3P+sldN	3	A4	1	**200ST3N160**
Fused combination switch - Standard operation test switch	200 A	3P+sldN	4	B2	1	**200ST3N200**
Fused combination switch - Standard operation test switch	220 A	3P+sldN	4a	B3	1	**250ST3N200**
Fused combination switch - Standard operation test switch	315 A	3P+sldN	4b	B4	1	**315ST3N315**
Fused combination switch - Standard operation test switch	345 A	3P+sldN	4b	B4	1	**400ST3N400**



32ST3SN32

Standard operation test switches - BS fuse-link, 3P + switched N

Description	Enclosed rating I_{the}	Pole confi-gurations	Frame size	BS fuse-link	QPC	Eaton list number
Fused combination switch - Standard operation test switch	32 A	3P+swN	1	A1	1	**32ST3SN32**
Fused combination switch - Standard operation test switch	63 A	3P+swN	1	A2	1	**63ST3SN63**
Fused combination switch - Standard operation test switch	63 A	3P+swN	2	A3	1	**63ST3SN45**
Fused combination switch - Standard operation test switch	100 A	3P+swN	2	A3	1	**100ST3SN63**
Fused combination switch - Standard operation test switch	100 A	3P+swN	2	A3	1	**100ST3SN100**
Fused combination switch - Standard operation test switch	125 A	3P+swN	3	A4	1	**125ST3SN125**
Fused combination switch - Standard operation test switch	160 A	3P+swN	3	A4	1	**200ST3SN160**
Fused combination switch - Standard operation test switch	200 A	3P+swN	4	B2	1	**200ST3SN200**
Fused combination switch - Standard operation test switch	220 A	3P+swN	4a	B3	1	**250ST3SN200**
Fused combination switch - Standard operation test switch	315 A	3P+swN	4b	B4	1	**315ST3SN315**
Fused combination switch - Standard operation test switch	345 A	3P+swN	4b	B4	1	**400ST3SN400**

See end of chapter for overview of permissable accessory configurations.


3SHN

Safety handles

For S-line switches

Description	Frame sizes	QPC	Eaton list number
Safety handle	1, 1a, 2, 2a, 3	1	**3SHN**
Safety handle	4, 4a and 4b	1	**4SHN**
Safety handle	5 and 5a	1	**5SHN**
Safety handle	6	1	**6SHN**


3XS

Extended shafts 380 mm

For S-line switches

Description	Frame sizes	Length	QPC	Eaton list number
Extended shaft	1, 1a, 2, 2a, 3	380 mm	1	**3XS**
Extended shaft	4, 4a and 4b	380 mm	1	**4XS**
Extended shaft	5, 5a, 6	380 mm	1	**6XS**


1ASP

Auxiliary switches

For S-line switches

Description	Frame sizes	Type	QPC	Eaton list number
Auxiliary switch	All frame sizes	Pack 2 N/O	1	**ASP** [1)]
Auxiliary switch	All frame sizes	Pack 1 C/O	1	**1ASP** [1)]
Auxiliary switch	All frame sizes	Pack 2 C/O	1	**2ASP** [1)]
Auxiliary switch	All frame sizes	Pack 3 C/O	1	**3ASP** [1)]
Auxiliary switch	All frame sizes	Pack 4 C/O	1	**4ASP** [1)]
Auxiliary switch	4, 4a, 4b, 5, 5a and 6	Pack 6 C/O	1	**6ASP** [1)]
Auxiliary switch	4, 4a, 4b, 5, 5a and 6	Pack 8 C/O	1	**8ASP** [1)]

[1)] Always order mounting pack with auxiliary switch.


3MP

Auxiliary switch, mounting packs

For S-line switches

Description	Frame sizes	QPC	Eaton list number
Auxiliary switch mounting pack	1, 1a, 2, 2a, 3	1	**3MP**
Auxiliary switch mounting pack	4, 4a and 4b	1	**4MP**
Auxiliary switch mounting pack	5, 5a, 6	1	**6MP**


1TS4

Push in terminal plugs

For S-line switches

Description	Frame sizes	QPC	Eaton list number
Push in terminal plugs	1, 1a	1	**1TS4**

32TS2

Terminal shrouds

For S-line switches

Description	Frame sizes	Pole configuration	QPC	Eaton list number
Terminal shroud - BS fuse-link	1	1P+sldN, 1P+swN	1	**32TS2**
Terminal shroud - BS fuse-link	1	3P	1	**32TS3**
Terminal shroud - BS fuse-link	1	3P+sldN, 3P+swN	1	**32TS4**
Terminal shroud - BS fuse-link	1a	1P+sldN, 1P+swN	1	**1ATS2**
Terminal shroud - BS fuse-link	1a	3P	1	**1ATS3**
Terminal shroud - BS fuse-link	1a	3P+swN, 3P+sldN	1	**1ATS4**
Terminal shroud - BS fuse-link	2	1P+sldN, 1P+swN	1	**2TS2**
Terminal shroud - BS fuse-link	2	3P	1	**2TS3**
Terminal shroud - BS fuse-link	2	3P+sldN, 3P+swN	1	**2TS4**
Terminal shroud - BS fuse-link	3	1P+sldN, 1P+swN	1	**3TS2**
Terminal shroud - BS fuse-link	3	3P	1	**3TS3**
Terminal shroud - BS fuse-link	3	3P+sldN, 3P+swN	1	**3TS4**
Terminal shroud - BS fuse-link	4	1P+sldN, 1P+swN	1	**4TS2**
Terminal shroud - BS fuse-link	4	3P	1	**4TS3**
Terminal shroud - BS fuse-link	4	3P+sldN, 3P+swN	1	**4TS4**
Terminal shroud - BS fuse-link	4a	3P	1	**D4TS3**
Terminal shroud - BS fuse-link	4a	3P+sldN, 3P+swN	1	**D4TS4**
Terminal shroud - BS fuse-link	4b	3P	1	**D4TS3E**
Terminal shroud - BS fuse-link	4b	3P+sldN, 3P+swN	1	**D4TS4E**
Terminal shroud - BS fuse-link	5	3P	1	**5TS3**
Terminal shroud - BS fuse-link	5	3P+sldN, 3P+swN	1	**5TS4**
Terminal shroud - BS fuse-link	6	3P, 3P+sldN, 3P+swN	1	**6TS4**

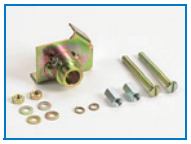

3FLD

Figure locking device

For S-line switches

Description	Frame sizes	QPC	Eaton list number
Figure locking device	1,1a,2,2a,3	1	**3FLD**
Figure locking device	4, 4a, 4b	1	**4FLD**
Figure locking device	5, 5a, 6	1	**6FLD**


1FC2

Fuse covers

For S-line switches

Description	Frame sizes	Pole configuration	QPC	Eaton list number
Fuse covers - BS fuse-link	1	1P+sldN, 1P+swN	1	**1FC2**
Fuse covers - BS fuse-link	1	3P, 3P+swN	1	**1FC3**
Fuse covers - BS fuse-link	1	3P+sldN, 3P+swN	1	**1FC4**
Fuse covers - BS fuse-link	1a	1P+sldN, 1P+swN	1	**N1FC2**
Fuse covers - BS fuse-link	1a	3P, 3P+swN	1	**N1FC3**
Fuse covers - BS fuse-link	1a	3P+sldN, 3P+swN	1	**N1FC4**
Fuse covers - BS fuse-link	1	1P+sldN, 1P+swN	1	**2FC2**
Fuse covers - BS fuse-link	1	3P, 3P+swN	1	**2FC3**
Fuse covers - BS fuse-link	1	3P+sldN, 3P+swN	1	**2FC4**
Fuse covers - BS fuse-link	3	1P+sldN, 1P+swN	1	**3FC2/D3FC2** [1]
Fuse covers - BS fuse-link	3	3P, 3P+swN	1	**3FC3/D3FC3** [1]
Fuse covers - BS fuse-link	3	3P+sldN	1	**3FC4/D3FC4** [1]
Fuse covers - BS fuse-link	4	1P+sldN, 1P+swN	1	**4FC2**
Fuse covers - BS fuse-link	4	3P, 3P+swN	1	**4FC3**
Fuse covers - BS fuse-link	4	3P+sldN	1	**4FC4**
Fuse covers - BS fuse-link	4a	3P, 3P+swN	1	**4FC3E**
Fuse covers - BS fuse-link	4a	3P+sldN	1	**4FC4E**
Fuse covers - BS fuse-link	4b	3P, 3P+swN	1	**D4FC3E**
Fuse covers - BS fuse-link	4b	3P+sldN	1	**D4FC4E**
Fuse covers - BS fuse-link	5	3P, 3P+swN	1	**5FC3**
Fuse covers - BS fuse-link	5	3P+sldN	1	**5FC4**
Fuse covers - BS fuse-link	6	3P, 3P+swN	1	**6FC3**
Fuse covers - BS fuse-link	6	3P+sldN	1	**6FC4**

[1] Fuse covers for BS fuse-link 160/200 A.

4PLD

Mechanism padlocking device

For S-line switches

Description	Frame sizes	QPC	Eaton list number
Mechanism padlocking device	1, 1a, 2, 2a, 3	1	**3PLD**
Mechanism padlocking device	4, 4a and 4b	1	**4PLD**
Mechanism padlocking device	5, 5a, 6	1	**6PLD**

Frame size	Poles	Safety handles	Extended shaft 380 mm	Auxiliary switch[1]							Auxilairy switch mounting packs	Push in terminal plugs	Terminal shrouds	Figure locking device	Fuse covers	Mechanism padlocking device
				Pack 2 N/O	Pack 1 C/O	Pack 2 C/O	Pack 3 C/O	Pack 4 C/O	Pack 6 C/O	Pack 8 C/O			BS type		BS type	
		Order References														
1	1P+sldN	3SHN	3XS	ASP	1ASP	2ASP	3ASP	4ASP	-	-	3MP	1TS4	32TS2	3FLD	1FC2	3PLD
	1P+swN	3SHN	3XS	ASP	1ASP	2ASP	3ASP	4ASP	-	-	3MP	1TS4	32TS2	3FLD	1FC2	3PLD
	3P	3SHN	3XS	ASP	1ASP	2ASP	3ASP	4ASP	-	-	3MP	1TS4	32TS3	3FLD	1FC3	3PLD
	3P+sldN	3SHN	3XS	ASP	1ASP	2ASP	3ASP	4ASP	-	-	3MP	1TS4	32TS4	3FLD	1FC4	3PLD
	3P+swN	3SHN	3XS	ASP	1ASP	2ASP	3ASP	4ASP	-	-	3MP	1TS4	32TS4	3FLD	1FC3	3PLD
	4P	3SHN	3XS	ASP	1ASP	2ASP	3ASP	4ASP	-	-	3MP	-	-	-	-	-
1a	1P+sldN	3SHN	3XS	ASP	1ASP	2ASP	3ASP	4ASP	-	-	3MP	1TS4	1ATS2	3FLD	N1FC2	3PLD
	1P+swN	3SHN	3XS	ASP	1ASP	2ASP	3ASP	4ASP	-	-	3MP	1TS4	1ATS2	3FLD	N1FC2	3PLD
	3P	3SHN	3XS	ASP	1ASP	2ASP	3ASP	4ASP	-	-	3MP	1TS4	1ATS3	3FLD	N1FC3	3PLD
	3P+sldN	3SHN	3XS	ASP	1ASP	2ASP	3ASP	4ASP	-	-	3MP	1TS4	1ATS4	3FLD	N1FC4	3PLD
	3P+swN	3SHN	3XS	ASP	1ASP	2ASP	3ASP	4ASP	-	-	3MP	1TS4	1ATS4	3FLD	N1FC3	3PLD
	4P	3SHN	3XS	ASP	1ASP	2ASP	3ASP	4ASP	-	-	3MP	-	-	3FLD	-	3PLD
2	1P+sldN	3SHN	3XS	ASP	1ASP	2ASP	3ASP	4ASP	-	-	3MP	-	2TS2	3FLD	2FC2	3PLD
	1P+swN	3SHN	3XS	ASP	1ASP	2ASP	3ASP	4ASP	-	-	3MP	-	2TS2	3FLD	2FC2	3PLD
	3P	3SHN	3XS	ASP	1ASP	2ASP	3ASP	4ASP	-	-	3MP	-	2TS3	3FLD	2FC3	3PLD
	3P+sldN	3SHN	3XS	ASP	1ASP	2ASP	3ASP	4ASP	-	-	3MP	-	2TS4	3FLD	2FC4	3PLD
	3P+swN	3SHN	3XS	ASP	1ASP	2ASP	3ASP	4ASP	-	-	3MP	-	2TS4	3FLD	2FC3	3PLD
2a	3P	3SHN	3XS	ASP	1ASP	2ASP	3ASP	4ASP	-	-	3MP	-	-	3FLD	-	3PLD
	3P+swN	3SHN	3XS	ASP	1ASP	2ASP	3ASP	4ASP	-	-	3MP	-	-	3FLD	-	3PLD
	4P	3SHN	3XS	ASP	1ASP	2ASP	3ASP	4ASP	-	-	3MP	-	-	3FLD	-	3PLD
3	1P+sldN	3SHN	3XS	ASP	1ASP	2ASP	3ASP	4ASP	-	-	3MP	-	3TS2	3FLD	3FC2/D3FC2[2]	3PLD
	1P+swN	3SHN	3XS	ASP	1ASP	2ASP	3ASP	4ASP	-	-	3MP	-	3TS2	3FLD	3FC2/D3FC2[2]	3PLD
	3P	3SHN	3XS	ASP	1ASP	2ASP	3ASP	4ASP	-	-	3MP	-	3TS3	3FLD	3FC3/D3FC3[2]	3PLD
	3P+sldN	3SHN	3XS	ASP	1ASP	2ASP	3ASP	4ASP	-	-	3MP	-	3TS4	3FLD	3FC4/D3FC4[2]	3PLD
	3P+swN	3SHN	3XS	ASP	1ASP	2ASP	3ASP	4ASP	-	-	3MP	-	3TS4	3FLD	3FC3/D3FC3[2]	3PLD
	4P	3SHN	3XS	ASP	1ASP	2ASP	3ASP	4ASP	-	-	3MP	-	-	3FLD	-	3PLD
4	1P+sldN	4SHN	4XS	ASP	1ASP	2ASP	3ASP	4ASP	6ASP	8ASP	4MP	-	4TS2	4FLD	4FC2	4PLD
	1P+swN	4SHN	4XS	ASP	1ASP	2ASP	3ASP	4ASP	6ASP	8ASP	4MP	-	4TS2	4FLD	4FC2	4PLD
	3P	4SHN	4XS	ASP	1ASP	2ASP	3ASP	4ASP	6ASP	8ASP	4MP	-	4TS3	4FLD	4FC3	4PLD
	3P+sldN	4SHN	4XS	ASP	1ASP	2ASP	3ASP	4ASP	6ASP	8ASP	4MP	-	4TS4	4FLD	4FC4	4PLD
	3P+swN	4SHN	4XS	ASP	1ASP	2ASP	3ASP	4ASP	6ASP	8ASP	4MP	-	4TS4	4FLD	4FC3	4PLD
4a	3P	4SHN	4XS	ASP	1ASP	2ASP	3ASP	4ASP	6ASP	8ASP	4MP	-	D4TS3	4FLD	4FC3E	4PLD
	3P+sldN	4SHN	4XS	ASP	1ASP	2ASP	3ASP	4ASP	6ASP	8ASP	4MP	-	D4TS4	4FLD	4FC4E	4PLD
	3P+swN	4SHN	4XS	ASP	1ASP	2ASP	3ASP	4ASP	6ASP	8ASP	4MP	-	D4TS4	4FLD	4FC3E	4PLD
	4P	4SHN	4XS	ASP	1ASP	2ASP	3ASP	4ASP	6ASP	8ASP	4MP	-	-	4FLD	-	4PLD
4b	3P	4SHN	4XS	ASP	1ASP	2ASP	3ASP	4ASP	6ASP	8ASP	4MP	-	D4TS3E	4FLD	D4FC3E	4PLD
	3P+sldN	4SHN	4XS	ASP	1ASP	2ASP	3ASP	4ASP	6ASP	8ASP	4MP	-	D4TS4E	4FLD	D4FC4E	4PLD
	3P+swN	4SHN	4XS	ASP	1ASP	2ASP	3ASP	4ASP	6ASP	8ASP	4MP	-	D4TS4E	4FLD	D4FC3E	4PLD
	4P	4SHN	4XS	ASP	1ASP	2ASP	3ASP	4ASP	6ASP	8ASP	4MP	-	-	4FLD	-	4PLD
5	3P	5SHN	6XS	ASP	1ASP	2ASP	3ASP	4ASP	6ASP	8ASP	6MP	-	5TS3	6FLD	5FC3	6PLD
	3P+sldN	5SHN	6XS	ASP	1ASP	2ASP	3ASP	4ASP	6ASP	8ASP	6MP	-	5TS4	6FLD	5FC4	6PLD
	3P+swN	5SHN	6XS	ASP	1ASP	2ASP	3ASP	4ASP	6ASP	8ASP	6MP	-	5TS4	6FLD	5FC3	6PLD
5a	3P	5SHN	6XS	ASP	1ASP	2ASP	3ASP	4ASP	6ASP	8ASP	6MP	-	-	6FLD	-	6PLD
	3P+swN	5SHN	6XS	ASP	1ASP	2ASP	3ASP	4ASP	6ASP	8ASP	6MP	-	-	6FLD	-	6PLD
	4P	5SHN	6XS	ASP	1ASP	2ASP	3ASP	4ASP	6ASP	8ASP	6MP	-	-	6FLD	-	6PLD
6	3P	6SHN	6XS	ASP	1ASP	2ASP	3ASP	4ASP	6ASP	8ASP	6MP	-	6TS4	6FLD	6FC3	6PLD
	3P+sldN	6SHN	6XS	ASP	1ASP	2ASP	3ASP	4ASP	6ASP	8ASP	6MP	-	6TS4	6FLD	6FC4	6PLD
	3P+swN	6SHN	6XS	ASP	1ASP	2ASP	3ASP	4ASP	6ASP	8ASP	6MP	-	6TS4	6FLD	6FC3	6PLD

1) Always order mounting pack with auxiliary switch
2) Fuse covers for BS type units 160/200 A.

Type DMV, 40 - 63 A, 400/690 V_{ac}

Product range contains following pole-configurations:
- 2P (400 V_{ac})
- 3P, 3P+solid N and 4P (690 V_{ac})

Standards
- Eaton type DMV switch-disconnectors comply with IEC / EN 60947-3.
- Certification: KEMA-KEUR-approval, Lloyd's (LR) and Veritas.

Technical characteristics
- Utilization categories: AC-23A.
- Optimum safety due to visible contact separation.
- Complete range 40 A up to 63 A.
- Easy installation due to very compact design.
- Suitable for DIN rail mounting.
- Many application possibilities due to excellent technical specifications.
- Suitable for padlocking in ON or OFF position (max. 3 padlocks, shackle diameter 8 mm).
- Locking facilities.
- Complete range of accessories.

See page 72 for the technical details of switch-disconnectors Duco, type DMV.

1713124

Switch-disconnectors Duco, visible contact separation

■ ***Type DMV, fixed shaft and knob***

- With fixed operating shaft and knob.
- Open window for visible contact separation.

Description	Current rating	Pole configuration	Type	QPC	Eaton list number
Switch-disconnector Duco, visible contact separation	40 A	2P	DMV 40/2	1	**1713121**
Switch-disconnector Duco, visible contact separation	40 A	3P	DMV 40/3	1	**1713123**
Switch-disconnector Duco, visible contact separation	40 A	3P+sldN	DMV 40/1	1	**1713124**
Switch-disconnector Duco, visible contact separation	40 A	4P	DMV 40/4	1	**1713125**
Switch-disconnector Duco, visible contact separation	63 A	2P	DMV 63/2	1	**1713170**
Switch-disconnector Duco, visible contact separation	63 A	3P	DMV 63/3	1	**1713171**
Switch-disconnector Duco, visible contact separation	63 A	3P+sldN	DMV 63/1	1	**1713172**
Switch-disconnector Duco, visible contact separation	63 A	4P	DMV 63/4	1	**1713173**

1713107

Switch-disconnectors Duco, non-visible contact separation

■ ***Type DMV, with fixed shaft and knob***

- With fixed operating shaft and knob.
- Closed window for non-visible contact separation.

Description	Current rating	Pole configuration	Type	QPC	Eaton list number
Switch-disconnector Duco, closed window	40 A	2P	DMV 40/2	1	**1713105** [1)]
Switch-disconnector Duco, closed window	40 A	4P	DMV 40/4	1	**1713106** [1)]
Switch-disconnector Duco, closed window	63 A	2P	DMV 63/2	1	**1713107** [1)]
Switch-disconnector Duco, closed window	63 A	4P	DMV 63/4	1	**1713108** [1)]

[1)] Closed windows for non-visible contact separation.


1713101

Switch-disconnectors Duco, without shaft and without knob

Type DMV

- Without shaft and without knob.
- Open window for visible contact separation.

Description	Current rating	Pole configuration	Type	QPC	Eaton list nummer
Switch-disconnector Duco, without shaft and knob	40 A	3P	DMV 40/3	1	**1713100**
Switch-disconnector Duco, without shaft and knob	40 A	3P+sldN	DMV 40/1	1	**1713101**
Switch-disconnector Duco, without shaft and knob	40 A	4P	DMV 40/4	1	**1713103**
Switch-disconnector Duco, without shaft and knob	63 A	3P+sldN	DMV 63/1	1	**1713151**
Switch-disconnector Duco, without shaft and knob	63 A	3P	DMV 63/3	1	**1713150**
Switch-disconnector Duco, without shaft and knob	63 A	4P	DMV 63/4	1	**1713153**


1050200

Operating shafts for Duco

For type DMV 40 / DMV 63

- 6 mm square

Description	Height	QPC	Eaton list number
Operating shaft	100 mm	1	**1050200** [1)]
Operating shaft	116 mm	1	**1050201** [1)]
Operating shaft	124 mm	1	**1050202** [1)]
Operating shaft	148 mm	1	**1050203** [1)]
Operating shaft	156 mm	1	**1050204** [1)]
Operating shaft	172 mm	1	**1050205** [1)]
Operating shaft	254 mm	1	**1050206** [1)]
Operating shaft	400 mm	1	**1050207** [1)]

[1)] Height of switch, from bottom of switch to top of operating shaft.


1713200

Auxiliary switch module

Description	Current rating	Contact	QPC	Eaton list number
2 auxiliary switch modules	16 A, 380 V_{ac}	2 NO + 2 NC	1	**1713200**


1713201

Front mounting kits

- Terminal size: 2 x 2,5 mm^2 up to 16 mm^2.

Description	Pole-configuration	QPC	Eaton list number
Front mounting kit	2P	1	**1713201** [1)]
Front mounting kit	3P	1	**1713204**

[1)] 4P = 2 x 2P


1713203

Protective covers, transparant

- Cover for protection against accidental touching of terminals.

Description	Pole-configuration	QPC	Eaton list number
Protective cover, transparent	2P	1	**1713202** [1)]
Protective cover, transparent	3P	1	**1713203**

[1)] 4P = 2 x 2P

Type DCM, 40 - 63 A, 415 V_{ac}

Product range contains 3P+solid N and 4P configurations (415 V_{ac})

Standards

- Complying with standards IEC 60947-3.
- Certification: KEMA-KEUR-approval, Lloyd's (LR), Veritas and CSA.

Technical characteristics

- Compact.
- Enclosure of non-tracking synthetic material.
- Suitable for DIN mounting rail and 45 mm sleave connection.
- Connecting contacts with pillar terminals.
- Interchangeable operating shaft.
- Semi-independent manual operating mechnism.
- With or without changeable operating shaft and knob and with escutcheon and/or locking facilities
- Operating shafts of various lengths.
- Suitable for padlocking in OFF position (1 padlock, shackle diameter 5 mm).
- Utilizations catagories AC-21 A en AC-22 A.

See page 75 for the technical details of switch-disconnectors Duco, type DCM.

1314106

Switch-disconnectors Duco, with fixed mounted knob

Type DCM, with fixed mounted knob

- With fixed shaft and fixed mounted knob.
- For bottom mounting, vertical connection.
- Height of switch = 91 mm from bottom of switch to top of operating shaft.

Description	Current rating	Pole configuration	Height	Type	QPC	Eaton list number
Switch-disconnector Duco, with fixed mounted knob	40 A	3P+sldN	91 mm	DCM 40/1	1	**1314106**
Switch-disconnector Duco, with fixed mounted knob	40 A	4P	91 mm	DCM 40/4	1	**1314110**
Switch-disconnector Duco, with fixed mounted knob	63 A	3P+sldN	91 mm	DCM 63/1	1	**1314004**
Switch-disconnector Duco, with fixed mounted knob	63 A	4P	91 mm	DCM 63/4	1	**1314006**

1314105

Switch-disconnectors Duco, without knob and shaft

Type DCM, without knob and shaft

- For bottom mounting, vertical connection.
- Without knob and without operating shaft.

Description	Current rating	Pole configuration	Type	QPC	Eaton list number
Switch-disconnector Duco, without shaft and knob	40 A	3P+sldN	DCM 40/1	1	**1314105**
Switch-disconnector Duco, without shaft and knob	40 A	4P	DCM 40/4	1	**1314109**
Switch-disconnector Duco, without shaft and knob	63 A	3P+sldN	DCM 63/1	1	**1314003**
Switch-disconnector Duco, without shaft and knob	63 A	4P	DCM 63/4	1	**1314016**

1314104

Switch-disconnectors Duco, horizontal connection, without knob and shaft

Type DCM, without knob and shaft

- For bottom mounting, horizontal connection.
- Without knob and without operating shaft.

Description	Current rating	Pole configuration	Type	QPC	Eaton list number
Switch-disconnector Duco, horizontal connection	40 A	3P+sldN	DCM 40/1	1	**1314104**
Switch-disconnector Duco, horizontal connection	40 A	4P	DCM 40/4	1	**1314108**
Switch-disconnector Duco, horizontal connection	63 A	3P+sldN	DCM 63/1	1	**1314002**
Switch-disconnector Duco, horizontal connection	63 A	4P	DCM 63/4	1	**1314015**

1314112

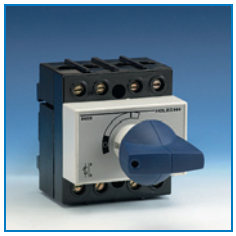
Switch-disconnectors Duco, front mounting, without knob

Type DCM, without knob and shaft

- For front mounting, vertical connection.
- Without knob or without operating shaft.

Description	Current rating	Pole configuration	Type	QPC	Eaton list number
Switch-disconnector Duco, front connection	40 A	3P+sldN	DCM 40/1	1	**1314112** [1]
Switch-disconnector Duco, front connection	40 A	4P	DCM 40/4	1	**1314113** [1]
Switch-disconnector Duco, front connection	63 A	3P+sldN	DCM 63/1	1	**1314008** [1]
Switch-disconnector Duco, front connection	63 A	4P	DCM 63/4	1	**1314009** [1]

[1] Rear connection; For front connection set, see accessories.



1314111

Switch-disconnectors Duco, with C-type handle for cover mounting

Type DCM, with shaft and knob

- For cover mounting, vertical connection.
- With operating shaft and C-typ handle for cover mounting.
- Height of switch: 116 mm (height from bottom of switch to top of operating shaft/knob).

Description	Current rating	Pole configuration	Height	Type	QPC	Eaton list number
Switch-disconnector Duco, C-type handle for cover mounting	40 A	3P+sldN	116 mm	DCM 40/1	1	**1314107**
Switch-disconnector Duco, C-type handle for cover mounting	40 A	4P	116 mm	DCM 40/4	1	**1314111**
Switch-disconnector Duco, C-type handle for cover mounting	63 A	3P+sldN	116 mm	DCM 63/1	1	**1314005**
Switch-disconnector Duco, C-type handle for cover mounting	63 A	4P	116 mm	DCM 63/4	1	**1314007**

1314280

Operating shafts for Dumeco type DMM and Duco type DCM

Types DCM 40 / 63 and DMM 40 / 63

- 6 mm, square

Description	Height DCM	Height DMM	QPC	Eaton list number
Operating shaft for Dumeco	100 mm	116 mm	1	**1314280** [1]
Operating shaft for Dumeco	116 mm	132 mm	1	**1314279** [1]
Operating shaft for Dumeco	124 mm	140 mm	1	**1314994** [1]
Operating shaft for Dumeco	148 mm	164 mm	1	**1314995** [1]
Operating shaft for Dumeco	156 mm	172 mm	1	**1314278** [1]
Operating shaft for Dumeco	172 mm	188 mm	1	**1314281** [1]
Operating shaft for Dumeco	254 mm	270 mm	1	**1314375** [1]
Operating shaft for Dumeco	400 mm	-	1	**1314372** [2]
Operating shaft for Dumeco	-	400 mm	1	**1314371** [2]

[1] Height of switch, from bottom of switch to top of operating shaft.
[2] See shaft supporting set. Can not be used in combination with connection set.

1314344

Front mounting kit for DCM 40/63

Description	QPC	Eaton list number
Front mounting kit for DCM 40/63	1	**1314344**

1314369

Auxiliary switch set for types DCM and DMM

- For Duco types DCM 40, DCM 63 and Dumeco types DMM 40, DMM 63, DMM 125
- For switch heights greater than 270 mm.

Description	QPC	Eaton list number
Auxiliary switch set for types DCM and DMM	1	**1314369**

1314331

Protective covers, transparent

- For protection against accidental touching of terminals.

Description	For type	QPC	Eaton list number
Protective cover (transparent)	DCM 40, DCM 63, DMM 40, DMM 63	1	**1314331**
Protective cover (transparent)	DMM 125	1	**1314330** [1)]

[1)] Can not be used in combination with transparent cover, Eaton list number 1314 232.

Switch-disconnectors Dumeco, type DMM

Type DMM, 40 - 125 A, bottom mounting, 690 V_{ac}

Product range contains 3P + solid N and 4P-configurations, 690 V_{ac}

Standards
- Complying with standards IEC / EN 60947-3.
- Certification: KEMA-KEUR-approval, Lloyd's (LR), Veritas and CSA.

Technical characteristics
- Enclosure of non-tracking synthetic material.
- Compact.
- Suitable for DIN mounting rail and 45 mm sleave connection.
- Connecting contacts with pillar terminals.
- Interchangeable operating shaft.
- Independent manual operating mechnism.
- Utilizations catagories AC-23.
- With or without changeable operating shaft and knob and with escutcheon and/or locking facilities.
- Operating shafts of various lengths.
- Suitable for padlocking in OFF position (1 padlock, shackle diameter 5 mm).

See page 76 for the technical details of switch disconnectors Duco, type DMM, 40 - 125 A.
See page 42 for K-line handles & knobs.

1314056

Switch-disconnectors Dumeco, 40 - 63 A, with knob & operating shaft

■ ***Type DMM 40/63, bottom mounting***

- For bottom mounting, vertical connection.
- With operating shaft and knob.
- Height off switch-disconnector: 107 mm (from bottom of switch to top of handle).

Description	Current rating	Pole configuration	Height	Type	QPC	Eaton list number
Switch-disconnector Dumeco, with fixed mounted knob	40 A	3P+sldN	107 mm	DMM 40/1	1	**1314056**
Switch-disconnector Dumeco, with fixed mounted knob	40 A	4P	107 mm	DMM 40/4	1	**1314057**
Switch-disconnector Dumeco, with fixed mounted knob	63 A	3P+sldN	107 mm	DMM 63/1	1	**1314161**
Switch-disconnector Dumeco, with fixed mounted knob	63 A	4P	107 mm	DMM 63/4	1	**1314162**

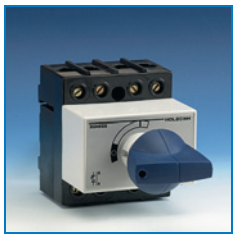
1314052

Switch-disconnectors Dumeco, 40 - 63 A, without knob

■ ***Type DMM 40 / 63, bottom mounting***

- For bottom mounting, vertical connection.
- Without knob and without operating shaft.

Description	Current rating	Pole configuration	Type	QPC	Eaton list number
Switch-disconnector Dumeco, without knob and shaft	40 A	3P+sldN	DMM 40/1	1	**1314052**
Switch-disconnector Dumeco, without knob and shaft	40 A	4P	DMM 40/4	1	**1314053**
Switch-disconnector Dumeco, without knob and shaft	63 A	3P+sldN	DMM 63/1	1	**1314157**
Switch-disconnector Dumeco, without knob and shaft	63 A	4P	DMM 63/4	1	**1314158**


1314054

Switch disconnectors Dumeco, 40 - 63 A, height 172 mm

Type DMM, bottom mounting, with knob

- For bottom mounting, vertical connection.
- With operating shaft en knob with escutcheon.
- Height of swith: 172 mm (from bottom of switch to top of operating shaft/knob).

Description	Current rating	Pole configuration	Height	Type	QPC	Eaton list number
Switch-disconnector Dumeco, for cover mounting	40 A	3P+sldN	172 mm	DMM 40/1	1	**1314054**
Switch-disconnector Dumeco, for cover mounting	40 A	4P	172 mm	DMM 40/4	1	**1314055**
Switch-disconnector Dumeco, for cover mounting	63 A	3P+sldN	172 mm	DMM 63/1	1	**1314159**
Switch-disconnector Dumeco, for cover mounting	63 A	4P	172 mm	DMM 63/4	1	**1314160**


1314210

Switch-disconnectors Dumeco, 125 A, with knob

Type DMM 125, bottom mounting

- For bottom mounting, vertical connection.
- With operating shaft and knob.
- Height of switch: 107 mm (from bottom of switch to top of operating shaft).

Description	Current rating	Pole configuration	Height	Type	QPC	Eaton list number
Switch-disconnector Dumeco, with fixed mounted knob	125 A	3P+sldN	107 mm	DMM 125/1	1	**1314210**
Switch-disconnector Dumeco, with fixed mounted knob	125 A	4P	107 mm	DMM 125/4	1	**1314211**


1314203

Switch-disconnectors Dumeco, 125 A, without knob

Type DMM 125, bottom mounting

- For bottom mounting, vertical connection.
- Without knob and without operating shaft.

Description	Current rating	Pole configuration	Type	QPC	Eaton list number
Switch-disconnector Dumeco, without knob	125 A	3P+sldN	DMM 125/1	1	**1314203**
Switch-disconnector Dumeco, without knob	125 A	4P	DMM 125/4	1	**1314204**


1314206

Switch-disconnectors Dumeco, 125 A, height 172 mm

Type DMM 125, bottom mounting

- For cover mouting, vertical connection.
- With C-type handle for cover mounting and shaft.
- Height of switch: 172 mm (from bottom of switch to top of operating shaft).

Description	Current rating	Pole configuration	Height	Type	QPC	Eaton list number
Switch-disconnector Dumeco, for cover mounting	125 A	3P+sldN	172 mm	DMM 125/1	1	**1314206**
Switch-disconnector Dumeco, for cover mounting	125 A	4P	172 mm	DMM 125/4	1	**1314207**


1314280

Operating shafts for Dumeco type DMM & Duco type DCM

Types DCM 40 / 63 and DMM 40 / 63

- 6 mm, square

Description	Height DCM	Height DMM	QPC	Eaton list number
Operating shaft for Dumeco	100 mm	116 mm	1	**1314280** [1)]
Operating shaft for Dumeco	116 mm	132 mm	1	**1314279** [1)]
Operating shaft for Dumeco	124 mm	140 mm	1	**1314994** [1)]
Operating shaft for Dumeco	148 mm	164 mm	1	**1314995** [1)]
Operating shaft for Dumeco	156 mm	172 mm	1	**1314278** [1)]
Operating shaft for Dumeco	172 mm	188 mm	1	**1314281** [1)]
Operating shaft for Dumeco	254 mm	270 mm	1	**1314375** [1)]
Operating shaft for Dumeco	400 mm	-	1	**1314372** [2)]
Operating shaft for Dumeco	-	400 mm	1	**1314371** [2)]

[1)] Height of switch, from bottom of switch to top of operating shaft.
[2)] See shaft supporting set. Can not be used in combination with connection set.


1314280

Operating shaft for Dumeco type DMM

Types DMM 125

- 6 mm square

Description	Height DMM	QPC	Eaton list number
Operating shaft for Dumeco	116 mm	1	**1314335** [1)]
Operating shaft for Dumeco	132 mm	1	**1314341** [1)]
Operating shaft for Dumeco	148 mm	1	**1314342** [1)]
Operating shaft for Dumeco	172 mm	1	**1314334** [1)]
Operating shaft for Dumeco	270 mm	1	**1314374** [2)]
Operating shaft for Dumeco	400 mm	1	**1314370** [2)]

[1)] Height of switch, from bottom of switch to top of operating shaft.
[2)] Height of switch, from bottom of switch to top of operating shaft.
See shaft supporting set. Can not be used in combination with connection set.


1314300

Auxiliary switch set for type DMM

Description	Current rating	Contact	QPC	Eaton list number
1 Auxiliary switch	16 A ,380 V_{ac}	1 NO + 1 NC	1	**1314300**
2 Auxiliary switches	16 A, 380 V_{ac}	2 NO + 2 NC	1	**1314301**


1314369

Auxiliary switch set for types DCM and DMM

- For Duco types DCM 40, DCM 63 and Dumeco types DMM 40, DMM 63, DMM 125
- For switch heights greater than 270 mm.

Description	QPC	Eaton list number
Auxiliary switch set for types DCM and DMM	1	**1314369**


1314232

Connection set for Dumeco

Type DMM 125

Description	Connecting capacity	QPC	Eaton list number
Connection set for Dumeco	2 x 2,5 mm^2 up to 50 mm^2	1	**1314232** [1)]

[1)] Can not be used in combination with transparent cover, Eaton list number 1314 330.


1314331

Protective covers, transparent

- For protection against accidental touching of terminals.

Description	For type	QPC	Eaton list number
Protective cover (transparent)	DCM 40, DCM 63, DMM 40, DMM 63	1	**1314331**
Protective cover (transparent)	DMM 125	1	**1314330** [1)]

[1)] Can not be used in combination with transparent cover, Eaton list number 1314 232.

Typ QM, 40 - 100 A, 690 V_{ac}

Technical characteristics

- Compact
- Enclosure made of non-trackng material.
- Independent manual operation for ON and OFF switching.
- Easy installation of switched or solid Neutral for 4-pole version.
- Suitable for utilisation category AC-23 A.
- Designed for baseplate or DIN-rail mounting.
- Terminals are protected against inadvertent contact.

Zie pagina 79 for the technical characteristics of change-over and multi-pole switches, type QM.

1319807

Change-over switch, 3 and 4 pole

■ ***Type QM***

- With operating shaft 6 mm square.

Description	Pole-configuration	Thermal current Ithe	Type	QPC	Eaton list number
Change-over switch	2 x 4P	40 A	QM 40/3N	1	**1319970***
Change-over switch	2 x 3P	63 A	QM 63/3	1	**1319807**
Change-over switch	2 x 4P	63 A	QM 63/3N	1	**1319915***
Change-over switch	2 x 3P	100 A	QM 100/3	1	**1319815**
Change-over switch	2 x 4P	100 A	QM 100/3N	1	**1319916***

*) 3P + switched N

1319814

Multi-pole switch, 6 and 8 pole

■ ***Type QM***

- With operating shaft 6 mm square.

Description	Pole-configuration	Thermal current Ithe	Type	QPC	Eaton list number
Multi-pole switch	6P	50 A	QM 63/6	1	**1319806**
Multi-pole switch	8P	50 A	QM 63/6N2	1	**1319904***
Multi-pole switch	6P	80 A	QM 100/6	1	**1319814**
Multi-pole switch	8P	80 A	QM 100/6N2	1	**1319905***

*) 6P + 2 switched N

1319969

Connection set (4 pole) for change-over switch

Description	Type	For switch type	QPC	Eaton list number
Connection set for change-over switch	For type QM 40 / QM 63	OSH 40/4, OSH 63/4	1	**1319969**
Connection set for change-over switch	For type QM 100	OSH 100/4	1	**1319967**

1319832

Operating shaft, universal

Description	Shaft (square)	Height	For knob	QPC	Eaton list number
Operating shaft, universal	6 x 6 mm	180 mm	K1/K2S	1	**1319830***
Operating shaft, universal	6 x 6 mm	300 mm	K1/K2S	1	**1319831***
Operating shaft, universal	6 x 6 mm	600 mm	K1/K2S	1	**1319832***

*) Length = Length of operating shaft from bottom till top.


1319833

Coupling piece for extension of operating shaft

Description	QPC	Eaton list number
Coupling piece for extension of operating shaft 6 x 6 mm	1	**1319833**


1319856

Knob for door mounting

- The door coupling base-plate provides position indication for change-over switch (1-0-2) and multi-pole switch.

Description	QPC	Eaton list number
Knob, black (1-0-2) for change-over switch	1	**1319856**
Knob, black (1-0) for multi-pole switch	1	**1319855**
Door-coupling base-plate for change-over and multi-pole switch	1	**1319857**


1319858

Switched neutral for 4-pole configuration

Description	Type	For switch type	QPC	Eaton list number
Solid neutral for all versions	4P	QM 40/3, QM 63/3	1	**1319858**
Solid neutral for all versions	4P	QM 80/3, QM 100/3	1	**1319859**


1319868

Earth terminals

Description	For switch type	QPC	Eaton list number
Earth terminal	QM 40, QM 63	1	**1319868**
Earth terminal	QM 80, QM 100	1	**1319869**


1319851

Auxiliary switches

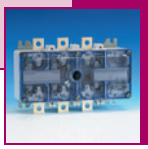
Description	Type	For switch type	QPC	Eaton list number
Auxiliary switch	1 NO + NC	QM 40, QM 63	1	**1319851**
Auxiliary switch	1 NO + NC	QM 80, QM 100	1	**1319853**


1319870

Protective covers (set) for connection terminals

- For protection of connection terminals.

Description	Type	For switch type	QPC	Eaton list number
Protective cover for connection terminals	3P	QM 40/3, QM 63/3	1	**1319870**
Protective cover for connection terminals	3P	QM 80/3, QM 100/3	1	**1319872**
Protective cover for connection terminals	3P+N	QM 40/3N, QM 63/3N	1	**1319871**
Protective cover for connection terminals	3P+N	QM 80/3, QM 100/3N	1	**1319873**



Type DMV, 160 - 2000 A, 690 V_{ac}

Dumeco type DMV switch-disconnectors have excellent short-circuit making capacities, due to its parallel knife contacts with double break per phase.

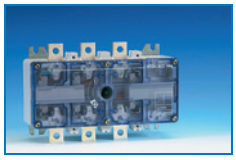
Rated currents range from 160 A up to 2000 A.

Application area
Switches are especially capable to switch motor loads or other highly inductive loads.
Dumeco switch-disconnectors cover a broad field of application, ranging from motor emergency switches in MCC's to incoming feeders in heavy duty switchboards.

Standards
- Eaton switch-disconnectors comply with IEC 60947-3.
- Certification: KEMA-KEUR, Lloyd's (LR), Veritas and CSA.

Technical characteristics
- Dumeco type DMV switch-disconnectors are available in 3-pole, 3-pole with solid neutral and in 4-pole designed for a rated operational voltage up to 690 V_{ac};
- Totally enclosed compact housing, made of non-tracking, heat resistent insulations material.
- Independent manual operation;
- Centrally located, interchangeable operating shaft;
- Heat resistant stainless steel contact springs;
- Parallel knife-contacts with double break per phase;
- Visible contact separation;
- Forced breaking within 90 degrees;
- Easy to install and connect in any position;
- Various lengths of operating shafts and knobs or handles with escutcheon and door coupling and locking facilities in "ON" and "OFF" switch position are available.

See page 81 for the technical details of switch disconnectors Duco, type DMV, 160 - 2000 A.
See page 42 for K-line handles & knobs.



1814408

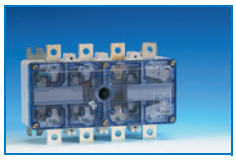
Switch-disconnectors Dumeco, 3P

Type DMV, without handle and shaft

- Including connection materials.
- Without handle and without operating shaft.

Description	Current rating	Pole configuration	Type	QPC	Eaton list number
Switch-disconnector Dumeco	160 A	3P	DMV 160N/3	1	**1814178** [1]
Switch-disconnector Dumeco	160 A	3P	DMV 160N/3	1	**1814175** [2]
Switch-disconnector Dumeco	160 A	3P	DMVS 160N/3	1	**1814186** [3]
Switch-disconnector Dumeco	250 A	3P	DMV 250N/3	1	**1814408**
Switch-disconnector Dumeco	400 A	3P	DMV 400N/3	1	**1814411**
Switch-disconnector Dumeco	630 A	3P	DMV 630N/3	1	**1814442**
Switch-disconnector Dumeco	1000 A	3P	DMV 1000N/3	1	**1814445**
Switch-disconnector Dumeco	1250 A	3P	DMV 1250N/3	1	**1814590**
Switch-disconnector Dumeco	1600 A	3P	DMV 1600N/3	1	**1814595**
Switch-disconnector Dumeco	2000 A	3P	DMV 2000N/3	1	**1814065**

[1] With bolt connection.
[2] With tunnel clamp.
[3] With enlarged terminals.



1814409

Switch-disconnectors Dumeco, 3P+solid N

Type DMV, without handle and shaft

- Including connection materials.
- Without handle and without operating shaft.

Description	Current rating	Pole configuration	Type	QPC	Eaton list number
Switch-disconnector Dumeco	160 A	3P+sldN	DMV 160N/1	1	**1814177** [1]
Switch-disconnector Dumeco	160 A	3P+sldN	DMV 160N/1	1	**1814174** [2]
Switch-disconnector Dumeco	160 A	3P+sldN	DMVS 160N/1	1	**1814187** [3]
Switch-disconnector Dumeco	250 A	3P+sldN	DMV 250N/1	1	**1814409**
Switch-disconnector Dumeco	400 A	3P+sldN	DMV 400N/1	1	**1814412**
Switch-disconnector Dumeco	630 A	3P+sldN	DMV 630N/1	1	**1814443**
Switch-disconnector Dumeco	1000 A	3P+sldN	DMV 1000N/1	1	**1814446**
Switch-disconnector Dumeco	1250 A	3P+sldN	DMV 1250N/1	1	**1814591**
Switch-disconnector Dumeco	1600 A	3P+sldN	DMV 1600N/1	1	**1814596**

[1] With bolt connection.
[2] With tunnel clamp.
[3] With enlarged terminals.

1814410

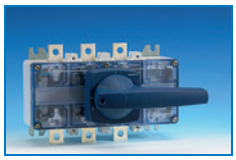
Switch-disconnectors Dumeco, 4P

Type DMV, without handle and shaft

- Including connection materials.
- Without handle and without operating shaft.

Description	Current rating	Pole configuration	Type	QPC	Eaton list number
Switch-disconnector Dumeco	160 A	4P	DMV 160N/4	1	**1814179** [1]
Switch-disconnector Dumeco	160 A	4P	DMV 160N/4	1	**1814176** [2]
Switch-disconnector Dumeco	160 A	4P	DMVS 160N/4	1	**1814188** [3]
Switch-disconnector Dumeco	250 A	4P	DMV 250N/4	1	**1814410**
Switch-disconnector Dumeco	400 A	4P	DMV 400N/4	1	**1814413**
Switch-disconnector Dumeco	630 A	4P	DMV 630N/4	1	**1814444**
Switch-disconnector Dumeco	1000 A	4P	DMV 1000N/4	1	**1814447**
Switch-disconnector Dumeco	1250 A	4P	DMV 1250N/4	1	**1814592**
Switch-disconnector Dumeco	1600 A	4P	DMV 1600N/4	1	**1814597**

[1] With bolt connection.
[2] With tunnel clamp.
[3] With enlarged terminals.



1814420

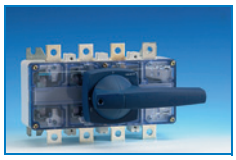
Switch-disconnectors Dumeco, 3P, with C-type handle and shaft

Type DMV

- Including connection materials.
- C-type handle with position indication

Description	Current rating	Pole configuration	Height	type	QPC	Eaton list number
Switch-disconnector Dumeco	250 A	3P	170 mm	DMV 250N/3	1	**1814420** [1]
Switch-disconnector Dumeco	400 A	3P	170 mm	DMV 400N/3	1	**1814423** [1]
Switch-disconnector Dumeco	630 A	3P	182 mm	DMV 630N/3	1	**1814448** [1]
Switch-disconnector Dumeco	1000 A	3P	182 mm	DMV 1000N/3	1	**1814451** [1]

[1] Height of switch from bottom of switch to top of operating shaft.



1814421

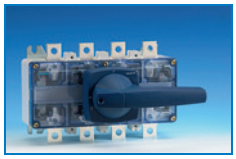
Switch-disconnectors Dumeco, 3P+solid N, with C-type handle and shaft

Type DMV

- Including connection materials.
- C-type handle with position indication I/O.

Description	Current rating	Pole configuration	Height	Type	QPC	Eaton list number
Switch-disconnector Dumeco	250 A	3P+sldN	170 mm	DMV 250N/1	1	**1814421** [1)]
Switch-disconnector Dumeco	400 A	3P+sldN	170 mm	DMV 400N/1	1	**1814424** [1)]
Switch-disconnector Dumeco	630 A	3P+sldN	182 mm	DMV 630N/1	1	**1814449** [1)]
Switch-disconnector Dumeco	1000 A	3P+sldN	182 mm	DMV 1000N/1	1	**1814452** [1)]

[1)] Height of switch from bottom of switch to top of operating shaft.



1814422

Switch-disconnectors Dumeco, 4P, with C-type handle and shaft

Type DMV

- Including connection materials.
- C-type handle with position indication I/O.

Description	Current rating	Pole configuration	Height	Type	QPC	Eaton list number
Switch-disconnector Dumeco	250 A	4P	170 mm	DMV 250N/4	1	**1814422** [1)]
Switch-disconnector Dumeco	400 A	4P	170 mm	DMV 400N/4	1	**1814425** [1)]
Switch-disconnector Dumeco	630 A	4P	182 mm	DMV 630N/4	1	**1814450** [1)]
Switch-disconnector Dumeco	1000 A	4P	182 mm	DMV 1000N/4	1	**1814453** [1)]

[1)] Height of switch from bottom of switch to top of operating shaft.

1314230

Protective covers, transparant, for connection terminals

- Protective cover against accidental touching of terminals.
- Including connection materials.

Description	For type switch-disconnector	QPC	Eaton list number
Protective cover, transparent	DMV 160N	1	**1314230**
Protective cover, transparent	DMVS160N, DMV 250N and DMV 400N	1	**1314735**
Protective cover, transparent	DMV 630N and DMV 1000N	1	**1314830**

1314398

Auxiliary switch, including connection materials

For type DMV 160N

- Per switch 2 pieces are needed.

Description	Current rating	Contacts	QPC	Eaton list number
Auxiliary switch, including connection materials	16 A, 380 V_{ac}	1 NO + 1 NC	1	**1314398**

1314736

For types DMVS 160N and DMV 250N - 2000N

Description	Current rating	Contacts	QPC	Eaton list number
Auxiliary switch, includings connection materials	16 A, 380 V_{ac}	1 NO + 1 NC	1	**1314736**

1314915

Connection kits

Description	For type switch-disconnector	Bolt connection	QPC	Eaton list number
Connection kit	DMV 160N	M6 x 20	1	**1314031**
Connection kit	DMVS 160N, DMV 250N	M8 x 20	1	**1314927**
Connection kit	DMV 400N	M10 x 20	1	**1314915**
Connection kit	DMV 630N	M10 x 30	1	**1314648**
Connection kit	DMV 1000N	M12 x 35	1	**1314857**

Type DMV, 160 - 1600 A, 690 V_{ac}

See page 87 for the technical details of change-over and multipole change-over mechanisms, 160 - 1600 A.

Required parts for change-over and multipole mechanisms.

Required parts for change-over-switch:
- 2 Switch-disconnectors
- 1 Change-over driving mechanism
- 1 Through-connector set (4P)
- 1 Operating shaft (6 mm, 10 mm or 14 mm square).
- 1 Change-over handle. For 1250 A / 1600 A switch use 2 standard handles.

Required parts for Multipole change-over switch:
- 2 Switch-disconnectors
- 1 Multipole change-over driving mechanism.
- 1 Operating shaft (6 mm, 10 mm or 14 mm square)
- 1 Operating handle.

1314884

Change-over driving mechanism

■ ***For Dumeco switch-disconnectors***

- Without switch-disconnectors operating shaft and handle for Dumeco switch-disconnectors.

Description	For switch-disconnector type	QPC	Eaton list number
Change-over driving mechanism	DMV 160N	1	**1314314**
Change-over driving mechanism	DMVS 160N, DMV 250N and DMV 400N	1	**1314884**
Change-over driving mechanism	DMV 630N and DMV 1000N	1	**1314682**
Change-over driving mechanism	DMV 1250N and DMV 1600N	1	**1314336** [1)]

[1)] Use 2 standard handles per change-over driving mechanism.

1314878

Through connector set (4 pole) for change-over mechanism

Description	For switch-disconnector type	Pole configuration	QPC	Eaton list number
Through connector set	DMV 160N	4P	1	**1314320**
Through connector set	DMVS 160N, DMV 250N	4P	1	**1314878**
Through connector set	DMV 400N	4P	1	**1314879**
Through connector set	DMV 630N	4P	1	**1314881**
Through connector set	DMV 1000N	4P	1	**1314883**

1314039

Multipole change-over mechanism

■ ***For Dumeco switch-disconnectors***

Complete with driving shaft, without switches, operating shaft and handles.

Description	For type	QPC	Eaton list number
Multipole change-over driving mechanism	DMV 160N	1	**1314337**
Multipole change-over driving mechanism	DMVS 160N, DMV 250N and DMV 400N	1	**1314039**
Multipole change-over driving mechanism	DMV 630N and DMV 1000N	1	**1314040**

Knobs and handles, K-line

Universally applicable handles and knobs

In low voltage switchboards, various makes of switches and their associated knobs or handles are applied. The result is a switchboard with a wide variety of operating knobs with all sort of shapes and methods of locking. Therefore Eaton designed a range of versatile knobs and handles called K-line that can be applied **universally**:

A-type handle: For direct mounting on switch.

C-type handle: For mounting on cover.

D-type handle: For mounting on hinged door .
The D-type handle can be supplied with an integrated Padlock (D/P type) or Cylinder lock (D/C type).

Technical characteristics

- Universal/versatile application for almost all types and makes of switches.
- Higher degree of safety is achieved because all switches are operated and locked in identical and familiar fashion;
- For shafts with a diameter of 6, 8, 10, 12 & 14 mm square.
- Modern, exceptionally compact design that complies with all market demands.
- Suitable for operating a large number and various types of switch-disconnectors, switch-disconnector fuses and MCCB's.
- Knobs and handles with legend plate with degree of protection up to IP 65.
- Fixed position of handle when door is open.
- Switches can be interlocked (feeder and sectionalizer switches) and the switch position fixed by means of padlocks or cylinder locks (other possibilities on request)
- Suitable for various locking applications.

Features and benefits

- Exceptionally compact design that complies with all market demands. For example the legend plate of the smallest type of knob is only 50 x 50 mm which makes it ideally suited for application in combination with ever increasing compact switches.
- By limiting the number of knobs and handles to only six different sizes, that can be applied on a wide range of switches, stocks can be kept to a minimum. In this way, costly storage space can be saved whilst the required knob or handle is always available.
- Higher degree of safety is achieved because all switches are operated and locked in identical familiar fashion.

See page 90 for the technical details of K-line handles and knobs.

K-line, type number code

K	.	.	.	.	.	/	.

When used in combination with change-over mechanism	0
When used in combination with MCCB	V

Knob for operating shaft □ 6 mm	1
Knob for operating shaft □ 6 or 8 mm	2
Handle for operating shaft □ 10 mm	3
Handle for operating shaft □ 12 mm	4
Handle for operating shaft □ 14 mm	5 + 6

Special (optional)	K + S

P	Padlock
C	Cylinder lock

B	Blue (blue/orange)
R	Red (red/yellow)
G	Grey (grey/pale grey)

A	Direct mounting on switch
C	For cover mounting
D	For door mounting

1818110

Knobs and handles for direct mounting, A-type

Description	For shaft (square)	Colour	Type	QPC	Eaton list number
Direct mounting, A-type	6 mm	Blue	K1AB	1	**1818001**
Direct mounting, A-type	6 mm	Blue	K2SAB	1	**1818003**
Direct mounting, A-type	8 mm	Blue	K2AB	1	**1818005**
Direct mounting, A-type	10 mm	Blue	K3KAB	1	**1818110**
Direct mounting, A-type	12 mm	Blue	K4AB	1	**1818009**
Direct mounting, A-type	14 mm	Blue	K5AB	1	**1818011**
Direct mounting, A-type	14 mm	Blue	K6AB	1	**1818013**
Direct mounting, A-type	6 mm	Red	K1AR	1	**1818002**
Direct mounting, A-type	6 mm	Red	K2SAR	1	**1818004**
Direct mounting, A-type	8 mm	Red	K2AR	1	**1818006**
Direct mounting, A-type	10 mm	Red	K3KAR	1	**1818111**
Direct mounting, A-type	12 mm	Red	K4AR	1	**1818010**
Direct mounting, A-type	14 mm	Red	K5AR	1	**1818012**
Direct mounting, A-type	14 mm	Red	K6AR	1	**1818014**

1818023

Knobs and handles for cover mounting, C-type

Description	For shaft (square)	Colour	Type	QPC	Eaton list number
Cover mounting, C-type	6 mm	Blue	K1CB	1	**1818015**
Cover mounting, C-type	6 mm	Blue	K2SCB	1	**1818017**
Cover mounting, C-type	8 mm	Blue	K2CB	1	**1818019**
Cover mounting, C-type	10 mm	Blue	K3KCB	1	**1818068**
Cover mounting, C-type	12 mm	Blue	K4CB	1	**1818023**
Cover mounting, C-type	14 mm	Blue	K5CB	1	**1818025**
Cover mounting, C-type	14 mm	Blue	K6CB	1	**1818027**
Cover mounting, C-type	6 mm	Red/yellow	K1CR	1	**1818016**
Cover mounting, C-type	6 mm	Red/yellow	K2SCR	1	**1818018**
Cover mounting, C-type	8 mm	Red/yellow	K2CR	1	**1818020**
Cover mounting, C-type	10 mm	Red/yellow	K3KCR	1	**1818112**
Cover mounting, C-type	12 mm	Red/yellow	K4CR	1	**1818024**
Cover mounting, C-type	14 mm	Red/yellow	K5CR	1	**1818026**
Cover mounting, C-type	14 mm	Red/yellow	K6CR	1	**1818028**

1818033

Knobs and handles for door mounting, D-type with padlock

Description	For shaft (square)	Colour	Type	QPC	Eaton list number
Door mounting padlock, D/P-type	6 mm	Blue	K1DB/P	1	**1818029**
Door mounting padlock, D/P-type	6 mm	Blue	K2SDB/P	1	**1818032**
Door mounting padlock, D/P-type	8 mm	Blue	K2DB/P	1	**1818035**
Door mounting padlock, D/P-type	10 mm	Blue	K3KDB/P	1	**1818113**
Door mounting padlock, D/P-type	12 mm	Blue	K4DB/P	1	**1818050**
Door mounting padlock, D/P-type	14 mm	Blue	K5DB/P	1	**1818056**
Door mounting padlock, D/P-type	14 mm	Blue	K6DB/P	1	**1818062** [1)]
Door mounting padlock, D/P-type	6 mm	Red/yellow	K1DR/P	1	**1818030**
Door mounting padlock, D/P-type	6 mm	Red/yellow	K2SDR/P	1	**1818033**
Door mounting padlock, D/P-type	8 mm	Red/yellow	K2DR/P	1	**1818036**
Door mounting padlock, D/P-type	10 mm	Red/yellow	K3KDR/P	1	**1818096**
Door mounting padlock, D/P-type	12 mm	Red/yellow	K4DR/P	1	**1818051**
Door mounting padlock, D/P-type	14 mm	Red/yellow	K5DR/P	1	**1818057**
Door mounting padlock, D/P-type	14 mm	Red/yellow	K6DR/P	1	**1818063**
Door mounting padlock, D/P-type	6 mm	Grey	K1DG/P	1	**1818031**
Door mounting padlock, D/P-type	6 mm	Grey	K2SDG/P	1	**1818034**
Door mounting padlock, D/P-type	8 mm	Grey	K2DG/P	1	**1818037**
Door mounting padlock, D/P-type	10 mm	Grey	K3DG/P	1	**1818046**
Door mounting padlock, D/P-type	10 mm	Grey	K3KDG/P	1	**1818069**
Door mounting padlock, D/P-type	12 mm	Grey	K4DG/P	1	**1818052**
Door mounting padlock, D/P-type	14 mm	Grey	K5DG/P	1	**1818058**
Door mounting padlock, D/P-type	14 mm	Grey	K6DG/P	1	**1818064** [1)]

[1)] Order 2 handles in combination with change-over mechanism 1250 / 1600 A.

1818114

Knobs and handles for door mounting, D-type with cylinder lock

Description	For shaft (square)	Colour	Type	QPC	Eaton list number
With cylinder lock for door mounting, D/C type	6 mm	Blue	K2SDB/C	1	**1818038**
With cylinder lock for door mounting, D/C type	8 mm	Blue	K2DB/C	1	**1818041**
With cylinder lock for door mounting, D/C type	10 mm	Blue	K3KDB/C	1	**1818114**
With cylinder lock for door mounting, D/C type	12 mm	Blue	K4DB/C	1	**1818053**
With cylinder lock for door mounting, D/C type	14 mm	Blue	K2DB/C	1	**1818059**
With cylinder lock for door mounting, D/C type	14 mm	Blue	K6DB/C	1	**1818065**
With cylinder lock for door mounting, D/C type	6 mm	Red/yellow	K2SDR/C	1	**1818039**
With cylinder lock for door mounting, D/C type	8 mm	Red/yellow	K2DR/C	1	**1818042**
With cylinder lock for door mounting, D/C type	10 mm	Red/yellow	K3KDR/C	1	**1818097**
With cylinder lock for door mounting, D/C type	12 mm	Red/yellow	K4DR/C	1	**1818054**
With cylinder lock for door mounting, D/C type	14 mm	Red/yellow	K5DR/C	1	**1818060**
With cylinder lock for door mounting, D/C type	14 mm	Red/yellow	K6DR/C	1	**1818066**
With cylinder lock for door mounting, D/C type	6 mm	Grey	K2SDG/C	1	**1818040**
With cylinder lock for door mounting, D/C type	8 mm	Grey	K2DG/C	1	**1818043**
With cylinder lock for door mounting, D/C type	10 mm	Grey	K3DG/C	1	**1818049**
With cylinder lock for door mounting, D/C type	10 mm	Grey	K3KDG/C	1	**1818070**
With cylinder lock for door mounting, D/C type	12 mm	Grey	K4DG/C	1	**1818055**
With cylinder lock for door mounting, D/C type	14 mm	Grey	K5DG/C	1	**1818061**
With cylinder lock for door mounting, D/C type	14 mm	Grey	K6DG/C	1	**1818067**

1818116

Knobs and handles for change-over with integrated padlock for door mounting, D-type

Description	For shaft (square)	Colour	Type	QPC	Eaton list number
For change-overs with door mounting padlock, D/P type	6 mm	Blue	KO2SDB/P	1	**1818072**
For change-overs with door mounting padlock, D/P type	10 mm	Blue	KO3KDB/P	1	**1818116**
For change-overs with door mounting padlock, D/P type	14 mm	Blue	KO5DB/P	1	**1818076**
For change-overs with door mounting padlock, D/P type	14 mm	Blue	KO6DB/P	1	**1818078**

1314691

Operating shafts for Dumeco type DMV 160N

Description	Shaft (square)	Height	For handle	QPC	Eaton list number
Operating shaft	6 mm	116 mm	K1, K2S	1	**1314996** [1)]
Operating shaft	6 mm	132 mm	K1, K2S	1	**1314751** [1)]
Operating shaft	6 mm	148 mm	K1, K2S	1	**1314752** [1)]
Operating shaft	6 mm	172 mm	K1, K2S	1	**1314691** [1)]
Operating shaft	6 mm	182 mm	K1, K2S	1	**1314997** [1)]
Operating shaft	6 mm	270 mm	K1, K2S	1	**1314692** [1)]
Operating shaft	6 mm	400 mm	K1, K2S	1	**1314693** [1)]

[1)] H = height of switch, from bottom of the switch to top of shaft.

1050241

Operating shafts for Dumeco type DMVS 160N, DMV 250N and 400N

Description	Shaft (square)	Height	For handle	QPC	Eaton list number
Operating shaft	10 mm	135 mm	K3	1	**1050240** [1)]
Operating shaft	10 mm	185 mm	K3	1	**1050241** [1)]
Operating shaft	10 mm	245 mm	K3	1	**1050242** [1)]
Operating shaft	10 mm	400 mm	K3	1	**1050243** [1)]

[1)] H = height of switch, from bottom of the switch to top of shaft.

1050245

Operating shafts for Dumeco type DMV 630N and 1000N

Description	Shaft (square)	Height	For handle	QPC	Eaton list number
Operating shaft	14 mm	200 mm	K5	1	**1050244** [1]
Operating shaft	14 mm	235 mm	K5	1	**1050245** [1]
Operating shaft	14 mm	300 mm	K5	1	**1050246** [1]
Operating shaft	14 mm	400 mm	K5	1	**1050247** [1]

[1] H = height of switch, from bottom of the switch to top of shaft.

1050248

Operating shafts for type DMV 1250N, 1600N and 2000N

Description	Shaft (square)	Height	For handle	QPC	Eaton list number
Operating shaft	14 mm	200 mm	K6	1	**1050248** [1]
Operating shaft	14 mm	280 mm	K6	1	**1050249** [1]
Operating shaft	14 mm	400 mm	K6	1	**1050250** [1]

[1] H = height of switch, from bottom of the switch to top of shaft.

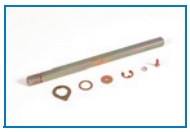
1050251

Operating shafts for type DMV 250N and 400N

In combination with change-over mechanism.

Description	Shaft (square)	Height	For handle	QPC	Eaton list number
Operating shaft	10 mm	185 mm	K3	1	**1050251** [1]
Operating shaft	10 mm	400 mm	K3	1	**1050252** [1]

[1] H = height of switch, from bottom of the switch to top of shaft.



1050253

Operating shafts for type DMV 630N and 1000N

In combination with change-over mechanism.

Description	Shaft (square)	Height	For handle	QPC	Eaton list number
Operating shaft	14 mm	230 mm	K5	1	**1050253** [1]
Operating shaft	14 mm	400 mm	K5	1	**1050254** [1]

[1] H = height of switch, from bottom of the switch to top of shaft.

1050255

Operating shafts for type DMV 1250N and 1600N

In combination with change-over mechanism.

Description	Shaft (square)	Height	For handle	QPC	Eaton list number
Operating shaft	14 mm	200 mm	K6	1	**1050255** [1]

[1] Order 2 operating shafts in combination with change-over mechanism 1250 / 1600 A.

1050256

Extension shafts for type DMV 1250N and 1600N

Description	Shaft (square)	Height	For handle	QPC	Eaton list number
Extension shaft	14 mm	100 mm	K6	1	**1050256**
Extension shaft	14 mm	200 mm	K6	1	**1050257**

1319830

Operating shafts, universally applicable including types QSA and QM

Description	Shaft (square)	Length	For handle	QPC	Eaton list number
Operating shaft	6 mm	180 mm	K1/K2S	1	**1319830** [1]
Operating shaft	6 mm	300 mm	K1/K2S	1	**1319831** [1]
Operating shaft	6 mm	600 mm	K1/K2S	1	**1319832** [1]
Operating shaft	8 mm	115 mm	K2	1	**1319303** [1]
Operating shaft	8 mm	140 mm	K2	1	**1319306** [1]
Operating shaft	8 mm	180 mm	K2	1	**1319307** [1]
Operating shaft	8 mm	300 mm	K2	1	**1319311** [1]
Operating shaft	8 mm	600 mm	K2	1	**1319301** [1]
Operating shaft	10 mm	135 mm	K3	1	**1319314** [1]
Operating shaft	10 mm	180 mm	K3	1	**1319315** [1]
Operating shaft	10 mm	300 mm	K3	1	**1319319** [1]
Operating shaft	10 mm	600 mm	K3	1	**1319322** [1]
Operating shaft	12 mm	300 mm	K4	1	**1319326** [1]
Operating shaft, tempered steel	12 mm	300 mm	K4	1	**1319328** [1]
Operating shaft	12 mm	600 mm	K4	1	**1319329** [1]

[1] Length = length of the shaft from top to bottom.

1319332

Coupling piece for extension of universal shafts (including type QSA)

Description	For shaft (square)	QPC	Eaton list number
Coupling links for extension of universal shaft (including type QSA)	6 x 6 mm	1	**1319833**
Coupling links for extension of universal shaft (including type QSA)	8 x 8 mm	1	**1319332**
Coupling links for extension of universal shaft (including type QSA)	10 x 10 mm	1	**1319334**
Coupling links for extension of universal shaft (including type QSA)	12 x 12 mm	1	**1319336**

1319398

Shaft reducing couplings for universal shaft (including type QSA)

Description	For shaft (square)	Type	QPC	Eaton list number
Shaft reducing couplings for universal shaft (including type QSA)	8 x 8 mm - 12 x12 mm	4K8/4K12	1	**1319397**
Shaft reducing couplings for universal shaft (including type QSA)	10 x 10 mm - 12 x 12 mm	4K10/K12	1	**1319398**
Shaft reducing couplings for universal shaft (including type QSA)	12 x 12 mm - 14 x 14 mm	4K12/4K14	1	**1318685**

K-line, application overview

Instructions on how to select a knob or handle to configure an Eaton switch with a handle or knob.
Other K-line types on request.

Step 1: Choose the application of the handle/shaft

a) Type A: Direct mounting

b) Type C: Cover mounting handle mounted direct directly to the shaft.

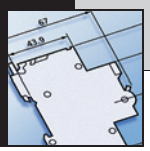
c) Type D: Door mounting (handle complete with door coupling). Select Padlock- or Cylinderlock facility.

Step 2: Select shaft square.

Step 3: Select colour.

Step 4: Select Eaton list number to order.

Switch			Direct mounting Type A		Mounting on cover Type C		Mounting on hinged cover Type D/P Padlock			For mounting on hinged door Type D/C Cylinderlock		
Switch for type	Handle type	Shaft	Blue	Red	Blue	Red	Blue	Red	Grey	Blue	Red	Grey
DCM 40	K1	6 x 6 mm	1818001	1818002	1818015	1818016	1818029	1818030	1818031			
DCM 63	K1	6 x 6 mm	1818001	1818002	1818015	1818016	1818029	1818030	1818031			
DMM 40	K1	6 x 6 mm	1818001	1818002	1818015	1818016	1818029	1818030	1818031			
DMM 63	K1	6 x 6 mm	1818001	1818002	1818015	1818016	1818029	1818030	1818031			
DMM 125	K2S	6 x 6 mm	1818003	1818004	1818017	1818018	1818032	1818033	1818034	1818038	1818039	1818040
DMV 40	K1	6 x 6 mm	1818001	1818002	1818015	1818016	1818029	1818 030	1818031			
DMV 63	K1	6 x 6 mm	1818001	1818002	1818015	1818016	1818029	1818 030	1818031			
DMV 160N	K2S	6 x 6 mm	1818003	1818004	1818017	1818018	1818032	1818 033	1818034	1818038	1818039	1818040
DMVS 160N	K3	10 x 10 mm	1818110	1818111	1818068	1818112	1818113	1818096	1818069	1818114	1818097	1818070
DMV 250N	K3	10 x 10 mm	1818110	1818111	1818068	1818112	1818113	1818096	1818069	1818114	1818097	1818070
DMV 400N	K3	10 x 10 mm	1818110	1818111	1818068	1818112	1818113	1818096	1818069	1818114	1818097	1818070
DMV 630N	K5	14 x 14 mm	1818011	1818012	1818025	1818026	1818056	1818057	1818058	1818059	1818060	1818061
DMV 1000N	K5	14 x 14 mm	1818011	1818012	1818025	1818026	1818056	1818057	1818058	1818059	1818060	1818061
DMV 1250N	K6	14 x 14 mm	1818013	1818014	1818027	1818028	1818062	1818063	1818064	1818065	1818066	1818067
DMV 1600N	K6	14 x 14 mm	1818013	1818014	1818027	1818028	1818062	1818063	1818064	1818065	1818066	1818067
DMV 2000N	K6	14 x 14 mm	1818013	1818014	1818027	1818028	1818062	1818063	1818064	1818065	1818066	1818067
DMS 2500	K6	14 x 14 mm	1818013	1818014	1818027	1818028	1818062	1818063	1818065	1818065	1818066	1818067
DMS 3150	K6	14 x 14 mm	1818013	1818014	1818027	1818028	1818062	1818063	1818065	1818065	1818066	1818067
DMS 3600	K6	14 x 14 mm	1818013	1818014	1818027	1818028	1818062	1818063	1818065	1818065	1818066	1818067
QSA 40N0	K1	6 x 6 mm	1818001	1818002	1818015	1818016	1818029	1818030	1818031			
QSA 63N0	K1	6 x 6 mm	1818001	1818002	1818015	1818016	1818029	1818030	1818031			
QSA 63N1	K2	8 x 8 mm	1818005	1818006	1818019	1818020	1818035	1818036	1818037	1818041	1818042	1818043
QSA 100N1	K2	8 x 8 mm	1818005	1818006	1818019	1818020	1818035	1818036	1818037	1818041	1818042	1818043
QSA 125N1	K2	8 x 8 mm	1818005	1818006	1818019	1818020	1818035	1818036	1818037	1818041	1818042	1818043
QSA 160N1	K2	8 x 8 mm	1818005	1818006	1818019	1818020	1818035	1818036	1818037	1818041	1818042	1818043
QSA 160N	K3	10 x 10 mm	1818110	1818111	1818068	1818112	1818113	1818096	1818069	1818114	1818097	1818070
QSA 200N	K3	10 x 10 mm	1818110	1818111	1818068	1818112	1818113	1818096	1818069	1818114	1818097	1818070
QSA 250N	K3	10 x 10 mm	1818110	1818111	1818068	1818112	1818113	1818096	1818069	1818114	1818097	1818070
QSA 315N	K3	10 x 10 mm	1818110	1818111	1818068	1818112	1818113	1818096	1818069	1818114	1818097	1818070
QSA 400N	K3	10 x 10 mm	1818110	1818111	1818068	1818112	1818113	1818096	1818069	1818114	1818097	1818070
QSA 400	K4	12 x 12 mm	1818009	1818010	1818023	1818024	1818050	1818051	1818052	1818053	1818054	1818055
QSA 630	K4	12 x 12 mm	1818009	1818010	1818023	1818024	1818050	1818051	1818052	1818053	1818054	1818055
QSA 800	K4	12 x 12 mm	1818009	1818010	1818023	1818024	1818050	1818051	1818052	1818053	1818054	1818055
S frame 1	K1	8 x 8 mm	1818001	1818002	1818015	1818016	1818032	1818033	1818034			
S frame 2	K2	8 x 8 mm	1818005	1818006	1818019	1818020	1818035	1818036	1818037	1818041	1818042	1818043
S frame 3	K3	10 x 10 mm	1818110	1818111	1818068	1818022	1818113	1818096	1818069	1818114	1818097	1818070
S frame 4a	K4	12 x 12 mm	1818009	1818010	1818023	1818024	1818050	1818051	1818052	18180531	1818054	1818055
S frame 4b	K4	12 x 12 mm	1818009	1818010	1818023	1818024	1818050	1818051	1818052	18180531	1818054	1818055
S frame 5	K5	14 x 14 mm	1818011	1818012	1818025	1818026	1818056	1818057	1818058	1818059	1818060	1818061
S frame 6	K6	14 x 14 mm	1818013	1818014	1818027	1818028	1818062	1818063	1818064	1818056	1818066	1818067
Handles for change-over mechanisms												
DMV 160N	K2S	6 x 6 mm					1818072					
DMV 250N	K3	10 x 10 mm					1818116					
DMV 400N	K3	10 x 10 mm					1818116					
DMV 630N	K5	14 x 14 mm					1818076					
DMV 1000N	K5	14 x 14 mm					1818076					
DMV 1250N	K6 (2x)	14 x 14 mm					1818062					
DMV 1600N	K6 (2x)	14 x 14 mm					1818062					



Definition of Characteristics

Excerpt from IEC 60947-3

Conventional enclosed thermal current (I_{the})
The conventional enclosed thermal current is the value of current stated by the manufacturer to be used for the temperature-rise tests of the equipment when mounted in a specified enclosure. The value of the conventional enclosed thermal current shall be at least equal to the maximum value of the rated operational current of the enclosed equipment in eight-hour duty.
If the equipment is normally intended for use in unspecified enclosures, the test is not mandatory if the test for conventional free air thermal current (Ith) has been made. In this case, the manufacturer shall be prepared to give guidance on the value of enclosed thermal current or the derating factor.

Conventional free air thermal current (I_{th})
The conventional free air thermal current is the maximum value of test current to be used for temperature-rise tests of unenclosed equipment in free air. The value of the conventional free air thermal current shall be at least equal to the maximum value of the rated operational current of the unenclosed equipment in eight-hour duty. Free air is understood to be air under normal indoor conditions reasonably free from draughts and external radiation.

Rated frequency
The supply frequency for which an equipment is designed and to which the other characteristic values correspond.

Rated impulse withstand voltage (U_{imp})
The peak value of an impulse voltage of prescribed form and polarity which the equipment is capable of withstanding without failure under specified conditions of test and to which the values of the clearances are referred. The rated impulse withstand voltage of an equipment shall be equal to or higher than the values stated for the transient overvoltages occurring in the circuit in which the equipment is fitted.

Rated insulation voltage (U_i)
The rated insulation voltage of an equipment is the value of voltage to which dielectric tests and creepage distances are referred. In no case shall the maximum value of the rated operational voltage exceed that of the rated insulation voltage.

Rated operational current (I_e) or rated operational power
A rated operational current of an equipment is stated by the manufacturer and takes into account the rated operational voltage, the rated frequency, the rated duty, the utilization category and the type of protective enclosure, if appropriate. In the case of equipment for direct switching of individual motors, the indication of a rated operational current may be replaced or supplemented by an indication of the maximum rated power output, at the rated operational voltage considered, of the motor for which the equipment is intended. The manufacturer shall be prepared to state the relationship assumed between the operational current and the operational power, if any.

Rated operational voltage (U_e)
A rated operational voltage of an equipment is a value of voltage which, combined with a rated operational current, determines the application of the equipment and to which the relevant tests and the utilization categories are referred. For single-pole equipment, the rated operational voltage is generally stated as the voltage across the pole.
For multipole equipment, it is generally stated as the voltage between phases.

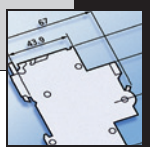
Rated short-circuit making capacity (I_{cm})
The rated short-circuit making capacity of a switch or a switch-disconnector is the value of short-circuit making capacity assigned to the equipment by the manufacturer for the rated operational voltage, at rated frequency (if any) and at specified power-factor (or time-constant). It is expressed as the maximum prospective peak current.

Rated short-time withstand current (I_{cw})
The rated short-time withstand current of a switch, a disconnector or a switch-disconnector is the value of short-time withstand current, assigned by the manufacturer, that the equipment can carry without any damage under the relevant test conditions. The value of the rated short-time withstand current shall be not less than twelve times the maximum rated operational current and, unless otherwise stated by the manufacturer, the duration of the current shall be 1 s.

Rated uninterrupted current (I_u)
The rated uninterrupted current of an equipment is a value of current, stated by the manufacturer, which the equipment can carry in uninterrupted duty.

Rated conditional short-circuit current
The rated conditional short-circuit current of an equipment is the value of prospective current, stated by the manufacturer, which the equipment, protected by a short-circuit protective device specified by the manufacturer, can withstand satisfactorily for the operating time of this device under the specified test conditions. The details of the specified short-circuit protective device shall be stated by the manufacturer.

Notes:
1. For a.c. the rated conditional short-circuit current is expressed by the r.m.s. value of the a.c. component.
2. The short-circuit protective device may either form an integral part of the equipment or be a separate unit.



Excerpt from IEC 60947-3

Switch
A mechanical switching device capable of making, carrying and breaking currents under normal circuit conditions which may include specified operating overload conditions and also carrying for a specified time currents under specified abnormal circuit conditions such as those of short circuit.

Disconnector[1)]
A mechanical switching device which, in the open position, complies with the requirements specified for the isolating function.

Switch-disconnector
A switch which, in the open position, satisfies the isolating requirements specified for a disconnector.

Fuse-combination unit
(general term for fuse switching devices)
A combination of a mechanical switching device and one or more fuses in a composite unit, assembled by the manufacturer or in accordance with his instructions.

Switch-fuse
A switch in which one or more poles have a fuse in series in a composite unit.

Disconnector-fuse
A disconnector in which one or more poles have a fuse in series in a composite unit.

Switch-disconnector-fuse
A switch-disconnector in which one or more poles have a fuse in series in a composite unit.

Fuse-switch
A switch in which a fuse-link or a fuse-carrier with fuse-link forms the moving contact.

Fuse-disconnector
A disconnector in which a fuse-link or fuse-carrier with fuse-link forms the moving contact.

Fuse-switch-disconnector
A switch-disconnector in which a fuse-link or a fuse-carrier with fuse-link forms the moving contact.

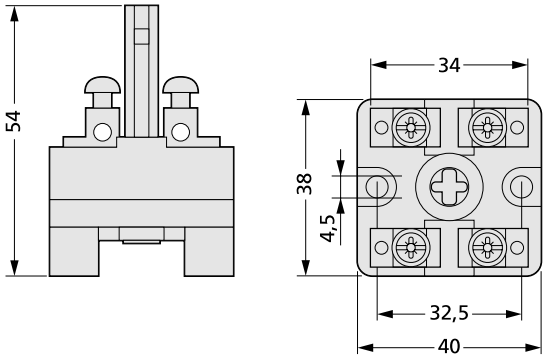
Making and breaking current	Isolating	Making, breaking and isolating
Switch	Disconnector	Switch-disconnector
Switch-fuse	Disconnector-fuse	Switch-disconnector-fuse
Fuse-switch	Fuse-disconnector	Fuse-switch-disconnector

[1)] A disconnector is capable of opening and closing a circuit when either a negligible current is broken or made, or when no significant change in the voltage across the terminals of each of the poles of the disconnector occurs. It is also capable of carrying currents under normal circuit conditions and carrying for a specified time currents under abnormal conditions such as those of short circuit.

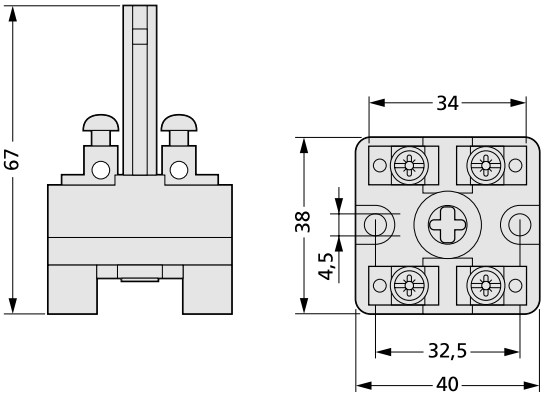
Note: This definition differs from IEV 441-15-05 by referring to isolating function instead of isolating distance.

Rotary switches, type RSD, technical information

Rotary switches, type RSD, dimensional drawings



Type RSD 25,
Eaton list number 1313207.



Type RSD 25,
Eaton list number 1313208.

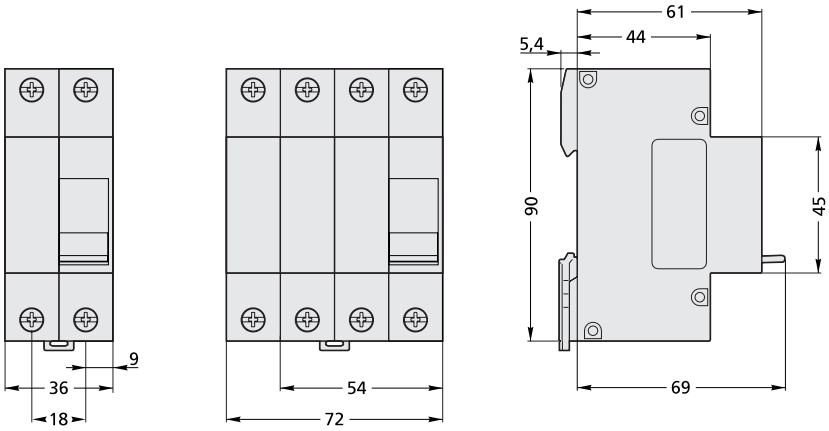
Rotary switches, type RSD, technical details

Type		RSD 25
Conventional free air thermal current:	I_{th}	25 A
Conventional enclosed thermal current:	I_{the}	25 A
Rated uninterrupted current:	I_u	25 A
Rated operational voltage:	U_e	230 V
Rated insulation voltage:	U_i	250 V
Rated impulse withstand voltage:	U_{imp}	4 kV
Rated operational current at U_e = 230 V AC-21A:	I_e	25 A
at U_e = 230 V AC-22A:	I_e	25 A
Rated short-time withstand current:	I_{cw}	300 A-1 s
Rated short-circuit making capacity:	I_{cm}	420 A
Rated conditional short-circuit current fuse protected short-circuit withstand/making:		30 kA
Cut-off current:	max.	3,7 kA
Joule integral:	max.	2,22 kA^2s
Fuse-links:	I_n	25 A
Standards:		NEN-EN-IEC 60947-3
Certification:		KEMA-KEUR

Rotary switches, type RSD, connecting capacity

Copper conductor	Cross section	Tightening torque
Solid	2,5 - 10 mm^2	1,5 Nm
Stranded	1,5 - 6 mm^2	1,5 Nm
Flexible	1,5 - 4 mm^2	1,5 Nm

Switch-disconnectors, type LSC, dimensional drawings



2-Pole (2P) 3-Pole (3P), 4-pole (4P)

Switch-disconnector, type LSC

Switch-disconnectors, type LSC, technical details

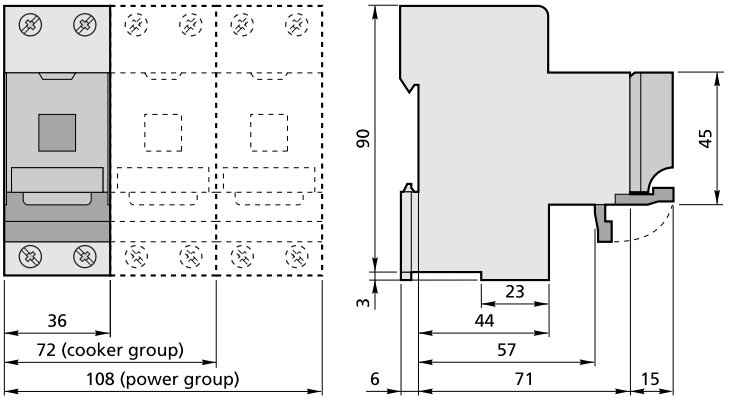
Type		LSC 25	LSC 40	LSC 63
Conventional free air thermal current:	I_{th}	25 A	40 A	63 A
Conventional enclosed thermal current:	I_{the}	25 A	40 A	63 A
Rated uninterrupted current:	I_u	25 A	40 A	63 A
Rated operational voltage:	U_e	415 V	415 V	415 V
Rated insulation voltage:	U_i	440 V	440 V	440 V
Rated impulse withstand voltage:	U_{imp}	6 kV	6 kV	6 kV
Rated operational current at U_e = 415 V AC-21A:	I_e	25 A	40 A	63 A
at U_e = 415 V AC-22A:	I_e	25 A	40 A	63 A
Rated short-time withstand current:	I_{cw}	0,8 kA-0,3 s	0,8 kA-0,3 s	0,8 kA-0,3 s
Rated short-circuit making capacity:	I_{cm}	1,13 kA	1,13 kA	1,13 kA
Rated conditional short-circuit current fuse protected short-circuit withstand/making:		35 kA	35 kA	35 kA
Cutt-off current:	max.	7,1 kA	7,1 kA	7,1 kA
Joule integral:	max.	20 kA^2s	20 kA^2s	20 kA^2s
Patroon:	I_n	63 A	63 A	63 A
Standards:		IEC 60947-3		
Certification:		KEMA-KEUR		

Switch-disconnectors, type LSC, circuit diagram

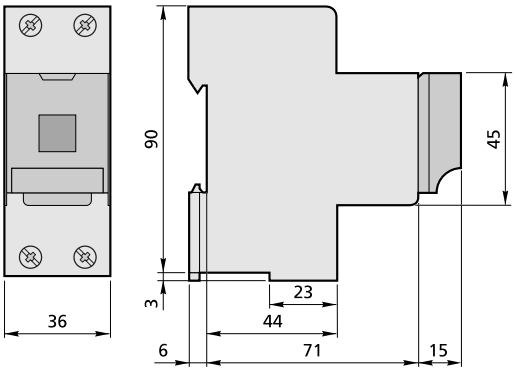
Type	**LSC 25, LSC 40 and LSC 63**	
Copper conductor	**Cross section**	**Tightening torque**
Solid	2,5 - 35 mm^2	3,5 Nm
Stranded	2,5 - 35 mm^2	3,5 Nm
Flexible	2,5 - 35 mm^2	3,5 Nm

Pasco, type LPC and Paco type PHM, technical information

Switch-fuses Pasco, type LPC and fuse-switches Paco, type PHM, dimensional drawings



Switch-fuse, Pasco, type LPC



Fuse-switches, Paco, type PHM

Switch-fuses Pasco, type LPC and fuse-switches Paco, type PHM, technical details

Type:		Pasco LPC 25	LPC 63	Paco PHM 25	PHM 63
Conventional free air thermal current:	I_{th}	25 A	50 A	25 A	50 A
Conventional enclosed thermal current:	I_{the}	25 A	50 A	25 A	50 A
Rated uninterrupted current:	I_u	25 A	50 A	25 A	50 A
Rated operational voltage:	U_e	400 V	400 V	400 V	400 V
Rated insulation voltage:	U_i	400 V	400 V	400 V	400 V
Rated impulse withstand voltage:	U_{imp}	6 kV	6 kV	6 kV	6 kV
Rated operational current at U_e = 230 V AC-21A:	I_e	25 A	50 A	-	-
at U_e = 230 V AC-21B:	I_e	-	-	25 A	50 A
at U_e = 400 V AC-21B:	I_e	-	-	25 A	50 A
at U_e = 230 V AC-22A:	I_e	25 A	50 A	-	-
Rated conditional short-circuit current fuse protected short-circuit withstand/ making:		50 kA	35 kA	50 kA	35 kA
Cut-off current:	max.	4,8 kA	6,7 kA	4,8 kA	6,7 kA
Joule integral:	max.	4 kA^2s	15 kA^2s	4 kA^2s	15 kA^2s
Fuse-link:	I_n	25 A	50 A	25 A	50 A
Fuse-holder type:		DII	DIII	DII	DIII
Standards:		IEC 60947-3			
Certification:		KEMA-KEUR			

Switch-fuses Pasco, type LPC and fuse-switches Paco, type PHM, connecting capacity

Copper conductor	Cross section	Tightening torque
Solid	1,5 - 10 mm^2	3 Nm
Stranded	1,5 - 16 mm^2	3 Nm
Flexible	1,5 - 16 mm^2	3 Nm

Switch-disconnector-fuse type QSA 40-63 A, BS or DIN, frame size 0, technical details

Type:		QSA 40N0		QSA 63N0	
Conventional free air thermal current:	I_{th}	40 A		63 A	
Conventional enclosed thermal current:	I_{the}	40 A		63 A	
Rated uninterrupted current:	I_u	40 A		63 A	
Rated operational voltage:	U_e	690 V		690 V	
Rated insulation voltage:	U_i	800 V		800 V	
Rated impulse withstand voltage:	U_{imp}	8 kV		8 kV	
Rated operational current					
at U_e = 415 V AC-21A:	I_e	40 A		63 A	
at U_e = 415 V AC-22A:	I_e	40 A		63 A	
at U_e = 415 V AC-23A:	I_e	40 A		63 A	
at U_e = 500 V AC-21A:	I_e	40 A		63 A	
at U_e = 500 V AC-22A:	I_e	40 A		63 A	
at U_e = 500 V AC-23A:	I_e	40 A		63 A	
at U_e = 690 V AC-21A:	I_e	40 A		63 A	
at U_e = 690 V AC-22A:	I_e	40 A		63 A	
at U_e = 690 V AC-23A:	I_e	40 A		63 A	
Rated operational power					
at U_e = 415 V AC-23A:		22 kW		30 kW	
at U_e = 500 V AC-23A:		25 kW		45 kW	
at U_e = 690 V AC-23A:		37 kW		59 kW	
Rated conditional short-circuit current					
fuse protected short-circuit withstand/making:		50 kA	100 kA	50 kA	100 kA
Max. cut-off current:		14.5 kA	11 kA	14.5 kA	11 kA
Max. joule integral:		140 kA^2s	18,4 kA^2s	140 kA^2s	18,4 kA^2s
Fuse-link, max.:	I_n	125 A	63 A	125 A	63 A
Suitable for fuse-link size:		00/A3		00/A3	
Switched neutral					
Conventional enclosed thermal current:	I_{the}	40 A		63 A	
Rated operational current					
at U_e = 500 V AC-22B:	I_e	40 A		63 A	
Solid neutral					
Conventional enclosed thermal current:	I_{the}	40 A		63 A	
Auxiliary switch					
Rated operational current					
at U_e = 400 V AC-15:	I_e	4 A		4 A	
at U_e = 660 V AC-12:	I_e	10 A		10 A	
Standards:		EN 60947-3, IEC 60947-3			
Approvals:		KEMA-KEUR, Lloyd's (LR), Veritas			

Switch-disconnector-fuse, type QSA 63-160 A, BS or DIN, frame size 1, technical details

Type:		QSA 63N1		QSA100N1		QSA125N1		QSA160N1	
Conventional free air thermal current:	I_{th}	63 A		100 A		125 A		160 A	
Conventional enclosed thermal current:	I_{the}	63 A		100 A		125 A		160 A	
Rated uninterrupted current:	I_u	63 A		100 A		125 A		160 A	
Rated operational voltage:	U_e	690 V		690 V		690 V		690 V	
Rated insulation voltage:	U_i	1000 V		1000 V		1000 V		1000 V	
Rated impulse withstand voltage:	U_{imp}	8 kV		8 kV		8 kV		8 kV	
Rated operational current [1]									
at U_e = 415 V AC-21B:	I_e	63 A		100 A		125 A		160 A	
at U_e = 415 V AC-22B:	I_e	63 A		100 A		125 A		160 A	
at U_e = 415 V AC-23B:	I_e	63 A		100 A		125 A		125 A	
at U_e = 500 V AC-21B:	I_e	63 A		100 A		125 A		160 A	
at U_e = 500 V AC-22B:	I_e	63 A		100 A		125 A		160 A	
at U_e = 500 V AC-23B:	I_e	63 A		100 A		125 A		125 A	
at U_e = 690 V AC-21B:	I_e	63 A		100 A		125 A		160 A	
at U_e = 690 V AC-22B:	I_e	63 A		100 A		125 A		160 A	
at U_e = 690 V AC-23B:	I_e	63 A		100 A		125 A		160 A	
Rated operational power [2]									
at U_e = 415 V AC-23B:		30 kW		55 kW		59 kW		90 kW	
at U_e = 500 V AC-23B:		45 kW		59 kW		80 kW		110 kW	
at U_e = 690 V AC-23B:		59 kW		90 kW		110 kW		147 kW	
Rated conditional short-circuit current fuse protected short-circuit withstand/ making:		50 kA	100 kA	50 kA	100 kA	50 kA	100 kA	50 kA	100 kA
Max. cut-off current:		27 kA	23 kA	27 kA	23 kA	27 kA	23 kA	27 kA	23 kA
Max. joule integral:		820 kA^2s	143 kA^2s	820 kA^2s	143 kA^2s	820 kA^2s	143 kA^2s	820 kA^2s	143 kA^2s
Fuse-link, max.:	I_n	315 A	160 A	315 A	160 A	315 A	160 A	315 A	160 A
Suitable for fuse-link size:		00/A3		00/A4 max. Ø 30		00/B1-B2		00/B1-B2	
Switched neutral Conventional enclosed thermal current:	I_{the}	63 A		100 A		125 A		160 A	
Rated operational current at U_e = 500 V AC-22B:	I_e	63 A		100 A		125 A		160 A	
Solid neutral Conventional enclosed thermal current:	I_{the}	63 A		100 A		125 A		160 A	
Auxiliary switch Rated operational current at U_e = 400 V AC-15:	I_e	4 A		4 A		4 A		4 A	
at U_e = 660 V AC-12:	I_e	10 A		10 A		10 A		10 A	
Standards:		EN 60947-3, IEC 60947-3							
Approvals:		KEMA-KEUR, Lloyd's (LR), Veritas							

1) Rated operational current at 220 Vdc and 440 Vdc on request.
2) Rated capacitor power on request.

Switch-disconnector-fuse, type QSA 160-400 A, BS or DIN, frame size 2, technical details

Type:		QSA 160N		QSA 200N		QSA 250N		QSA 315N		QSA 400N	
Conventional free air thermal current:	I_{th}	160 A		200 A		250 A		315 A		400 A	
Conventional enclosed thermal current:	I_{the}	160 A		200 A		250 A		315 A		355 A[1)]	
Rated uninterrupted current:	I_u	160 A		200 A		250 A		315 A		355/400 A	
Rated operational voltage:	U_e	690 V		690 V		690 V		690 V		690 V	
Rated insulation voltage:	U_i	1000 V		1000 V		1000 V		1000 V		1000 V	
Rated impulse withstand voltage:	U_{imp}	12 kV		12 kV		12 kV		12 kV		12 kV	
Rated operational current [2)]											
at U_e = 415 V AC-21B:	I_e	160 A		200 A		250 A		315 A		400 A	
at U_e = 415 V AC-22B:	I_e	160 A		200 A		250 A		315 A		400 A	
at U_e = 415 V AC-23B:	I_e	160 A		200 A		250 A		315 A		400 A	
at U_e = 500 V AC-21B:	I_e	160 A		200 A		250 A		315 A		400 A	
at U_e = 500 V AC-22B:	I_e	160 A		200 A		250 A		315 A		400 A	
at U_e = 500 V AC-23B:	I_e	160 A		200 A		250 A		315 A		400 A	
at U_e = 690 V AC-21B:	I_e	160 A		200 A		250 A		315 A		400 A	
at U_e = 690 V AC-22B:	I_e	160 A		200 A		250 A		315 A		400 A	
at U_e = 690 V AC-23B:	I_e	160 A		200 A		250 A		315 A		400 A	
Rated operational power [3)]											
at U_e = 415 V AC-23B:		90 kW		110 kW		147 kW		184 kW		220 kW	
at U_e = 500 V AC-23B:		110 kW		140 kW		160 kW		220 kW		257 kW	
at U_e = 690 V AC-23B:		157 kW		184 kW		220 kW		295 kW		375kW	
Rated making and breaking capacity in accordance with CSA at U_n = 600 V		-		200 hp		-		-		300 hp	
at U_n = 600 V	I_n	-		200 A		-		-		260 A	
Rated conditional short-circuit current fuse protected short-circuit withstand/making:		50 kA	100 kA	50 kA	100 kA	50 kA	100 kA	50 kA	100 kA	50 kA	100 kA
Max. cut-off current:		57 kA	43 kA	57 kA	43 kA	57 kA	43 kA	57 kA	43 kA	57 kA	43 kA
Max. joule integral:		13,000 kA^2s	986 kA^2s	13,000 kA^2s	986 kA^2s	13,000 kA^2s	986 kA^2s	13,000 kA^2s	986 kA^2s	13,000 kA^2s	986 kA^2s
Fuse-link, max.:	I_n	630 A	400 A	630 A	400 A	630 A	400 A	630 A	400 A	630 A	400 A
Suitable for fuse-link size:		00/B1-B2		1-2/B1-B2		1-2/B1-B4		1-2/B1-B4		1-2/B1-B4	
Switched neutral Conventional enclosed thermal current:	I_{the}	160 A		200 A		250 A		315 A		400 A	
Rated operational current at U_e = 500 V AC-22B :	I_e	160 A		200 A		250 A		315 A		400 A	
Solid neutral Conventional enclosed thermal current:	I_{the}	160 A		200 A		250 A		315 A		400 A	
Auxiliary switch Rated operational current at U_e = 400 V AC-15:	I_e	4 A		4 A		4 A		4 A		4 A	
at U_e = 660 V AC-12:	I_e	10 A		10 A		10 A		10 A		10 A	
Standards:		EN 60 947-3, IEC 60947-3, CSA C22.2 no. 14									
Approvals:		KEMA-KEUR, Lloyd's (LR), Veritas, CSA									

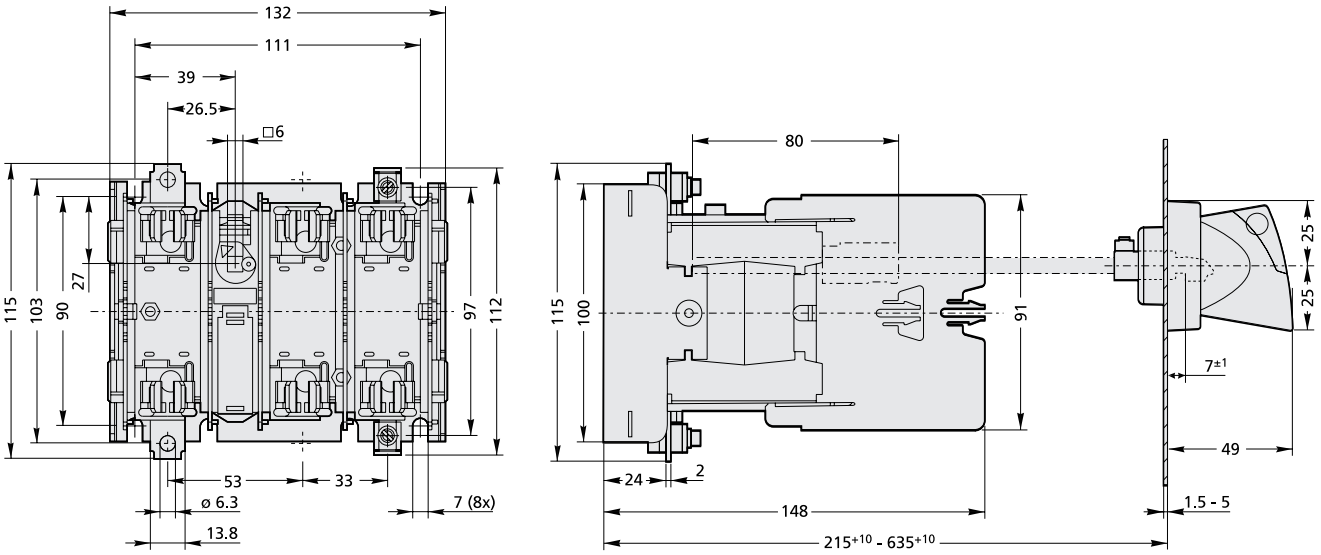
1) 400 A in ventilated enclosure
2) Rated operational current at 220 Vdc and 440 Vdc on request
3) Rated capacitor power on request.

Switch-disconnector-fuse, BS or DIN, QSA 400-800 A, frame size 3, technical details

Type:		QSA 400		QSA 630		QSA 800	
Conventional free air thermal current:	I_{th}	400 A		630 A		800 A	
Conventional enclosed thermal current:	I_{the}	400 A		630 A		800 A	
Rated uninterrupted current:	I_u	400 A		630 A		800 A	
Rated operational voltage:	U_e	690 V		690 V		690 V	
Rated insulation voltage:	U_i	1000 V		1000 V		1000 V	
Rated impulse withstand voltage:	U_{imp}	12 kV		12 kV		12 kV	
Rated operational current [1]							
at U_e = 415 V AC-21B:	I_e	400 A		630 A		800 A	
at U_e = 415 V AC-22B:	I_e	400 A		630 A		800 A	
at U_e = 415 V AC-23B:	I_e	400 A		630 A		800 A	
at U_e = 500 V AC-21B:	I_e	400 A		630 A		800 A	
at U_e = 500 V AC-22B:	I_e	400 A		630 A		800 A	
at U_e = 500 V AC-23B:	I_e	400 A		630 A		800 A	
at U_e = 690 V AC-21B:	I_e	400 A		630 A		800 A	
at U_e = 690 V AC-22B:	I_e	400 A		630 A		800 A	
at U_e = 690 V AC-23B:	I_e	400 A		630 A		800 A	
Rated operational power [2]							
at U_e = 415 V AC-23B:		220 kW		375 kW		500 kW	
at U_e = 500 V AC-23B:		257 kW		475 kW		560 kW	
at U_e = 690 V AC-23B:		375kW		630 kW		900 kW	
Rated making and breaking capacity in accordance with CSA							
at U_n = 600 V		-		400 hp		-	
at U_n = 600 V	I_n	-		400 A		-	
Rated conditional short-circuit current fuse protected short-circuit withstand/making:		50 kA	100 kA	50 kA	100 kA	50 kA	100 kA
Max. cut-off current:		64 kA	62.5 kA	64 kA	62.5 kA	65 kA	62.5 kA
Max. joule integral:		13,000 kA^2s	3700 kA^2s	13,000 kA^2s	3700 kA^2s	15,000 kA^2s	3700 kA^2s
Fuse-link, max.:	I_n	800 A	630 A	800 A	630 A	800 A	630 A
Suitable for fuse-link size:		3/C1-C3		3/C1-C3		C1-C3	
Switched neutral Conventional enclosed thermal current:	I_{the}	400 A		630 A		800 A	
Rated operational current at U_e = 500 V AC-22B:	I_e	400 A		630 A		800 A	
Solid neutral Conventional enclosed thermal current:	Ithe	400 A		630 A		800 A	
Auxiliary switch Rated operational current at U_e = 400 V AC-15:	I_e	4 A		4 A		4 A	
at U_e = 660 V AC-12:	I_e	10 A		10 A		10 A	
Standards:		EN 60947-3, IEC 947-3, CSA C22.2 no. 14					
Approvals:		KEMA-KEUR, Lloyd's (LR), Veritas, CSA					

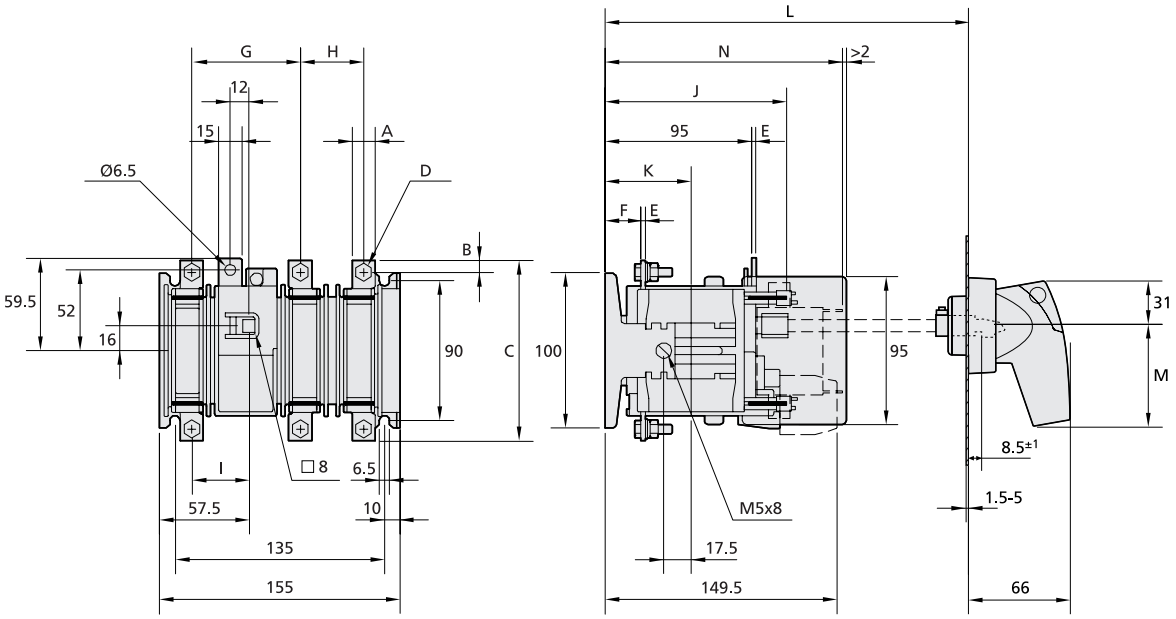
[1] Rated operational current at 220 Vdc and 440 Vdc on request.
[2] Rated capacitor power on request.

Switch-disconnector-fuse, DIN fuse-link, QSA 40-63 A, frame size 0, dimensional drawings



Type QSA 40N0 / QSA 63N0 (DIN).

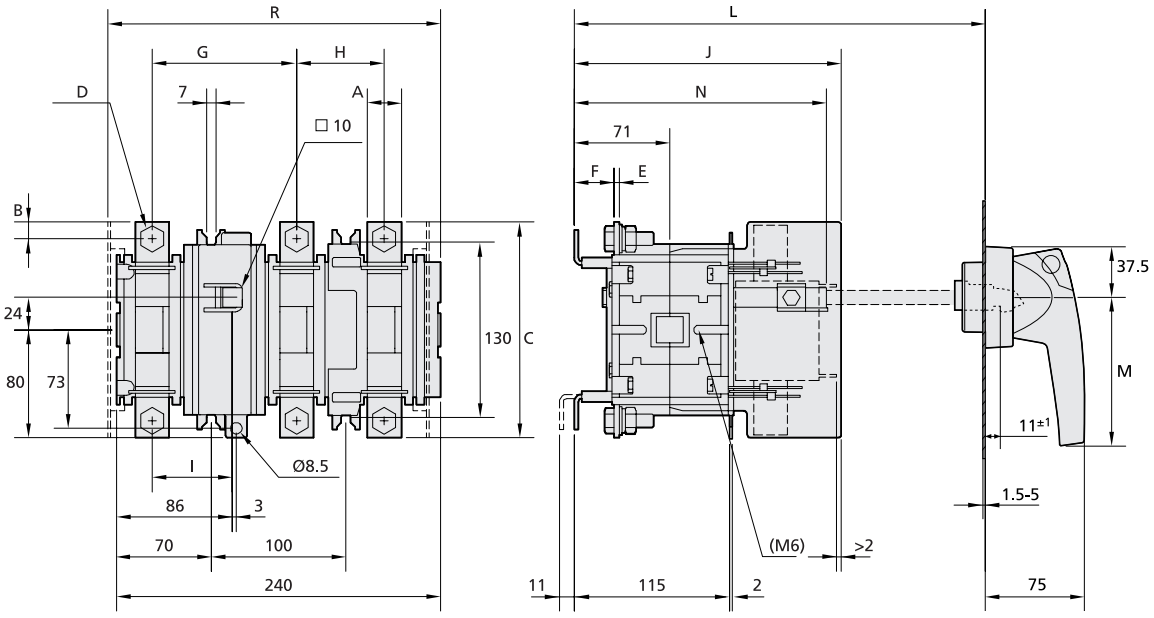
Switch-disconnector-fuse, DIN fuse-link, QSA 63-160 A, frame size 1, dimensional drawings



Type QSA 63N1 - QSA 160N1 (DIN).

Type	A	B	C	D	E	F	G	H	I	J	K	L	M	N
QSA 63N1-00	12	6	100	M5	2	24	72	38.5	38	118	55.5	200^{+10} - 620^{+10}	62	155.5
QSA 100N1-00	15	7.5	116	M6	3	23	70	40.5	37	118	55.5	200^{+10} - 620^{+10}	62	155.5
QSA 125N1-00	15	7.5	116	M6	3	23	70	40.5	37	118	55.5	200^{+10} - 620^{+10}	62	155.5
QSA 160N1-00	20	10	127	M8	3	23	65	45.5	35	118	55.5	200^{+10} - 620^{+10}	62	163

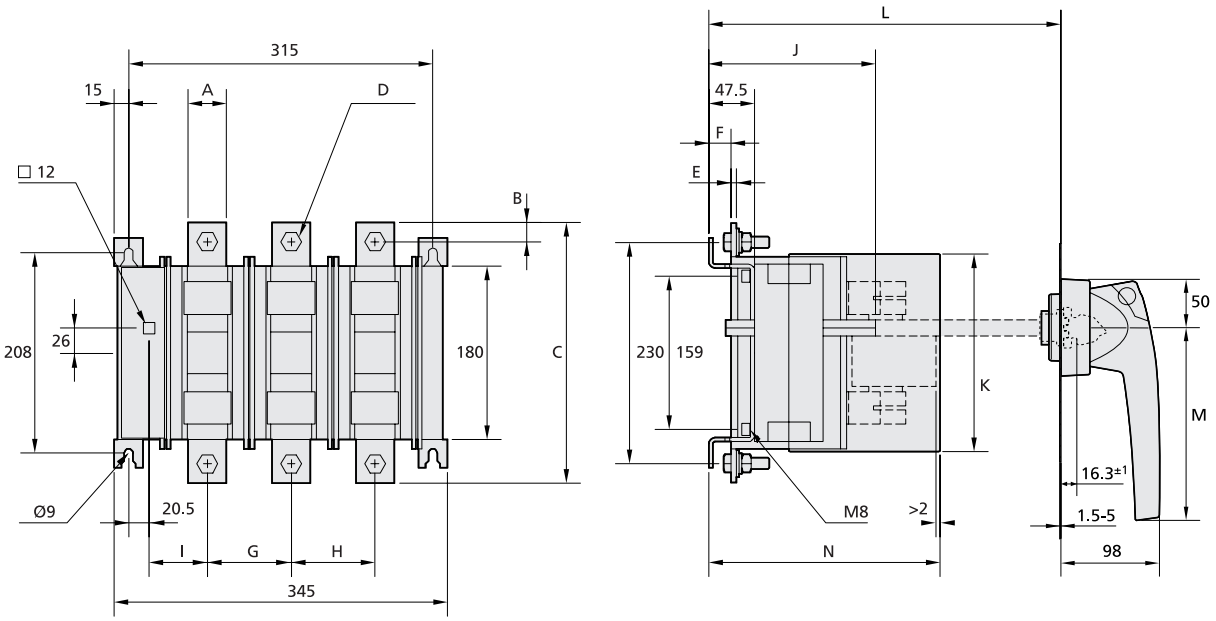
Switch-disconnector-fuse, DIN fuse-link, QSA 160-400 A, frame size 2, dimensional drawings



Type QSA 160N - QSA 400N (DIN).

Type	A	B	C	D	E	F	G	H	I	J	K	L	M	N	R
QSA 160N-00	20	10	146	M8	4	33	107	65	62	188	150	205^{+10}-625^{+10}	140	178	-
QSA 200N-2	25	12.5	160	M10	4	29	107	65	59.5	198	160	205^{+10}-625^{+10}	140	188	246.5
QSA 250N-2	25	12.5	160	M10	4	29	107	65	59.5	198	160	205^{+10}-625^{+10}	140	188	246.5
QSA 315N-2	25	12.5	160	M10	6	27	107	65	59.5	198	160	205^{+10}-625^{+10}	140	188	246.5
QSA 400N-2	25	12.5	160	M10	6	27	107	65	59.5	198	160	205^{+10}-625^{+10}	140	188	246.5

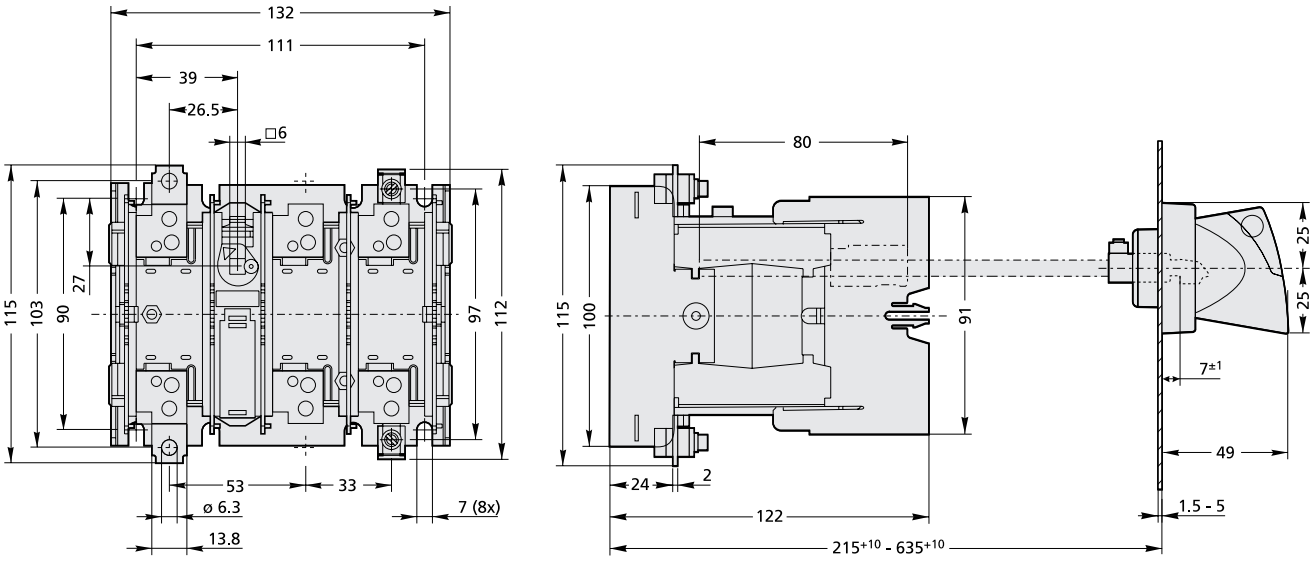
Switch-disconnector-fuse, DIN fuse-link, QSA 400- 630 A, frame size 3, dimensional drawings



Type QSA 400 - QSA 630 (DIN).

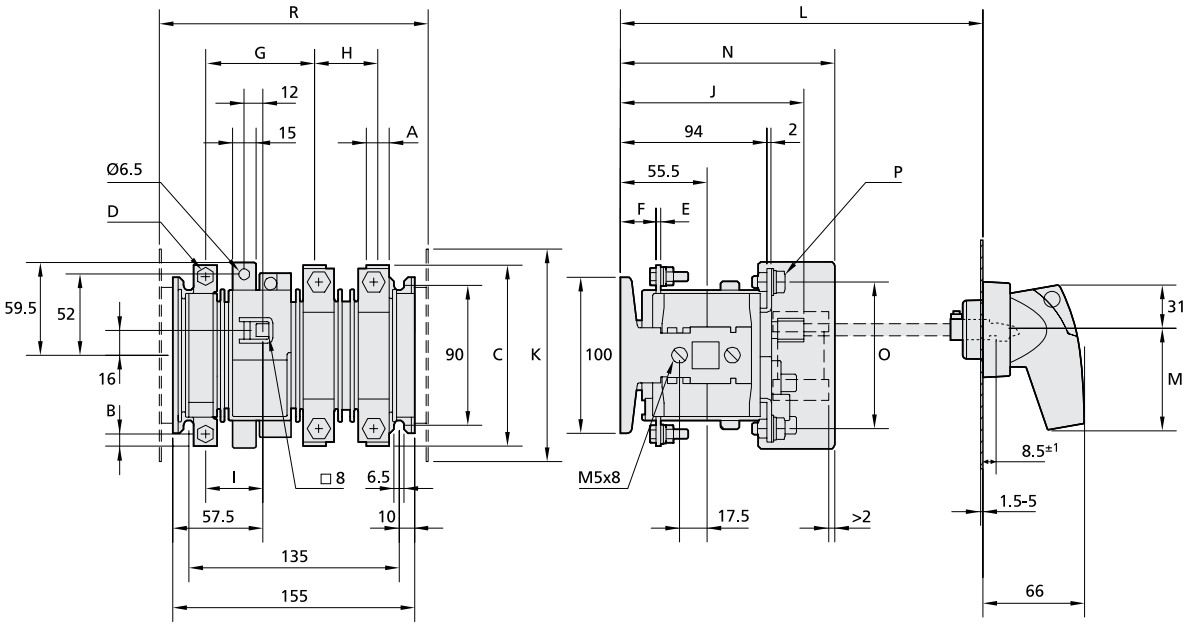
Type	A	B	C	D	E	F	G	H	I	J	K	L	M	N
QSA 400-3	40	20	270	M12	6	23	87	87	60	173	205	320^{+10}-620^{+10}	200	240
QSA 630-3	40	20	270	M12	6	23	87	87	60	173	205	320^{+10}-620^{+10}	200	240

Switch-disconnector-fuse, BS fuse-link, QSA 40-63 A, frame size 0, dimensional drawings



Type QSA 40N0 - QSA 63N0 (BS).

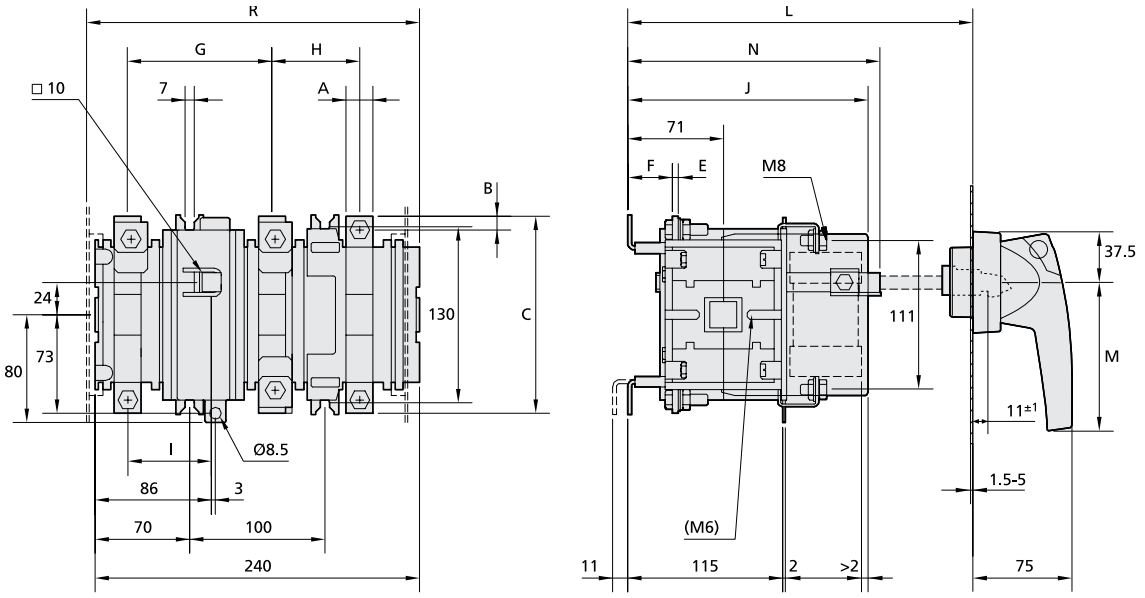
Switch-disconnector-fuse, BS fuse-link, QSA 63-160 A, frame size 1, dimensional drawings



Type QSA 63N1 - QSA 160N1 (BS).

Type	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	R
QSA 63N1-A3	12	6	100	M5	2	24	72	38.5	38	118	95	200^{+10}-620^{+10}	62	155.5	73	M5	-
QSA 100N1-A4	15	7.5	116	M6	3	23	70	40.5	37	118	120	200^{+10}-620^{+10}	62	137.5	94	M8	-
QSA 125N1-B2	15	7.5	116	M6	3	23	70	40.5	37	118	150	200^{+10}-620^{+10}	62	137.5	112	M8	184
QSA 160N1-B2	20	10	127	M8	3	23	65	45.5	35	118	150	200^{+10}-620^{+10}	62	137.5	112	M8	184

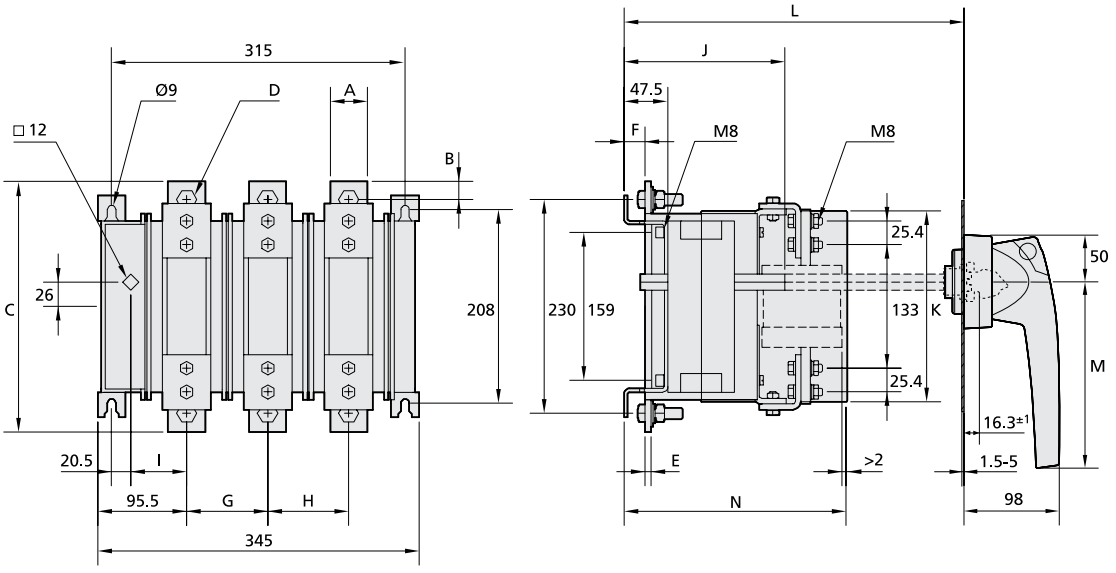
Switch-disconnector-fuse, BS fuse-link, QSA 160-400 A, frame size 2, dimensional drawings



Type QSA 160N - QSA 400N (BS).

Type	A	B	C	D	E	F	G	H	I	J	K	L	M	N	R
QSA 160N-B2	20	10	146	M8	4	33	107	65	62	188	120	205^{+15}-625^{+15}	140	178	-
QSA 200N-B2	20	10	146	M8	4	33	107	65	62	188	120	205^{+15}-625^{+15}	140	178	-
QSA 250N-B4	25	12.5	160	M10	4	29	107	65	59.5	188	160	205^{+15}-625^{+15}	140	198	246.5
QSA 315N-B4	25	12.5	160	M10	6	27	107	65	59.5	188	160	205^{+15}-625^{+15}	140	198	246.5
QSA 400N-B4	25	12.5	160	M10	6	27	107	65	59.5	188	160	205^{+15}-625^{+15}	140	198	246.5

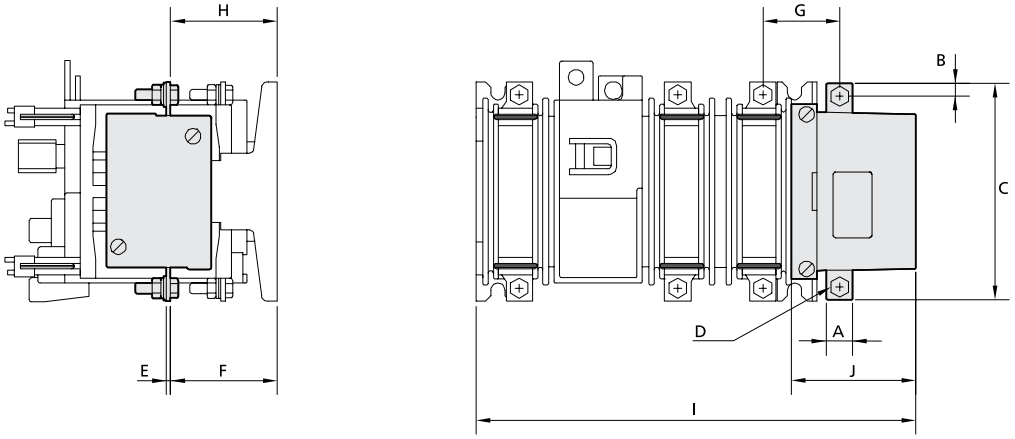
Switch-disconnector-fuse, BS fuse-link, QSA 400-800 A, frame size 3, dimensional drawings



Type QSA 400 C3/3- QSA 630 C3/3- QSA 800 C3/3 (BS).

Type	A	B	C	D	E	F	G	H	I	J	K	L	M	N
QSA 400-C3/3	40	20	270	M12	6	23	87	87	60	173	205	320^{+10}-620^{+10}	200	240
QSA 630-C3/3	40	20	270	M12	6	23	87	87	60	173	205	320^{+10}-620^{+10}	200	240
QSA 800-C3/3	40	20	270	M12	6	23	87	87	60	173	205	320^{+10}-620^{+10}	200	240

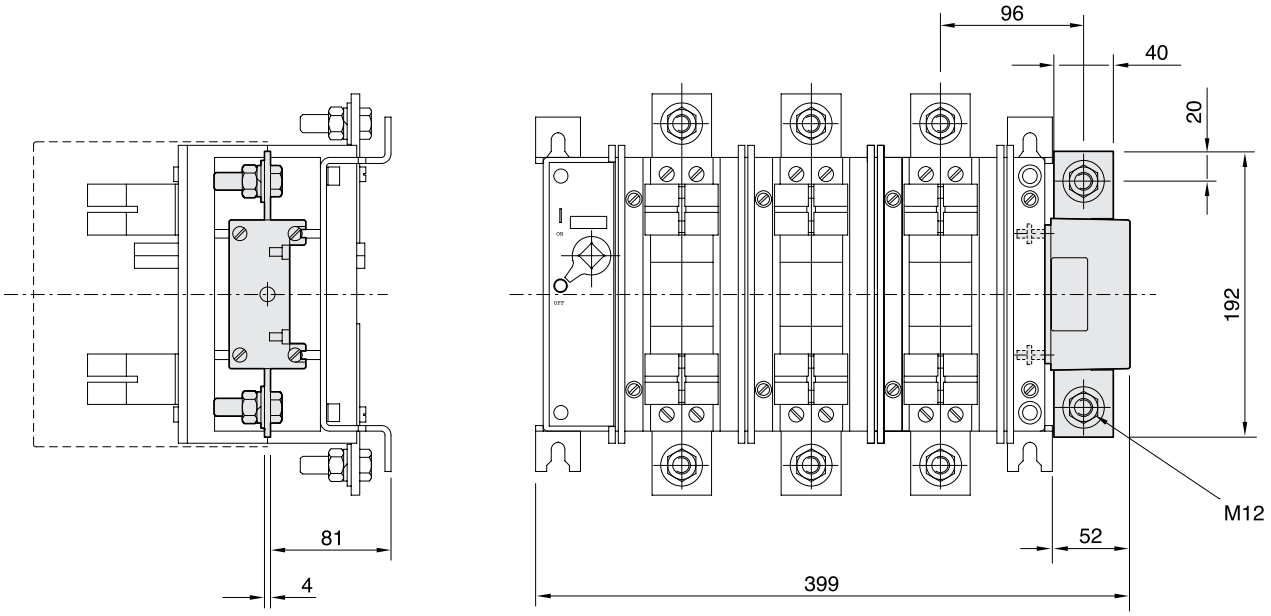
Switch-disconnector-fuse, BS or DIN fuse-link, QSA 40-400 A, with switched neutral, dimensional drawings



Type QSA 40N0 - QSA 400N.

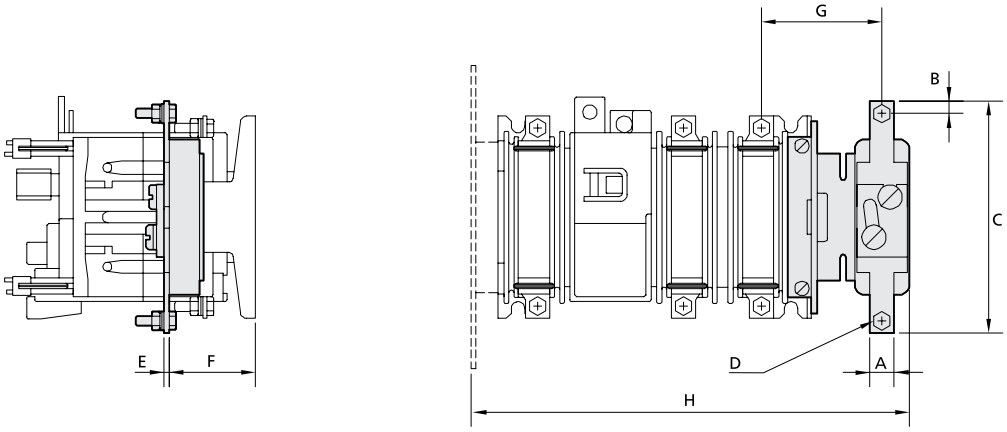
Type	A	B	C	D	E	F	G	H	I	J
QSA 40N0/QSA63N0	12	6	99	M5	4.5	48	35	45.5	177	45
QSA 63N1	12	6	99	M5	2	48.5	36	48.5	200	45
QSA 100N1	15	7.5	105	M6	4.5	48.5	33.5	46	200	45
QSA 125N1	15	7.5	105	M6	4.5	48.5	33.5	46	200	45
QSA 160N1	20	10	115	M8	4.5	48.5	32	46	200	45
QSA 160N	20	10	146	M8	4	69	53	69	299	53
QSA 200N	20	10	146	M8	4	69	53	69	299	53
QSA 250N	25	12.5	160	M10	4	69	55.5	69	299	53
QSA 315N	25	12.5	160	M10	4	69	55.5	69	299	53
QSA 400N	25	12.5	160	M10	4	69	55.5	69	299	53

Switch-disconnector-fuse, BS or DIN fuse-link, QSA 400-800 A, with switched neutral, dimensional drawings



Type QSA 400 - QSA 630 (DIN) and QSA 400 - QSA 800 (BS).

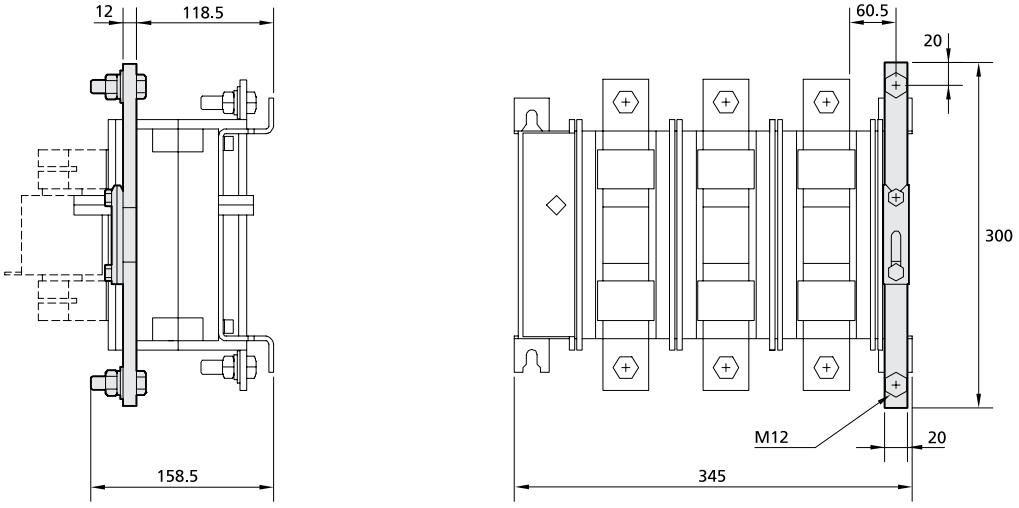
Switch-disconnector-fuse, BS or DIN fuse-link, QSA 40-400 A, with solid neutral, dimensional drawings



Type QSA 40N0 - QSA 400N.

Type	A	B	C	D	E	F	G	H
QSA 40N0/QSA63N0	12	6	114	M5	2.5	44	55	177
QSA 63N1	12	6	114	M5	2.5	41.5	57	203
QSA 100N1	15	7.5	116.5	M6	3	41.5	56	203
QSA 125N1	15	7.5	116.5	M6	3	41.5	56	216
QSA 160N1	20	10	127	M8	3	41.5	54	216
QSA 160N	20	10	146	M8	4	70	79	296.5
QSA 200N	20	10	146	M8	4	70	79	296.5
QSA 250N	25	12.5	160	M10	4	70	76.5	296.5
QSA 315N	25	12.5	160	M10	4	70	76.5	296.5
QSA 400N	25	12.5	160	M10	4	70	76.5	296.5

Switch-disconnector-fuse, BS or DIN fuse-link, QSA 400-800 A, with solid neutral, dimensional drawings



Type QSA 400 - QSA 630 (DIN) and QSA 400 - QSA 800 (BS).

Type	A	B	C	D	E	F	G	H	I
QSA 400	20	20	300	M12	12	118.5	60.5	158.5	345
QSA 630	20	20	300	M12	12	118.5	60.5	158.5	345
QSA 800	20	20	300	M12	12	118.5	60.5	158.5	345

Fused Combination Switches, BS fuse-links, technical data

The technical information given in this table applies to 3 and 4 pole fused combination switches (BS-version)

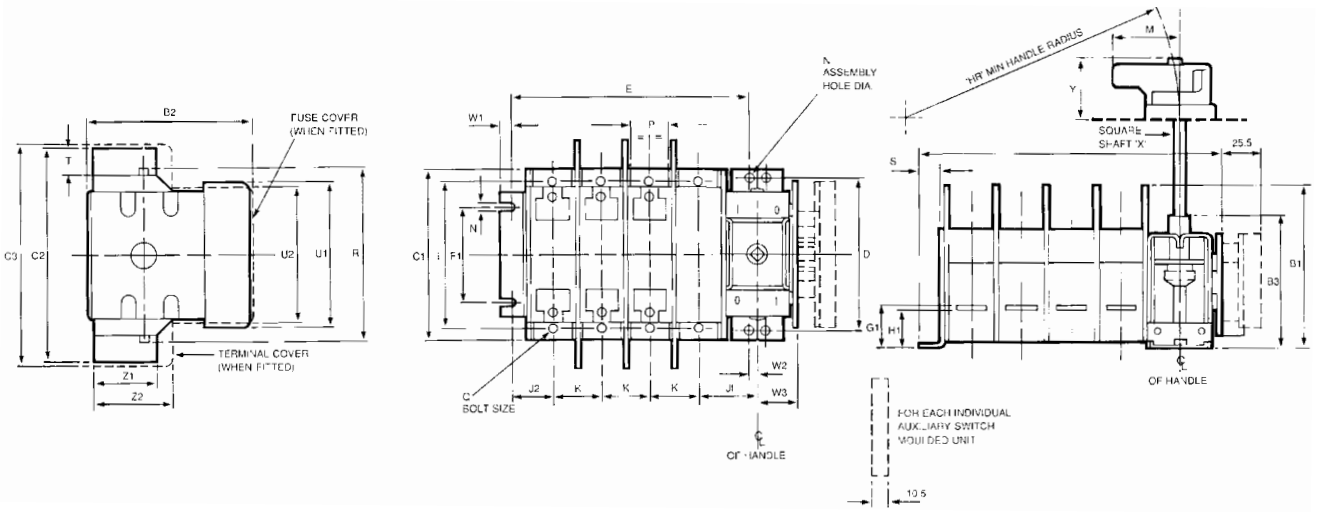
					32A/32A BS	63A/63A BS	100A/63A BS	100A/100A BS	125A/125A BS	200A/160A BS	200A/200A BS	250A/250A BS	315A/315A BS	400A/400A BS	400A/400A BS	630A/630A BS	800A/710A BS
Frame size					1	1	2	2	3	3	4	4a	4b	4b	5	6	6
Fused combination switch, nominal rating				a	32	63	100	100	125	200	200	250	315	400	400	630	800
Rated thermal current (ambient -5°C to +40°C)	**Unenclosed**	I_{th}		a	32	63	100	100	125	200	200	250	315	400	400	630	800
	Enclosed	I_{the}		a	32	63	63	100	125	160	200	250	315	345	400	630	710
	Enclosed with solid links	I_{the}		a	45	63	100	100	160	200	315	315	315	400	400	630	800
Category of duty AC22a		**U_e**			**I_e**	**I_e**	**I_e**	**I_e**	**I_e**	**I_e**	**I_e**	**I_e**	**I_e**	**I_e**	**I_e**	**I_e**	**I_e**
Rated operational current 415V				a	32	63	100	100	125	200	200	250	315	400	400	630	800
		500V		a	32	63	100	100	125	160	200	250	315	400	400	-	-
		550V		a	32	63	100	100	125	135	200	250	315	400	400	-	-
Category of duty AC23a		**U_e**			**I_e**	**I_e**	**I_e**	**I_e**	**I_e**	**I_e**	**I_e**	**I_e**	**I_e**	**I_e**	**I_e**	**I_e**	**I_e**
Rated operational current		220V		a	32	63	63	100	125	160	200	250	315	400	400	630	710
		380V		a	32	63	63	100	125	160	200	250	315	400	400	630	710
		415V		a	32	63	63	100	125	160	200	250	315	400	400	630	710
		500V		a	32	63	63	100	125	160	200	250	315	400	400	-	630
		550V		a	32	63	63	100	125	135	200	250	315	315	400	-	630
		690V		a	-	-	-	-	-	-	-	-	-	-	-	-	-
Rated operational current DC23	**Single pole**	110V		a	32	63	63	100	125	125	200	250	315	315	400	630	800
Rated operational current	**Two poles in series**	250V		a	32	63	63	100	125	125	200	250	315	315	400	630	800
	Two poles in series	500V		a	32	63	63	100	80	80	200	-	-	-	-	-	-
Rated operational power for category AC23a		**U_e** 220V	kW		7.5	15	15	30	37	45	55	75	110	132	132	200	220
		380V	kW		15	30	30	45	55	75	110	130	150	185	185	315	355
		415V	kW		15	30	30	55	60	90	110	130	150	225	225	375	410
		500V	kW		20	37	37	60	75	90	130	150	185	225	280	-	475
		550V	kW		22	45	45	75	90	90	150	185	225	225	300	-	515
		690V	kW		-	-	-	-	-	-	-	-	-	-	-	-	-
Rated operational performance	**Number of cycles**				10,000	10,000	10,000	10,000	8,000	8,000	8,000	8,000	8,000	5,000	5,000	5,000	3,000
Short-time withstand current for 1 second	**RMS value**	**U_e** -	kA		1.39	1.5	3.2	3.2	5	5	10	10	10	10	10	10	10
Short-circuit making capacity	**Peak-value**	550V	kA		3.06	3.7	4.25	4.25	5.44	5.44	10.7	10.7	10.7	10.7	10.7	10.7	10.7
Fuse protected performance		**U_e**															
	RMS value	415V	kA		80	100	80	80	80	80	100	100	72.5	72.5	80	50	50
		500V	kA		63	100	63	63	63	63	100	100	72.5	72.5	63	-	50
		550V	kA		63	100	63	63	63	63	100	100	50	50	63	-	50
		690V	kA		-	-	-	-	-	-	-	-	-	-	-	-	-
	Peak-value	415V	kA		176	220	176	176	176	176	220	220	160	160	176	110	110
		500V	kA		139	220	139	139	139	139	139	220	160	160	176	-	110
		550V	kA		139	220	139	139	139	139	139	220	105	105	139	-	110
		690V	kA		-	-	-	-	-	-	-	-	-	-	-	-	-
Rated operational voltage		U_e	V		550	550	550	550	550	550	550	550	550	550	550	415	550
Rated insulation voltage[1]		U_i	V		690	690	690	690	690	690	690	690	690	690	690	690	6
Rated impulse voltage		U_{imp}	kV		8	8	8	8	8	8	8	8	8	8	8	8	8
Rated capacitor power[2]			kVAr		24	45	45	55	90	120	140	140	160	200	200	270	370
Fuse types	**BS-pattern, BS88**				A1	SB3/4	A2-A3	A2-A3	A2-A3	A2-A4	B1-B2	B1-B2	B1-B4	B1-B4	B1-B4	C1-C3	C1-C3
	Fuse fixing centres		mm		44.5	73	73	73	73,94	73,94	111	111	111	111	111	133,184	133,184
	NFC-pattern				-	-	-	-	-	-	-	-	-	-	-	-	-
	DIN-pattern, DIN43620				-	-	-	-	-	-	-	-	-	-	-	-	-
Solid copper links					20MLK	63MLK	63MLK	63MLK	100MLK	100MLK	200MLK	200MLK	400MLK	400MLK	400MLK	800MLK	800MLK
Weight (cartoned) not including fuselinks	**SPN,SPSN**		kg		0.9	0.92	1.36	1.36	1.6	1.7	5.63	-	-	-	-	-	-
	DP		kg		0.9	0.92	1.36	1.36	1.9	2	5.63	-	-	-	-	-	-
	TP		kg		1.04	1.12	1.57	1.57	2.51	2.58	6.7	6.77	8	8	18.5	-	38
	TPSN		kg		1.2	1.25	1.81	1.81	2.78	2.96	7.5	7.75	9	9	19.5	-	41
	FP		kg		-	-	-	-	-	-	-	-	-	-	-	-	-

1) Units with a rated insulation voltage at 1000 V are available to special order.
2) The capacitor rating of the switch is limited by the fuselink.

The technical information given in this table applies to 3 and 4 pole fused combination switches (DIN-version)

				63 A DIN	100A DIN	125 A DIN	160 A DIN	250A DIN	315 A DIN	400 A DIN	630 A DIN
Frame size				1a	2a	2a	3a	4a	4b	4b	5a
Fused combination switch, nominal rating			a	63	100	100	125	250	315	400	630
Rated thermal current (ambient -5°C to +40°C)	**Unenclosed**	I_{th}	a	63	100	125	160	250	315	400	630
	Enclosed	I_{the}	a	63	100	115	135	250	315	345	540
	Enclosed with solid links	I_{the}	a	-	-	-	-	-	-	-	-
Category of duty AC22a		**U_e**		**I_e**	**I_e**	**I_e**	**I_e**	**I_e**	**I_e**	**I_e**	**I_e**
Rated operational current 415V		415 V	a	63	100	125	160	250	315	400	630
		500V	a	63	100	125	160	250	315	400	630
		550V	a	63	100	115	135	250	315	315	540
Category of duty AC23a		**U_e**		**I_e**	**I_e**	**I_e**	**I_e**	**I_e**	**I_e**	**I_e**	**I_e**
Rated operational current		220V	a	63	100	125	160	250	315	400	630
		380V	a	63	100	125	160	250	315	400	630
		415V	a	63	100	125	160	250	315	400	630
		500V	a	63	100	125	160	250	315	400	630
		550V	a	63	100	115	135	250	315	315	540
		690V	a	63	100	115	135	250	315	315	540
Rated operational current DC23	**Single pole**	110V	a	32	100	1	125	200	315	315	400
Rated operational current	**Two poles in series**	250V	a	32	100	63	125	200	315	315	400
	Two poles in series	500V	a	32	100	63	80	200	-	-	-
Rated operational power for category AC23a		**U_e** 220V	kW	15	30	37	45	75	110	132	200
		380V	kW	30	45	55	75	130	150	185	315
		415V	kW	30	55	60	90	130	150	225	375
		500V	kW	37	60	75	90	150	185	225	375
		550V	kW	45	75	75	90	185	225	225	400
		690V	kW	45	90	90	110	225	290	290	500
Rated operational performance	**Number of cycles**			10,000	10,000	8,000	8,000	8,000	8,000	5,000	5,000
Short-time withstand current for 1 second	**RMS value**	**U_e** -	kA	1.5	3.2	3.2	5	10.96	10.96	10.96	12.96
Short-circuit making capacity	**Peak-value**	550V	kA	3.7	4.25	4.25	5.44	10.81	10.81	10.81	25.2
Fuse protected performance		**U_e**									
	RMS value	415V	kA	100	100	100	100	100	72.5	72.5	50
		500V	kA	100	100	100	100	100	72.5	72.5	50
		550V	kA	100	100	100	100	100	50	50	50
		690V	kA	100	100	100	100	100	50	50	50
	Peak-value	415V	kA	220	220	220	220	220	160	160	110
		500V	kA	220	220	220	220	220	160	160	110
		550V	kA	220	220	220	220	220	110	110	110
		690V	kA	220	220	220	220	220	110	110	110
Rated operational voltage		U_e	V	550	550	550	550	550	550	550	550
Rated insulation voltage[1]		U_i	V	690	690	690	690	690	690	690	690
Rated impulse voltage		U_{imp}	kV	8	8	8	8	8	8	8	8
Rated capacitor power[2]			kVAr	45	45	45	90	140	140	140	200
Fuse types	**BS-pattern, BS88**			-	-	-	-	-	-	-	-
	Fuse fixing centres		mm	-	-	-	-	-	-	-	-
	NFC-pattern			-	-	-	-	-	-	-	-
	DIN-pattern, DIN43620			000/C00	0	0	0	1	2	2	3
Solid copper links				-	-	-	-	-	-	-	-
Weight (cartoned) not including fuselinks	**SPN,SPSN**		kg	-	-	-	-	-	-	-	-
	DP		kg	-	-	-	-	-	-	-	-
	TP		kg	1.12	1.57	1.57	2.5	6.77	8	8	18.5
	TPSN		kg	1.25	1.81	1.81	2.6	7.75	9	9	19.5
	FP		kg	1.3	1.85	1.85	2.9	7.9	9.2	9.2	20.5

1) Units with a rated insulation voltage at 1000 V are available to special order.
2) The capacitor rating of the switch is limited by the fuse-link.



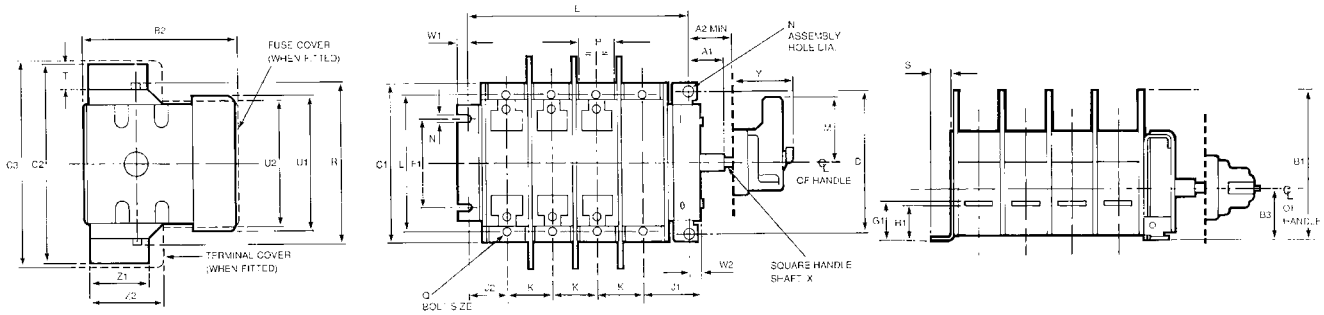
Note: 1) 'R' = Dimension represents the maximum width across mechanism spring guides.
2) 'T' = Additional height of connecting barrier.
3) First auxiliary pack adds 24.5 mm to side of the switch when attached. Each additional auxiliary pack adds a further 10.5 mm.

BS Fuse version, dimensions in mm

Frame Size	List Number	A	B1	B2	B3	C1	C2	C3	D	E	F1	F2	G1	G2*	H1	H2*	HR	J1	J2	K	L	M	N	P	Q	R	S	T	U1	U2	W1	W2	X	Y	Z1	Z2
1	32S1N32, 32S1SN32 32S332 32S3N32, 32S3SN32	88.5 109.5 130.5	91	93	81	98	126	-	83.5	67.5 88.5 109.5	56	-	-	-	16.7	-	175	32.5	20	21	81.5	65	5.5	-	-	121	13	14	78	83	6	6	6.3 SQ	55	38	-
1	63S1N63, 63S1SN63 63S363 63S3N63, 63S3SN63	88.5 109.5 130.5	91	93	81	98	126	-	83.5	67.5 88.5 109.5	56	-	-	-	16.7	-	175	32.5	20	21	81.5	65	5.5	-	-	121	13	14	78	83	6	6	6.3 SQ	55	38	-
2	63S1N45, 63SISN45 63S345 63S3N45, 63S3SN45	110 141 172	107	109	86	107	145	166	95	88.5 119.5 150.5	72	-	27	-	25.5	-	175	36.5	26.5	31	95.5	65	5.5	18	6	125	15	19	94	99	6.7	5.5	6.3 SQ	55	45	47
2	100S1N63, 100S1SN63 100S363 100S3N63, 100S3SN63	110 141 172	107	109	86	107	145	166	95	88.5 119.5 150.5	72	-	27	-	25.5	-	175	36.5	26.5	31	95.5	65	5.5	18	6	125	15	19	94	99	6.7	5.5	6.3 SQ	55	45	47
2	100S1N100, 100S1SN100 100S3100 100S3N100, 100S3SN100	110 141 172	107	109	86	107	145	166	95	88.5 119.5 150.5	72	-	27	-	25.5	-	175	36.5	26.5	31	95.5	65	5.5	18	6	125	15	19	94	99	6.7	5.5	6.3 SQ	55	45	47
3	125S1N125, 125S1SN125 125S3125 125S3N125, 125S3SN125	129 169 209	124	135.5	86	142	181	209.5	120	104.5 144.5 184.5	80	-	23	-	21	-	175	41	30.5	40	123.5	65	5.5	22	8	125	15	19.5	120	125.5	7.5	7	6.3 SQ	55	45	47
3	200S1N160, 200S1SN160 200S3160 200S3N160, 200S3SN160	129 169 209	137.5	139.5	86	142	181	209.5	120.5	104.5 144.5 184.5	80	-	23	-	21	-	175	41	30.5	40	123.5	65	5.5	22	8	125	15	19.5	120	114	7.5	7	6.3 SQ	55	39	47
4	200S1N200, 200S1SN200 200S3200 200S3N200, 200S3SN200	182 227 272	168	190	141	196	286	307	182.5	131 176 221	120	-	34	-	31.5	-	250	63.5	37.5	45	167	130	6.5	32	10	266	22	45	154	159	10	15	9.5 SQ	55	57	69
4a	250S3250 250S3N250, 250S3SN250	278 328.5	168.5	170.5	141	196	319	324	182.5	225.5 276	120	-	34	-	31.5	-	250	74.3 66.8	50.5	58	167	130	6.5	32	10	266	22	61.5	160	157	10	15	9.5 SQ	55	68	70
4b	315S3315 315S3N315, 315S3SN315	311 374.5	202.5	204.5	141	196	319	367	182.5	258.5 322	120	-	34	-	31.5	-	250	79.8 74.3	56	69	167	130	6.5	32	10	266	22	61.5	160	157	10	15	9.5 SQ	55	68	70
5	400S3400 400S3N400 400S3SN400	335 407 407	196	206	165	225	359	365	164	259 331 331	95	139	43	- 43 -	18	- 40 -	350	64	53.2	72	188	210	8.5	45	14	-	26.5	67	174	179	9.5	2.5	14.5 SQ	52	65	83
6	630S3630 630S3N630 630S3SN630	395 485 485	257.5	268	183	320	464.5	472.5	164	319.5 411.5 411.5	140	180	60.3	60.3	32.3	- 54 -	350	74.5	63	92	266.5	210	8.5	64	20	-	26.5	72	240	245.5	9.5	2	14.5 SQ	60	85	133
6	800S3710 800S3N710 800S3SN710	395 485 485	257.5	268	183	320	464.5	472.5	164	319.5 411.5 411.5	140	180	60.3	60.3	32.3	- 54 -	350	74.5	63	92	266.5	214 to 320	8.5	64	20	-	26.5	72	240	245.5	9.5	2	14.5 SQ	60	85	133

DIN Fuse version, dimensions in mm

Frame Size	List Number	A	B1	B2	B3	C1	C2	C3	D	E	F1	F2	G1	H1	HR	J1	J2	K	L	M	N	P	Q	R	S	T	U1	U2	W1	W2	X	Y	Z1	Z2
1a	DS63-000	132								112																							
	DS63SN-000	159	124.5	126.5	81	98	-	-	83.5	139	56	-	-	16.7	175	37	28	26.5	81.5	65	5.5	-	-	121	13	-	88	85	6	6	6.3 SQ	55	-	-
	DS63FP-000	159								139																							
2a	DS100-00	164								143.5																							
	DS100SN-00	201	143.5	145.5	86	107	145	176	95	180.5	72	-	27	25.5	175	42	34	36.5	95.5	65	5.5	18	6	125	15	19	95	90	6.7	5.5	6.3 SQ	55	45	47
	DS100FP-00	201								180.5																							
2a	DS125-00	164								143.5																							
	DS123SN-00	201	143.5	145.5	86	107	145	176	95	180.5	72	-	27	25.5	175	42	34	36.5	95.5	65	5.5	18	6	125	15	19	95	90	6.7	5.5	6.3 SQ	55	45	47
	DS125FP-00	201								180.5																							
3	DS160-00	169								144.5																							
	DS160SN-00	209	137.5	139.5	86	142	181	209.5	120.5	184.5	80	-	23	21	175	41	30.5	40	123.5	65	5.5	22	8	125	15	19.5	120	114	7.5	7	6.3 SQ	55	39	47
	DS160FP-00	209								184.5																							
4a	DS250-1	278								225.5						74.3																	
	DS250SN-1	328.5	202.5	204.5	141	196	319	324	182.5	276	120	-	34	31.5	250	66.8	50.5	58	167	130	6.5	32	10	266	22	61.5	160	157	10	15	9.5 SQ	55	68	70
	DS250FP-1	336								283.5						74.3																	
4b	DS315-2	311								258.5						79.8																	
	DS315SN-2	374.5	311	204.5	141	196	319	324	182.5	322	120	-	34	31.5	250	74.3	56	69	167	130	6.5	32	10	266	22	61.5	160	157	10	15 SQ	9.5	55	68	70
	DS315FP-2	380								327.5						79.8																	
4b	DS400-2	311								104.5						79.8																	
	DS400SN-2	374.5	202.5	204.5	141	196	319	324	182.5	322	120	-	34	31.5	250	74.3	56	69	167	130	6.5	32	10	266	22	61.5	160	157	10	15	9.5 SQ	55	68	70
	DS400FP-2	380								327.5						79.8																	
5a	DS630-3	394								308						75.5																	
	DS630SN-3	467.5	219	221	165	225	358	370	164	381.5	95	139	43	18	350	64	66.2	85	188	210	8.5	45	14	-	26.5	66.5	175	163	9.5	2.5	14.5 SQ	52	79	83
	DS630FP-3	479								393.5						75.5																	



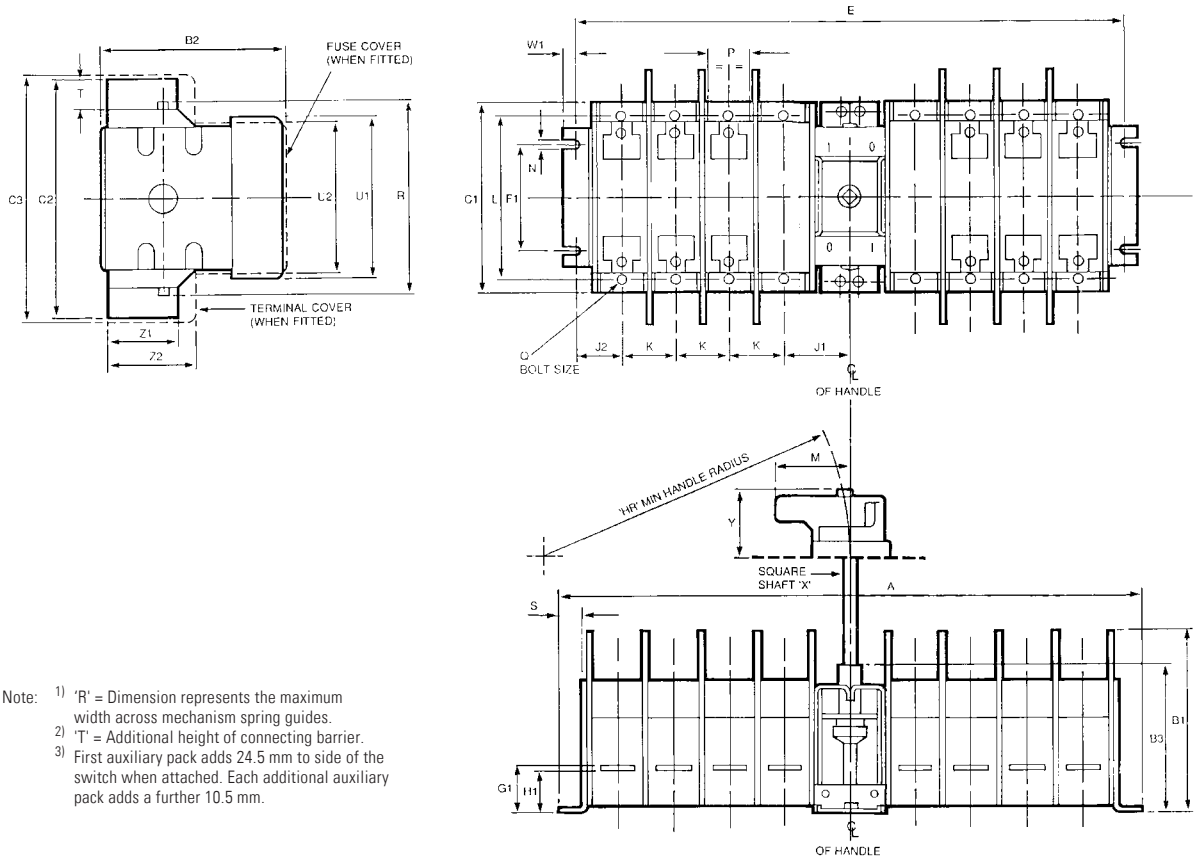
Note: 1) 'R' = Dimension represents the maximum width across mechanism spring guides.
2) 'T' = Additional height of connecting barrier.
3) First auxiliary pack adds 24.5 mm to side of the switch when attached. Each additional auxiliary pack adds a further 10.5 mm.

BS Fuse version, dimensions in mm

Frame Size	List Number	A	A2	B1	B2	B3	C1	C2	C3	D	E	F1	G1	H1	J1	J2	K	L	M	N	P	Q	R	S	T	U1	U2	W1	W2	X	Y	Z1	Z2
1	32SM332 32SM3N32, 32SM3SN32	21.5	45	91	93	31	98	126	-	83.5	88.5 109.5	56	-	16.7	34.5	20	21	81.5	65	5.5	-	-	121	13	14	78	83	6	8	6.3 SQ.	55	38	-
1	63SM363 63SM3N63, 63SM3SN63	21.5	45	91	93	31	98	126	-	83.5	88.5 109.5	56	-	16.7	34.5	20	21	81.5	65	5.5	-	-	121	13	14	78	83	6	8	6.3 SQ.	55	38	-
2	63SM345 63SM3N45, 63SM3SN45	21	45	107	109	36.5	107	145	166	95	119.5 150.5	72	27	25.5	38.5	26.5	31	95.5	65	5.5	18	6	125	15	19	94	99	6.7	7.5	6.3 SQ.	55	45	47
2	100SM363 100SM3N63, 100SM3SN63	21	45	107	109	36.5	107	145	166	95	119.5 150.5	72	27	25.5	38.5	26.5	31	95.5	65	5.5	18	6	125	15	19	94	99	6.7	7.5	6.3 SQ.	55	45	47
2	100SM3100 100SM3N100, 100SM3SN100	21	45	107	109	36.5	107	145	166	95 150.5	119.5	72	27	25.5	38.5	26.5	31	95.5	65	5.5	18	6	125	15	19	94	99	6.7	7.5 SQ.	6.3	55	45	47
3	125SM3125 125SM3N125, 125SM3SN125	21	45	124	135.5	36.5	142	181	209.5	120.5 184.5	144.5	80	23	21	43	30.5	40	123.5	65	5.5	22	8	125	15	19.5	120	125.5	7.5	9 SQ.	6.3	55	45	47
3	200SM3160 200SM3N160, 200SM3SN160	21	45	137.5	139.5	36.5	142	181	209.5	120.5 184.5	144.5	80	23	21	43	30.5	40	123.5	65	5.5	22	8	125	15	19.5	120	114	7.5	9 SQ.	6.3	55	39	47

DIN Fuse version, dimensions in mm

Frame Size	List Number	A	A2	B1	B2	B3	C1	C2	C3	D	E	F1	G1	H1	J1	J2	K	L	M	N	P	Q	R	S	T	U1	U2	W1	W2	X	Y	Z1	Z2
1	SMDS63-000 SMDS6363SN-000 SMDS6363FP-000	21.5	45	124.5	126.5	31	98	-	-	83.5	112 139 139	56	-	16.7	34.5	28	26.5	81.5	65	5.5	-	-	121	13	-	88	85	6	8	6.3 SQ.	55	-	-
2	SMDS100-00 SMDS100SN-00 SMDS100FP-00	21	45	143.5	145.5	36.5	107	145	176	95	143.5 180.5 180.5	72	27	25.5	38.5	34	36.5	95.5	65	5.5	18	6	125	15	19	95	90	6.7	7.5	6.3 SQ.	55	45	47
2a	SMDS125-00 SMDS125SN-00 SMDS125FP-00	21	45	143.5	145.5	36.5	107	145	176	95	143.5 180.5 180.5	72	27	25.5	38.5	34	36.5	95.5	65	5.5	18	6	125	15	19	95	90	6.7	7.5	6.3 SQ.	55	45	47
3	SMDS160-00 SMDS160SN-00 SMDS160FP-00	21	45	137.5	139.5	36.5	142	181	209.5	120.5	144.5 184.5 184.5	80	23	21	43	30.5	40	123.5	65	5.5	22	8	125	15	19.5	120	114	7.5	9	6.3 SQ.	55	39	47

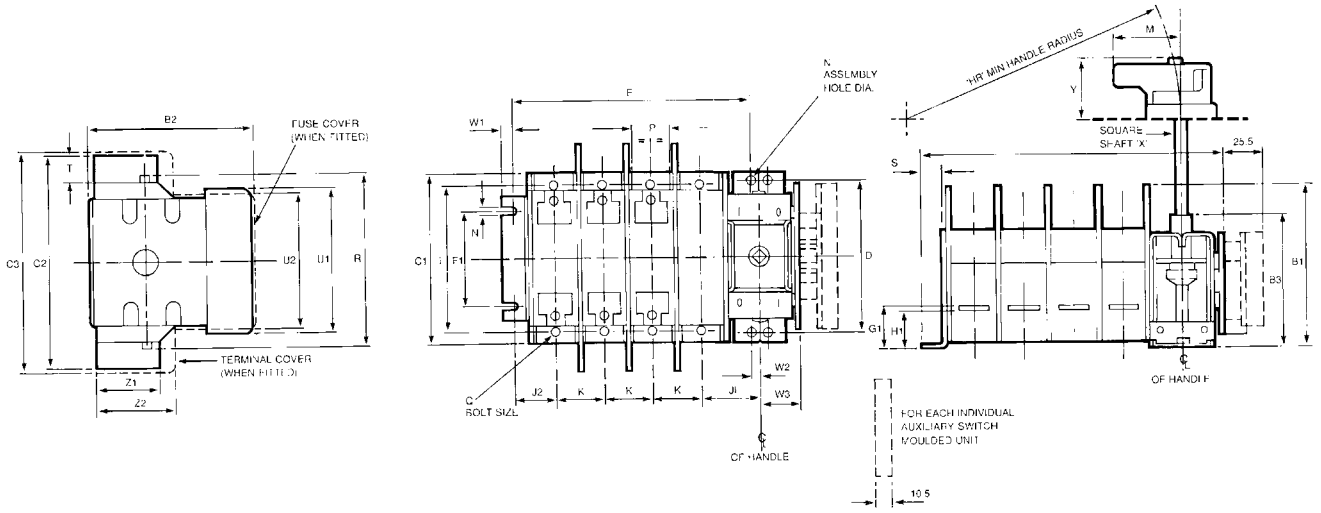


Note:
1) 'R' = Dimension represents the maximum width across mechanism spring guides.
2) 'T' = Additional height of connecting barrier.
3) First auxiliary pack adds 24.5 mm to side of the switch when attached. Each additional auxiliary pack adds a further 10.5 mm.

BS Fuse version, dimensions in mm

Frame Size	List Number	A	B1	B2	B3	C1	C2	C3	E	F1	G1	H1	HR	J1	J2	K	L	M	N	P	Q	R	S	T	U1	U2	W1	X	Y	Z1	Z2
1	32SC332	203							191																						
	32SC3N32	245	91	93	81	98	126	-	233	56	-	16.7	175	33.5	20	21	81.5	65	5.5	-	-	121	13	14	78	83	6	6.3 SQ	55	38	-
	32SC3SN32	245							233																						
1	63SC363	203							191																						
	63SC3N63	245	91	93	81	98	126	-	233	56	-	16.7	175	33.5	20	21	81.5	65	5.5	-	-	121	13	14	78	83	6	6.3 SQ	55	38	-
	63SC3SN63	245							233																						
2	63SC345	265.5							252																						
	663SC3N45	327.5	107	109	86	107	145	166	314	72	27	25.5	175	37.5	26.5	31	95.5	65	5.5	18	6	125	15	19	94	99	6.7	6.3 SQ	55	45	47
	63SC3SN45	327.5							314																						
2	100SC363	265.5							252																						
	100SC3N63	327.5	107	109	86	107	145	166	314	72	27	25.5	175	37.5	26.5	31	95.5	65	5.5	18	6	125	15	19	94	99	6.7	6.3 SQ	55	45	47
	100SC3SN63	327.5							314																						
2	100SC3100	265.5							252																						
	100SC3N100	327.5	107	109	86	107	145	166	314	72	27	25.5	175	37.5	26.5	31	95.5	65	5.5	18	6	125	15	19	94	99	6.7	6.3 SQ	55	45	47
	100SC3SN100	327.5							314																						
3	125SC3125	320							305																						
	125SC3N125	400	124	135.5	86	142	181	209.5	385	80	23	21	175	42	30.5	40	123.5	65	5.5	22	8	125	15	19.5	120	125.5	7.5	6.3 SQ	55	45	47
	125SC3SN125	400							385																						
3	200SC3160	320							305																						
	200SC3N160	400	137.5	139.5	86	142	181	209.5	385	80	23	21	175	42	30.5	40	123.5	65	5.5	22	8	125	15	19.5	120	114	7.5	6.3 SQ	55	39	47
	200SC3SN160	400							385																						
4	200SC3200	402							382																						
	200SC3N200	492	168	190	141	196	286	297	472	120	34	31.5	250	63.5	37.5	45	167	130	6.5	32	10	266	22	45	154	159	10	9.5 SQ	55	57	69
	200SC3SN200	492							472																						
4a	250SC3250	501							481					74.3																	
	250SC3N250	602	168.5	170.5	141	196	319	324	582	120	34	31.5	250	66.8	50.5	58	167	130	6.5	32	10	266	22	61.5	160	157	10	9.5 SQ	55	68	70
	250SC3SN250	602							582					66.8																	
4b	315SC3315	567							547					79.8																	
	315SC3N315	694	202.5	204.5	141	196	319	324	674	120	34	31.5	250	74.3	56	69	167	130	6.5	32	10	266	22	61.5	160	157	10	9.5 SQ	55	68	70
	315SC3SN315	694							674					74.3																	
4b	400SC3400	567							547					79.8																	
	400SC3N400	694	202.5	204.5	141	196	319	324	674	120	34	31.5	250	74.3	56	69	167	130	6.5	32	10	266	22	61.5	160	157	10	9.5 SQ	55	68	70
	400SC3SN400	694							674					74.3																	

Standard operation test switches, S-line, BS or DIN fuse-links, dimensional drawings



Note: 1) 'R' = Dimension represents the maximum width across mechanism spring guides.
2) 'T' = Additional height of connecting barrier.
3) First auxiliary pack adds 24.5 mm to side of the switch when attached. Each additional auxiliary pack adds a further 10.5 mm.

BS Fuse version, dimensions in mm

Frame Size	List Number	A	B1	B2	B3	C1	C2	C3	E	F1	G1	H1	HR	J1	J2	K	L	M	N	P	Q	R	S	T	U1	U2	W1	W2	W3	X	Y	Z1	Z2
1	32ST332	126							88.5																								
	32ST3N32	146.5	91	93	81	98	126	-	109.5	56	-	16.7	175	33.5	20	21	81.5	65	5.5	-	-	121	13	14	78	83	6	7	25.5	6.3 SQ	55	38	-
	32ST3SN32	146.5							109.5																								
1	63ST363	126							88.5																								
	63ST3N63	146.5	91	93	81	98	126	-	109.5	56	-	16.7	175	33.5	20	21	81.5	65	5.5	-	-	121	13	14	78	83	6	7	25.5	6.3 SQ	55	38	-
	63ST3SN63	146.5							109.5																								
2	63ST345	157.5							119.5																								
	63ST3N45	188.5	107	109	86	107	145	166	150.5	72	27	25.5	175	37.5	26.5	31	95.5	65	5.5	18	6	125	15	19	94	99	6.7	6.5	25.5	6.3 SQ	55	45	47
	63ST3SN45	188.5							150.5																								
2	100ST363	157.5							119.5																								
	100ST3N63	188.5	107	109	86	107	145	166	150.5	72	27	25.5	175	37.5	26.5	31	95.5	65	5.5	18	6	125	15	19	94	99	6.7	6.5	25.5	6.3 SQ	55	45	47
	100ST3SN63	188.5							150.5																								
2	100ST3100	157.5							119.5																								
	100ST3N100	188.5	107	109	86	107	145	166	150.5	72	27	25.5	175	37.5	26.5	31	95.5	65	5.5	18	6	125	15	19	94	99	6.7	6.5	25.5	6.3 SQ	55	45	47
	100ST3SN100	188.5							150.5																								
3	125ST3125	185.5							144.5																								
	125ST3N125	225.5	124	135.5	86	142	181	209.5	184.5	80	23	21	175	42	30.5	40	123.5	65	5.5	22	8	125	15	19.5	120	125.5	7.5	8	25.5	6.3 SQ	55	45	47
	125ST3SN125	225.5							184.5																								
3	200ST3160	188.5							144.5																								
	200ST3N160	225.5	137.5	139.5	86	142	181	209.5	184.5	80	23	21	175	42	30.5	40	123.5	65	5.5	22	8	125	15	19.5	120	114	7.5	8	25.5	6.3 SQ	55	39	47
	200ST3SN160	225.5							184.5																								
4	200ST3200	251.5							176																								
	200ST3N200	296.5	168	190	141	196	286	297	221	120	34	31.5	250	63.5	37.5	45	167	130	6.5	32	10	266	22	45	154	159	10	15	52	9.5 SQ	55	57	69
	200ST3SN200	296.5							221																								
4a	250ST3250	302.5							225.5					74.3																			
	250ST3N250	353	168.5	170.5	141	196	319	324	276	120	34	31.5	250	66.8	50.5	58	167	130	6.5	32	10	266	22	61.5	160	157	10	15	52	9.5 SQ	55	68	70
	250ST3SN250	353							276					66.8																			
4b	315ST3315	335.5							258.5					79.8																			
	315ST3N315	399	202.5	204.5	141	196	319	324	322	120	34	31.5	250	74.3	56	69	167	130	6.5	32	10	266	22	61.5	160	157	10	15	52	9.5 SQ	55	68	70
	315ST3SN315	399							322					74.3																			
4b	400ST3400	335.5							258.5					79.8																			
	400ST3N400	399	202.5	204.5	141	196	319	324	322	120	34	31.5	250	74.3	56	69	167	130	6.5	32	10	266	22	61.5	160	157	10	15	52	9.5 SQ	55	68	70
	400ST3SN400	399							322					74.3																			

Auxiliary switches, technical details

List no. ASP contains 2 N/O contacts. List no. 1ASP to 8ASP each contain two sets of change-over contacts. These moulded units have been designed to offer protection against accidental finger contact. Auxiliary packs have to be added to the drive shaft of any switch rating via the appropriate mounting pack adaptor.

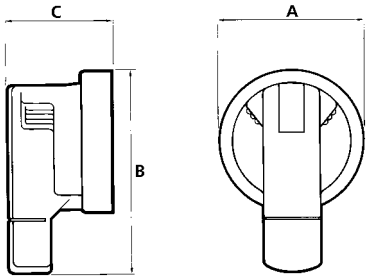
Technical data, I_{th} = 10 A		
U_e	ACII	DCII
48 V	10 A	-
110 V	10 A	-
220/240 V	6 A	-
380/440 V	4 A	-

Handles, K-line, dimensional drawings

Dimensions in mm

Frame Size	Fused combination switch rating, A	Switch-disconnector rating, A	A	B	C
1 - 3	32 - 200A	45 - 160A	67	96.5	54
4 - 4b	200 - 400A	200 - 315A	67	159.5	54
5 - 6	400 - 630A	600A	76	245	52.4
6	800A	1000A	90	260/365[1]	58.9

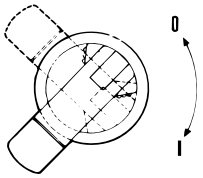
[1] Extended length.



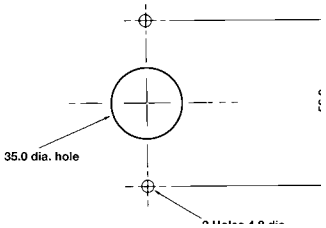
Operating handle fixing apertures, dimensional drawings

Dimensions in mm

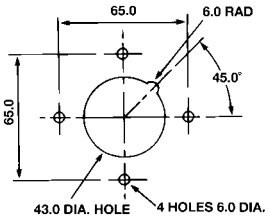
Handle aligned thus:



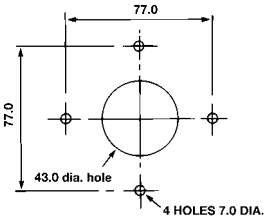
Up to 400 A



400 A - 630 A



800 A

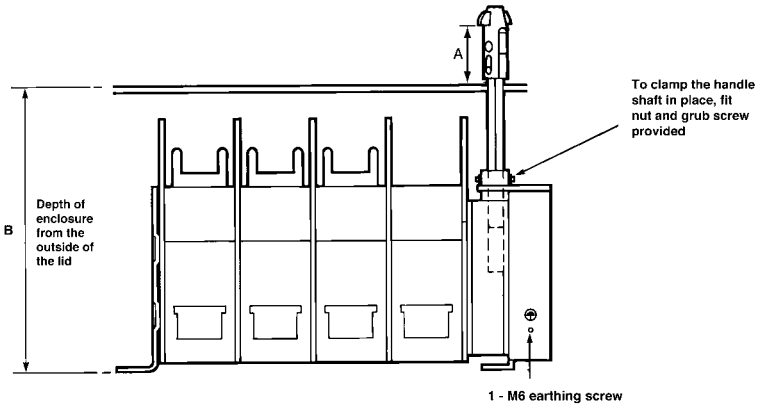


Handle operating shaft, dimensional drawings

The cut length of the handle operating shaft must allow a distance of 'A' when the door is firmly closed and any gasket is fully compressed. Dimension 'A'; distance from outside of door to underside of interlock lug, is shown below.

Dimensions in mm

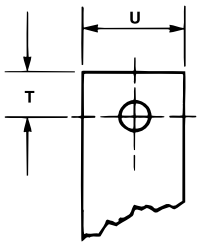
Frame Size	1	2	3	4	5	6
A	14.0	14.0	14.0	14.0	17.0	18.0
Shaft length	200	200	200	300	200	200
B Max. depth of enclosure with standard shaft	235	240	240	375	320	337



Note: [1] 'R' = Dimension represents the maximum width across mechanism spring guides.
[2] 'T' = Additional height of connecting barrier.
[3] First auxiliary pack adds 24.5 mm to side of the switch when attached. Each additional auxiliary pack adds a further 10.5 mm.

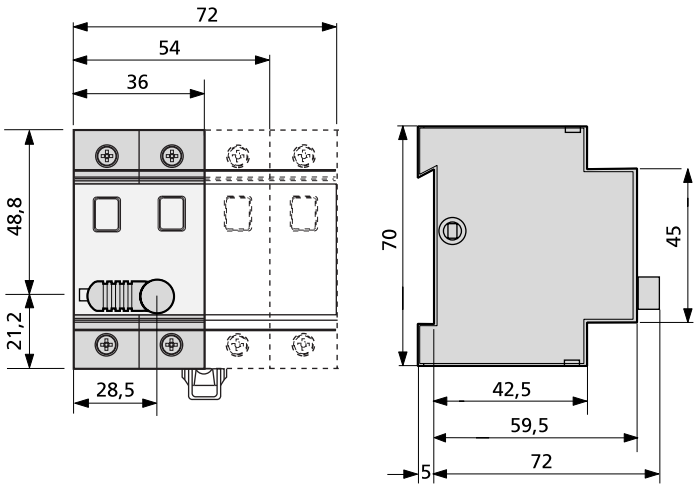
Fused Combination Switches, S-line termination information

Frame size	Switch range 'BS'	DIN	NFC	Isolator	Terminal Size 'BS' Fusesupply/Load		Max. cable SQ mm	Max. connector size Dim.T mm	Dim. U mm
1	32 A/32 A, 63A/63 A	-	25 A	45 A	M4	M5	25	-	-
1a	-	63 A	50 A	-	M4	M5	25	-	-
2	100 A/63 A, 100 A/100 A	-	-	100 A	M5	M6	35	10	19
2a	-	100 A, 125 A	100 A	-	-	M6	35	10	19
3	125 A/125 A, 200 A/160 A	160 A	-	160 A	M5/M6	M8	70	12	23
4	200 A/200 A	-	-	315 A	M8	M10	150	22	32
4a	250 A/250 A	250 A	-	-	M8	M10	150	22	32
4b	315 A/315 A, 400 A/400 A	315 A, 400 A	-	-	M8	M10	240	22	40
5	400 A/400 A	-	-	630 A	M8	M14	500	22	58
5a	-	630 A	-	-	-	M14	500	22	58
6	630 A/500 A, 630 A/630 A	-	-	1000 A	M10	M16	630	26	70
6	800 A/710 A	-	-	-	M10	M20	630	40	70
Auxiliary Switches - ASP to 8ASP					-	M3	2.5	-	-

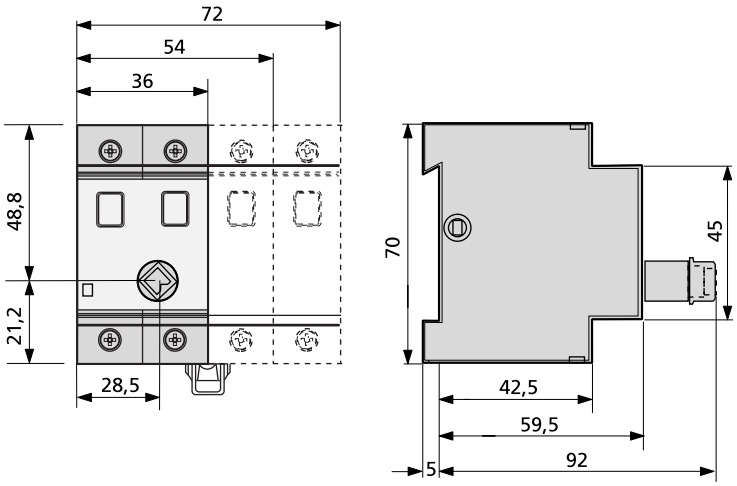


Switch-disconnectors Duco, type DMV, technical information

Switch-disconnectors Duco, type DMV, dimensional drawings



Duco, type DMV 40 - DMV 63, with fixed knob.



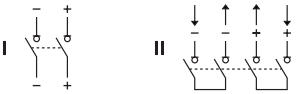
Duco, type DMV 40 - DMV 63, without knob.

Switch-disconnectors Duco, type DMV, technical details

Type		DMV 40	DMV 63
Conventional free air thermal current:	I_{th}	40 A	63 A
Conventional enclosed thermal current:	I_{the}	40 A	63 A
Rated uninterrupted current:	I_u	40 A	63 A
Rated operational voltage:	U_e	690 V	690 V
Rated insulation voltage:	U_i	690 V	690 V
Rated impuls withstand voltage:	U_{imp}	6 kV	6 kV
Rated operational current:			
at U_e = 230 V[1] AC-21A:	I_e	40 A	63 A
at U_e = 400 V[1] AC-21A:	I_e	40 A	63 A
at U_e = 415 V AC-21A:	I_e	40 A	63 A
at U_e = 500 V AC-21A:	I_e	40 A	63 A
at U_e = 690 V AC-21A:	I_e	40 A	63 A
at U_e = 230 V[1] AC-22A:	I_e	40 A	63 A
at U_e = 400 V[1] AC-22A:	I_e	40 A	63 A
at U_e = 415 V AC-22A:	I_e	40 A	63 A
at U_e = 500 V AC-22A:	I_e	40 A	63 A
at U_e = 690 V AC-22A:	I_e	40 A	63 A
Rated operational power			
at U_e = 230 V[1] AC-23A:		5,5 kW	7,5 kW
at U_e = 415 V AC-23A:		22 kW	30 kW
at U_e = 500 V AC-23A:		25 kW	40 kW
at U_e = 690 V AC-23A:		37 kW	59 kW
Rated short-time withstand current:	I_{cw}	756 A - 0,75 s	756 A - 0,75 s
Rated short-circuit making capicity:	I_{cm}	2,2 kA	2,2 kA
Rated conditional short-circuit current fuse protected short-circuit withstand/making:		100 kA	100 kA
Cut-off current:	max.	13 kA	13 kA
Joule integral:	max.	100 kA^2s	100 kA^2s
Fuse-link:	I_n	80 A	80 A
Standards:		IEC 60947-3	
Certification:		KEMA KEUR-approval, Lloyd's (LR), Veritas	

[1] 2P version

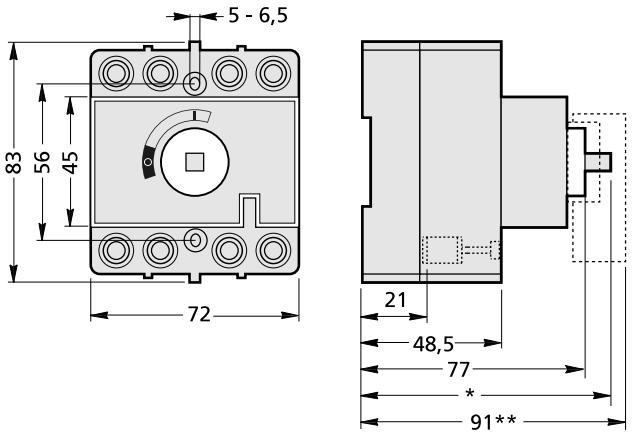
Switch-disconnectors Duco, type DMV, direct current details

Type		DMV 40	DMV 63	Amount of poles
Rated operational current in acc. with IEC 60408 / IEC 60947-3 at U_e = 110 V DC-21 (scheme I):	I_e	40 A	63 A	2
at U_e = 110 V DC-22 (scheme I):	I_e	40 A	63 A	2
at U_e = 110 V DC-23 (scheme I):	I_e	40 A	63 A	2
at U_e = 220 V DC-21 (scheme II):	I_e	40 A	63 A	4
at U_e = 220 V DC-22 (scheme II):	I_e	40 A	63 A	4
at U_e = 220 V DC-23 (scheme II):	I_e	40 A	63 A	4
Connection diagram DC application:				
Standards:		NEN-EN-IEC 60947-3		
Certification:		KEMA-KEUR		

Switch-disconnectors Duco, type DMV, connecting capacity

Type	DMV 40		DMV 63	
Copper connector	**Cross section**	**Tightening torque**	**Cross section**	**Tightening torque**
Solid	2,5 - 16 mm^2	2 Nm	2,5 - 16 mm^2	2 Nm
Stranded	2,5 - 25 mm^2	2 Nm	2,5 - 25 mm^2	2 Nm
Flexible	4 - 25 mm^2	2 Nm	4 - 25 mm^2	2 Nm

Switch-disconnectors Duco, type DCM, dimensional drawings



Duco, types DCM 40 and DCM 63.

*) Dependant on the applied operating shaft.

**) Doesn't apply to switch-disconnectors with fixed shaft and knob

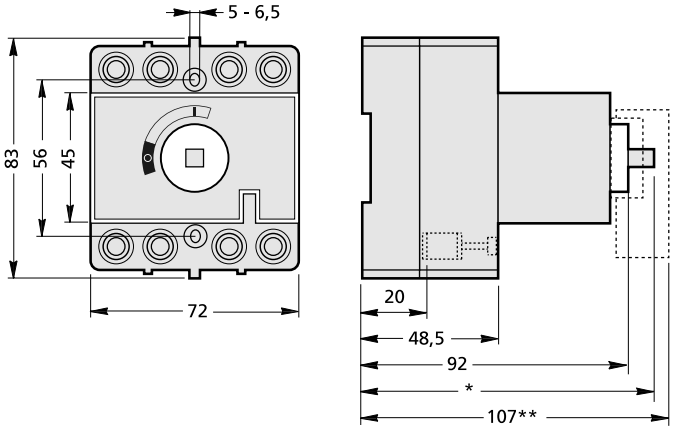
Switch-disconnectors Duco, type DCM, technical details

Type		DCM 40	DCM 63
Conventional free air thermal current:	I_{th}	40 A	63 A
Conventional enclosed thermal current:	I_{the}	40 A	63 A
Rated uninterrupted current:	I_u	40 A	63 A
Rated operational voltage:	U_e	415 V	415 V
Rated insulation voltage:	U_i	690 V	690 V
Rated impulse withstand voltage:	U_{imp}	6 kV	6 kV
Rated operational current: at U_e = 415 V AC-21A:	I_e	40 A	63 A
at U_e = 415 V AC-22A:	I_e	40 A	63 A
Nominaal schakelvermogen at U_n = 300 V:	I_n	40 A	63 A
Rated short-time withstand current:	I_{cw}	1 kA-1 s	1,5 kA-1 s
Rated short-circuit withstand making:	I_{cm}	1,4 kA	2,2 kA
Rated conditional short-circuit current fuse protected short circuit withstand/making:		50 kA	50 kA
Cut-off current:	max.	7 kA	7 kA
Joule integral:	max.	12 kA^2s	12 kA^2s
Fuse-link:	I_n	50 A	50 A
Auxiliary switch, rated operational current at U_e = 220 V AC-11:	I_e	2 A	2 A
at U_e = 220 V DC-11:	I_e	0,5 A	0,5 A
at U_e = 380 V AC-11:	I_e	1,5 A	1,5 A
Standards:		NEN-EN-IEC 60947-3	
Certification:		KEMA-KEUR approval, Lloyd's (LR), Veritas, CSA	

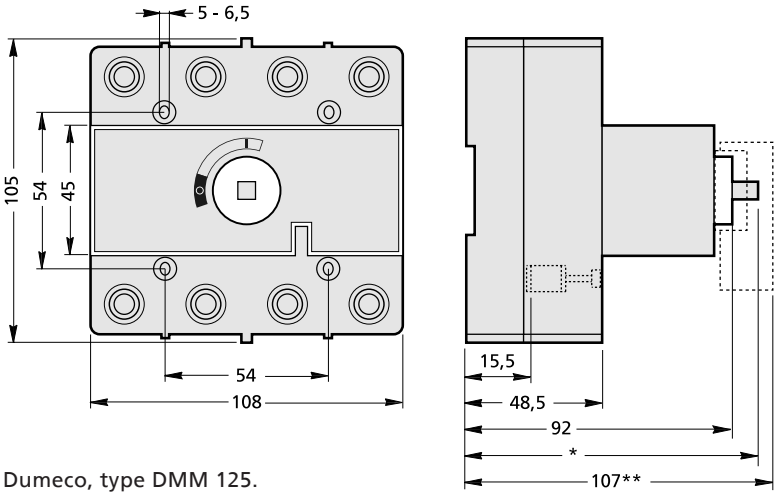
Switch-disconnectors Duco, type DCM, connecting capacity

Type	DCM 40		DCM 63	
Coppor conductor	Cross section	Tightening torque	Cross section	Tightening torque
Solid	2,5 - 16 mm^2	3 Nm	2,5 - 16 mm^2	3 Nm
Stranded	1,5 - 25 mm^2	3 Nm	1,5 - 25 mm^2	3 Nm
Flexible	1,5 - 25 mm^2	3 Nm	1,5 - 25 mm^2	3 Nm

Switch-disconnectors Dumeco, type DMM, dimensional drawings



Dumeco, types DMM 40 and DMM 63.

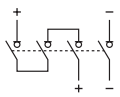


Dumeco, type DMM 125.

*) Dependant on the applied operating shaft.

**) Does not apply to switch-disconnectors with fixed shaft and knob

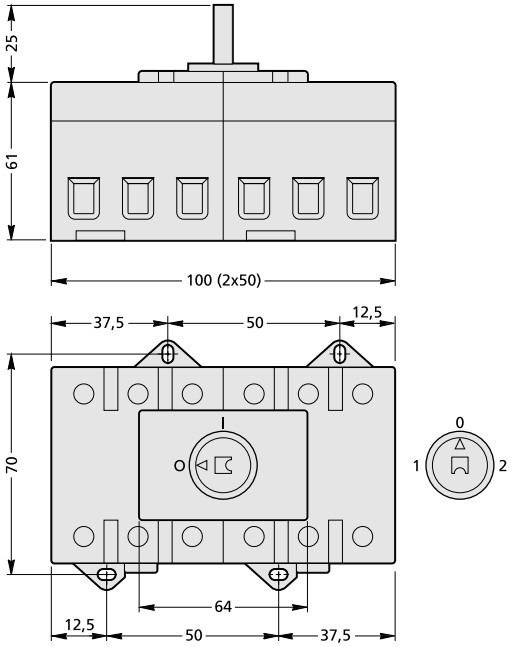
Switch-disconnectors Dumeco, type DMM, technical details

Type		DMM 40	DMM 63	DMM 125
Conventional free air terminal current:	I_{th}	40 A	63 A	125 A
Conventional enclosed thermal current:	I_{the}	40 A	63 A	125 A
Rated uninterrupted voltage:	I_u	40 A	63 A	125 A
Rated operational voltage:	U_e	220 Vdc	220 Vdc	220 Vdc
Rated operational voltage:	U_e	690 Vac	690 Vac	690 Vac
Rated insulation voltage:	U_i	690 V	690 V	690 V
Rated impulse withstand voltage:	U_{imp}	6 kV	6 kV	6 kV
Rated operational current				
at U_e = 415 V AC-21A:	I_e	40 A	63 A	125 A
at U_e = 415 V AC-22A:	I_e	40 A	63 A	125 A
at U_e = 500 V AC-21A:	I_e	40 A	63 A	125 A
at U_e = 500 V AC-22A:	I_e	40 A	63 A	125 A
at U_e = 690 V AC-21A:	I_e	40 A	63 A	125 A
at U_e = 690 V AC-22A:	I_e	40 A	63 A	125 A
Rated operational power				
at U_e = 415 V AC-23A:		22 kW	30 kW	30 kW
at U_e = 500 V AC-23A:		22 kW	22 kW	45 kW
at U_e = 690 V AC-23A:		30 kW	30 kW	40 kW
Rated making/breaking capacity in accoordance with CSA at U_e = 208/230 V:		10 hp	15 hp	25 hp
at U_n = 300 V:	I_n	40 A	63 A	125 A
Rated short-time withstand current:	I_{cw}	1 kA-1 s	1,5 kA-1 s	2,5 kA-1 s
Rated short-circuit making capacity:	I_{cm}	1,4 kA	2,2 kA	3,6 kA
Rated conditional short-circuit current fues protected short-circuits withstand/making:		50 kA / 100 kA	50 kA / 100 kA	50 kA
Cut-off current:	Max.	9,7 kA / 9,6 kA	9,7 kA / 9,6 kA	14,5 kA
Joule integral:	Max.	44 kA^2s / 9,5 kA^2s	44 kA^2s/ 9,5 kA^2s	140 kA^2 s
Fuse-link:	I_n	80 A / 50 A	80 A / 50 A	125 A
Rated operational current in acc. with IEC 60408/ IEC 60947-3 at U_e = 110 V DC-21:	I_e	40 A	63 A	-
at U_e = 220 V DC-21:	I_e	40 A	63 A	-
at U_e = 110 V DC-22:	I_e	40 A	63 A	-
at U_e = 220 V DC-22:	I_e	25 A	40 A	-
at U_e = 110 V DC-23:	I_e	40 A	63 A	-
at U_e = 110 V DC-21B:	I_e	-	-	125 A
at U_e = 220 V DC-21B:	I_e	-	-	125 A
at U_e = 110 V DC-22B:	I_e	-	-	125 A
at U_e = 220 V DC-22B:	I_e	-	-	100 A
at U_e = 110 V DC-23B:	I_e	-	-	125 A
Connection diagram DC application:				
Auxiliary switch, rated operational current				
at U_e = 220 V AC-11:	I_e	2 A	2 A	2 A
at U_e = 220 V DC-11:	I_e	0,5 A	0,5 A	0,5 A
at U_e = 380 V AC-11:	I_e	1,5 A	1,5 A	1,5 A
Standards:		IEC 60947-3		
Certification:		KEMA-KEUR-approval, Lloyd's (LR), Veritas, CSA		

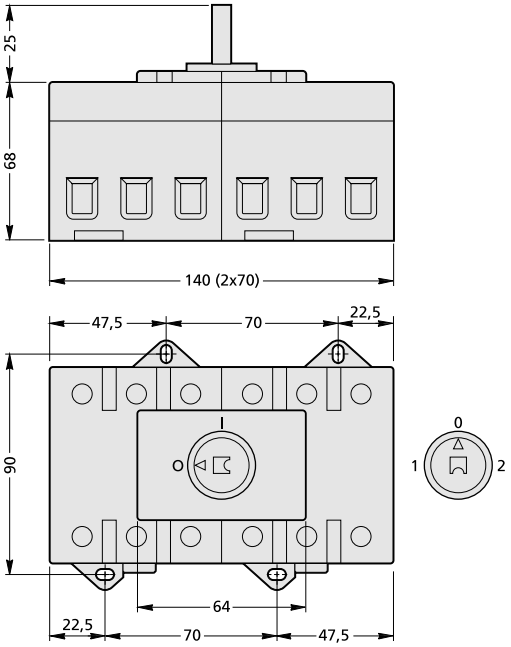
Switch-disconnectors Dumeco, type DMM, connecting capacity

Type	DMM 40 and DMM 63		DMM 125	
Coppor conductor	**Cross section**	**Tightening torque**	**Cross section**	**Tightening torque**
Solid	2,5 - 16 mm^2	3 Nm	-	-
Stranded	1,5 - 25 mm^2	3 Nm	6 - 70 mm^2	7 Nm
Flexible	1,5 - 25 mm^2	3 Nm	6 - 70 mm^2	7 Nm

Change-over and multi-pole switches, type QM, 6-pole, technical drawings

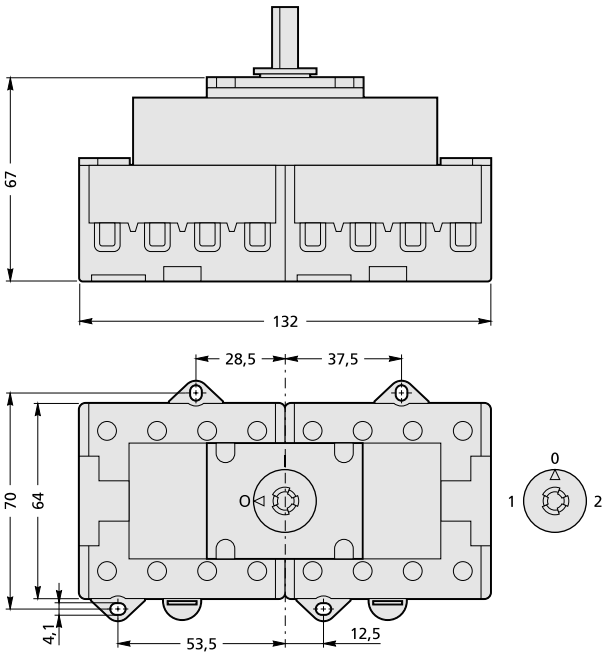


Type QM 63/6 version D, Type QM 63/3 version E.

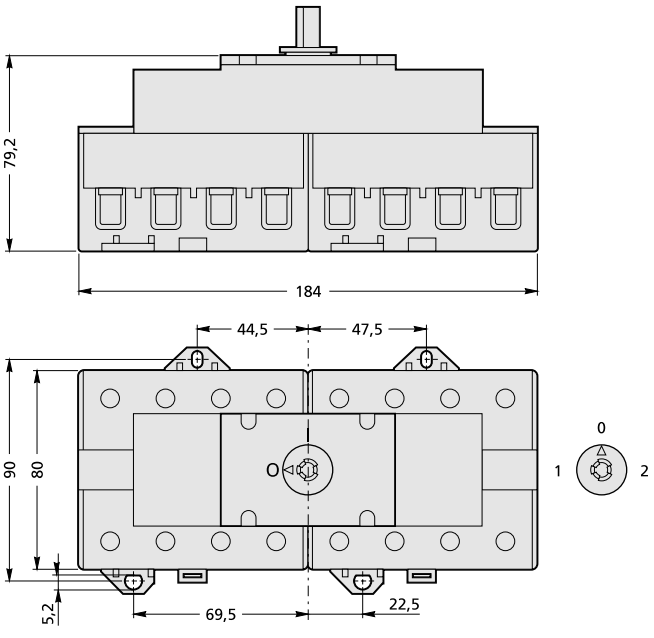


Type QM 100/6 version D, Type QM 100/3 version E.

Change-over and multi-pole switches, type QM, 8-pole, technical drawings



Type QM 63/6N2 version D, Type QM 40/3N, QM 63/3N version E.



Type QM 100/6N2 version D, Type QM 100/3N version E.

Change-over and multi-pole switches, type QM, 8-pole, technical characteristics

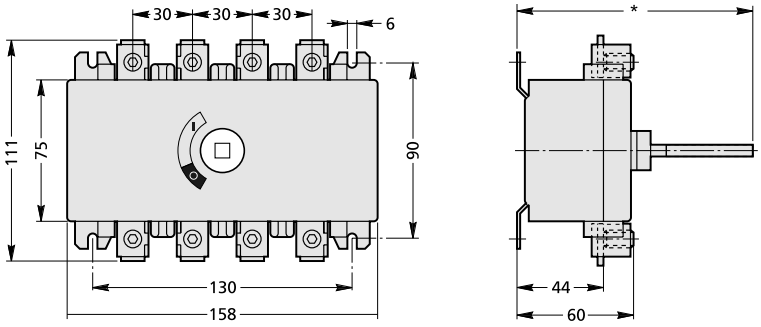
Type		QM 40	QM 63	QM 100
Conv. free air thermal current	I_{the}	40 A	63 A	100 A
Conv. thermal current in enclosure:	I_{the}	40 A	55 A	100 A
Conv. thermal currnet in enclosure (multi-pole)	I_{the}	40 A	50 A	80 A
Rated uninterrupted current	I_u	40 A	63 A	100 A
Rated operational voltage	U_e	690 V	690 V	690 V
Rated insulation voltage	U_i	690 V	690 V	690 V
Rated impulse withstand voltage:	U_{imp}	8 kV	8 kV	8 kV
Rated operational current				
at U_e = 415 V, AC-21A	I_e	40 A	63 A	100 A
at U_e = 240 V, AC-22A	I_e	40 A	63 A	100 A
at U_e = 440 V, AC-21A	I_e	40 A	63 A	100 A
at U_e = 440 V, AC-22A	I_e	40 A	63 A	100 A
at U_e = 500 V, AC-21A	I_e	40 A	63 A	100 A
at U_e = 500 V, AC-22A	I_e	40 A	63 A	100 A
at U_e = 690 V, AC-21A	I_e	40 A	63 A	100 A
at U_e = 690 V, AC-22A	I_e	40 A	55 A	85 A
Rated operational current / power				
at U_e = 240 V, AC-23A:		7,5 kW	11 kW	22 kW
at U_e = 440 V, AC-23A:		15 kW	22 kW	37 kW
at U_e = 500 V, AC-23A:		18,5 kW	30 kW	45 kW
at U_e = 690 V, AC-23A:		15 kW	18,5 kW	30 kW
at U_e = 240 V, AC-3:		7,5 kW	11 kW	18,5 kW
at U_e = 440 V, AC-3:		11 kW	18,5 kW	30 kW
at U_e = 500 V, AC-3:		15 kW	22 kW	37 kW
at U_e = 690 V, AC-3:		11 kW	15 kW	22 kW
Rated short-time withstand current	I_{cw}	0,5 kA-1 s	0,78 kA-1 s	1,85 kA-1 s
Rated short-circuit making capacity	I_{cm}	3 kA	3 kA	6 kA
Rated conditional fuse-protected short-circuit current withstand / making		15 kA	15 kA	15 kA
Fuse-link	I_n	50 A	63 A	100 A
Switched neutral Conventional free air thermal current:	I_{the}	40 A	63A	100 A
Rated operational current at U_e = 500 V AC-22A:	I_e	40 A	63A	100 A
Auxiliary switch Rated operational current				
at U_e = 380 V, AC-11:	I_e	3 A	3 A	3 A
at U_e = 660 V, AC-1:	I_e	10 A	10 A	10 A
Standards		EN / IEC 60947-3		

Change-over and multi-pole switches, type QM, 8-pole, connection capacity

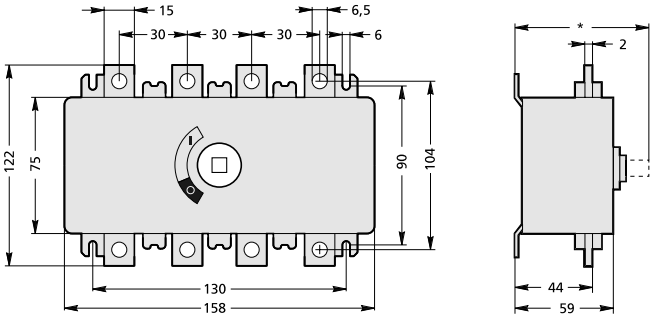
Type	QM 40/QM 63		QM 80/QM 100	
Copper conductor	Cross section	Tightening torque	Cross section	Tightening torque
Solid	2,5 - 16 mm^2	1,2 Nm	10 - 35 mm^2	2,5 Nm
Stranded	2,5 - 16 mm^2	1,2 Nm	10 - 35 mm^2	2,5 Nm
Flexible	2,5 - 10 mm^2	1,2 Nm	10 - 35 mm^2	2,5 Nm

Switch-disconnectors Dumeco, type DMV 160N, dimensional drawings

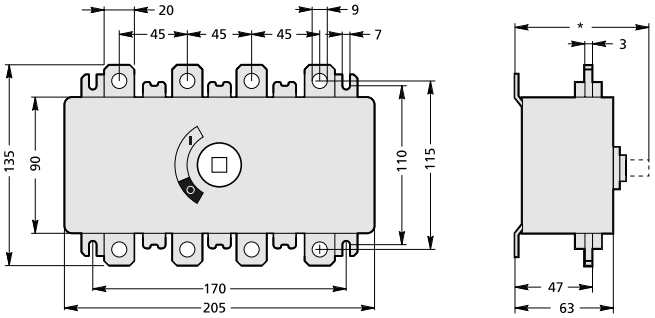
Dimensions apply to 3-pole as well as 4-pole switch-disconnectors.



Dumeco, type DMV 160N
(Connecting contacts with pillar terminals).



Dumeco, type DMV 160N.

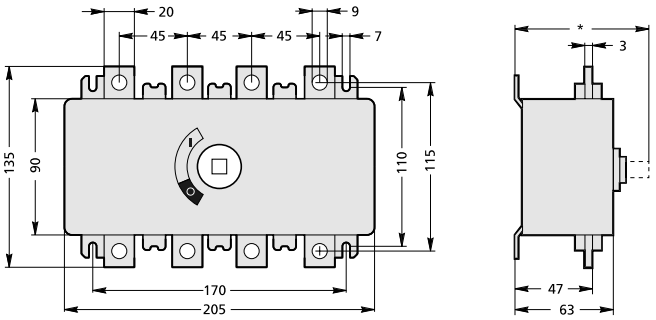


Dumeco, type DMVS 160N.

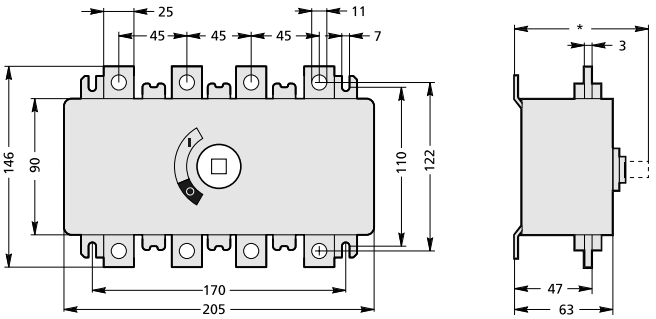
*) Depending on the applied operating shaft.

Switch-disconnectors Dumeco, type DMV 250N-1250N, dimensional drawings

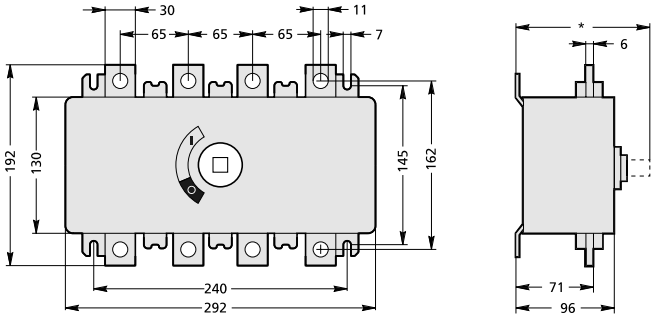
Dimensions apply to 3-pole as well as 4-pole switch-disconnectors.



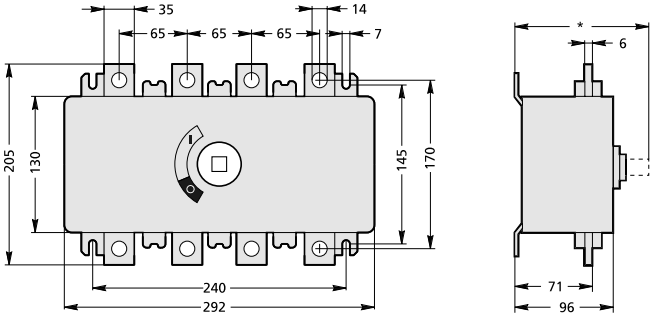
Dumeco, type DMV 250N.



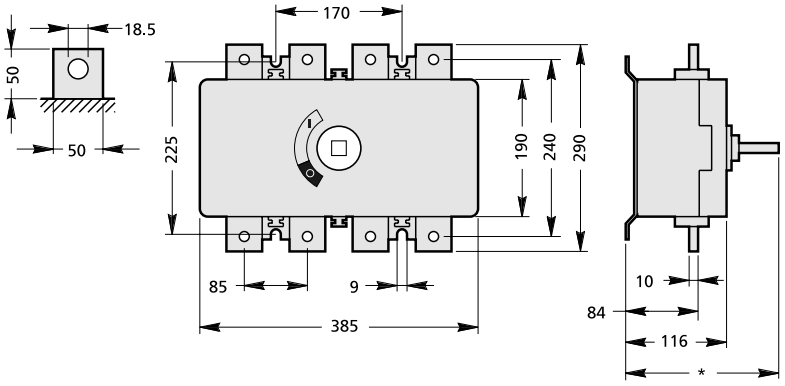
Dumeco, type DMV 400N.



Dumeco, type DMV 630N.



Dumeco, type DMV 1000N.

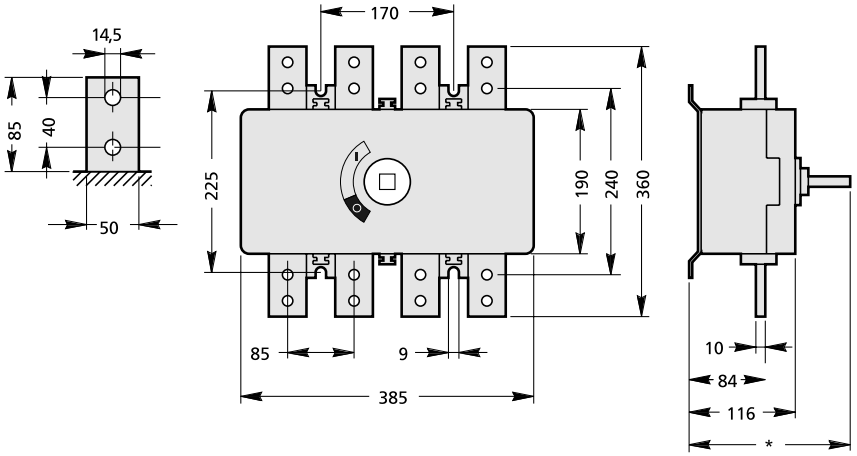


Dumeco, type DMV 1250N.

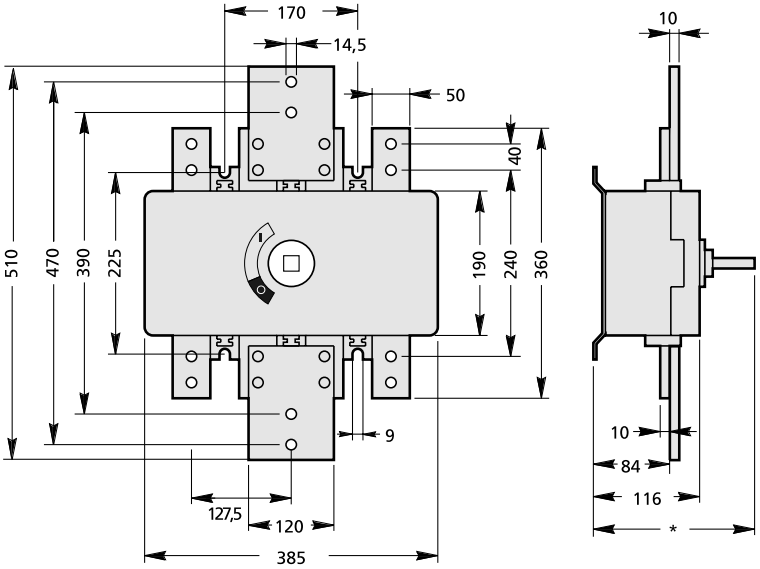
*) Depending on the applied operating shaft.

Switch-disconnectors Dumeco, type DMV 1600N-2000N, dimensional drawings

Dimensions apply to 3-pole as well as 4-pole switch-disconnectors.



Dumeco, type DMV 1600N.

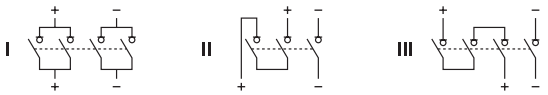


Dumeco, type DMV 2000N.

Switch-disconnectors Dumeco, type DMV 160N-1000N, technical details

Type		DMV 160N	DMVS 160N	DMV 250N	DMV 400N	DMV 630N	DMV 1000N
Conventional free air thermal current:	I_{th}	160 A	160 A	250 A	400 A	630 A	1000 A
Conventional enclosed thermal current:	I_{the}	160 A	160 A	250 A	400 A	630 A	1000 A
Rated uninterrupted current:	I_u	160 A	160 A	250 A	400 A	630 A	1000 A
Rated operational voltage:	U_e	440 VDC	440 VDC	440 VDC	440 VDC	440 VDC	440 VDC
	U_e	690 VAC	690 VAC	690 VAC	690 VAC	690 VAC	690 VAC
Rated insulation voltage:	U_i	1000 V	1000 V	1000 V	1000 V	1000 V	1000 V
Rated impulse withstand voltage:	U_{imp}	8 kV	8 kV	8 kV	8 kV	12 kV	12 kV
Rated operational current at U_e = 415 V AC-21A:	I_e	160 A	160 A	250 A	400 A	-	-
at U_e = 415 V AC-22A:	I_e	160 A	160 A	250 A	400 A	-	-
at U_e = 500 V AC-21A:	I_e	160 A	160 A	250 A	400 A	-	-
at U_e = 500 V AC-22A:	I_e	160 A	160 A	250 A	400 A	-	-
at U_e = 690 V AC-21A:	I_e	125 A	160 A	250 A	400 A	-	-
at U_e = 690 V AC-22A:	I_e	125 A	160 A	250 A	315 A	-	-
at U_e = 415 V AC-21B:	I_e	-	-	-	-	630 A	1000 A
at U_e = 415 V AC-22B:	I_e	-	-	-	-	630 A	1000 A
at U_e = 500 V AC-21B:	I_e	-	-	-	-	630 A	1000 A
at U_e = 500 V AC-22B:	I_e	-	-	-	-	630 A	1000 A
at U_e = 690 V AC-21B:	I_e	-	-	-	-	630 A	1000 A
at U_e = 690 V AC-22B:	I_e	-	-	-	-	630 A	1000 A
Rated operational power at U_e = 415 V AC-23A:		90 kW	90 kW	147 kW	180 kW	-	-
at U_e = 500 V AC-23A:		75 kW	110 kW	160 kW	180 kW	-	-
at U_e = 690 V AC-23A:		-	132 kW	132 kW	132 kW	-	-
at U_e = 415 V AC-23B:		-	-	-	-	375 kW	425 kW
at U_e = 500 V AC-23B:		-	-	-	-	425 kW	425 kW
at U_e = 690 V AC-23B:		-	-	-	-	425 kW	425 kW
Rated making and breaking capacity in accordance with CSA at U_e = 460 V:		-	50 hp	50 hp	60 hp	125 hp	150 hp
at U_e = 575 V:		-	60 hp	60 hp	75 hp	150 hp	200 hp
at U_n = 600 V:	I_n	-	160 A	160 A	250 A	400 A	630 A
Rated short-time withstand current:	I_{cw}	8 kA-0,2 s	12 kA-0,3 s	12 kA-0,3 s	12 kA-0,3 s	36 kA-0,3 s	36 kA-0,3 s
Rated short-circuit making capacity:	I_{cw}	17,6 kA	26,5 kA	26,5 kA	26,5 kA	76 kA	76 kA
Rated conditional short-circuit current fuse protected short-circuit withstand/ making:		50 / 100 kA	50 / 100 kA	50 / 100 kA	50 / 100 kA	50 / 100 kA	50 / 100 kA
Cut-off current:	Max.	17 / 14,5 kA	40 / 33 kA	40 / 33 kA	40 / 33 kA	70 / 65 kA	70 / 65kA
Joule integral:	Max.	600 / 67 kA^2s	1700 / 380 kA^2s	1700 / 380 kA^2s	1700 / 380 kA^2s	42000 / 3200 kA^2s	42000 / 3200 kA^2s
Fuse-link:	I_n	160 / 100 A	500 / 250 A	500 / 250 A	500 / 250 A	1000 / 630 A	1000 / 630 A
Auxiliairy switch rated operational current at U_e = 220 V AC-11:	I_e	2 A	2 A	2 A	2 A	2 A	2 A
at U_e = 220 V DC-11:	I_e	0,5 A	0,5 A	0,5 A	0,5 A	0,5 A	0,5 A
at U_e = 380 V AC-11:	I_e	1,5 A	1,5 A	1,5 A	1,5 A	1,5 A	1,5 A

Switch-disconnectors Dumeco, type DMV 160N-1000N, direct current, technical details

Type		DMV 160N	DMVS 160N	DMV 250N	DMV 400N	DMV 630N	DMV 1000N
Rated operational current in acc. with IEC 60408 at U_e = 220 V DC-21 (scheme I):	I_e	160 A	160 A	250 A	400 A	630 A	1000 A
at U_e = 440 V DC-21 (scheme III):	I_e	125 A	160 A	200 A	315 A	500 A	800 A
at U_e = 250 V DC-21 (scheme II):	I_e	125 A	160 A	200 A	315 A	500 A	800 A
at U_e = 220 V DC-22 (scheme I):	I_e	160 A	160 A	250 A	315 A	630 A	-
at U_e = 440 V DC-22 (scheme III):	I_e	125 A	160 A	200 A	315 A	500 A	630 A
at U_e = 250 V DC-22 (scheme II):	I_e	125 A	160 A	200 A	315 A	500 A	800 A
at U_e = 440 V DC-23 (scheme III):	I_e	125 A	160 A	200 A	200 A	500 A	630 A
at U_e = 250 V DC-23 (scheme II):	I_e	125 A	160 A	200 A	200 A	500 A	800 A
Connection diagrams DC-application:							
Standards:		IEC 60947-3					
Certification:		KEMA-KEUR, Lloyd's (LR), Veritas, CSA[1)]					

[1)] Exclusive type DMV 160N.

Switch-disconnectors Dumeco, type DMV 1250N-2000N, technical details

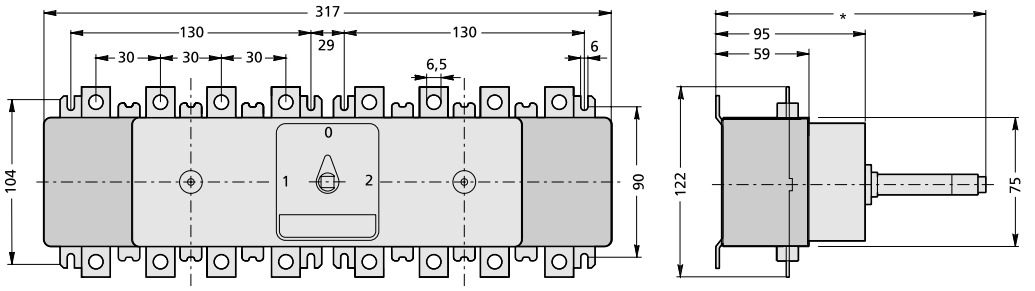
Type		DMV 1250N	DMV 1600N	DMV 2000N
Conventional free-air thermal current:	I_{th}	1250 A	1600 A	2000 A
Conventional enclosed thermal current:	I_{the}	1250 A	1600 A	2000 A
Rated uninterrupted current:	I_u	1250 A	1600 A	2000 A
Rated operational current:	U_e	690 V	690 V	690 V
Rated insulation voltage:	U_i	1000 V	1000 V	1000 V
Rated impulse withstand voltage:	U_{imp}	12 kV	12 kV	12 kV
Rated operational current atj U_e = 415 V AC-21A:	I_e	1250 A	1600 A	
AC-21B:				2000 A
at U_e = 415 V AC-22A:	I_e	1250 A	1600 A	-
AC-22B:		-	-	2000 A
at U_e = 500 V AC-21A:	I_e	1250 A	1600 A	-
AC-21B:		-	-	2000 A
at U_e = 500 V AC-22A:	I_e	1250 A	1600 A	-
AC-22B:		-	-	2000 A
at U_e = 690 V AC-21A:	I_e	1250 A	1600 A	-
AC-21B:		-	-	2000 A
at U_e = 690 V AC-22A:	I_e	1250 A	1600 A	-
AC-22B:		-	-	1600 A
Rated operational power at U_e = 415 V AC-23A:		750 kW	750 kW	750 kW
at U_e = 500 V AC-23A:		630 kW	630 kW	630 kW
at U_e = 690 V AC-23A:		630 kW	630 kW	630 kW
Rated short-time withstand current:	I_{cw}	50 kA-1 s	50 kA-1 s	50 kA-1 s
Rated short-circuit making capacity:	I_{cm}	110 kA	110 kA	110 kA
Auxiliary switch, rated operational current at U_e = 220 V AC-11:	I_e	2 A	2 A	2 A
at U_e = 220 V DC-11:	I_e	0,5 A	0,5 A	0,5 A
at U_e = 380 V AC-11:	I_e	1,5 A	1,5 A	1,5 A
Standards:		IEC 60947-3		
Certification:		KEMA-KEUR-approval, Lloyd's (LR), Veritas		

Switch-disconnectors Dumeco, type DMV 160N, clamp connection, connecting capacity

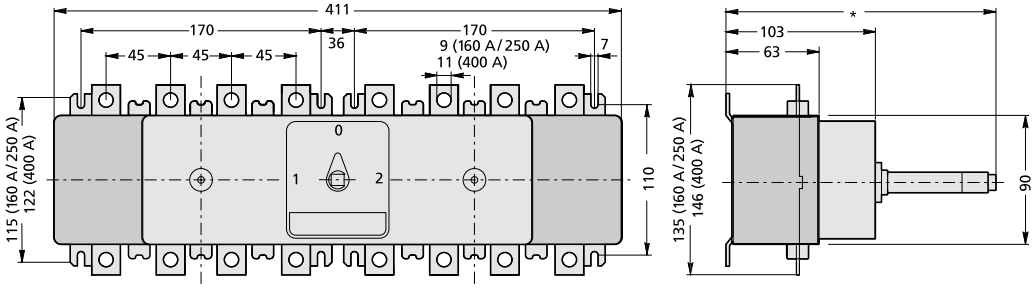
Copper conductor	Cross section	Tightening torque
Stranded	6 - 70 mm^2	7 Nm
Flexible	6 - 70 mm^2	7 Nm

Change-over and multipole switches, type Dumeco, horizontal, dimensional drawings

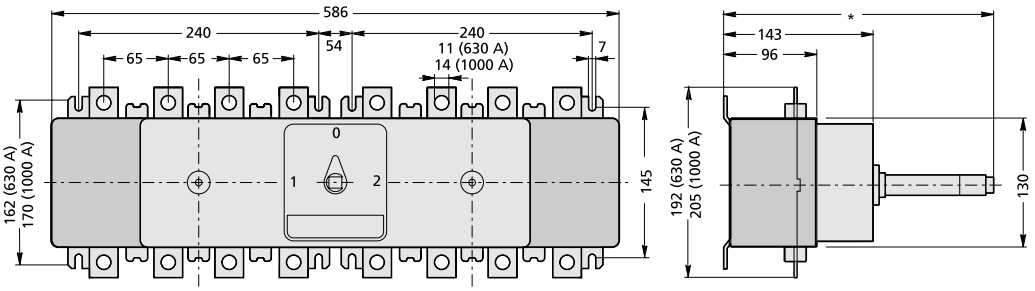
in mm



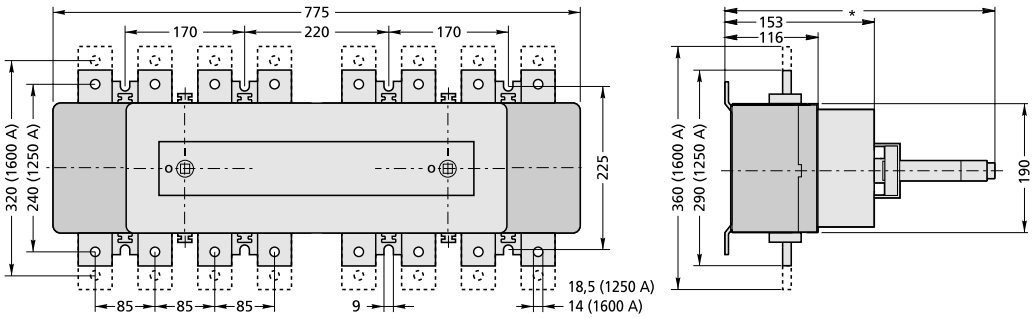
Change-over switches, Dumeco, type DMV 160N.



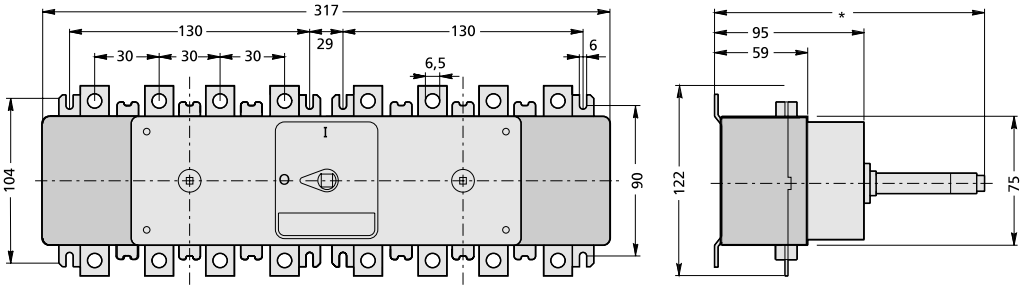
Change-over switches, Dumeco, types DMVS 160N, DMV 250N and DMV 400N.



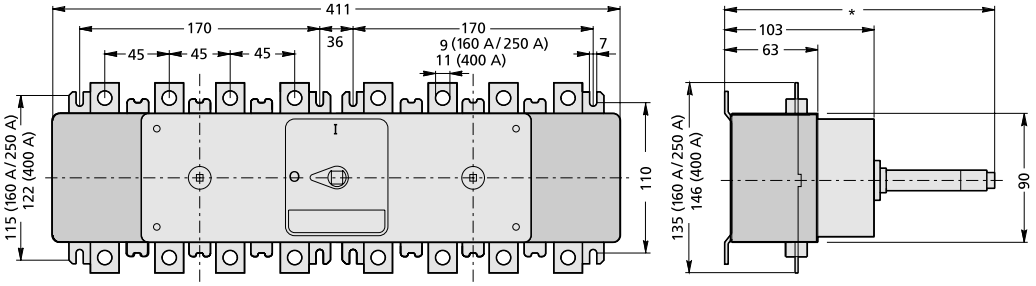
Change-over switches, Dumeco, types DMV 630N and DMV 1000N.



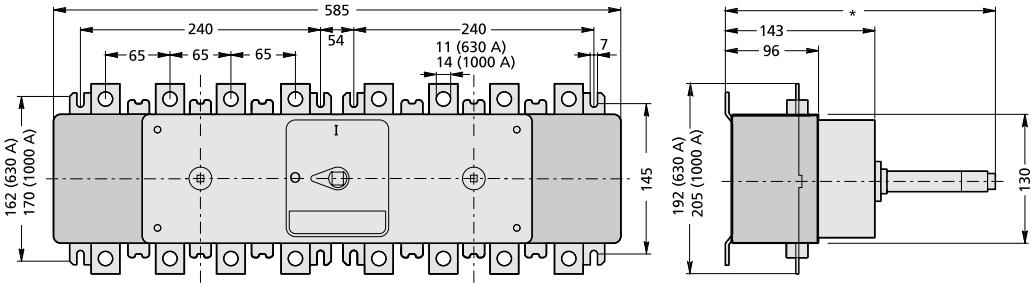
Change-over switches, Dumeco, types DMV 1250N and DMV 1600N.



Multipole switches, Dumeco, type DMV 160N.



Multipole switches, Dumeco, types DMVS 160N, DMV 250N and DMV 400N.

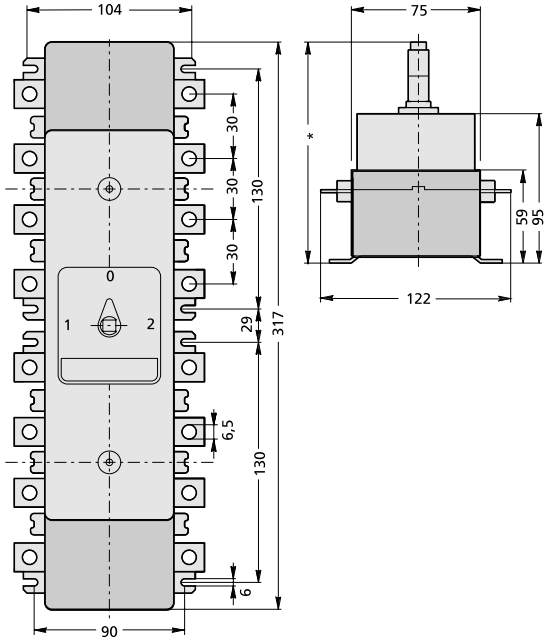


Multipole switches, Dumeco, types DMV 630N and DMV 1000N.

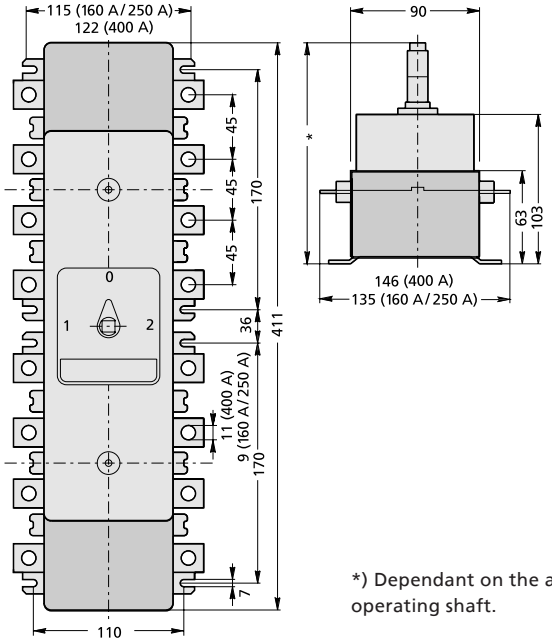
*) Dependant on the applied operating shaft.

Change-over and multipole switches, type Dumeco, vertical, dimensional drawings

in mm

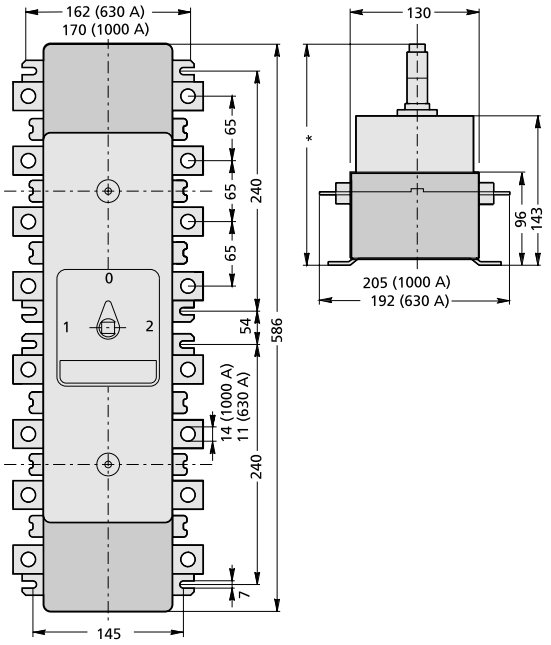


Change-over switches, Dumeco,
Type DMV 160N.

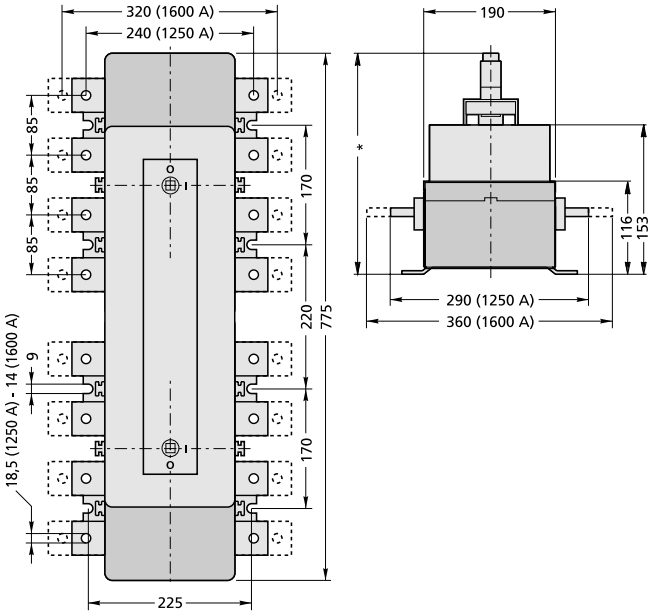


*) Dependant on the applied operating shaft.

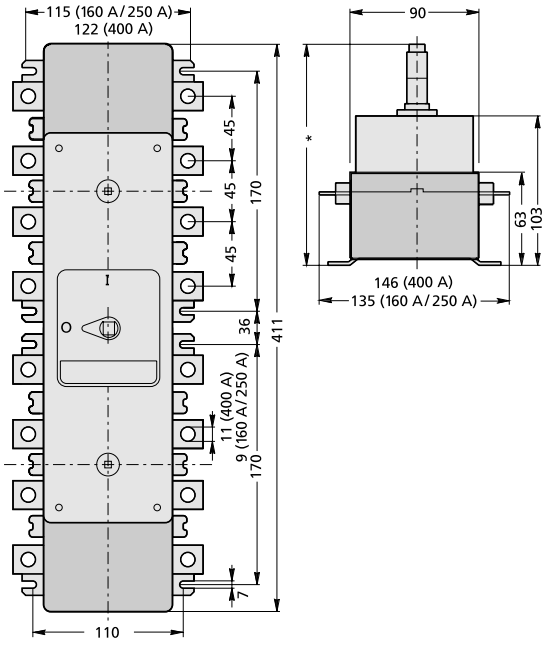
Change-over switches, Dumeco,
Types DMVS 160N, DMV 250N and DMV 400N.



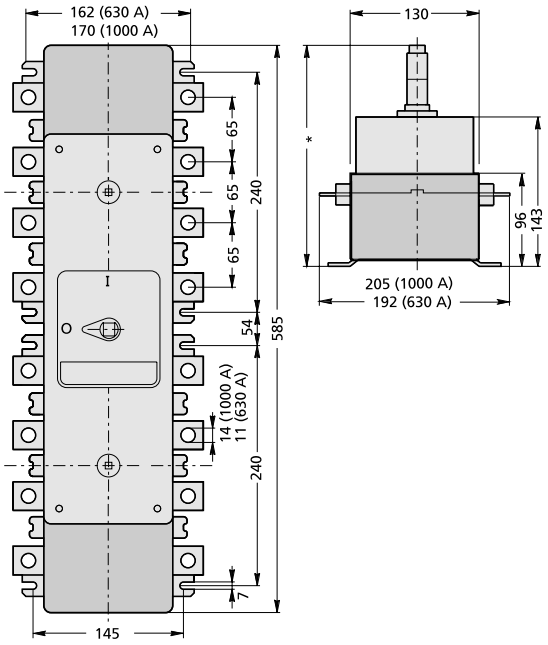
Change-over switches, Dumeco,
Types DMV 630N and DMV 1000N.



Change-over switches, Dumeco,
Types DMV 1250N and DMV 1600N.



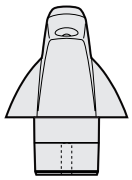
Multipole switches, Dumeco,
Types DMVS 160N, DMV 250N and DMV 400N.



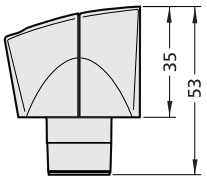
Multipole switches, Dumeco,
Types DMV 630N and DMV 1000N.

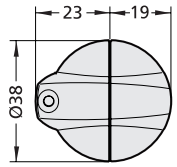
Handles & knobs, K-line, technical information

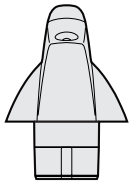
Handles K-line, type A, dimensional drawings



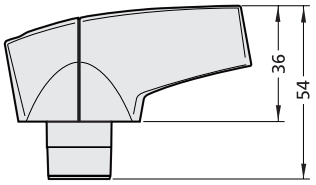
Type K1A

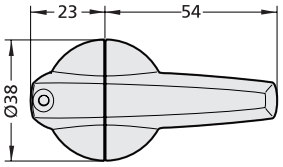


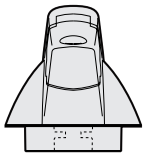




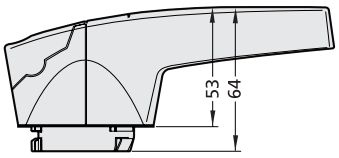
Type K2A and K2SA

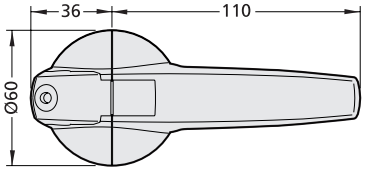


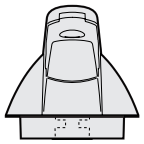




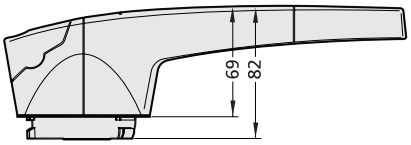
Type K3KA

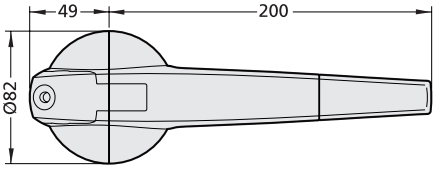




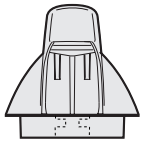


Type K4A

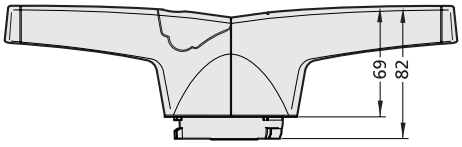


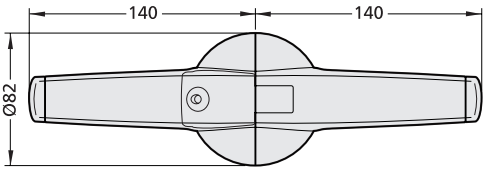


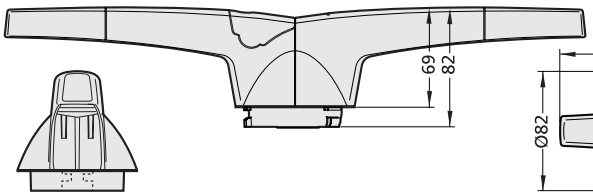
Handles K-line, type A, T-handle, dimensional drawings



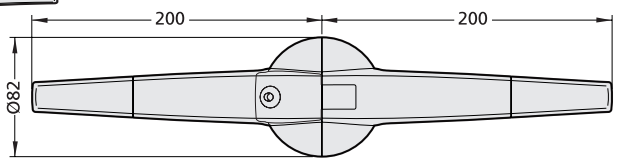
Type K5A



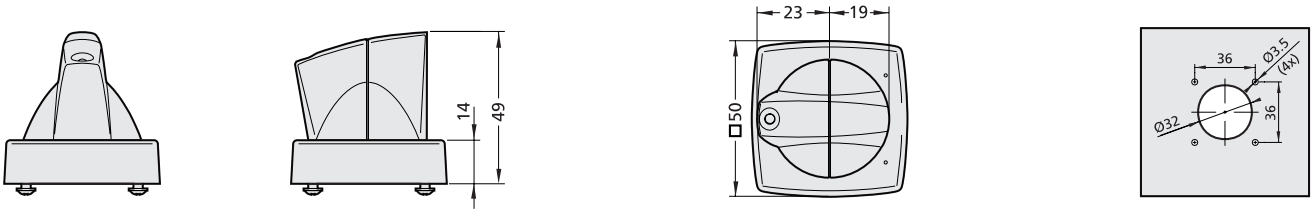




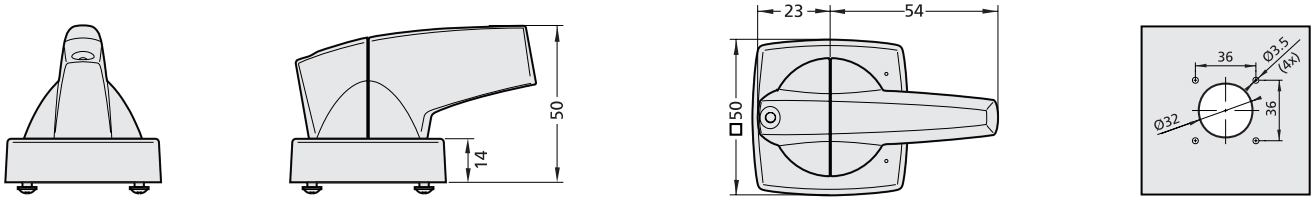
Type K6A



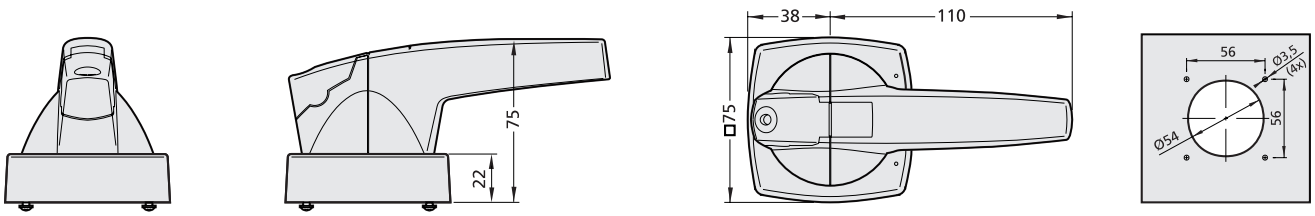
Handles K-line, type C, dimensional drawings



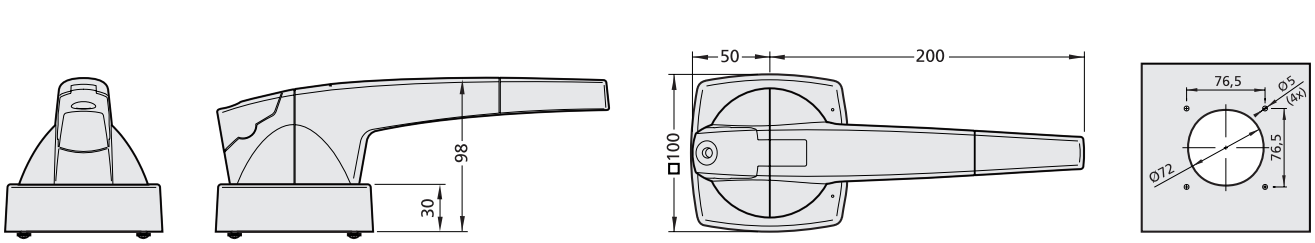
Typ K1C



Typ K2C and K2SC

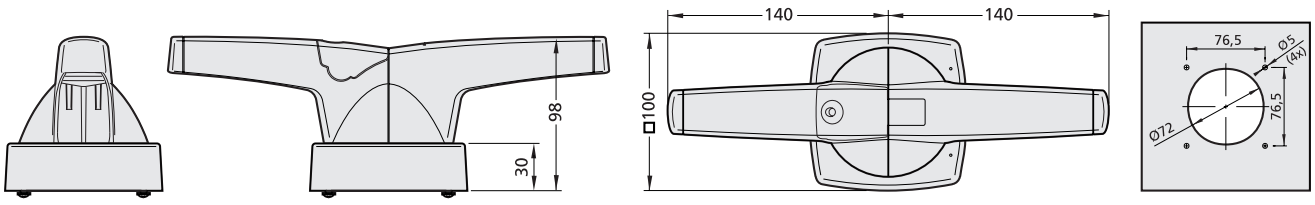


Typ K3KC

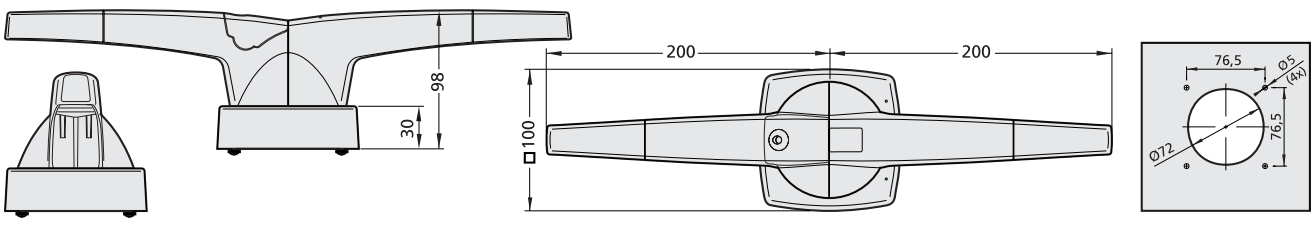


Typ K4C

Handles K-line, type C, T-handle, dimensional drawings

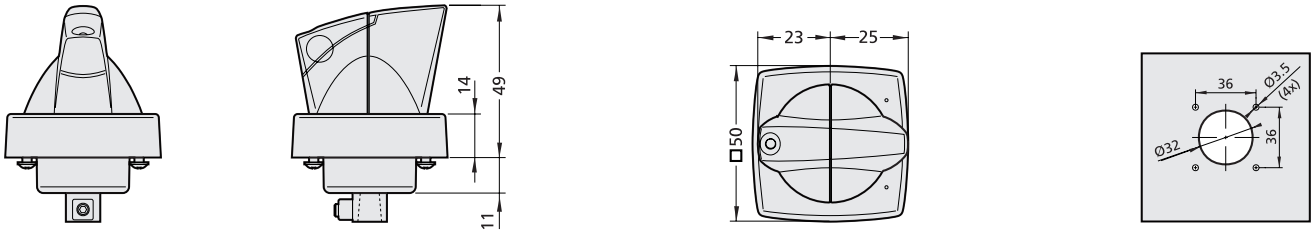


Type K5C

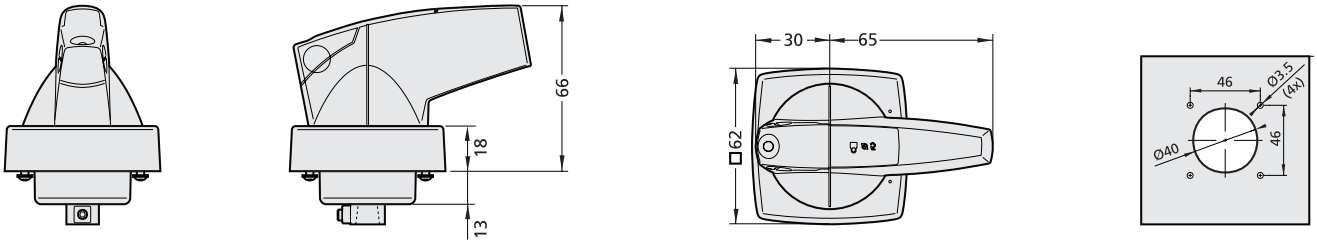


Type K6C

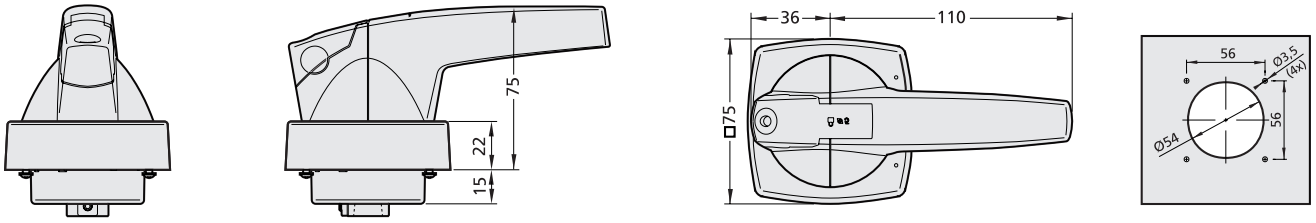
Handles K-line, type D, dimensional drawings



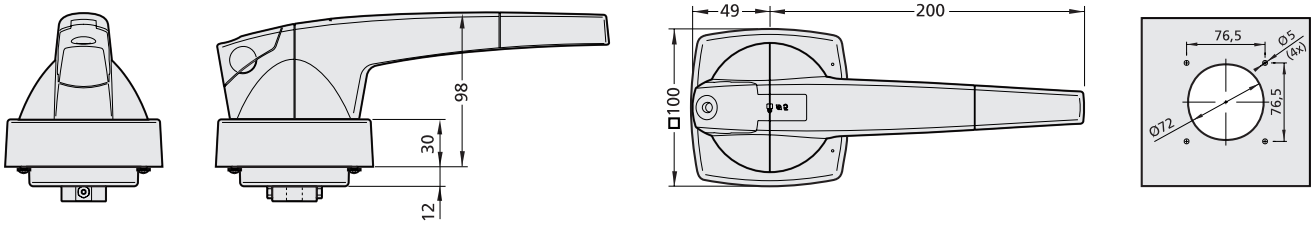
Typ K1D



Typ K2D and K2SD

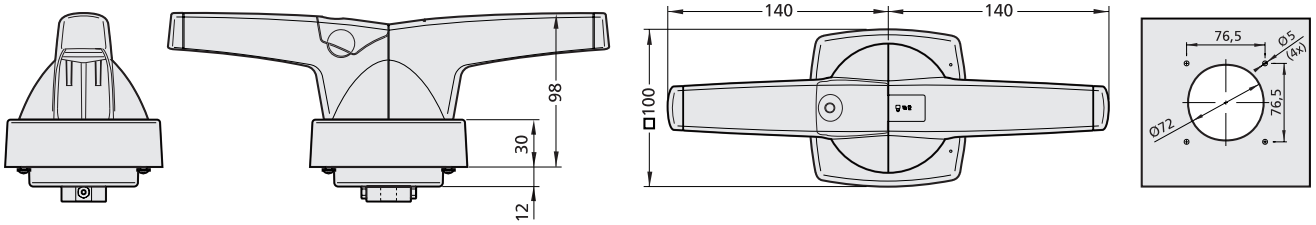


Typ K3KD

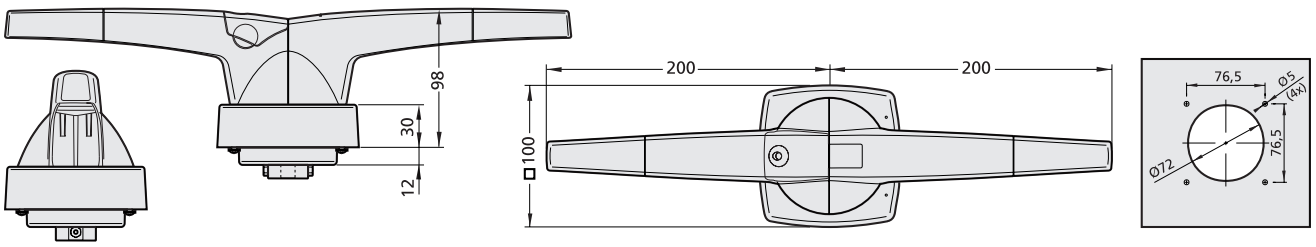


Typ K4D

Handles K-line, type D, T-handle, dimensional drawings



Type K5D



Type K6D

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