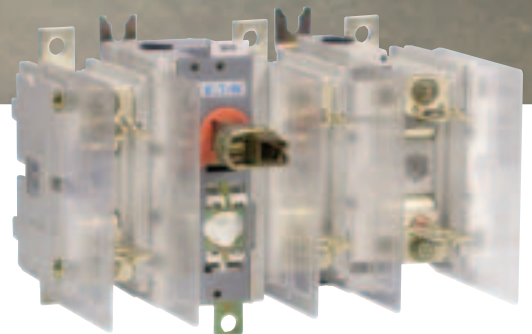
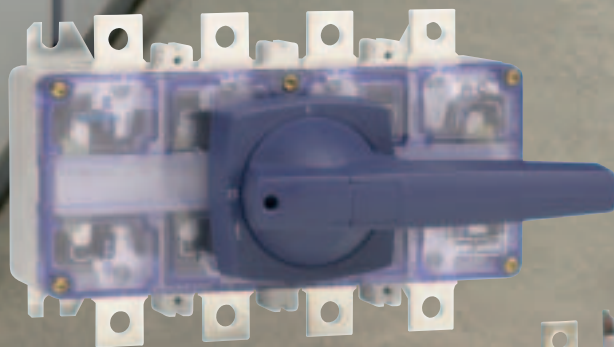


Product Range Catalog
Dumeco Switch-Disconnectors
QSA Fuse Combination Switches



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Fused combination switches 40 A – 800 A

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40 - 800 A, 690 V_{ac}

The QSA flexible Fused Combination Switches product range contains 3-pole configurations. This chapter gives information on **standard DIN fuse-link and standard BS fuse-link, type QSA fused combination switches**.

Standards

- The range complies with EN-IEC 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.



See page 6 for accessories of switch-disconnector-fuses, type QSA.

40 - 800 A, 690 V_{ac}

The product range contains 3-pole configurations (with optional switched and solid neutral). This chapter gives information on **standard (DIN fuse-link) type QSA switches**.

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 6 for accessories of switch-disconnector-fuses, type QSA.
See page 31 for the technical characteristics of switch-disconnector-fuses, type QSA.
See page 25 for knobs and handles, K-line.



1320203

Switch-disconnector-fuses, frame size 0

Type QSA, 690 V_{ac}, DIN fuse-links

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

Description	Thermal current I _{th}	Pole configuration	Frame size	Part no.	Std. pack	Article no.
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, 690 V_{ac}, DIN fuse-links

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

Description	Thermal current I _{th}	Pole configuration	Frame size	Part no.	Std. pack	Article no.
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



1318547

Switch-disconnector-fuses, frame size 2

Type QSA, 690 V_{ac}, DIN fuse-links

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

Description	Thermal current I _{th}	Pole configuration	Frame size	Part no.	Std. pack	Article no.
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*

*) In ventilated enclosure.



1318542

Switch-disconnector-fuses, frame size 3

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

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

Description	Thermal current I _{the}	Pole configuration	Frame size	Part no.	Std. pack	Article no.
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*

*) I_{the} 750 A.

Accessories for switches, type QSA

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

See page 6 for accessories of switch-disconnector-fuses, type QSA for more information.

Shielding

Wide range of terminal covers, front and rear covers are available.

Knobs and 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 25 for K-line knobs and handles, K-line for different shafts with various lengths for type QSA switches.

40 - 800 A, 690 V_{ac}

Product range contains 3-pole configurations.

This chapter gives information on **standard (BS fuse-link) type QSA switches**.

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 6 for accessories of switch-disconnector-fuses, type QSA.

See page 31 for the technical characteristics of switch-disconnector-fuses, type QSA.

See page 25 for knobs and handles, K-line.



1320202

Switch-disconnector-fuses, frame size 0

■ Type QSA, 690 V_{ac}, BS fuse-links

- Suitable for BS fuse-links (solid connection type).

Description	Thermal current I _{the}	Pole configurations	Frame size	Part no.	Std. pack	Article no.
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, 690 V_{ac}, BS fuse-links

- Suitable for BS fuse-links (solid connection type).

Description	Thermal current I _{the}	Pole configuration	Frame size	Part no.	Std. pack	Article no.
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, 690 V_{ac}, BS fuse-links

- Suitable for BS fuse-links (solid connection type).

Description	Thermal current I _{the}	Pole configuration	Frame size	Part no.	Std. pack	Article no.
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*

*) In ventilated enclosure.



1318537

Switch-disconnector-fuses, frame size 3

■ Type QSA, 690 V_{ac}, BS fuse-links

- Suitable for BS fuse-links (solid connection type).

Description	Thermal current I _{th}	Pole configuration	Frame size	Part no.	Std. pack	Article no.
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 and protective terminal covers.

See page 6 for accessories of switch-disconnector-fuses, type QSA for more information.

Shielding

Wide range of terminal covers, front and rear covers are available.

Knobs and 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 25 for knobs and handles, K-line for different shafts with various lengths for type QSA switches.

DIN and BS fuse-links

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

Shielding

Wide range of terminal covers, front and rear covers are available.

Knobs and 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 39 for dimensional drawings of solid and switched neutrals.
See page 29 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	Std. pack	Article no.
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	Std. pack	Article no.
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



6028292, 6028293,
6028294

Auxiliary switches for switch-disconnector-fuses type QSA

- The auxiliary switch is excluding adaptor, one adaptor needed per auxiliary switch. Except 630 / 800 A.

Description	For switch-disconnector-fuse type	Contact configuration	Std. pack	Article no.
Adaptor for auxiliary switch	For all QSA-types	-	5	6028292
Auxiliary switch	For all QSA-types	1 NO + 1 NC	1	6028293
Auxiliary switch	For all QSA-types	2 NO	1	6028294
Auxiliary switch incl. adaptor	For types 630 / 800 A	1 NO + 1 NC	1	6030647



1319411

Terminal covers (transparent), 1-pole

For QSA types

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

Description	For switch-disconnector- type	Bolt	Std. pack	Article no.
Terminal cover (transparent) for cable lugs on connection terminal	QSA 40N0, QSA 63N0, QSA 100N1, QSA 125N1	M6	1	1319409
Terminal cover (transparent) for cable lugs on connection terminal	QSA 160N1, QSA 160N, QSA 200N (BS)	M8	1	1319411
Terminal cover (transparent) for cable lugs on connection terminal	QSA 200N (DIN) - QSA 250N, QSA 315N, QSA 400N	M10	1	1319413
Terminal cover (transparent) for cable lugs on connection terminal	QSA 400, QSA 630, QSA 800	M12	1	1319415



1319439

Rear covers for switch-disconnector-fuse, 1-pole

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

Description	Pole configuration	For switch-disconnector fuse type	Std. pack	Article no.
Rear cover for switch-disconnector-fuse	1P	QSA 63N1-00/3, QSA 63N1-A3/3, QSA 100N1-A4/3, QSA 125N1-00/3, QSA 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 (transparent), 3-pole

- For cable lugs on connection terminals of QSA-types.

Description	Pole configuration	For switch-disconnector-fuse type	Std. pack	Article no.
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 covers (transparent) for switch-disconnector-fuse

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

Description	For switch-disconnector fuse type	Std. pack	Article no.
Front cover (transparent) for switch-disconnector-fuse	QSA 40N0, QSA 63N0, QSA 63N1, QSA 100N1-00/3	1	1320237
Front cover (transparent) for switch-disconnector-fuse	QSA 63N1-00/3, QSA100N1-00/3, QSA 125N1-00/3	1	1319435
Front cover (transparent) for switch-disconnector-fuse	QSA 160N1-00/3	1	1318476
Front cover (transparent) for switch-disconnector-fuse	QSA 100N1-A4/3	1	1319423
Front cover (transparent) for switch-disconnector-fuse	QSA 125N1-B2/3, QSA 160N1-B2/3, QSA 160N, QSA 200N, QSA 250N,	1	1319438
Front cover (transparent) for switch-disconnector-fuse	QSA 315N, QSA 400N	1	1319429
Front cover (transparent) for switch-disconnector-fuse	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	Std. pack	Article no.
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



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

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

Standards

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

Technical characteristics

- Utilization categories: AC-23 A.
- 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 41 for the technical characteristics of switch-disconnectors Duco, type DMV.



1713124

Switch-disconnectors Duco, visible contact separation

■ Type DMV

- With fixed shaft and knob.

Description	Current rating	Pole configuration	Part no.	Std. pack	Article no.
Switch-disconnector Duco	40 A	2P	DMV 40/2	1	1713121
Switch-disconnector Duco	40 A	3P	DMV 40/3	1	1713123
Switch-disconnector Duco	40 A	3P+sldN	DMV 40/1	1	1713124
Switch-disconnector Duco	40 A	4P	DMV 40/4	1	1713125
Switch-disconnector Duco	63 A	2P	DMV 63/2	1	1713170
Switch-disconnector Duco	63 A	3P	DMV 63/3	1	1713171
Switch-disconnector Duco	63 A	3P+sldN	DMV 63/1	1	1713172
Switch-disconnector Duco	63 A	4P	DMV 63/4	1	1713173



1713101

Switch-disconnectors Duco, visible contact separation

■ Type DMV

- Without shaft and knob.

Description	Current rating	Pole configuration	Part no.	Std. pack	Article no.
Switch-disconnector Duco	40 A	3P	DMV 40/3	1	1713100
Switch-disconnector Duco	40 A	3P+sldN	DMV 40/1	1	1713101
Switch-disconnector Duco	40 A	4P	DMV 40/4	1	1713103
Switch-disconnector Duco	63 A	3P+sldN	DMV 63/1	1	1713151
Switch-disconnector Duco	63 A	3P	DMV 63/3	1	1713150
Switch-disconnector Duco	63 A	4P	DMV 63/4	1	1713153



1050200

Operating shafts for Duco

For types DMV 40 / 63

- 6 mm square.

Description	Height	Std. pack	Article no.
Operating shaft	100 mm	1	1050200*
Operating shaft	116 mm	1	1050201*
Operating shaft	124 mm	1	1050202*
Operating shaft	148 mm	1	1050203*
Operating shaft	156 mm	1	1050204*
Operating shaft	172 mm	1	1050205*
Operating shaft	254 mm	1	1050206*
Operating shaft	400 mm	1	1050207*

*) Height of switch, from bottom of switch to top of operating shaft.



1713201

Front mounting kits

- Terminal size: 2 x 2.5 mm² up to 16 mm².

Description	Pole configuration	Std. pack	Article no.
Front mounting kit	2P	1	1713201*
Front mounting kit	3P	1	1713204

*) 4P = 2 x 2P.



1713203

Protective covers, transparent

- Cover for protection against accidental touching of terminals.

Description	Pole configuration	Std. pack	Article no.
Protective cover, transparent	2P	1	1713202*
Protective cover, transparent	3P	1	1713203

*) 4P = 2 x 2P.



40 - 63 A, 415 V_{ac}

Product range contains 3-pole + solid N and 4-pole 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 sleeve connection.
- Connecting contacts with pillar terminals.
- Interchangeable operating shaft.
- Semi-independent manual operating mechanism.
- 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 categories AC-21 A and AC-22 A.



See page 44 for the technical characteristics of switch-disconnectors Duco, type DCM.



1314106

Switch-disconnectors Duco, with fixed shaft and fixed mounted knob

■ Type DCM

- 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	Part no.	Std. pack	Article no.
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 shaft and knob

■ Type DCM

- For bottom mounting, vertical connection.

Description	Current rating	Pole configuration	Part no.	Std. pack	Article no.
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, without shaft and knob - horizontal connection

■ Type DCM

- For bottom mounting, horizontal connection.

Description	Current rating	Pole configuration	Part no.	Std. pack	Article no.
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, without shaft and knob - front mounting

■ Type DCM

- For front mounting, vertical connection.

Description	Current rating	Pole configuration	Part no.	Std. pack	Article no.
Switch-disconnector Duco, front mounting	40 A	3P+sldN	DCM 40/1	1	1314112*
Switch-disconnector Duco, front mounting	40 A	4P	DCM 40/4	1	1314113*
Switch-disconnector Duco, front mounting	63 A	4P	DCM 63/4	1	1314009*

*) Rear connection; for front connection set, see accessories.



1314111

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

■ Type DCM

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

Description	Current rating	Pole configuration	Height	Part no.	Std. pack	Article no.
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 type DCM

■ Types DCM 40 / 63

- 6 mm, square.

Description	Height DCM	Std. pack	Article no.
Operating shaft	100 mm	1	1314280*
Operating shaft	116 mm	1	1314279*
Operating shaft	124 mm	1	1314994*
Operating shaft	148 mm	1	1314995*
Operating shaft	156 mm	1	1314278*
Operating shaft	172 mm	1	1314281*
Operating shaft	254 mm	1	1314375*
Operating shaft	400 mm	1	1314372**

*) 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.



1314344

Front mounting kit for types DCM 40 / 63

Description	Std. pack	Article no.
Front mounting kit for DCM 40 / 63	1	1314344



1314369

Shaft supporting set for type DCM

- For switch heights greater than 270 mm.

Description	Std. pack	Article no.
Shaft supporting set	1	1314369



1314331

Protective covers, transparent

- For protection against accidental touching of terminals.

Description	For type	Std. pack	Article no.
Protective cover, transparent	DCM 40, DCM 63	1	1314331

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

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

Standards

- Complying with standards EN-IEC 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 sleeve connection.
- Connecting contacts with pillar terminals.
- Interchangeable operating shaft.
- Independent manual operating mechanism.
- Utilizations categories 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 45 for the technical characteristics of switch-disconnectors Dumeco, type DMM.
See page 25 for knobs and handles, K-line.



1314056

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

Types DMM 40 / 63

- For bottom mounting, vertical connection.
- Height of switch-disconnector: 107 mm (from bottom of switch to top of handle).

Description	Current rating	Pole configuration	Height	Part no.	Std. pack	Article no.
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, without operating shaft and knob, 40 - 63 A

Types DMM 40 / 63

- For bottom mounting, vertical connection.

Description	Current rating	Pole configuration	Part no.	Std. pack	Article no.
Switch-disconnector Dumeco, without shaft and knob	40 A	3P+sldN	DMM 40/1	1	1314052
Switch-disconnector Dumeco, without shaft and knob	40 A	4P	DMM 40/4	1	1314053
Switch-disconnector Dumeco, without shaft and knob	63 A	3P+sldN	DMM 63/1	1	1314157
Switch-disconnector Dumeco, without shaft and knob	63 A	4P	DMM 63/4	1	1314158



1314054

Switch disconnectors Dumeco, with operating shaft and knob, 40 - 63 A - height 172 mm

Types DMM 40 / 63

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

Description	Current rating	Pole configuration	Height	Part no.	Std. pack	Article no.
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, with operating shaft and knob, 125 A

Type DMM 125

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

Description	Current rating	Pole configuration	Height	Part no.	Std. pack	Article no.
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, without operating shaft and knob, 125 A

Type DMM 125

- For bottom mounting, vertical connection.

Description	Current rating	Pole configuration	Part no.	Std. pack	Article no.
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, with operating shaft and C-type handle for cover mounting, 125 A - height 172 mm

Type DMM 125

- For cover mounting, vertical connection.
- Height of switch: 172 mm (from bottom of switch to top of operating shaft).

Description	Current rating	Pole configuration	Height	Part no.	Std. pack	Article no.
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 type DMM 40 / 63 A

Types DMM 40 / 63

- 6 mm, square.

Description	Height DMM	Std. pack	Article no.
Operating shaft	116 mm	1	1314280*
Operating shaft	132 mm	1	1314279*
Operating shaft	140 mm	1	1314994*
Operating shaft	164 mm	1	1314995*
Operating shaft	172 mm	1	1314278*
Operating shaft	188 mm	1	1314281*
Operating shaft	270 mm	1	1314375*
Operating shaft	400 mm	1	1314371**

*) 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.



1314280

Operating shafts for type DMM 125 A

Type DMM 125

- 6 mm square.

Description	Height DMM	Std. pack	Article no.
Operating shaft for Dumeco	116 mm	1	1314335*
Operating shaft for Dumeco	132 mm	1	1314341*
Operating shaft for Dumeco	148 mm	1	1314342*
Operating shaft for Dumeco	172 mm	1	1314334*
Operating shaft for Dumeco	270 mm	1	1314374**
Operating shaft for Dumeco	400 mm	1	1314370**

*) 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 sets for type DMM

Description	Current rating	Contact	Std. pack	Article no.
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

Shaft supporting set for Duco type DCM and Dumeco type DMM

- For switch heights greater than 270 mm.

Description	Std. pack	Article no.
Shaft supporting set	1	1314369



1314232

Connection set for Dumeco

Type DMM 125

Description	Connecting capacity	Std. pack	Article no.
Connection set for Dumeco	2 x 2.5 mm ² up to 50 mm ²	1	1314232*

*) Can not be used in combination with transparent cover, Article no. 1314330.



1314331

Protective covers, transparent

- For protection against accidental touching of terminals.

Description	For type	Std. pack	Article no.
Protective cover, transparent	DMM 40, DMM 63	1	1314331
Protective cover, transparent	DMM 125	1	1314330*

*) Can not be used in combination with transparent cover, Article no. 1314232.



40 - 100 A, 690 V_{ac}

Technical characteristics

- Compact.
- Enclosure made of non-tracking 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.

See page 48 for the technical characteristics of change-over and multipole switches, type QM.



1319807

Change-over switches, 3- and 4-pole

Type QM

- With operating shaft 6 mm square.

Description	Pole configuration	Thermal current I _{the}	Part no.	Std. pack	Article no.
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

Multipole switches, 6- and 8-pole

Type QM

- With operating shaft 6 mm square.

Description	Pole configuration	Thermal current I _{the}	Part no.	Std. pack	Article no.
Multipole switch	6P	50 A	QM 63/6	1	1319806
Multipole switch	8P	50 A	QM 63/6N2	1	1319904*
Multipole switch	6P	80 A	QM 100/6	1	1319814
Multipole switch	8P	80 A	QM 100/6N2	1	1319905*

*) 6P + 2 switched N.



1319969

Connection sets (4-pole) for change-over switch

Description	Part no.	Std. pack	Article no.
Connection set for change-over switch	For type QM 40 / QM 63	1	1319969
Connection set for change-over switch	For type QM 100	1	1319967



1319832

Operating shafts, universal

Description	Shaft (square)	Length	For knob	Std. pack	Article no.
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



1319833

Coupling piece for extension of operating shaft

Description	Std. pack	Article no.
Coupling piece for extension of operating shaft 6 x 6 mm	1	1319833



1319856

Knobs for door mounting

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

Description	Std. pack	Article no.
Knob, black (1-0-2) for change-over switch	1	1319856
Knob, black (1-0) for multipole switch	1	1319855
Door coupling base-plate for change-over and multipole switch	1	1319857



1319858

Solid neutrals for 4-pole configuration

Description	Pole configuration	For switch type	Std. pack	Article no.
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	Std. pack	Article no.
Earth terminal	QM 40, QM 63	1	1319868
Earth terminal	QM 80, QM 100	1	1319869



1319851

Auxiliary switches

Description	Contact configuration	For switch type	Std. pack	Article no.
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	Pole configuration	For switch type	Std. pack	Article no.
Protective covers (set) for connection terminals	3P	QM 40/3, QM 63/3	1	1319870
Protective covers (set) for connection terminals	3P	QM 80/3, QM 100/3	1	1319872
Protective covers (set) for connection terminals	3P+N	QM 40/3N, QM 63/3N	1	1319871
Protective covers (set) for connection terminals	3P+N	QM 80/3, QM 100/3N	1	1319873



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 resistant 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 50 for the technical characteristics of switch-disconnectors Dumeco, type DMV.
See page 25 for knobs and handles, K-line.



1814408

Switch-disconnectors Dumeco, without operating shaft and handle, 3-pole

■ Type DMV

- Including connection materials.

Description	Current rating	Pole configuration	Part no.	Std. pack	Article no.
Switch-disconnector Dumeco	160 A	3P	DMV 160N/3	1	1814178*
Switch-disconnector Dumeco	160 A	3P	DMV 160N/3	1	1814175**
Switch-disconnector Dumeco	160 A	3P	DMVS 160N/3	1	1814186***
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

*) With bolt connection.

**) With tunnel clamp.

***) With enlarged terminals.



1814409

Switch-disconnectors Dumeco, without operating shaft and handle, 3-pole + solid N

■ Type DMV

- Including connection materials.

Description	Current rating	Pole configuration	Part no.	Std. pack	Article no.
Switch-disconnector Dumeco	160 A	3P+sldN	DMV 160N/1	1	1814177*
Switch-disconnector Dumeco	160 A	3P+sldN	DMV 160N/1	1	1814174**
Switch-disconnector Dumeco	160 A	3P+sldN	DMVS 160N/1	1	1814187***
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

*) With bolt connection.

**) With tunnel clamp.

***) With enlarged terminals.



1814410

Switch-disconnectors Dumeco, without operating shaft and handle, 4-pole

■ Type DMV

- Including connection materials.

Description	Current rating	Pole configuration	Part no.	Std. pack	Article no.
Switch-disconnector Dumeco	160 A	4P	DMV 160N/4	1	1814179*
Switch-disconnector Dumeco	160 A	4P	DMV 160N/4	1	1814176**
Switch-disconnector Dumeco	160 A	4P	DMVS 160N/4	1	1814188***
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

*) With bolt connection.

**) With tunnel clamp.

***) With enlarged terminals.



1814420

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

■ Type DMV

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

Description	Current rating	Pole configuration	Height	Part no.	Std. pack	Article no.
Switch-disconnector Dumeco	250 A	3P	170 mm	DMV 250N/3	1	1814420*
Switch-disconnector Dumeco	400 A	3P	170 mm	DMV 400N/3	1	1814423*
Switch-disconnector Dumeco	630 A	3P	182 mm	DMV 630N/3	1	1814448*
Switch-disconnector Dumeco	1000 A	3P	182 mm	DMV 1000N/3	1	1814451*

*) Height of switch from bottom of switch to top of operating shaft.



1814421

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

■ Type DMV

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

Description	Current rating	Pole configuration	Height	Part no.	Std. pack	Article no.
Switch-disconnector Dumeco	250 A	3P+sldN	170 mm	DMV 250N/1	1	1814421*
Switch-disconnector Dumeco	400 A	3P+sldN	170 mm	DMV 400N/1	1	1814424*
Switch-disconnector Dumeco	630 A	3P+sldN	182 mm	DMV 630N/1	1	1814449*
Switch-disconnector Dumeco	1000 A	3P+sldN	182 mm	DMV 1000N/1	1	1814452*

*) Height of switch from bottom of switch to top of operating shaft.



1814422

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

■ Type DMV

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

Description	Current rating	Pole configuration	Height	Part no.	Std. pack	Article no.
Switch-disconnector Dumeco	250 A	4P	170 mm	DMV 250N/4	1	1814422*
Switch-disconnector Dumeco	400 A	4P	170 mm	DMV 400N/4	1	1814425*
Switch-disconnector Dumeco	630 A	4P	182 mm	DMV 630N/4	1	1814450*
Switch-disconnector Dumeco	1000 A	4P	182 mm	DMV 1000N/4	1	1814453*

*) Height of switch from bottom of switch to top of operating shaft.



1314230

Protective covers (transparent) for connection terminals

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

Description	For type switch-disconnector	Std. pack	Article no.
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 can be mounted.

Description	Current rating	Contacts	Std. pack	Article no.
Auxiliary switch, including connection materials	16 A, 380 V _{ac}	1 NO + 1 NC	1	1314398



1314736

Auxiliary switch, including connection materials

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

- Per switch 2 pieces can be mounted.

Description	Current rating	Contacts	Std. pack	Article no.
Auxiliary switch, including connection materials	16 A, 380 V _{ac}	1 NO + 1 NC	1	1314736



1314915

Connection kits

Description	For type switch-disconnector	Bolt connection	Std. pack	Article no.
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



160 - 1600 A, 690 V_{ac}

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 (4-pole).
- 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.

➡ See page 56 for the technical characteristics of change-over and multipole mechanisms, type DMV.



1314884

Change-over driving mechanisms

■ For Dumeco switch-disconnectors

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

Description	For switch-disconnector type	Std. pack	Article no.
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*

*) Use 2 standard shafts (article no. 1050250) and 2 handles (article no. 1818062).

***) Delivered with operating shaft.



1314878

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

Description	For switch-disconnector type	Pole configuration	Std. pack	Article no.
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 mechanisms

■ For Dumeco switch-disconnectors

- Complete with driving shaft.
- Without switches, operating shaft and handles.

Description	For type	Std. pack	Article no.
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

2500 / 3150 A, 690 V_{ac}

Switch-disconnectors Dumeco, type DMS, 2500 / 3150 A, 690V_{ac}.
3 pole, 3 pole + solid neutral, 4 pole.

Technical characteristics

- Eaton switch-disconnectors comply with IEC 60947-3.
- Independent manual operation.
- Clear ON and OFF position indication.
- Forced breaking within 90 degrees.
- Totally enclosed compact housing, of non-tracking synthetic material.
- Long creepage distances and clearances.

➔ See page 59 for the technical characteristics of switch-disconnectors Dumeco, type DMS.



1313335

Switch-disconnectors Dumeco, type DMS

- Without handle, with operating shaft.
- Including connection material.
- When applying operation handles an extension shaft is required.
- Height of switch: 280 mm (from bottom of switch to top of operating shaft).

Description	Current rating	Pole configuration	Height	Part no.	Std. pack	Article no.
Switch-disconnectors	2500 A	3P	280 mm	DMS 2500/3	1	1313333
Switch-disconnectors	3150 A	3P	280 mm	DMS 3150/3	1	1313601
Switch-disconnectors	2500 A	3P + solid neutral	280 mm	DMS 2500/1	1	1313335
Switch-disconnectors	2500 A	4P	280 mm	DMS 2500/4	1	1313334
Switch-disconnectors	3150 A	4P	280 mm	DMS 3150/4	1	1313447



Universally applicable knobs and handles

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

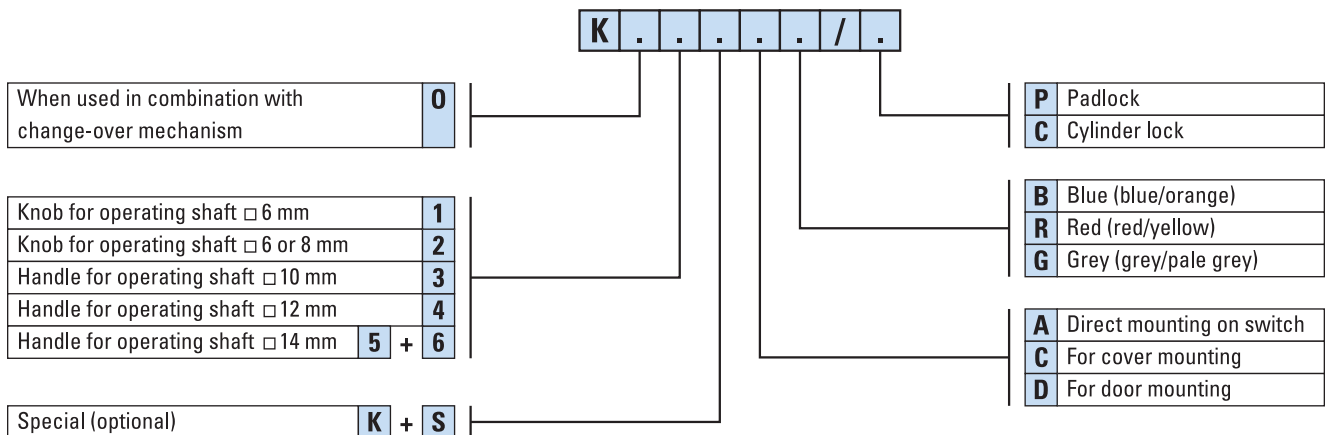
- Universal/versatile application for almost all types and makes of switches.
- Higher degree of safety is achieved because all switches are operated and locked in identical and familiar fashion.
- For shafts with a diameter of 6, 8, 10, 12 and 14 mm square.
- Modern, exceptionally compact design that complies with all market demands.
- Suitable for operating a large number and various types of switch-disconnectors and switch-disconnector fuses.
- 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.
- Suitable for Ex, Zone 12 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 61 for the technical characteristics of knobs and handles, K-line.

K-line, type number code





1818110

Knobs and handles for direct mounting, A-type

Description	For shaft (square)	Colour	Part no.	Std. pack	Article no.
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	Part no.	Std. pack	Article no.
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	Part no.	Std. pack	Article no.
Door mounting, with padlock, D/P-type	6 mm	Blue	K1DB/P	1	1818029
Door mounting, with padlock, D/P-type	6 mm	Blue	K2SDB/P	1	1818032
Door mounting, with padlock, D/P-type	8 mm	Blue	K2DB/P	1	1818035
Door mounting, with padlock, D/P-type	10 mm	Blue	K3KDB/P	1	1818113
Door mounting, with padlock, D/P-type	12 mm	Blue	K4DB/P	1	1818050
Door mounting, with padlock, D/P-type	14 mm	Blue	K5DB/P	1	1818056
Door mounting, with padlock, D/P-type	14 mm	Blue	K6DB/P	1	1818062*
Door mounting, with padlock, D/P-type	6 mm	Red/yellow	K1DR/P	1	1818030
Door mounting, with padlock, D/P-type	6 mm	Red/yellow	K2SDR/P	1	1818033
Door mounting, with padlock, D/P-type	8 mm	Red/yellow	K2DR/P	1	1818036
Door mounting, with padlock, D/P-type	10 mm	Red/yellow	K3KDR/P	1	1818096
Door mounting, with padlock, D/P-type	12 mm	Red/yellow	K4DR/P	1	1818051
Door mounting, with padlock, D/P-type	14 mm	Red/yellow	K5DR/P	1	1818057
Door mounting, with padlock, D/P-type	14 mm	Red/yellow	K6DR/P	1	1818063*
Door mounting, with padlock, D/P-type	6 mm	Grey	K1DG/P	1	1818031
Door mounting, with padlock, D/P-type	6 mm	Grey	K2SDG/P	1	1818034
Door mounting, with padlock, D/P-type	8 mm	Grey	K2DG/P	1	1818037
Door mounting, with padlock, D/P-type	10 mm	Grey	K3DG/P	1	1818046
Door mounting, with padlock, D/P-type	10 mm	Grey	K3KDG/P	1	1818069
Door mounting, with padlock, D/P-type	12 mm	Grey	K4DG/P	1	1818052
Door mounting, with padlock, D/P-type	14 mm	Grey	K5DG/P	1	1818058
Door mounting, with padlock, D/P-type	14 mm	Grey	K6DG/P	1	1818064*

*) 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	Part no.	Std. pack	Article no.
Door mounting, with cylinder lock	6 mm	Blue	K2SDB/C	1	1818038
Door mounting, with cylinder lock	8 mm	Blue	K2DB/C	1	1818041
Door mounting, with cylinder lock	10 mm	Blue	K3KDB/C	1	1818114
Door mounting, with cylinder lock	12 mm	Blue	K4DB/C	1	1818053
Door mounting, with cylinder lock	14 mm	Blue	K2DB/C	1	1818059
Door mounting, with cylinder lock	14 mm	Blue	K6DB/C	1	1818065
Door mounting, with cylinder lock	6 mm	Red/yellow	K2SDR/C	1	1818039
Door mounting, with cylinder lock	8 mm	Red/yellow	K2DR/C	1	1818042
Door mounting, with cylinder lock	10 mm	Red/yellow	K3KDR/C	1	1818097
Door mounting, with cylinder lock	12 mm	Red/yellow	K4DR/C	1	1818054
Door mounting, with cylinder lock	14 mm	Red/yellow	K5DR/C	1	1818060
Door mounting, with cylinder lock	14 mm	Red/yellow	K6DR/C	1	1818066
Door mounting, with cylinder lock	6 mm	Grey	K2SDG/C	1	1818040
Door mounting, with cylinder lock	8 mm	Grey	K2DG/C	1	1818043
Door mounting, with cylinder lock	10 mm	Grey	K3KDG/C	1	1818070
Door mounting, with cylinder lock	12 mm	Grey	K4DG/C	1	1818055
Door mounting, with cylinder lock	14 mm	Grey	K5DG/C	1	1818061
Door mounting, with cylinder lock	14 mm	Grey	K6DG/C	1	1818067



1818116

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

Description	For shaft (square)	Colour	Part no.	Std. pack	Article no.
Door mounting, with integrated padlock	6 mm	Blue	K02SDB/P	1	1818072
Door mounting, with integrated padlock	10 mm	Blue	K03KDB/P	1	1818116
Door mounting, with integrated padlock	14 mm	Blue	K05DB/P	1	1818076
Door mounting, with integrated padlock	14 mm	Blue	K06DB/P	1	1818078



1818105

Conversion kits for locking in On/Off position, padlock or cylinder lock

Description	Handle type	Std. pack	Article no.
Conversion 0 - 1 locking	K1	1	1818103
Conversion 0 - 1 locking	K2	1	1818104
Conversion 0 - 1 locking	K3	1	1818105
Conversion 0 - 1 locking	K4, K5, K6	1	1818106



1314691

Operating shafts for Dumeco type DMV 160N

Description	Shaft (square)	Height	For handle	Std. pack	Article no.
Operating shaft	6 mm	116 mm	K1, K2S	1	1314996*
Operating shaft	6 mm	132 mm	K1, K2S	1	1314751*
Operating shaft	6 mm	148 mm	K1, K2S	1	1314752*
Operating shaft	6 mm	172 mm	K1, K2S	1	1314691*
Operating shaft	6 mm	270 mm	K1, K2S	1	1314692*
Operating shaft	6 mm	400 mm	K1, K2S	1	1314693*

*) Height of switch, from bottom of the switch to top of shaft.



1050241

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

Description	Shaft (square)	Height	For handle	Std. pack	Article no.
Operating shaft	10 mm	135 mm	K3	1	1050240*
Operating shaft	10 mm	185 mm	K3	1	1050241*
Operating shaft	10 mm	245 mm	K3	1	1050242*
Operating shaft	10 mm	400 mm	K3	1	1050243*

*) Height of switch, from bottom of the switch to top of shaft.



1050245

Operating shafts for Dumeco types DMV 630N and 1000N

Description	Shaft (square)	Height	For handle	Std. pack	Article no.
Operating shaft	14 mm	200 mm	K5	1	1050244*
Operating shaft	14 mm	235 mm	K5	1	1050245*
Operating shaft	14 mm	300 mm	K5	1	1050246*
Operating shaft	14 mm	400 mm	K5	1	1050247*

*) Height of switch, from bottom of the switch to top of shaft.



1050248

Operating shafts for Dumeco types DMV 1250N, 1600N and 2000N

Description	Shaft (square)	Height	For handle	Std. pack	Article no.
Operating shaft	14 mm	200 mm	K6	1	1050248*
Operating shaft	14 mm	280 mm	K6	1	1050249*
Operating shaft	14 mm	400 mm	K6	1	1050250*

*) Height of switch, from bottom of the switch to top of shaft.



1050251

Operating shafts for Dumeco types DMV 250N and 400N

- In combination with change-over mechanism.

Description	Shaft (square)	Height	For handle	Std. pack	Article no.
Operating shaft	10 mm	185 mm	K3	1	1050251*
Operating shaft	10 mm	400 mm	K3	1	1050252*

*) Height of switch, from bottom of the switch to top of shaft.



1050253

Operating shafts for Dumeco types DMV 630N and 1000N

- In combination with change-over mechanism.

Description	Shaft (square)	Height	For handle	Std. pack	Article no.
Operating shaft	14 mm	230 mm	K5	1	1050253*
Operating shaft	14 mm	400 mm	K5	1	1050254*

*) Height of switch, from bottom of the switch to top of shaft.



1050256

Extension shafts for Dumeco types DMV 1250N and 1600N

Description	Shaft (square)	Height	For handle	Std. pack	Article no.
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	Std. pack	Article no.
Operating shaft	6 mm	180 mm	K1/K2S	1	1319830*
Operating shaft	6 mm	300 mm	K1/K2S	1	1319831*
Operating shaft	6 mm	600 mm	K1/K2S	1	1319832*
Operating shaft	8 mm	115 mm	K2	1	1319303*
Operating shaft	8 mm	140 mm	K2	1	1319306*
Operating shaft	8 mm	180 mm	K2	1	1319307*
Operating shaft	8 mm	300 mm	K2	1	1319311*
Operating shaft	8 mm	600 mm	K2	1	1319301*
Operating shaft	10 mm	135 mm	K3	1	1319314*
Operating shaft	10 mm	180 mm	K3	1	1319315*
Operating shaft	10 mm	300 mm	K3	1	1319319*
Operating shaft	10 mm	600 mm	K3	1	1319322*
Operating shaft	12 mm	300 mm	K4	1	1319326*
Operating shaft, tempered steel	12 mm	300 mm	K4	1	1319328*
Operating shaft	12 mm	600 mm	K4	1	1319329*

*) Length = length of the shaft from top to bottom.



1319332

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

Description	For shaft (square)	Std. pack	Article no.
Coupling link for extension of universal shaft (including type QSA)	6 x 6 mm	1	1319833
Coupling link for extension of universal shaft (including type QSA)	8 x 8 mm	1	1319332
Coupling link for extension of universal shaft (including type QSA)	10 x 10 mm	1	1319334
Coupling link for extension of universal shaft (including type QSA)	12 x 12 mm	1	1319336



1319398

Couplings for universal shafts (including type QSA)

Description	For shaft (square)	Part no.	Std. pack	Article no.
Shaft reducing coupling for universal shaft (including type QSA)	From 8 x 8 mm to 12 x 12 mm	4K8/4K12	1	1319397
Shaft reducing coupling for universal shaft (including type QSA)	From 10 x 10 mm to 12 x 12 mm	4K10/K12	1	1319398
Shaft reducing coupling for universal shaft (including type QSA)	From 12 x 12 mm to 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 directly to the shaft).
- c) Type D: Door mounting (handle complete with door coupling). Select padlock or cylinder lock facility.

Step 2: Select shaft square.

Step 3: Select colour.

Step 4: Select Article no. 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 Cylinder lock		
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
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
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					



Switch-disconnector-fuses, type QSA 40 - 63 A, BS or DIN fuse-link, 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 ² s	18.4 kA ² s	140 kA ² s	18.4 kA ² s
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-IEC 60947-3			
Approvals		KEMA-KEUR, Lloyd's (LR), Veritas			

Switch-disconnector-fuses, type QSA 63 - 160 A, BS or DIN fuse-link, 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 current¹⁾									
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 power²⁾									
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 ² s	143 kA ² s	820 kA ² s	143 kA ² s	820 kA ² s	143 kA ² s	820 kA ² s	143 kA ² s
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-IEC 60947-3							
Approvals		KEMA-KEUR, Lloyd's (LR), Veritas							

¹⁾ Rated operational current at 220 V_{dc} and 440 V_{dc} on request.

²⁾ Rated capacitor power on request.

Switch-disconnector-fuses, type QSA 160 - 400 A, BS or DIN fuse-link, 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 current²⁾											
At $U_e = 415\text{ V AC-21B}$	I_e	160 A	200 A	250 A	315 A	400 A					
At $U_e = 415\text{ V AC-22B}$	I_e	160 A	200 A	250 A	315 A	400 A					
At $U_e = 415\text{ V AC-23B}$	I_e	160 A	200 A	250 A	315 A	400 A					
At $U_e = 500\text{ V AC-21B}$	I_e	160 A	200 A	250 A	315 A	400 A					
At $U_e = 500\text{ V AC-22B}$	I_e	160 A	200 A	250 A	315 A	400 A					
At $U_e = 500\text{ V AC-23B}$	I_e	160 A	200 A	250 A	315 A	400 A					
At $U_e = 690\text{ V AC-21B}$	I_e	160 A	200 A	250 A	315 A	400 A					
At $U_e = 690\text{ V AC-22B}$	I_e	160 A	200 A	250 A	315 A	400 A					
At $U_e = 690\text{ V AC-23B}$	I_e	160 A	200 A	250 A	315 A	400 A					
Rated operational power³⁾											
At $U_e = 415\text{ V AC-23B}$		90 kW	110 kW	147 kW	184 kW	220 kW					
At $U_e = 500\text{ V AC-23B}$		110 kW	140 kW	160 kW	220 kW	257 kW					
At $U_e = 690\text{ V AC-23B}$		157 kW	184 kW	220 kW	295 kW	375 kW					
Rated making and breaking capacity in accordance with CSA											
At $U_n = 600\text{ V}$		-	200 hp	-	-	300 hp					
At $U_n = 600\text{ V}$	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 ² s	986 kA ² s	13,000 kA ² s	986 kA ² s	13,000 kA ² s	986 kA ² s	13,000 kA ² s	986 kA ² s	13,000 kA ² s	986 kA ² s
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	1-2/B1-B4	1-2/B1-B4	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 $U_e = 500\text{ V AC-22B}$	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 $U_e = 400\text{ V AC-15}$	I_e	4 A	4 A	4 A	4 A	4 A					
At $U_e = 660\text{ V AC-12}$	I_e	10 A	10 A	10 A	10 A	10 A					
Standards		EN-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 V_{dc} and 440 V_{dc} on request.

³⁾ Rated capacitor power on request.

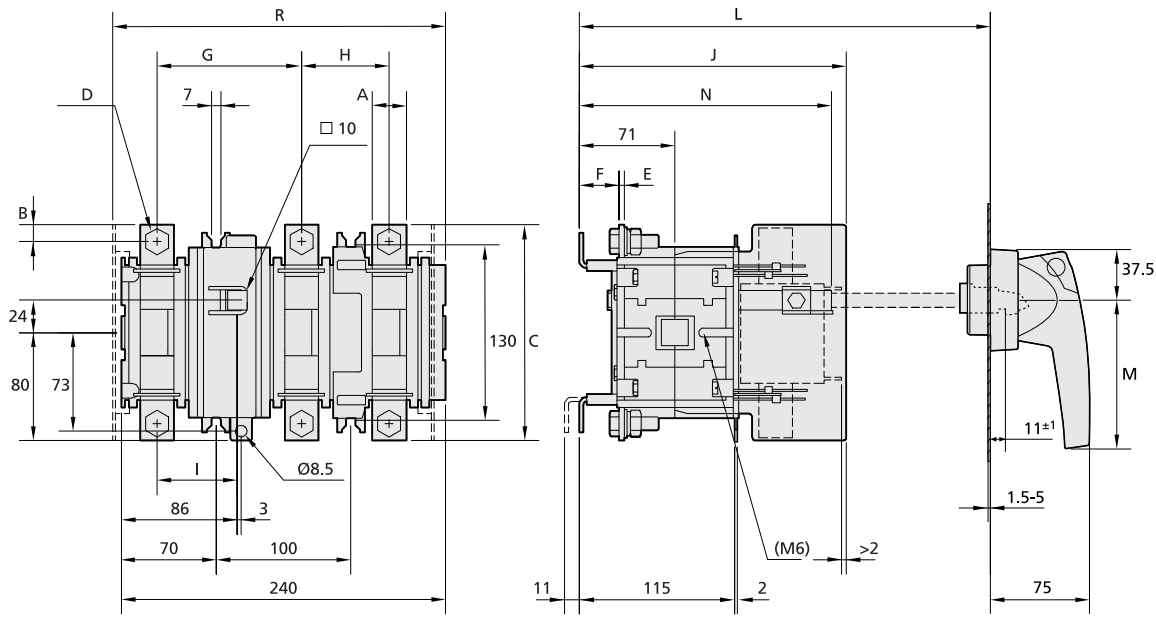
Switch-disconnector-fuses, type QSA 400 - 800 A, BS or DIN fuse-link, frame size 3, technical details

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		375 kW	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 ² s	3700 kA ² s	13,000 kA ² s	3700 kA ² s	15,000 kA ² s	3700 kA ² s
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	630 A			
Rated operational current							
At $U_e = 500$ V AC-22B	I_e	400 A	630 A	630 A			
Solid neutral							
Conventional enclosed thermal current	I_{the}	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-IEC 60947-3, CSA C22.2 no. 14					
Approvals		KEMA-KEUR, Lloyd's (LR), Veritas, CSA					

¹⁾ Rated operational current at 220 V_{dc} and 440 V_{dc} on request.

²⁾ Rated capacitor power on request.

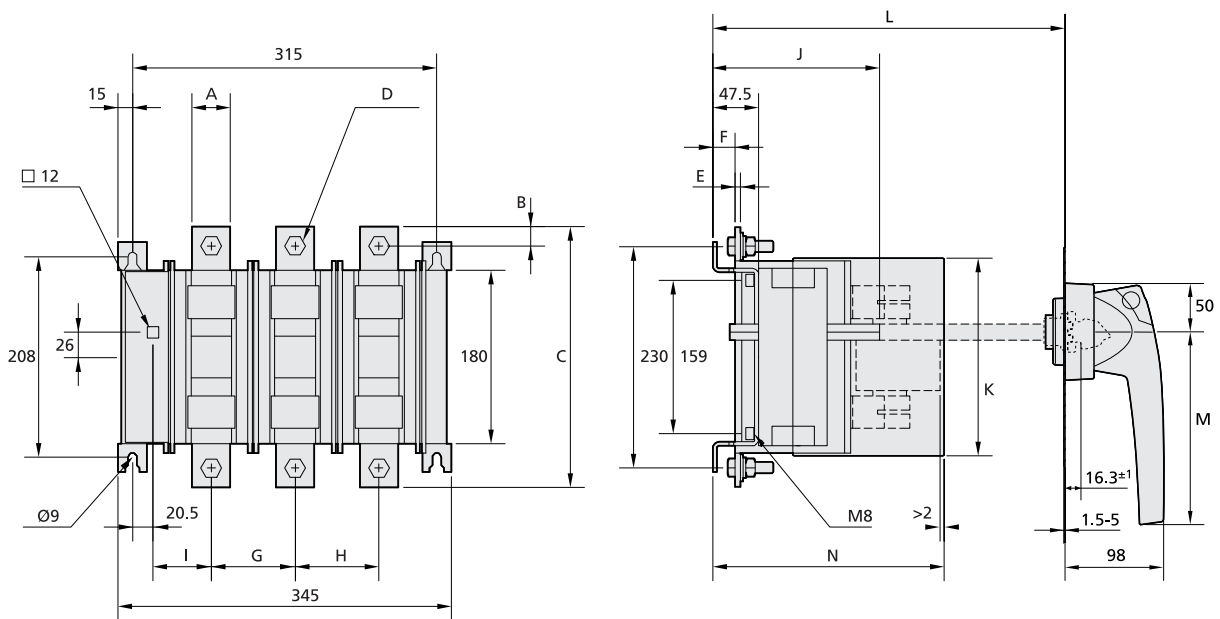
Switch-disconnector-fuses, type QSA 160 - 400 A, DIN fuse-link, frame size 2, dimensional drawings



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

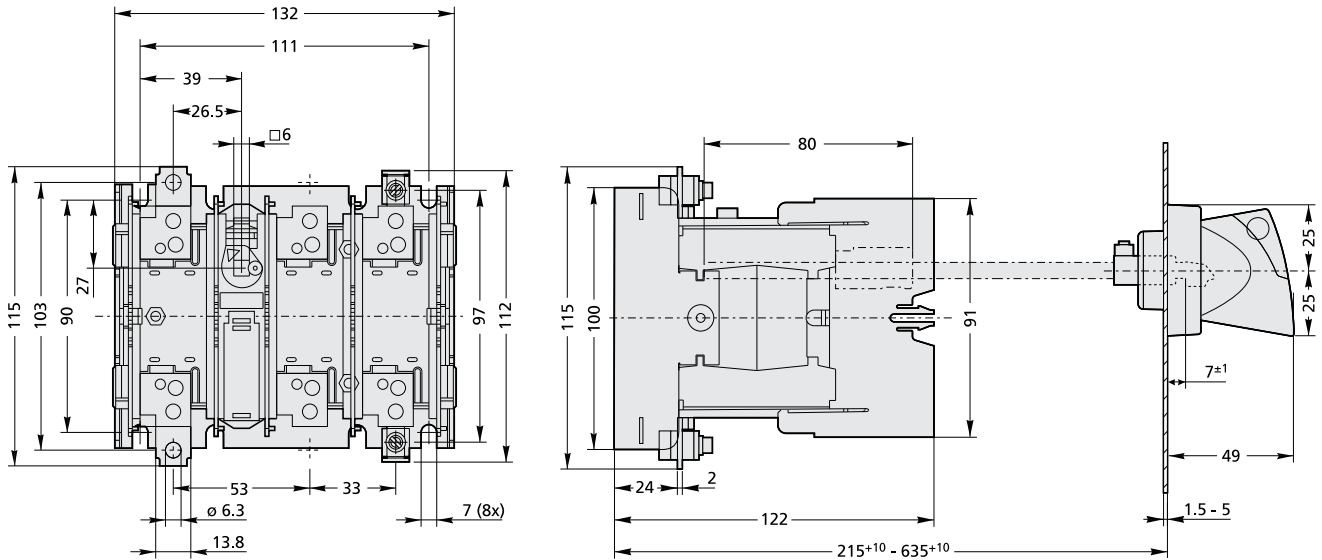
Switch-disconnector-fuses, type QSA 400 - 630 A, DIN fuse-link, frame size 3, dimensional drawings



Type QSA 400 - QSA 630 (DIN).

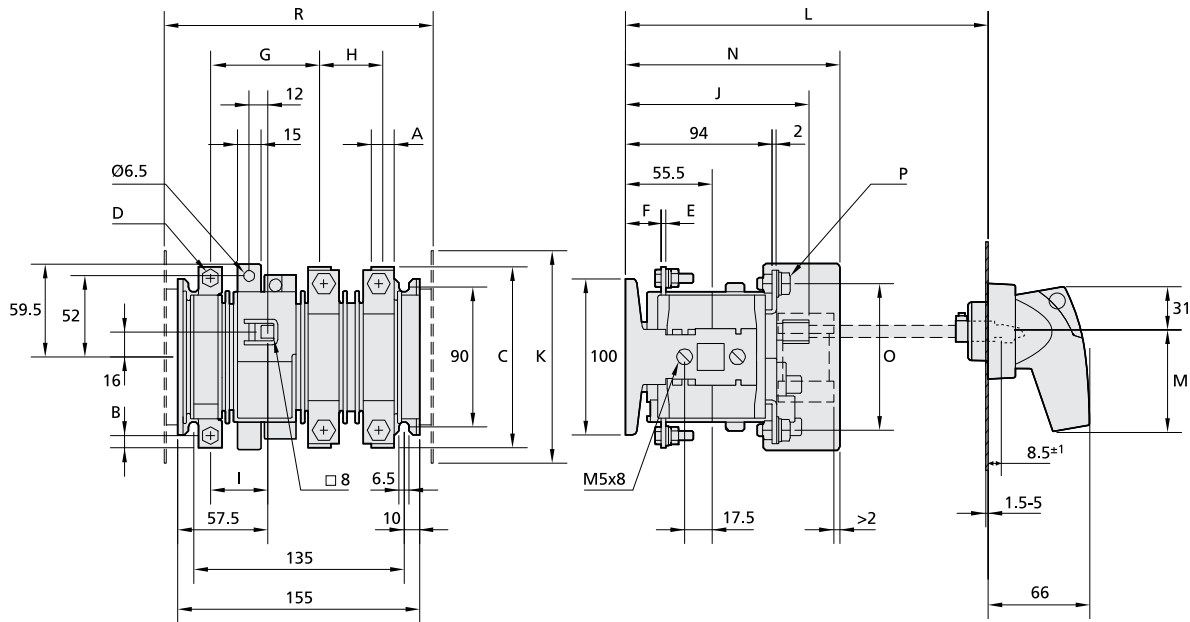
Type	A	B	C	D	E	F	G	H	I	J	K	L	M	N
QSA 400-3	40	20	270	M12	6	23	87	87	60	173	205	320 ⁺¹⁰ -620 ⁺¹⁰	200	240
QSA 630-3	40	20	270	M12	6	23	87	87	60	173	205	320 ⁺¹⁰ -620 ⁺¹⁰	200	240

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



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

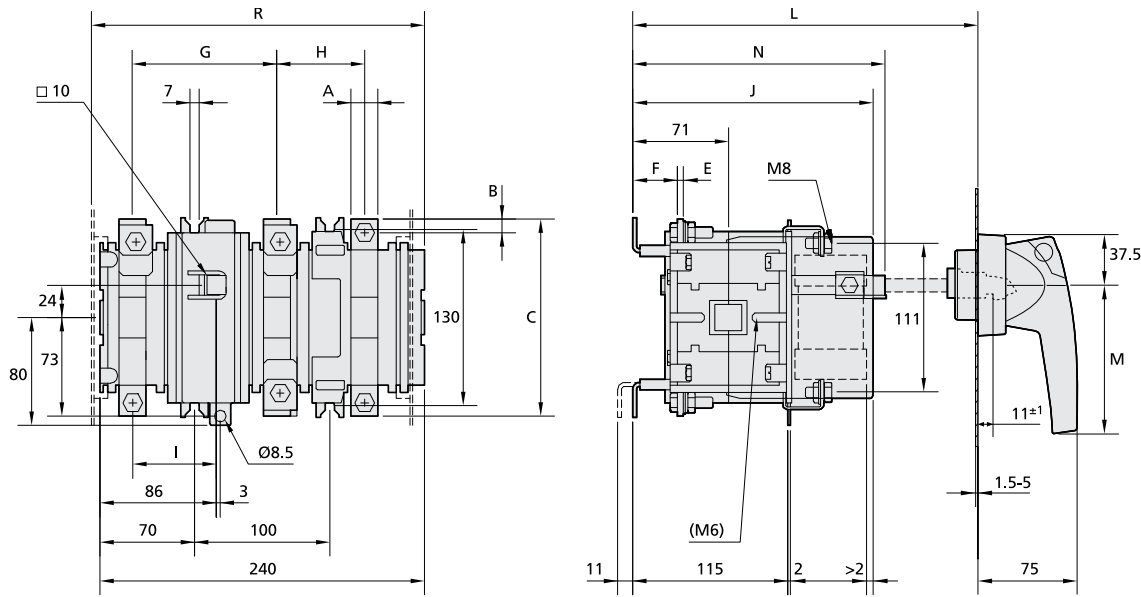
Switch-disconnector-fuses, type QSA 63 - 160 A, BS fuse-link, frame size 1, dimensional drawings



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

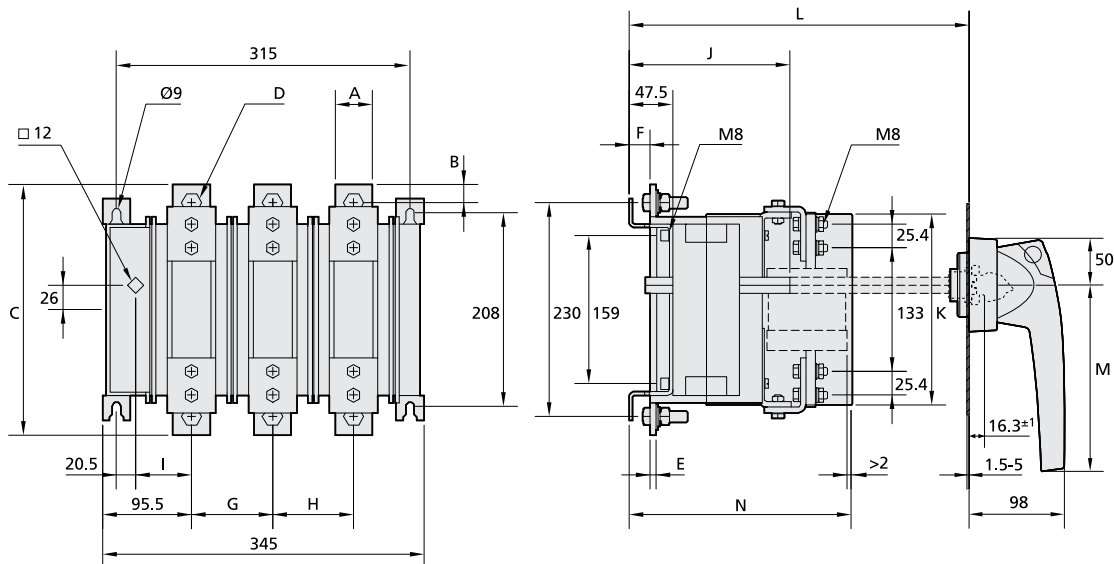
Switch-disconnector-fuses, type QSA 160 - 400 A, BS fuse-link, frame size 2, dimensional drawings



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

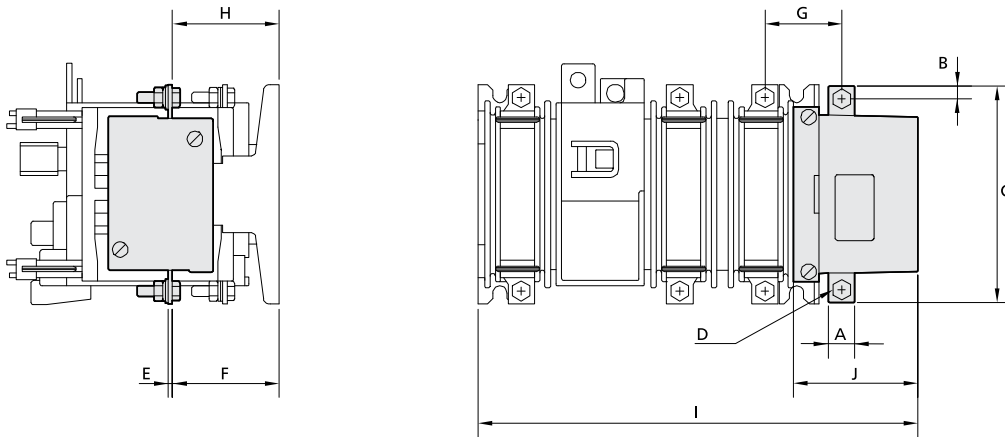
Switch-disconnector-fuses, type QSA 400 - 800 A, BS fuse-link, frame size 3, dimensional drawings



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

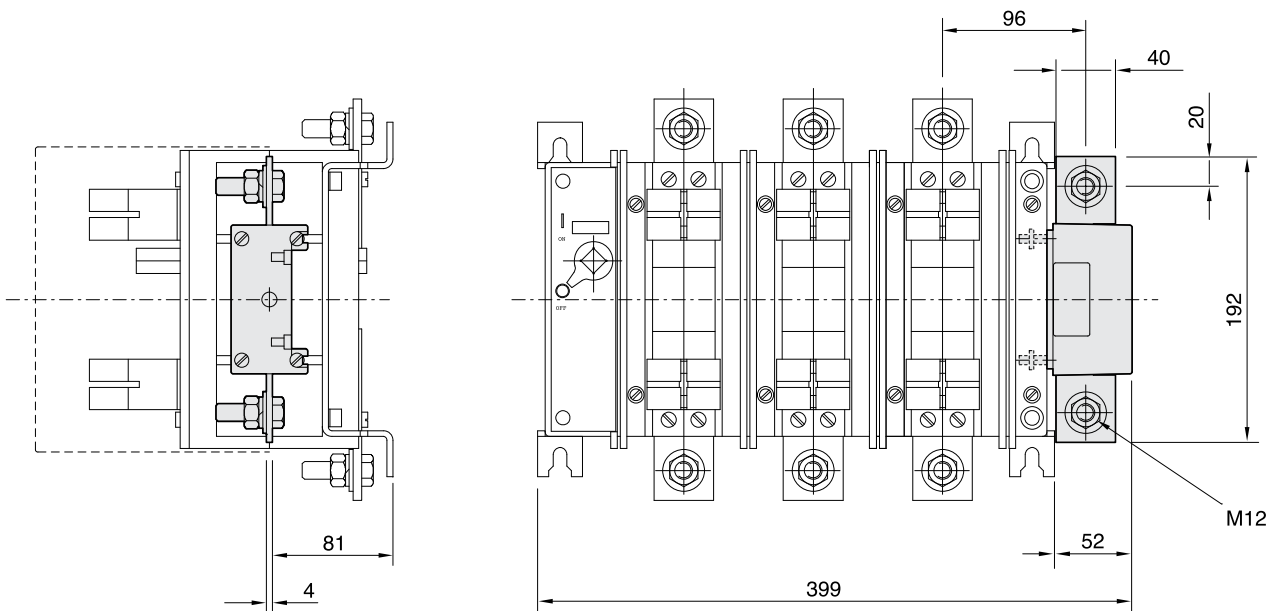
Switch-disconnector-fuses, type QSA 40 - 400 A with switched neutral, BS or DIN fuse-link, dimensional drawings



Type QSA 40N0 - QSA 400N.

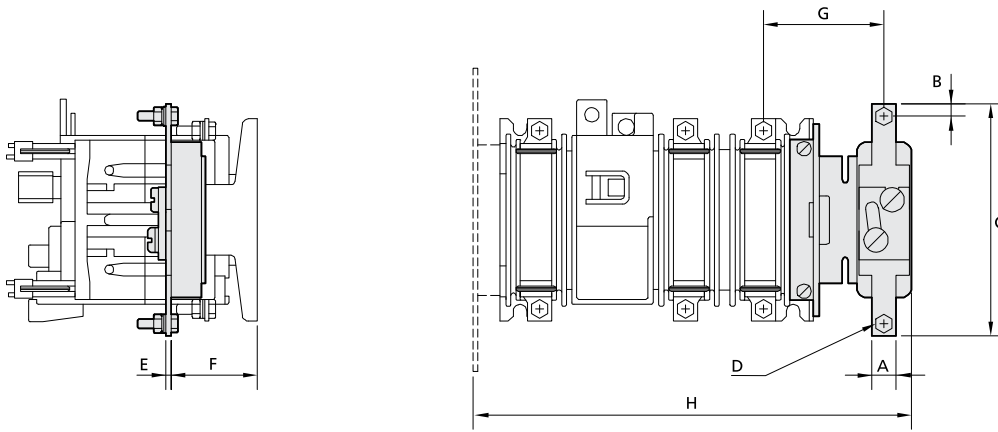
Type	A	B	C	D	E	F	G	H	I	J
QSA 40N0/QSA63N0	12	6	99	M5	4.5	48	35	45.5	177	45
QSA 63N1	12	6	99	M5	2	48.5	36	48.5	200	45
QSA 100N1	15	7.5	105	M6	4.5	48.5	33.5	46	200	45
QSA 125N1	15	7.5	105	M6	4.5	48.5	33.5	46	200	45
QSA 160N1	20	10	115	M8	4.5	48.5	32	46	200	45
QSA 160N	20	10	146	M8	4	69	53	69	299	53
QSA 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-fuses, type QSA 400 - 800 A with switched neutral, BS or DIN fuse-link, dimensional drawings



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

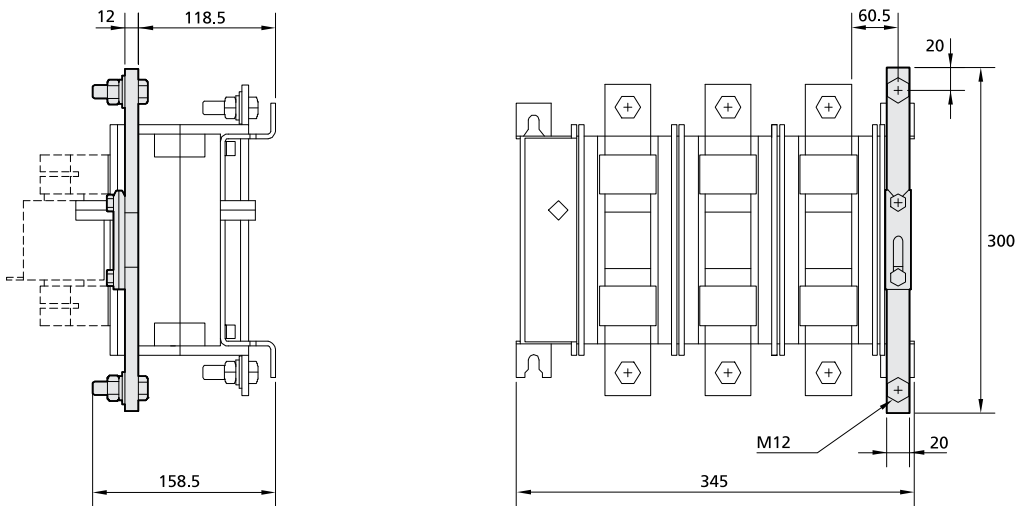
Switch-disconnector-fuses, type QSA 40 - 400 A with solid neutral, BS or DIN fuse-link, dimensional drawings



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

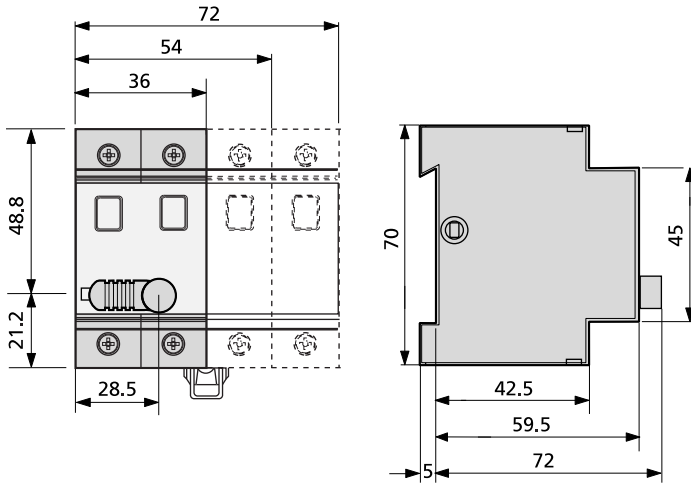


Type QSA 400 - QSA 630 (DIN) and QSA 400 - QSA 800 (BS).

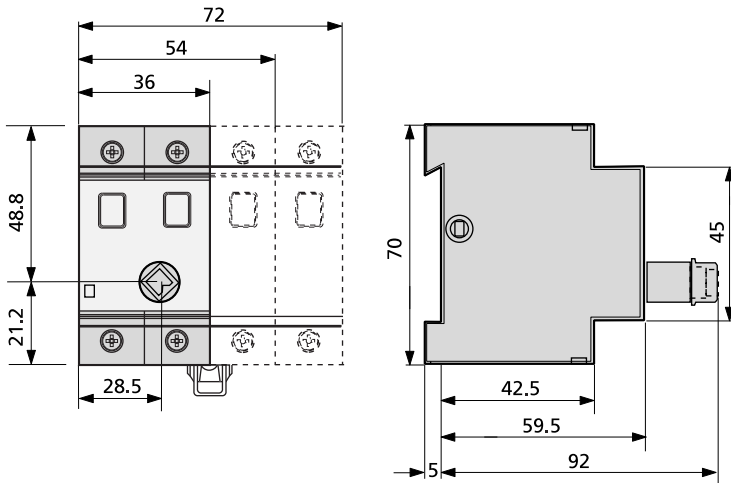
Type	A	B	C	D	E	F	G	H	I
QSA 400	20	20	300	M12	12	118.5	60.5	158.5	345
QSA 630	20	20	300	M12	12	118.5	60.5	158.5	345
QSA 800	20	20	300	M12	12	118.5	60.5	158.5	345



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 impulses 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 capacity	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 ² s	100 kA ² s
Fuse-link	I_n	80 A	80 A
Standards		IEC 60947-3	
Certification		KEMA-KEUR, 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



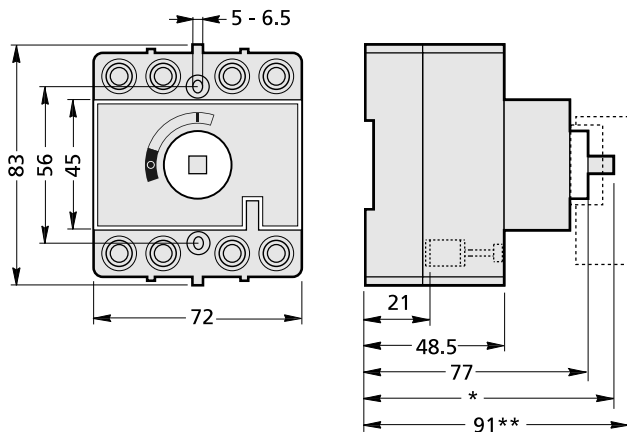
Standards	EN-IEC 60947-3
Certification	KEMA-KEUR

Switch-disconnectors Duco, type DMV, connection 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 - 16 mm ²	2 Nm	4 - 16 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

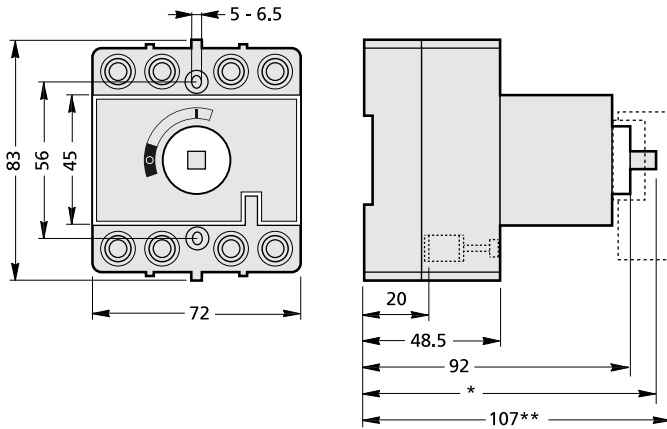
Type		DCM 40	DCM 63
Conventional free air thermal current	I_{th}	40 A	63 A
Conventional enclosed thermal current	I_{the}	40 A	63 A
Rated uninterrupted current	I_u	40 A	63 A
Rated operational voltage	U_e	415 V	415 V
Rated insulation voltage	U_i	690 V	690 V
Rated impulse withstand voltage	U_{imp}	6 kV	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
Rated operational power			
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 ² s	12 kA ² s
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		EN-IEC 60947-3	
Certification		KEMA-KEUR, Lloyd's (LR), Veritas, CSA	

Switch-disconnectors Duco, type DCM, connection capacity

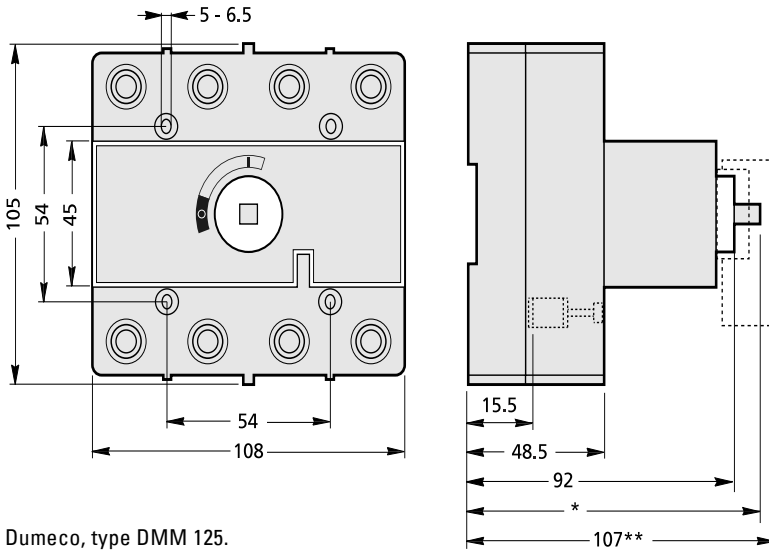
Type	DCM 40		DCM 63	
Copper conductor	Cross section	Tightening torque	Cross section	Tightening torque
Solid	2.5 - 16 mm ²	3 Nm	2.5 - 16 mm ²	3 Nm
Stranded	1.5 - 25 mm ²	3 Nm	1.5 - 25 mm ²	3 Nm
Flexible	1.5 - 25 mm ²	3 Nm	1.5 - 25 mm ²	3 Nm



Switch-disconnectors Dumeco, type DMM, dimensional drawings



Dumeco, types DMM 40 and DMM 63.

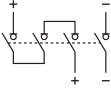


Dumeco, type DMM 125.

*) Dependant on the applied operating shaft.

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

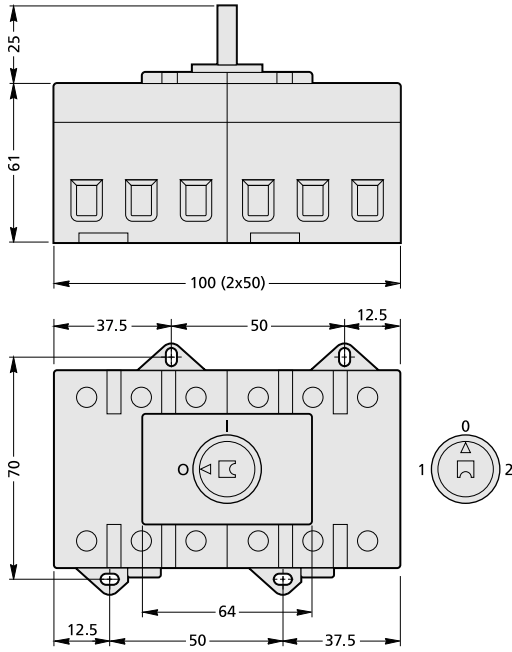
Switch-disconnectors Dumeco, type DMM, technical details

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 current	I_u	40 A	63 A	125 A
Rated operational voltage	U_e	220 V _{dc}	220 V _{dc}	220 V _{dc}
Rated operational voltage	U_e	690 V _{ac}	690 V _{ac}	690 V _{ac}
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 accordance 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 fuse 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 ² s / 9.5 kA ² s	44 kA ² s / 9.5 kA ² s	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, Lloyd's (LR), Veritas, CSA		

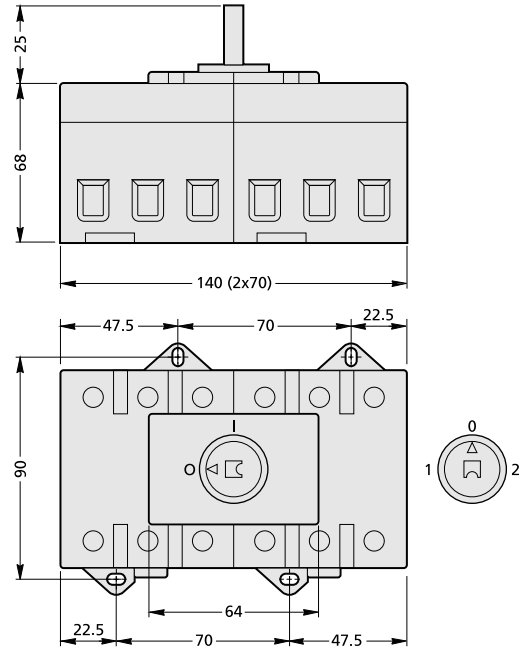
Type	DMM 40 and DMM 63		DMM 125		
	Copper conductor	Cross section	Tightening torque	Cross section	Tightening torque
Solid		2.5 - 16 mm ²	3 Nm	-	-
Stranded		1.5 - 25 mm ²	3 Nm	6 - 70 mm ²	7 Nm
Flexible		1.5 - 25 mm ²	3 Nm	6 - 70 mm ²	7 Nm



Change-over and multipole switches, type QM, 6-pole, dimensional drawings

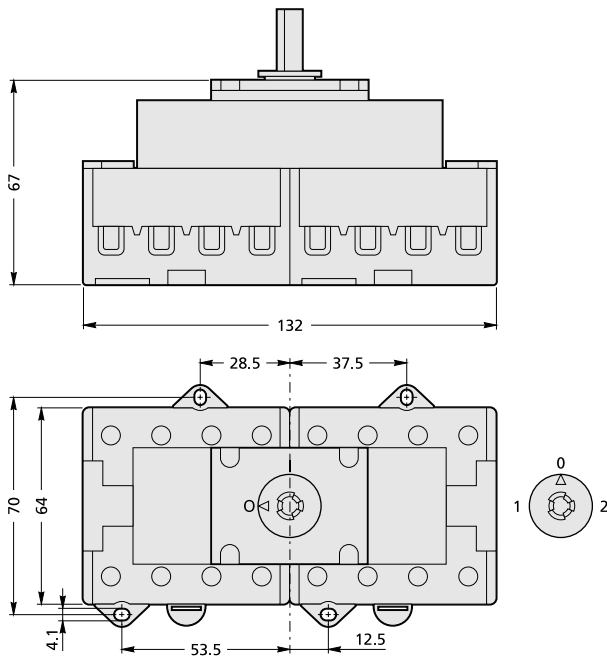


Type QM 63/6 version D, type QM 63/3 version E.

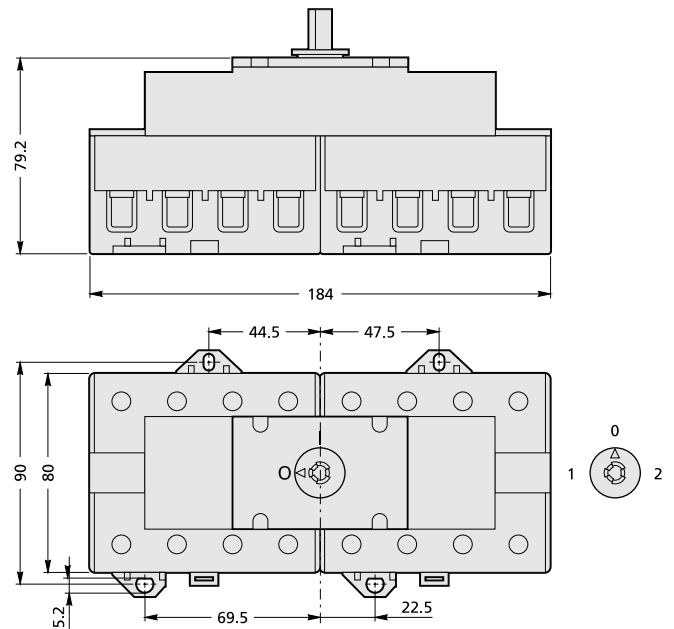


Type QM 100/6 version D, type QM 100/3 version E.

Change-over and multipole switches, type QM, 8-pole, dimensional 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 multipole switches, type QM, 8-pole, technical details

Type		QM 40	QM 63	QM 100
Conventional free air thermal current	I_{the}	40 A	63 A	100 A
Conventional thermal current in enclosure	I_{the}	40 A	55 A	100 A
Conventional thermal current in enclosure (multipole)	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				
Fuse-link	I_n	50 A	63 A	100 A
Switched neutral				
Conventional free air thermal current	I_{the}	40 A	63 A	100 A
Rated operational current				
At $U_e = 500$ V AC-22A	I_e	40 A	63 A	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		

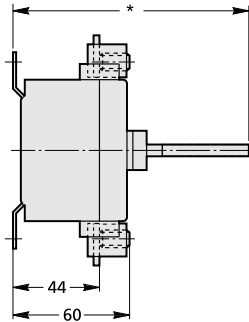
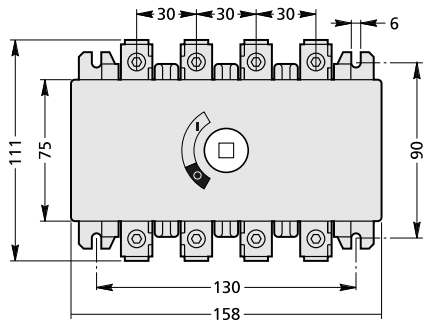
Change-over and multipole switches, type QM, 8-pole, connection capacity

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

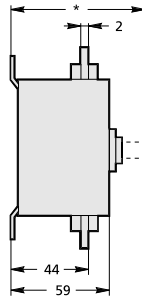
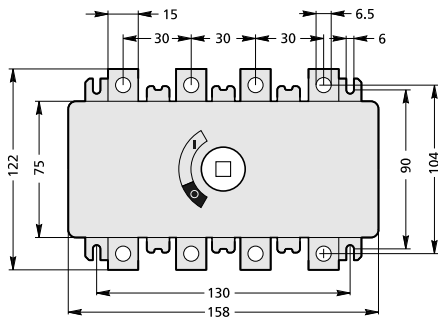


Switch-disconnectors Dumeco, type DMV 160N, dimensional drawings

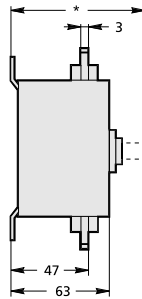
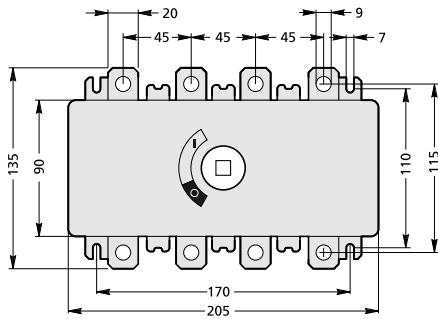
Dimensions apply to 3-pole as well as 4-pole switch-disconnectors.



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



Dumeco, type DMV 160N.

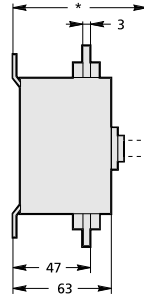
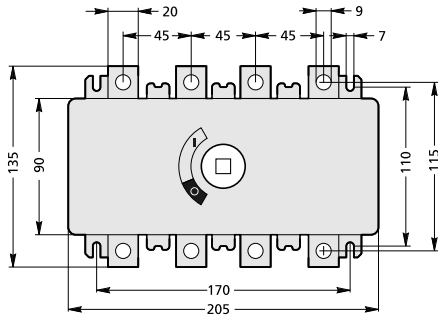


Dumeco, type DMVS 160N.

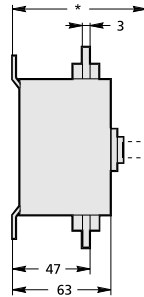
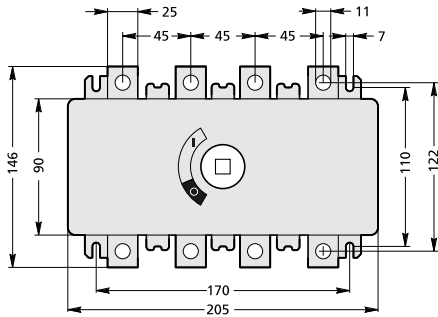
*) Depending on the applied operating shaft.

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

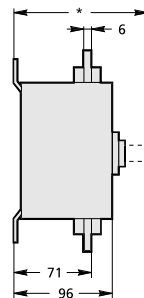
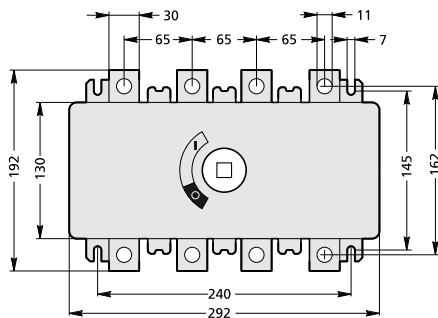
Dimensions apply to 3-pole as well as 4-pole switch-disconnectors.



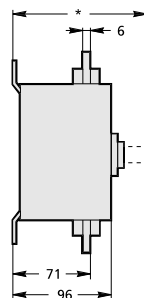
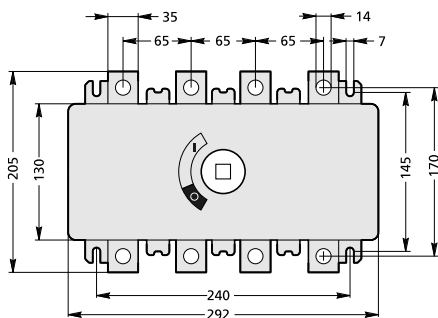
Dumeco, type DMV 250N.



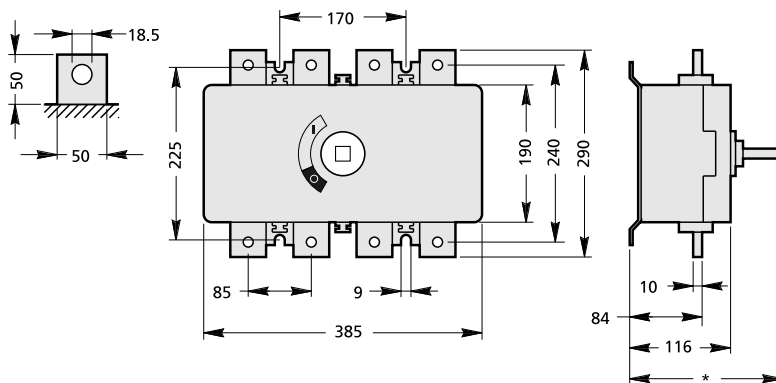
Dumeco, type DMV 400N.



Dumeco, type DMV 630N.



Dumeco, type DMV 1000N.

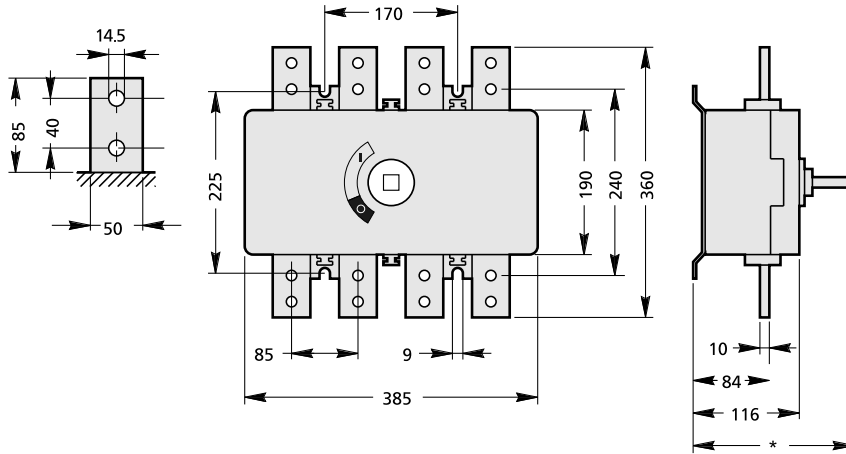


Dumeco, type DMV 1250N.

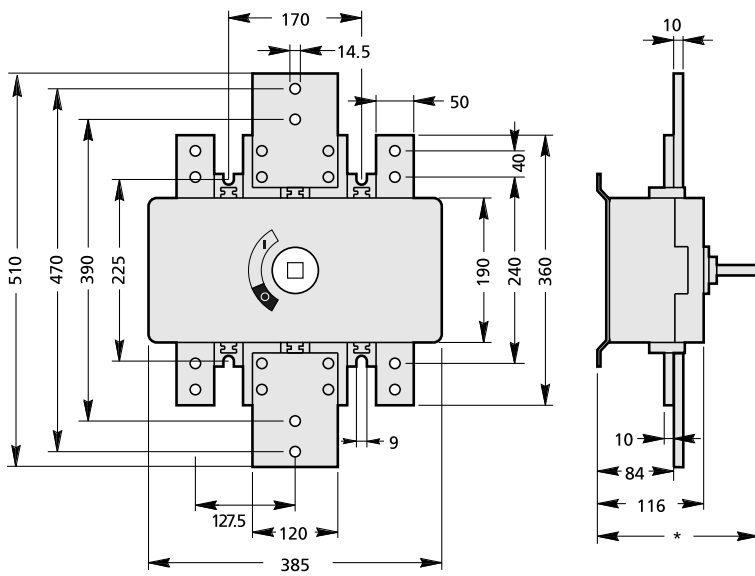
*) Depending on the applied operating shaft.

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.

*) Depending on the applied operating shaft.

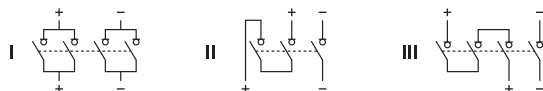
Switch-disconnectors Dumeco, type DMV 160N - 1000N, technical details

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 V _{dc}	440 V _{dc}	440 V _{dc}	440 V _{dc}	440 V _{dc}	440 V _{dc}
Rated operational voltage	U_e	690 V _{ac}	690 V _{ac}	690 V _{ac}	690 V _{ac}	690 V _{ac}	690 V _{ac}
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 ² s	1700 / 380 kA ² s	1700 / 380 kA ² s	1700 / 380 kA ² s	42000 / 3200 kA ² s	42000 / 3200 kA ² s
Fuse-link	I_n	160 / 100 A	500 / 250 A	500 / 250 A	500 / 250 A	1000 / 630 A	1000 / 630 A
Auxiliary 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 $U_e = 220\text{ V}$ DC-21 (scheme I)	I_e	160 A	160 A	250 A	400 A	630 A	1000 A
At $U_e = 440\text{ V}$ DC-21 (scheme III)	I_e	125 A	160 A	200 A	315 A	500 A	800 A
At $U_e = 250\text{ V}$ DC-21 (scheme II)	I_e	125 A	160 A	200 A	315 A	500 A	800 A
At $U_e = 220\text{ V}$ DC-22 (scheme I)	I_e	160 A	160 A	250 A	315 A	630 A	-
At $U_e = 440\text{ V}$ DC-22 (scheme III)	I_e	125 A	160 A	200 A	315 A	500 A	630 A
At $U_e = 250\text{ V}$ DC-22 (scheme II)	I_e	125 A	160 A	200 A	315 A	500 A	800 A
At $U_e = 440\text{ V}$ DC-23 (scheme III)	I_e	125 A	160 A	200 A	200 A	500 A	630 A
At $U_e = 250\text{ V}$ 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, CSA¹⁾

¹⁾ Exclusive type DMV 160N.

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

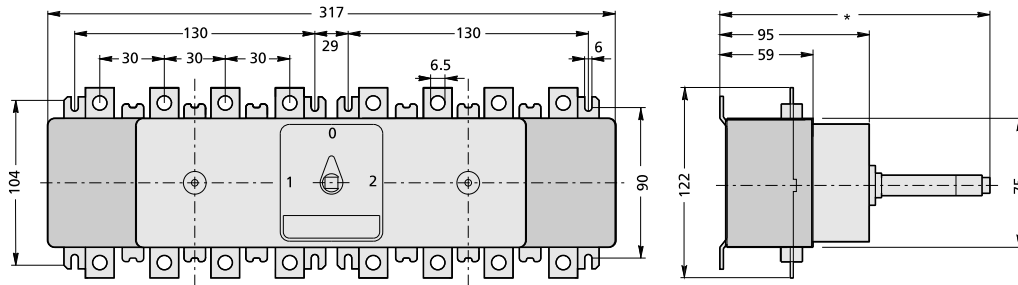
Type		DMV 1250N	DMV 1600N	DMV 2000N
Conventional free-air thermal current	I_{th}	1250 A	1600 A	2000 A
Conventional enclosed thermal current	I_{the}	1250 A	1600 A	2000 A
Rated uninterrupted current	I_u	1250 A	1600 A	2000 A
Rated operational voltage	U_e	690 V	690 V	690 V
Rated insulation voltage	U_i	1000 V	1000 V	1000 V
Rated impulse withstand voltage	U_{imp}	12 kV	12 kV	12 kV
Rated operational current				
At $U_e = 415\text{ V}$ AC-21A	I_e	1250 A	1600 A	-
At $U_e = 415\text{ V}$ AC-21B		-	-	2000 A
At $U_e = 415\text{ V}$ AC-22A	I_e	1250 A	1600 A	-
At $U_e = 415\text{ V}$ AC-22B		-	-	2000 A
At $U_e = 500\text{ V}$ AC-21A	I_e	1250 A	1600 A	-
At $U_e = 500\text{ V}$ AC-21B		-	-	2000 A
At $U_e = 500\text{ V}$ AC-22A	I_e	1250 A	1600 A	-
At $U_e = 500\text{ V}$ AC-22B		-	-	2000 A
At $U_e = 690\text{ V}$ AC-21A	I_e	1250 A	1600 A	-
At $U_e = 690\text{ V}$ AC-21B		-	-	2000 A
At $U_e = 690\text{ V}$ AC-22A	I_e	1250 A	1600 A	-
At $U_e = 690\text{ V}$ AC-22B		-	-	1600 A
Rated operational power				
At $U_e = 415\text{ V}$ AC-23A		750 kW	750 kW	750 kW
At $U_e = 500\text{ V}$ AC-23A		630 kW	630 kW	630 kW
At $U_e = 690\text{ V}$ 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 $U_e = 220\text{ V}$ AC-11	I_e	2 A	2 A	2 A
At $U_e = 220\text{ V}$ DC-11	I_e	0.5 A	0.5 A	0.5 A
At $U_e = 380\text{ V}$ AC-11	I_e	1.5 A	1.5 A	1.5 A
Standards				
IEC 60947-3				
Certification				
KEMA-KEUR, Lloyd's (LR), Veritas				

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

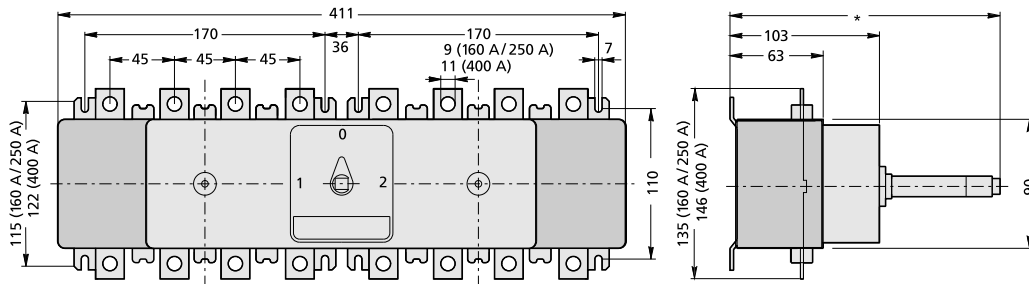
Copper conductor	Cross section	Tightening torque
Stranded	6 - 70 mm ²	7 Nm
Flexible	6 - 70 mm ²	7 Nm



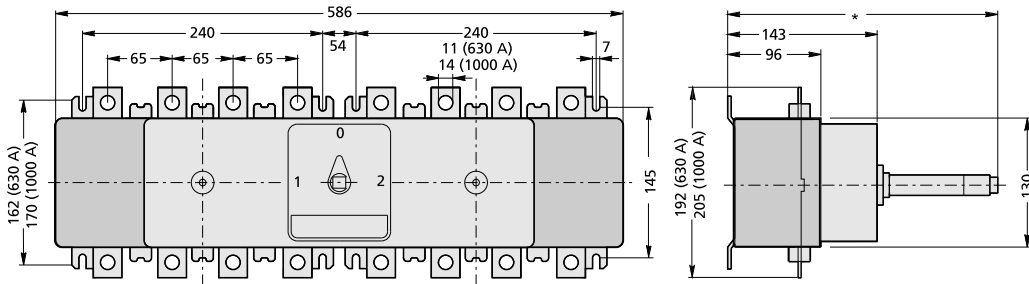
Change-over and multipole switches, type Dumeco, horizontal, dimensional drawings



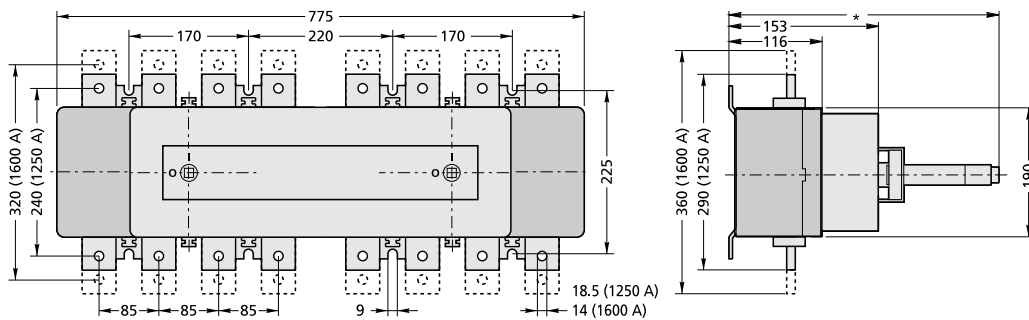
Change-over switches, Dumeco, type DMV 160N.



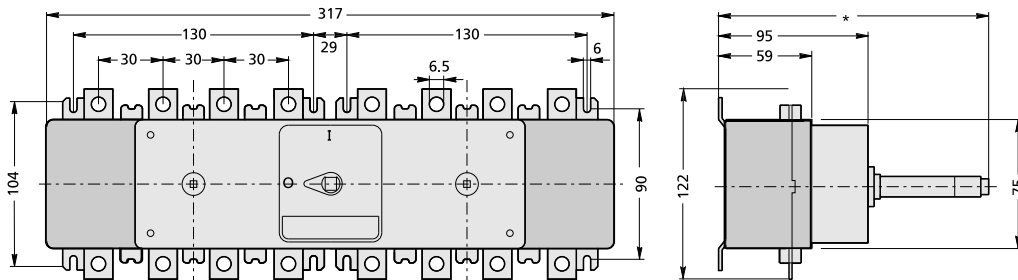
Change-over switches, Dumeco, types DMVS 160N, DMV 250N and DMV 400N.



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

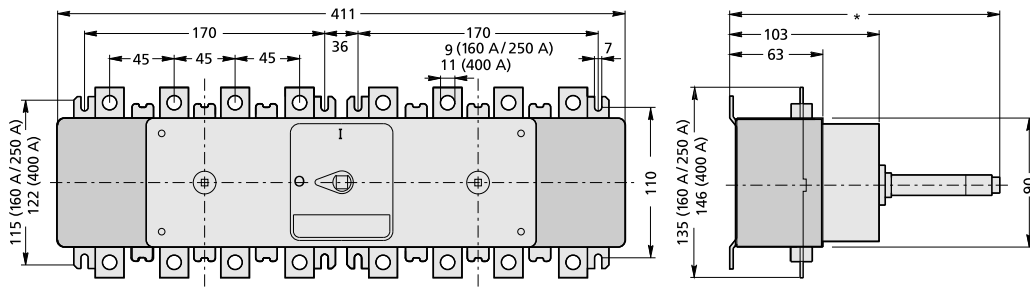


Change-over switches, Dumeco, types DMV 1250N and DMV 1600N.

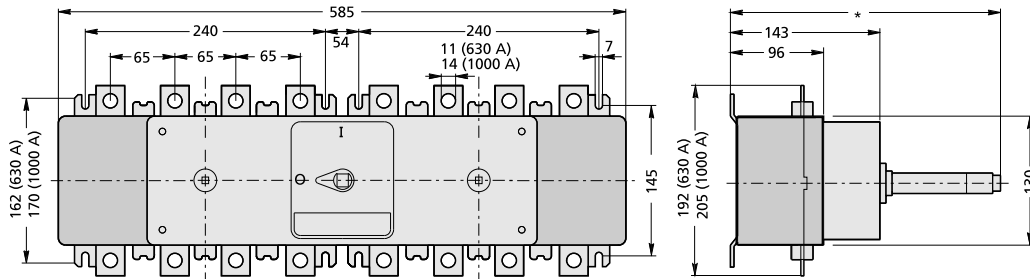


Multipole switches, Dumeco, type DMV 160N.

*) Dependant on the applied operating shaft.



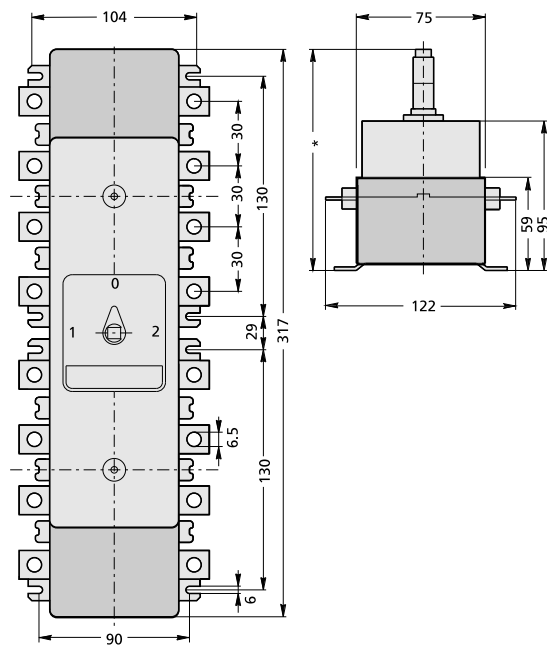
Multipole switches, Dumeco, types DMVS 160N, DMV 250N and DMV 400N.



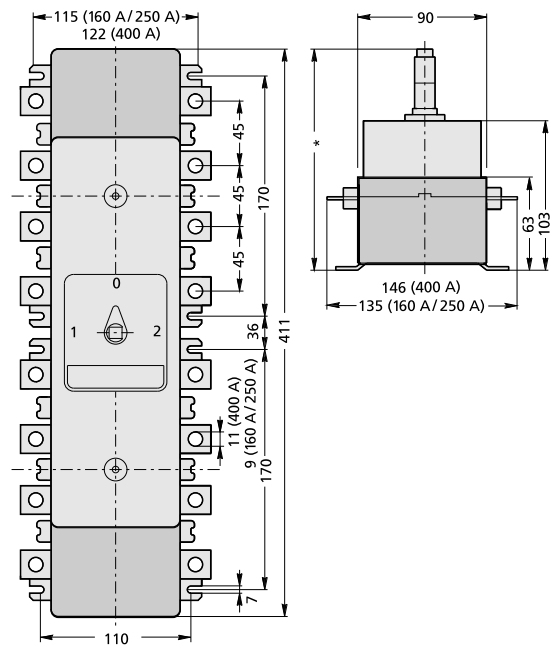
Multipole switches, Dumeco, types DMV 630N and DMV 1000N.

*) Dependant on the applied operating shaft.

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

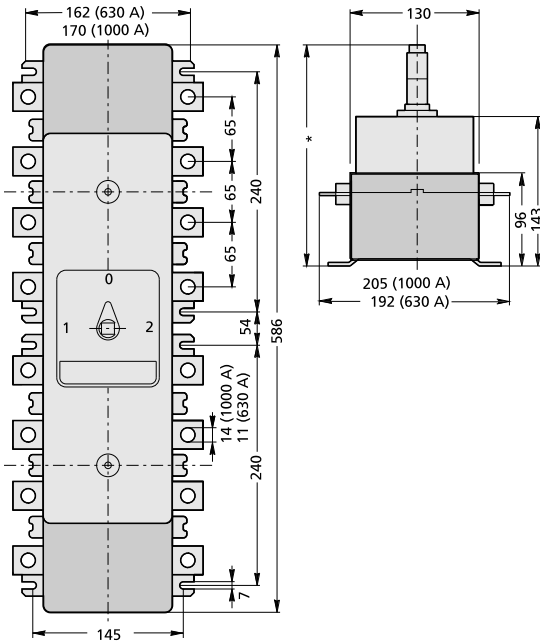


Change-over switches, Dumeco, type DMV 160N.

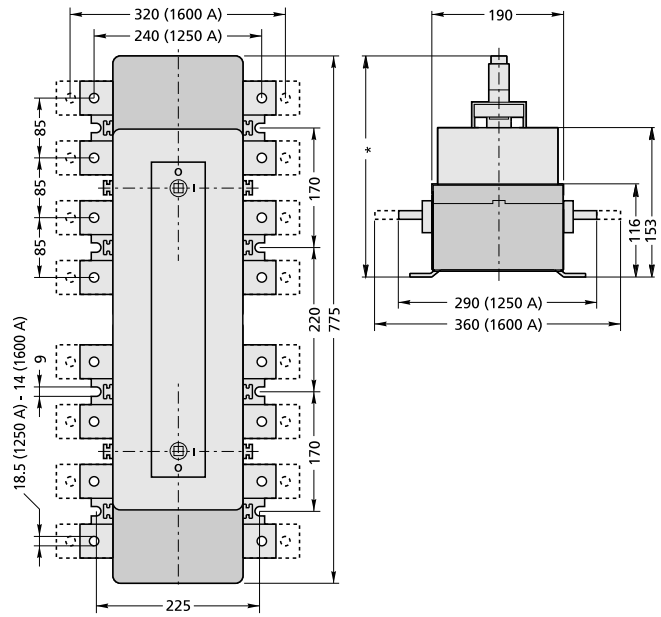


Change-over switches, Dumeco, types DMVS 160N, DMV 250N and DMV 400N.

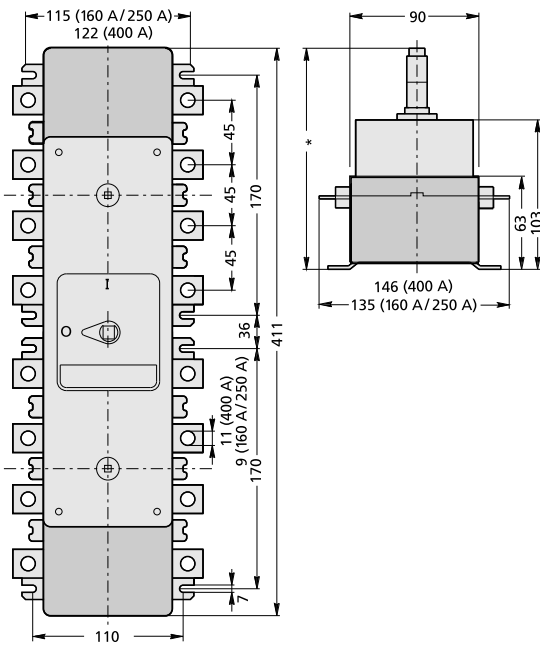
*) Dependant on the applied operating shaft.



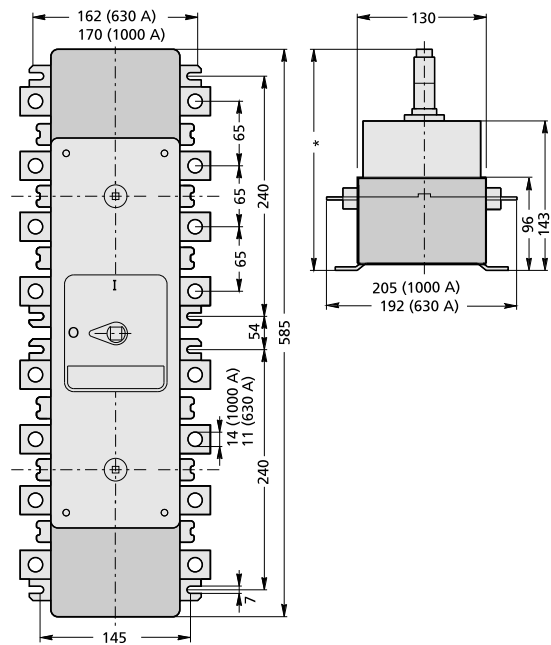
Change-over switches, Dumeco, types DMV 630N and DMV 1000N.



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



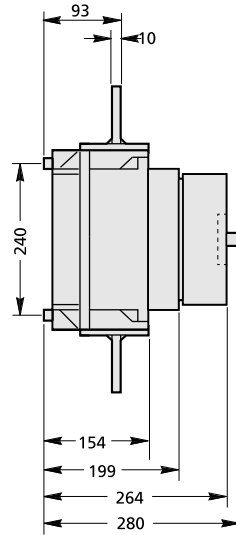
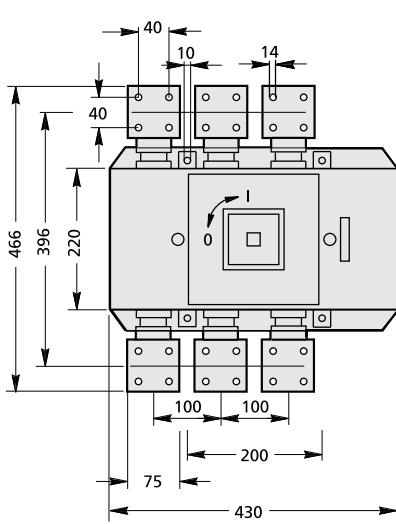
Multipole switches, Dumeco, types DMVS 160N, DMV 250N and DMV 400N.



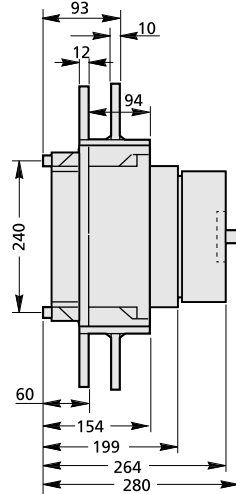
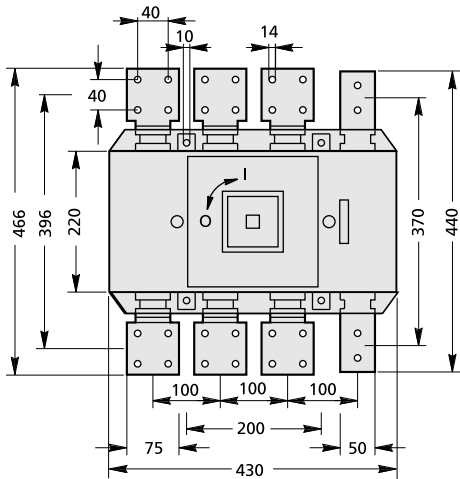
Multipole switches, Dumeco, types DMV 630N and DMV 1000N.

*) Dependant on the applied operating shaft.

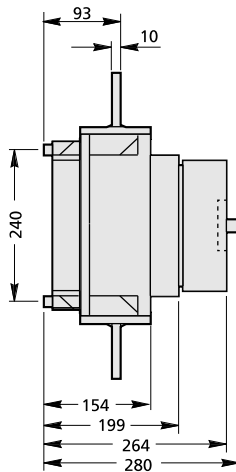
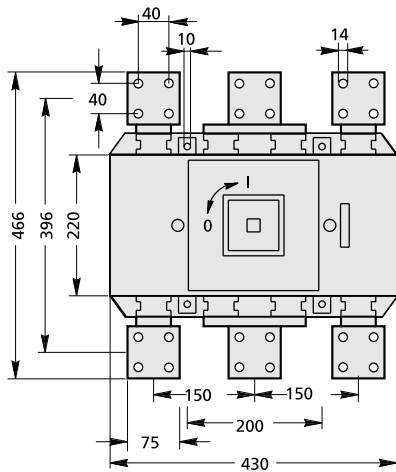
Switch-disconnectors Dumeco, type DMS, dimensions (mm)



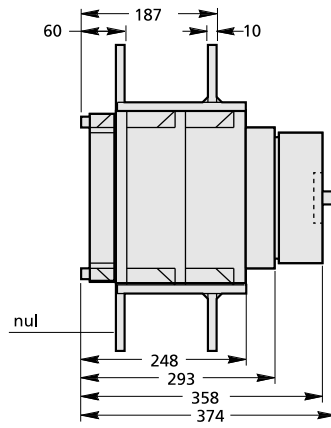
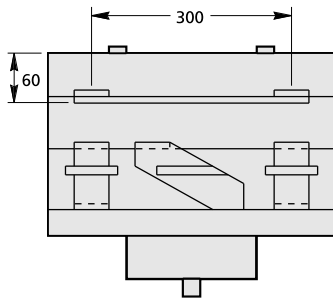
Dumeco, type DMS 2500/3.



Dumeco, type DMS 2500/1 and DMS 2500/4.



Dumeco, type DMS 3150/3.



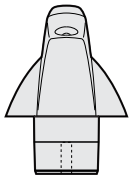
Dumeco, type DMS 3150/4.

Switch-disconnectors Dumeco, type DMS, technical characteristics

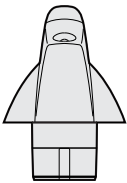
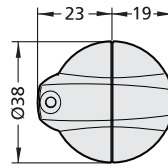
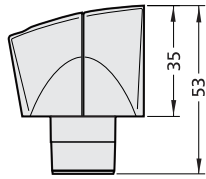
Type		DMS 2500	DMS 3150
Conventional free-air thermal current	I_{th}	2500 A	3150 A
Conventional enclosed thermal current	I_{the}	2500 A	3150 A
Rated uninterrupted current	I_u	2500 A	3150 A
Rated operational voltage	U_e	690 V	690 V
Rated insulation voltage	U_i	1000 V	1000 V
Rated impulse withstand voltage	U_{imp}	12 kV	12 kV
Rated operational current			
with $U_e = 415\text{ V AC-21B}$	I_e	2500 A	3150 A
with $U_e = 415\text{ V AC-22B}$	I_e	1600 A	-
with $U_e = 500\text{ V AC-21B}$	I_e	2500 A	3150 A
with $U_e = 500\text{ V AC-22B}$	I_e	1600 A	-
with $U_e = 690\text{ V AC-21B}$	I_e	2500 A	3150 A
Rated operational power			
with $U_e = 415\text{ V AC-23B}$		355 kW	-
with $U_e = 500\text{ V AC-23B}$		425 kW	-
Rated short-time withstand current:	I_{cw}	50 kA-1 s	63 kA-1 s
Rated short-circuit making capacity	I_{cm}	110 kA	140 kA
Standards		EN-IEC 60947-3	



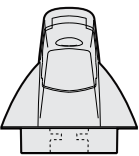
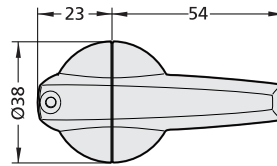
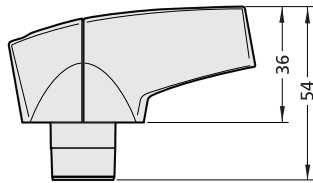
Handles K-line, type A, dimensional drawings



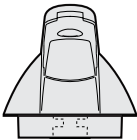
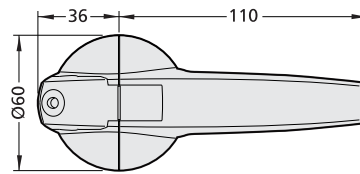
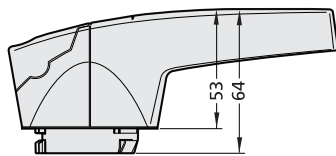
Type K1A.



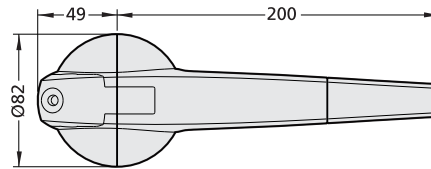
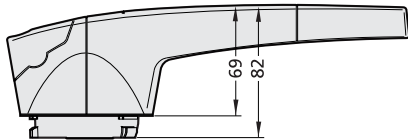
Types K2A and K2SA.



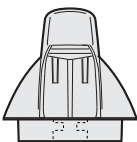
Type K3KA.



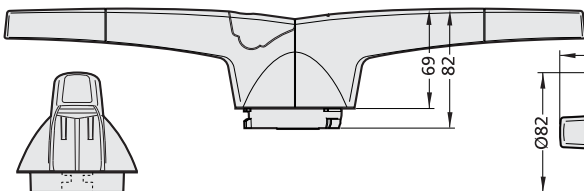
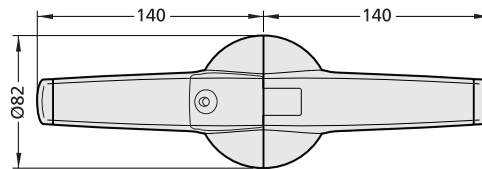
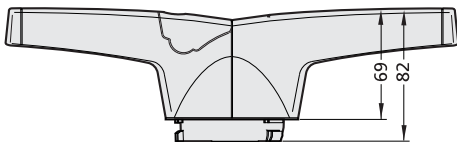
Type K4A.



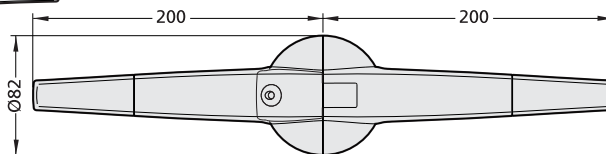
Handles K-line, type A, T-handle, dimensional drawings



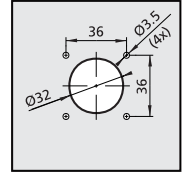
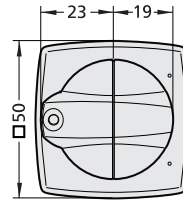
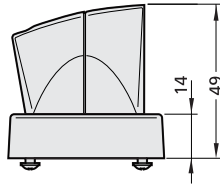
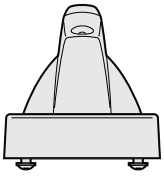
Type K5A.



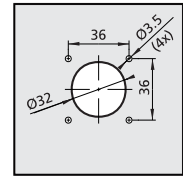
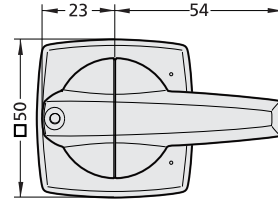
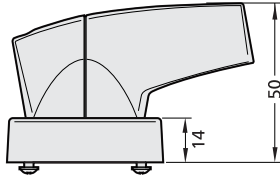
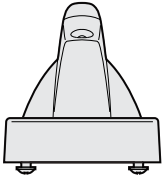
Type K6A.



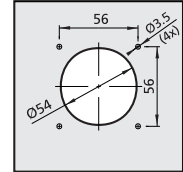
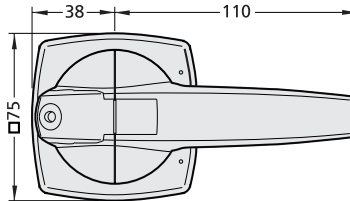
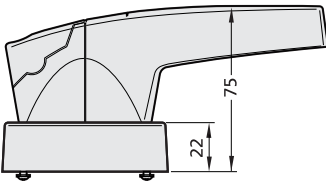
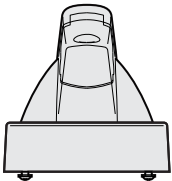
Handles K-line, type C, dimensional drawings



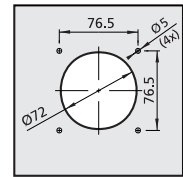
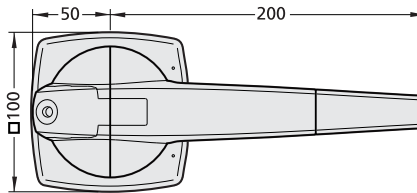
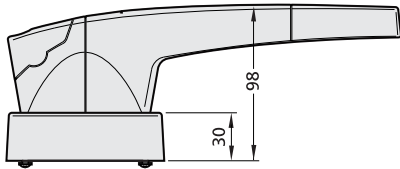
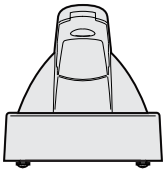
Type K1C.



Types K2C and K2SC.

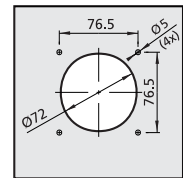
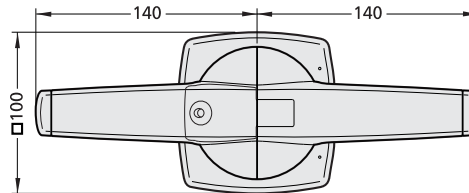
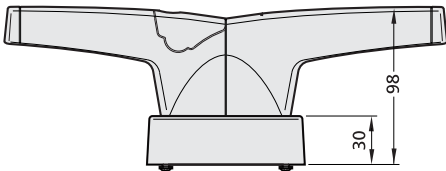
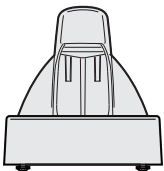


Type K3KC.

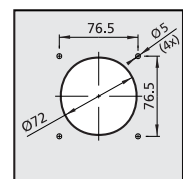
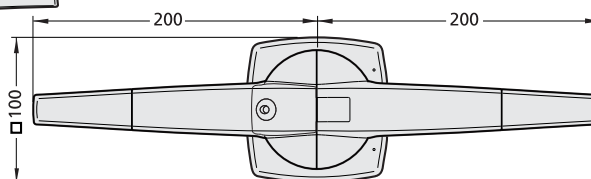
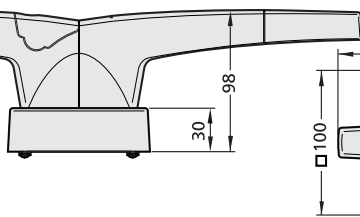
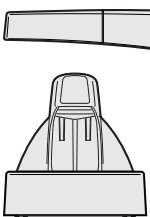


Type K4C.

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

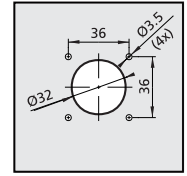
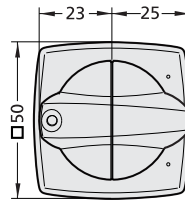
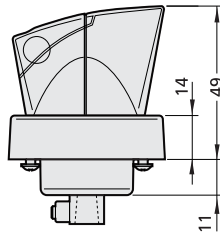
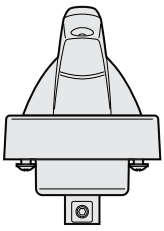


Type K5C.

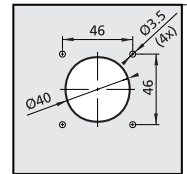
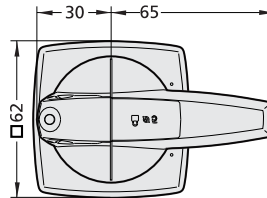
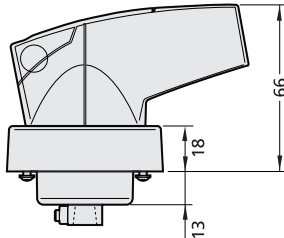
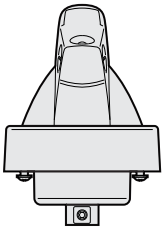


Type K6C.

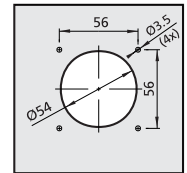
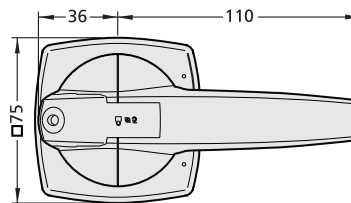
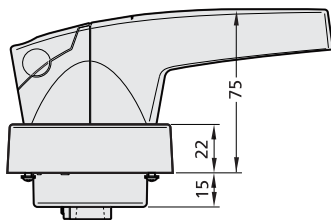
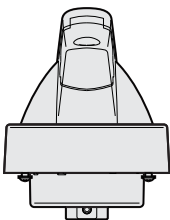
Handles K-line, type D, dimensional drawings



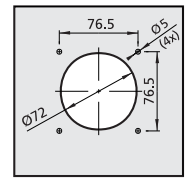
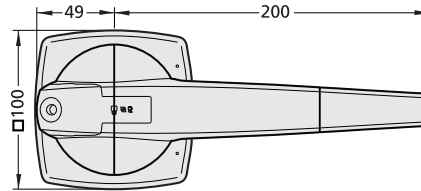
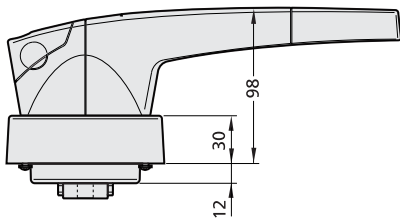
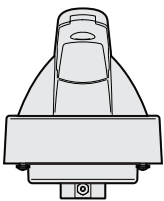
Type K1D.



Types K2D and K2SD.

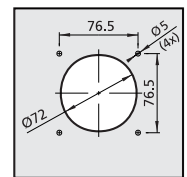
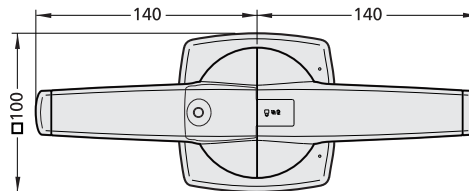
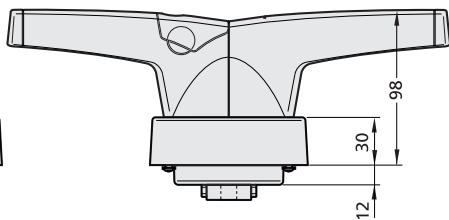
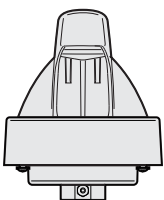


Type K3KD.

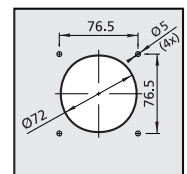
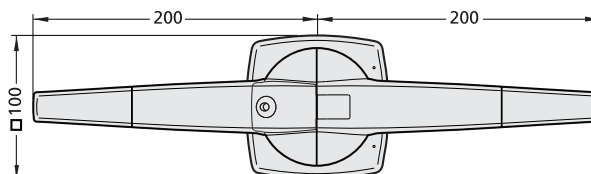
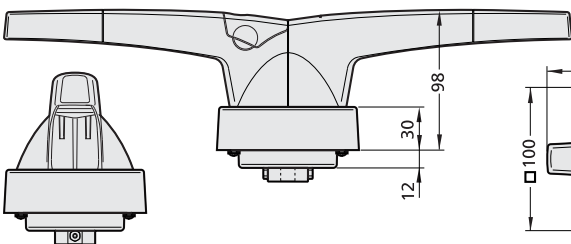


Type K4D.

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



Type K5D.



Type K6D.

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 (I_{th}) 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.

General remarks:

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.

Disconnecter¹⁾

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.

Disconnecter-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	
Switch	
Switch-fuse	
Fuse-switch	

Isolating	
Disconnecter	
Disconnecter-fuse	
Fuse-disconnector	

Making, breaking and isolating	
Switch-disconnector	
Switch-disconnector-fuse	
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 IEC 441-15-05 by referring to isolating function instead of isolating distance.

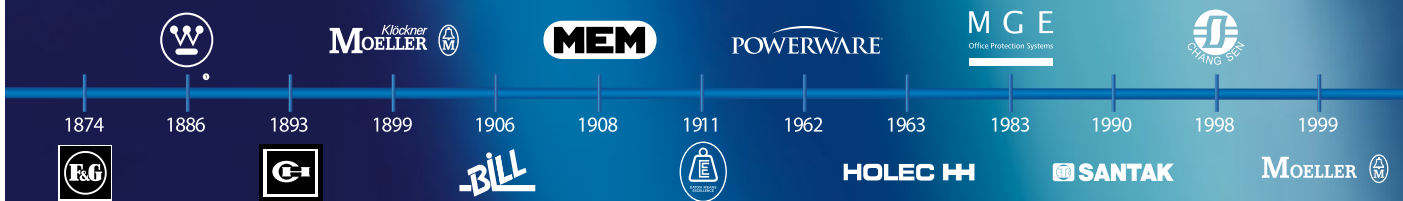
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