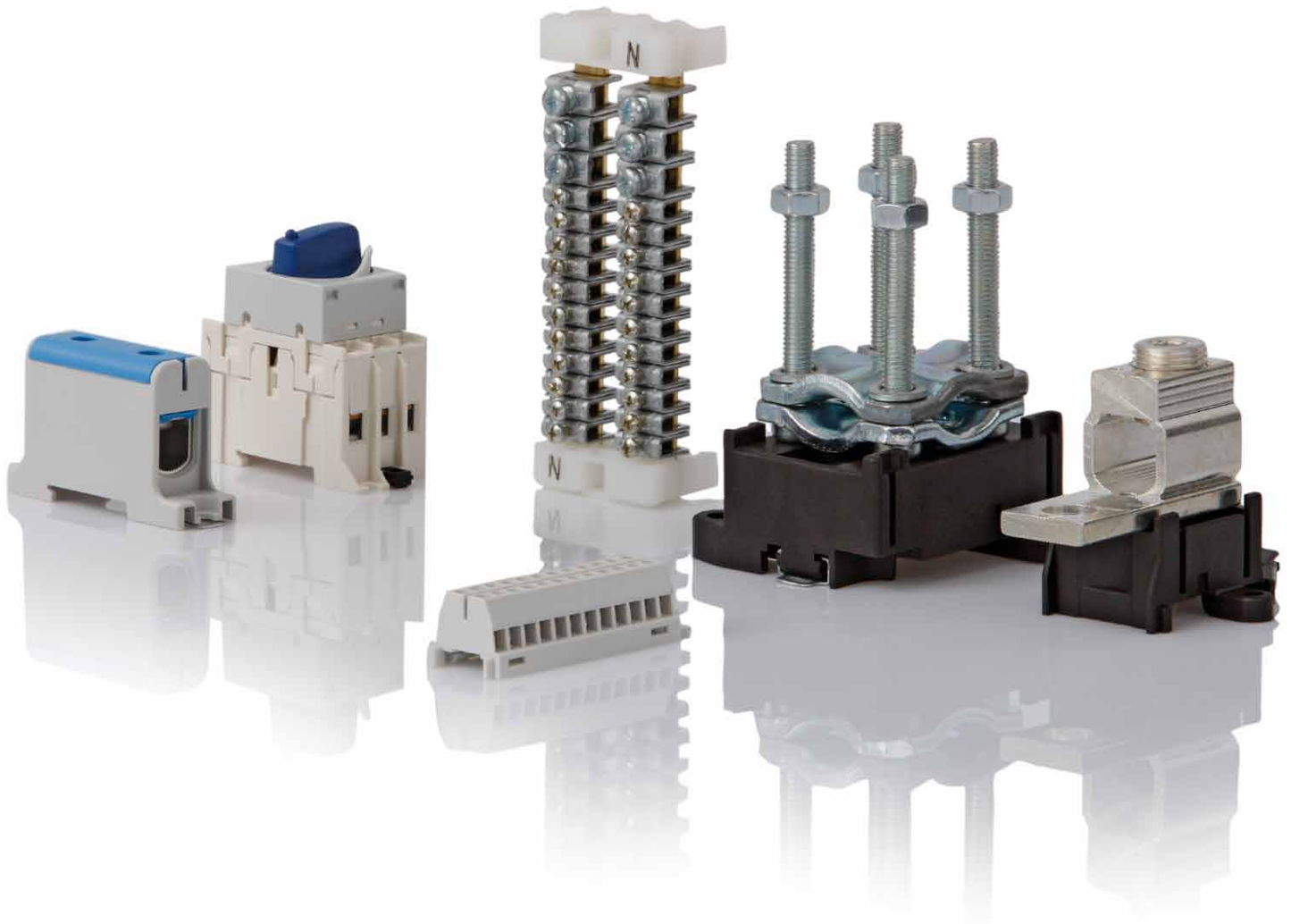


INDUSTRIAL COMPONENTS

Terminals, switches and fuse bases



Industrial components for demanding environments

Ensto at your service

Ensto is an international industrial group and a family business specialising in the development, manufacture and marketing of electrical systems and accessories. We have 50 years' experience in connecting technology, and a global clientele. Our industrial components and enclosures are specially developed for the needs of industry and demanding environments.

Our standard product range includes a broad selection of terminals and load break switches used by global manufacturers. In addition to these our offering includes fuse bases and thermoplastic, polyester, sheet steel and aluminium enclosures suitable for demanding environments. Our service offering includes assembly services as well as the sourcing of third party components.

We are a reliable and flexible partner with experienced personnel. Our strengths include good knowledge of various materials and an innovative design department.

Our clientele mainly consist of OEM industries: electrical and electronics industries and panel builders.

Certificates and standards

We have modern production facilities in Finland and Estonia. Our production plants have received the following certificates

- ISO 9001:2008 Quality System Certificate
- ISO 14001:2004 Environmental Management System Certificate.

We are proud of our products, which we develop and test to suit a wide range of applications and to operate under even the most extreme conditions.

Further information

For further information please refer to our web pages **www.ensto.com** or contact our sales personnel.

More information on our enclosure solutions can also be found in our Enclosure Catalogue.

Visit our internet pages at www.ensto.com

On these pages you will find, for instance:

- Latest product news
- Product cards including
 - Technical product data
 - Technical drawings
 - Printable product photos
- Customer references
- Catalogues and leaflets
- Distributor information
- Contact information for our sales personnel.



Contents

Ensto at your service	2
Our industrial components in brief	4
Customer-specific terminal solutions	5

Terminals

	Ensto Clampo Pro universal terminals For Al/Cu conductors from 2.5 mm ² to 240 mm ²	6
	Ensto Clampo Pro branching terminals For Al/Cu conductors from 10 mm ² to 95 mm ²	12
	Ensto Clampo Apparatus equipment terminals For Al/Cu conductors from 2.5 mm ² to 300 mm ²	15
	Ensto Clampo Tap tapping blocks For Cu conductors from 10 mm ² to 240 mm ²	21
	Ensto Clampo Tap terminal plates For Cu conductors from 1.5 mm ² to 25 mm ²	24
	Ensto Clampo Tap tapping terminals For Cu conductors from 1.5 mm ² to 70 mm ²	28
	Ensto Clampo Compact terminal blocks For Cu conductors from 1.5 mm ² to 35 mm ²	31
	Ensto Clampo Ground N and PE terminals For Cu conductors from 1.5 mm ² to 35 mm ²	37
	Ensto Clampo terminal sets For Al/Cu conductors from 2.5 mm ² to 240 mm ²	48
	Ensto Cubo T enclosed terminals For Al/Cu conductors from 6 mm ² to 150 mm ²	49

Load break switches

	Ensto Compact switch-disconnectors Rotary switches from 16 A to 125 A	51
	UL-listed manual motor controllers Toggle and rotary switches from 20 A to 100 A	59
	Enclosed switches Enclosed 3-pole, 4-pole, 6-pole and 8-pole switches from 16 A to 125 A	67

Fuse bases

	Single fuse bases and fuse blocks 1 x 25 A - 8 x 25 A and 1 x 63 A - 6 x 63 A	72
---	--	----

Technical charts:

Local disconnect switches, ratings	81
Ensto Clampo conductor table	82
Ensto Compact switch-disconnectors, table	84
Enclosed switches, table	86
Index	88

Our industrial components in brief



Terminals

Our Ensto Clampo terminals are specially developed for the needs of industry. Our offering includes a large range of terminal series, some of which are suitable for both aluminium and copper conductors. The nominal current of the terminals ranges between 17.5

and 730 A and the nominal insulation voltage varies from 400 to 750 V.

Our offering also covers enclosed terminals, including everything needed for connecting wires, extending or branching cables and enclosing different components.

Our Ensto Clampo series have been tested by SGS Fimko. They meet the requirements of several different standards. Some models are also UL recognized (Underwriters Laboratories, File # E 192532).



Load break switches

Our range of load break switches consists of 3-pole switches, additional poles and accessories. Our selection also covers enclosed switches.

The switches are certified according to EN 60947-3.

Our product range also includes UL-listed Motor Controllers Suitable as Motor Disconnect (UL 508, File # 164205) with a strong position on the North American market in particular.



Fuse bases

Our range of fuse bases covers ceramic single fuse bases and fuse blocks. With a range of

accessories available, these are suitable for Diazed fuses of sizes DII and DIII.



Customer-specific terminal solutions

We have sound experience of terminal solutions targeted at the OEM industries and demanding environments. We are a reliable and flexible partner with technical expertise and an experienced design department. We keep to schedule and offer excellent customer care.

In addition to the standard Ensto Clampo terminals, we offer customer-specific terminal solutions. These include standard terminals customised e.g. with prints and customer-specific labelling and solutions designed and developed on the basis of our customers' needs. Some originally customer-specific solutions have also been added to our standard product range. An example of these is the Ensto Clampo Pro three-pole terminal block specially designed for one of our drives industry customers.

Our service offering also includes deliveries with special packaging.

Our special strengths include:

- Years of experience in customer-specific terminal solutions
- Experienced design department
- Production and assembly, also in low cost countries (LCC)
- Large selection of high-quality terminals with a global clientele.

Customer-specific terminal solutions

Our service offering includes e.g.:

- 3D modelling
- Prototyping
 - Testing
 - Branding and labelling
 - Printing e.g. company logos, operating instructions and symbols
- Manufacturing plastic parts from coloured plastic raw material
- Certification handling and consultation
- Manufacturing and assembly



Drives application including our Ensto Clampo Pro three-pole terminal blocks specially designed to meet the needs of the drives industry.



Ensto Clampo three-pole terminal with customer-specific prints and labelling.

Ensto Clampo Pro universal terminals

For Al/Cu conductors from 2.5 mm² to 240 mm²



Ensto Clampo Pro universal terminals in brief:

- Suitable for both aluminium and copper conductors
- A wide application area including traditional panel-building, the manufacture of machinery and equipment and normal building construction
- Specially developed for the needs of industry
- Only four different sizes covering all normal installation needs
- The series includes
 - one-pole terminal blocks
 - the 50 mm² universal terminal as a three-pole terminal block
 - tapping blocks with four conductor spaces

Strengths of the series:

- Compact size compared to the similar products on the market
- Secure screw solution
- Simple, reliable constructions
- Can be quickly and easily connected
- Pre-greased (anti-oxidation compound)
- Easy to install: clear instructions on the terminal
- Easily marked
- Can be fixed straight onto a DIN rail or, with screws, onto a base

Standards

- All Ensto Clampo Pro universal terminals are certified according to standard SFS 2663 and recognised according to standard UL 1059

Conformity	
Technical information	
Cross-section range:	Al/Cu 2.5 - 240 mm ²
Nominal current range:	160 - 425 A
Nominal insulation voltage:	750 V
Material	
Housing:	Polyamide
Body and screws:	Tin-coated aluminium
Mechanical features	
Screw head:	Hexagonal
Mounting:	Screws or DIN rail

Note: The use of ferrules is recommended for installations with flexible conductors* with the following cross-sections (single conductor installation):

- KE61, KE 66 2.5 – 16 mm²
- KE62, KE67 16 – 35 mm²
- KE63, KE68 35 – 70 mm²
- KE64, KE69 35 – 120 mm²

The use of 240 mm² flexible conductors is not recommended.

*Class 5, according to IEC 228 Second Edition 1978

Ensto Clampo Pro universal terminals and terminal shrouds. The functional shroud is L-shaped, thus protecting both the conductor space and the hole for the tightening tool.



Ensto Clampo Pro universal terminals

Ensto Clampo Pro, one-pole terminal blocks

PRODUCT CODE	CONDUCTOR CROSS-SECTION (MM ²)	COLOUR	NOMINAL CURRENT (A)	NOMINAL INSULATION VOLTAGE (V)	SCREW HEAD HEXAGON (MM)	TIGHTENING TORQUE (Nm)	MOUNTING	WEIGHT (KG)	PACKAGE SIZE (PCS)	EAN 13 CODE
KE61	Cu 2,5-50 mm ² Al 6-50 mm ²	Grey	Cu 160 A, Al 145 A	750 V	5 mm	10 Nm	DIN rail	0.030	30	6418677191817
KE61.2	Cu 2,5-50 mm ² Al 6-50 mm ²	Blue	Cu 160 A, Al 145 A	750 V	5 mm	10 Nm	DIN rail	0.030	30	6418677191831
KE61.3	Cu 2,5-50 mm ² Al 6-50 mm ²	Yellow/Green	Cu 160 A, Al 145 A	750 V	5 mm	10 Nm	DIN rail	0.030	30	6418677191848
KE62	16-95 mm ²	Grey	Cu 245 A, Al 220 A	750 V	5 mm	14 Nm	DIN rail/screw	0.074	30	6418677191855
KE62.2	16-95 mm ²	Blue	Cu 245 A, Al 220 A	750 V	5 mm	14 Nm	DIN rail/screw	0.074	30	6418677191862
KE62.3	16-95 mm ²	Yellow/Green	Cu 245 A, Al 220 A	750 V	5 mm	14 Nm	DIN rail/screw	0.074	30	6418677191879
KE63	35-150 mm ²	Grey	Cu 320 A, Al 290 A	750 V	8 mm	14 Nm (35-95mm ²), 24 Nm (120-150mm ²)	DIN rail/screw	0.120	30	6418677191886
KE63.2	35-150 mm ²	Blue	Cu 320 A, Al 290 A	750 V	8 mm	14 Nm (35-95mm ²), 24 Nm (120-150mm ²)	DIN rail/screw	0.120	30	6418677191893
KE63.3	35-150 mm ²	Yellow/Green	Cu 320 A, Al 290 A	750 V	8 mm	14 Nm (35-95mm ²), 24 Nm (120-150mm ²)	DIN rail/screw	0.120	30	6418677191909
KE64	35-240 mm ²	Grey	Cu 425 A, Al 380 A	750 V	8 mm	12 Nm (35-70mm ²), 40 Nm (95-240mm ²)	Screw	0.249	30	6418677191916
KE64.2	35-240 mm ²	Blue	Cu 425 A, Al 380 A	750 V	8 mm	12 Nm (35-70mm ²), 40 Nm (95-240mm ²)	Screw	0.249	30	6418677191923
KE64.3	35-240 mm ²	Yellow/Green	Cu 425 A, Al 380 A	750 V	8 mm	12 Nm (35-70mm ²), 40 Nm (95-240mm ²)	Screw	0.249	30	6418677191930

Temperature class: T1
Operating temperature: max. 80 °C
Pollution degree: 3

The nominal currents in the table are for maximum cross-sections.



KE61



KE62



KE63.2



KE64.3

Ensto Clampo Pro, three-pole terminal block

PRODUCT CODE	CONDUCTOR CROSS-SECTION (MM ²)	COLOUR	NOMINAL CURRENT (A)	NOMINAL INSULATION VOLTAGE (V)	SCREW HEAD HEXAGON (MM)	TIGHTENING TORQUE (Nm)	MOUNTING	WEIGHT (KG)	PACKAGE SIZE (PCS)	EAN 13 CODE
KE61.03	Cu 2,5-50 mm ² Al 6-50 mm ²	Grey	Cu 160 A, Al 145 A	750 V	5 mm	10 Nm	DIN rail	0.077	30	6418677191824

Temperature class: T1
Operating temperature: max. 80 °C
Pollution degree: 3

The nominal currents in the table are for maximum cross-sections.



KE61.03

Ensto Clampo Pro universal terminals

Ensto Clampo Pro, tapping blocks, single pole, four connections

PRODUCT CODE	CONDUCTOR CROSS-SECTION (MM ²)	COLOUR	NOMINAL CURRENT (A)	NOMINAL INSULATION VOLTAGE (V)	SCREW HEAD HEXAGON (MM)	TIGHTENING TORQUE (Nm)	MOUNTING	WEIGHT (KG)	PACKAGE SIZE (PCS)	EAN 13 CODE
KE66	Cu 2,5-50 mm ² Al 6-50 mm ²	Grey	Cu 320 A, Al 290 A	750 V	5 mm	10 Nm	DIN rail	0.049	30	6418677191947
KE66.2	Cu 2,5-50 mm ² Al 6-50 mm ²	Blue	Cu 320 A, Al 290 A	750 V	5 mm	10 Nm	DIN rail	0.049	30	6418677191954
KE66.3	Cu 2,5-50 mm ² Al 6-50 mm ²	Yellow/Green	Cu 320 A, Al 290 A	750 V	5 mm	10 Nm	DIN rail	0.049	30	6418677191961
KE67	16-95 mm ²	Grey	Cu 490 A, Al 440 A	750 V	5 mm	14 Nm	DIN rail/screw	0.128	30	6418677191978
KE67.2	16-95 mm ²	Blue	Cu 490 A, Al 440 A	750 V	5 mm	14 Nm	DIN rail/screw	0.128	30	6418677191985
KE67.3	16-95 mm ²	Yellow/Green	Cu 490 A, Al 440 A	750 V	5 mm	14 Nm	DIN rail/screw	0.128	30	6418677191992
KE68	35-150 mm ²	Grey	Cu 640 A, Al 580 A	750 V	8 mm	14 Nm (35-95mm ²), 24 Nm (120-150mm ²)	DIN rail/screw	0.210	30	6418677192005
KE68.2	35-150 mm ²	Blue	Cu 640 A, Al 580 A	750 V	8 mm	14 Nm (35-95mm ²), 24 Nm (120-150mm ²)	DIN rail/screw	0.210	30	6418677192012
KE68.3	35-150 mm ²	Yellow/Green	Cu 640 A, Al 580 A	750 V	8 mm	14 Nm (35-95mm ²), 24 Nm (120-150mm ²)	DIN rail/screw	0.210	30	6418677192029
KE69	35-240 mm ²	Grey	Cu 730 A, Al 630 A	750 V	8 mm	12 Nm (35-70mm ²), 40 Nm (95-240mm ²)	Screw	0.438	30	6418677192036
KE69.2	35-240 mm ²	Blue	Cu 730 A, Al 630 A	750 V	8 mm	12 Nm (35-70mm ²), 40 Nm (95-240mm ²)	Screw	0.438	30	6418677192043
KE69.3	35-240 mm ²	Yellow/Green	Cu 730 A, Al 630 A	750 V	8 mm	12 Nm (35-70mm ²), 40 Nm (95-240mm ²)	Screw	0.438	30	6418677192050

Temperature class: T1
Operating temperature: max. 80 °C
Pollution degree: 3

The nominal currents in the table are for maximum cross-sections.



Accessories

PRODUCT CODE	DESCRIPTION	WEIGHT (KG)	PACKAGE SIZE (PCS)	EAN 13 CODE
Terminal shrouds				
KEL61	Terminal shroud for KE61, KE66	0.001	100	6438100020064
KEL62	Terminal shroud for KE62, KE67	0.002	100	6438100020071
KEL63	Terminal shroud for KE63, KE68	0.003	100	6438100020088
KEL64	Terminal shroud for KE64, KE69	0.004	100	6438100020095
Other accessories				
PP37	DIN rail, 35 mm, steel, length 2 m	0.622	10	6418677161896
KRL2	End clip for fixing components to Din rail, PP37	0.009	50	6418677161919



Terminal shroud, KEL62.

DIN rail, 35 mm, PP37.

End clip for fixing components to Din rail, KRL2.

Ensto Clampo Pro universal terminals

Marking strips

Each strip contains 10 markers.

PRODUCT CODE	DESCRIPTION	WEIGHT (KG)	PACKAGE SIZE (STRIPS)	EAN 13 CODE
PM34.00	Marking strip"0"	0.001	10	6418677192067
PM34.01	Marking strip"1"	0.001	10	6418677192074
PM34.02	Marking strip"2"	0.001	10	6418677192081
PM34.03	Marking strip"3"	0.001	10	6418677192098
PM34.04	Marking strip"4"	0.001	10	6418677192104
PM34.05	Marking strip"5"	0.001	10	6418677192111
PM34.06	Marking strip"6"	0.001	10	6418677192128
PM34.07	Marking strip"7"	0.001	10	6418677192135
PM34.08	Marking strip"8"	0.001	10	6418677192142
PM34.09	Marking strip"9"	0.001	10	6418677192159
PM34.10	Marking strip"Earth symbol in a ring"	0.001	10	6418677192166
PM34.11	Marking strip"R"	0.001	10	6418677192173
PM34.12	Marking strip"S"	0.001	10	6418677192180
PM34.13	Marking strip"T"	0.001	10	6418677192197
PM34.14	Marking strip"U"	0.001	10	6418677192203
PM34.15	Marking strip"V"	0.001	10	6418677192210
PM34.16	Marking strip"W"	0.001	10	6418677192227
PM34.19	Marking strip"L"	0.001	10	6418677192234
PM34.22	Marking strip"+"	0.001	10	6418677192241
PM34.23	Marking strip"-"	0.001	10	6418677192258
PM34.24	Marking strip"Earth symbol "	0.001	10	6418677192265
PM34.25	Marking strip"N"	0.001	10	6418677192272
PM34.26	Marking strip"L1"	0.001	10	6418677192289
PM34.27	Marking strip"L2"	0.001	10	6418677192296
PM34.28	Marking strip"L3"	0.001	10	6418677192302
PM34.29	Marking strip"PE"	0.001	10	6418677192319



PM34.05

UL-recognitions

PRODUCT CODE	WIRE TYPE	AWG* 1 WIRE/ TERMINAL	AWG* 2 CU-WIRES/ TERMINAL	AWG* 3 CU-WIRES/ TERMINAL	NOMINAL INSULATION VOLTAGE (V)	NOMINAL CURRENT (A)	NOMINAL TIGHTENING TORQUE (Nm)	ALLEN-HEX SOCKET HEAD TERMINAL SCREW (MM)	DIMENSIONS (W X H X D)
One-pole universal terminals									
KE61	Cu	1/0 - 6	6	8	600	150	10	5	17.8 x 49 x 43 mm
	Al	1/0 - 6			600	120	(90 Lb-In)		(0.7 x 1.9 x 1.7 In)
KE62	Cu	4/0 - 4	2 - 6	6	600	230	14	5	24 x 86 x 49 mm
	Al	4/0 - 4			600	180	(126 Lb-In)		(0.9 x 3.4 x 1.9 In)
KE63	Cu	300 - 2	1/0 - 2	2	600	285	24	8	29.5 x 95 x 59 mm
	Al	300 - 2			600	230	(216 Lb-In)		(1.2 x 3.7 x 2.3 In)
KE64	Cu	500 - 3/0	2/0 - 2	1/0 - 2	600	380	40	8	37.5 x 130 x 67 mm
	Al	500 - 3/0			600	310	(360 Lb-In)		(1.5 x 5.1 x 2.6 In)
Three-pole universal terminal									
KE61.03	Cu	1/0 - 6	6	8	600	150	10	5	49.5 x 49 x 43 mm
	Al	1/0 - 6			600	120	(90 Lb-In)		(1.9 x 1.9 x 1.7 In)
Tapping blocks									
KE66	Cu	1/0 - 6	6	8	600	150	10	5	29.8 x 49 x 43 mm
	Al	1/0 - 6			600	120	(90 Lb-In)		(1.2 x 1.9 x 1.7 In)
KE67	Cu	4/0 - 4	2 - 6	6	600	230	14	5	42 x 86 x 49 mm
	Al	4/0 - 4			600	180	(126 Lb-In)		(1.7 x 3.4 x 1.9 In)
KE68	Cu	300 - 2	1/0 - 2	2	600	285	24	8	51.5 x 95 x 59 mm
	Al	300 - 2			600	230	(216 Lb-In)		(2.0 x 3.7 x 2.3 In)
KE69	Cu	500 - 3/0	2/0 - 2	1/0 - 2	600	380	40	8	64 x 130 x 67 mm
	Al	500 - 3/0			600	310	(360 Lb-In)		(2.5 x 5.1 x 2.6 In)

Standard UL 1059, UL category XCFR2, file E 192532.

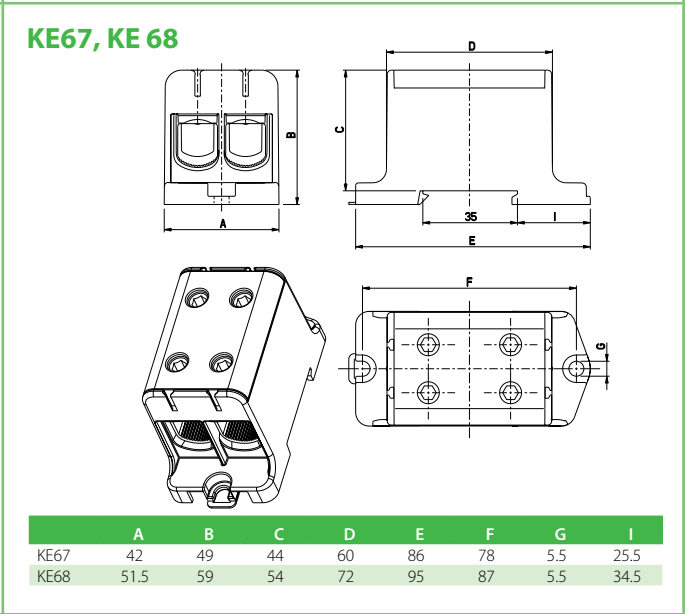
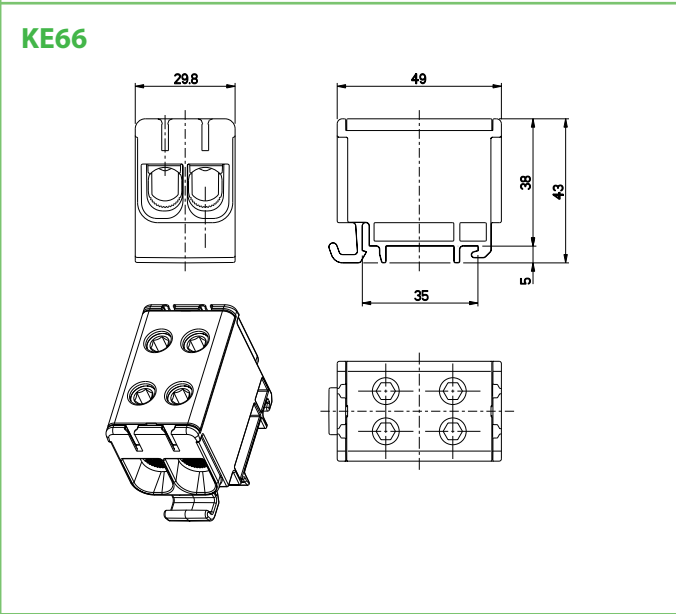
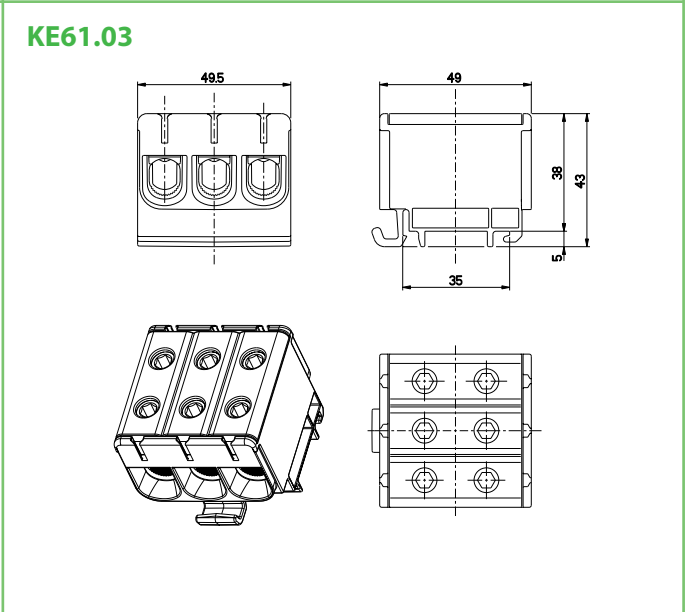
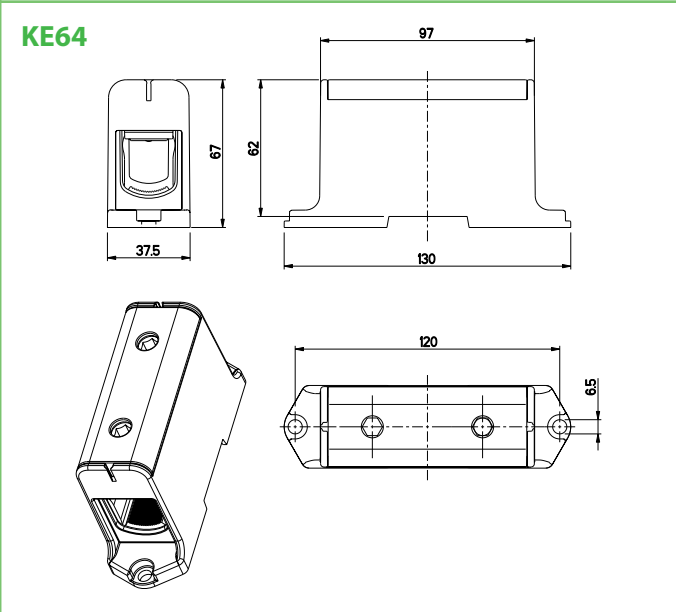
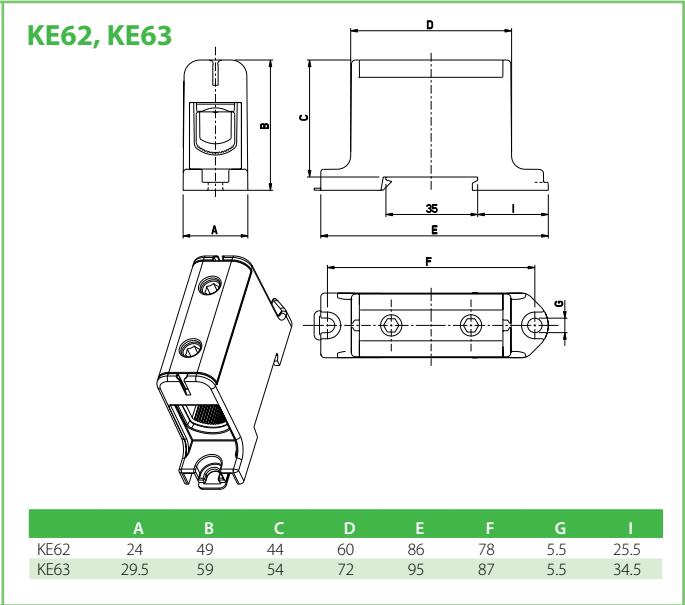
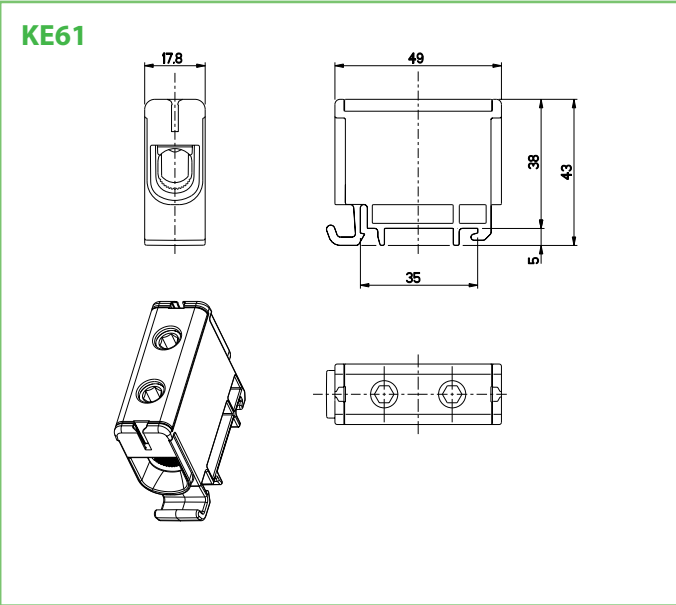
* AWG = American Wire Gauge

Insulating material polyamide, flammability rating V-2 (UL94).

All terminal blocks KE61-KE69 are delivered with oxide inhibiting compound applied.

Technical drawings, Ensto Clampo Pro universal terminals

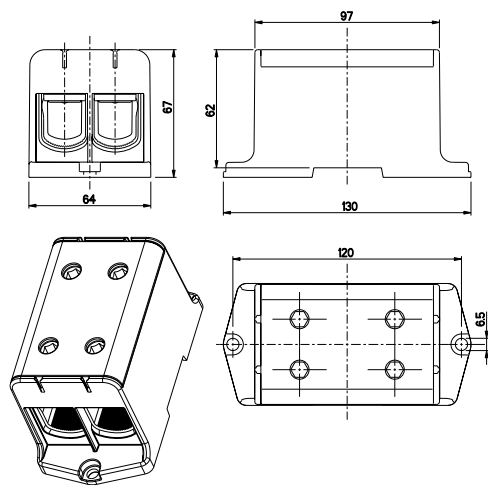
Dimensions in mm



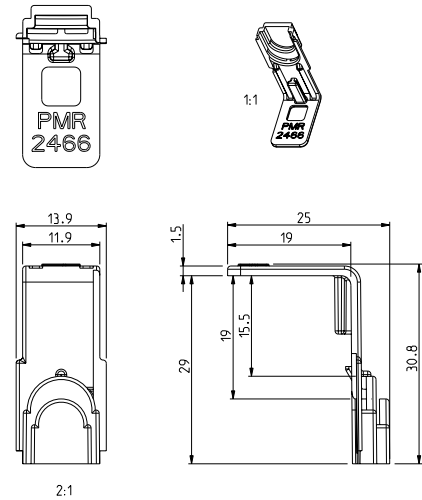
Technical drawings, Ensto Clampo Pro universal terminals

Dimensions in mm

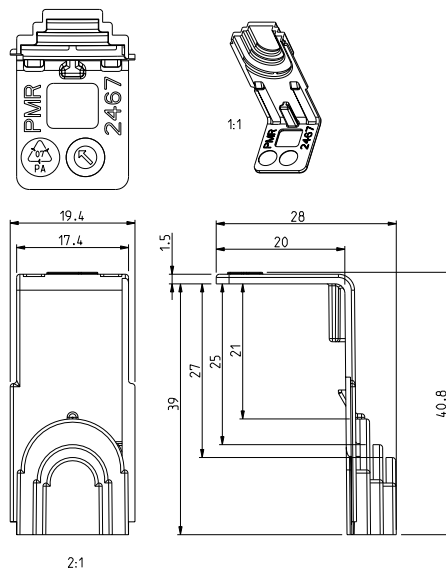
KE69



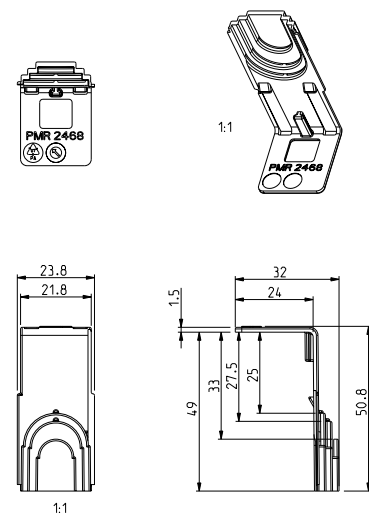
KEL61



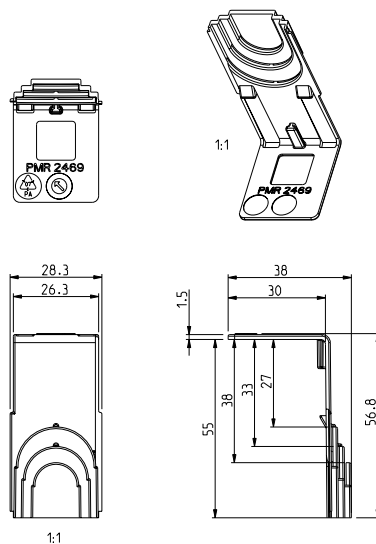
KEL62



KEL63



KEL64



This box is intentionally left empty.

Ensto Clampo Pro branching terminals

For Al/Cu conductors from 10 mm² to 95 mm²



Ensto Clampo Pro branching terminals in brief:

- For Al/Cu conductors 10 – 95 mm²
- Main conductor can be either Al or Cu, branching for Cu only
- Can be used for rising cable without cutting the main conductor
- The series includes:
 - three-pole branching terminal blocks with and without a shroud
 - a four-pole branching terminal blocks with a shroud
 - an additional pole (in grey, blue and yellow-green)
- A four-pole terminal is created by attaching an additional pole to a three-pole terminal
- Shrouds can be sealed with a sealing screw

Standards

PRODUCT CODE	STANDARD
Three-pole terminals	
KE85.3	IEC 61545
KE85.30	IEC 61545
KE86.3	IEC 61545
KE86.30	IEC 61545
KE87.3	IEC 61545
KE87.30	IEC 61545
Four-pole terminals	
KE85.40	IEC 61545
KE86.40	IEC 61545
KE87.40	IEC 61545
Additional poles	
KE85.1, KE85.1B	IEC 61545
KE86.1, KE86.1B	IEC 61545
KE87.1, KE87.1B	IEC 61545
KE85.1YG	IEC 61545, EN 60947-7-2
KE86.1YG	IEC 61545, EN 60947-7-2
KE87.1YG	IEC 61545, EN 60947-7-2

Conformity	
CE RoHS FI	
Technical information	
Cross-section range:	
Main:	Al/Cu 35 - 95 mm ²
Branching:	Cu 10 - 50 mm ²
Nominal current range:	99 - 215 A
Nominal insulation voltage:	750 V
Material	
Housing:	Polyamide
Body and screws:	Tin-coated aluminium (tin-coated brass screws in KE85)
Mechanical features	
Screw head:	Hexagonal
Mounting:	Screws or DIN rail



When using an aluminium main conductor, the main and branching conductors are installed so that they are not in direct contact.

Product cards with technical drawings can be found at www.ensto.com.

Ensto Clampo Pro branching terminals

Ensto Clampo Pro, branching terminals

PRODUCT CODE	CONDUCTOR CROSS-SECTION (MM²)	COLOUR	SHROUD	NOMINAL CURRENT (A)	NOMINAL INSULATION VOLTAGE (V)	SCREW HEAD HEXAGON (MM)	TIGHTENING TORQUE (Nm)	MOUNTING	WEIGHT (KG)	PACKAGE SIZE (PCS)	EAN 13 CODE
Three-pole terminals											
KE85.3	Main Al/Cu 35 mm², Branching Cu 1 x 16 mm² or 2 x 10 mm²	Grey	-	99 A	750 V	3 mm	4 Nm	DIN rail/screw	0.114	25	6418677181887
KE85.30	Main Al/Cu 35 mm², Branching Cu 1 x 16 mm² or 2 x 10 mm²	Grey	x	99 A	750 V	3 mm	4 Nm	DIN rail/screw	0.131	10	6418677181894
KE86.3	Main Al/Cu 50 mm², Branching Cu 1 x 35 mm² or 2 x 16 mm²	Grey	-	171 A	750 V	5 mm	8 Nm	DIN rail/screw	0.151	25	6418677181917
KE86.30	Main Al/Cu 50 mm², Branching Cu 1 x 35 mm² or 2 x 16 mm²	Grey	x	171 A	750 V	5 mm	8 Nm	DIN rail/screw	0.173	10	6418677181924
KE87.3	Main Al/Cu 95 mm², Branching Cu 1 x 50 mm² or 2 x 25 mm²	Grey	-	215 A	750 V	5 mm	10 Nm	DIN rail/screw	0.262	20	6418677181948
KE87.30	Main Al/Cu 95 mm², Branching Cu 1 x 50 mm² or 2 x 25 mm²	Grey	x	215 A	750 V	5 mm	10 Nm	DIN rail/screw	0.290	5	6418677181955
Four-pole terminals (three-pole + additional pole)											
KE85.40	Main Al/Cu 35 mm², Branching Cu 1 x 16 mm² or 2 x 10 mm²	Grey/Blue	x	99 A	750 V	3 mm	4 Nm	DIN rail/screw	0.178	5	6418677181900
KE86.40	Main Al/Cu 50 mm², Branching Cu 1 x 35 mm² or 2 x 16 mm²	Grey/Blue	x	171 A	750 V	5 mm	8 Nm	DIN rail/screw	0.230	5	6418677181931
KE87.40	Main Al/Cu 95 mm², Branching Cu 1 x 50 mm² or 2 x 25 mm²	Grey/Blue	x	215 A	750 V	5 mm	10 Nm	DIN rail/screw	0.391	5	6418677181962
Additional poles											
KE85.1	Main Al/Cu 35 mm², Branching Cu 1 x 16 mm² or 2 x 10 mm²	Grey	-	99 A	750 V	3 mm	4 Nm	-*	0.040	25	6418677181979
KE85.1B	Main Al/Cu 35 mm², Branching Cu 1 x 16 mm² or 2 x 10 mm²	Blue	-	99 A	750 V	3 mm	4 Nm	-*	0.040	25	6418677182075
KE85.1YG	Main Al/Cu 35 mm², Branching Cu 1 x 16 mm² or 2 x 10 mm²	Yellow/Green	-	99 A	750 V	3 mm	4 Nm	-*	0.040	25	6418677182105
KE86.1	Main Al/Cu 50 mm², Branching Cu 1 x 35 mm² or 2 x 16 mm²	Grey	-	171 A	750 V	5 mm	8 Nm	-*	0.052	50	6418677181986
KE86.1B	Main Al/Cu 50 mm², Branching Cu 1 x 35 mm² or 2 x 16 mm²	Blue	-	171 A	750 V	5 mm	8 Nm	-*	0.052	50	6418677182082
KE86.1YG	Main Al/Cu 50 mm², Branching Cu 1 x 35 mm² or 2 x 16 mm²	Yellow/Green	-	171 A	750 V	5 mm	8 Nm	-*	0.052	50	6418677182112
KE87.1	Main Al/Cu 95 mm², Branching Cu 1 x 50 mm² or 2 x 25 mm²	Grey	-	215 A	750 V	5 mm	10 Nm	-*	0.090	25	6418677181993
KE87.1B	Main Al/Cu 95 mm², Branching Cu 1 x 50 mm² or 2 x 25 mm²	Blue	-	215 A	750 V	5 mm	10 Nm	-*	0.090	25	6418677182099
KE87.1YG	Main Al/Cu 95 mm², Branching Cu 1 x 50 mm² or 2 x 25 mm²	Yellow/Green	-	215 A	750 V	5 mm	10 Nm	-*	0.090	25	6418677182129

Operating temperature: max. 80 °C

Pollution degree: 3

* Attached to the side of a 3-pole terminal, can not be mounted separately

The nominal currents in the table are for maximum cross-sections.



KE85.3



KE86.30



KE87.40



KE86.1

Shrouds

PRODUCT CODE	DESCRIPTION	POLES	WEIGHT (KG)	PACKAGE SIZE (PCS)	EAN 13 CODE
Terminal shrouds					
PEE185.3	Terminal shroud, 3-pole for KE85.3	3	0.018	1	6418677182006
PEE185.4	Terminal shroud, 4-pole for KE85.3 + additional pole	4	0.024	1	6418677182013
PEE186.3	Terminal shroud, 3-pole for KE86.3	3	0.022	1	6418677182020
PEE186.4	Terminal shroud, 4-pole for KE86.3 + additional pole	4	0.027	1	6418677182037
PEE187.3	Terminal shroud, 3-pole for KE87.3	3	0.029	1	6418677182044
PEE187.4	Terminal shroud, 4-pole for KE87.3 + additional pole	4	0.039	1	6418677182051

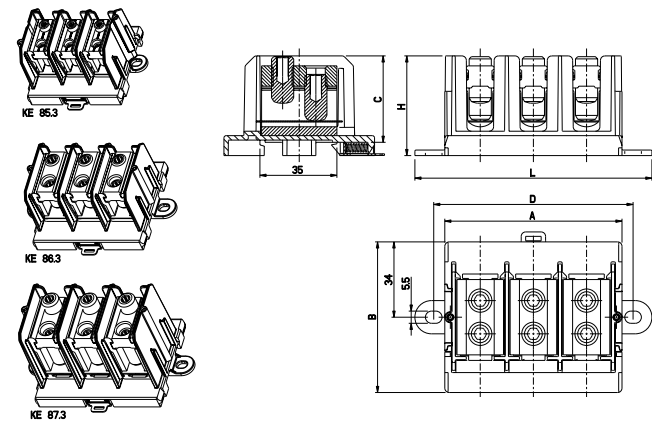


Terminal shroud, PEE186.3.

Technical drawings, Ensto Clampo Pro, branching terminals

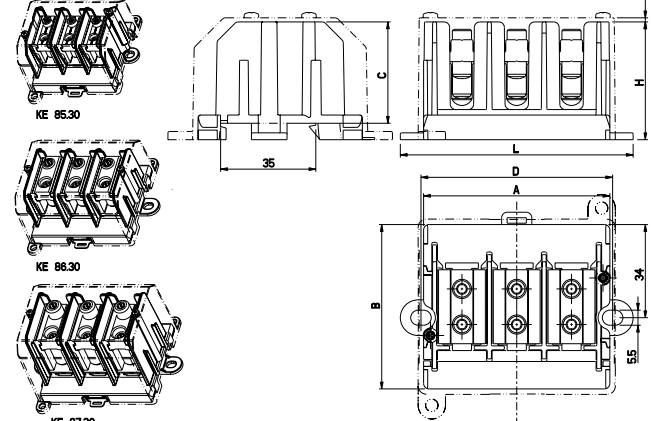
Dimensions in mm

KE85.3, KE86.3, KE 87.3



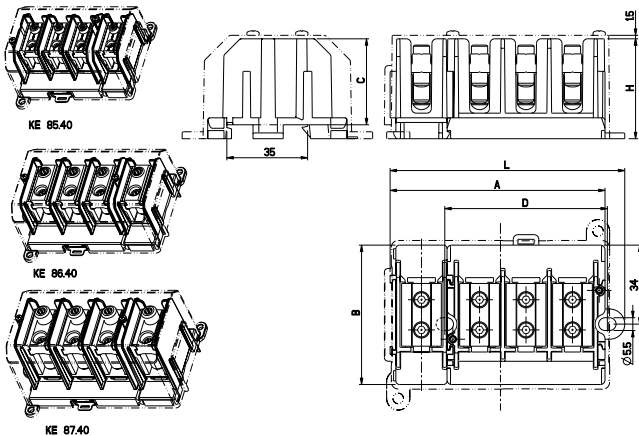
	A	B	C	D	H	L
KE85.3	68	60	37	70	43	85
KE86.3	80	68	39	90	45	107
KE87.3	91	68	56	102	62	119

KE85.30, KE86.30, KE 87.30



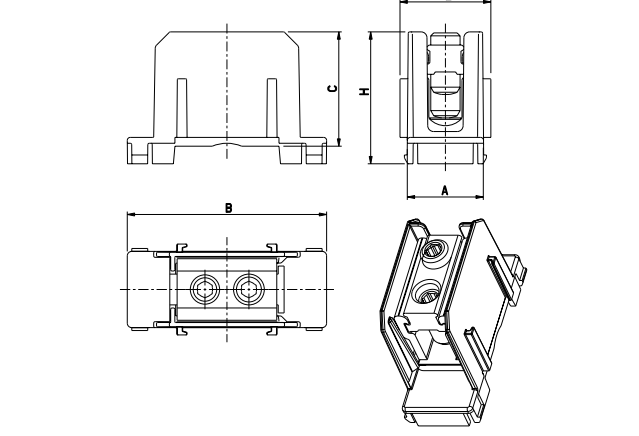
	A	B	C	D	H	L
KE85.30	68	60	37	70	43	85
KE86.30	80	68	39	90	45	107
KE87.30	91	68	56	102	62	119

KE85.40, KE86.40, KE 87.40



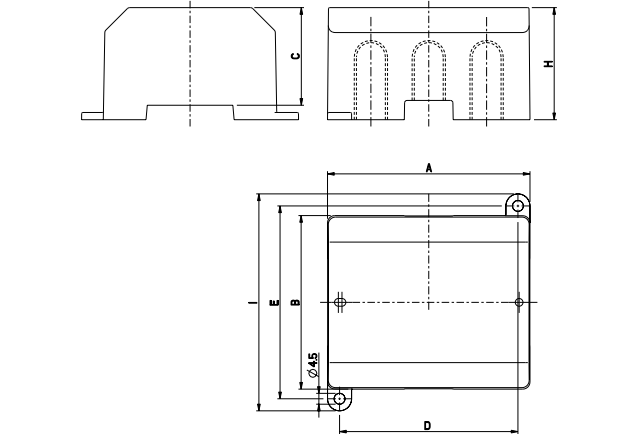
	A	B	C	D	H	L
KE85.40	92.5	60	37	70	43	101
KE86.40	108.5	68	39	90	45	122
KE87.40	123.5	68	56	102	62	137.5

KE85.1, KE86.1, KE 87.1



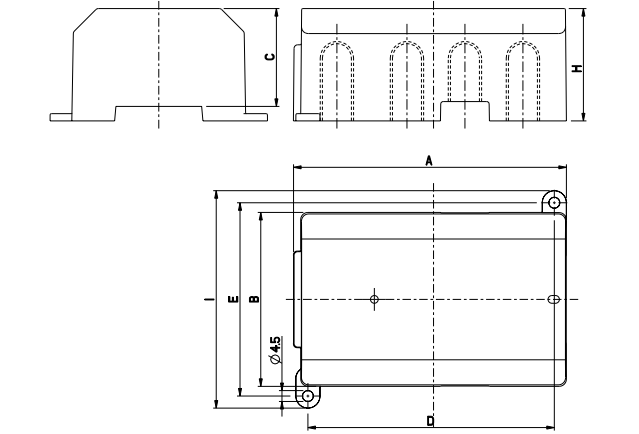
	A	B	C	H	L
KE85.1, KE85.1B, KE85.1YG	22	60	37	43	27
KE86.1, KE86.1B, KE86.1YG	26	68	39	45	31
KE87.1, KE87.1B, KE87.1YG	30	68	56	62	35

PEE185.3, PEE186.3, PEE187.3



	A	B	C	D	E	H	I
PEE185.3	72	64	38.5	62	72	44.5	82
PEE186.3	84	72	40.5	74	80	46.5	90
PEE187.3	95	72	57.5	85	80	63.5	90

PEE185.4, PEE186.4, PEE187.4



	A	B	C	D	E	H	I
PEE185.4	97	64	38.5	86	72	44.5	82
PEE186.4	113	72	40.5	102	80	46.5	90
PEE187.4	125	72	57.5	118	80	63.5	90

Ensto Clampo Apparatus equipment terminals

For Al/Cu conductors from 2.5 mm² to 300 mm²



Ensto Clampo Apparatus equipment terminals in brief:

- Universal terminal series for connecting Al/Cu conductors to equipment
- Used in equipment or as a transfer terminal between Cu and Al
- For one or two conductors, to be directly connected
- Terminals with insulation base also available
- Specially developed to meet the needs of equipment manufacturers
- Reliable product with simple construction
- A wide application area, including traditional panel-building and the manufacture of machinery and equipment in which both Al and Cu conductors can be used
- Global customers
- Pre-greased (anti-oxidation compound)
- Easy to install
- Available with 1 or 2 inputs
- Models with 2 inputs suitable also for branching
- Fixing possibilities: with a bolt to a copper bar or with a base together with screws onto a DIN rail

Conformity



Technical information

Cross-section range:	Al/Cu 2.5 mm ² to 300 mm ²
Nominal current range:	145 - 630 A
Nominal insulation voltage:	750 V

Material

Housing KE12.xx and insulation base KE7x:	Polyamide
Body and screws:	Tin-coated aluminium, KE55, KE57, KE58, KE75, KE77 and KE78 with steel screws

Mechanical features

Screw head:	Hexagonal
Mounting:	Screws or DIN rail

Standards

PRODUCT CODE	STANDARD
Adapter terminals	
KE12.12	SFS 2663
KE12.20	SFS 2663
KE12.28	EN 61238-1, EN 60947-7-1
Equipment terminals	
KE52.2	EN 61238-1, EN 60947-7-1
KE53.2	EN 61238-1, EN 60947-7-1
KE54.2	EN 61238-1, EN 60947-7-1
KE55	EN 61238-1, EN 60947-7-1
KE56.1	SFS 2663
KE57	EN 61238-1, EN 60947-7-1
KE58	EN 61238-1, EN 60947-7-1
Equipment terminals with insulation base	
KE73.2	EN 61238-1, EN 60947-7-1
KE74.2	EN 61238-1, EN 60947-7-1
KE75	EN 61238-1, EN 60947-7-1
KE77	EN 61238-1, EN 60947-7-1
KE78	EN 61238-1, EN 60947-7-1



Ensto Clampo Apparatus is a universal terminal series for connecting Al/Cu conductors to equipment.

Product cards with technical drawings can be found at www.ensto.com.

Ensto Clampo Apparatus equipment terminals

Ensto Clampo Apparatus, adapter terminals

PRODUCT CODE	CONDUCTOR CROSS-SECTION (MM ²)	NUMBER OF POLES	NOMINAL CURRENT (A)	CONNECTOR CLASS	OPERATING TEMPERATURE (°C)	SCREW HEAD HEXAGON (MM)	TIGHTENING TORQUE (Nm)	WEIGHT (KG)	PACKAGE SIZE (PCS)	EAN 13 CODE
KE12.12	Cu 2,5-50 mm ² Al 6-50 mm ²	1	Cu 160 A, Al 145 A	T1	Max. 80 °C	5 mm	10 Nm	0.013	90	6418677181788
KE12.20	Cu 2,5-50 mm ² Al 6-50 mm ²	1	Cu 160 A, Al 145 A	T1	Max. 80 °C	5 mm	10 Nm	0.014	90	6418677181795
KE12.28	Cu 2,5-50 mm ² Al 6-50 mm ²	1	80 A	A	Max. 80 °C	5 mm	10 Nm	0.017	90	6438100088798

The nominal currents in the table are for maximum cross-sections.



KE12.12



KE12.28

Ensto Clampo Apparatus, equipment terminals

PRODUCT CODE	CONDUCTOR CROSS-SECTION (MM ²)	NUMBER OF POLES	NOMINAL CURRENT (A)	CONNECTOR CLASS	OPERATING TEMPERATURE (°C)	SCREW HEAD HEXAGON (MM)	TIGHTENING TORQUE (NM)	WEIGHT (KG)	PACKAGE SIZE (PCS)	EAN 13 CODE
KE52.2	16-95 mm ²	1	270 A	A	Max. 80 °C	5 mm	14 Nm	0.030	30	6418677192449
KE53.2	35-150 mm ²	1	320 A	A	Max. 80 °C	8 mm	24 Nm (35-95 mm ²), 24 Nm (120-150 mm ²)	0.050	30	6418677192456
KE54.2	35-240 mm ²	1	425 A	A	Max. 80 °C	8 mm	12 Nm (35-70 mm ²), 40 Nm (95-240 mm ²)	0.115	15	6418677192463
KE55	120-300 mm ²	1	420 A	A	Max. 80 °C	5 mm	25 Nm	0.446	15	6418677161957
KE56.1	2 x 16-95 mm ²	1	Cu 490 A, Al 440 A	T1	Max. 80 °C	5 mm	16 Nm	0.078	30	6418677181757
KE57	2 x 95-185 mm ²	1	400 A	A	Max. 80 °C	5 mm	35 Nm	0.360	15	6418677161964
KE58	2 x 150-300 mm ²	1	630 A	A	Max. 80 °C	5 mm	35 Nm	0.561	15	6418677161971

Specified I_{cw} value:
 KE57: I_{cw} (1.5 s) 20.5 kA
 KE58: I_{cw} (2 s) 30.5 kA

The nominal currents in the table are for maximum cross-sections.



KE52.2



KE55



KE56.1



KE57

Ensto Clampo Apparatus equipment terminals

Ensto Clampo Apparatus, equipment terminals with insulation base

PRODUCT CODE	CONDUCTOR CROSS-SECTION (MM ²)	NUMBER OF POLES	NOMINAL CURRENT (A)	NOMINAL INSULATION VOLTAGE (V)	CONNECTOR CLASS	OPERATING TEMPERATURE (°C)	SCREW HEAD HEXAGON (MM)	TIGHTENING TORQUE (NM)	WEIGHT (KG)	PACKAGE SIZE (PCS)	EAN 13 CODE
KE73.2	35-150 mm ²	1	320 A	750 V	A	Max. 80 °C	8 mm	24 Nm (35-95 mm ²), 24 Nm (120-150 mm ²)	0.077	15	6418677192470
KE74.2	35-240 mm ²	1	425 A	750 V	A	Max. 80 °C	8 mm	12 Nm (35-70 mm ²), 40 Nm (95-240 mm ²)	0.166	15	6418677192487
KE75	120-300 mm ²	1	420 A	750 V	A	Max. 80 °C	5 mm	25 Nm	0.521	10	6418677162008
KE77	2 x 95-185 mm ²	1	400 A	750 V	A	Max. 80 °C	5 mm	35 Nm	0.416	10	6418677162015
KE78	2 x 150-300 mm ²	1	630 A	750 V	A	Max. 80 °C	5 mm	35 Nm	0.615	10	6418677162022

Pollution degree: 3
Specified I_{cw} value:
KE77: I_{cw} (1.5 s) 20.5 kA
KE78: I_{cw} (2 s) 30.5 kA

The nominal currents in the table are for maximum cross-sections.



KE74.2



KE75



KE77



KE78

Accessories

PRODUCT CODE	DESCRIPTION	WEIGHT (KG)	PACKAGE SIZE (PCS)	EAN 13 CODE
Intermediate plates				
PMR1420	For KE73.2	0.016	25	6418677162299
PMR1421	For KE74.2 and KE75	0.024	25	6418677162305
PMR1422	For KE77 and KE78	0.030	25	6418677162312
Fastening screws				
PLP98	For KE73.2	0.001	50	6418677162275
PLP99	For KE74.2, KE75, KE77 and KE78	0.004	50	6418677162282
Screw kits				
KJ5.10	Incl. 3 pcs. M10 x 35 mm	0.182	10	6418677181863
KJ5.12	Incl. 3 pcs. M12 x 45 mm	0.327	10	6418677181870
Others				
SR1	Contact grease, 225 g tube	0.254	25	6418677405402



Intermediate plate, PMR1422.



Fastening screws, PLP98.



Screw kit, KJ5.10.

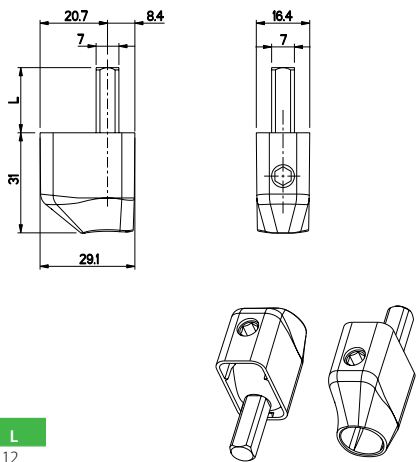


Contact grease, SR1.

Technical drawings, Ensto Clampo Apparatus

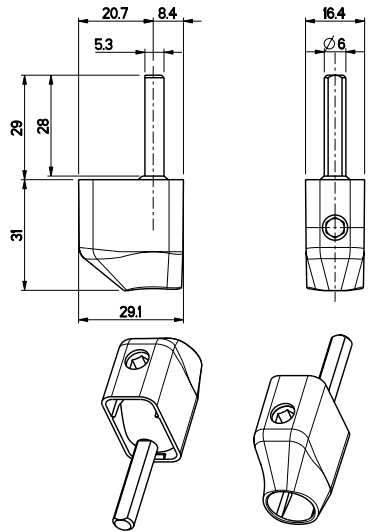
Dimensions in mm

KE12.12, KE12.20

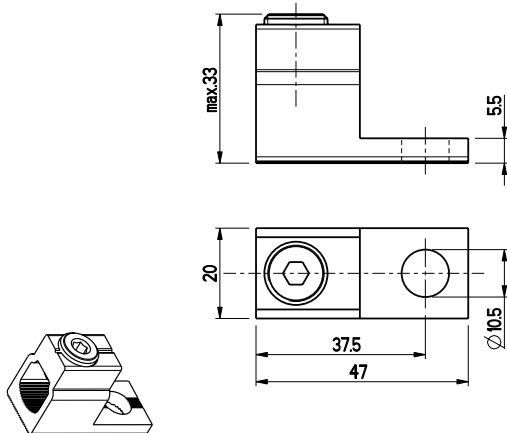


	L
KE12.12	12
KE12.20	20

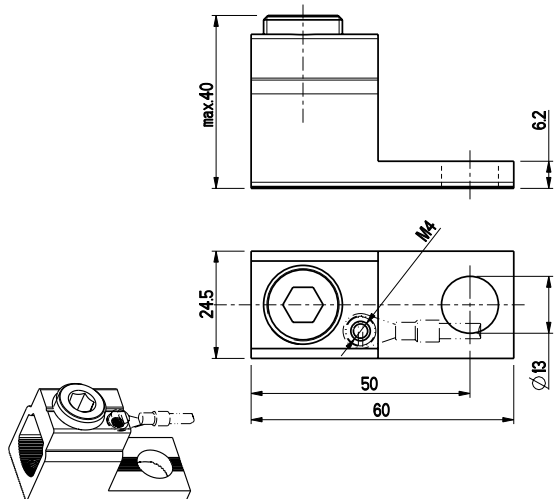
KE12.28



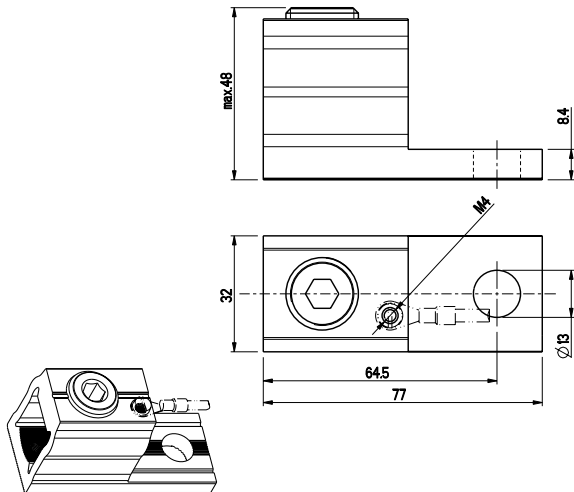
KE52.2



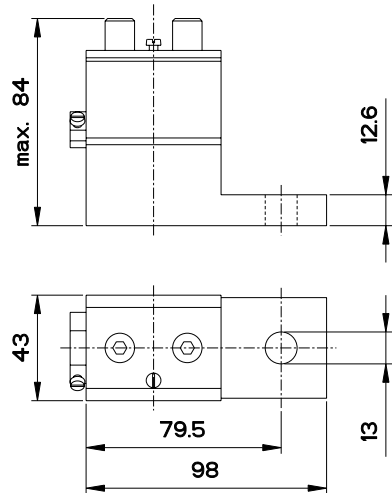
KE53.2



KE54.2



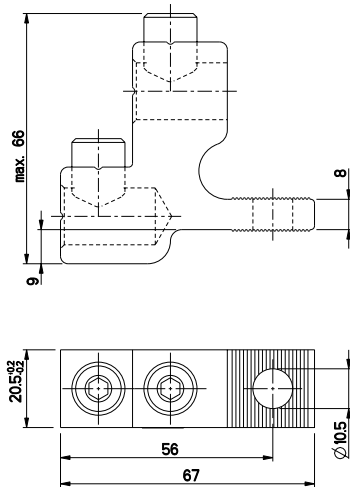
KE55



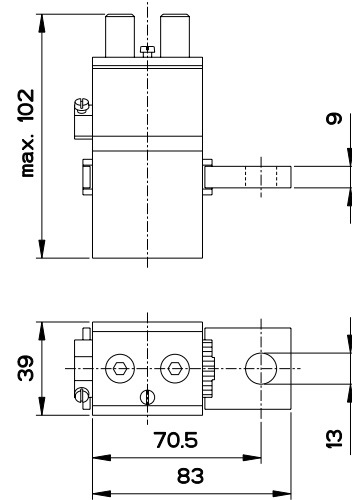
Technical drawings, Ensto Clampo Apparatus

Dimensions in mm

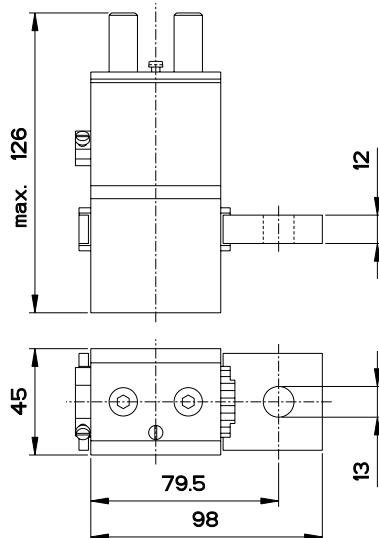
KE56.1



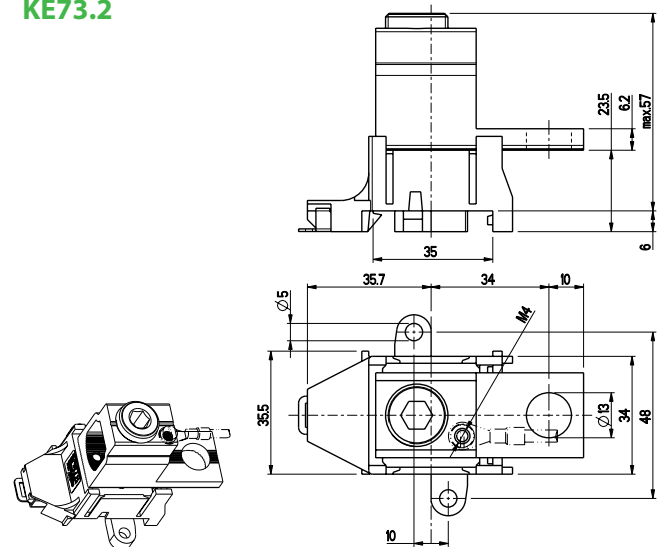
KE57



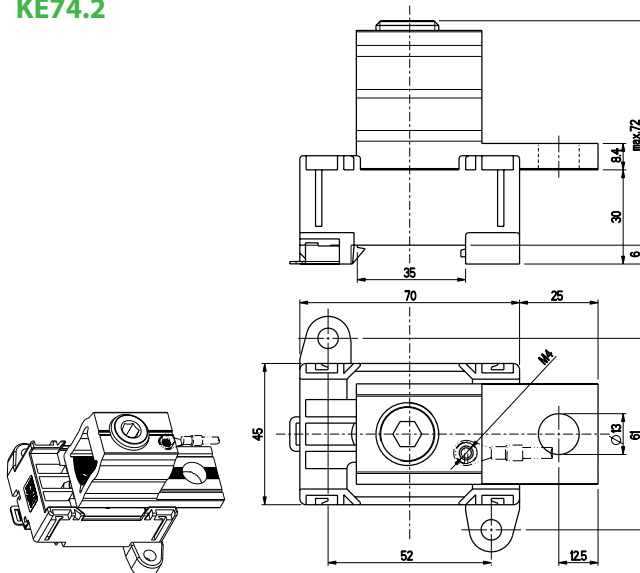
KE58



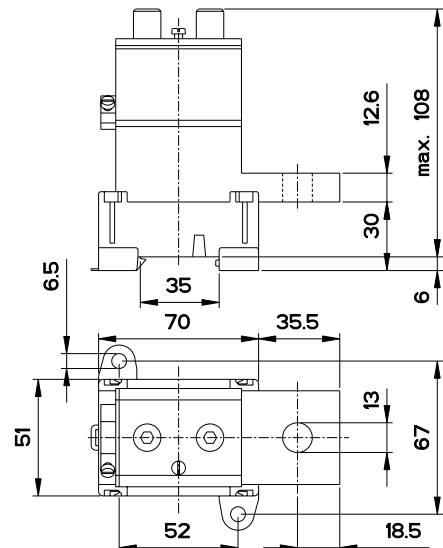
KE73.2



KE74.2

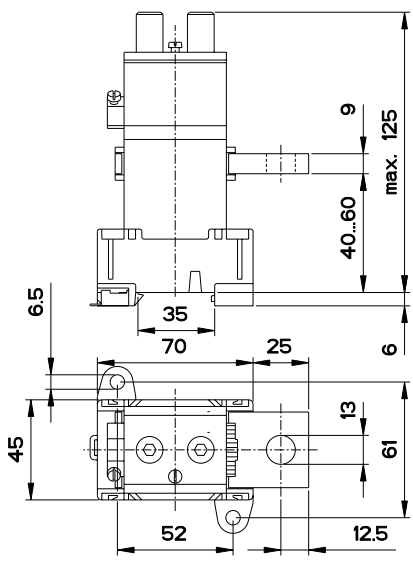
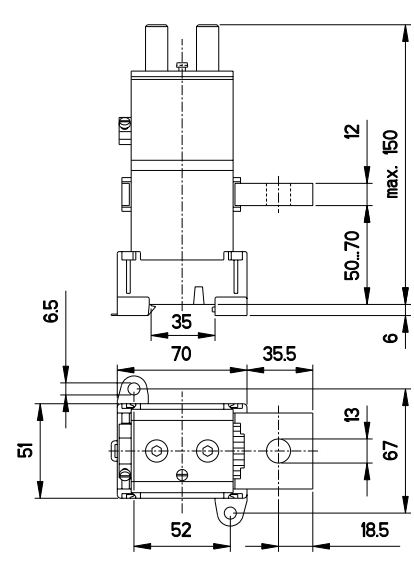
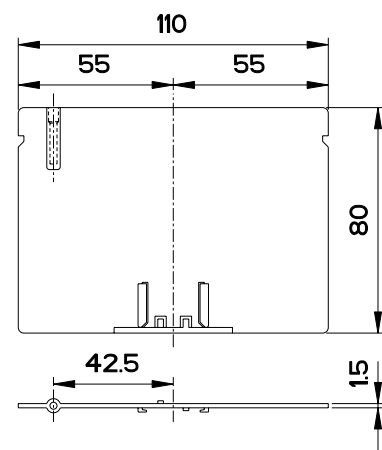
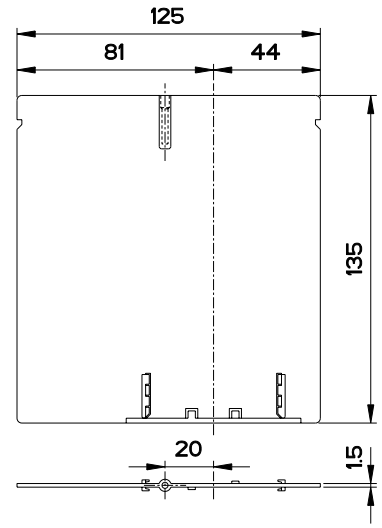
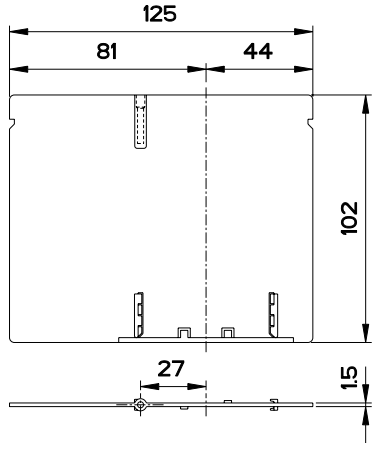


KE75



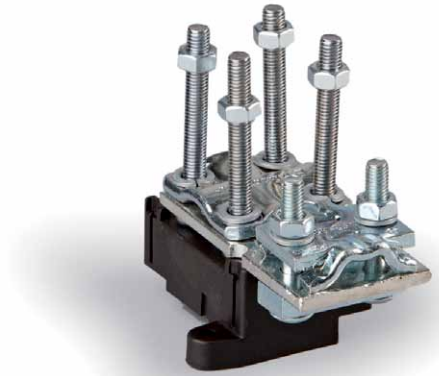
Technical drawings, Ensto Clampo Apparatus

Dimensions in mm

KE77  Technical drawing of the KE77 apparatus. The front view shows a rectangular unit with a width of 125 mm and a height of 150 mm (maximum). The side view shows a depth of 61 mm. Key dimensions include: top width 125 mm, top height 125 mm, side height 61 mm, front width 125 mm, front height 150 mm, and various internal dimensions like 6.5, 35, 70, 25, 6, 13, 52, and 12.5.	KE78  Technical drawing of the KE78 apparatus. The front view shows a rectangular unit with a width of 150 mm (maximum) and a height of 150 mm (maximum). The side view shows a depth of 67 mm. Key dimensions include: top width 150 mm (max), top height 150 mm (max), side height 67 mm, front width 150 mm (max), front height 150 mm (max), and various internal dimensions like 6.5, 35, 70, 35.5, 6, 13, 52, and 18.5.
PMR1420  Technical drawing of the PMR1420 apparatus. The front view shows a rectangular unit with a width of 110 mm and a height of 80 mm. The side view shows a depth of 15 mm. Key dimensions include: top width 110 mm, top height 80 mm, side height 15 mm, front width 110 mm, front height 80 mm, and various internal dimensions like 55, 55, 42.5, and 15.	PMR1421  Technical drawing of the PMR1421 apparatus. The front view shows a rectangular unit with a width of 125 mm and a height of 135 mm. The side view shows a depth of 1.5 mm. Key dimensions include: top width 125 mm, top height 135 mm, side height 1.5 mm, front width 125 mm, front height 135 mm, and various internal dimensions like 81, 44, 20, and 1.5.
PMR1422  Technical drawing of the PMR1422 apparatus. The front view shows a rectangular unit with a width of 125 mm and a height of 102 mm. The side view shows a depth of 1.5 mm. Key dimensions include: top width 125 mm, top height 102 mm, side height 1.5 mm, front width 125 mm, front height 102 mm, and various internal dimensions like 81, 44, 27, and 1.5.	This box is intentionally left empty.

Ensto Clampo Tap tapping blocks

For Cu conductors from 10 mm² to 240 mm²



Ensto Clampo Tap tapping blocks in brief:

- Cable blocks for branching and connecting Cu conductors (10 – 240 mm²)
- Used in low-voltage switchgear and control gear assemblies and equipment
- Can be mounted onto a DIN rail or attached with screws directly to the surface
- Reliable and simple construction
- With intermediate plates, a creepage distance required by technical standards is achieved, when several terminals are combined to create more extensive units
- Nominal voltage 750 V, tested for 1,000 V circuits

Standards

PRODUCT CODE	STANDARD
KE80	EN 60947-7-1
KE80.15	EN 60947-7-1
KE81	EN 60947-7-1
KE82	EN 60947-7-1
KE82.15	EN 60947-7-1

Conformity



Technical information

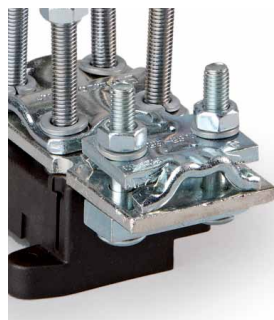
Cross-section range:	Cu 10 - 240 mm ²
Nominal current range:	270 - 560 A
Nominal insulation voltage:	750 V

Material

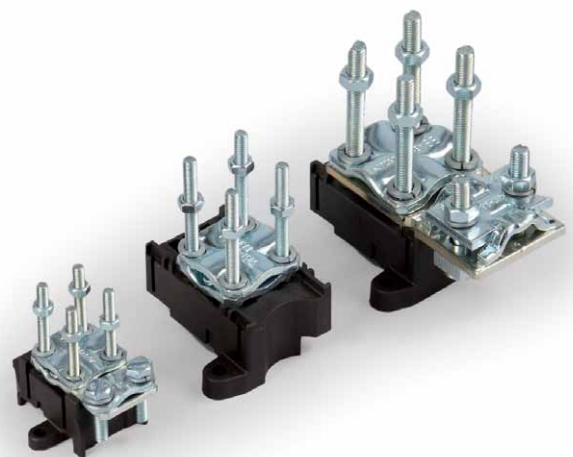
Body:	Zink-coated steel or tin-coated copper alloy
Base:	Polyamide

Mechanical features

Screw head:	Nut
Mounting:	Screws or DIN rail



The 2-screw saddle terminal in KE82.15 has to be turned around (as shown in the picture on the left) to fit conductors of 16 - 70 mm². Position as shown in the picture on the right fits 95 - 185 mm² conductors.



Ensto Clampo Tap tapping blocks are for branching and connecting Cu conductors.

Product cards with technical drawings can be found at www.ensto.com.

Ensto Clampo Tap tapping blocks

Ensto Clampo Tap, tapping blocks, 750 V

PRODUCT CODE	CONDUCTOR CROSS-SECTION (MM²)	NOMINAL CURRENT (A)	NOMINAL INSULATION VOLTAGE (V)	SCREW HEAD	SCREW HEAD SIZE / KEY (MM)	TIGHTENING TORQUE (Nm)	MOUNTING	WEIGHT (KG)	PACKAGE SIZE (PCS)	EAN 13 CODE
KE80	Cu 10-70 mm²	270 A	750 V	Nut	8 mm	2 Nm	DIN rail/screw	0.088	25	6418677162220
KE80.15	Cu 10-70 mm² + 2,5-70 mm²	270 A	750 V	Nut	8 mm	2 Nm + 3 Nm	DIN rail/screw	0.127	25	6418677162237
KE81	Cu 10-150 mm²	490 A	750 V	Nut	10 mm	9 Nm	DIN rail/screw	0.188	20	6418677162244
KE82	Cu 35-240 mm²	560 A	750 V	Nut	13 mm	6 Nm	DIN rail/screw	0.348	10	6418677162251
KE82.15	Cu 35-240 mm² + 16-185 mm²	560 A / 353 A	750 V	Nut	13 mm	6 Nm	DIN rail/screw	0.609	10	6418677162268

Operating temperature: max. 80 °C
Pollution degree: 3

The nominal currents in the table are for maximum cross-sections.



Accessories

PRODUCT CODE	DESCRIPTION	WEIGHT (KG)	PACKAGE SIZE (PCS)	EAN 13 CODE
Intermediate plates				
PMR1420	For KE80	0.016	25	6418677162299
PMR1421	For KE81 and KE82	0.024	25	6418677162305
Fastening screws				
PLP98	For KE80	0.001	50	6418677162275
PLP99	For KE81 and KE82	0.004	50	6418677162282



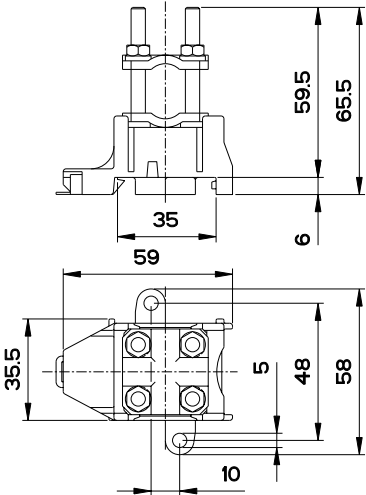
Intermediatel plate, PMR1421.

Fastening screws. PLP98.

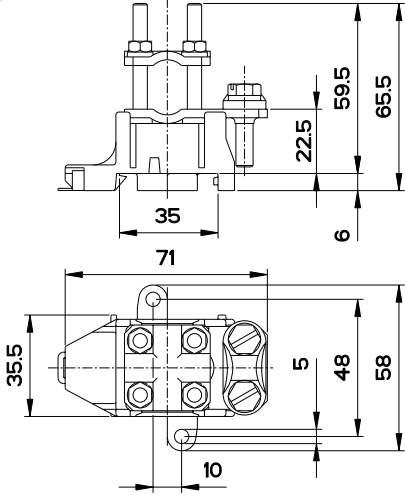
Technical drawings, Ensto Clampo Tap tapping blocks

Dimensions in mm

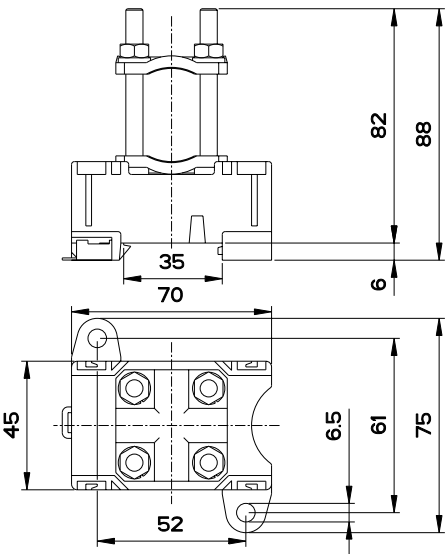
KE80



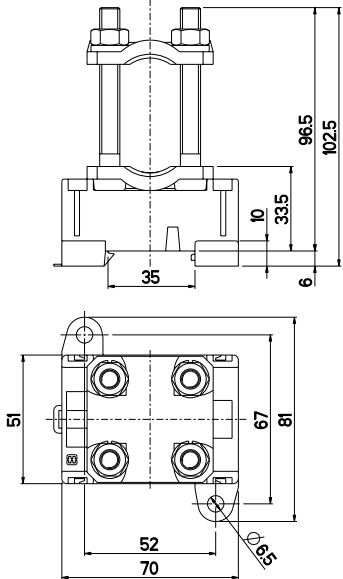
KE80.15



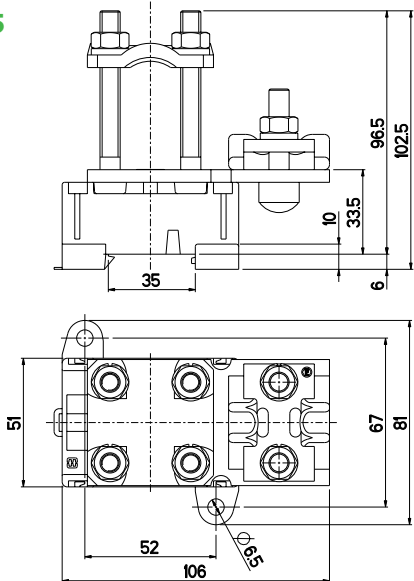
KE81



KE82



KE82.15



This box is intentionally left empty.

Ensto Clampo Tap terminal plates

For Cu conductors from 1.5 mm² to 25 mm²



Ensto Clampo Tap terminal plates in brief:

- 1-pole, 4-pole and 5-pole terminal plates for 1.5 – 25 mm² Cu conductors
- Have an extensive selection of accessories including e.g. shrouds
- Can be mounted onto a DIN rail with a fixing device

Standards

PRODUCT CODE	STANDARD
4-pole terminal plates	
KF11	EN 60947-7-1
KF9	EN 60947-7-1
KF10	EN 60947-7-1
KF10.1	EN 60947-7-1
KF10.3	EN 60947-7-1
5-pole terminal plates	
KF13	EN 60947-7-1
KF14	EN 60947-7-1
KF14.1	EN 60947-7-1
KF14.3	EN 60947-7-1
1-pole connecting terminals	
KF5.06	EN 60947-7-1
KF5.10	EN 60947-7-1
KF5.16	EN 60947-7-1

Conformity	
   	
Technical information	
Cross-section range:	Cu 1.5 - 25 mm ²
Nominal current range:	33 - 107 A
Nominal insulation voltage:	500 V
Material	
Body:	Ni-coated brass
Base:	Thermoset
Mechanical features	
Screw head:	Slothead or nut
Mounting:	Screws or DIN rail with a fixing device (1-pole terminals screw only)



Ensto Clampo Tap 1-pole, 4-pole and 5-pole terminal plates for 1.5 – 25 mm² Cu conductors.

Product cards with technical drawings can be found at www.ensto.com.

Ensto Clampo Tap terminal plates

Ensto Clampo Tap, terminal plates

PRODUCT CODE	CONDUCTOR CROSS SECTION (MM ²)	NOMINAL CURRENT (A)	NOMINAL INSULATION VOLTAGE (V)	SCREW HEAD	SCREW HEAD SIZE / KEY (MM)	TIGHTENING TORQUE (Nm)	MOUNTING	WEIGHT (KG)	PACKAGE SIZE (PCS)	EAN 13 CODE
4-pole terminal plates										
KF11	6 mm ²	62 A	500 V	Slothead		3,5 Nm	Screw / DIN rail*	0.065	100	6418677162411
KF9	10 mm ²	62 A	500 V	Slothead		4 Nm	Screw / DIN rail*	0.100	50	6418677162428
KF10	16 mm ²	82 A	500 V	Slothead		5 Nm	Screw / DIN rail*	0.174	50	6418677162442
KF10.1	16 mm ²	82 A	500 V	Nut	17 mm	5 Nm	Screw / DIN rail*	0.115	50	6418677162459
KF10.3	25 mm ²	107 A	500 V	Nut	17 mm	5 Nm	Screw / DIN rail*	0.143	50	6418677162473
5-pole terminal plates										
KF13	10 mm ²	62 A	500 V	Slothead		4 Nm	Screw / DIN rail*	0.149	50	6418677162435
KF14	16 mm ²	82 A	500 V	Slothead		5 Nm	Screw / DIN rail*	0.214	50	6418677162480
KF14.1	16 mm ²	82 A	500 V	Nut	17 mm	5 Nm	Screw / DIN rail*	0.160	50	6418677162497
KF14.3	25 mm ²	107 A	500 V	Nut	17 mm	5 Nm	Screw / DIN rail*	0.187	50	6418677162503
1-pole connecting terminals										
KF5.06	6 mm ²	33 A	500 V	Slothead		3,5 Nm	Screw	0.019	500	6418677162664
KF5.10	10 mm ²	62 A	500 V	Slothead		4 Nm	Screw	0.029	250	6418677162671
KF5.16	16 mm ²	82 A	500 V	Slothead		5 Nm	Screw	0.046	200	6418677162688

Operating temperature: max. 80 °C
Pollution degree: 3

* DIN rail with a fixing device PMR130

The nominal currents in the table are for maximum cross-sections.



Accessories

PRODUCT CODE	DESCRIPTION	WEIGHT (KG)	PACKAGE SIZE (PCS)	EAN 13 CODE
PMR130	Rail fixing device for base of thermoset	0.002	100	6418677162510
PMR586	Protective cover for KF9, KF10 and KF14	0.031	10	6418677162527
PMR587	Base for cover PMR586	0.008	10	6418677162534
PMR723	White protective cover for 10-16 mm ² mantle screw	0.002	100	6418677162541
PMR723.2	Blue protective cover for 10-16 mm ² mantle screw	0.002	100	6418677162558
PPK223	Wire protector for 10 mm ² mantle screw	0.001	100	6418677162565
PPK222	Wire protector for 16 mm ² mantle screw	0.001	100	6418677162572



Rail fixing device, PMR130.



Protective cover, PMR586.

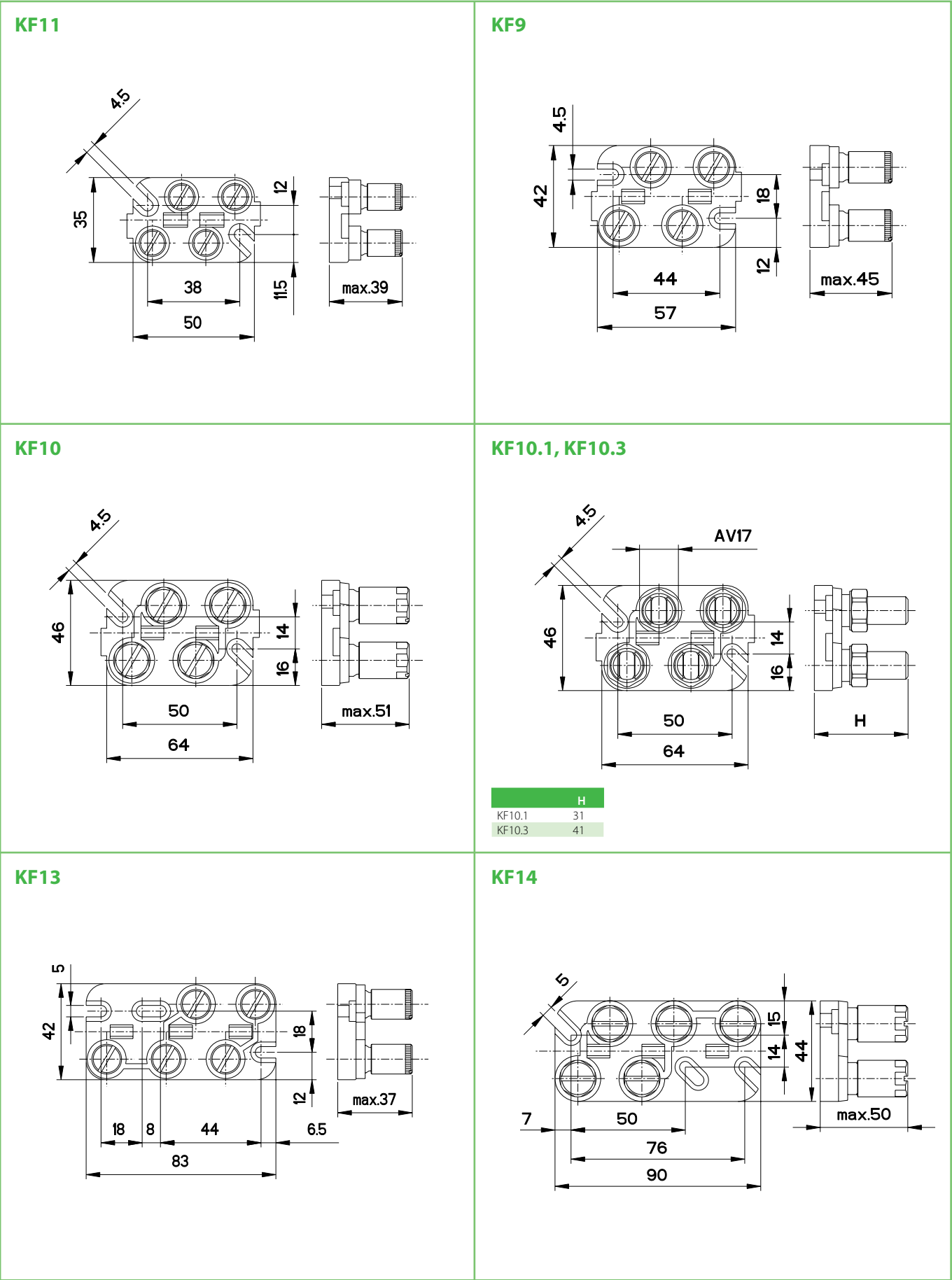
Base for cover PMR586, PMR587.

Blue protective cover, PMR723.2.

Wire protector for mantle screw, PPK223.

Technical drawings, Ensto Clampo Tap terminal plates

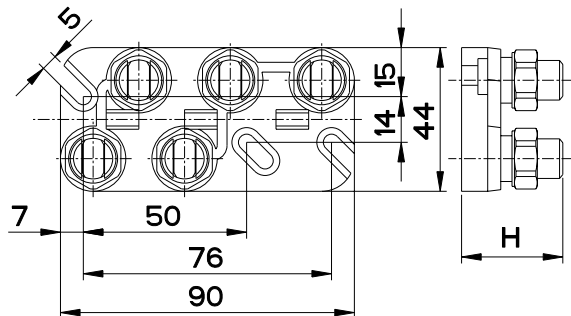
Dimensions in mm



Technical drawings, Ensto Clampo Tap terminal plates

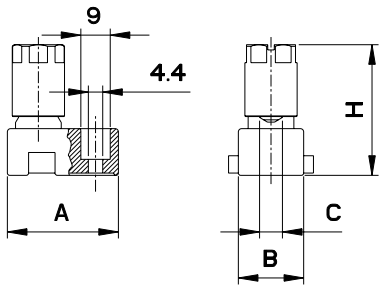
Dimensions in mm

KF14.1, KF14.3



	H
KF14.1	31
KF14.3	41

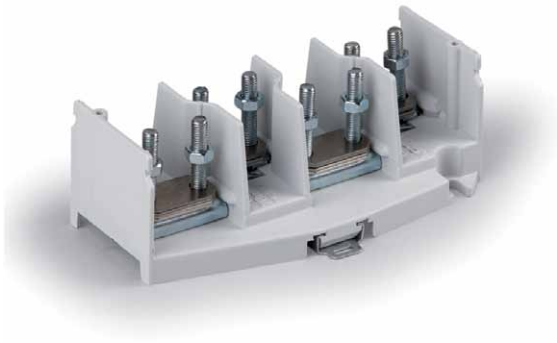
KF5.06, KF5.10, KF5.16



	A	B	C	H
KF5.06	29	15	5	33
KF5.10	31	17	6	36
KF5.16	32	20	7	29

Ensto Clampo Tap tapping terminals

For Cu conductors from 1.5 mm² to 70 mm²



Ensto Clampo Tap tapping terminals in brief:

Tapping terminals, 750 V

- 1-pole and 4-pole terminal plates for 1.5 – 70 mm² Cu conductors
- Particularly suitable for use with higher voltages or when improved shrouding is required
- Have insulating partitions
- Can be mounted onto a DIN rail

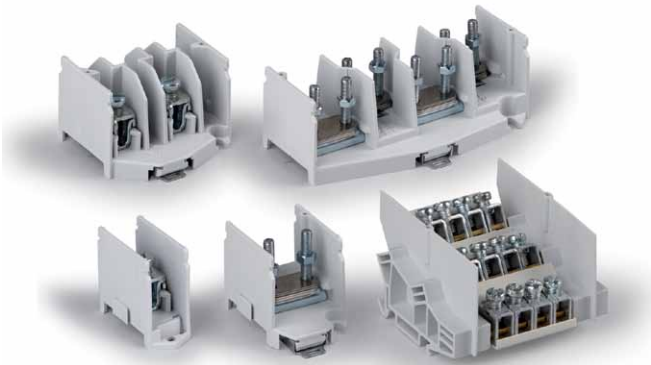
Tapping terminal, 400 V

- For 4 x (1.5 – 16 mm²) Cu conductors
- For a three-phase system with one incoming and three outgoing conductors per phase
- Has a compact structure, and is suitable for e.g. panels

Standards

PRODUCT CODE	STANDARD
Tapping terminals, 750V	
KF7.10	EN 60947-7-1
KF8.10	EN 60947-7-1
KF7.70	EN 60947-7-1
KF8.70	EN 60947-7-1
Tapping terminal, 400V	
KF17	EN 60947-7-1

Conformity	
CE RoHS FI PCB MDA	
Technical information	
Cross-section range:	Al/Cu 1.5 - 70 mm ²
Nominal current range:	62 - 200 A
Nominal insulation voltage:	400 V and 750 V
Material	
Housing:	Polyamide
Body and screws:	Steel (KF17 brass busbar)
Mechanical features	
Screw head:	Slothead or nut (KF17 +/- screw)
Mounting:	Screws or DIN rail (KF17 DIN rail only)



Ensto Clampo Tap tapping terminals are 1-, 3- and 4-pole terminal plates for Cu conductors.

Product cards with technical drawings can be found at www.ensto.com.

Ensto Clampo Tap tapping terminals

Ensto Clampo Tap, tapping terminals, 750 V

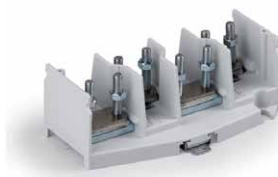
PRODUCT CODE	CONDUCTOR CROSS-SECTION (MM ²)	NOMINAL CURRENT (A)	NOMINAL INSULATION VOLTAGE (V)	SCREW HEAD	SCREW HEAD SIZE / KEY (MM)	TIGHTENING TORQUE (Nm)	MOUNTING	WEIGHT (KG)	PACKAGE SIZE (PCS)	EAN 13 CODE
4-pole terminal plates										
KF7.10	16 mm ²	62 A	750V	Slothead		2.5 Nm	DIN rail/screw	0.110	25	6418677162589
KF7.70	70 mm ²	192 A	750V	Nut	8 mm	4 Nm	DIN rail/screw	0.160	25	6418677162602
1-pole terminal plates										
KF8.10	16 mm ²	62 A	750V	Slothead		2.5 Nm	DIN rail/screw	0.030	25	6418677162596
KF8.70	70 mm ²	192 A	750V	Nut	8 mm	4 Nm	DIN rail/screw	0.050	20	6418677162619

Operating temperature: max. 80 °C
Pollution degree: 3

The nominal currents in the table are for maximum cross-sections.



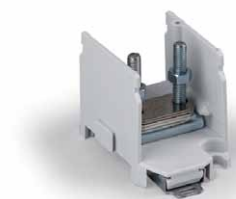
KF7.10



KF7.70



KF8.10



KF8.70

Protective covers

PRODUCT CODE	DESCRIPTION	LENGTH	WEIGHT (KG)	PACKAGE SIZE (PCS)	EAN 13 CODE
RDP6	For KF7 and KF8	2 m	0.247	10	6418677162626
KNL6.122	For KF7.70	122 mm	0.017	30	6418677170416
KNL6.161	For KF7.70 and KF8.70	161 mm	0.021	30	6418677170423



Protective cover, RDP6.



Protective cover, KNL6.122.

Ensto Clampo Tap, tapping terminal, 400 V

PRODUCT CODE	CONDUCTOR CROSS-SECTION (MM ²)	NOMINAL CURRENT (A)	NOMINAL INSULATION VOLTAGE (V)	SCREW HEAD	TIGHTENING TORQUE (Nm)	MOUNTING	WEIGHT (KG)	PACKAGE SIZE (PCS)	EAN 13 CODE
KF17	16 mm ²	100 A	400V	+/-	2.5 Nm	DIN rail	0.133	25	6418677170409

Operating temperature: max. 80 °C
Pollution degree: 3

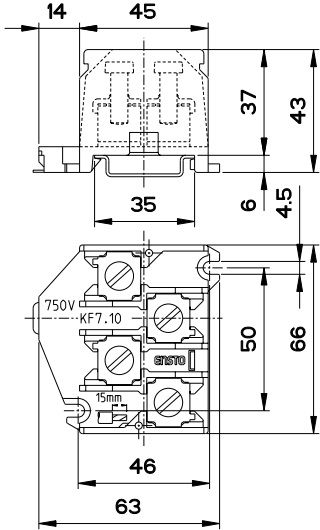
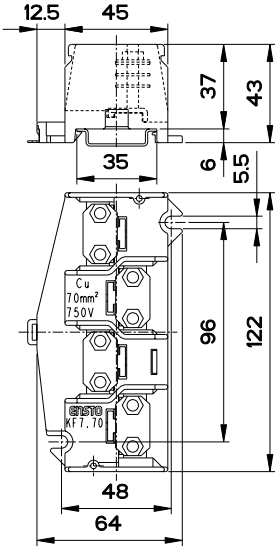
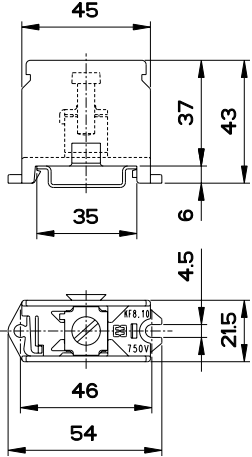
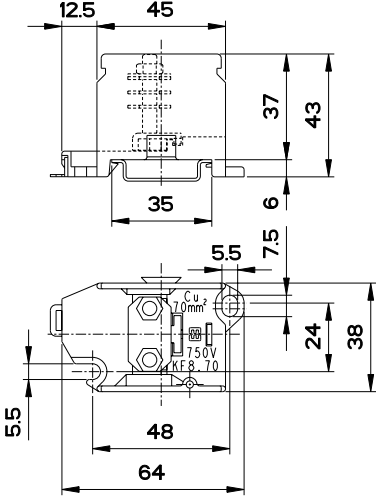
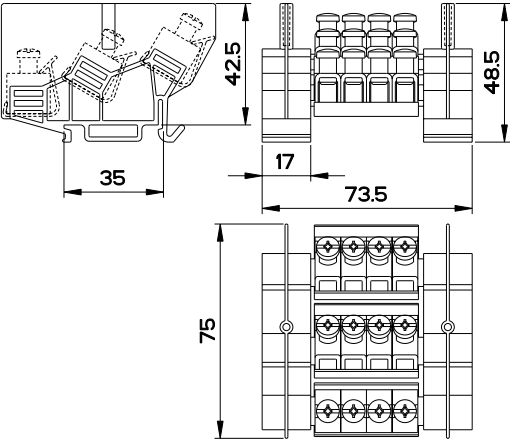
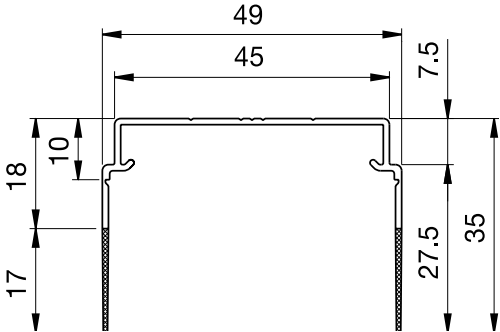
The nominal currents in the table are for maximum cross-sections.



KF17

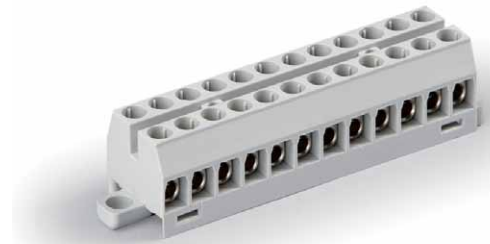
Technical drawings, Ensto Clampo Tap tapping terminals

Dimensions in mm

KF7.10 	KF7.70 
KF8.10 	KF8.70 
KF17 	RDP6 

Ensto Clampo Compact terminal blocks

For Cu conductors from 1.5 mm² to 35 mm²



Ensto Clampo Compact terminal blocks in brief:

- For 1.5 – 16 mm² Cu conductors
- Used in controlling, instrumentation and automation applications
- Cost-effective solution
- Compact in size: ideal for installations with limited space available
- Include wire protection to prevent damage to fine wire strands, while also preventing wires from entering too deeply into the terminal
- Body of polyamide, heat resistance 105 °C
- Installation onto a DIN rail or directly onto surface
- Easy to mark, either by using marking tapes or printing directly onto the terminal body

KE33

- Series is completed with KE33 terminal for 35 mm² Cu conductors
- Used in controlling, instrumentation and automation applications

Standards

PRODUCT CODE	STANDARD
Terminal blocks	
KR5031	EN 60947-7-1, UL 1059, CSA C22.2 No. 158-1987
KR5131	EN 60947-7-1, UL 1059, CSA C22.2 No. 158-1987
KR8031	EN 60947-7-1, UL 1059, CSA C22.2 No. 158-1987
KR8041	EN 60947-7-1, UL 1059, CSA C22.2 No. 158-1987
KR8121	EN 60947-7-1, UL 1059, CSA C22.2 No. 158-1987
KR10021	EN 60947-7-1, EN 60998-2-1, UL 1059, CSA C22.2 No. 158-1987
KR10031	EN 60947-7-1, EN 60998-2-1, UL 1059, CSA C22.2 No. 158-1987
Terminal blocks KE33	
KE33, KE33.20	EN 60947-7-1, UL 1059
KE33.30	EN 60947-7-2, UL 1059

Conformity

Terminal blocks



KE33



Technical information

Cross-section range: Cu 1.5 mm² to 35 mm²

Nominal current range: 17.5 - 135 A

Nominal insulation voltage: 450 - 750 V

Material

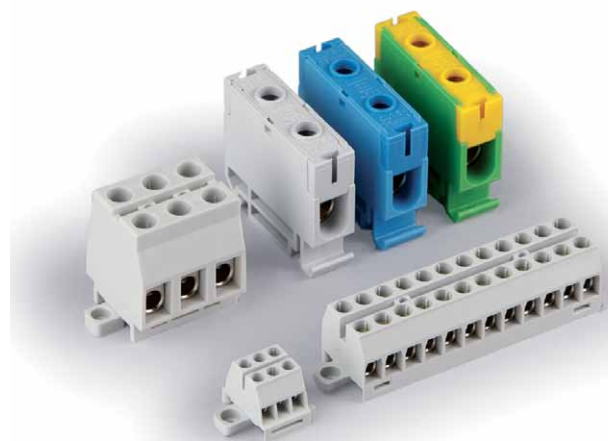
Housing: Polyamide

Body: Ni-coated brass

Mechanical features

Screw head: Slothead

Mounting: Screws or DIN rail



Ensto Clampo Compact terminal blocks are a cost-effective and excellent solution for installations in which traditional versions require additional space.

Product cards with technical drawings can be found at www.ensto.com.

Ensto Clampo Compact terminal blocks

Ensto Clampo Compact, terminal blocks

PRODUCT CODE	CONDUCTOR CROSS-SECTION (MM²)	NUMBER OF POLES	NOMINAL CURRENT (A)	NOMINAL INSULATION VOLTAGE (V)	SCREW HEAD SLOTHHEAD	TIGHTENING TORQUE (Nm)	MOUNTING	WEIGHT (KG)	PACKAGE SIZE (PCS)	EAN 13 CODE
KR5031	1.5 mm²	3	17,5 A	750 V (pollution degree 2)*	M2.6	0.4 Nm	DIN rail/screw	0.007	200	6418677111402
KR5131	1.5 mm²	12	17,5 A	750 V (pollution degree 2)*	M2.6	0.4 Nm	DIN rail/screw	0.026	50	6418677111426
KR8031	6 mm²	3	41 A	750 V (pollution degree 2)*	M3.5	0.8 Nm	DIN rail/screw	0.015	200	6418677111778
KR8041	6 mm²	4	41 A	750 V (pollution degree 2)*	M3.5	0.8 Nm	DIN rail/screw	0.021	200	6418677111792
KR8121	6 mm²	12	41 A	750 V (pollution degree 2)*	M3.5	0.8 Nm	DIN rail/screw	0.060	100	6418677111822
KR10021	16 mm²	2	82 A	750 V (pollution degree 2)**	M6	2.5 Nm	DIN rail/screw	0.044	100	6418677111334
KR10031	16 mm²	3	82 A	750 V (pollution degree 2)**	M6	2.5 Nm	DIN rail/screw	0.065	100	6418677111358

Operating temperature: max. 105 °C

* Pollution degree 3: nominal insulation voltage 450 V

** Pollution degree 3: nominal insulation voltage 500 V

The nominal currents in the table are for maximum cross-sections.



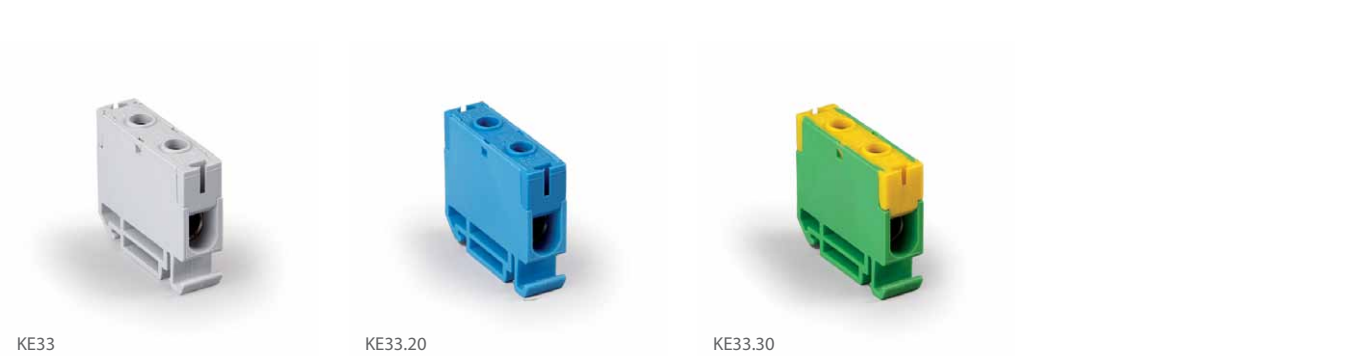
Ensto Clampo Compact, terminal blocks KE33

PRODUCT CODE	CONDUCTOR CROSS-SECTION (MM²)	COLOUR	NOMINAL CURRENT (A)	NOMINAL INSULATION VOLTAGE (V)	SCREW HEAD SLOTHHEAD	TIGHTENING TORQUE (NM)	MOUNTING	WEIGHT (KG)	PACKAGE SIZE (PCS)	EAN 13 CODE
KE33	35 mm²	Grey	135 A	750 V	6 mm slot	3.5 Nm	DIN rail	0.043	100	6418677161704
KE33.20	35 mm²	Blue	135 A	750 V	6 mm slot	3.5 Nm	DIN rail	0.043	100	6418677161735
KE33.30	35 mm²	Yellow/Green			6 mm slot	3.5 Nm	DIN rail	0.043	100	6418677161759

Operating temperature: max. 80 °C

Pollution degree: 3

The nominal currents in the table are for maximum cross-sections.



Ensto Clampo Compact terminal blocks

UL-recognitions

PRODUCT CODE	NUMBER OF POLES	WIRE TYPE	AWG* 1 WIRE/TERMINAL	NOMINAL INSULATION VOLTAGE (V)	NOMINAL CURRENT (A)	NOMINAL TIGHTENING TORQUE (NM)	SCREWDRIVER TERMINAL SCREW	DIMENSIONS (W X H X D)
KR5031	3	Cu	14 - 22	150	10	0.5 (4.4 Lb-In)	Max. 3.5 mm slot	26 x 22 x 18 mm (1.0 x 0.9 x 0.7 In)
KR5131	12	Cu	14 - 22	150	10	0.5 (4.4 Lb-In)	Max. 3.5 mm slot	70.5 x 22 x 18 mm (2.8 x 0.9 x 0.7 In)
KR8031	3	Cu	8 - 18	150	50	0.8 (7 Lb-In)	Max. 5 mm slot	31 x 22 x 22 mm (1.2 x 0.9 x 0.9 In)
KR8041	4	Cu	8 - 18	150	50	0.8 (7 Lb-In)	Max. 5 mm slot	38 x 22 x 22 mm (1.5 x 0.9 x 0.9 In)
KR8121	12	Cu	8 - 18	150	50	0.8 (7 Lb-In)	Max. 5 mm slot	90.5 x 22 x 22 mm (3.6 x 0.9 x 0.9 In)
KR10021	2	Cu	6 - 18	300	65	2.25 (20 Lb-In)	Max. 6.5 mm slot	33.5 x 31 x 40 mm (1.3 x 1.2 x 1.6 In)
KR10031	3	Cu	6 - 18	300	65	2.25 (20 Lb-In)	Max. 6.5 mm slot	45 x 31 x 40 mm (1.8 x 1.2 x 1.6 In)
KE33	1	Cu	2 - 16	600	115	4.5 (40.5 Lb-In)	Max. 6.5 mm slot	14 x 50 x 44 mm (0.6 x 2.0 x 1.7 In)

Standard UL1059, UL category XCFR2, File Nro E192532.

* AWG = American Wire Gauge

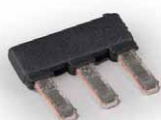
Insulating material polyamide, flammability rating V-2 (UL94).

Accessories

PRODUCT CODE	DESCRIPTION	WEIGHT (KG)	PACKAGE SIZE (PCS)	EAN 13 CODE
KRL1505.02	Cross connector, 2-pole, 1.5 mm ²	0.001	100	6418677111860
KRL6067.02	Cross connector, 2-pole, 6 mm ²	0.001	100	6418677112003
KRL6067.03	Cross connector, 3-pole, 6 mm ²	0.002	100	6418677112010
KRL6067.04	Cross connector, 4-pole, 6 mm ²	0.002	100	6418677112027
KRL7	Adapter for 35 x 7.5 mm DIN rail mounting, grey	0.001	100	6418677112034
KNL7	Adapter for 35 x 15 mm DIN rail mounting, black	0.001	100	6418677193187
KRL8	End holder, fits both DIN 15 and 35 mm rails	0.003	100	6418677112041
PMR143	End plate for direct mounting	0.001	100	6418677112614
PMR370	Spacer plate, fits both DIN 15 and 35 mm rails	0.002	100	6418677112645
KRL6	Spacer plate for KR8121	0.002	100	6418677111952
PP44	DIN rail, 15 mm, steel, length = 2 m	0.290	10	6418677112720



Cross connector, 2-pole, KRL1505.02.



Cross connector, 3-pole, KRL6067.03.



Cross connector, 4-pole, KRL6067.04.



Adapter for 35 x 7.5 mm DIN rail mounting, KRL7.



End holder, fits both DIN 15 and 35 mm rails, KRL8.



End plate for direct mounting, PMR143.



Spacer plate, fits both DIN 15 and 35 mm rails, PMR370.



Spacer plate for KR8121, KRL6.



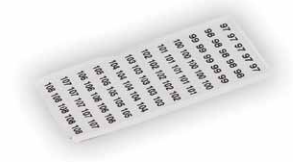
DIN rail, 15 mm, PP44.

Ensto Clampo Compact terminal blocks

Marking labels

One tape consists of 5 stripes.

PRODUCT CODE	DESCRIPTION	WEIGHT (KG)	PACKAGE SIZE (PCS)	EAN 13 CODE
PEM10.2	Unmarked tape	0.001	20	6418677112706
For Cu 1.5 mm² terminal blocks				
PEM80	Tape, marked 1 - 12	0.001	20	6418677112379
PEM81	Tape, marked 13 - 24	0.001	20	6418677112386
PEM82	Tape, marked 25 - 36	0.001	20	6418677112843
PEM83	Tape, marked 37 - 48	0.001	20	6418677112867
PEM84	Tape, marked 49 - 60	0.001	20	6418677112393
PEM85	Tape, marked 61 - 72	0.001	20	6418677112874
PEM86	Tape, marked 73 - 84	0.001	20	6418677112409
PEM87	Tape, marked 85 - 96	0.001	20	6418677112416
PEM88	Tape, marked 97 - 108	0.001	20	6418677112423
PEM89	Tape, marked 1 - 3 (4x)	0.001	20	6418677112430
PEM90	Tape, marked 1 - 4 (3x)	0.001	20	6418677112447
PEM91	Tape, marked L1, L2, L3 (4x)	0.001	20	6418677112454
PEM92	Tape, marked 1 - 60	0.001	20	6418677112461
PEM93	Tape, marked R,S,T,PE,PE,PE,+,+,U,V,W	0.001	20	6418677112478
For Cu 6 mm² terminal blocks				
PEM23	Tape, marked 1 - 12	0.001	20	6418677112072
PEM24	Tape, marked 13 - 24	0.001	20	6418677112089
PEM25	Tape, marked 25 - 36	0.001	20	6418677112096
PEM26	Tape, marked 37 - 48	0.001	20	6418677112102
PEM27	Tape, marked 49 - 60	0.001	20	6418677112119
PEM28	Tape, marked 61 - 72	0.001	20	6418677112126
PEM29	Tape, marked 73 - 84	0.001	20	6418677112133
PEM31	Tape, marked 1 - 3 (4x)	0.001	20	6418677112140
PEM32	Tape, marked 1 - 4 (3x)	0.001	20	6418677112157
PEM33	Tape, marked 85 - 96	0.001	20	6418677112164
PEM34	Tape, marked 97 - 108	0.001	20	6418677112171
PEM35	Tape, marked 101 - 148, R,S,T,O,PE,PE,PE,+,+,U,V,W	0.001	20	6418677112188
PEM36	Tape, marked 149 - 208	0.001	20	6418677112195
PEM37.1	Tape, marked 1-4/1-3/R,S,T,O,PE	0.001	20	6418677167898
PEM37.2	Tape, marked 1-4/1-3/U,V,W,+,+	0.001	20	6418677167904
PEM38	Tape, marked R,S,T,PE,PE,PE,+,+,U,V,W	0.001	20	6418677112218
PEM39.1	Tape, marked 109 - 168	0.001	20	6418677167911
PEM39.2	Tape, marked 169 - 228	0.001	20	6418677167928
PEM40.1	Tape, marked 229 - 288	0.001	20	6418677167935
PEM40.2	Tape, marked 289 - 348	0.001	20	6418677167942
PEM42	Tape, marked L1, L2, L3 (4x)	0.001	20	6418677112249
PEM44	Tape, marked 1 - 60	0.001	20	6418677112256
PEM45	Tape, marked PE, N, L1, L2, L3 (2x)	0.001	20	6418677112263
For Cu 16 mm² terminal blocks				
PEM64	Tape, marked 1 - 6	0.001	20	6418677112287
PEM65	Tape, marked 7 - 12	0.001	20	6418677112294
PEM66	Tape, marked 13 - 18	0.001	20	6418677112300
PEM67	Tape, marked 19 - 24	0.001	20	6418677112317
PEM68	Tape, marked L1, L2, L3 (2x)	0.001	20	6418677112324
PEM69	Tape, marked L1, L2, L3, N,PE	0.001	20	6418677112331

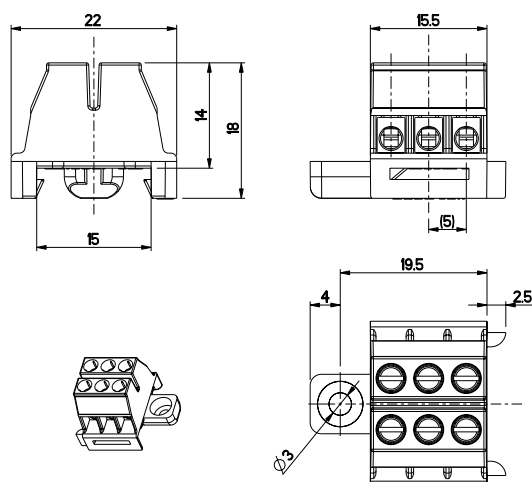


PEM34

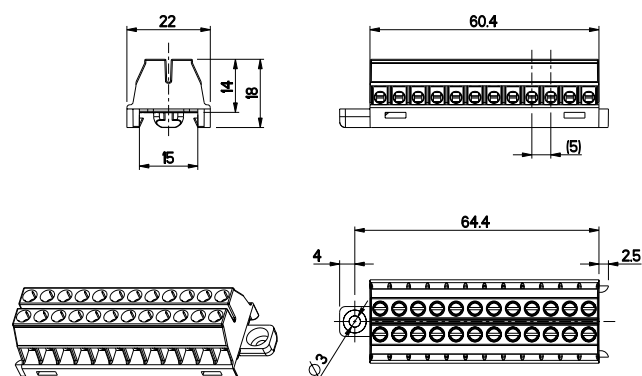
Technical drawings, Ensto Clampo Compact terminal blocks

Dimensions in mm

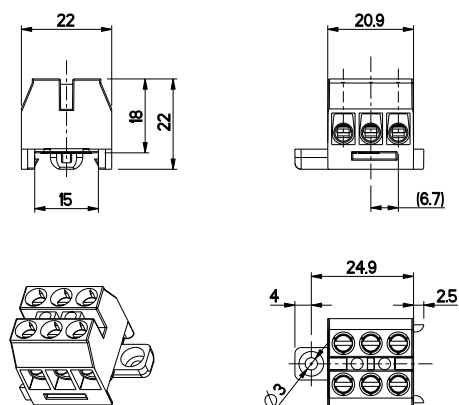
KR5031



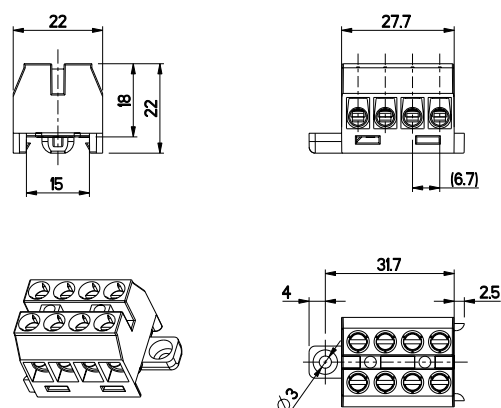
KR5131



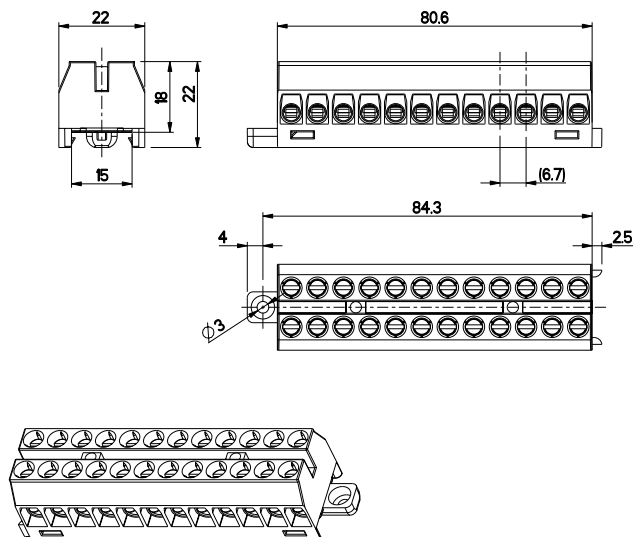
KR8031



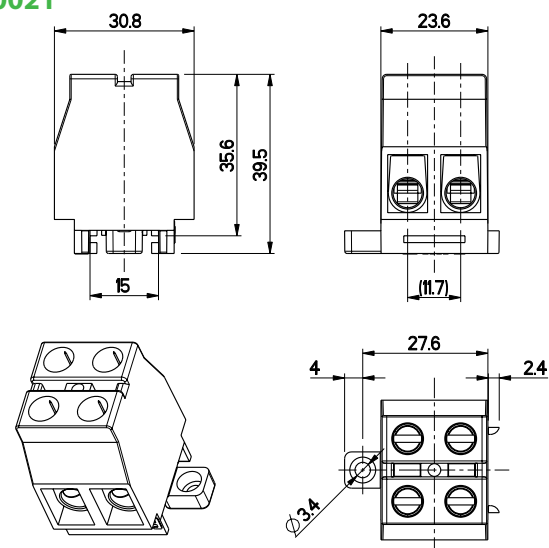
KR8041



KR8121

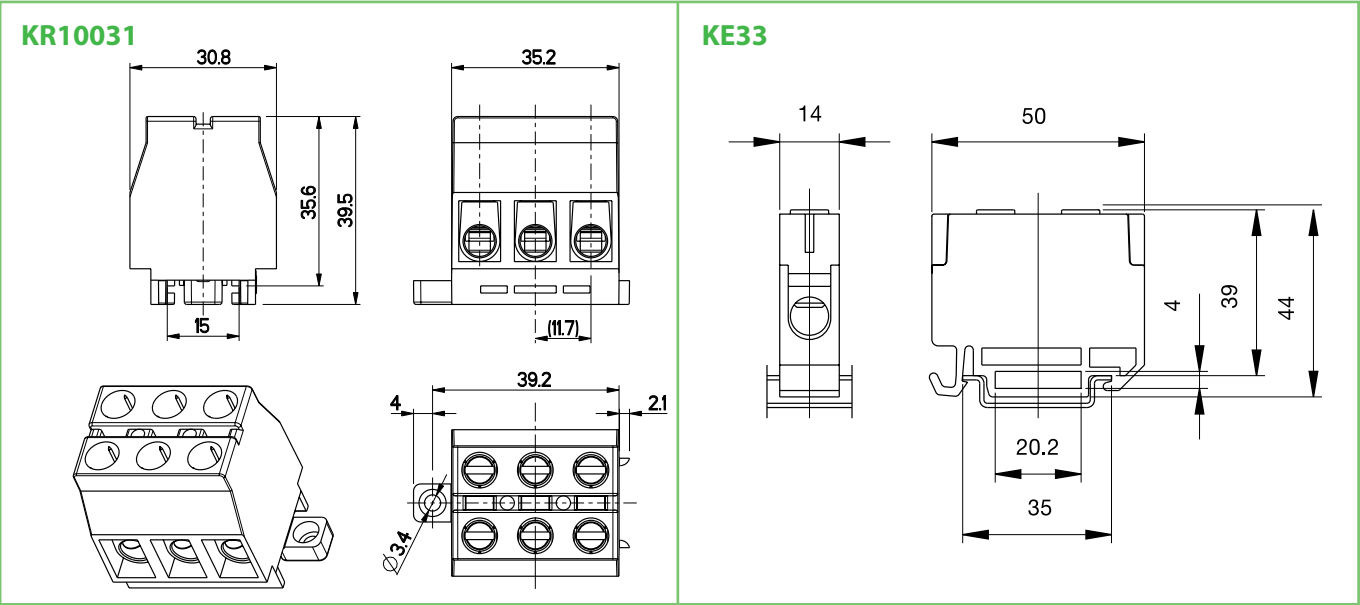


KR10021



Technical drawings, Ensto Clampo Compact terminal blocks

Dimensions in mm



Ensto Clampo Ground N and PE terminals

For Cu conductors from 1.5 mm² to 35 mm²



Ensto Clampo Ground N and PE terminals in brief:

- Used in control and panel building applications
- Versatile installation and mounting alternatives
- Products as complete units in wide selection of sizes and markings
- Separate components of terminals also available for special assemblies
- Models with wire protection available to prevent damage to fine wire strands

Standards

PRODUCT CODE	STANDARD
N busbars	
KNA4.1xx	EN 60947-7-1
KN4.1xx	EN 60947-7-1
KND4.103N	EN 60947-7-1
PE busbars	
KNA4.1xxP	EN 60947-7-2
KND4.103P	EN 60947-7-2
N and PE busbars	
KNA5.xxx	EN 60947-7-1, EN 60947-7-2
KNA4.1xxNP	EN 60947-7-1, EN 60947-7-2
KN4.2xx	EN 60947-7-1, EN 60947-7-2
KND4.103NP	EN 60947-7-1, EN 60947-7-2

Conformity



Technical information

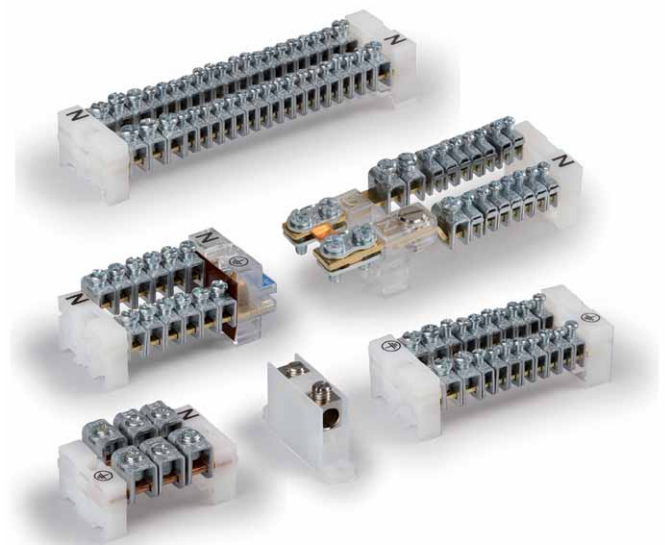
Cross-section range:	Cu 1.5 - 35 mm ²
Nominal current range:	82 - 135 A
Nominal insulation voltage:	500 V

Material

Body:	Polyamide/polycarbonate
Base:	Brass/steel

Mechanical features

Screw head:	+/-
Mounting:	Screws or DIN rail



Ensto Clampo Ground series is an extensive selection of N and PE terminals.

Product cards with technical drawings can be found at www.ensto.com.

Ensto Clampo Ground N and PE terminals

Ensto Clampo Ground, neutral busbars

PRODUCT CODE	CONDUCTOR CROSS-SECTION (MM ²)	NOMINAL CURRENT (A)	NOMINAL INSULATION VOLTAGE (V)	OPERATING TEMPERATURE (°C)	SCREW HEAD	TIGHTENING TORQUE (Nm)	MOUNTING	WEIGHT (KG)	PACKAGE SIZE (PCS)	EAN 13 CODE
N busbars with 16 mm² and 6 mm² pillar terminals										
KNA4.104	Cu 2 x (1 x 16 mm ² + 3 x 6 mm ²)	82 A	500 V	Max. 80 °C	+/-	2 Nm/0.8 Nm	DIN rail/screw	0.063	50	6418677162770
KNA4.106	Cu 2 x (1 x 16 mm ² + 5 x 6 mm ²)	82 A	500 V	Max. 80 °C	+/-	2 Nm/0.8 Nm	DIN rail/screw	0.085	50	6418677162787
KNA4.108	Cu 2 x (1 x 16 mm ² + 7 x 6 mm ²)	82 A	500 V	Max. 80 °C	+/-	2 Nm/0.8 Nm	DIN rail/screw	0.104	25	6418677162794
KNA4.110	Cu 2 x (2 x 16 mm ² + 8 x 6 mm ²)	82 A	500 V	Max. 80 °C	+/-	2 Nm/0.8 Nm	DIN rail/screw	0.130	25	6418677162817
KNA4.112	Cu 2 x (2 x 16 mm ² + 10 x 6 mm ²)	82 A	500 V	Max. 80 °C	+/-	2 Nm/0.8 Nm	DIN rail/screw	0.153	25	6418677162824
KNA4.114	Cu 2 x (3 x 16 mm ² + 11 x 6 mm ²)	82 A	500 V	Max. 80 °C	+/-	2 Nm/0.8 Nm	DIN rail/screw	0.178	25	6418677162831
KNA4.120	Cu 2 x (4 x 16 mm ² + 16 x 6 mm ²)	82 A	500 V	Max. 80 °C	+/-	2 Nm/0.8 Nm	DIN rail/screw	0.243	25	6418677162848
N busbars with 16 mm² pillar terminals										
KN4.102	Cu 2 x (2 x 16 mm ²)	82 A	500 V	Max. 80 °C	+/-	2 Nm/0.8 Nm	DIN rail/screw	0.052	100	6418677152849
KN4.104	Cu 2 x (4 x 16 mm ²)	82 A	500 V	Max. 80 °C	+/-	2 Nm/0.8 Nm	DIN rail/screw	0.088	50	6418677152856
KN4.106	Cu 2 x (6 x 16 mm ²)	82 A	500 V	Max. 80 °C	+/-	2 Nm/0.8 Nm	DIN rail/screw	0.122	50	6418677152863
KN4.108	Cu 2 x (8 x 16 mm ²)	82 A	500 V	Max. 80 °C	+/-	2 Nm/0.8 Nm	DIN rail/screw	0.162	25	6418677152870
KN4.110	Cu 2 x (10 x 16 mm ²)	82 A	500 V	Max. 80 °C	+/-	2 Nm/0.8 Nm	DIN rail/screw	0.198	25	6418677152887
KN4.112	Cu 2 x (12 x 16 mm ²)	82 A	500 V	Max. 80 °C	+/-	2 Nm/0.8 Nm	DIN rail/screw	0.230	25	6418677152894
N busbars with 35 mm² pillar terminals										
KND4.103N	Cu 2 x (3 x 35 mm ²)	135 A	500 V	Max. 80 °C	PH2	4 Nm	DIN rail/screw	0.127	50	6418677162855

Pollution degree: 3

The nominal currents in the table are for maximum cross-sections.



KNA4.110



KN4.106



KND4.103N

Ensto Clampo Ground, PE busbars

PRODUCT CODE	CONDUCTOR CROSS-SECTION (MM ²)	OPERATING TEMPERATURE (°C)	SCREW HEAD	TIGHTENING TORQUE (Nm)	MOUNTING	WEIGHT (KG)	PACKAGE SIZE (PCS)	EAN 13 CODE
PE busbars with 16 mm² and 6 mm² pillar terminals								
KNA4.104P	Cu 2 x (1 x 16 mm ² + 3 x 6 mm ²)	Max. 80 °C	+/-	2 Nm/0.8 Nm	DIN rail/screw	0.063	50	6418677152900
KNA4.106P	Cu 2 x (1 x 16 mm ² + 5 x 6 mm ²)	Max. 80 °C	+/-	2 Nm/0.8 Nm	DIN rail/screw	0.085	50	6418677152917
KNA4.108P	Cu 2 x (1 x 16 mm ² + 7 x 6 mm ²)	Max. 80 °C	+/-	2 Nm/0.8 Nm	DIN rail/screw	0.104	25	6418677152924
KNA4.110P	Cu 2 x (2 x 16 mm ² + 8 x 6 mm ²)	Max. 80 °C	+/-	2 Nm/0.8 Nm	DIN rail/screw	0.130	25	6418677152931
KNA4.112P	Cu 2 x (2 x 16 mm ² + 10 x 6 mm ²)	Max. 80 °C	+/-	2 Nm/0.8 Nm	DIN rail/screw	0.153	25	6418677152948
KNA4.114P	Cu 2 x (3 x 16 mm ² + 11 x 6 mm ²)	Max. 80 °C	+/-	2 Nm/0.8 Nm	DIN rail/screw	0.178	25	6418677152955
KNA4.120P	Cu 2 x (4 x 16 mm ² + 16 x 6 mm ²)	Max. 80 °C	+/-	2 Nm/0.8 Nm	DIN rail/screw	0.243	25	6418677152962
PE busbars with 35 mm² pillar terminals								
KND4.103P	Cu 2 x (3 x 35 mm ²)	Max. 80 °C	PH2	4 Nm	DIN rail/screw	0.127	50	6418677152979

The nominal currents in the table are for maximum cross-sections.



KNA4.110P



KND4.103P

Ensto Clampo Ground N and PE terminals

Ensto Clampo Ground, N and PE busbars

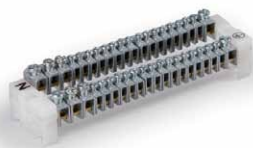
PRODUCT CODE	CONDUCTOR CROSS-SECTION (MM ²)	NOMINAL CURRENT (A)	NOMINAL INSULATION VOLTAGE (V)	OPERATING TEMPERATURE (°C)	SCREW HEAD	TIGHTENING TORQUE (Nm)	MOUNTING	WEIGHT (KG)	PACKAGE SIZE (PCS)	EAN 13 CODE
N and PE busbars with 16 mm² and 6 mm² pillar terminals, 6 mm² pillar terminals with wire protection										
KNA5.108	Cu, N 1 x 16 mm ² + 7 x 6 mm ² , PE 2 x 16 mm ² + 7 x 6 mm ²	82 A	500 V	Max. 80 °C	+/-	2 Nm/0.8 Nm	DIN rail/screw	0.176	25	6418677162954
KNA5.113	Cu, N 1 x 16 mm ² + 12 x 6 mm ² , PE 2 x 16 mm ² + 12 x 6 mm ²	82 A	500 V	Max. 80 °C	+/-	2 Nm/0.8 Nm	DIN rail/screw	0.233	25	6418677162961
KNA5.117	Cu, N 1 x 16 mm ² + 16 x 6 mm ² , PE 2 x 16 mm ² + 16 x 6 mm ²	82 A	500 V	Max. 80 °C	+/-	2 Nm/0.8 Nm	DIN rail/screw	0.276	25	6418677162978
KNA5.120	Cu, N 1 x 16 mm ² + 19 x 6 mm ² , PE 2 x 16 mm ² + 19 x 6 mm ²	82 A	500 V	Max. 80 °C	+/-	2 Nm/0.8 Nm	DIN rail/screw	0.309	25	6418677162985
KNA5.125	Cu, N 2 x 16 mm ² + 23 x 6 mm ² , PE 3 x 16 mm ² + 23 x 6 mm ²	82 A	500 V	Max. 80 °C	+/-	2 Nm/0.8 Nm	DIN rail/screw	0.377	25	6418677162992
KNA5.130	Cu, N 2 x 16 mm ² + 28 x 6 mm ² , PE 3 x 16 mm ² + 28 x 6 mm ²	82 A	500 V	Max. 80 °C	+/-	2 Nm/0.8 Nm	DIN rail/screw	0.438	20	6418677163005
KNA5.134	Cu, N 2 x 16 mm ² + 32 x 6 mm ² , PE 3 x 16 mm ² + 32 x 6 mm ²	82 A	500 V	Max. 80 °C	+/-	2 Nm/0.8 Nm	DIN rail/screw	0.470	20	6418677163012
KNA5.138	Cu, N 2 x 16 mm ² + 36 x 6 mm ² , PE 3 x 16 mm ² + 36 x 6 mm ²	82 A	500 V	Max. 80 °C	+/-	2 Nm/0.8 Nm	DIN rail/screw	0.520	10	6418677163029
N and PE busbars with 16 mm² and 6 mm² pillar terminals										
KNA4.108NP	Cu, N 1 x 16 mm ² + 7 x 6 mm ² , PE 1 x 16 mm ² + 7 x 6 mm ²	82 A	500 V	Max. 80 °C	+/-	2 Nm	DIN rail/screw	0.104	25	6418677153105
KNA4.114NP	Cu, N 3 x 16 mm ² + 11 x 6 mm ² , PE 3 x 16 mm ² + 11 x 6 mm ²	82 A	500 V	Max. 80 °C	+/-	2 Nm	DIN rail/screw	0.178	25	6418677153112
KNA4.120NP	Cu, N 4 x 16 mm ² + 16 x 6 mm ² , PE 4 x 16 mm ² + 16 x 6 mm ²	82 A	500 V	Max. 80 °C	+/-	2 Nm	DIN rail/screw	0.243	25	6418677153129
KNA4.126NP	Cu, N 4 x 16 mm ² + 22 x 6 mm ² , PE 4 x 16 mm ² + 22 x 6 mm ²	82 A	500 V	Max. 80 °C	+/-	2 Nm	DIN rail/screw	0.315	25	6418677153136
KNA4.136NP	Cu, N 4 x 16 mm ² + 32 x 6 mm ² , PE 4 x 16 mm ² + 32 x 6 mm ²	82 A	500 V	Max. 80 °C	+/-	2 Nm	DIN rail/screw	0.415	25	6418677153143
N and PE busbars with 16 mm² pillar terminals										
KN4.204	Cu, N 4 x 16 mm ² , PE 4 x 16 mm ²	76 A	500 V	Max. 80 °C	+/-	2 Nm	DIN rail/screw	0.100	50	6418677162909
KN4.206	Cu, N 6 x 16 mm ² , PE 6 x 16 mm ²	76 A	500 V	Max. 80 °C	+/-	2 Nm	DIN rail/screw	0.146	25	6418677162916
KN4.208	Cu, N 8 x 16 mm ² , PE 8 x 16 mm ²	76 A	500 V	Max. 80 °C	+/-	2 Nm	DIN rail/screw	0.181	25	6418677162923
KN4.210	Cu, N 10 x 16 mm ² , PE 10 x 16 mm ²	76 A	500 V	Max. 80 °C	+/-	2 Nm	DIN rail/screw	0.219	25	6418677162930
KN4.212	Cu, N 12 x 16 mm ² , PE 12 x 16 mm ²	76 A	500 V	Max. 80 °C	+/-	2 Nm	DIN rail/screw	0.254	25	6418677162947
N and PE busbars with 35 mm² pillar terminals										
KND4.103NP	Cu, N 3 x 35 mm ² , PE 3 x 35 mm ²	135 A	500 V	Max. 80 °C	PH2	4 Nm	DIN rail/screw	0.127	50	6418677153150

Pollution degree: 3

The nominal currents in the table are for maximum cross-sections.



KNA5.108



KNA4.120NP



KNA4.206



KND4.103NP

Neutral terminal

For extending a neutral conductor e.g. in distribution boards.

PRODUCT CODE	CONDUCTOR CROSS-SECTION (MM ²)	NOMINAL CURRENT (A)	NOMINAL INSULATION VOLTAGE (V)	OPERATING TEMPERATURE (°C)	SCREW HEAD	TIGHTENING TORQUE (Nm)	MOUNTING	WEIGHT (KG)	PACKAGE SIZE (PCS)	EAN 13 CODE
KJ7	Cu 1.5 - 35 mm ²	135 A	500 V	Max. 80 °C	slot	3.5	Screw	0.037	250	6418677163524

Pollution degree: 3

The nominal currents in the table are for maximum cross-sections.



KJ7

Ensto Clampo Ground N and PE terminals

Neutral terminal, UL-recognitions

PRODUCT CODE	NUMBER OF POLES	WIRE TYPE	AWG* 1 WIRE/TERMINAL	NOMINAL INSULATION VOLTAGE (V)	NOMINAL CURRENT (A)	NOMINAL TIGHTENING TORQUE (Nm)	SCREWDRIVER TERMINAL SCREW	DIMENSIONS (W X H X D)
KJ7**	1	Cu	2 - 16	600 V	115 A	4.5 Nm (40.5 Lb-In)	Slot	15 x 60 x 38 mm (0.6 x 2.4 x 1.5 In)

Standard UL1059, UL category XCFR2, File Nro E192532.

* AWG = American Wire Gauge

** KJ7 is suitable for only 300 V if two or more poles are mounted side by side.

Insulating material polyamide, flammability rating V-2 (UL94).

Ensto Clampo Ground, N and PE busbars in parts

PRODUCT CODE	DESCRIPTION	NOMINAL CURRENT (A)	TIGHTENING TORQUE (Nm)	WEIGHT (KG)	PACKAGE SIZE (PCS)	EAN 13 CODE
N and PE busbars in parts, saddle terminals						
KN2.2	Cu 2 x (1.5-16 mm ²)	82 A	1.2 Nm	0.019	250	6418677163050
KN2.3	Cu 3 x (1.5-16 mm ²)	82 A	1.2 Nm	0.028	250	6418677163067
KN2.4	Cu 4 x (1.5-16 mm ²)	82 A	1.2 Nm	0.035	200	6418677163074
KN2.5	Cu 5 x (1.5-16 mm ²)	82 A	1.2 Nm	0.045	200	6418677163081
KN2.6	Cu 6 x (1.5-16 mm ²)	82 A	1.2 Nm	0.052	200	6418677163098
KN2.7	Cu 7 x (1.5-16 mm ²)	82 A	1.2 Nm	0.061	100	6418677163104
KN2.8	Cu 8 x (1.5-16 mm ²)	82 A	1.2 Nm	0.070	100	6418677163111
PM58	Support for busbar KN2.x			0.003	2000	6418677163128



N and PE busbar in parts with saddle terminals, KN2.2.



Support for busbar KN2.x, PM58.

Terminal saddles

PRODUCT CODE	DESCRIPTION	NOMINAL CURRENT (A)	WEIGHT (KG)	PACKAGE SIZE (PCS)	EAN 13 CODE
PPK28	Cu 1.5-25 mm ²	82 A	0.002	100	6418677166853
PPK9	Cu 1.5-35 mm ²	135 A	0.003	100	6418677166860
PPK2	Cu 6-70 mm ²	270 A	0.009	100	6418677166877
PSS63	Cu 16-185 mm ²	535 A	0.064	10	6418677182068



PPK28



PPK9



PPK2



PSS63

Ensto Clampo Ground N and PE terminals

Pillar terminals

PRODUCT CODE	DESCRIPTION	NOMINAL CURRENT (A)	TIGHTENING TORQUE (Nm)	SCREW HEAD	WEIGHT (KG)	PACKAGE SIZE (PCS)	EAN 13 CODE
KJ25	Cu 1-6 mm ² , width 6 mm	33	0.8	+/-	0.004	1000	6418677163135
KJ25.1	Cu 1-6 mm ² , with wire protection, width 6 mm	33	0.8	+/-	0.004	1000	6418677163142
KJ18	Cu 1.5-16 mm ² , width 9 mm	82	2	+/-	0.007	1000	6418677163173
KJ18.1	Cu 1.5-16 mm ² , with wire protection, width 9 mm	82	2	+/-	0.007	1000	6418677171505
KJ20	Cu 2.5-35 mm ² , width 13 mm	135	4	PH2	0.011	1000	6418677163425
KJ20.1	Cu 2.5-35 mm ² , width 13 mm, for hexagonal key	135	4	Hexagon 5 mm	0.012	1000	6418677163043



KJ25



KJ25.1



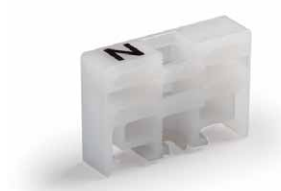
KJ20



KJ20.1

Busbar supports

PRODUCT CODE	DESCRIPTION	WEIGHT (KG)	PACKAGE SIZE (PCS)	EAN 13 CODE
PMR117	Support for 2 x 10 mm busbar, marked N	0.005	100	6418677163180
PMR117.1	Support for 2 x 10 mm busbar, marked PE	0.005	100	6418677163197
PMR1413	Support for 2 x 10 mm busbar	0.002	100	6418677163203
PMR1427	Support for 2 x 10 mm busbar	0.002	100	6418677163531
KJ19	Support for two 2 x 10 mm busbars, with joint	0.023	100	6418677163234
KNL2	Protective cover support for RDP6, used together with PMR117	0.004	200	6418677163241
RDP6	protective cover, length 2000 mm	0.247	10	6418677162626



Support for 2 x 10 mm busbar, marked N, PMR117.



Support for 2 x 10 mm busbar, PMR1413.



Support for 2 x 10 mm busbar, PMR1427.



Support for two 2 x 10 mm busbar, with joint, KJ19.



Protective cover support for RDP6, to be used together with PMR117, KNL2.



Protective cover, RDP6.

Ensto Clampo Ground N and PE terminals

Busbars

2 x 10 mm busbars.

PRODUCT CODE	DESCRIPTION	WEIGHT (KG)	PACKAGE SIZE (PCS)	EAN 13 CODE
PSK20.037	Length 37 mm	0.006	100	6418677163296
PSK20.046	Length 46 mm	0.008	100	6418677163302
PSK20.055	Length 55 mm	0.009	100	6418677163319
PSK20.064	Length 64 mm	0.011	100	6418677163326
PSK20.073	Length 73 mm	0.012	100	6418677163333
PSK20.082	Length 82 mm	0.014	100	6418677163340
PSK20.100	Length 100 mm	0.017	100	6418677163364
PSK20.109	Length 109 mm	0.018	100	6418677163371
PSK20.118	Length 118 mm	0.020	100	6418677163388
PSK20.127	Length 127 mm	0.021	100	6418677163395
PSK20.136	Length 136 mm	0.023	100	6418677163401
PSK20.161	Length 161 mm	0.027	100	6418677163623
PSK20.175	Length 175 mm	0.029	100	6418677163630
PSK152	Length 1000 mm	0.171	10	6418677163418
PSK152.2	Length 2000 mm	0.341	10	6418677163722



PSK20.100

Other accessories

PRODUCT CODE	DESCRIPTION	WEIGHT (KG)	PACKAGE SIZE (PCS)	EAN 13 CODE
PMR281	Support for 3 x 12 mm busbar	0.004	200	6418677163449
PSK131	Busbar, length 2000 mm, 3x12 mm, copper	0.630	10	6418677163456
RPD9	Shroud profile for N and PE busbar, length 2000 mm	0.140	10	6418677163463
PPK225	Earthing bar for connecting pillar terminal to mounting plate, height 24mm	0.007	100	6418677163036



Support for 3 x 12 mm busbar, PMR281.



Busbar, copper, PSK131.



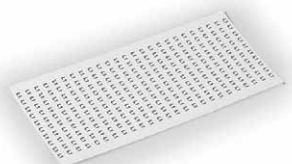
Shroud profile, RPD9.



Earthing bar, PPK225.

Character stickers

PRODUCT CODE	DESCRIPTION	WEIGHT (KG)	PACKAGE SIZE (PCS)	EAN 13 CODE
Stickers for N and PE busbars				
PEM730.1	L1 character, 250 characters per sheet	0.002	1	6418677170447
PEM730.2	L2 character, 250 characters per sheet	0.002	1	6418677170454
PEM730.3	L3 character, 250 characters per sheet	0.002	1	6418677170461
PEM734	N character, 250 characters per sheet	0.002	1	6418677163258
PEM735	PE character, 250 characters per sheet	0.002	1	6418677163265
PEM736	PEN character, 230 characters per sheet	0.002	1	6418677163272
PEM757	G character, 126 characters per sheet	0.002	1	6418677163289
Stickers for pillar terminals				
PEM728.61	Character 1-20, 35 strips/sheet for 6 mm ² terminals	0.002	1	6418677163470
PEM728.621	Character 21-40, 35 strips/sheet for 6 mm ² terminals	0.002	1	6418677163487
PEM728.641	Character 41-60, 35 strips/sheet for 6 mm ² terminals	0.002	1	6418677163494
PEM728.16	Character 1-20, 35 strips/sheet for 16 mm ² terminals	0.002	1	6418677163517

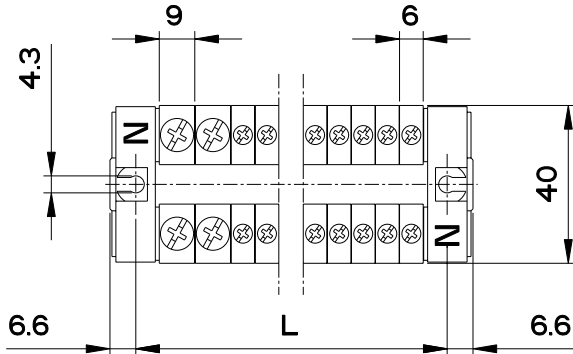


PEM730.1

Technical drawings, Ensto Clampo Ground N and PE terminals

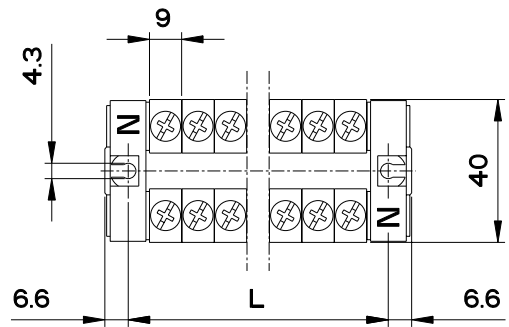
Dimensions in mm

KNA4.1xx



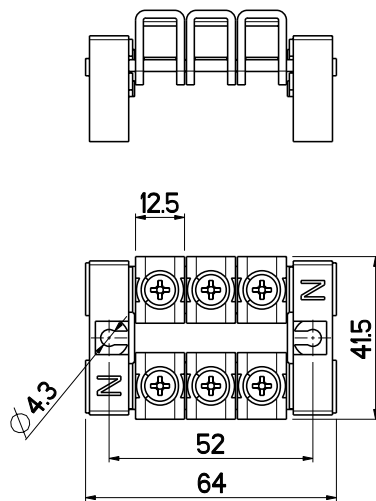
	L
KNA4.104	39.5
KNA4.106	52
KNA4.108	66
KNA4.110	82
KNA4.112	93
KNA4.114	109
KNA4.120	147

KN4.1xx

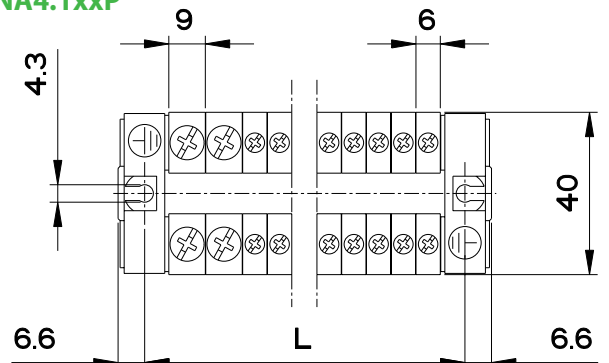


	L
KN4.102	30
KN4.104	48
KN4.106	66
KN4.108	84
KN4.110	102
KN4.112	120

KND4.103N

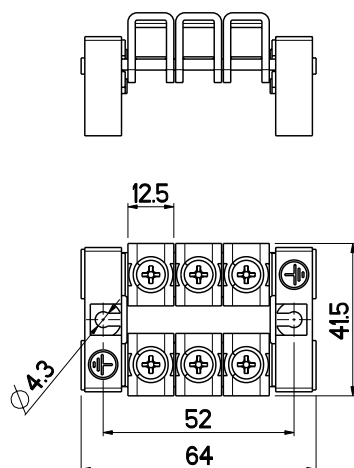


KNA4.1xxP

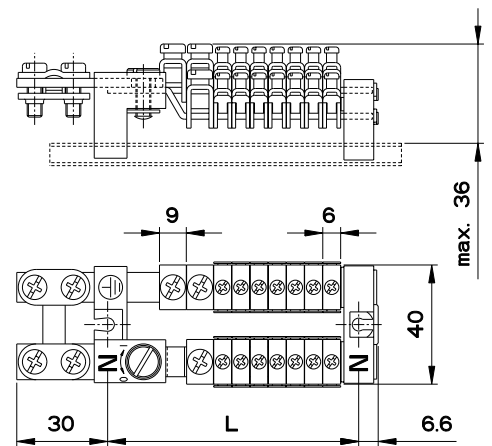


	L
KNA4.104P	39.5
KNA4.106P	52
KNA4.108P	66
KNA4.110P	82
KNA4.112P	93
KNA4.114P	109
KNA4.120P	147

KND4.103P



KNA5.1xx



	L
KNA5.108	93
KNA5.113	115.5
KNA5.117	140
KNA5.120	158.5
KNA5.125	204
KNA5.130	234.5
KNA5.134	259
KNA5.138	283.5

Technical drawings, Ensto Clampo Ground N and PE terminals

Dimensions in mm

KNA4.1xxNP

L	
KNA4.108NP	66
KNA4.114NP	109
KNA4.120NP	147
KNA4.126NP	196
KNA4.136NP	256

KN4.2xx

L	
KN4.204	57
KN4.206	75
KN4.208	93
KN4.210	111
KN4.212	129

KND.103NP

KJ7

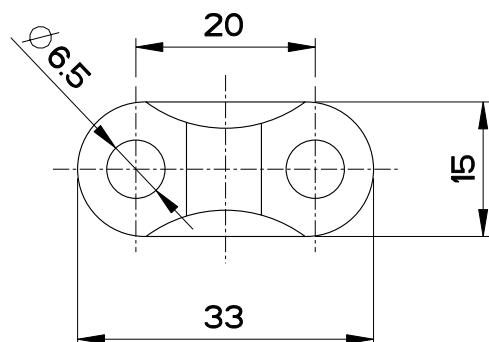
PPK28

PPK9

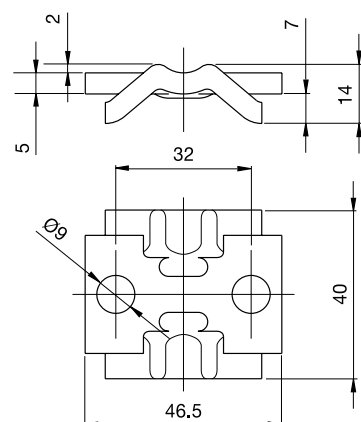
Technical drawings, Ensto Clampo Ground N and PE terminals

Dimensions in mm

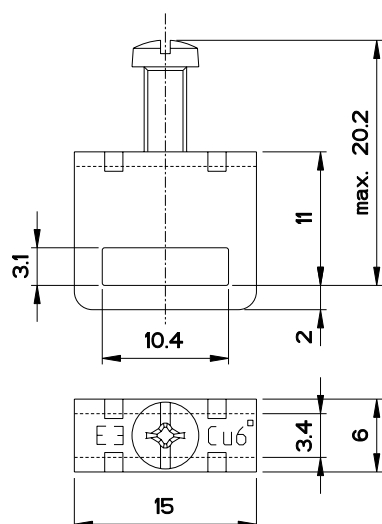
PPK2



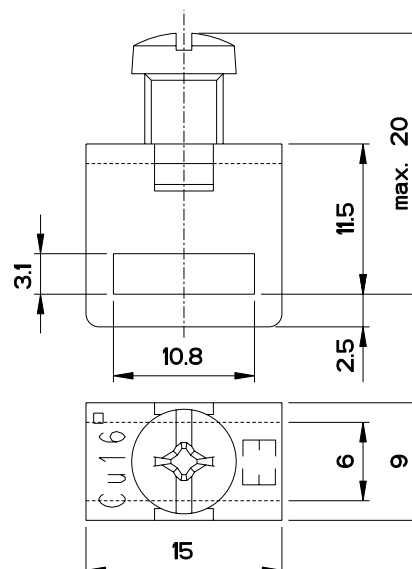
PSS63



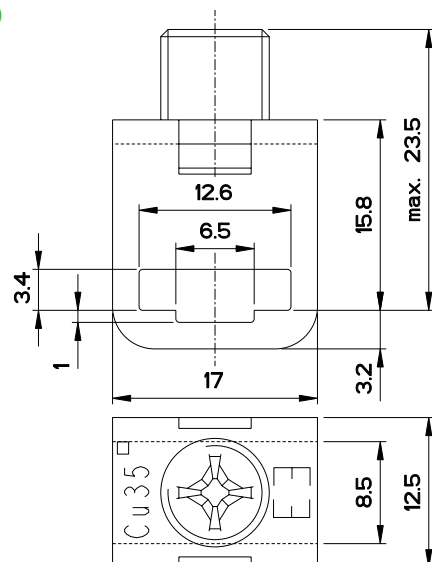
KJ25



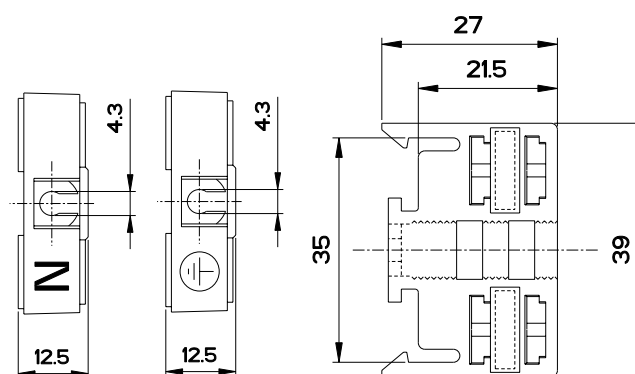
KJ18



KJ20

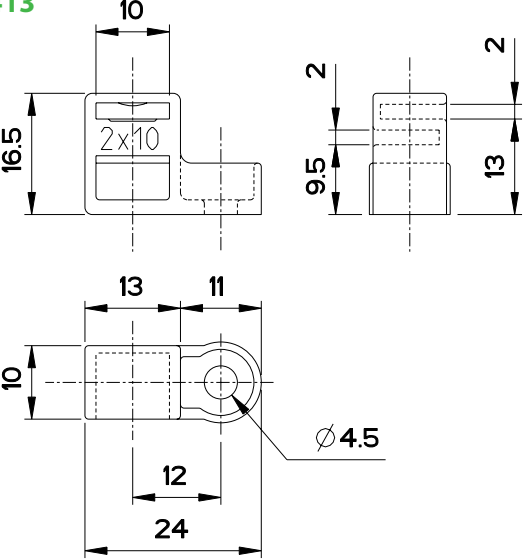
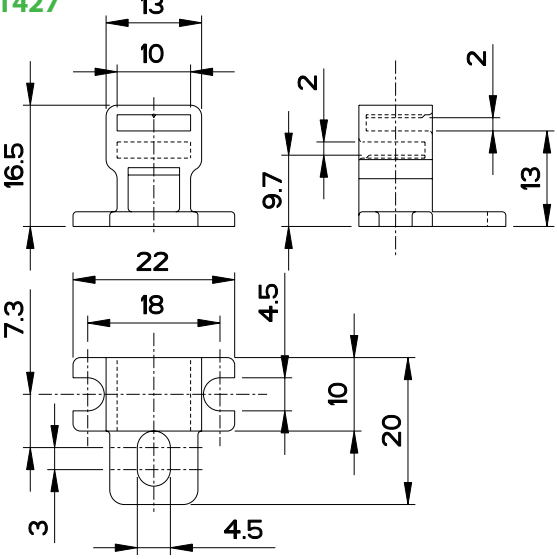
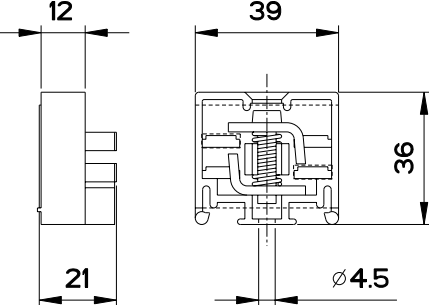
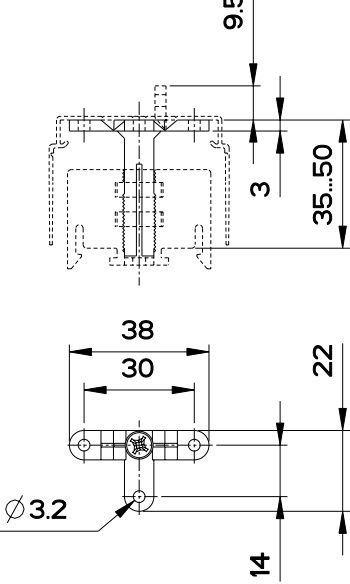
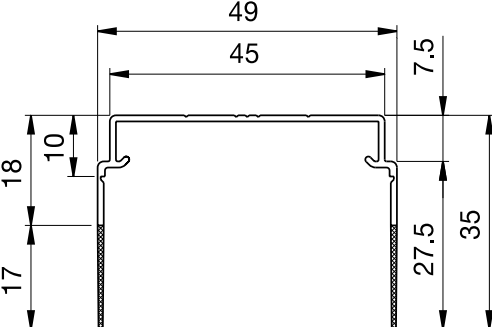
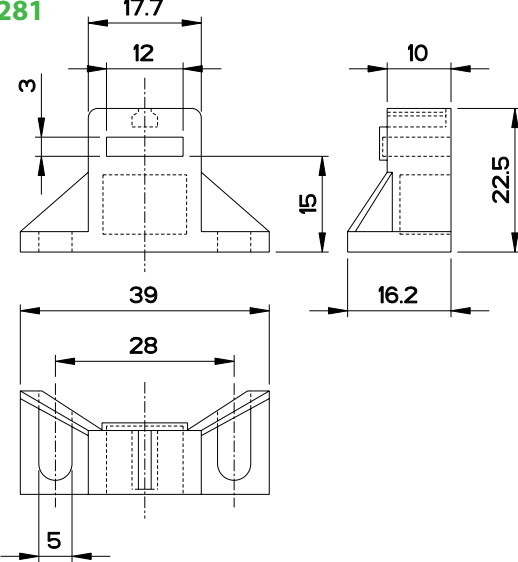


PMR117, PMR117.1



Technical drawings, Ensto Clampo Ground N and PE terminals

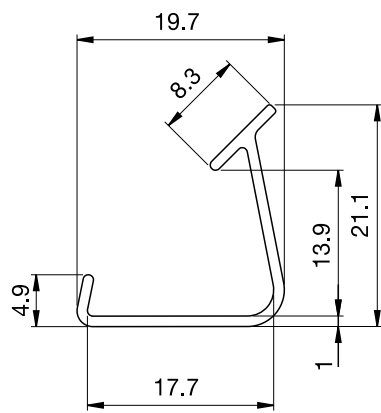
Dimensions in mm

PMR1413 	PMR1427 
KJ19 	KNL2 
RDP6 	PMR281 

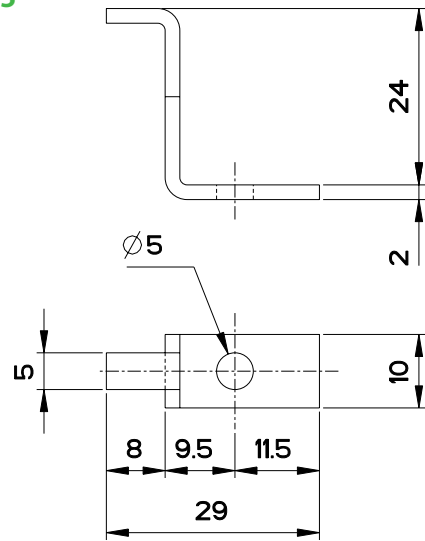
Technical drawings, Ensto Clampo Ground N and PE terminals

Dimensions in mm

RDP9



PPK225



Ensto Clampo Terminal sets

For Al/Cu conductors from 2.5 mm² to 240 mm²



Ensto Clampo terminal sets in brief:

- Meet the most common installation needs
- Packed in convenient retail packages
- Available for Ensto Clampo Pro universal terminals, Ensto Clampo Apparatus equipment terminals and Ensto Clampo Compact terminal blocks.

Standards

PRODUCT CODE	STANDARD
KE6xT	SFS 2663
KE12.xxT	SFS 2663
KE5xT	EN 61238-1, EN 60947-7-1
KR8121T	EN 60947-7-1



KE61SET includes Ensto Clampo Pro universal terminals.



KE12.20T includes Ensto Clampo Apparatus adapter terminals.



KE53.2T includes Ensto Clampo Apparatus equipment terminals.



KE66.2T includes Ensto Clampo Pro tapping blocks.

CROSS-SECTION (MM ²)	PRODUCT CODE	EAN 13 CODE	DESCRIPTION
Ensto Clampo Pro universal terminals			
Cu 2.5 - 50, Al 6 - 50	KE61SET	6418677191800	Mounting kit, KE61.03 + KE61.2 + KE61.3
	KE61T	6418677192326	Universal terminal, grey, a bag of 3 pcs
	KE61.03T	6418677192357	Universal terminal, grey, 3-pole, a bag of 2 pcs
	KE61.2T	6418677192333	Universal terminal, blue, a bag of 3 pcs
	KE61.3T	6418677192340	Universal terminal, yellow-green, a bag of 3 pcs
Cu/Al 16 - 95	KE62SET	6418677192432	Mounting kit, 3 x KE62 + KE62.2 + KE62.3
	KE62T	6418677192364	Universal terminal, grey, a bag of 3 pcs
	KE62.2T	6418677192371	Universal terminal, blue, a bag of 3 pcs
Cu 2.5 - 50, Al 6 - 50	KE62.3T	6418677192388	Universal terminal, yellow-green, a bag of 3 pcs
	KE66T	6418677192395	Tapping block, grey, a bag of 3 pcs
	KE66.2T	6418677192401	Tapping block, blue, a bag of 3 pcs
	KE66.3T	6418677192418	Tapping block, yellow-green, a bag of 3 pcs
Ensto Clampo Apparatus equipment terminals			
Cu 2.5 - 50, Al 6 - 50	KE12.12T	6418677181764	Al transition terminal for MCB, a bag of 3 pcs
	KE12.20T	6418677181771	Al transition terminal for KSM- and KSR/KST3.63-3.80
Cu/Al 16 - 95	KE52.2T	6418677192494	Equipment terminal, a bag of 3 pcs + screw kits
Cu/Al 35 - 150	KE53.2T	6418677192500	Equipment terminal, a bag of 3 pcs + screw kits
Cu/Al 35 - 240	KE54.2T	6418677192517	Equipment terminal, a bag of 3 pcs + screw kits
Cu/Al 2 x (16 - 95)	KE56.1T	6418677181726	Equipment terminal, a bag of 3 pcs
Ensto Clampo Compact terminal blocks			
Cu 6	KR8121T	6418677167980	12-pole terminal block, a bag of 3 pcs

Ratings can be viewed from pages 7, 8, 16 and 32.

Product cards with technical drawings can be found at www.ensto.com.

Ensto Cubo T enclosed terminals

For Al/Cu conductors from 6 mm² to 150 mm²



Ensto Cubo T enclosed terminals in brief:

- Include everything needed for connecting wires, extending or branching cables as well as enclosing
- Available with Ensto Clampo Compact terminal blocks and Ensto Clampo Pro Universal terminals
- Include either Ensto Cubo S or C thermoplastic enclosures
- The enclosure has exactly the right dimensions in terms of the terminals and the required bending space
- Save time in choosing products, since all of the required items can be ordered with one ordering number only
- Need less storage space than items needed for the same solution, which come in separate packages.

Standards

- Enclosures used in the assemblies are certified according to standard EN 62208
- Ensto Clampo Compact terminal KR8121 (in Ensto Cubo T1) is certified according to standards EN 60947-7-1, Ensto Clampo Pro terminals (in Ensto Cubo T2-T5) are certified according to standards SFS 2663.

Conformity



Cross-section range

Al/Cu 6 mm² to 150 mm²

Material

Enclosure: Fibreglass reinforced polycarbonate

Housing: Polyamide

Frames and screws: Tin-coated aluminium or Ni-coated brass

Mechanical features

Screw head: Hexagonal or slot



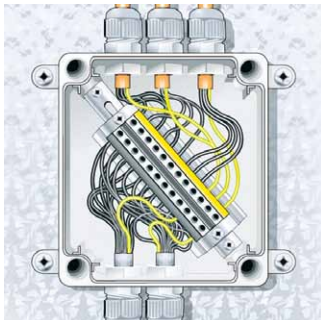
Contents of the Ensto Cubo T1 enclosed terminal.

Product cards with technical drawings can be found at www.ensto.com.

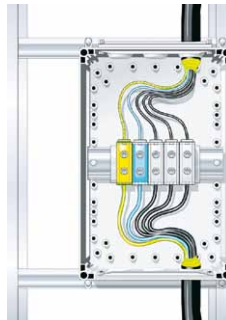
Ensto Cubo T enclosed terminals

Ensto Cubo T enclosed terminals

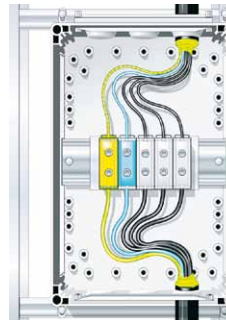
ITEM	ENSTO CUBO T1	ENSTO CUBO T2	ENSTO CUBO T3	ENSTO CUBO T4	ENSTO CUBO T5
Product code	TPM131308G001	TPCF203013G002	TPCF304013G003	TPCF304013G004	TPCF306013G005
EAN 13 code	6418677182372	6418677182389	6418677182396	6418677182402	6418677182419
Cross-section	Cu 12 x 6 mm ²	Al/Cu 5 x 6-35 mm ²	Al/Cu 5 x 16-95 mm ²	Al/Cu 2 x (5 x 16 - 70) mm ²	Al/Cu 2 x (5 x 35 - 150) mm ²
Package content:					
Ensto Cubo enclosure	SPCM131308G	CPCF203013G	CPCF304013G	CPCF304013G	CPCF306013G
Cover screws (pcs)	4	4	4	4	6
Cable glands incl. strain relief	2 x M16, 2 x M20, 1 x M25	-	-	-	-
Counter nuts	2 x M16, 2 x M20, 1 x M25	-	-	-	-
Cover plug	1 x M25	-	-	-	-
Membrane flanges	-	2 x F1201	2 x F2204	2 x F2204	2 x F2204
Flange bolt sets	-	2	2	2	2
Base supports	-	-	2	2	2
Fastening lugs, set	1	1	1	1	1
DIN rails /mounting plate	1 x DIN 15 rail, 13 cm	1 x DIN 35 rail, 16 cm	1 x DIN 35 rail, 26 cm	1 x DIN 35 rail, 26 cm	1 x mounting plate 30 x 40 cm
Mounting screws (pcs)	2	2	2	2	4
End holder	2	2	2	2	-
Terminals	1 x 12-pole, grey (KR8121)	1 x 3-pole, grey (KE61.03), 1 x blue (KE61.2), 1 x yellow-green (KE61.3)	3 x grey (KE62), 1 x blue (KE62.2), 1 x yellow-green (KE62.3)	3 x grey (KE67), 1 x blue (KE67.2), 1 x yellow-green (KE67.3)	3 x grey (KE68), 1 x blue (KE68.2), 1 x yellow-green (KE68.3)
Marking	1-12	L1, L2, L3	L1, L2, L3	L1, L2, L3	L1, L2, L3
Cross connectors	2 x 3-pole (KRL6067.03)	-	-	-	-



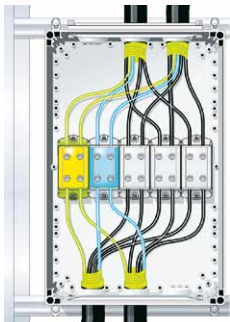
Ensto Cubo T1



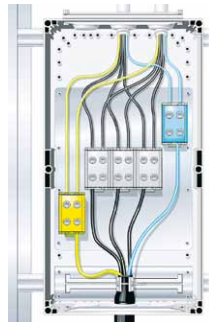
Ensto Cubo T2



Ensto Cubo T3



Ensto Cubo T4



Ensto Cubo T5

Ensto Compact switch-disconnectors

Rotary switches from 16 A to 125 A



Ensto Compact switch-disconnectors in brief:

- The frame of the 16 A...63 A switches only two modules wide, 63 A...125 A with a width of three modules
- The series also includes:
 - Direct door mounted switches
 - Switches with factory-mounted neutral pole
- Wide range of accessories available including e.g. 4th pole, switched neutral pole, auxiliary contact, handle, change-over mechanism
- UL-listed versions available
- Are compact in size
- Have advanced design with two frame sizes
- Handle padlockable in OFF-position

Standards

- All switch-disconnectors are certified according to standard EN 60947-3

Conformity



Technical information

Nominal current range:	16 - 125 A
Cross-section range:	Cu 1.5 - 50 mm ²
Rated insulation voltage:	800 V

Mechanical features

Screw head:	+/-
Mounting:	Screws or DIN rail

Ratings can be viewed on page 84.



Ensto Compact is a complete series of switch-disconnectors with nominal currents from 16 A to 125 A.

Product cards with technical drawings can be found at www.ensto.com.

Ensto Compact switch-disconnectors, panel and DIN rail mounted

Ensto Compact switch-disconnectors, 3-pole, panel and DIN rail mounted

PRODUCT CODE	AMPERAGE (A)	CONDUCTOR CROSS-SECTION (MM²)	TIGHTENING TORQUE (Nm)	MOUNTING	SIZE (MM)	WEIGHT (KG)	PACKAGE SIZE (PCS)	EAN 13 CODE
3-pole with direct handle								
KS3.16	3 x 16 A	Cu 1.5-16 mm²	2 Nm	Din rail/screw	36 x 80 x 76	0.133	50	6418677171345
KS3.20	3 x 20 A	Cu 1.5-16 mm²	2 Nm	Din rail/screw	36 x 80 x 76	0.133	50	6418677171352
KS3.25	3 x 25 A	Cu 1.5-16 mm²	2 Nm	Din rail/screw	36 x 80 x 76	0.133	50	6418677170003
KS3.32	3 x 32 A	Cu 1.5-16 mm²	2 Nm	Din rail/screw	36 x 80 x 76	0.133	50	6418677171420
KS3.40	3 x 40 A	Cu 1.5-16 mm²	2 Nm	Din rail/screw	36 x 80 x 76	0.133	50	6418677170010
KS3.63	3 x 63 A	Cu 1.5-16 mm²	2 Nm	Din rail/screw	36 x 80 x 76	0.133	50	6418677170027
KSM3.63	3 x 63 A	Cu 10-50 mm²	4 Nm	Din rail/screw	52 x 100 x 80	0.266	50	6418677169748
KSM3.80	3 x 80 A	Cu 10-50 mm²	4 Nm	Din rail/screw	52 x 100 x 80	0.266	50	6418677169755
KSM3.100	3 x 100 A	Cu 10-50 mm²	4 Nm	Din rail/screw	52 x 100 x 80	0.266	50	6418677169762
KSM3.125	3 x 125 A	Cu 10-50 mm²	4 Nm	Din rail/screw	52 x 100 x 80	0.266	50	6418677169779
3-pole, yellow with red handle								
KS3.16RY	3 x 16 A	Cu 1.5-16 mm²	2 Nm	Din rail/screw	36 x 80 x 76	0.133	50	6418677171444
KS3.20RY	3 x 20 A	Cu 1.5-16 mm²	2 Nm	Din rail/screw	36 x 80 x 76	0.133	50	6418677171451
KS3.25RY	3 x 25 A	Cu 1.5-16 mm²	2 Nm	Din rail/screw	36 x 80 x 76	0.133	50	6418677171468
KS3.32RY	3 x 32 A	Cu 1.5-16 mm²	2 Nm	Din rail/screw	36 x 80 x 76	0.133	50	6418677171475
KS3.40RY	3 x 40 A	Cu 1.5-16 mm²	2 Nm	Din rail/screw	36 x 80 x 76	0.133	50	6418677171482
KS3.63RY	3 x 63 A	Cu 1.5-16 mm²	2 Nm	Din rail/screw	36 x 80 x 76	0.133	50	6418677171499
KSM3.63RY	3 x 63 A	Cu 10-50 mm²	4 Nm	Din rail/screw	52 x 100 x 80	0.266	50	6418677169847
KSM3.80RY	3 x 80 A	Cu 10-50 mm²	4 Nm	Din rail/screw	52 x 100 x 80	0.266	50	6418677169854
KSM3.100RY	3 x 100 A	Cu 10-50 mm²	4 Nm	Din rail/screw	52 x 100 x 80	0.266	50	6418677169861
KSM3.125RY	3 x 125 A	Cu 10-50 mm²	4 Nm	Din rail/screw	52 x 100 x 80	0.266	50	6418677169878
3-pole without handle								
KS31.16	3 x 16 A	Cu 1.5-16 mm²	2 Nm	Din rail/screw	36 x 80 x 70	0.129	50	6418677171284
KS31.20	3 x 20 A	Cu 1.5-16 mm²	2 Nm	Din rail/screw	36 x 80 x 70	0.129	50	6418677171291
KS31.25	3 x 25 A	Cu 1.5-16 mm²	2 Nm	Din rail/screw	36 x 80 x 70	0.129	50	6418677171307
KS31.32	3 x 32 A	Cu 1.5-16 mm²	2 Nm	Din rail/screw	36 x 80 x 70	0.129	50	6418677171314
KS31.40	3 x 40 A	Cu 1.5-16 mm²	2 Nm	Din rail/screw	36 x 80 x 70	0.129	50	6418677171321
KS31.63	3 x 63 A	Cu 1.5-16 mm²	2 Nm	Din rail/screw	36 x 80 x 70	0.129	50	6418677171338
KSM31.63	3 x 63 A	Cu 10-50 mm²	4 Nm	Din rail/screw	52 x 100 x 70	0.260	50	6418677169700
KSM31.80	3 x 80 A	Cu 10-50 mm²	4 Nm	Din rail/screw	52 x 100 x 70	0.260	50	6418677169717
KSM31.100	3 x 100 A	Cu 10-50 mm²	4 Nm	Din rail/screw	52 x 100 x 70	0.260	50	6418677169724
KSM31.125	3 x 125 A	Cu 10-50 mm²	4 Nm	Din rail/screw	52 x 100 x 70	0.260	50	6418677169731



KS3.16



KSM3.63



KS3.16RY



KSM31.63

Ensto Compact switch-disconnectors, 3-pole with factory-mounted switched neutral pole and handle

PRODUCT CODE	AMPERAGE (A)	CONDUCTOR CROSS-SECTION (MM²)	TIGHTENING TORQUE (Nm)	MOUNTING	SIZE (MM)	WEIGHT (KG)	PACKAGE SIZE (PCS)	EAN 13 CODE
KS3.40N	3 x 40 A	Cu 1.5-16 mm²	2 Nm	Din rail/screw	49 x 80 x 76	0.177	50	6438100099343
KS3.63N	3 x 63 A	Cu 1.5-16 mm²	2 Nm	Din rail/screw	49 x 80 x 76	0.177	50	6438100099350
KSM3.80N	3 x 80 A	Cu 10-50 mm²	4 Nm	Din rail/screw	70 x 100 x 80	0.362	50	6438100099381
KSM3.100N	3 x 100 A	Cu 10-50 mm²	4 Nm	Din rail/screw	70 x 100 x 80	0.362	50	6438100099398



KS3.40N



KSM3.80N

Ensto Compact switch-disconnectors, panel and DIN rail mounted

Ensto Compact switch-disconnectors, 4th pole

PRODUCT CODE	AMPERAGE (A)	CONDUCTOR CROSS-SECTION (MM ²)	TIGHTENING TORQUE (Nm)	MOUNTING	SIZE (MM)	WEIGHT (KG)	PACKAGE SIZE (PCS)	EAN 13 CODE
KS1.16	16 A	Cu 1.5-16 mm ²	2 Nm	Din rail/screw	13 x 56 x 72	0.046	50	6418677171253
KS1.20	20 A	Cu 1.5-16 mm ²	2 Nm	Din rail/screw	13 x 56 x 72	0.046	50	6418677171260
KS1.25	25 A	Cu 1.5-16 mm ²	2 Nm	Din rail/screw	13 x 56 x 72	0.046	50	6418677170065
KS1.32	32 A	Cu 1.5-16 mm ²	2 Nm	Din rail/screw	13 x 56 x 72	0.046	50	6418677171277
KS1.40	40 A	Cu 1.5-16 mm ²	2 Nm	Din rail/screw	13 x 56 x 72	0.046	50	6418677170072
KS1.63	63 A	Cu 1.5-16 mm ²	2 Nm	Din rail/screw	13 x 56 x 72	0.046	50	6418677170089
KSM1.63	63 A	Cu 10-50 mm ²	4 Nm	Din rail/screw	18 x 62 x 83	0.095	50	6418677169786
KSM1.80	80 A	Cu 10-50 mm ²	4 Nm	Din rail/screw	18 x 62 x 83	0.095	50	6418677169793
KSM1.100	100 A	Cu 10-50 mm ²	4 Nm	Din rail/screw	18 x 62 x 83	0.095	50	6418677169809



KS1.63



KSM1.63

Additional poles

PRODUCT CODE	DESCRIPTION	AMPERAGE (A)	TIGHTENING TORQUE (Nm)	WEIGHT (KG)	PACKAGE SIZE (PCS)	EAN 13 CODE
Switched neutral poles						
KS1N	For KS3- and KS31 switches	Max. 63 A	2 Nm	0.046	50	6438100094300
KSM1N	For KSM switch	Max. 125 A	4 Nm	0.095	50	6438100094324
Fixed neutral poles						
KSN1	For KS3- and KS31 switches	Max. 63 A	2 Nm	0.042	50	6418677170126
KSMN1	For KSM switch	Max. 125 A	4 Nm	0.087	50	6418677169823
Fixed PE poles						
KSP1	For KS3- and KS31 switches	Max. 63 A	2 Nm	0.042	50	6418677170140
KSMP1	For KSM switch	Max. 125 A	4 Nm	0.087	50	6418677169830
Standard auxiliary contact						
KSA1	NO+NC auxiliary contact 16 A for 16-125 A switches	16 A	2 Nm	0.051	50	6418677170164



Switched neutral pole, KS1N.



Fixed neutral pole, KSN1.



Fixed PE pole KSP1.



Standard auxiliary contact, KSA1.

Ensto Compact switch-disconnectors, panel and DIN rail mounted

Handles

PRODUCT CODE	DESCRIPTION	WEIGHT (KG)	PACKAGE SIZE (PCS)	EAN 13 CODE
Direct handles				
PMR241B	Small direct handle for KS switch	0.005	100	6418677171437
PMR250B	Larger direct handle for KS switch	0.006	100	6418677169908
PMR301B	Direct handle for KSM switch	0.006	100	6418677169915
External handles				
KSH29	Not padlockable, IP 54, 0/1, black	0.033	100	6418677170188
KSH48	Padlockable, IP 65, yellow with red handle, 0 OFF / 1 ON	0.043	100	6418677170195
KSH48.2	Padlockable, IP 65, black, 0 OFF / 1 ON, no interlock	0.043	100	6418677169953
KSH48.01	Padlockable, IP 65, black, 0 OFF / 1 ON	0.043	100	6418677170201
KSH75	Pistol grip handle, black, padlockable, IP 65, 0 OFF / 1 ON	0.070	50	6418677169885
KSH75RY	Pistol grip handle, yellow with red handle, padlockable, IP 65, 0 OFF / 1 ON	0.070	50	6418677169892
KS23.055	55 mm for KSH29, KSH48 and KSH75 handles	0.014	100	6418677170232



Small direct handle for KS switch, PMR241B.



Direct handle for KSM switch, PMR301B.



External handle, not padlockable, KSH29.



External handle, padlockable, KSH48.



External handle, padlockable, KSH48.2.



External handle, padlockable, KSH48.01.



Pistol grip handle, padlockable, KSH75.



Pistol grip handle, padlockable, KSH75RY.

Extension shafts

PRODUCT CODE	DESCRIPTION	WEIGHT (KG)	PACKAGE SIZE (PCS)	EAN 13 CODE
KS23.070	70 mm for KSH29, KSH48 and KSH75 handles	0.017	100	6418677170249
KS23.090	90 mm for KSH29, KSH48 and KSH75 handles	0.021	100	6418677170256
KS23.150	150 mm for KSH29, KSH48 and KSH75 handles	0.032	100	6418677170263
KS23.200	200 mm for KSH29, KSH48 and KSH75 handles	0.042	100	6418677170270
KS23.300	300 mm for KSH29, KSH48 and KSH75 handles	0.061	100	6418677170287



KS23.055

Ensto Compact switch-disconnectors, panel and DIN rail mounted

Other accessories

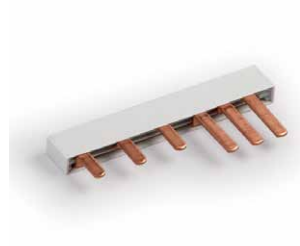
PRODUCT CODE	DESCRIPTION	WEIGHT (KG)	PACKAGE SIZE (PCS)	EAN 13 CODE
PMR121	Terminal shroud for KS1 and KS11 poles	0.004	100	6418677171598
PMR123	Terminal shroud for KS3, KS31 and KS13 switch	0.008	100	6418677171604
PMR111	Terminal shroud for KSM1 pole	0.006	100	6418677171611
PMR113	Terminal shroud for KSM3 and KSM31 switch	0.013	100	6418677171628
KK63	Terminal adapter for connecting 16-63 A switch to MCBs, 3-pole	0.033	1	6418677171635
KK66	Parallel mechanism for mounting two switches to work simultaneously	0.078	1	6418677171642
KK102.712	Change-over kit incl. shafts and black handle	0.234	20	6418677169922
KK102.7RY12	Change-over kit incl. shafts and red/yellow handle	0.234	20	6418677169939



Terminal shroud for KS1 and KS11 poles, PMR121.



Terminal shroud for KS3, KS31 and KS13 switch, PMR123.



Terminal adapter, KK63.



Parallel mechanism, KK66.



Change-over kit, KK102.712.



Change-over kit, KK102.7RY12.

Ensto Compact switch-disconnectors, direct door mounted

Ensto Compact switch-disconnectors, 3-pole, direct door mounted

PRODUCT CODE	AMPERAGE (A)	CONDUCTOR CROSS-SECTION (MM²)	TIGHTENING TORQUE (Nm)	MOUNTING	SIZE (MM)	WEIGHT (KG)	PACKAGE SIZE (PCS)	EAN 13 CODE
KSM1.125	125 A	Cu 10-50 mm²	4 Nm	Din rail/screw	18 x 62 x 83	0.095	50	6418677169816
KS13.16	3 x 16 A	Cu 1.5-16 mm²	2 Nm	Din rail/screw	40 x 80 x 72	0.149	50	6418677171161
KS13.20	3 x 20 A	Cu 1.5-16 mm²	2 Nm	Din rail/screw	40 x 80 x 72	0.149	50	6418677171178
KS13.25	3 x 25 A	Cu 1.5-16 mm²	2 Nm	Din rail/screw	40 x 80 x 72	0.149	50	6418677170034
KS13.32	3 x 32 A	Cu 1.5-16 mm²	2 Nm	Din rail/screw	40 x 80 x 72	0.149	50	6418677171246
KS13.40	3 x 40 A	Cu 1.5-16 mm²	2 Nm	Din rail/screw	40 x 80 x 72	0.149	50	6418677170041



KS13.16

Ensto Compact switch-disconnectors, 4th pole

PRODUCT CODE	AMPERAGE (A)	CONDUCTOR CROSS-SECTION (MM²)	TIGHTENING TORQUE (Nm)	MOUNTING	SIZE (MM)	WEIGHT (KG)	PACKAGE SIZE (PCS)	EAN 13 CODE
KS13.63	3 x 63 A	Cu 1.5-16 mm²	2 Nm	Din rail/screw	40 x 80 x 72	0.149	50	6418677170058
KS11.16	16 A	Cu 1.5-16 mm²	2 Nm	Din rail/screw	13 x 56 x 72	0.045	50	6418677171130
KS11.20	20 A	Cu 1.5-16 mm²	2 Nm	Din rail/screw	13 x 56 x 72	0.045	50	6418677171147
KS11.25	25 A	Cu 1.5-16 mm²	2 Nm	Din rail/screw	13 x 56 x 72	0.045	50	6418677170096
KS11.32	32 A	Cu 1.5-16 mm²	2 Nm	Din rail/screw	13 x 56 x 72	0.045	50	6418677171154
KS11.40	40 A	Cu 1.5-16 mm²	2 Nm	Din rail/screw	13 x 56 x 72	0.045	50	6418677170102
KS11.63	63 A	Cu 1.5-16 mm²	2 Nm	Din rail/screw	13 x 56 x 72	0.045	50	6418677170119



KS11.16

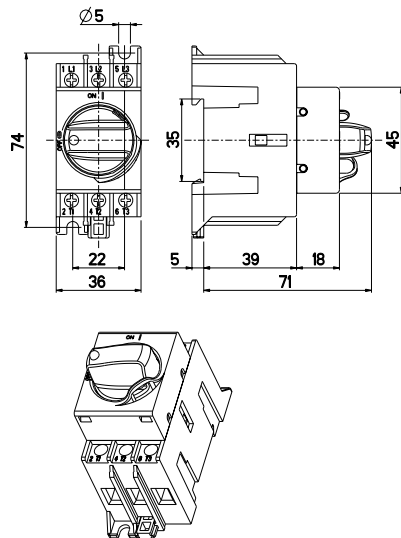
Accessories

PRODUCT CODE	DESCRIPTION	AMPERAGE (A)	TIGHTENING TORQUE (Nm)	WEIGHT (KG)	PACKAGE SIZE (PCS)	EAN 13 CODE
Additional poles						
KS11N	Switched neutral pole	Max. 63 A	2 Nm	0.042	50	6438100094317
KSN11	Fixed neutral pole	Max. 63 A	2 Nm	0.042	50	6418677170133
KSP11	Fixed PE pole	Max. 63 A	2 Nm	0.042	50	6418677170157
KSA11	NO+NC auxiliary contact	16 A	2 Nm	0.051	50	6418677170171
Handles						
KSH48	Padlockable, IP 65, yellow with red handle, 0 OFF / 1 ON			0.043	100	6418677170195
KSH48.01	Padlockable, IP 65, black, 0 OFF / 1 ON			0.043	100	6418677170201
Terminal shrouds						
PMR121	Terminal shroud for KS1 and KS11 poles			0.004	100	6418677171598
PMR123	Terminal shroud for KS3, KS31 and KS13 switch			0.008	100	6418677171604

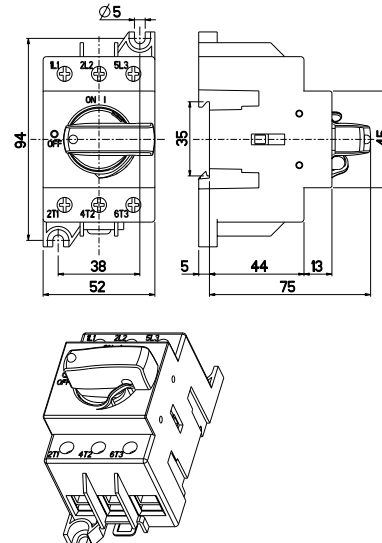
Technical drawings, Ensto Compact switch-disconnectors

Dimensions in mm

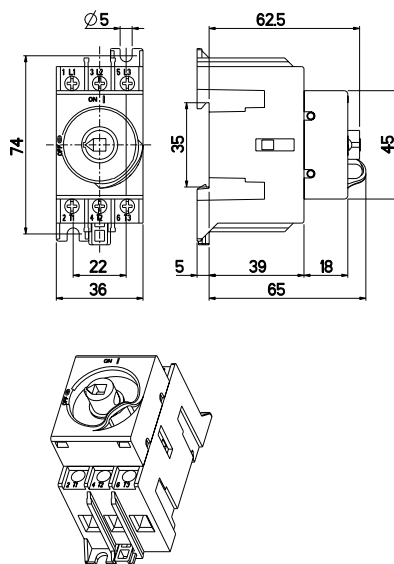
KS3.xx, KS3.xxRY



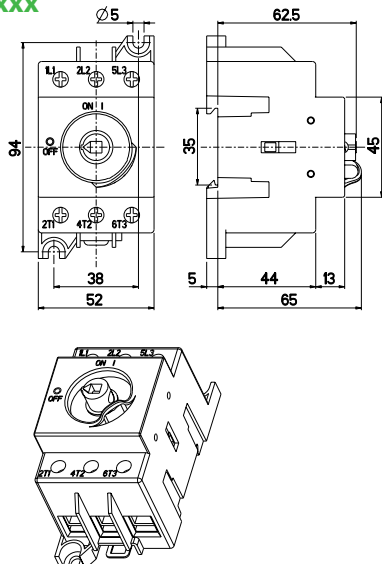
KSM3.xxx, KSM3.xxxRY



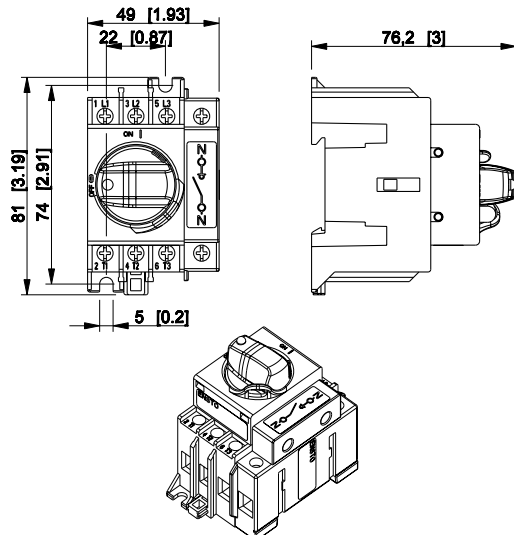
KS31.xx



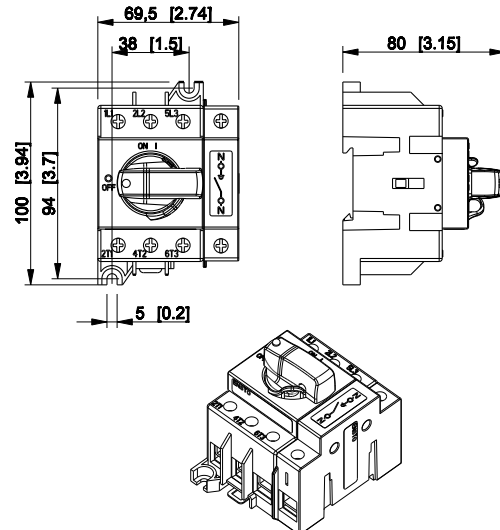
KSM31.xxx



KS3.40N, KS3.63N



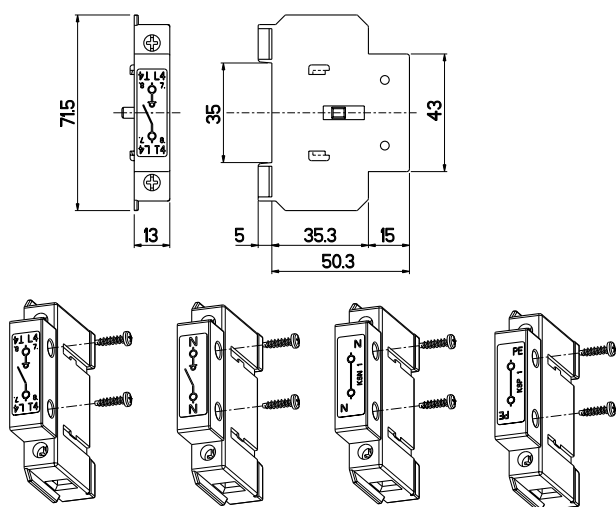
KSM3.80N, KSM3.100N



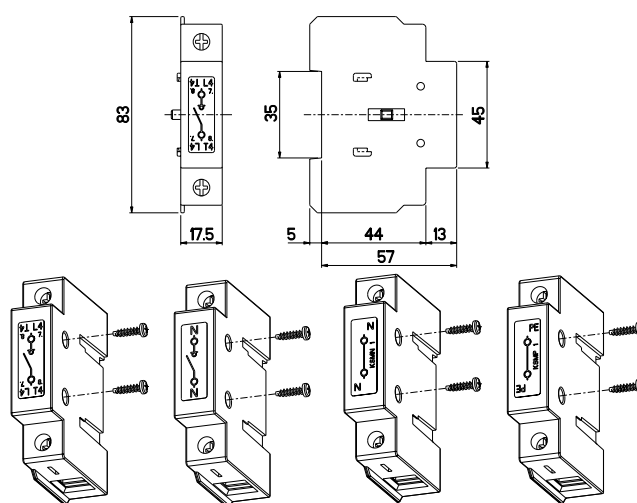
Technical drawings, Ensto Compact switch-disconnectors

Dimensions in mm

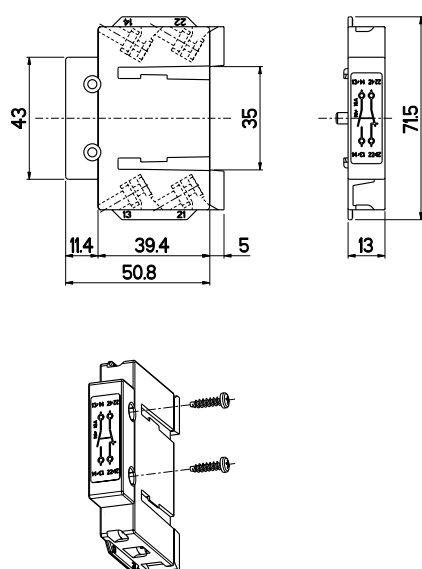
KS1.xx, KS1N, KSN1, KSP1



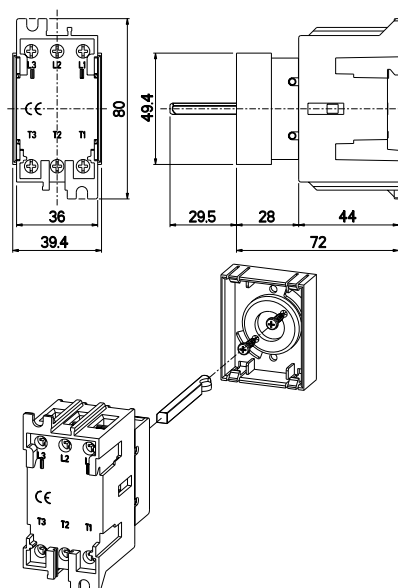
KSM1.xxx, KSM1N, KSMN1, KSMP1



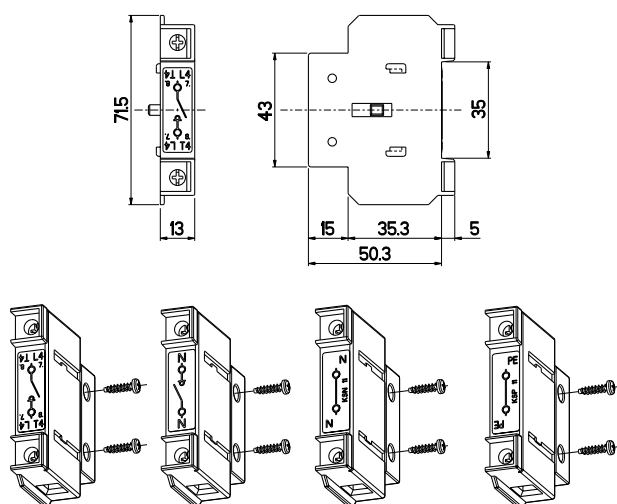
KSA1



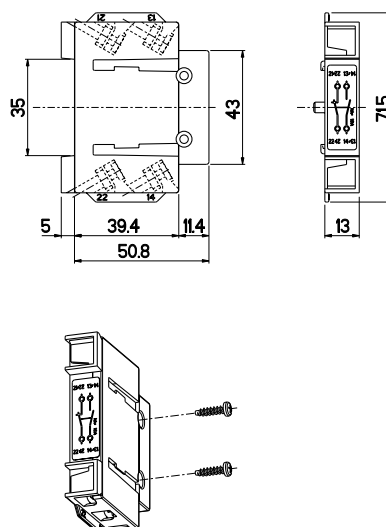
KS13.xx



KS11.xx, KS11N, KSN11, KSP11



KSA11



UL-listed manual motor controllers

Rotary and toggle switches from 20 A to 100 A



UL-listed manual motor controllers in brief:

Ensto Compact switches

- The frame is only two DIN modules wide
- Available with nominal currents of 20 A and 30 A
- Both rear-mounting (direct or DIN rail) and front-mounting versions available
- Handle padlockable in OFF-position
- A wide range of accessories including e.g. handles and auxiliary contacts

Ensto Origin switches

- Traditional and reliable series of switches
- Series includes 3- and 4-pole rotary and toggle action switches, with rated currents 20 A...100 A
- Targeted at USA markets in particular
- A wide range of accessories including e.g. handles and auxiliary contacts

Standards

- UL-listed controllers, UL File No. 164205; UL 508 "Manual Motor Controllers Suitable as Motor Disconnect"

Conformity



Technical information

Amperage range	20 - 100 A
Conductor size	AWG 14-1
Rated voltage	600 V

Mechanical features

Screw head:	+/- or slot
Mounting:	Screws or DIN rail

Ratings can be viewed on page 81.



Ensto's manual motor controller range covers UL-listed controllers from Ensto Compact series as well as Ensto Origin series.

Product cards with ratings can be found at www.ensto.com.

Ensto Compact manual motor controllers

Ensto Compact manual motor controllers

PRODUCT CODE	AMPERAGE	VOLTAGE	TIGHTENING TORQUE (LB-IN)	MOUNTING	SIZE (MM)	WEIGHT (KG)	PACKAGE SIZE (PCS)	EAN 13 CODE
3-pole without handle, panel and DIN rail mounted								
KS3.20/U	3 x 20 A	480 VAC	18 Lb-In	Din rail/Screw	36 x 80 x 70	0.129	50	6418677159008
KS3.30/U	3 x 30 A	480 VAC	18 Lb-In	Din rail/Screw	36 x 80 x 70	0.129	50	6418677159015
4th pole, panel and DIN rail mounted								
KS1.20/U	20 A	480 VAC	18 Lb-In	Din rail/Screw	13 x 56 x 72	0.046	50	6418677159046
KS1.30/U	30 A	480 VAC	18 Lb-In	Din rail/Screw	13 x 56 x 72	0.046	50	6418677159053
3-pole without handle, direct door mounted								
KS13.20/U	3 x 20 A	480 VAC	18 Lb-In	Din rail/Screw	40 x 80 x 72	0.162	50	6418677159022
KS13.30/U	3 x 30 A	480 VAC	18 Lb-In	Din rail/Screw	40 x 80 x 72	0.162	50	6418677159039
4th pole, direct door mounted								
KS11.20/U	20 A	480 VAC	18 Lb-In	Din rail/Screw	13 x 56 x 72	0.045	50	6418677159060
KS11.30/U	30 A	480 VAC	18 Lb-In	Din rail/Screw	13 x 56 x 72	0.045	50	6418677159077



KS3.20/U



KS1.20/U



KS13.30/U



KS11.30/U

Additional poles

PRODUCT CODE	DESCRIPTION	WEIGHT (KG)	PACKAGE SIZE (PCS)	EAN 13 CODE
Fixed neutral poles				
KSN1/U	For KS3.20/U and KS3.30/U switches	0.042	50	6418677159084
KSN11/U	For KS13.20/U and KS13.30/U switches	0.042	50	6418677159091
Fixed PE poles				
KSP1/U	For KS3.20/U and KS3.30/U switches	0.042	50	6418677159107
KSP11/U	For KS13.20/U and KS13.30/U switches	0.042	50	6418677159114
No+NC auxiliary contact				
KSA1/U	15 A, 120 VAC, Pilot Duty A300, for KS3-switches	0.050	50	6418677159121
KSA11/U	15 A, 120 VAC, Pilot Duty A300, for KS13-switches	0.050	50	6418677159138



Fixed neutral pole, KSN1/U.



Fixed PE pole, KSP1/U.



Standard auxiliary contact, KSA1/U.

Ensto Compact manual motor controllers

Handles

PRODUCT CODE	DESCRIPTION	WEIGHT (KG)	PACKAGE SIZE (PCS)	EAN 13 CODE
Direct handles				
PMR241/U	Small direct handle, black	0.005	100	6418677159145
PMR241B/U	Small direct handle, blue	0.005	100	6418677159152
PMR241R/U	Small direct handle, red	0.005	100	6418677159169
PMR250/U	Medium size direct handle, black	0.006	100	6418677159176
PMR250B/U	Medium size direct handle, blue	0.006	100	6418677159183
PMR250R/U	Medium size direct handle, red	0.006	100	6418677159190
PMR301/U	Large direct handle, black	0.006	100	6418677159206
PMR301B/U	Large direct handle, blue	0.006	100	6418677159213
PMR301R/U	Large direct handle, red	0.006	100	6418677159220
External handles				
KK29/U	Black, IP 54, not padlockable, 0/1	0.038	100	6418677190308
KSH48/U	Padlockable, yellow with red handle, 0 OFF / 1 ON, Environmental type 4X and 13	0.043	100	6418677190315
KSH48.01/U	Padlockable, black, 0 OFF / 1 ON, Environmental type 4X and 13	0.043	100	6418677190322
KSH75/U	Pistol grip handle, black, padlockable, 0 OFF / 1 ON, Environmental type 4X and 12	0.070	50	6418677190339
KSH75RY/U	Pistol grip handle, yellow with red handle, padlockable, 0 OFF / 1 ON, Environmental type 4X and 12	0.070	50	6418677190346
PMR716.1/U	Handle shaft guide replacement KSH48/U and KSH48.01/U	0.006	250	6418677190353



Small direct handle, PMR241B/U.



Medium size direct handle, PMR250/U.



Large direct handle, PMR301R/U.



External handle, not padlockable, KK29/U.



External handle, padlockable, KSH48/U.



External handle, padlockable, KSH48.01/U.



Pistol grip handle, padlockable, KSH75/U.



Pistol grip handle, padlockable, KSH75RY/U.



Handle shaft guide replacement KSH48, PMR716.1/U.

Ensto Compact manual motor controllers

Extension shafts

PRODUCT CODE	DESCRIPTION	WEIGHT (KG)	PACKAGE SIZE (PCS)	EAN 13 CODE
KS23.040/U	40 mm for KK29/U, KSH48/U and KSH75/U handles	0.011	100	6418677159237
KS23.050/U	50 mm for KK29/U, KSH48/U and KSH75/U handles	0.013	100	6418677159244
KS23.055/U	55 mm for KK29/U, KSH48/U and KSH75/U handles	0.014	100	6418677159251
KS23.060/U	60 mm for KK29/U, KSH48/U and KSH75/U handles	0.015	100	6418677159268
KS23.070/U	70 mm for KK29/U, KSH48/U and KSH75/U handles	0.017	100	6418677159275
KS23.090/U	90 mm for KK29/U, KSH48/U and KSH75/U handles	0.021	100	6418677159282
KS23.110/U	110 mm for KK29/U, KSH48/U and KSH75/U handles	0.025	100	6418677159299
KS23.150/U	150 mm for KK29/U, KSH48/U and KSH75/U handles	0.032	100	6418677159312
KS23.180/U	180 mm for KK29/U, KSH48/U and KSH75/U handles	0.039	100	6418677159329
KS23.200/U	200 mm for KK29/U, KSH48/U and KSH75/U handles	0.042	100	6418677159336
KS23.300/U	300 mm for KK29/U, KSH48/U and KSH75/U handles	0.061	100	6418677159343



KS23.055/U

Other accessories

PRODUCT CODE	DESCRIPTION	WEIGHT (KG)	PACKAGE SIZE (PCS)	EAN 13 CODE
KS23.305/U	305 mm for KK29/U, KSH48/U and KSH75/U handles	0.062	100	6418677159350
PMR121/U	Terminal cover for KS1.xx/U and KS11.xx/U poles	0.004	100	6418677159367
PMR123/U	Terminal cover for KS3.xx/U and KS13.xx/U switches	0.008	100	6418677159374
PMR249/U	Shaft retaining collar, plastic	0.004	100	6418677159381



Terminal shroud for 4th poles, PMR121/U.



Terminal shroud for switch, PMR123/U.



Shaft retaining collar, PMR249/U.

Ensto Origin manual motor controllers

Ensto Origin manual motor controllers

PRODUCT CODE	AMPERAGE	VOLTAGE	TIGHTENING TORQUE (LB-IN)	MOUNTING	SIZE (MM)	WEIGHT (KG)	PACKAGE SIZE (PCS)	EAN 13 CODE
Rotary switches without shaft retaining collar								
KSR3.40/U	3 x 40 A	600 VAC	35 Lb-In	Din rail/Screw	51 x 70 x 68	0.170	30	6418677190001
KSR3.60/U	3 x 60 A	480 VAC	35 Lb-In	Din rail/Screw	51 x 70 x 68	0.170	30	6418677190018
KSR3.80/U	3 x 80 A	600 VAC	50 Lb-In	Din rail/Screw	53 x 84 x 73	0.268	30	6418677190025
KSR3.100/U	3 x 100 A	480 VAC	50 Lb-In	Din rail/Screw	53 x 84 x 73	0.268	30	6418677190032
KSR4.40/U	4 x 40 A	480 VAC	35 Lb-In	Din rail/Screw	62 x 70 x 68	0.205	30	6418677190056
Rotary switches with shaft retaining collar								
KSR3.401/U	3 x 40 A	600 VAC	35 Lb-In	Din rail/Screw	51 x 70 x 68	0.180	30	6418677190070
KSR3.601/U	3 x 60 A	480 VAC	35 Lb-In	Din rail/Screw	51 x 70 x 68	0.180	30	6418677190087
KSR3.801/U	3 x 80 A	600 VAC	50 Lb-In	Din rail/Screw	53 x 84 x 73	0.280	30	6418677190094
KSR3.1001/U	3 x 100 A	480 VAC	50 Lb-In	Din rail/Screw	53 x 84 x 73	0.280	30	6418677190100
KSR4.401/U	4 x 40 A	480 VAC	35 Lb-In	Din rail/Screw	62 x 70 x 68	0.213	30	6418677190124
Rotary switches with shaft retaining collar (hex socket)								
KSR3.402/U	3 x 40 A	600 VAC	35 Lb-In	Din rail/Screw	51 x 70 x 68	0.180	30	6418677190131
KSR3.602/U	3 x 60 A	480 VAC	35 Lb-In	Din rail/Screw	51 x 70 x 68	0.180	30	6418677190148
KSR3.802/U	3 x 80 A	600 VAC	50 Lb-In	Din rail/Screw	53 x 84 x 73	0.280	30	6418677190155
KSR3.1002/U	3 x 100 A	480 VAC	50 Lb-In	Din rail/Screw	53 x 84 x 73	0.280	30	6418677190162
KSR4.402/U	4 x 40 A	480 VAC	35 Lb-In	Din rail/Screw	62 x 70 x 68	0.213	30	6418677190179
Toggle switches								
KST3.40/U	3 x 40 A	600 VAC	35 Lb-In	Din rail/Screw	51 x 70 x 70	0.155	30	6418677190186
KST3.60/U	3 x 60 A	480 VAC	35 Lb-In	Din rail/Screw	51 x 70 x 70	0.155	30	6418677190193
KST3.80/U	3 x 80 A	600 VAC	50 Lb-In	Din rail/Screw	53 x 84 x 73	0.260	30	6418677190209
KST3.100/U	3 x 100 A	480 VAC	50 Lb-In	Din rail/Screw	53 x 84 x 73	0.260	30	6418677190216
KST4.40/U	4 x 40 A	480 VAC	35 Lb-In	Din rail/Screw	62 x 70 x 69	0.190	30	6418677190223



KSR3.80/U



KSR3.801/U



KSR3.402/U



KST3.80/U

Handles

PRODUCT CODE	DESCRIPTION	WEIGHT (KG)	PACKAGE SIZE (PCS)	EAN 13 CODE
Direct handles				
KK57.18/U	Direct handle, black/grey for KSR3.40/U-KSR3.60/U	0.017	100	6418677190735
KK57.19/U	Direct handle, black/grey for KSR3.80/U-KSR3.100/U	0.018	100	6418677190742
KK57.37/U	Direct handle, black/grey for KSR4.40/U	0.019	100	6418677190759
KK57.182/U	Direct handle, red/yellow for KSR3.40/U-KSR3.60/U	0.018	100	6418677190766
KK57.192/U	Direct handle, red/yellow for KSR3.80/U-3.100/U	0.019	100	6418677190773
KK57.372/U	Direct handle, red/yellow for KSR4.40/U	0.020	100	6418677190780
External handles				
KK29/U	Black, IP 54, not padlockable, 0/1	0.038	100	6418677190308
KSH48/U	Padlockable, yellow with red handle, 0 OFF / 1 ON, Environmental type 4X and 13	0.043	100	6418677190315
KSH48.01/U	Padlockable, black, 0 OFF / 1 ON, Environmental type 4X and 13	0.043	100	6418677190322
KSH75/U	Pistol grip handle, black, padlockable, 0 OFF / 1 ON, Environmental type 4X and 12	0.070	50	6418677190339
KSH75RY/U	Pistol grip handle, yellow with red handle, padlockable, 0 OFF / 1 ON, Environmental type 4X and 12	0.070	50	6418677190346
PMR716.1/U	Handle shaft guide replacement KSH48/U and KSH48.01/U	0.006	250	6418677190353

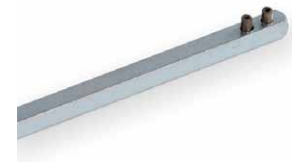


KK57.18/U

Ensto Origin manual motor controllers

Extension shafts

PRODUCT CODE	DESCRIPTION	WEIGHT (KG)	PACKAGE SIZE (PCS)	EAN 13 CODE
KK31.040/U	40 mm for KK29/U, KSH48/U and KSH75/U handles	0.008	100	6418677190360
KK31.050/U	50 mm for KK29/U, KSH48/U and KSH75/U handles	0.009	100	6418677190377
KK31.055/U	55 mm for KK29/U, KSH48/U and KSH75/U handles	0.010	100	6418677190384
KK31.060/U	60 mm for KK29/U, KSH48/U and KSH75/U handles	0.011	100	6418677190391
KK31.070/U	70 mm for KK29/U, KSH48/U and KSH75/U handles	0.013	100	6418677190407
KK31.080/U	80 mm for KK29/U, KSH48/U and KSH75/U handles	0.015	100	6418677190414
KK31.090/U	90 mm for KK29/U, KSH48/U and KSH75/U handles	0.017	100	6418677190421
KK31.100/U	100 mm for KK29/U, KSH48/U and KSH75/U handles	0.019	100	6418677190438
KK31.105/U	105 mm for KK29/U, KSH48/U and KSH75/U handles	0.020	100	6418677190445
KK31.110/U	110 mm for KK29/U, KSH48/U and KSH75/U handles	0.021	100	6418677190452
KK31.120/U	120 mm for KK29/U, KSH48/U and KSH75/U handles	0.023	100	6418677190476
KK31.130/U	130 mm for KK29/U, KSH48/U and KSH75/U handles	0.025	100	6418677190483
KK31.140/U	140 mm for KK29/U, KSH48/U and KSH75/U handles	0.026	100	6418677190490
KK31.150/U	150 mm for KK29/U, KSH48/U and KSH75/U handles	0.028	100	6418677190506
KK31.170/U	170 mm for KK29/U, KSH48/U and KSH75/U handles	0.032	100	6418677190827
KK31.175/U	175 mm for KK29/U, KSH48/U and KSH75/U handles	0.033	100	6418677190513
KK31.180/U	180 mm for KK29/U, KSH48/U and KSH75/U handles	0.035	100	6418677190520
KK31.200/U	200 mm for KK29/U, KSH48/U and KSH75/U handles	0.038	100	6418677190537
KK31.300/U	300 mm for KK29/U, KSH48/U and KSH75/U handles	0.057	100	6418677190544
KK31.305/U	305 mm for KK29/U, KSH48/U and KSH75/U handles	0.058	100	6418677190551



KK31.100/U

Other accessories

PRODUCT CODE	DESCRIPTION	WEIGHT (KG)	PACKAGE SIZE (PCS)	EAN 13 CODE
Change-over mechanism				
KK102.712/U	Change-over kit incl. shafts and black handle	0.234	20	6418677190643
KK102.7RY12/U	Change-over kit incl. shafts and red/yellow handle	0.234	20	6418677190650
Auxiliary contacts				
KK38.1/U	Kit without aux.contact for KSR3.40/U-KSR3.60/U	0.021	100	6418677190667
KK38.2/U	Kit with aux.contact for KSR3.40/U-KSR3.60/U	0.028	100	6418677190674
KK39.1/U	Kit without aux.contact for KSR3.80/U-KSR3.100/U	0.024	100	6418677190681
KK39.2/U	Kit with aux.contact for KSR3.80/U-KSR3.100/U	0.031	100	6418677190698
Direct door mounting kit				
KSRD3	Direct door mounting kit for KSR switch	0.064	50	6418677180361
Shaft retaining collars				
KK20/U	Brass, for KSR switches	0.012	250	6418677190711
KK20.2/U	Brass, for KSR switches, with allen key screws	0.012	250	6418677190728
Cover plates for toggle switch				
PMR333.10/U	Grey, padlockable, DIN opening for KST3.40/U-KST3.60/U	0.011	100	6418677190797
PMR334.10/U	Grey, padlockable, DIN opening for KST3.80/U-KST3.100/U	0.013	100	6418677190803
PMR598/U	Grey, not padlockable, DIN opening for KST4.40/U	0.007	100	6418677190810



Change-over kit, KK102.7RY12/U.



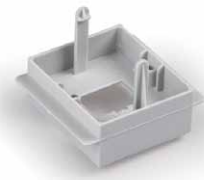
Kit without aux.contact, KK38.1/U.



Direct door mounting kit, KSRD3.



Shaft retaining collar, KK20/U.

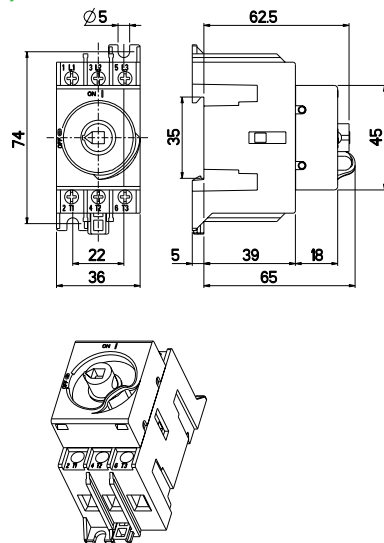


Cover plate for toggle switch, PMR333.10/U.

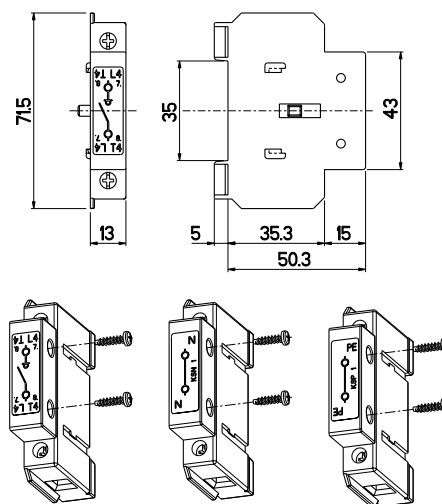
Technical drawings, Ensto Compact manual motor controllers

Dimensions in mm

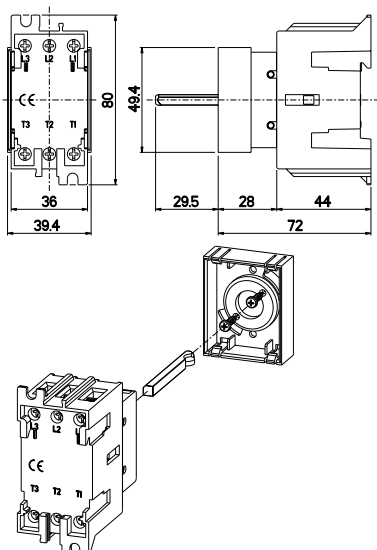
KS3.20/U, KS3.30/U



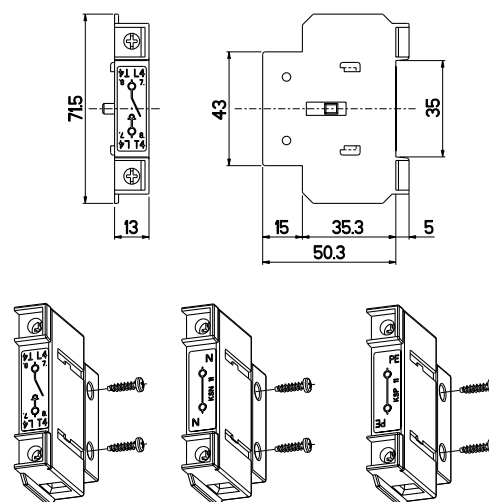
KS1.20/U, KS1.30/U, KSN1/U, KSP1/U



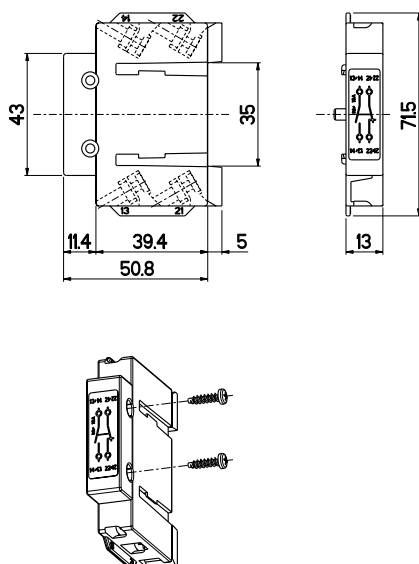
KS13.20/U, KS13.30/U



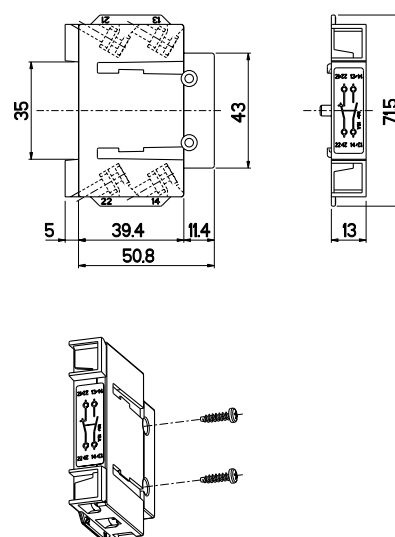
KS11.20/U, KS11.30/U, KSN11/U, KSP11/U



KSA1/U



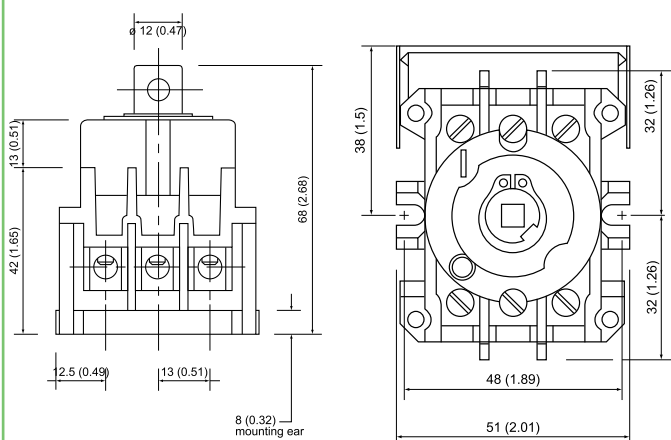
KSA11/U



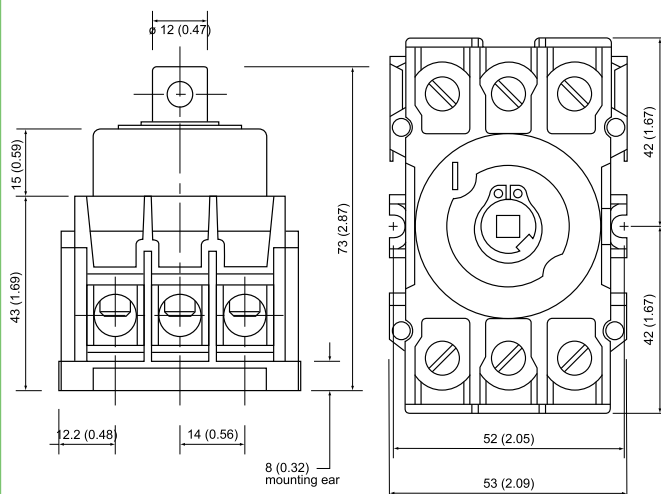
Technical drawings, Ensto Origin manual motor controllers

Dimensions in mm

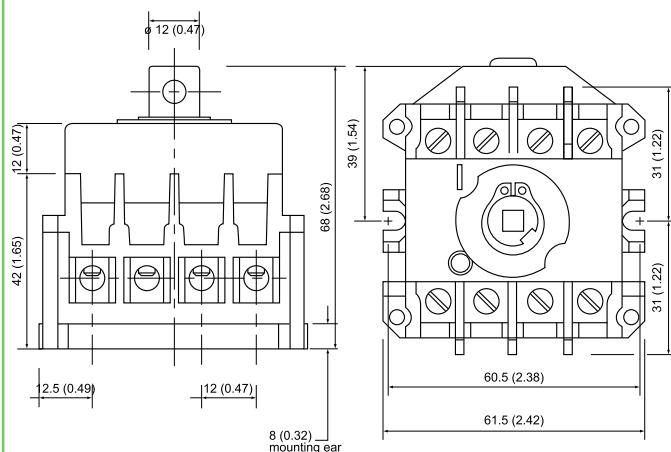
KSR3.40/U, KSR3.60/U



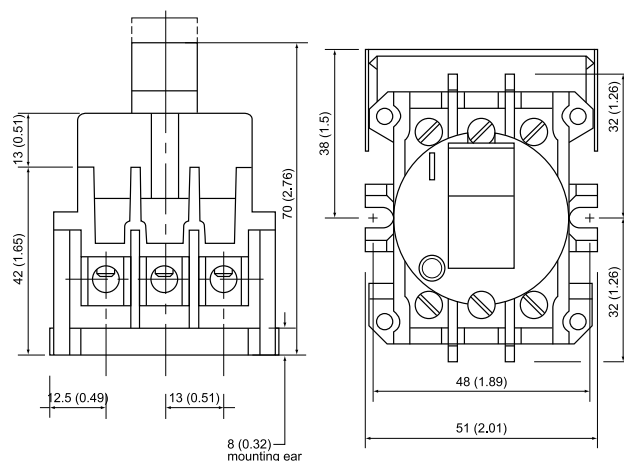
KSR3.80/U, KSR3.100/U



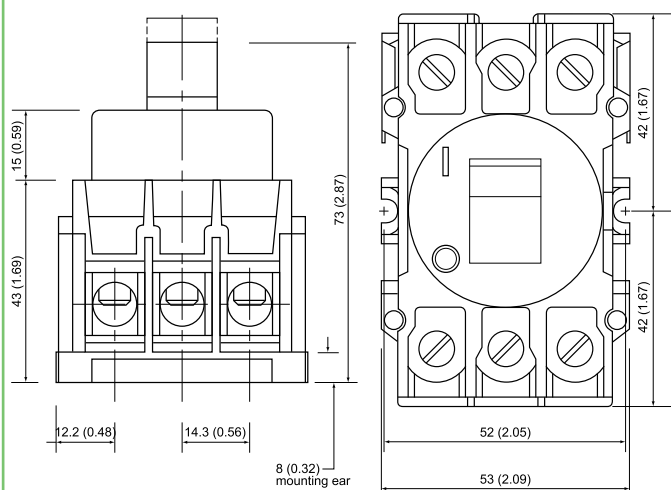
KSR4.40/U



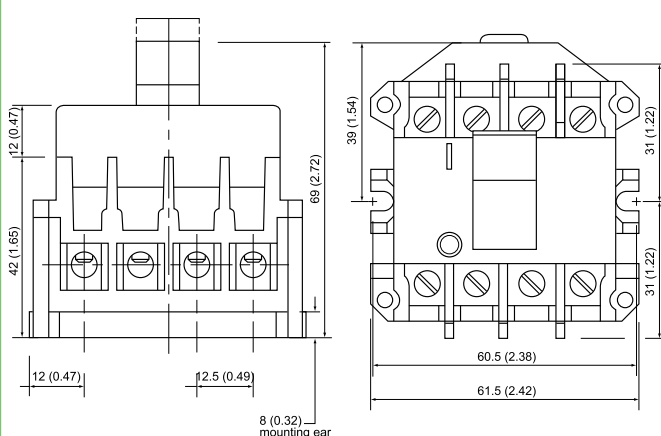
KST3.40/U, KST3.60/U



KST3.80/U, KST3.100/U



KST4.40/U



Enclosed switches

From 16 A to 125 A



Enclosed switches in brief:

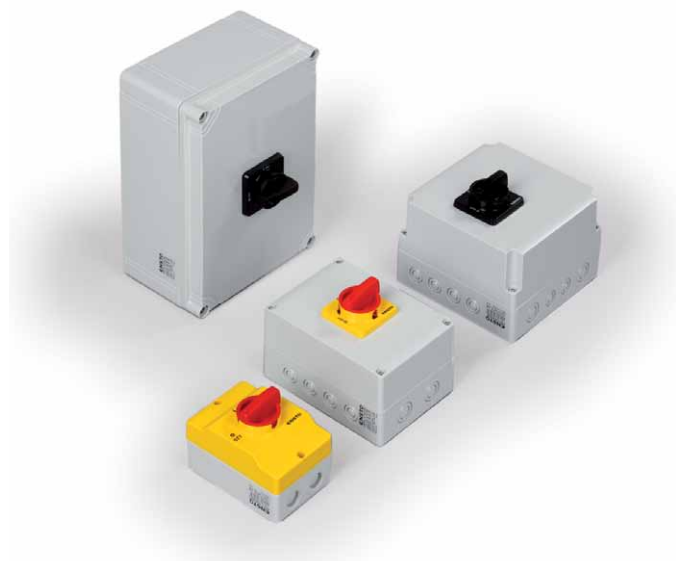
- Our knowledge of enclosure technology and switches is combined in this series of products
- Based on
 - Ensto Compact switches
 - Ensto Cubo polycarbonate enclosures, IP 65
- The series includes:
 - Small models: 3-, 4-, 6- and 8-pole, 16 A...40 A
 - Large models: 3-, 4-, 6- and 8-pole, 63 A...125 A
- The small models have enclosures with metric knock-outs
- The large models come with plain sides
- UL-listed products available
- All models available with black and red/yellow handle
- Handle padlockable in OFF-position
- Suitable for use as Safety Switch (prevention of unexpected start-up)

Standards

- All enclosed switches are manufactured according to standard EN 60947-3

Conformity	
CE RoHS	
Technical information	
Cross-section range	Cu 1.5 mm ² to 50 mm ²
Amperage range	16 A - 125 A
Material	
Enclosure:	Fibreglass reinforced polycarbonate
Mechanical features	
Screw head:	+/-

Ratings can be viewed on page 86.



Our offering also includes a range of enclosed switches, from 16 A to 125 A; 3-pole, 4-pole, 6-pole and 8-pole.

Product cards with technical drawings can be found at www.ensto.com.

Enclosed switches

Enclosed switches with metric knockouts, 16 A

PRODUCT CODE	COLOUR	POLES	KNOCKNOUTS	CONDUCTOR CROSS-SECTION (MM ²)	TIGHTENING TORQUE (Nm)	SIZE (MM)	WEIGHT (KG)	PACKAGE SIZE (PCS)	EAN 13 CODE
KKPC3.16BNM	Black handle	3-pole + N + PE	M20 threaded knockout	Cu 1.5-16 mm ²	2 Nm	133 x 86 x 104	0.355	6	6418677153846
KKPC3.16BAM	Black handle	3-pole + N + PE + A	M20 threaded knockout	Cu 1.5-16 mm ²	2 Nm	133 x 86 x 104	0.407	6	6418677153860
KKPC3.16BNR	Red/yellow	3-pole + N + PE	M20 threaded knockout	Cu 1.5-16 mm ²	2 Nm	133 x 86 x 104	0.355	6	6418677153853
KKPC3.16BAR	Red/yellow	3-pole + N + PE + A	M20 threaded knockout	Cu 1.5-16 mm ²	2 Nm	133 x 86 x 104	0.407	6	6418677153877
KKPC4.16BNM	Black handle	4-pole + N + PE	M20 threaded knockout	Cu 1.5-16 mm ²	2 Nm	133 x 86 x 104	0.410	6	6418677153921
KKPC4.16BNR	Red/yellow	4-pole + N + PE	M20 threaded knockout	Cu 1.5-16 mm ²	2 Nm	133 x 86 x 104	0.410	6	6418677153938
KKPC6.16VNL	Black handle	6-pole + N + PE	M25 knockout	Cu 1.5-16 mm ²	2 Nm	175 x 175 x 161	1.037	1	6418677194436
KKPC6.16VNK	Red/yellow	6-pole + N + PE	M25 knockout	Cu 1.5-16 mm ²	2 Nm	175 x 175 x 161	1.037	1	6418677194139
KKPC8.16VEL	Black handle	8-pole + PE	M25 knockout	Cu 1.5-16 mm ²	2 Nm	175 x 175 x 161	1.037	1	6418677194528
KKPC8.16VEK	Red/yellow	8-pole + PE	M25 knockout	Cu 1.5-16 mm ²	2 Nm	175 x 175 x 161	1.037	1	6418677194221

Enclosed switches with metric knockouts, 20 A

PRODUCT CODE	COLOUR	POLES	KNOCKNOUTS	CONDUCTOR CROSS-SECTION (MM ²)	TIGHTENING TORQUE (Nm)	SIZE (MM)	WEIGHT (KG)	PACKAGE SIZE (PCS)	EAN 13 CODE
KKPC3.20BNM	Black handle	3-pole + N + PE	M20 threaded knockout	Cu 1.5-16 mm ²	2 Nm	133 x 86 x 104	0.355	6	6418677153662
KKPC3.20BAM	Black handle	3-pole + N + PE + A	M20 threaded knockout	Cu 1.5-16 mm ²	2 Nm	133 x 86 x 104	0.407	6	6418677153884
KKPC3.20BNR	Red/yellow	3-pole + N + PE	M20 threaded knockout	Cu 1.5-16 mm ²	2 Nm	133 x 86 x 104	0.355	6	6418677153679
KKPC3.20BAR	Red/yellow	3-pole + N + PE + A	M20 threaded knockout	Cu 1.5-16 mm ²	2 Nm	133 x 86 x 104	0.407	6	6418677153891
KKPC4.20BNM	Black handle	4-pole + N + PE	M20 threaded knockout	Cu 1.5-16 mm ²	2 Nm	133 x 86 x 104	0.410	6	6418677153945
KKPC4.20BNR	Red/yellow	4-pole + N + PE	M20 threaded knockout	Cu 1.5-16 mm ²	2 Nm	133 x 86 x 104	0.410	6	6418677153952
KKPC6.20VNL	Black handle	6-pole + N + PE	M25 knockout	Cu 1.5-16 mm ²	2 Nm	175 x 175 x 161	1.037	1	6418677194443
KKPC6.20VNK	Red/yellow	6-pole + N + PE	M25 knockout	Cu 1.5-16 mm ²	2 Nm	175 x 175 x 161	1.037	1	6418677194146
KKPC8.20VEL	Black handle	8-pole + PE	M25 knockout	Cu 1.5-16 mm ²	2 Nm	175 x 175 x 161	1.037	1	6418677194535
KKPC8.20VEK	Red/yellow	8-pole + PE	M25 knockout	Cu 1.5-16 mm ²	2 Nm	175 x 175 x 161	1.037	1	6418677194238

Enclosed switches with metric knockouts, 25 A

PRODUCT CODE	COLOUR	POLES	KNOCKNOUTS	CONDUCTOR CROSS-SECTION (MM ²)	TIGHTENING TORQUE (Nm)	SIZE (MM)	WEIGHT (KG)	PACKAGE SIZE (PCS)	EAN 13 CODE
KKPC3.25BNM	Black handle	3-pole + N + PE	M20 threaded knockout	Cu 1.5-16 mm ²	2 Nm	133 x 86 x 104	0.355	6	6418677153686
KKPC3.25BAM	Black handle	3-pole + N + PE + A	M20 threaded knockout	Cu 1.5-16 mm ²	2 Nm	133 x 86 x 104	0.407	6	6418677153907
KKPC3.25BNR	Red/yellow	3-pole + N + PE	M20 threaded knockout	Cu 1.5-16 mm ²	2 Nm	133 x 86 x 104	0.355	6	6418677153693
KKPC3.25BAR	Red/yellow	3-pole + N + PE + A	M20 threaded knockout	Cu 1.5-16 mm ²	2 Nm	133 x 86 x 104	0.407	6	6418677153914
KKPC4.25BNM	Black handle	4-pole + N + PE	M20 threaded knockout	Cu 1.5-16 mm ²	2 Nm	133 x 86 x 104	0.410	6	6418677153969
KKPC4.25BNR	Red/yellow	4-pole + N + PE	M20 threaded knockout	Cu 1.5-16 mm ²	2 Nm	133 x 86 x 104	0.410	6	6418677153976
KKPC6.25VNL	Black handle	6-pole + N + PE	M25 knockout	Cu 1.5-16 mm ²	2 Nm	175 x 175 x 161	1.037	1	6418677194450
KKPC6.25VNK	Red/yellow	6-pole + N + PE	M25 knockout	Cu 1.5-16 mm ²	2 Nm	175 x 175 x 161	1.037	1	6418677194153
KKPC8.25VEL	Black handle	8-pole + PE	M25 knockout	Cu 1.5-16 mm ²	2 Nm	175 x 175 x 161	1.037	1	6418677194542
KKPC8.25VEK	Red/yellow	8-pole + PE	M25 knockout	Cu 1.5-16 mm ²	2 Nm	175 x 175 x 161	1.037	1	6418677194245



KKPC3.16BNM



KKPC3.20BAR



KKPC6.20VNL



KKPC6.25VNK

Enclosed switches

Enclosed switches with metric knockouts, 32 A

PRODUCT CODE	COLOUR	POLES	KNOCKNOUTS	CONDUCTOR CROSS-SECTION (MM ²)	TIGHTENING TORQUE (Nm)	SIZE (MM)	WEIGHT (KG)	PACKAGE SIZE (PCS)	EAN 13 CODE
KKPC3.32VSL	Black handle	3-pole	M25 knockout	Cu 1.5-16 mm ²	2 Nm	175 x 125 x 136	0.667	3	6418677154546
KKPC3.32VNL	Black handle	3-pole + N + PE	M25 knockout	Cu 1.5-16 mm ²	2 Nm	175 x 125 x 136	0.752	3	6418677194313
KKPC3.32VSK	Red/yellow	3-pole	M25 knockout	Cu 1.5-16 mm ²	2 Nm	175 x 125 x 136	0.667	3	6418677154560
KKPC3.32VNK	Red/yellow	3-pole + N + PE	M25 knockout	Cu 1.5-16 mm ²	2 Nm	175 x 125 x 136	0.752	3	6418677194016
KKPC4.32VSL	Black handle	4-pole	M25 knockout	Cu 1.5-16 mm ²	2 Nm	175 x 125 x 136	0.713	3	6418677154584
KKPC4.32VEL	Black handle	4-pole + PE	M25 knockout	Cu 1.5-16 mm ²	2 Nm	175 x 125 x 136	0.752	3	6418677194375
KKPC4.32VSK	Red/yellow	4-pole	M25 knockout	Cu 1.5-16 mm ²	2 Nm	175 x 125 x 136	0.713	3	6418677154607
KKPC4.32VEK	Red/yellow	4-pole + PE	M25 knockout	Cu 1.5-16 mm ²	2 Nm	175 x 125 x 136	0.752	3	6418677194078
KKPC6.32VNL	Black handle	6-pole + N + PE	M25 knockout	Cu 1.5-16 mm ²	2 Nm	175 x 175 x 161	1.037	1	6418677194467
KKPC6.32VNK	Red/yellow	6-pole + N + PE	M25 knockout	Cu 1.5-16 mm ²	2 Nm	175 x 175 x 161	1.037	1	6418677194160
KKPC8.32VEL	Black handle	8-pole + PE	M25 knockout	Cu 1.5-16 mm ²	2 Nm	175 x 175 x 161	1.037	1	6418677194559
KKPC8.32VEK	Red/yellow	8-pole + PE	M25 knockout	Cu 1.5-16 mm ²	2 Nm	175 x 175 x 161	1.037	1	6418677194252

Enclosed switches with metric knockouts, 40 A

PRODUCT CODE	COLOUR	POLES	KNOCKNOUTS	CONDUCTOR CROSS-SECTION (MM ²)	TIGHTENING TORQUE (Nm)	SIZE (MM)	WEIGHT (KG)	PACKAGE SIZE (PCS)	EAN 13 CODE
KKPC3.40VSL	Black handle	3-pole	M25 knockout	Cu 1.5-16 mm ²	2 Nm	175 x 125 x 136	0.667	3	6418677154553
KKPC3.40VNL	Black handle	3-pole + N + PE	M25 knockout	Cu 1.5-16 mm ²	2 Nm	175 x 125 x 136	0.752	3	6418677194320
KKPC3.40VSK	Red/yellow	3-pole	M25 knockout	Cu 1.5-16 mm ²	2 Nm	175 x 125 x 136	0.667	3	6418677154577
KKPC3.40VNK	Red/yellow	3-pole + N + PE	M25 knockout	Cu 1.5-16 mm ²	2 Nm	175 x 125 x 136	0.752	3	6418677194023
KKPC4.40VSL	Black handle	4-pole	M25 knockout	Cu 1.5-16 mm ²	2 Nm	175 x 125 x 136	0.713	3	6418677154591
KKPC4.40VEL	Black handle	4-pole + PE	M25 knockout	Cu 1.5-16 mm ²	2 Nm	175 x 125 x 136	0.752	3	6418677194382
KKPC4.40VSK	Red/yellow	4-pole	M25 knockout	Cu 1.5-16 mm ²	2 Nm	175 x 125 x 136	0.713	3	6418677154614
KKPC4.40VEK	Red/yellow	4-pole + PE	M25 knockout	Cu 1.5-16 mm ²	2 Nm	175 x 125 x 136	0.752	3	6418677194085
KKPC6.40VNL	Black handle	6-pole + N + PE	M25 knockout	Cu 1.5-16 mm ²	2 Nm	175 x 175 x 161	1.037	1	6418677194474
KKPC6.40VNK	Red/yellow	6-pole + N + PE	M25 knockout	Cu 1.5-16 mm ²	2 Nm	175 x 175 x 161	1.037	1	6418677194177
KKPC8.40VEL	Black handle	8-pole + PE	M25 knockout	Cu 1.5-16 mm ²	2 Nm	175 x 175 x 161	1.037	1	6418677194566
KKPC8.40VEK	Red/yellow	8-pole + PE	M25 knockout	Cu 1.5-16 mm ²	2 Nm	175 x 175 x 161	1.037	1	6418677194269



KKPC3.40VSL



KKPC3.32VSK



KKPC6.40VNL



KKPC6.40VNK

Enclosed switches with plain sides, 63 A

PRODUCT CODE	COLOUR	POLES	KNOCKNOUTS	CONDUCTOR CROSS-SECTION (MM ²)	TIGHTENING TORQUE (Nm)	SIZE (MM)	WEIGHT (KG)	PACKAGE SIZE (PCS)	EAN 13 CODE
KKPC3.63JSL	Black handle	3-pole	Plain sides	Cu 10-50 mm ²	4 Nm	300 x 200 x 168	1.749	1	6418677153747
KKPC3.63JNL	Black handle	3-pole + N + PE	Plain sides	Cu 10-50 mm ²	4 Nm	300 x 200 x 168	1.820	1	6418677194337
KKPC3.63JSK	Red/yellow	3-pole	Plain sides	Cu 10-50 mm ²	4 Nm	300 x 200 x 168	1.749	1	6418677153754
KKPC3.63JNK	Red/yellow	3-pole + N + PE	Plain sides	Cu 10-50 mm ²	4 Nm	300 x 200 x 168	1.820	1	6418677194030
KKPC4.63JEL	Black handle	4-pole + PE	Plain sides	Cu 10-50 mm ²	4 Nm	300 x 200 x 168	1.820	1	6418677194399
KKPC4.63JEK	Red/yellow	4-pole + PE	Plain sides	Cu 10-50 mm ²	4 Nm	300 x 200 x 168	1.820	1	6418677194092
KKPC6.63JNP	Black handle	6-pole + N + PE	Plain sides	Cu 10-50 mm ²	4 Nm	300 x 200 x 185	2.125	1	6418677194481
KKPC6.63JNS	Red/yellow	6-pole + N + PE	Plain sides	Cu 10-50 mm ²	4 Nm	300 x 200 x 185	2.125	1	6418677194184
KKPC8.63JEP	Black handle	8-pole + PE	Plain sides	Cu 10-50 mm ²	4 Nm	300 x 200 x 185	2.125	1	6418677194573
KKPC8.63JES	Red/yellow	8-pole + PE	Plain sides	Cu 10-50 mm ²	4 Nm	300 x 200 x 185	2.125	1	6418677194276

Enclosed switches

Enclosed switches with plain sides, 80 A

PRODUCT CODE	COLOUR	POLES	KNOCKNOUTS	CONDUCTOR CROSS-SECTION (MM ²)	TIGHTENING TORQUE (Nm)	SIZE (MM)	WEIGHT (KG)	PACKAGE SIZE (PCS)	EAN 13 CODE
KKPC3.80JNL	Black handle	3-pole + N + PE	Plain sides	Cu 10-50 mm ²	4 Nm	400 x 300 x 168	2.743	1	6418677194344
KKPC3.80JNK	Red/yellow	3-pole + N + PE	Plain sides	Cu 10-50 mm ²	4 Nm	400 x 300 x 168	2.743	1	6418677194047
KKPC4.80JEL	Black handle	4-pole + PE	Plain sides	Cu 10-50 mm ²	4 Nm	400 x 300 x 168	2.743	1	6418677194405
KKPC4.80JEK	Red/yellow	4-pole + PE	Plain sides	Cu 10-50 mm ²	4 Nm	400 x 300 x 168	2.743	1	6418677194108
KKPC6.80JNP	Black handle	6-pole + N + PE	Plain sides	Cu 10-50 mm ²	4 Nm	400 x 300 x 185	2.985	1	6418677194498
KKPC6.80JNS	Red/yellow	6-pole + N + PE	Plain sides	Cu 10-50 mm ²	4 Nm	400 x 300 x 185	2.985	1	6418677194191
KKPC8.80JEP	Black handle	8-pole + PE	Plain sides	Cu 10-50 mm ²	4 Nm	400 x 300 x 185	2.985	1	6418677194580
KKPC8.80JES	Red/yellow	8-pole + PE	Plain sides	Cu 10-50 mm ²	4 Nm	400 x 300 x 185	2.985	1	6418677194283

Enclosed switches with plain sides, 100 A

PRODUCT CODE	COLOUR	POLES	KNOCKNOUTS	CONDUCTOR CROSS-SECTION (MM ²)	TIGHTENING TORQUE (Nm)	SIZE (MM)	WEIGHT (KG)	PACKAGE SIZE (PCS)	EAN 13 CODE
KKPC3.100JNL	Black handle	3-pole + N + PE	Plain sides	Cu 10-50 mm ²	4 Nm	400 x 300 x 168	2.743	1	6418677194351
KKPC3.100JNK	Red/yellow	3-pole + N + PE	Plain sides	Cu 10-50 mm ²	4 Nm	400 x 300 x 168	2.743	1	6418677194054
KKPC4.100JEL	Black handle	4-pole + PE	Plain sides	Cu 10-50 mm ²	4 Nm	400 x 300 x 168	2.743	1	6418677194412
KKPC4.100JEK	Red/yellow	4-pole + PE	Plain sides	Cu 10-50 mm ²	4 Nm	400 x 300 x 168	2.743	1	6418677194115
KKPC6.100JNP	Black handle	6-pole + N + PE	Plain sides	Cu 10-50 mm ²	4 Nm	400 x 300 x 185	2.985	1	6418677194504
KKPC6.100JNS	Red/yellow	6-pole + N + PE	Plain sides	Cu 10-50 mm ²	4 Nm	400 x 300 x 185	2.985	1	6418677194207
KKPC8.100JEP	Black handle	8-pole + PE	Plain sides	Cu 10-50 mm ²	4 Nm	400 x 300 x 185	2.985	1	6418677194597
KKPC8.100JES	Red/yellow	8-pole + PE	Plain sides	Cu 10-50 mm ²	4 Nm	400 x 300 x 185	2.985	1	6418677194290

Enclosed switches with plain sides, 125 A

PRODUCT CODE	COLOUR	POLES	KNOCKNOUTS	CONDUCTOR CROSS-SECTION (MM ²)	TIGHTENING TORQUE (Nm)	SIZE (MM)	WEIGHT (KG)	PACKAGE SIZE (PCS)	EAN 13 CODE
KKPC3.125JNL	Black handle	3-pole + N + PE	Plain sides	Cu 10-50 mm ²	4 Nm	400 x 300 x 168	2.743	1	6418677194368
KKPC3.125JNK	Red/yellow	3-pole + N + PE	Plain sides	Cu 10-50 mm ²	4 Nm	400 x 300 x 168	2.743	1	6418677194061
KKPC4.125JEL	Black handle	4-pole + PE	Plain sides	Cu 10-50 mm ²	4 Nm	400 x 300 x 168	2.743	1	6418677194429
KKPC4.125JEK	Red/yellow	4-pole + PE	Plain sides	Cu 10-50 mm ²	4 Nm	400 x 300 x 168	2.743	1	6418677194122
KKPC6.125JNP	Black handle	6-pole + N + PE	Plain sides	Cu 10-50 mm ²	4 Nm	400 x 300 x 185	2.985	1	6418677194511
KKPC6.125JNS	Red/yellow	6-pole + N + PE	Plain sides	Cu 10-50 mm ²	4 Nm	400 x 300 x 185	2.985	1	6418677194214
KKPC8.125JEP	Black handle	8-pole + PE	Plain sides	Cu 10-50 mm ²	4 Nm	400 x 300 x 185	2.985	1	6418677194603
KKPC8.125JES	Red/yellow	8-pole + PE	Plain sides	Cu 10-50 mm ²	4 Nm	400 x 300 x 185	2.985	1	6418677194306



KKPC3.63JSL



KKPC3.63JSK



KKPC3.80JNL



KKPC8.100JES

Enclosed switches

UL-listed enclosed rotary controllers

Ensto enclosed controllers are UL-listed assemblies of Ensto Cubo series enclosures, Ensto Origin rotary switches and handles, and Ensto ground and neutral terminals. UL File No. 164205; UL 508.

PRODUCT CODE	COLOUR	POLES	KNOCKOUTS	MAX. VOLTAGE (VAC)	TIGHTENING TORQUE (LB-IN)	SIZE (MM)	WEIGHT (KG)	PACKAGE SIZE (PCS)	EAN 13 CODE
20 A, 480 VAC									
KKCSA13.20JSR/U	Red/yellow	3-pole	Plain sides	480 VAC	18 Lb-In	125 x 75 x 136	0.463	56	6438100000523
KKCSA13.20JSM/U	Black handle	3-pole	Plain sides	480 VAC	18 Lb-In	125 x 75 x 136	0.463	56	6438100000516
30 A, 600 VAC									
KKCSE3.30JDR/U	Red/yellow	3-pole + N + G	Plain sides	600 VAC	18 Lb-In	175 x 125 x 136	0.776	1	6438100000547
KKCSE3.30JDM/U	Black handle	3-pole + N + G	Plain sides	600 VAC	18 Lb-In	175 x 125 x 136	0.776	1	6438100000530



KKCSA13.20JSR/U

Ratings

PRODUCT CODE	AMPERAGE (A)	VOLTAGE (V)	FLA	LRA	SINGLE-PHASE (2 POLES)					THREE-PHASE DESIGN B, C, D				
					110 - 120 VAC	200 - 280 VAC	220 - 240 VAC	440 - 480 VAC	550 - 600 VAC	110 - 120 VAC	200 - 280 VAC	220 - 240 VAC	440 - 480 VAC	550 - 600 VAC
KKSA13.20JSR/U KKSA13.20JSM/U	20 A	480 V	15.2 A	92 A	¾ Hp	2 Hp	2 Hp	5 Hp		1½ Hp	3 Hp	5 Hp	10 Hp	
KKCSE3.30JDR/U KKCSE3.30JDM/U	30 A	600 V	26 A	146 A	2 Hp	3 Hp	3 Hp	7 ½ Hp	10 Hp	2 Hp	7 ½ Hp	7 ½ Hp	15 Hp	20 Hp

Enclosed switch kits

Ensto's enclosed switch kits include a strain relief and glands.

PRODUCT CODE	COLOUR	POLES	KNOCKOUTS	CONDUCTOR CROSS-SECTION (MM ²)	TIGHTENING TORQUE (Nm)	SIZE (MM)	WEIGHT (KG)	PACKAGE SIZE (PCS)	EAN 13 CODE
Enclosed switches with metric knockouts, 16 A									
KKPC3.16BNMT	Black handle	3-pole + N + PE	M20 threaded knockout	Cu 1.5-16 mm ²	2 Nm	133 x 86 x 104	0.355	25	6418677180132
KKPC3.16BART	Red/yellow	3-pole + N + PE + A	M20 threaded knockout	Cu 1.5-16 mm ²	2 Nm	133 x 86 x 104	0.407	25	6418677180149
Enclosed switches with metric knockouts, 25 A									
KKPC6.25VNKT	Red/yellow	6-pole + N + PE	M25 knockout	Cu 1.5-16 mm ²	2 Nm	175 x 175 x 161	1.112	2	6418677180156



KKPC3.16BNMT

Fuse bases

1 x 25 A - 8 x 25 A or 1 x 63 A - 6 x 63 A



Fuse bases in brief:

- Particularly used in industrial panel building
- The range includes
 - — Traditional ceramic single fuse bases with a 50 kA short-circuit rating
 - — Fuse blocks of up to eight fuse bases
- For Diazed fuses of sizes DII (max. 25 A) and DIII (max. 63 A)
- The series includes a range of accessories such as covers and DIN rail clips

Standards

- All fuse bases are certified according to standards EN 60269-1 and IEC 60269-3

Conformity	
CE RoHS FI	
Technical information	
Nominal current range:	25 A and 63 A
Nominal insulation voltage:	500 V
Material	
Housing:	Porseline
Body:	Ni-coated brass
Mechanical features	
Screw head:	+/-
Mounting:	Screws or DIN rail



Our range of fuse bases covers ceramic single fuse bases and fuse blocks, for Diazed fuses of sizes DII (max. 25 A) and DIII (max. 63 A).

Product cards with technical drawings can be found at www.ensto.com.

Fuse bases

Single fuse bases

PRODUCT CODE	DESCRIPTION	WEIGHT (KG)	PACKAGE SIZE (PCS)	EAN 13 CODE
Single fuse bases, 25 A				
KVC1.1	1 x 25 A	0.092	140	6418677160776
KVC1.2	1 x 25 A	0.092	140	6418677160783
KVC30	1 x 25 A fuse base with cover	0.126	50	6418677160790
KV25.1	1 x 25 A	0.101	140	6418677160875
KV25.2	1 x 25 A	0.096	140	6418677160882
KV25.211	1 x 25 A	0.102	100	6418677160905
KV25.291	1 x 25 A	0.100	100	6418677160899
Single fuse bases, 63 A				
KV63.1	1 x 63 A	0.160	100	6418677160912
KV63.2	1 x 63 A	0.160	100	6418677160929
KV63.211	1 x 63 A	0.156	75	6418677160936
KV63.291	1 x 63 A	0.158	75	6418677160943
Single fuse bases with DIN rail fixing				
KVC1.7	1 x 25 A, with DIN rail fixing	0.100	100	6418677160950
KV63.7	1 x 63 A, with DIN rail fixing	0.168	100	6418677160967
Single fuse bases with Al/Cu terminal				
KVC1.5	1 x 25 A, with Al/Cu terminal, max. Al 50 mm ² , Cu 35 mm ²	0.102	50	6418677160974
KVC1.57	1 x 25 A, with DIN rail fixing and Al/Cu terminal, max. Al 50 mm ² , Cu 35 mm ²	0.114	50	6418677160981
KV63.5	1 x 63 A, with Al/Cu terminal, max. Al 50 mm ² , Cu 35 mm ²	0.172	100	6418677160998
KV63.57	1 x 63 A, with DIN rail fixing and Al/Cu terminal, max. Al 50 mm ² , Cu 35 mm ²	0.172	100	6418677161001



KVC1.1



KV63.2



KV63.57

Fuse blocks

PRODUCT CODE	DESCRIPTION	WEIGHT (KG)	PACKAGE SIZE (PCS)	EAN 13 CODE
Fuse blocks, 25 A				
KVC421	2 x 25 A	0.185	70	6418677160806
KVC431	3 x 25 A	0.280	50	6418677160813
KVC441	4 x 25 A	0.360	35	6418677160820
KVC451	5 x 25 A	0.456	25	6418677160837
KVC461	6 x 25 A	0.544	25	6418677160844
KVC471	7 x 25 A	0.648	20	6418677160851
KVC481	8 x 25 A	0.726	20	6418677160868
Fuse blocks, 63 A				
KV63.421	2 x 63 A	0.306	50	6418677161018
KV63.431	3 x 63 A	0.480	35	6418677161025
KV63.441	4 x 63 A	0.645	24	6418677161032
KV63.451	5 x 63 A	0.796	24	6418677161049
KV63.461	6 x 63 A	0.950	15	6418677161056
Fuse blocks with DIN rail fixing				
KV63.721	2 x 63 A, with DIN rail fixing	0.320	50	6418677181016
KV63.731	3 x 63 A, with DIN rail fixing	0.481	35	6418677181023
KV63.741	4 x 63 A, with DIN rail fixing	0.655	24	6418677181030
KV63.751	5 x 63 A, with DIN rail fixing	0.809	24	6418677181047
KV63.761	6 x 63 A, with DIN rail fixing	0.970	15	6418677181054
Combined fuse blocks				
KVC1.31	3 x 25 A + 1 x 63 A	0.465	30	6418677161063



KVC461



KVC1.31

Fuse bases

Porcelain rings

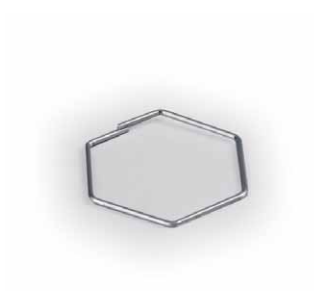
PRODUCT CODE	DESCRIPTION	WEIGHT (KG)	PACKAGE SIZE (PCS)	EAN 13 CODE
Porcelain rings				
PR1.25	For 25 A fuse base	0.025	480	6418677161216
PR2.25	For 25 A fuse base with slot	0.024	480	6418677161223
PR3.63	For 63 A fuse base	0.036	280	6418677161230
PR4.63	For 63 A fuse base with slot	0.038	280	6418677161247
Fixing springs				
PJ3.25	For ring PR2.25	0.002	500	6418677161254
PJ4.63	For ring PR4.63	0.002	500	6418677161261



Porcelain ring, PR1.25.



Porcelain ring with slot, PR4.63.



Fixing spring, PJ3.25.

Protective covers

PRODUCT CODE	DESCRIPTION	WEIGHT (KG)	PACKAGE SIZE (PCS)	EAN 13 CODE
PMR450	50 x 45 mm, for KVC fuse blocks	0.012	500	6418677161285
PMR450.1	52.5 x 45 mm, for KVC single fuse bases	0.013	500	6418677161292
PMR450.3	150 x 45 mm, for KVC fuse blocks	0.034	100	6418677161308
PMR595	52.5 x 45 mm, for 63 A single fuse bases	0.011	500	6418677161315
PMR595.1	60 x 45 mm, for 63 A fuse blocks	0.011	500	6418677161322
PMR597	For 25 A, KVC1.x single fuse bases	0.024	100	6418677161339
PMR77	For 63 A, KV single fuse bases	0.042	50	6418677161346
PMR2	Cover for the Al/Cu terminal	0.005	10	6418677170386



Protective cover for single fuse bases, PMR450.1.



Protective cover for fuse blocks, PMR450.3.



Protective cover for single fuse bases, PMR597.



Cover for the Al/Cu terminal, PMR2

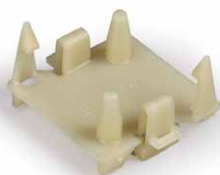
Fuse bases

Other accessories

PRODUCT CODE	DESCRIPTION	WEIGHT (KG)	PACKAGE SIZE (PCS)	EAN 13 CODE
DIN rail fixings				
KW2	Metallic spring	0.006	100	6418677161360
PMR447	Plastic snap-on device, for KVC fuse bases and blocks	0.004	500	6418677161377
KW21	Plastic snap-on device, for 4-8 x 25 A KVC fuse blocks	0.005	500	6418677161384
PMR824	Plastic snap-on device, KW21 without screw	0.004	500	6418677161391
PLP4	Screw for KW21	0.002	500	6418677161407
Name plate holders				
PMR550.25	6-piece, for 25 A fuse blocks, self-adhesive	0.010	300	6418677161445
PMR550.63	6-piece, for 63 A fuse blocks, self-adhesive	0.013	300	6418677161452
Sealing covers				
KW20	Sealing cover, for sealing 25 A bases	0.025	50	6418677161469
PMR11	Sealing cover for MCB, 1-pole	0.006	200	6418677161278
Other accessories				
KW19	Reduction ring, E33/E27, (63 A/25 A)	0.021	100	6418677161483
ST1	Locking device , for MCB	0.004	500	6418677167546
ST1T	Locking device set, for MCB, set of 10 devices	0.035	1	6418677167799



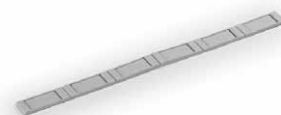
DIN rail fixing, metallic spring, KW2.



Plastic snap-on device, PMR447.



Plastic snap-on device, KW21.



Name plate holder, PMR550.25.



Sealing cover, KW20.



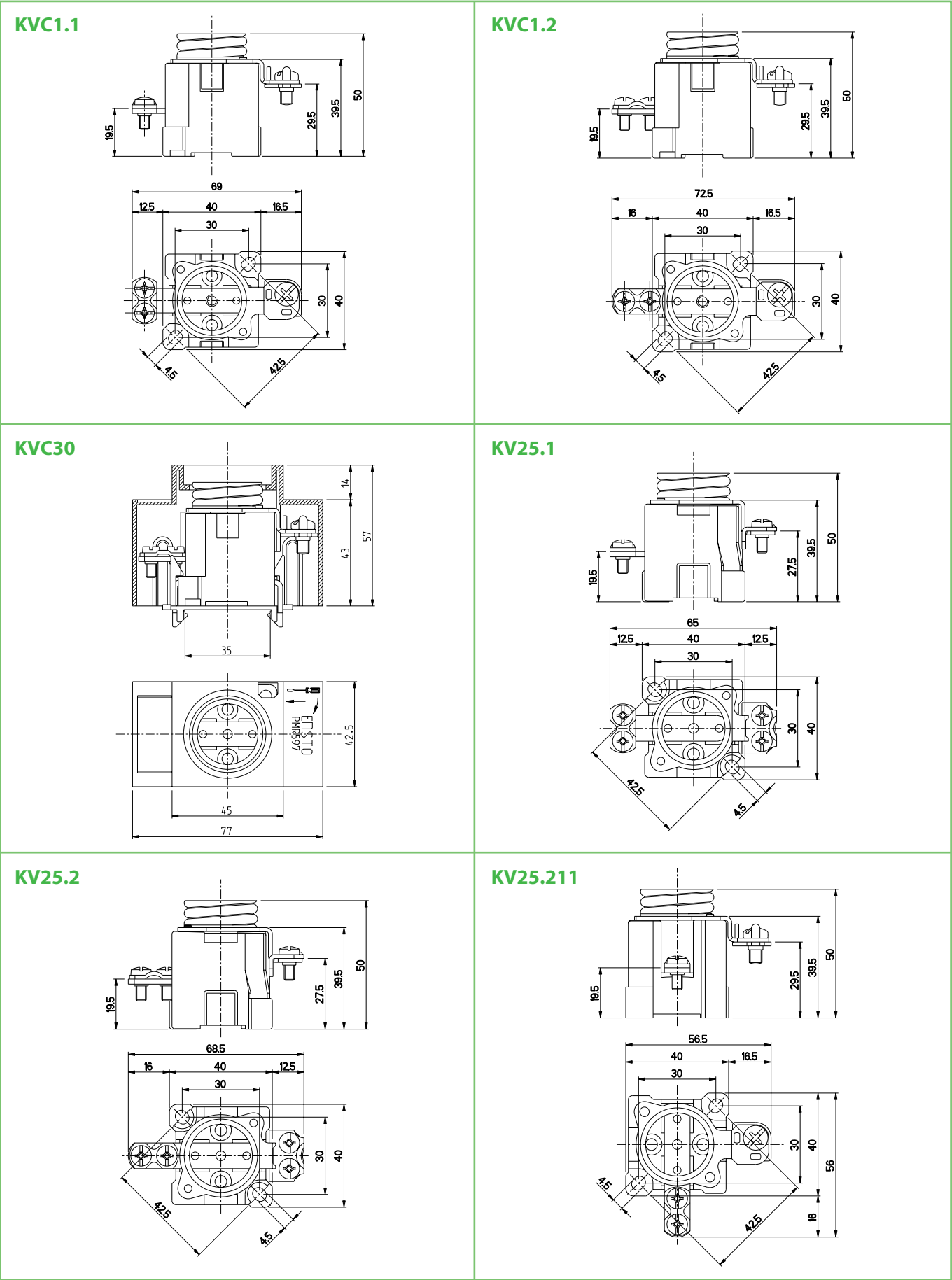
Sealing cover for MCB, PMR11.



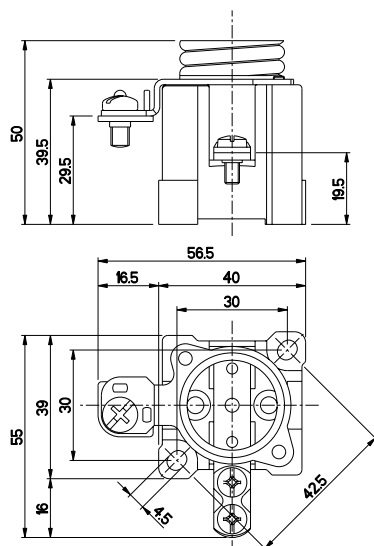
Reduction ring, KW19.



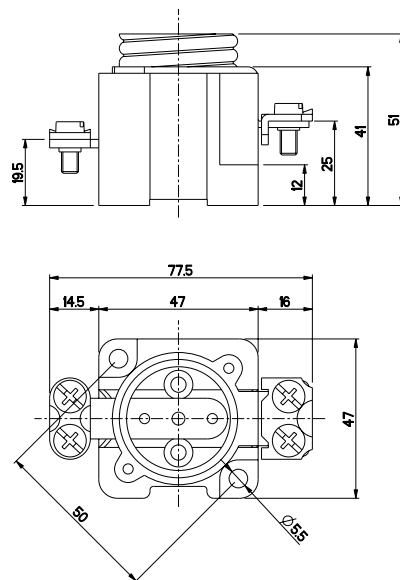
Locking device, ST1.



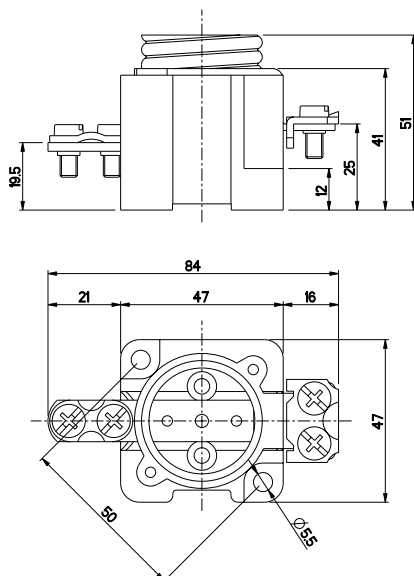
KV25.291



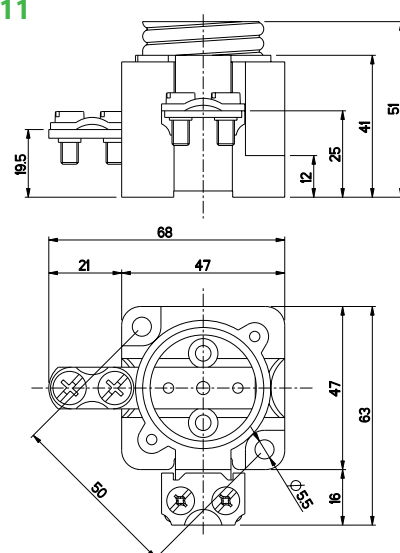
KV63.1



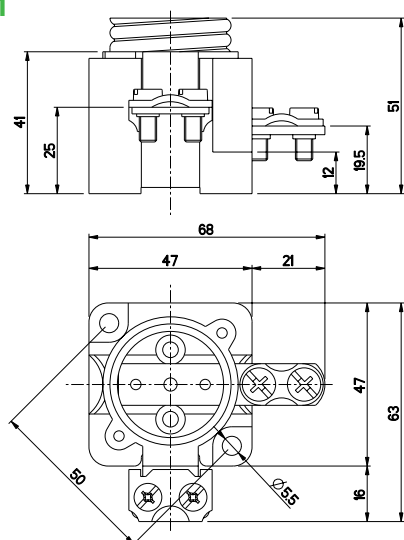
KV63.2



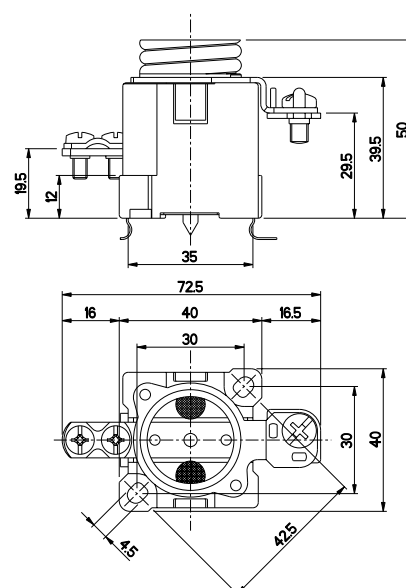
KV63.211

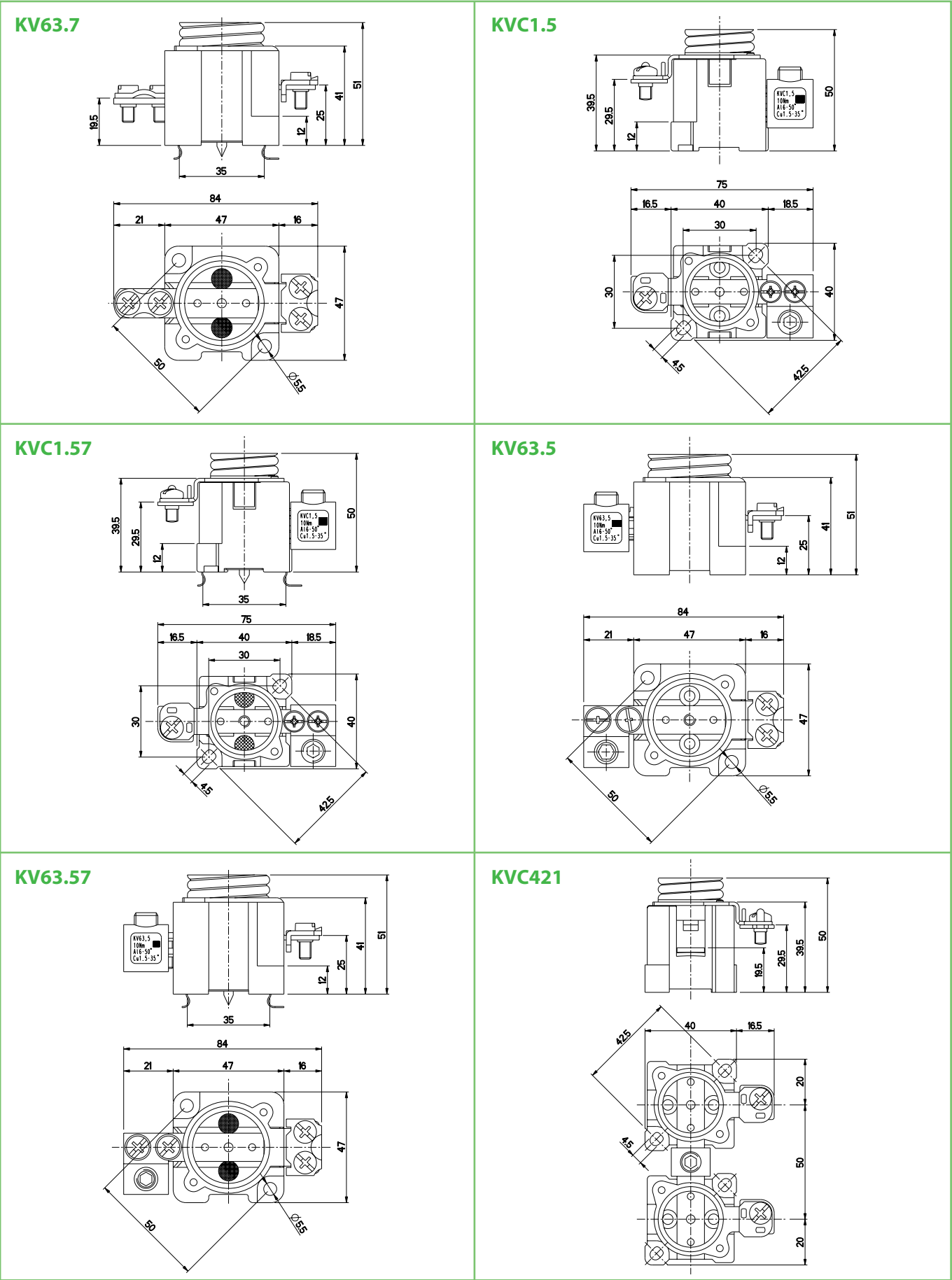


KV63.291



KVC1.7

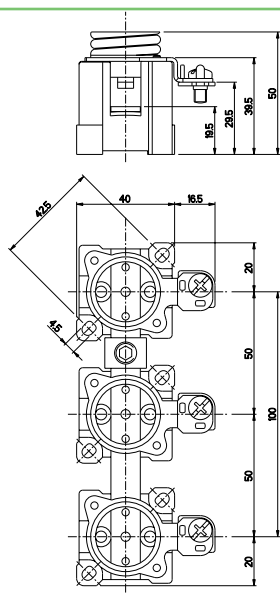




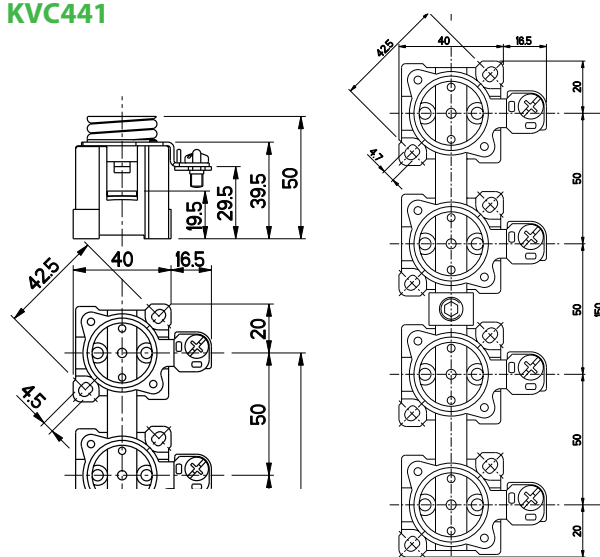
Technical drawings, fuse bases

Dimensions in mm

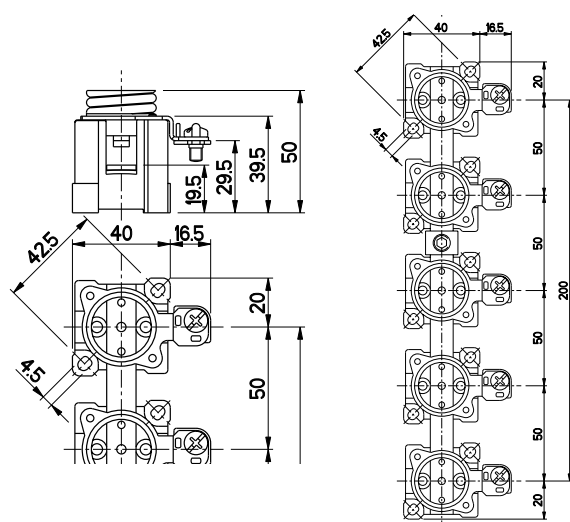
KVC431



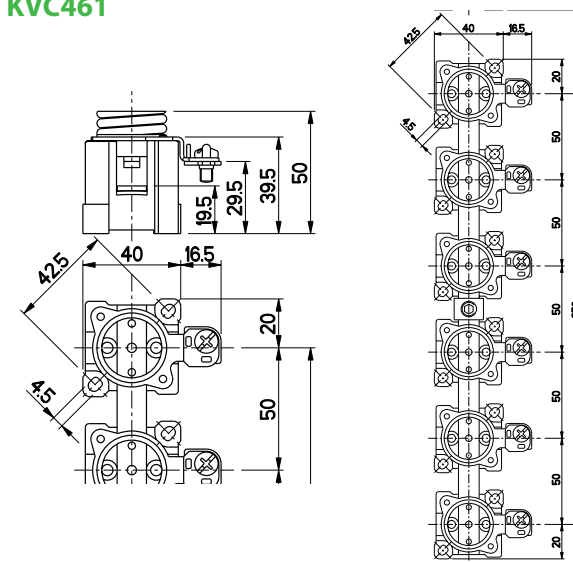
KVC441



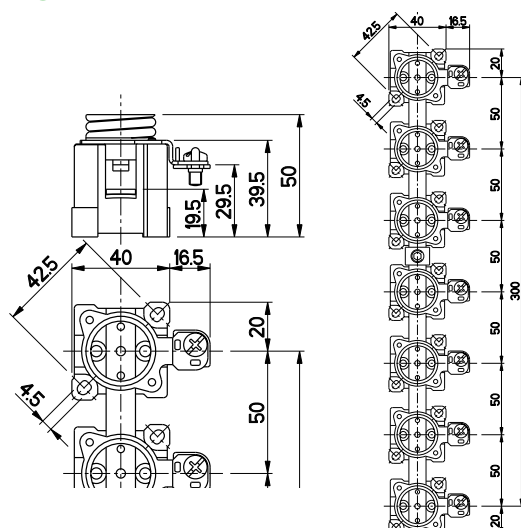
KVC451



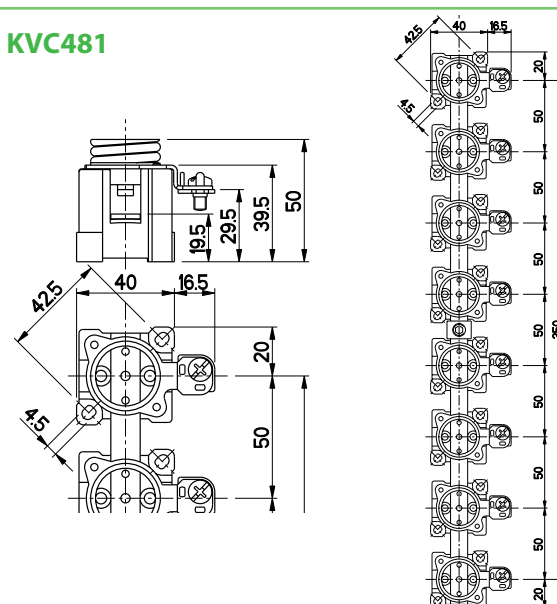
KVC461

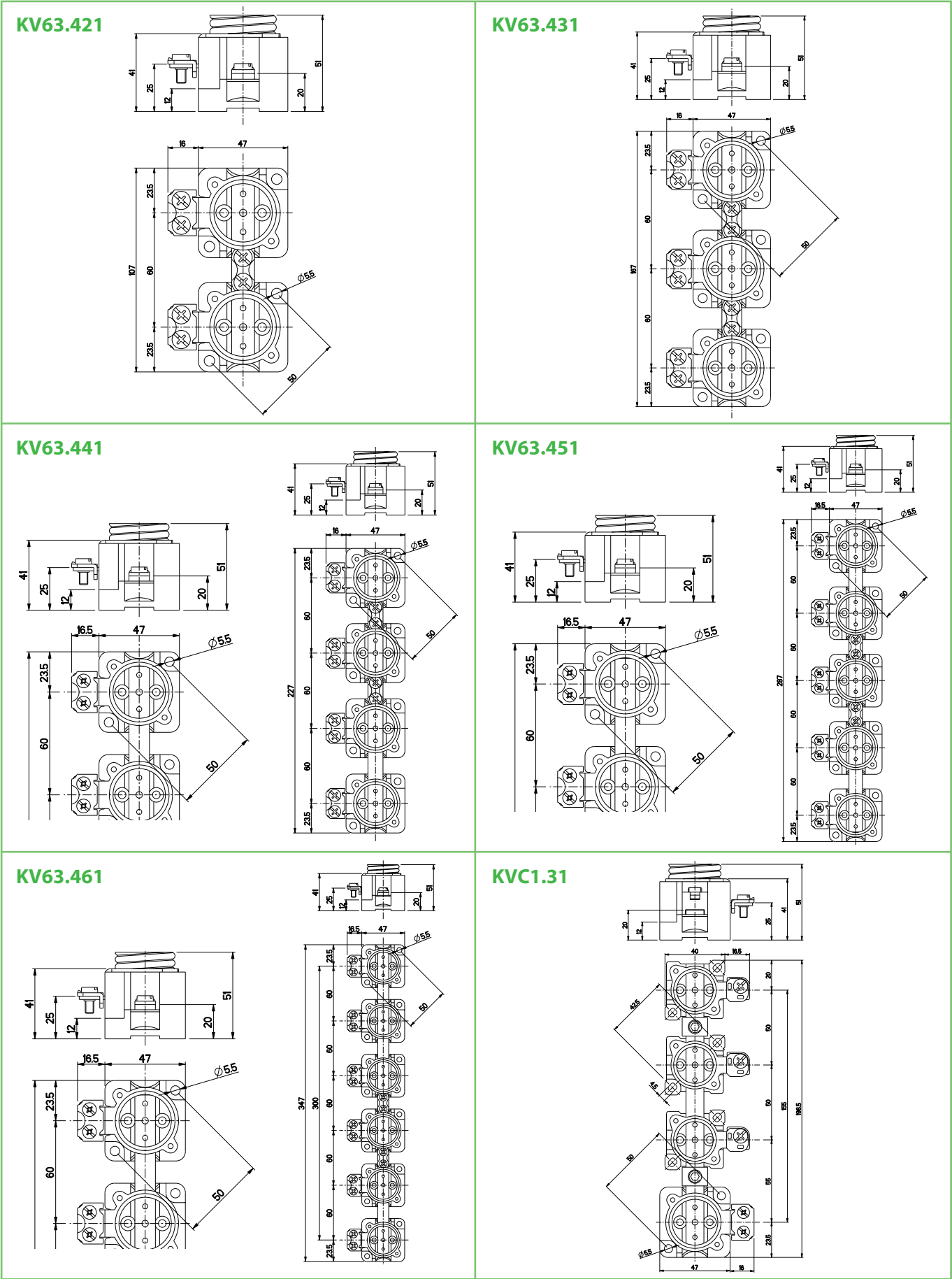


KVC471



KVC481





Manual motor controllers, ratings

PRODUCT CODE	RATING	MOTOR FLA	MOTOR LRA	SINGLE-PHASE		THREE-PHASE DESIGN B, C, D				THREE-PHASE DESIGN E			
				120 VAC	240 VAC	200 VAC	240 VAC	480 VAC	600 VAC	200 VAC	240 VAC	480 VAC	600 VAC
KS3.20/U KS13.20/U	20 A 480 VAC	12 A 480 VAC	80 A 480 VAC	½ Hp	2 Hp	3 Hp	3 Hp	7 ½ Hp		2 Hp	3 Hp	5 Hp	
KS3.30/U KS13.30/U	30 A 480 VAC	15.2 A 480 VAC	92 A 480 VAC	¾ Hp	2 Hp	3 Hp	5 Hp	10 Hp		3 Hp	3 Hp	7 ½ Hp	
KSR3.40/U KSR3.401/U KSR3.402/U KST3.40/U	40 A 600 VAC	27 A 600 VAC	146 A 600 VAC	2 Hp	3 Hp	7 ½ Hp	7 ½ Hp	20 Hp	25 Hp	5 Hp	5 Hp	10 Hp	15 Hp
KSR4.40/U KSR4.401/U KSR4.402/U KST4.40/U	40 A 480 VAC	27 A 480 VAC	146 A 480 VAC	2 Hp	3 Hp	7 ½ Hp	7 ½ Hp	20 Hp		5 Hp	5 Hp	10 Hp	
KSR3.60/U KSR3.601/U KSR3.602/U KST3.60/U	60 A 480 VAC	34 A 480 VAC	194 A 480 VAC	2 Hp	5 Hp	10 Hp	10 Hp	25 Hp		5 Hp	7 ½ Hp	15 Hp	
KSR3.80/U KSR3.801/U KSR3.802/U KST3.80/U	80 A	54 A	337 A	3 Hp	10 Hp	15 Hp	20 Hp	40 Hp	50 Hp	10 Hp	15 Hp	30 Hp	40 Hp
KSR3.100/U KSR3.1001/U KSR3.1002/U KST3.100/U	100 A 480 VAC	68 A 480 VAC	412 A 480 VAC	5 Hp	15 Hp	20 Hp	25 Hp	50 Hp		15 Hp	15 Hp	40 Hp	

PRODUCT CODE	RATING	TERMINAL LUG SPECIFICATIONS (CU WIRES, 60 - 75 °C)			SHORT-CIRCUIT RATING WITH FUSES LINE-SIDE					
		WIRE SIZE, SOLID	WIRE SIZE, STRANDED	TIGHTENING TORQUE	FUSE TYPE H, K, OR RK 5			FUSE TYPE J OR BETTER		
					AVAIL. CURRENT	MAX. VOLT	MAX. FUSE	AVAIL. CURRENT	MAX. VOLT	MAX. FUSE
KS3.20/U KS13.20/U	20 A	#14 - #10AWG	#14 - #6 AWG	18 Lb-In	10 kA	480 VAC	30 A			
KS3.30/U KS13.30/U	30 A	#14 - #10 AWG	#14 - #6 AWG	18 Lb-In	10 kA	480 VAC	30 A			
KSR3.40/U KSR3.401/U KSR3.402/U KST3.40/U	40 A	#14 - #10 AWG	#14 - #4 AWG	35 Lb-In	10 kA	600 VAC	100 A	18 kA	480 VAC	100 A
KSR4.40/U KSR4.401/U KSR4.402/U KST4.40/U	40 A	#14 - #10 AWG	#14 - #4 AWG	35 Lb-In	10 kA	480 VAC	60 A			
KSR3.60/U KSR3.601/U KSR3.602/U KST3.60/U	60 A	#14 - #10 AWG	#14 - #4 AWG	35 Lb-In	10 kA	480 VAC	100 A	18 kA	480 VAC	100 A
KSR3.80/U KSR3.801/U KSR3.802/U KST3.80/U	80 A	#14 - #10 AWG	#14 - #1 AWG	50 Lb-In	10 KA	600 VAC	150 A	18 kA	480 VAC	100 A
KSR3.100/U KSR3.1001/U KSR3.1002/U KST3.100/U	100 A	#14 - #10 AWG	#14 - #1 AWG	50 Lb-In	10 kA	480 VAC	150 A	18 kA	480 VAC	100 A

Ensto Clampo conductor table 1/2

Conductors that can be used with the terminals: number, cross-section and type.

- Nominal cross-sections are in bold type.
- Often the requirements of a specific apparatus restrict the number of conductors.
- Usually a maximum of three adjacent cross-sections in one space.
- The nominal current of the terminal must not be exceeded.
- In general, the conductors connected to one conductor space of a connector must be of the same type.
- Table values require careful installation.
- After installation, check that all conductors are pressed into a connection.
- We recommend a ferrule when using a fine stranded conductor.
- According to installation standard SFS 6000: 1999 section 810.2.6, each incoming and outgoing protection and neutral conductor in a panel must have its own separate terminal.
- The conductor numbers below refer only to industrially installed terminals (internal connections in a panel), (SGS Fimko).

PRODUCT CODE	WIRE TYPE	CROSS-SECTIONS OF CONDUCTORS (MM²) AND NUMBER OF CONDUCTORS/SPACE. THE CONDUCTOR NUMBERS BELOW REFER ONLY TO INDUSTRIALLY INSTALLED TER- MINALS.																NOMI- NAL CURRENT (A)	NOMINAL INSU- LATION VOLTAGE (V)	TIGHTENING TORQUE (Nm)
		1.5	2.5	4	6	10	16	25	35	50	70	95	120	150	185	240	300			
Ensto Clampo Pro universal terminals																				
KE61	Al				1	1	1	1	1	1								145	750	10
	Cu		3	3	3	3	2	1	1	1								160		
KE62	Al						1	1	1	1	1	1						220	750	14
	Cu						3	2	2	1	1	1						245		
KE63	Al								1	1	1	1	1	1	1			290	750	14 (35-95 mm2)
	Cu								3	2	1	1	1	1	1			320		24 (120-150 mm2)
KE64	Al								1	1	1	1	1	1	1	1	1	380	750	12 (35-70 mm2)
	Cu								3	3	2	1	1	1	1	1	1	425		40 (95-240 mm2)
KE66	Al				1	1	1	1	1	1								290	750	10
	Cu		3	3	3	3	2	1	1	1	1							320		
KE67	Al						1	1	1	1	1	1						440	750	14
	Cu						3	2	2	1	1	1						490		
KE68	Al								1	1	1	1	1	1	1			580	750	14 (35-95 mm2)
	Cu								3	3	2	1	1	1	1			640		24 (120-150 mm2)
KE69	Al								1	1	1	1	1	1	1	1	1	630	750	12 (35-70 mm2)
	Cu								3	3	2	1	1	1	1	1	1	730		40 (95-240 mm2)
Ensto Clampo Pro branching terminals																				
KE85	Main Al/Cu					1	1	1	1									99	750	4
	Branch Cu				2	2	1													
KE86	Main Al/Cu					1	1	1	1	1								171	750	8
	Branch Cu				2	2	1	1												
KE87	Main Al/Cu						1	1	1	1	1	1						215	750	10
	Branch Cu					2	2	1	1											
Ensto Clampo Apparatus equipment terminals																				
KE12.12, KE12.20	Al				1	1	1	1	1	1								145	750	10
	Cu				1	1	1	1	1	1								160		
KE12.28	Al				1	1	1	1	1	1	1							80	750	10
	Cu				1	1	1	1	1	1	1									
KE52.2	Al						1	1	1	1	1	1						270		14
	Cu						3	2	2	1	1	1								
KE53.2	Al								1	1	1	1	1	1	1			320		14 (35-95 mm2)
	Cu								3	2	1	1	1	1	1					24 (120-150 mm2)
KE54.2	Al								1	1	1	1	1	1	1	1	1	425		12 (35-70 mm2)
	Cu								3	3	2	1	1	1	1	1	1			40 (95-240 mm2)
KE55	Al												1	1	1	1	1	420		25
	Cu												1	1	1	1	1			
KE56.1	Al						1	1	1	1	1	1						440		16
	Cu						1	1	1	1	1	1						490		2 conductor spaces
KE57	Al											1	1	1	1	1		400		35
	Cu											1	1	1	1	1				2 conductor spaces
KE58	Al													1	1	1	1	630		35
	Cu													1	1	1	1			2 conductor spaces
KE73.2	Al								1	1	1	1	1	1	1			320	750	14 (35-95 mm2)
	Cu								3	2	1	1	1	1	1					24 (120-150 mm2)
KE74.2	Al								1	1	1	1	1	1	1	1	1	425	750	12 (35-70 mm2)
	Cu								3	3	2	1	1	1	1	1	1			40 (95-240 mm2)
KE75	Al												1	1	1	1	1	420	750	25
	Cu												1	1	1	1	1			
KE77	Al											1	1	1	1	1		400	750	35
	Cu											1	1	1	1	1				2 conductor spaces
KE78	Al													1	1	1	1	630	750	35
	Cu													1	1	1	1			2 conductor spaces

Ensto Clampo conductor table 2/2

Conductors that can be used with the terminals: number, cross-section and type.

- Nominal cross-sections are in bold type.
- Often the requirements of a specific apparatus restrict the number of conductors.
- Usually a maximum of three adjacent cross-sections in one space.
- The nominal current of the terminal must not be exceeded.
- In general, the conductors connected to one conductor space of a connector must be of the same type.
- Table values require careful installation.
- After installation, check that all conductors are pressed into a connection.
- We recommend a ferrule when using a fine stranded conductor.
- According to installation standard SFS 6000: 1999 section 810.2.6, each incoming and outgoing protection and neutral conductor in a panel must have its own separate terminal.
- The conductor numbers below refer only to industrially installed terminals (internal connections in a panel), (SGS Fimko).

PRODUCT CODE	WIRE TYPE	CROSS-SECTIONS OF CONDUCTORS (MM²) AND NUMBER OF CONDUCTORS/SPACE. THE CONDUCTOR NUMBERS BELOW REFER ONLY TO INDUSTRIALLY INSTALLED TER- MINALS.																NOMI- NAL CURRENT (A)	NOMINAL INSU- LATION VOLTAGE (V)	TIGHTENING TORQUE (Nm)
		1.5	2.5	4	6	10	16	25	35	50	70	95	120	150	185	240	300			
Ensto Clampo Tap tapping blocks																				
KE80	Cu					7	7	5	5	3	3	2						270	750	2
KE80.15	Cu	See KE80 and PPK2																270	750	2 / 3
KE81	Cu					7	7	7	7	7	5	4	3	2	2			490	750	9
KE82	Cu							7	6	6	4	4	3	2	2	2		560	750	6
KE82.15	Cu	See KE82 and PSS63																560/353	750	6
Ensto Clampo Tap terminal plates																				
KF11	Cu	7	6	4	3	2												62	500	3.5
KF9	Cu	7	7	6	5	3	2											62	500	4
KF10	Cu		7	7	7	6	3	2										82	500	5
KF10.1	Cu		7	7	7	6	3	2										82	500	5
KF10.3	Cu			4	7	7	4	3	2									107	500	5
KF13	Cu	7	7	6	5	3	2											62	500	4
KF14	Cu		7	7	7	6	3	2										82	500	5
KF14.1	Cu		7	7	7	6	3	2										82	500	5
KF14.3	Cu			4	7	7	4	3	2									107	500	5
KF5.06	Cu	7	6	4	3	2												33	500	3.5
KF5.10	Cu		7	6	5	3	2											62	500	4
KF5.16	Cu		7	7	7	6	3	2										82	500	5
Ensto Clampo Tap tapping terminals																				
KF7.10	Cu		7	6	5	3	2											62	750	2.5
KF7.70	Cu				7	7	6	4	4	2	2	1						192	750	4
KF8.10	Cu		7	6	5	3	2											62	750	2.5
KF8.70	Cu				7	7	6	4	4	2	2	1						192	750	4
KF17	Cu	5	5	4	4	2	1											100	400	2.5
Ensto Clampo Compact terminal blocks																				
KR5031/5121	Cu	1																17,5	450	0.4
KR8031...8121	Cu	3	2	1	1													41	450	0.8
KR10021/10031	Cu				1	1	1											82	500	2.5
KE33	Cu	3	3	3	3	3	2	1	1									135	750	3.5
Ensto Clampo Ground N and PE terminals																				
KNA4.xx	Cu	See KJ25 and KJ18																82	500	0.8 (KJ25)/2 (KJ18)
KN4.102...112	Cu	5	5	4	4	2	1											82	500	2
KNA5.xxx	Cu	See KJ25 and KJ18																82	500	0.8 (KJ25)/2 (KJ18)
KN4.204...212	Cu	5	5	4	4	2	1											76	500	2
KND4.103N and P, NP	Cu		5	5	5	4	2	1	1									135	500	4
KJ7	Cu	3	3	3	3	3	2	1	1									135	500	2.5
KN2.2...8	Cu	5	5	4	3	2	1	1										82		1.2
PPK28	Cu	5	5	4	3	2	1	1										82		
PPK9	Cu	5	5	5	5	4	2	1	1	1								135		
PPK2	Cu		5	5	5	5	5	3	2	1	1	1						270		
PSS63	Cu						5	5	4	3	2	2	1	1	1	1		535		
KJ25	Cu	5	3	2	2													33		0.8
KJ18	Cu	5	5	4	4	2	1											82		2
KJ20	Cu		5	5	5	4	2	1	1									135		4

Ensto Compact switch-disconnectors, table 1/2

Electrical and mechanical characteristics according to EN 60947-3

	3-pole	KS3.16	KS3.20	KS3.25	KS3.32	KS3.40	KS3.40N	KS3.63	KS3.63N	
		KS31.16	KS31.20	KS31.25	KS31.32	KS31.40		KS31.63		
		KS13.16	KS13.20	KS13.25	KS13.32	KS13.40		KS13.63		
	4th pole	KS1.16	KS1.20	KS1.25	KS1.32	KS1.40		KS1.63		KS1N
		KS11.16	KS11.20	KS11.25	KS11.32	KS11.40		KS11.63		KS11N
Conventional free air thermal current I _{th}	A	16	20	25	32	40	40	63	63	63
Rated insulation voltage U _i	V	800	800	800	800	800	800	800	800	800
Rated impulse withstand voltage U _{imp}	kV	8	8	8	8	8	6	8	6	6
Rated operational current I _e 415V	A	16	20	25	32	40	40	63	63	63
AC 21 A	500V	A	16	20	25	32	40	40	63	63
	690V	A	16	20	25	32	40	40	63	63
AC 22 A	415V	A	16	20	25	32	40	40	63	63
	500V	A	16	20	25	32	40	40	63	63
	690V	A	16	20	25	32	40	40	63	63
AC 23 A	415V	A	16	20	25	32	40	40	63	63
	500V	A	16	20	25	32	40	40	40	40
	690V	A	16	20	25	25	25	25	25	25
Rated operational power P _e 415V	kW	7.5	7.5	11	15	18.5	18.5	30	30	30
AC 23 A	500V	kW	7.5	11	15	18.5	22	22	22	22
(for standard motor)	690V	kW	11	15	22	22	22	22	22	22
Short-circuit characteristics (415 VAC)										
Rated short-time withstand current, 1s, I _{cw}	Arms	1260	1260	1260	1260	1260	1260	1260	1260	1260
Rated conditional short-circuit current	kArms	50	50	50	50	50	50	20/50	20/50	20/50
Max. fuse (gG)	A	16	20	25	32	40	40	63/40	63/40	63/40
Max. cut-off current	kA _{peak}	6	6	6	6	6	6	6/6	6/6	6/6
Max. Joule integral	kA ² s	6.8	6.8	6.8	6.8	6.8	6.8	15/6.8	15/6.8	15/6.8
Making and breaking characteristics										
Making capacity	415V AC 23 A	A	160	200	250	320	400	400	630	630
Breaking capacity	415V AC 23 A	A	128	160	200	256	320	320	504	504
Endurance (number of operations)										
Mechanical			100 000	100 000	100 000	100 000	100 000	100 000	100 000	100 000
Electrical			3 000	3 000	3 000	3 000	3 000	3 000	3 000	3 000
Terminals (Cu)	mm ²	1.5–16	1.5–16	1.5–16	1.5–16	1.5–16	1.5–16	1.5–16	1.5–16	1.5–16
Tightening torque	Nm	2	2	2	2	2	2	2	2	2

Ensto Compact switch-disconnectors, table 2/2

Electrical and mechanical characteristics according to EN 60947-3

			3-pole	KSM3.63 KSM31.63	KSM3.80 KSM31.80	KSM3.80N	KSM3.100 KSM31.100	KSM3.100N		KSM3.125 KSM31.125
			4th pole	KSM1.63	KSM1.80		KSM1.100		KSM1N	KSM1.125
Conventional free air thermal current I _{th}	A			63	80	80	100	100	100	125
Rated insulation voltage U _i	V			800	800	800	800	800	800	800
Rated impulse withstand voltage U _{imp}	kV			8	8	6	8	6	6	8
Rated operational current I _e	415V	A		63	80	80	100	100	100	125
AC 21 A	500V	A		63	80	80	100	100	100	125
	690V	A		63	80	80	100	100	100	125
AC 22 A	415V	A		63	80	80	100	100	100	125
	500V	A		63	80	80	100	100	100	125
	690V	A		63	80	80	100	100	100	100
AC 23 A	415V	A		63	80	80	80	80	80	80
	500V	A		63	63	63	63	63	63	63
	690V	A		50	50	50	50	50	50	50
Rated operational power P _e	415V	kW		30	45	45	45	45	45	45
AC 23 A	500V	kW		37	37	37	37	37	37	37
(for standard motor)	690V	kW		45	45	45	45	45	45	45
Short-circuit characteristics (415 VAC)										
Rated short-time withstand current, 1s, I _{cw}	A _{rms}			1500	1500	1500	1500	1500	1500	1500
Rated conditional short-circuit current	kA _{rms}			25	25	25	25	25	25	11
Max. fuse (gG)	A			63	80	80	100	100	100	125
Max. cut-off current	kA _{peak}			9	9	9	9	9	9	9
Max. Joule integral	kA ² s			49.8	49.8	49.8	49.8	49.8	49.8	83
Making and breaking characteristics										
Making capacity	415V AC 23 A	A		630	800	800	800	800	800	800
Breaking capacity	415V AC 23 A	A		504	640	640	640	640	640	640
Endurance (number of operations)										
Mechanical				30 000	30 000	30 000	30 000	30 000	30 000	30 000
Electrical				1 500	1 500	1 500	1 500	1 500	1 500	1 500
Terminals (Cu)	mm ²			10–50	10–50	10–50	10–50	10–50	10–50	10–50
Tightening torque	Nm			4	4	4	4	4	4	4

Enclosed switches, table 1/2

RATED THERMAL CURRENT	RATED INSULATION VOLTAGE	RATED IMPULSE WITHSTAND VOLTAGE	RATED OPERATIONAL CURRENT AC22A			RATED OPERATIONAL CURRENT AC23A			RATED CONDITIONAL SHORT-CIRCUIT CURRENT AT 415V	MAX. GG-FUSES	DIMENSIONS, INCLUDING HANDLE	CABLE ENTRIES	NUMBER OF POLES	SWITCH TERMINALS, MAX. CROSS-SECTION AND TIGHTENING TORQUE	PE + N TERMINALS, MAX. CROSS-SECTION AND TIGHTENING TORQUE	INCLUDES N TERMINAL	INCLUDES PE TERMINAL	INCLUDES AUXILIARY CONTACT (NO + NC 16 A)	COLOUR OF HANDLE	EAN-CODE	PRODUCT CODE
			415V	500V	690V	415V	500V	690V													
16A	800V	8kV	16A	16A	16A	16A	16A	16A	50kA	16A	133x86x104	M20, thread	3	16mm2 2Nm	6mm2 0.8Nm	yes	yes	yes	black	6418677153846	KKPC3.16BNM
													4			yes	yes	yes	black	6418677153860	KKPC3.16BAM
																yes	yes	yes	red-yellow	6418677153853	KKPC3.16BNR
																yes	yes	yes	red-yellow	6418677153877	KKPC3.16BAR
											175x175x161	M25, knock-out	6	16mm2 2Nm	35mm2 3.5Nm	yes	yes	yes	black	6418677153921	KKPC4.16BNM
													8			yes	yes	yes	red-yellow	6418677153938	KKPC4.16BNR
																yes	yes	yes	black	6418677194436	KKPC6.16VNL
																yes	yes	yes	red-yellow	6418677194139	KKPC6.16VNK
20A	800V	8kV	20A	20A	20A	20A	20A	20A	50kA	20A	133x86x104	M20, thread	3	16mm2 2Nm	6mm2 0.8Nm	yes	yes	yes	black	6418677153884	KKPC3.20BAM
													4			yes	yes	yes	red-yellow	6418677153679	KKPC3.20BNR
																yes	yes	yes	black	6418677153891	KKPC3.20BAR
																yes	yes	yes	red-yellow	6418677153945	KKPC4.20BNM
											175x175x161	M25, knock-out	6	16mm2 2Nm	35mm2 3.5Nm	yes	yes	yes	black	6418677153952	KKPC4.20BNR
													8			yes	yes	yes	red-yellow	6418677194443	KKPC6.20VNL
																yes	yes	yes	black	6418677194146	KKPC6.20VNK
																yes	yes	yes	red-yellow	6418677194535	KKPC8.20VEL
25A	800V	8kV	25A	25A	25A	25A	25A	25A	50kA	25A	133x86x104	M20, thread	3	16mm2 2Nm	6mm2 0.8Nm	yes	yes	yes	black	6418677153686	KKPC3.25BNM
													4			yes	yes	yes	black	6418677153907	KKPC3.25BAM
																yes	yes	yes	red-yellow	6418677153693	KKPC3.25BNR
																yes	yes	yes	red-yellow	6418677153914	KKPC3.25BAR
											175x175x161	M25, knock-out	6	16mm2 2Nm	35mm2 3.5Nm	yes	yes	yes	black	6418677153969	KKPC4.25BNM
													8			yes	yes	yes	red-yellow	6418677153976	KKPC4.25BNR
																yes	yes	yes	black	6418677194450	KKPC6.25VNL
																yes	yes	yes	red-yellow	6418677194153	KKPC6.25VNK
32A	800V	8kV	32A	32A	32A	32A	32A	25A	50kA	32A	175x125x136	M25, knock-out	3	16mm2 2Nm	35mm2 3.5Nm	yes	yes	yes	black	6418677194542	KKPC8.25VEL
													4			yes	yes	yes	black	6418677194245	KKPC8.25VEK
																yes	yes	yes	black	6418677154546	KKPC3.32VSL
																yes	yes	yes	black	6418677194313	KKPC3.32VNL
											175x175x161	M25, knock-out	6	16mm2 2Nm	35mm2 3.5Nm	yes	yes	yes	red-yellow	6418677154560	KKPC3.32VSK
													8			yes	yes	yes	red-yellow	6418677194016	KKPC3.32VNK
																yes	yes	yes	black	6418677154584	KKPC4.32VSL
																yes	yes	yes	black	6418677194375	KKPC4.32VEL
32A	800V	8kV	32A	32A	32A	32A	32A	25A	50kA	32A	175x125x136	M25, knock-out	3	16mm2 2Nm	35mm2 3.5Nm	yes	yes	yes	black	6418677154607	KKPC4.32VSK
													4			yes	yes	yes	black	6418677194078	KKPC4.32VEK
																yes	yes	yes	red-yellow	6418677194467	KKPC6.32VNL
																yes	yes	yes	red-yellow	6418677194160	KKPC6.32VNK
											175x175x161	M25, knock-out	6	16mm2 2Nm	35mm2 3.5Nm	yes	yes	yes	black	6418677194252	KKPC8.32VEL
													8			yes	yes	yes	black	6418677194252	KKPC8.32VEK
																yes	yes	yes	red-yellow	6418677194252	KKPC8.32VEK
																yes	yes	yes	red-yellow	6418677194252	KKPC8.32VEK

Enclosed switches, table 2/2

RATED THERMAL CURRENT	RATED INSULATION VOLTAGE	RATED IMPULSE WITHSTAND VOLTAGE	RATED OPERATIONAL CURRENT AC22A			RATED OPERATIONAL CURRENT AC23A			RATED CONDITIONAL SHORT-CIRCUIT CURRENT AT 415V	MAX. GG-FUSES	DIMENSIONS, INCLUDING HANDLE	CABLE ENTRIES	NUMBER OF POLES	SWITCH TERMINALS, MAX. CROSS-SECTION AND TIGHTENING TORQUE	PE + N TERMINALS, MAX. CROSS-SECTION AND TIGHTENING TORQUE	INCLUDES N TERMINAL	INCLUDES PE TERMINAL	INCLUDES AUXILIARY CONTACT (NO + NC 16 A)	COLOUR OF HANDLE	EAN-CODE	PRODUCT CODE											
			415V	500V	690V	415V	500V	690V																								
40A	800V	8kV	40A	40A	40A	40A	40A	25A	50kA	40A	175x125x136	M25, knock-out	3	16mm ² 2Nm	35mm ² 3.5Nm	yes	yes		black	6418677154553 6418677194320 6418677154577 6418677194023 6418677154591 6418677194382 6418677154614 6418677194085 6418677194474 6418677194177 6418677194566 6418677194269	KKPC3.40VSL KKPC3.40VNL KKPC3.40VSK KKPC3.40VNBK KKPC4.40VSL KKPC4.40VEL KKPC4.40VSK KKPC4.40VEK KKPC6.40VNL KKPC6.40VNBK KKPC8.40VEL KKPC8.40VEK											
													4			yes	yes		black													
													6			yes	yes		red-yellow													
													8			yes	yes		red-yellow													
																yes	yes		black													
																yes	yes		red-yellow													
											63A	800V	8kV	63A	63A	63A	63A	63A	50A	25kA	63A	300x200x168	Plain sides	3	50mm2 4Nm	50mm2 10Nm	yes	yes		black	6418677153747 6418677194337 6418677153754 6418677194030 6418677194099 6418677194481 6418677194184 6418677194573 6418677194276	KKPC3.63JSL KKPC3.63JNL KKPC3.63JSK KKPC3.63JNBK KKPC4.63JEL KKPC4.63JEK KKPC6.63JNP KKPC6.63JNS KKPC8.63JEP KKPC8.63JES
																								4			yes	yes		black		
																								6			yes	yes		red-yellow		
																								8			yes	yes		red-yellow		
																											yes	yes		black		
																											yes	yes		red-yellow		
80A	800V	8kV	80A	80A	80A	80A	63A	50A	25kA	80A	400x300x168	Plain sides	3	50mm2 4Nm	50mm2 10Nm	yes	yes		black	6418677194344 6418677194047 6418677194405 6418677194108 6418677194498 6418677194191 6418677194580 6418677194283	KKPC3.80JNL KKPC3.80JNBK KKPC4.80JEL KKPC4.80JEK KKPC6.80JNP KKPC6.80JNS KKPC8.80JEP KKPC8.80JES											
													4			yes	yes		black													
													6			yes	yes		red-yellow													
													8			yes	yes		red-yellow													
																yes	yes		black													
																yes	yes		red-yellow													
											100A	800V	8kV	100A	100A	100A	80A	63A	50A	25kA	100A	400x300x168	Plain sides	3	50mm2 4Nm	50mm2 10Nm	yes	yes		black	6418677194351 6418677194054 6418677194412 6418677194115 6418677194504 6418677194207 6418677194597 6418677194290	KKPC3.100JNL KKPC3.100JNBK KKPC4.100JEL KKPC4.100JEK KKPC6.100JNP KKPC6.100JNS KKPC8.100JEP KKPC8.100JES
																								4			yes	yes		red-yellow		
																								6			yes	yes		black		
																								8			yes	yes		red-yellow		
																											yes	yes		black		
																											yes	yes		red-yellow		
125A	800V	8kV	125A	125A	100A	80A	63A	50A	11kA	125A	400x300x168	Plain sides	3	50mm2 4Nm	50mm2 10Nm	yes	yes		black	6418677194368 6418677194061 6418677194429 6418677194122 6418677194511 6418677194214 6418677194603 6418677194306	KKPC3.125JNL KKPC3.125JNBK KKPC4.125JEL KKPC4.125JEK KKPC6.125JNP KKPC6.125JNS KKPC8.125JEP KKPC8.125JES											
													4			yes	yes		black													
													6			yes	yes		red-yellow													
													8			yes	yes		red-yellow													
																yes	yes		black													
																yes	yes		red-yellow													

Index

K

KE12.12	16, 18	KE87.1B	13, 14	KKPC3.16BNM	68	KKPC8.80JEP	70
KE12.12T	48	KE87.1YG	13, 14	KKPC3.16BNMT	71	KKPC8.80JES	70
KE12.20	16, 18	KE87.3	13, 14	KKPC3.16BNR	68	KKPC8.100JEP	70
KE12.20T	48	KE87.30	13, 14	KKPC3.20BAM	68	KKPC8.100JES	70
KE12.28	16, 18	KE87.40	13, 14	KKPC3.20BAR	68	KKPC8.125JEP	70
KE33	32, 36	KEL61	8, 11	KKPC3.20BNM	68	KKPC8.125JES	70
KE33.20	32	KEL62	8, 11	KKPC3.20BNR	68	KN2.2	40
KE33.30	32	KEL63	8, 11	KKPC3.25BAM	68	KN2.3	40
KE52.2	16, 18	KEL64	8, 11	KKPC3.25BAR	68	KN2.4	40
KE52.2T	48	KF5.06	25, 27	KKPC3.25BNM	68	KN2.5	40
KE53.2	16, 18	KF5.10	25, 27	KKPC3.25BNR	68	KN2.6	40
KE53.2T	48	KF5.16	25, 27	KKPC3.32VNL	69	KN2.7	40
KE54.2	16, 18	KF7.10	29, 30	KKPC3.32VNL	69	KN2.8	40
KE54.2T	48	KF7.70	29, 30	KKPC3.32VSK	69	KN4.102	38, 43
KE55	16, 18	KF8.10	29, 30	KKPC3.32VSL	69	KN4.104	38, 43
KE56.1	16, 19	KF8.70	29, 30	KKPC3.40VNL	69	KN4.106	38, 43
KE56.1T	48	KF9	25, 26	KKPC3.40VNL	69	KN4.108	38, 43
KE57	16, 19	KF10	25, 26	KKPC3.40VSK	69	KN4.110	38, 43
KE58	16, 19	KF10.1	25, 26	KKPC3.40VSL	69	KN4.112	38, 43
KE61	7, 10	KF10.3	25, 26	KKPC3.63JNL	69	KN4.204	39, 44
KE61.03	7, 10, 50	KF11	25, 26	KKPC3.63JNL	69	KN4.206	39, 44
KE61.03T	48	KF13	25, 26	KKPC3.63JSL	69	KN4.208	39, 44
KE61.2	7, 50	KF14	25, 26	KKPC3.80JNL	70	KN4.210	39, 44
KE61.2T	48	KF14.1	25, 27	KKPC3.80JNL	70	KN4.212	39, 44
KE61.3	7, 50	KF14.3	25, 27	KKPC3.100JNL	70	KNA4.104	38, 43
KE61.3T	48	KF17	29, 30	KKPC3.100JNL	70	KNA4.104P	38, 43
KE61SET	48	KJ5.10	17	KKPC3.125JNL	70	KNA4.106	38, 43
KE61T	48	KJ5.12	17	KKPC3.125JNL	70	KNA4.106P	38, 43
KE62	7, 10, 50	KJ7	39, 44	KKPC4.16BNM	68	KNA4.108	38, 43
KE62.2	7, 50	KJ18	41, 45	KKPC4.16BNR	68	KNA4.108NP	39, 44
KE62.2T	48	KJ18.1	41	KKPC4.20BNM	68	KNA4.108P	38, 43
KE62.3	7, 50	KJ19	41, 46	KKPC4.20BNR	68	KNA4.110	38, 43
KE62.3T	48	KJ20	41, 45	KKPC4.25BNM	68	KNA4.110P	38, 43
KE62SET	48	KJ20.1	41	KKPC4.25BNR	68	KNA4.112	38, 43
KE62T	48	KJ25	41, 45	KKPC4.32VEK	69	KNA4.112P	38, 43
KE63	7, 10	KJ25.1	41	KKPC4.32VEL	69	KNA4.114	38, 43
KE63.2	7	KK20.2/U	64	KKPC4.32VSL	69	KNA4.114NP	39, 44
KE63.3	7	KK20/U	64	KKPC4.32VSK	69	KNA4.114P	38, 43
KE64	7, 10	KK29/U	61, 63	KKPC4.40VEK	69	KNA4.120	38, 43
KE64.2	7	KK31.040/U	64	KKPC4.40VEL	69	KNA4.120NP	39, 44
KE64.3	7	KK31.050/U	64	KKPC4.40VSK	69	KNA4.120P	38, 43
KE66	8, 10	KK31.055/U	64	KKPC4.40VSL	69	KNA4.126NP	39, 44
KE66.2	8	KK31.060/U	64	KKPC4.63JEL	69	KNA4.136NP	39, 44
KE66.2T	48	KK31.070/U	64	KKPC4.63JEL	69	KNA5.108	39, 43
KE66.3	8	KK31.080/U	64	KKPC4.80JEK	70	KNA5.113	39, 43
KE66.3T	48	KK31.090/U	64	KKPC4.80JEL	70	KNA5.117	39, 43
KE66T	48	KK31.100/U	64	KKPC4.100JEK	70	KNA5.120	39, 43
KE67	8, 10, 50	KK31.105/U	64	KKPC4.100JEL	70	KNA5.125	39, 43
KE67.2	8, 50	KK31.110/U	64	KKPC4.125JEK	70	KNA5.130	39, 43
KE67.3	8, 50	KK31.120/U	64	KKPC4.125JEL	70	KNA5.134	39, 43
KE68	8, 10, 50	KK31.130/U	64	KKPC6.16VNL	68	KNA5.138	39, 43
KE68.2	8, 50	KK31.140/U	64	KKPC6.16VNL	68	KND4.103N	38, 43
KE68.3	8, 50	KK31.150/U	64	KKPC6.20VNL	68	KND4.103NP	39, 44
KE69	8, 11	KK31.170/U	64	KKPC6.20VNL	68	KND4.103P	38, 43
KE69.2	8	KK31.175/U	64	KKPC6.25VNL	68	KNL2	41, 46
KE69.3	8	KK31.180/U	64	KKPC6.25VNL	68	KNL6.122	29
KE73.2	17, 19	KK31.200/U	64	KKPC6.25VNT	71	KNL6.161	29
KE74.2	17, 19	KK31.300/U	64	KKPC6.25VNL	68	KNL7	33
KE75	17, 19	KK31.305/U	64	KKPC6.32VNL	69	KR5031	32, 35
KE77	17, 20	KK38.1/U	64	KKPC6.32VNL	69	KR5131	32, 35
KE78	17, 20	KK38.2/U	64	KKPC6.40VNL	69	KR8031	32, 35
KE80	22, 23	KK39.1/U	64	KKPC6.40VNL	69	KR8041	32, 35
KE80.15	22, 23	KK39.2/U	64	KKPC6.63JNP	69	KR8121	32, 35, 50
KE81	22, 23	KK57.18/U	63	KKPC6.63JNS	69	KR8121T	48
KE82	22, 23	KK57.19/U	63	KKPC6.80JNP	70	KR10021	32, 35
KE82.15	22, 23	KK57.37/U	63	KKPC6.80JNS	70	KR10031	32, 36
KE85.1	13, 14	KK57.182/U	63	KKPC6.100JNP	70	KRL2	8
KE85.1B	13, 14	KK57.192/U	63	KKPC6.100JNS	70	KRL6	33
KE85.1YG	13, 14	KK57.372/U	63	KKPC6.125JNP	70	KRL7	33
KE85.3	13, 14	KK63	55	KKPC6.125JNS	70	KRL8	33
KE85.30	13, 14	KK66	55	KKPC8.16VEK	68	KRL1505.02	33
KE85.40	13, 14	KK102.7RY12	55	KKPC8.16VEL	68	KRL6067.02	33
KE86.1	13, 14	KK102.7RY12/U	64	KKPC8.20VEK	68	KRL6067.03	33
KE86.1B	13, 14	KK102.712	55	KKPC8.20VEL	68	KRL6067.04	33
KE86.1YG	13, 14	KK102.712/U	64	KKPC8.25VEK	68	KS1.16	53
KE86.3	13, 14	KKCSA13.20JSM/U	71	KKPC8.25VEL	68	KS1.20	53
KE86.30	13, 14	KKCSA13.20JSR/U	71	KKPC8.32VEK	69	KS1.20/U	60, 65
KE86.40	13, 14	KKCSA13.20JDM/U	71	KKPC8.32VEL	69	KS1.25	53
KE86.40	13, 14	KKCSA13.20JDR/U	71	KKPC8.40VEK	69	KS1.30/U	60, 65
KE87.1	13, 14	KKPC3.16BAM	68	KKPC8.40VEL	69	KS1.32	53
		KKPC3.16BAR	68	KKPC8.63JEP	69	KS1.40	53
		KKPC3.16BART	71	KKPC8.63JES	69	KS1.63	53

KS1N	53, 58	KSM1N	53, 58	KVC461	73, 79	PM34.06	9
KS1.xx	58	KSM1.xxx	58	KVC471	73, 79	PM34.07	9
KS3.16	52	KSM3.63	52	KVC481	73, 79	PM34.08	9
KS3.16RY	52	KSM3.63RY	52	KW2	75	PM34.09	9
KS3.20	52	KSM3.80	52	KW19	75	PM34.10	9
KS3.20RY	52	KSM3.80N	52, 57	KW20	75	PM34.11	9
KS3.20/U	60, 65	KSM3.80RY	52	KW21	75	PM34.12	9
KS3.25	52	KSM3.100	52			PM34.13	9
KS3.25RY	52	KSM3.100N	52, 57			PM34.14	9
KS3.30/U	60, 65	KSM3.100RY	52			PM34.15	9
KS3.32	52	KSM3.125	52	PEE185.3	13, 14	PM34.16	9
KS3.32RY	52	KSM3.125RY	52	PEE185.4	13, 14	PM34.19	9
KS3.40	52	KSM3.xxx	57	PEE186.3	13, 14	PM34.22	9
KS3.40N	52, 57	KSM3.xxxRY	57	PEE186.4	13, 14	PM34.23	9
KS3.40RY	52	KSM31.63	52	PEE187.3	13, 14	PM34.24	9
KS3.63	52	KSM31.80	52	PEE187.4	13, 14	PM34.25	9
KS3.63N	52, 57	KSM31.100	52	PEM10.2	34	PM34.26	9
KS3.63RY	52	KSM31.125	52	PEM23	34	PM34.27	9
KS3.xx	57	KSM31.xxx	57	PEM24	34	PM34.28	9
KS3.xxRY	57	KSMN1	53, 58	PEM25	34	PM34.29	9
KS11.16	56	KSMP1	53, 58	PEM26	34	PM58	40
KS11.20	56	KSN1	53, 58	PEM27	34	PMR2	74
KS11.20/U	60, 65	KSN1/U	60, 65	PEM28	34	PMR11	75
KS11.25	56	KSN11	56, 58	PEM29	34	PMR77	74
KS11.30/U	60, 65	KSN11/U	60, 65	PEM31	34	PMR111	55
KS11.32	56	KSP1	53, 58	PEM32	34	PMR113	55
KS11.40	56	KSP1/U	60, 65	PEM33	34	PMR117	41, 45
KS11.63	56	KSP11	56, 58	PEM34	34	PMR117.1	41, 45
KS11N	56, 58	KSP11/U	60, 65	PEM35	34	PMR121	55, 56
KS11.xx	58	KSR3.40/U	63, 66	PEM36	34	PMR121/U	62
KS13.16	56	KSR3.60/U	63, 66	PEM37.1	34	PMR123	55, 56
KS13.20	56	KSR3.80/U	63, 66	PEM37.2	34	PMR123/U	62
KS13.20/U	60, 65	KSR3.100/U	63, 66	PEM38	34	PMR130	25
KS13.25	56	KSR3.401/U	63	PEM39.1	34	PMR143	33
KS13.30/U	60, 65	KSR3.402/U	63	PEM39.2	34	PMR241B	54
KS13.32	56	KSR3.601/U	63	PEM40.1	34	PMR241B/U	61
KS13.40	56	KSR3.602/U	63	PEM40.2	34	PMR241R/U	61
KS13.63	56	KSR3.801/U	63	PEM42	34	PMR241/U	61
KS13.xx	58	KSR3.802/U	63	PEM44	34	PMR249/U	62
KS23.040/U	62	KSR3.1001/U	63	PEM45	34	PMR250B	54
KS23.050/U	62	KSR3.1002/U	63	PEM64	34	PMR250B/U	61
KS23.055	54	KSR4.40/U	63, 66	PEM65	34	PMR250R/U	61
KS23.055/U	62	KSR4.401/U	63	PEM66	34	PMR250/U	61
KS23.060/U	62	KSR4.402/U	63	PEM67	34	PMR281	42, 46
KS23.070	54	KSRD3	64	PEM68	34	PMR301B	54
KS23.070/U	62	KST3.40/U	63, 66	PEM69	34	PMR301B/U	61
KS23.090	54	KST3.60/U	63, 66	PEM80	34	PMR301R/U	61
KS23.090/U	62	KST3.80/U	63, 66	PEM81	34	PMR301/U	61
KS23.110/U	62	KST3.100/U	63, 66	PEM82	34	PMR333.10/U	64
KS23.150	54	KST4.40/U	63, 66	PEM83	34	PMR334.10/U	64
KS23.150/U	62	KV25.1	73, 76	PEM84	34	PMR370	33
KS23.180/U	62	KV25.2	73, 76	PEM85	34	PMR447	75
KS23.200	54	KV25.211	73, 76	PEM86	34	PMR450	74
KS23.200/U	62	KV25.291	73, 77	PEM87	34	PMR450.1	74
KS23.300	54	KV63.1	73, 77	PEM88	34	PMR450.3	74
KS23.300/U	62	KV63.2	73, 77	PEM89	34	PMR550.25	75
KS23.305/U	62	KV63.5	73, 78	PEM90	34	PMR550.63	75
KS31.16	52	KV63.7	73, 78	PEM91	34	PMR586	25
KS31.20	52	KV63.57	73, 78	PEM92	34	PMR587	25
KS31.25	52	KV63.211	73, 77	PEM93	34	PMR595	74
KS31.32	52	KV63.291	73, 77	PEM728.16	42	PMR595.1	74
KS31.40	52	KV63.421	73, 80	PEM728.61	42	PMR597	74
KS31.63	52	KV63.431	73, 80	PEM728.621	42	PMR598/U	64
KS31.xx	57	KV63.441	73, 80	PEM728.641	42	PMR716.1/U	61, 63
KSA1	53, 58	KV63.451	73, 80	PEM730.1	42	PMR723	25
KSA1/U	60, 65	KV63.461	73, 80	PEM730.2	42	PMR723.2	25
KSA11	56, 58	KV63.721	73	PEM730.3	42	PMR824	75
KSA11/U	60, 65	KV63.731	73	PEM734	42	PMR1413	41, 46
KSH29	54	KV63.741	73	PEM735	42	PMR1420	17, 20, 22
KSH48	54, 56	KV63.751	73	PEM736	42	PMR1421	17, 20, 22
KSH48.01	54, 56	KV63.761	73	PEM757	42	PMR1422	17, 20
KSH48.01/U	61, 63	KVC1.1	73, 76	PJ3.25	74	PMR1427	41, 46
KSH48.2	54	KVC1.2	73, 76	PJ4.63	74	PP37	8
KSH48/U	61, 63	KVC1.5	73, 78	PLP4	75	PP44	33
KSH75	54	KVC1.7	73, 77	PLP98	17, 22	PPK2	40, 45
KSH75RY	54	KVC1.31	73, 80	PLP99	17, 22	PPK9	40, 44
KSH75RY/U	61, 63	KVC1.57	73, 78	PM34.00	9	PPK28	40, 44
KSH75/U	61, 63	KVC30	73, 76	PM34.01	9	PPK222	25
KSM1.63	53	KVC421	73, 78	PM34.02	9	PPK223	25
KSM1.80	53	KVC431	73, 79	PM34.03	9	PPK225	42, 47
KSM1.100	53	KVC441	73, 79	PM34.04	9	PR1.25	74
KSM1.125	53	KVC451	73, 79	PM34.05	9	PR2.25	74

PR3.63 74
PR4.63 74
PSK20.037 42
PSK20.046 42
PSK20.055 42
PSK20.064 42
PSK20.073 42
PSK20.082 42
PSK20.100 42
PSK20.109 42
PSK20.118 42
PSK20.127 42
PSK20.136 42
PSK20.161 42
PSK20.175 42
PSK131 42
PSK152 42
PSK152.2 42
PSS63 40, 45

R

RDP6 29, 30, 41, 46
RDP9 42, 47

S

SR1 17
ST1 75
ST1T 75

T

TPCF203013G002 50
TPCF304013G003 50
TPCF304013G004 50
TPCF306013G005 50
TPM131308G001 50

Legal notice

The information in this brochure is to the best of Ensto's knowledge and belief correct and reliable. We reserve the right to make changes in the specifications, materials and production methods without further notice. Be aware of that you have to evaluate independently the suitability of each product for the intended application. Ensto does not give any assurance of any particular quality or performance. Our responsibilities for the products are set forth in the "Orgalime S 2000 General Conditions for the Supply of Mechanical, Electrical and Electronic Products". The products shall be installed only by a competent person having nationally required knowledge. Ensto is not responsible for its distributors or for any misuse, incorrect installation or ignored national safety or other national provisions.

Copyright Ensto Oy 2010, Ensto™



Saves Your Energy

Ensto Finland Oy
Ensio Miettisen Katu 2, P.O. Box 77
FIN-06101 Porvoo, Finland
enclosure.solutions@ensto.com
www.ensto.com