



Saves Your Energy

Ensto Clampo Pro

Universal terminal series for Al/Cu conductors



Small item – great significance

Small item - great significance

It is of paramount importance that the equipment functions properly. It is vital to have a suitable connection between the devices and the power grid.

Most of the connections are made using cables and wires, terminals, or conductor rails at higher currents. The reliability and safety of the device depend on the type and use of the terminals.

It is therefore extremely important to use reliable terminals of the highest quality.

So, how do you recognize a good terminal?

The terminal

- Is certified according to the latest standards
- Is suitable for both Al and Cu conductors
- Has a wide range of application
- Has a reliable structure
- Is easy to use
- Is compact
- Has a reliable supplier
- Has an oxidation-inhibiting compound applied at the factory
- Has hexagonal screw heads enabling proper attachment of the conductors

Ensto Clampo Pro has it all!



Certified products for your convenience

CE marking is required for the sale of electrical appliances on the European market. CE marking is a manufacturer's declaration that the product fulfills the requirements set by EC directives. In order to be allowed to use CE marking, the manufacturer must issue a declaration of conformity.



Certified products are easy to use

When a product is certified, it means that an independent third party has tested the product and concluded that it fulfills the requirements of a given standard. The certification of a product assures you that the components used in your panel are safe and that you won't be liable for any component faults.

Certified products are only manufactured at the factory location mentioned on the certificate. The issuer of the certificate conducts follow-up audits on a regular basis to assure

that the products have remained unchanged and that the safety aspects are maintained.

The use of non-verified terminals at manufacturer's risk

If the terminals are not verified according to the latest standards, it is the sole responsibility of the equipment manufacturer to ensure that its products comply with directives and standards. The equipment manufacturer must in this case proof suitability with e.g. test reports, which are added to his technical file.

The latest versions of standards must be followed

Standards are constantly reviewed, and it's important to always use components that are certified according to the latest standards.

Technical standards for terminals

The suitability for copper conductors is verified according to the harmonized standard EN 60947-7-1:2009 and the suitability for aluminium conductors is verified according to standard EN 61238-1:2003.

Manufacturer



Technical file



EC
declaration
of conformity



CE marking

“Ensto Clampo Pro terminals are certified to meet the demands of the latest standards”



Class A beats class B

Aluminium conductors

Ensto Clampo Pro terminals are certified to meet requirements set by standards. They are short circuit tested class A terminals suitable for all aluminium connections.

By choosing Ensto Clampo Pro terminals for your aluminium connection you make sure you always have the right terminals in use.

Terminals that have been tested and certified according to EN 61238-1:2003 are divided into Classes A and B.

Class A terminals are short circuit tested and suitable for both equipment and general use also as feed-in terminals.

Class B terminals are not short circuit tested and can only be used in circuits which are protected with fast acting fuses, not with general use fuse or motor circuit fuses, which are typically used in industrial applications.

For this reason, the use of Class B terminals is limited to equipment terminal use or special circuits protected by fast-acting fuses only.





- Class A
- Class B

Only Class A terminals are suitable for feed-in lines.



- Class A
- Class B

Only Class A terminals can be used in normal switchboards, as they don't have fast-acting fuses.



“Ensto Clampo Pro terminals are short circuit tested class A terminals”

Duel of the metals

Connecting aluminium and copper conductors

Aluminium and copper don't get along. If these two metals touch each other – with just a little bit of humidity – an electrotechnical process called “galvanic corrosion” occurs. Galvanic corrosion means that the metals start to react to each other and ions start to move from the weaker metal to the stronger one. The weaker metal, in this case aluminium, is corroded.

Weak connection – hot connector

In time, the connection in the terminals deteriorates and in the attempt to keep the current flowing, the terminal becomes hotter and hotter, ultimately resulting in the melt down of plastic parts, possibly causing a fire.

Tin works as a barrier

Metals are not created equal and whereas aluminium and copper don't like each other, tin gets along with both. Tin doesn't cause galvanic corrosion with either of the metals. This is why Ensto Clampo Pro terminals' conductive parts – the body and the screws – are made from tin-coated aluminium. The housing is also created so that there is a partition wall (polyamide) between the conductors, which should not touch under any circumstances.

Invest in safety – make sure you use terminals suitable for connecting aluminium and copper conductors – use Ensto Clampo Pro terminals.



“Ensto Clampo Pro allows a safe connection between Al/Cu conductors”



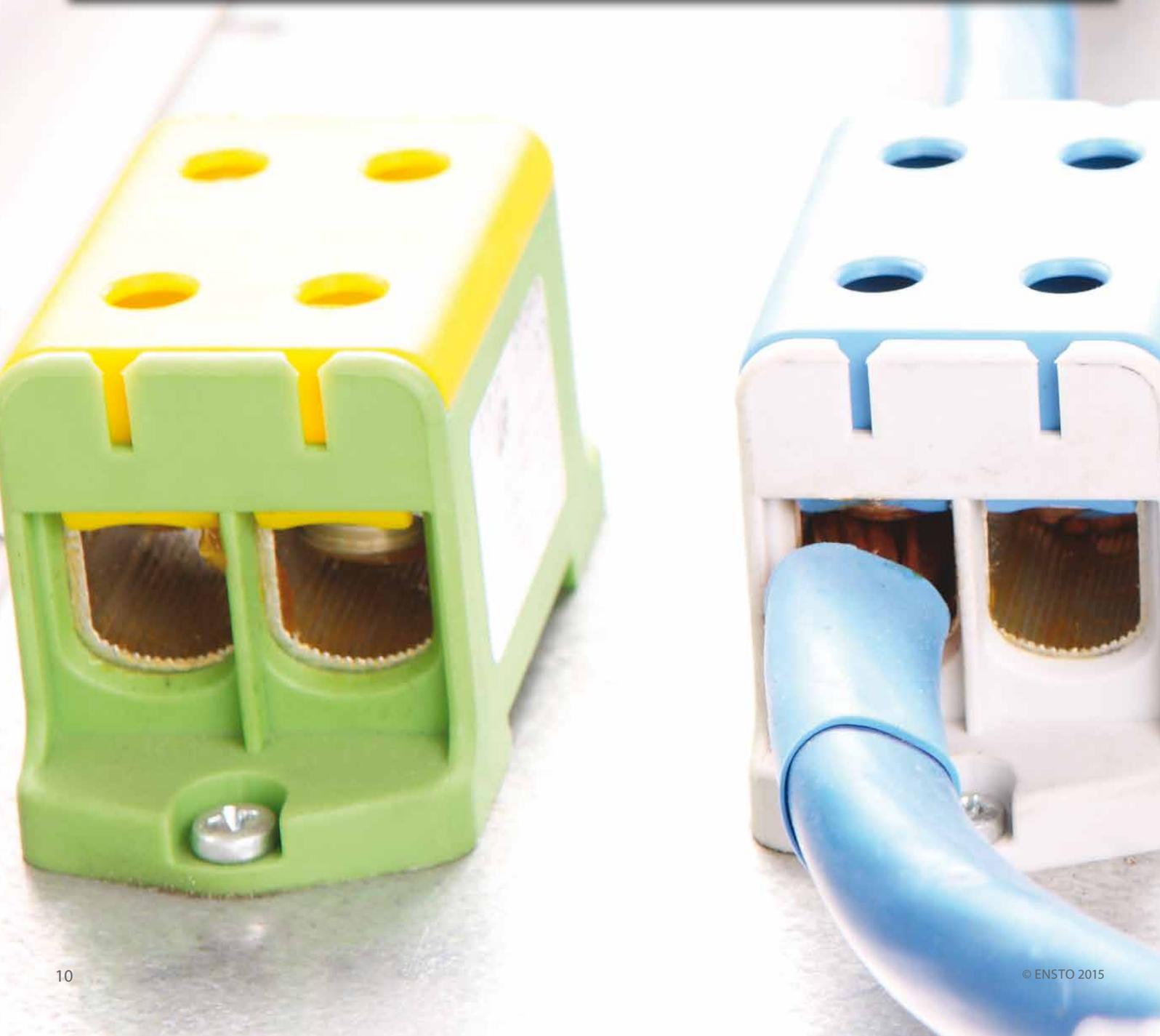
Ensto Clampo Pro universal terminals are truly universal

The Ensto Clampo Pro universal terminal series is a versatile solution for all installation needs, ranging from low-voltage switchgear and control gears for industry and construction to building automation. As it can be used with both aluminium and copper conductors, it makes life easier for

designers in both the OEM industry and mechanical engineering.

Easy to store, easy to order

The series has only four sizes to meet the needs of any installation – that saves room in storage and time when ordering.



Maritime



Transportation



Infrastructure



Water and waste water treatment



Renewable energies



Metering and control



Doors and gates



Food and agriculture



Ensto Clampo Pro universal terminals

For Al/Cu conductors from 2.5 mm² to 240 mm²



Why choose the Ensto Clampo Pro

- Certified according to the latest standards
- UL- recognised and Gost R certified thus suitable for exporting the switchboards/equipment to the US and Russia
- Suitable for both aluminium and copper conductors
- Suitable for transitioning between aluminium and copper conductors without any extra cable clamps
- Suitable for use at the feed-in conductors (short circuit tested)
- Suitable for a wide cross-section range of conductors; a single terminal can be used in a large range of uses
- Suitable for stranded wires also, without extra bushings

Technical features

- Compact in size compared to similar products on the market
- Oxidation-inhibiting compound applied at the factory
- Simple and reliable construction made of a monoblock
- Can be fixed directly onto a DIN rail or, with screws, onto a base
- Quickly and easily connected using one screw only
- Reliable and strong tightening with hexagonal screws (possible to reuse without damage)
- Colour coding for N and PE terminals

Other reasons for choosing Ensto Clampo Pro

- Ensto has 50 year's experience of manufacturing terminals
- Ensto is a reliable supplier
- Small number of items to store, easy to order

Conformity



Standards

For copper conductors:	EN 60947-7-1:2009
For aluminium conductors:	EN 61238-1:2003

Technical information

Cross-section range:	Al 6 - 240 mm ² / Cu 2.5 - 240 mm ²
Nominal current range:	145 - 425 A

Material

Housing:	Polyamide
Body and screws:	Tin-coated aluminium

Mechanical features

Screw heads:	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.



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

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	800 V	5 mm	4 Nm (2.5-4mm ²), 12 Nm (6-50mm ²)	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	800 V	5 mm	4 Nm (2.5-4mm ²), 12 Nm (6-50mm ²)	DIN rail	0.030	30	6418677191831
KE61.3	Cu 2,5-50 mm ² Al 6-50 mm ²	Yellow/ Green		800 V	5 mm	4 Nm (2.5-4mm ²), 12 Nm (6-50mm ²)	DIN rail	0.030	30	6418677191848
KE62	16-95 mm ²	Grey	Cu 245 A, Al 220 A	800 V	5 mm	20 Nm	DIN rail/screw	0.074	30	6418677191855
KE62.2	16-95 mm ²	Blue	Cu 245 A, Al 220 A	800 V	5 mm	20 Nm	DIN rail/screw	0.074	30	6418677191862
KE62.3	16-95 mm ²	Yellow/ Green		800 V	5 mm	20 Nm	DIN rail/screw	0.074	30	6418677191879
KE63	35-150 mm ²	Grey	Cu 320 A, Al 290 A	800 V	8 mm	20 Nm (35-95mm ²), 30 Nm (120-150mm ²)	DIN rail/screw	0.120	30	6418677191886
KE63.2	35-150 mm ²	Blue	Cu 320 A, Al 290 A	800 V	8 mm	20 Nm (35-95mm ²), 30 Nm (120-150mm ²)	DIN rail/screw	0.120	30	6418677191893
KE63.3	35-150 mm ²	Yellow/ Green		800 V	8 mm	20 Nm (35-95mm ²), 30 Nm (120-150mm ²)	DIN rail/screw	0.120	30	6418677191909
KE64	35-240 mm ²	Grey	Cu 425 A, Al 380 A	800 V	8 mm	12 Nm (35-70mm ²), 45 Nm (95-240mm ²)	Screw	0.249	30	6418677191916
KE64.2	35-240 mm ²	Blue	Cu 425 A, Al 380 A	800 V	8 mm	12 Nm (35-70mm ²), 45 Nm (95-240mm ²)	Screw	0.249	30	6418677191923
KE64.3	35-240 mm ²	Yellow/ Green		800 V	8 mm	12 Nm (35-70mm ²), 45 Nm (95-240mm ²)	Screw	0.249	30	6418677191930

Connector class: A
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	800 V	5 mm	4 Nm (2.5-4mm ²), 12 Nm (6-50mm ²)	DIN rail	0.077	30	6418677191824

Connector class: A
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 160 A, Al 145 A	800 V	5 mm	4 Nm (2,5-4mm ²), 12 Nm (6-50mm ²)	DIN rail	0.049	30	6418677191947
KE66.2	Cu 2,5-50 mm ² Al 6-50 mm ²	Blue	Cu 160 A, Al 145 A	800 V	5 mm	4 Nm (2,5-4mm ²), 12 Nm (6-50mm ²)	DIN rail	0.049	30	6418677191954
KE66.3	Cu 2,5-50 mm ² Al 6-50 mm ²	Yellow/ Green		800 V	5 mm	4 Nm (2,5-4mm ²), 12 Nm (6-50mm ²)	DIN rail	0.049	30	6418677191961
KE67	16-95 mm ²	Grey	Cu 245 A, Al 220 A	800 V	5 mm	20 Nm	DIN rail/screw	0.128	30	6418677191978
KE67.2	16-95 mm ²	Blue	Cu 245 A, Al 220 A	800 V	5 mm	20 Nm	DIN rail/screw	0.128	30	6418677191985
KE67.3	16-95 mm ²	Yellow/ Green		800 V	5 mm	20 Nm	DIN rail/screw	0.128	30	6418677191992
KE68	35-150 mm ²	Grey	Cu 320 A, Al 290 A	800 V	8 mm	20 Nm (35-95mm ²), 30 Nm (120-150mm ²)	DIN rail/screw	0.210	30	6418677192005
KE68.2	35-150 mm ²	Blue	Cu 320 A, Al 290 A	800 V	8 mm	20 Nm (35-95mm ²), 30 Nm (120-150mm ²)	DIN rail/screw	0.210	30	6418677192012
KE68.3	35-150 mm ²	Yellow/ Green		800 V	8 mm	20 Nm (35-95mm ²), 30 Nm (120-150mm ²)	DIN rail/screw	0.210	30	6418677192029
KE69	35-240 mm ²	Grey	Cu 425 A, Al 380 A	800 V	8 mm	12 Nm (35-70mm ²), 45 Nm (95-240mm ²)	Screw	0.438	30	6418677192036
KE69.2	35-240 mm ²	Blue	Cu 425 A, Al 380 A	800 V	8 mm	12 Nm (35-70mm ²), 45 Nm (95-240mm ²)	Screw	0.438	30	6418677192043
KE69.3	35-240 mm ²	Yellow/ Green		800 V	8 mm	12 Nm (35-70mm ²), 45 Nm (95-240mm ²)	Screw	0.438	30	6418677192050

Connector class: A
Operating temperature: max. 80 °C
Pollution degree: 3

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



KE66



KE67



KE68.2



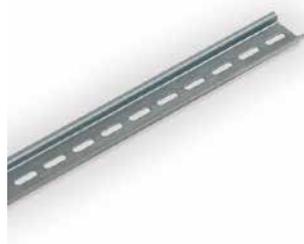
KE69.3

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 (Lb-In)	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	90	5	17.8 x 49 x 43 mm
	Al	1/0 - 6			600	120	10 (Nm)		(0.7 x 1.9 x 1.7 In)
KE62	Cu	4/0 - 4	2 - 6	6	600	230	126	5	24 x 86 x 49 mm
	Al	4/0 - 4			600	180	14 (Nm)		(0.9 x 3.4 x 1.9 In)
KE63	Cu	300 - 2	1/0 - 2	2	600	285	216	8	29.5 x 95 x 59 mm
	Al	300 - 2			600	230	24 (Nm)		(1.2 x 3.7 x 2.3 In)
KE64	Cu	500 - 3/0	2/0 - 2	1/0 - 2	600	380	360	8	37.5 x 130 x 67 mm
	Al	500 - 3/0			600	310	40 (Nm)		(1.5 x 5.1 x 2.6 In)
Three-pole universal terminal									
KE61.03	Cu	1/0 - 6	6	8	600	150	90	5	49.5 x 49 x 43 mm
	Al	1/0 - 6			600	120	10 (Nm)		(1.9 x 1.9 x 1.7 In)
Tapping blocks									
KE66	Cu	1/0 - 6	6	8	600	150	90	5	29.8 x 49 x 43 mm
	Al	1/0 - 6			600	120	10 (Nm)		(0.7 x 1.9 x 1.7 In)
KE67	Cu	4/0 - 4	2 - 6	6	600	230	126	5	42 x 86 x 49 mm
	Al	4/0 - 4			600	180	14 (Nm)		(1.7 x 3.4 x 1.9 In)
KE68	Cu	300 - 2	1/0 - 2	2	600	285	216	8	51.5 x 95 x 59 mm
	Al	300 - 2			600	230	24 (Nm)		(2.0 x 3.7 x 2.3 In)
KE69	Cu	500 - 3/0	2/0 - 2	1/0 - 2	600	380	360	8	64 x 130 x 67 mm
	Al	500 - 3/0			600	310	40 (Nm)		(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).

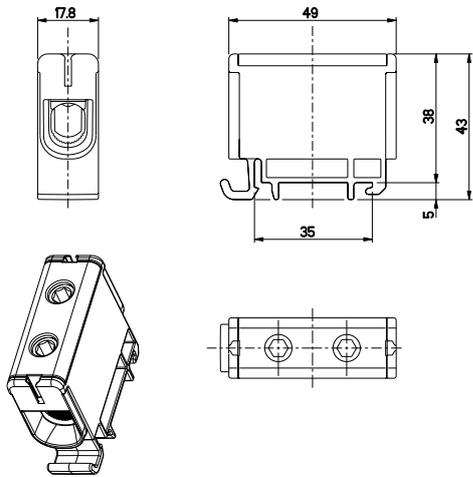
All terminal blocks KE61-KE69 are delivered with oxide inhibiting compound applied.

The suitability of these terminals shall be determined in the end-use investigation.

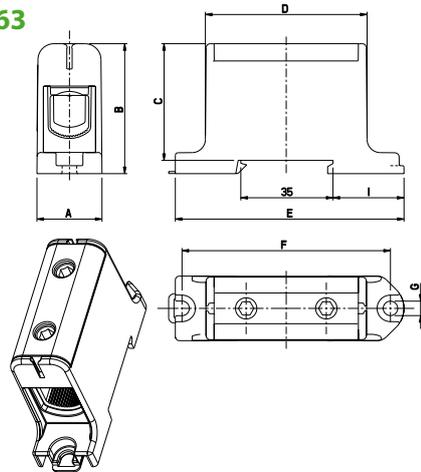
Dimensional drawings

Dimensions in mm

KE61

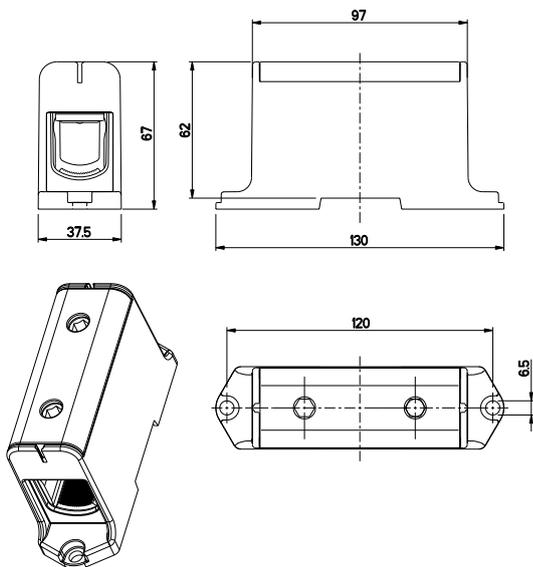


KE62, KE63

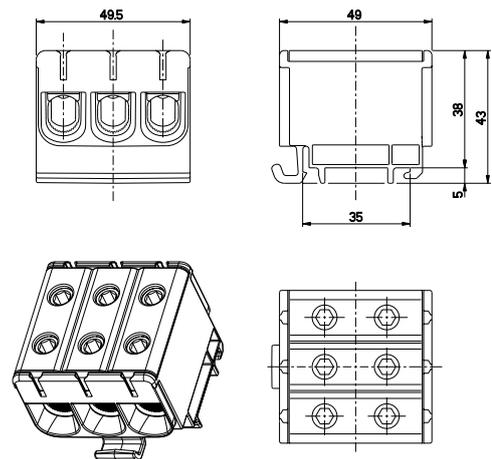


	A	B	C	D	E	F	G	I
KE62	24	49	44	60	86	78	5.5	25.5
KE63	29.5	59	54	72	95	87	5.5	34.5

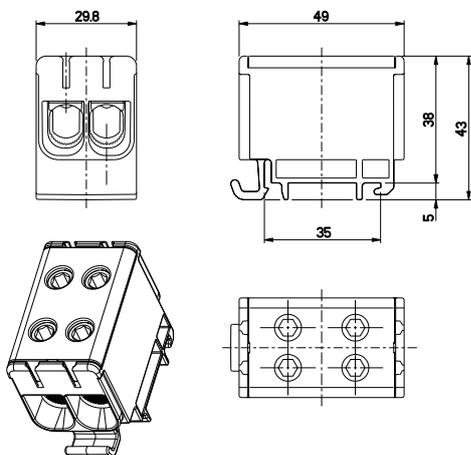
KE64



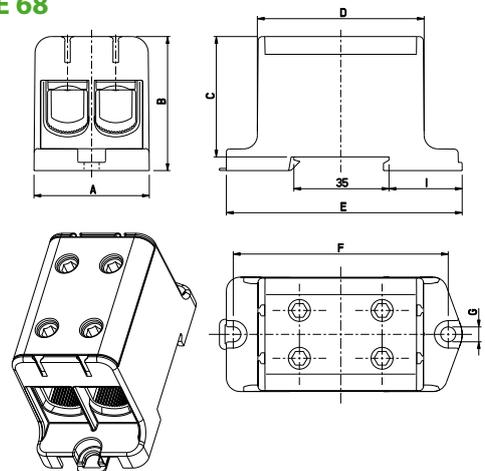
KE61.03



KE66



KE67, KE 68

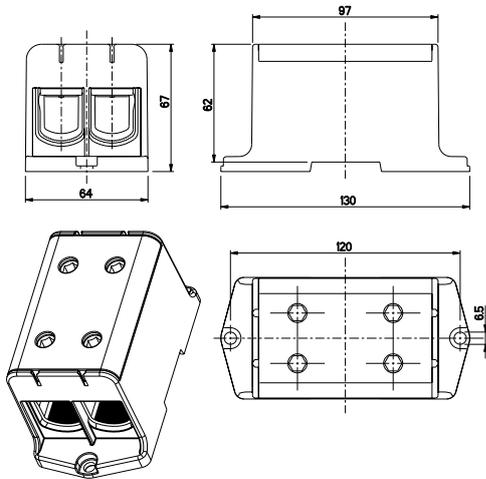


	A	B	C	D	E	F	G	I
KE67	42	49	44	60	86	78	5.5	25.5
KE68	51.5	59	54	72	95	87	5.5	34.5

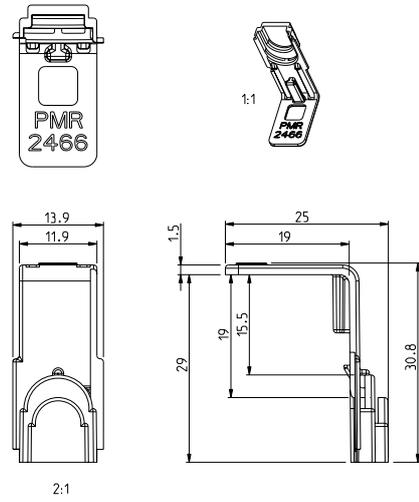
Dimensional drawings

Dimensions in mm

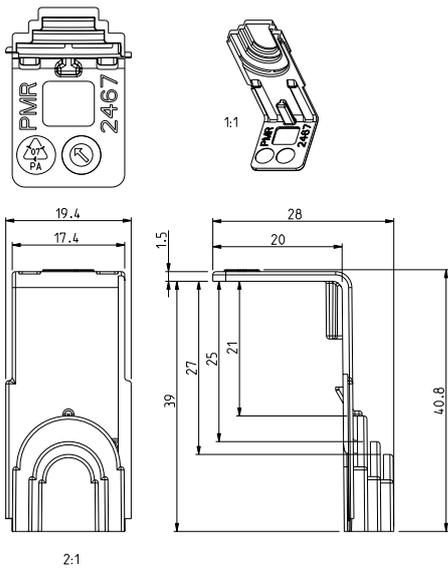
KE69



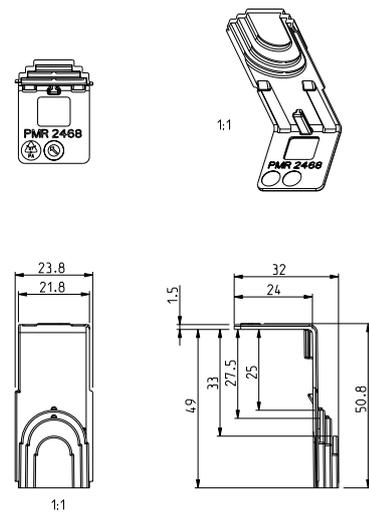
KEL61



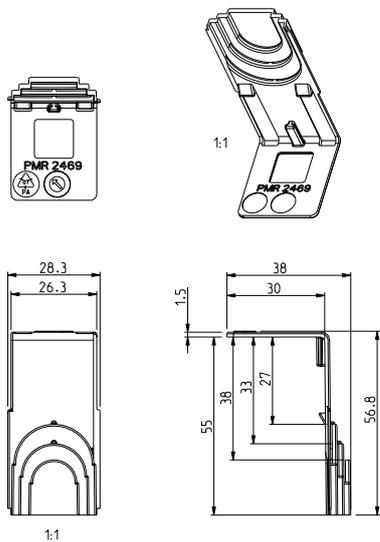
KEL62



KEL63



KEL64



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Ensto Clampo Pro 1000 V terminals

For Al/Cu conductors from 2,5 mm² to 150 mm²



Why choose the Ensto Clampo Pro 1000 V terminals

- Suitable for 1000 VAC and VDC
- Compact size
 - Can be installed next to each other without partition plates
- Suitable for both aluminium and copper conductors
- Short circuit tested class A terminals
- Higher temperature range (90 °C)

Technical features

- Housing: fiberglass reinforced polyamide
 - Better mechanical strength vs. polyamide
 - Better insulating capacity
 - 90°C temperature range achieved for the material
- Colours:
 - Red and black versions for DC applications
 - Grey and blue for AC applications (KE6x.3 to be used as a grounding terminal)

Conformity



Standards

For copper conductors:	EN 60947-7-1:2009
For aluminium conductors:	EN 61238-1:2003
UL recognition	UL 1059
Connector class:	A

Technical information

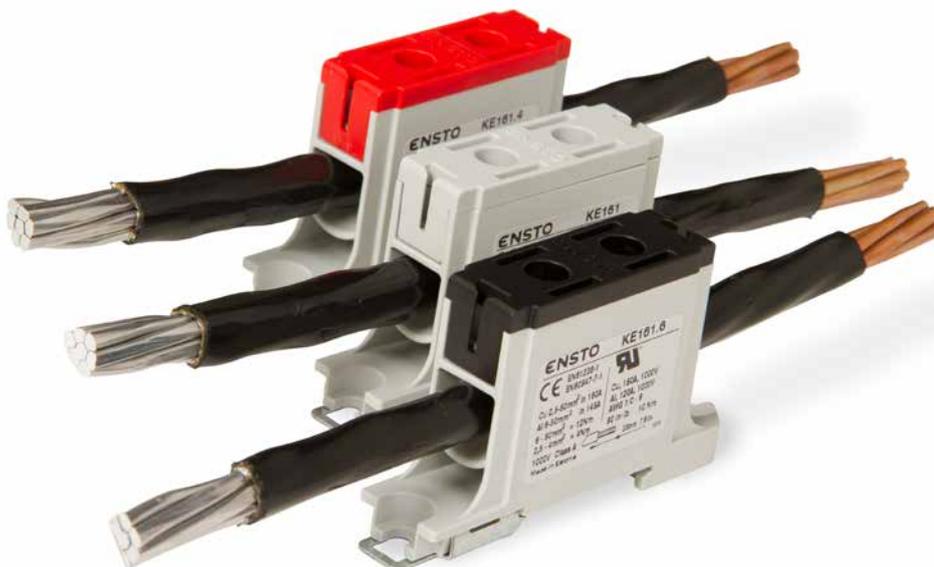
Cross-section range:	Al 6 - 150 mm ² Cu 2.5 - 150 mm ²
Nominal current range:	145 - 320 A
Operating temperature:	max. 90 °C
Pollution degree:	3

Material

Housing:	Fiberglass reinforced polyamide
Body and screws:	Tin-coated aluminium

Mechanical features

Screw heads:	Hexagonal
Mounting:	Screws or DIN rail



Ensto Clampo Pro 1000 V terminals

Ensto Clampo Pro 1000 V, 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
KE161	Cu 2,5-50 mm ² Al 6-50 mm ²	Grey	Cu 160 A, Al 145 A	1000 V	5 mm	4 Nm (2.5-4mm ²), 12 Nm (6-50mm ²)	DIN rail/screw	0.045	30	6438100181758
KE161.2	Cu 2,5-50 mm ² Al 6-50 mm ²	Blue	Cu 160 A, Al 145 A	1000 V	5 mm	4 Nm (2.5-4mm ²), 12 Nm (6-50mm ²)	DIN rail/screw	0.045	30	6438100181765
KE161.4	Cu 2,5-50 mm ² Al 6-50 mm ²	Red	Cu 160 A, Al 145 A	1000 V	5 mm	4 Nm (2.5-4mm ²), 12 Nm (6-50mm ²)	DIN rail/screw	0.045	30	6438100181772
KE161.6	Cu 2,5-50 mm ² Al 6-50 mm ²	Black	Cu 160 A, Al 145 A	1000 V	5 mm	4 Nm (2.5-4mm ²), 12 Nm (6-50mm ²)	DIN rail/screw	0.045	30	6438100181789
KE162	Al/Cu 16-95 mm ²	Grey	Cu 245 A, Al 220 A	1000 V	5 mm	20 Nm	DIN rail/screw	0.091	30	6438100160616
KE162.2	Al/Cu 16-95 mm ²	Blue	Cu 245 A, Al 220 A	1000 V	5 mm	20 Nm	DIN rail/screw	0.091	30	6438100160623
KE162.4	Al/Cu 16-95 mm ²	Red	Cu 245 A, Al 220 A	1000 V	5 mm	20 Nm	DIN rail/screw	0.091	30	6438100160647
KE162.6	Al/Cu 16-95 mm ²	Black	Cu 245 A, Al 220 A	1000 V	5 mm	20 Nm	DIN rail/screw	0.091	30	6438100160654
KE163	Al/Cu 35-150 mm ²	Grey	Cu 320 A, Al 290 A	1000 V	8 mm	20 Nm (35-95mm ²), 30 Nm (120-150mm ²)	DIN rail/screw	0.143	30	6438100181796
KE163.2	Al/Cu 35-150 mm ²	Blue	Cu 320 A, Al 290 A	1000 V	8 mm	20 Nm (35-95mm ²), 30 Nm (120-150mm ²)	DIN rail/screw	0.143	30	6438100181802
KE163.4	Al/Cu 35-150 mm ²	Red	Cu 320 A, Al 290 A	1000 V	8 mm	20 Nm (35-95mm ²), 30 Nm (120-150mm ²)	DIN rail/screw	0.143	30	6438100181819
KE163.6	Al/Cu 35-150 mm ²	Black	Cu 320 A, Al 290 A	1000 V	8 mm	20 Nm (35-95mm ²), 30 Nm (120-150mm ²)	DIN rail/screw	0.143	30	6438100181826

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

UL recognitions

Product code	Wire type	AWG* 1 wire/terminal	AWG* 2 Cu-wires/ terminal	AWG* 3 Cu-wires/ terminal	Max insulation voltage	Max current	Tightening torque	Allen-hex socket head terminal screw	Dimensions (W x H x D)
KE161	Cu	1/0 - 6	6	8	1000 V	150 A	90 lb-in	5 mm	3.25 x 1.89 x 0.76 In
	Al	1/0 - 6			1000 V	120 A	(10 Nm)		(82.5 x 48 x 19.2 mm)
KE162	Cu	4/0 - 4	2 - 6	6	1000 V	230 A	126 lb-in	5 mm	3.74 x 2.16 x 0.98 In
	Al	4/0 - 4			1000 V	180 A	(14 Nm)		(95 x 55 x 25 mm)
KE163	Cu	300 - 2	1/0 - 2	2	1000 V	285 A	216 lb-in	8 mm	4.15 x 2.58 x 1.20 In
	Al	300 - 2			1000 V	230 A	(24 Nm)		(105.5 x 65.5 x 30.4 mm)

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

* AWG = American Wire Gauge

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



KE161



KE161.2



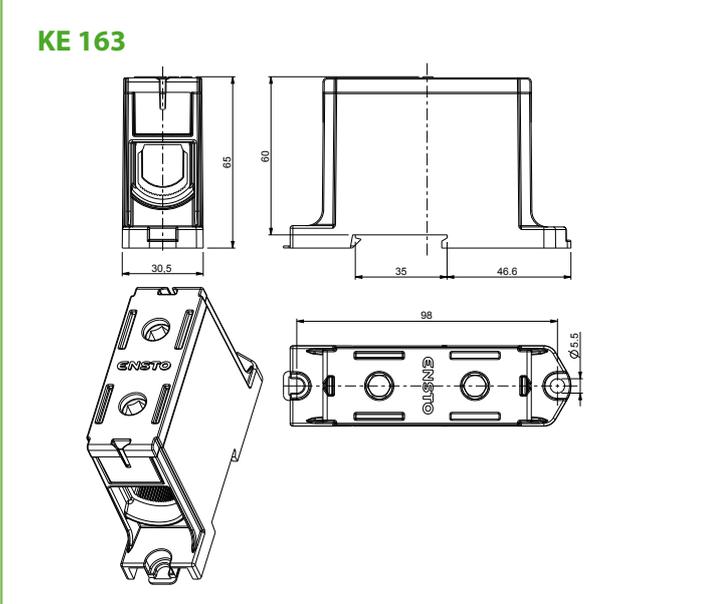
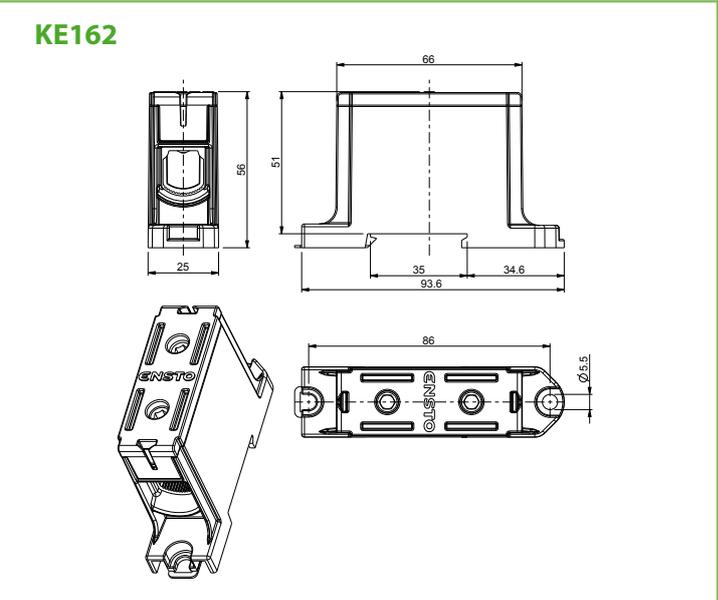
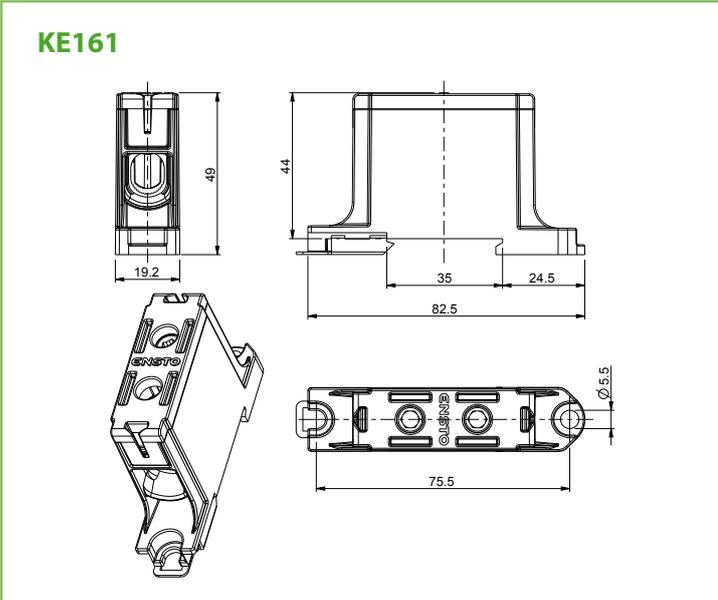
KE162.6



KE163.4

Dimensional drawings

Dimensions in mm



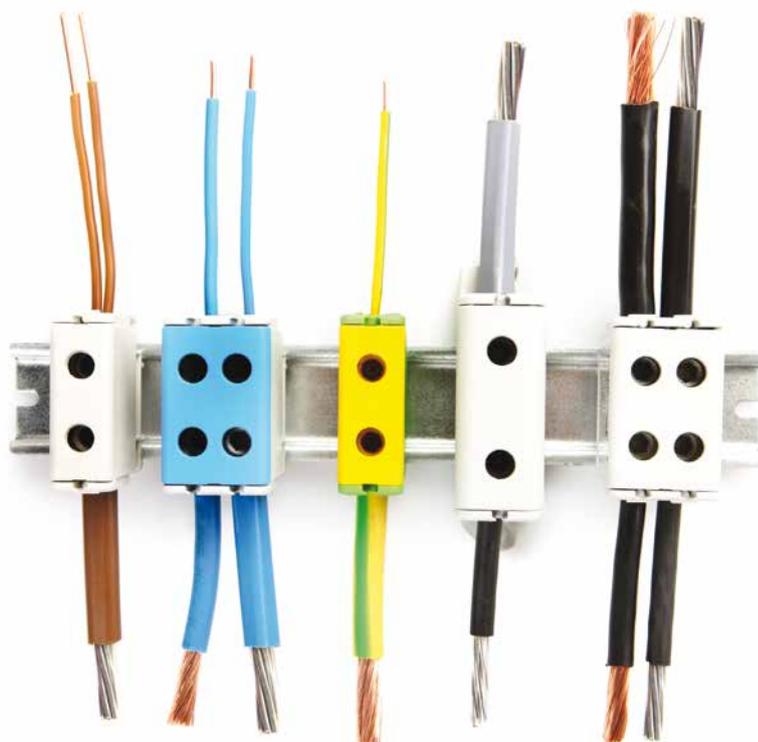
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Conductor table

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.
- 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 firmly 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 factory industrially installed terminals (internal connections in a panel), (SGS Fimko).

Product code	Wire type	Cross-sections of conductors (mm ²) and number of conductors/space. The conductor numbers below refer only to industrially installed terminals.																Nominal current (A)	Nominal insulation 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	800	4 (2.5-4mm ²)	
	Cu	3	3	3	3	2	1	1	1	1							160	800	12 (6-50mm ²)	
KE62	Al					1	1	1	1	1	1						220	800	20	
	Cu					3	2	2	1	1	1						245			
KE63	Al								1	1	1	1	1	1			290	800	20 (35-95 mm ²)	
	Cu								3	2	1	1	1	1			320		30 (120-150 mm ²)	
KE64	Al								1	1	1	1	1	1	1	1	380	800	12 (35-70 mm ²)	
	Cu								3	3	2	1	1	1	1	1	425		45 (95-240mm ²)	
KE66	Al			1	1	1	1	1	1	1							145	800	4 (2.5-4mm ²),	
	Cu	3	3	3	3	2	1	1	1	1							160		12 (6-50mm ²)	
KE67	Al					1	1	1	1	1	1						220	800	20	
	Cu					3	2	2	1	1	1						245			
KE68	Al								1	1	1	1	1	1			290	800	20 (35-95mm ²)	
	Cu								3	3	2	1	1	1	1		320		30 (120-150mm ²)	
KE69	Al								1	1	1	1	1	1	1	1	380	800	12 (35-70mm ²)	
	Cu								3	3	2	1	1	1	1	1	425		45 (95-240mm ²)	
Ensto Clampo Pro 1000 V terminals																				
KE161	Al			1	1	1	1	1	1	1							145	1000	4 Nm (2.5-4mm ²)	
	Cu	3	3	3	3	2	1	1	1	1							160		12 Nm (6-50mm ²)	
KE162	Al					1	1	1	1	1	1						220	1000	20	
	Cu					3	2	2	1	1	1						245			
KE163	Al								1	1	1	1	1	1			290	1000	30 Nm (120-150mm ²)	
	Cu								3	2	1	1	1	1	1		320		20 Nm (35-95mm ²)	



More information available on our website

Product cards available on www.ensto.com/products/terminals

We support your end solutions design process by offering product cards related to our terminals, load break switches and fuse bases. The product cards contain technical specifications, basic product data and the dimensional drawings in pdf format. Product cards are available on our web pages under the section Products (www.ensto.com/products).

The screenshot shows the ENSTO website interface. The top navigation bar includes 'Solutions', 'Products', 'Support', 'News Room', 'About Ensto', and 'Contacts'. The breadcrumb trail reads: 'Front page > Products > Industrial components > Terminals > Universal terminals > Universal terminal blocks'. The main content area is titled 'Product card:' and lists the following details:

- Type: K641
- EAN: 6418677191817
- Name: Clampo Pro terminal
- Description: 1-pole, grey, Al 6-50 mm², Cu 2.5-50 mm². Ensto Clampo Pro is a comprehensive universal terminal series for Al/Cu conductors of 2.5 – 240 mm².
- Package: 3/30/3150
- Unit: PCS

There are also sections for 'Attachments' (PDF-Product card, TIF, Technical drawing, Industrial components catalogue) and 'Technical specification'.

More information available on www.ensto.com/clampopro

On this website you will find, for instance:

- Latest product news
- Product cards with relevant product information
- Customer references
- Catalogues and leaflets
- Distributor information
- Contact information for our sales personnel.

The screenshot shows the ENSTO website interface for 'Ensto Clampo Pro universal terminals'. The breadcrumb trail reads: 'Front page > Solutions > Industrial Components > Terminals > Ensto Clampo Pro'. The main content area is titled 'Ensto Clampo Pro universal terminals' and includes the following text:

Small item - great significance

Ensto Clampo Pro is a comprehensive universal terminal series for Al/Cu conductors. Ensto Clampo universal terminal series is a versatile solution for all install, voltage switchgear and control gears for industry and construction to be used with both Al and Cu conductors, it makes life easier for designers in mechanical engineering.

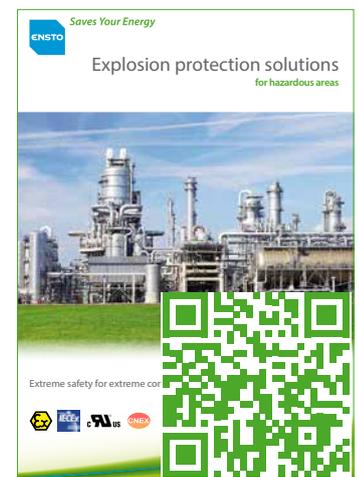
How do you recognize a good terminal?

The terminal:

- Is certified according to the latest standards
- Is suitable for both Al and Cu conductors

Our other brochures

Get also familiar with our other solutions targeted for industrial customers.



Order materials via email industrial.solutions@ensto.com



Legal notice

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Ensto

Ensto is a family business and an international cleantech company specializing in the development, manufacture and marketing of electrical systems and supplies for the distribution of electrical power as well as various electrical applications. We are committed to lasting sustainable development and our goal is to be a leading company in green energy efficiency and distribution. Our products, manufactured in seven countries, are environmentally friendly, energy efficient and leave a minimum carbon footprint.

Facts

- Established in 1958
- 1670 people in Europe and Asia
- Local presence in 20 countries
- Turnover EUR 280 million
- Headquarters located in Finland.

Cleantech

Cleantech refers to all those products, services, processes, and technologies which prevent or reduce the impact of harmful actions on the environment. Cleantech stands for higher quality, efficiency, and profitability. Ensto and other Finnish companies are already world leaders in several key cleantech sectors.



Saves Your Energy

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