

An aerial night photograph of a city, featuring a large bus terminal with many buses parked, a multi-lane highway with light trails from traffic, and various city buildings and streetlights illuminated. The image is framed by a large blue diamond shape that overlaps with the text on the right.

ENSTO

Industrial Electrification

For Smart Buildings

Better life.
With electricity.


Ensto provides electrification and lighting systems that enable Smart Building, with selected subsystems and maximum compatibility.
ensto.com

> Enclosures
1

> Industrial components
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> EnstoNet installation couplers
3

> Industrial luminaires
4



Industrial Electrification for Smart Buildings

We help you to build the most efficient, safe and reliable Residential, Commercial and Industrial environments.

Our solutions are developed for demanding industrial environments requiring a high degree of protection and extreme durability. We offer you high-quality standard and customer-specific enclosing solutions. We also support your operations with high-quality terminals, load-break switches, fuse bases and installation couplers that are designed and tested to meet a wide range of applications in various environments. Durable products mean uninterrupted operations, lower maintenance costs and, above all, satisfied customers.

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Ensto Pro

TRAINING ACADEMY

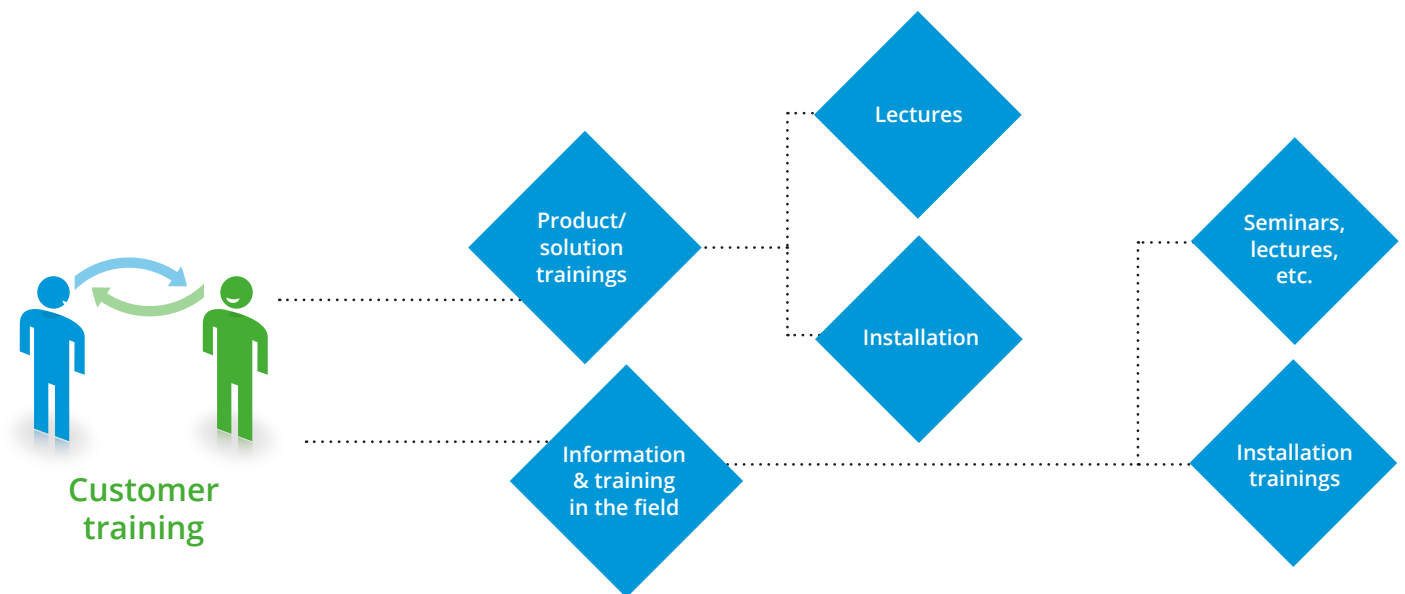
Ensto Pro is a training program that provides **continuing support** and **comprehensive training** for our customers, and personnel alike, for professional education and network building.

As our customer you gain these benefits from Ensto Pro training:

- › Time, cost, and energy savings
- › Fewer installation errors
- › Confidence and motivation
- › The opportunity to have an influence
- › New perspectives.

Ensto Pro Training Academy

Assuring Know-How and Reliable Installations



Ensto Pro – and You Know!

Our Knowledge at Your Disposal

Customer training sessions are a vital part of our operations. We offer more than products: a complete package with reliable solutions, professional service, and customized support. They allow us to create profitable, long-term relationship of true collaboration.

Ensto has offered technical training to customers for decades now. We want to share with you our 60-year experience in making the most of our products in varied, demanding circumstances. At the same time, we wish to learn from your experiences and truly understand your requirements, thereby becoming able to develop our products to best meet those precise needs.

Unique and Customized Training

Training helps to create true connection between us and you, the customer. We get real-time information on what you want, while you can learn about, for instance, products, installation methods, and network design.

Our Ensto Pro service is unique:

- We give local service in local language.
- We customize all Ensto Pro trainings.
- We are easy-going professionals.
- We emphasize two-way learning.
- We keep our promises.

Variety of Training Types

Our customer training ranges from small installation sessions to large lecture-type events. Also, we are ready to teach about a host of topics as customer needs and wishes dictate.

Often, we arrange, or are involved in, sessions attended by professionals from various institutions. By offering all the necessary information in one session, we save time and energy. We care about your success.



Enclosures

For demanding environments

1

We are specialists in enclosures and customer-specific enclosing solutions. Our standard product range includes thermoplastic, polyester, and aluminium enclosures, with the related accessories suitable for demanding environments.

Our enclosing solutions protect your electronic equipment in numerous applications from various external risk factors, among them dust, water, moisture, impacts and tampering. Thanks to their high degree of protection and impact strength, our solutions are able to withstand challenging environments in even the most demanding industries.

Typical applications include:

- › Food industry and agriculture
- › Infrastructure
- › Shipbuilding and transportation
- › Industrial automation
- › Energy production

How to choose the right enclosure?

Read more on ensto.com



Thermoplastic enclosures

Ensto Cubo thermoplastic enclosures are manufactured in high-quality halogen-free and recyclable polycarbonate or ABS plastics. Although plastic is much lighter than steel, it has very high impact-resistance. In addition, any dents or bumps are not as noticeable in plastic as they would be with steel. Both machining and maintenance of our thermoplastic enclosures is easy, and no special tools are needed.

BENEFITS:

- › Greater material thickness
- › Fibreglass-reinforced bases
- › Cost-efficient mold modifications
- › Lightweight products
- › Durability and easy maintenance

Range comparison



Ensto Cubo S enclosures, IP66 and IP67

- › Sizes: 75 x 125 x 35 to 175 x 250 x 150 mm
- › Available with plain sides or knockouts
- › Cover and cover screws equipped with sealing holes
- › Slots in the base for printed circuit boards



Ensto Cubo D enclosures, IP66 and IP67

- › Sizes: 53 x 55 x 36 to 230 x 300 x 111 mm
- › Available with plain sides
- › Contemporary design with faceted corners and cover plugs
- › Fastening pods inside the cover included
- › Slots in the base for printed circuit boards



Ensto Cubo O enclosures, IP66 and IP67

- › Sizes: 200 x 200 x 132 to 400 x 600 x 187 mm
- › Available with plain sides or with metric knockouts
- › 55-millimeter-deep extension frame available for alternative depths in all sizes
- › Cover and cover screws equipped with sealing holes
- › Cover that can also be mounted on the back of the base



Ensto Cubo C enclosures, IP66 and IP67

- › Sizes: 200 x 200 x 132 to 400 x 600 x 187 mm
- › Available with flange knockouts
- › Cover that can be mounted on the back of the base
- › 55-millimeter-deep extension frame available for alternative depths in all sizes
- › Covers and cover screws equipped with sealing holes
- › A products based on the Ensto Cubo O enclosure series



Ensto Cubo W wall cabinets, IP66 and IP67

- › Sizes: 200 x 200 x 132 to 400 x 600 x 187 mm
- › Available with plain sides
- › Pre-assembled hinges and quick-release latches as standard
- › A product based on the Ensto Cubo O enclosure series



Ensto Modulo distribution enclosures, IP65

- › Sizes: 166 x 231 x 113 to 418 x 586 x 148 mm
- › Available in 9 sizes, capacity for 4 to 54 modules
- › Factory installed DIN-rails, earth and neutral bars
- › Factory made metric knockouts from M20 to M40



Ensto terminal junction boxes, IP67

- › Sizes 125 x 125 x 75 to 300 x 600 x 132 mm
- › 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 enclosures

Ensto Cubo S enclosures

IP66 and IP67

Sizes 75 x 125 x 35 to 175 x 250 x 150 mm



Ensto Cubo S enclosure in brief:

- Available with plain sides or knockouts
- Available in 36 sizes, two base depths (25 and 50 mm) and 5 different cover heights
- Cover and cover screws equipped with sealing holes
- Slots in the base for printed circuit boards

Contents of the product package:

- Enclosure base
- Cover
- Cover screws
- Mounting screws

Further information

- Common enclosure accessories, page 34–37
- Product cards, dimensional drawings and 3D models can be found at ensto.com.

Conformity	
PC enclosures:	CE
Technical information	
Degree of protection:	IP66 and IP67
Impact resistance:	PC: IK08 (-25 °C... +35 °C)
Operating temperature:	PC: -40 °C ... +80 °C
Short term temperature range:	PC: -40 °C... +120 °C
Flammability rating:	PC: UL 746C 5 inch flame
UL File no:	E189312
UL category:	NITW, NITW7
Environmental type (UL):	4, 4X, 12, 13, 6
Environmental type (cUL):	4, 4X, 12, 6
Outdoor suitability:	PC: UL 746C f1 rated material
Insulation:	Class II
Material	
Base:	Fibreglass reinforced polycarbonate
Cover:	Polycarbonate
Cover screws:	Fibreglass reinforced polyamide
Gasket:	PUR (polyurethane)
Enclosure side types	
PC enclosures:	Plain sides, metric knockouts
Standard color	
Base:	Grey RAL 7035
Cover:	Grey RAL 7035 or transparent



The enclosure has unique slots in the base for printed circuit boards.



The cover can be sealed.



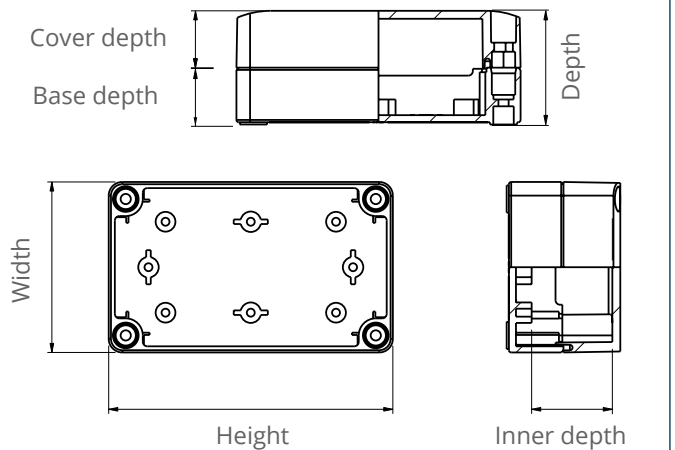
Enclosure with a low (10 mm) cover and a low (25 mm) base.



This enclosure is equipped with hinges (DSH1), cover plugs and wing head parts (SLW1).

Dimensions

You can find the following dimensions on the product tables. More information, product cards, dimensional drawings and 3D models can be found at ensto.com.



Ensto Cubo S enclosures with plain sides

Width (mm)	Height (mm)	Depth (mm)	Inner depth (mm)	Base depth (mm)	Cover depth (mm)	Polycarbonate grey cover (product code, GTIN-13)	Polycarbonate transparent cover (product code, GTIN-13)	UL-listed polycarbonate grey cover (product code, GTIN-13)	UL-listed polycarbonate transparent cover (product code, GTIN-13)	
75	125	35	20.5	25	10	SPCP081304LG 6438100101299	SPCP081304LT 6438100101305	SPCP081304LG.U 6438100115814	SPCP081304LT.U 6438100116170	
		50	35.5	25	25	SPCP081305LG 6438100101336	SPCP081305LT 6438100101343	SPCP081305LG.U 6438100115821	SPCP081305LT.U 6438100116187	
		60	45.5	50	10	SPCP081306G 6438100101374	SPCP081306T 6438100101381	SPCP081306G.U 6438100115838	SPCP081306T.U 6438100116194	
		75	60.5	25	50	SPCP081308LG 6438100101459	SPCP081308LT 6438100101466	SPCP081308LG.U 6438100115852	SPCP081308LT.U 6438100116200	
		75	60.5	50	25	SPCP081308G 6418677155031	SPCP081308T 6418677155024	SPCP081308G.U 6438100115845	SPCP081308T.U 6438100116217	
		100	85.5	25	75	SPCP081310LG 6438100101497	SPCP081310LT 6438100101503	SPCP081310LG.U 6438100115876	SPCP081310LT.U 6438100116224	
		100	85.5	50	50	SPCP081310G 6418677155086	SPCP081310T 6418677155093	SPCP081310G.U 6438100115869	SPCP081310T.U 6438100116231	
		125	110.5	50	75	SPCP081313G 6418677155147	SPCP081313T 6418677155154	SPCP081313G.U 6438100115883	SPCP081313T.U 6438100116248	
100	100	35	20.5	25	10	SPCP101004LG 6438100101534	SPCP101004LT 6438100101541	SPCP101004LG.U 6438100115890	SPCP101004LT.U 6438100116255	
		60	45.5	50	10	SPCP101006G 6438100101619	SPCP101006T 6438100101626	SPCP101006G.U 6438100115906	SPCP101006T.U 6438100116262	
125	125	35	20.5	25	10	SPCP131304LG 6438100101671	SPCP131304LT 6438100101688	SPCP131304LG.U 6438100115913	SPCP131304LT.U 6438100116279	
		50	35.5	25	25	SPCP131305LG 6438100101718	SPCP131305LT 6438100101725	SPCP131305LG.U 6438100115920	SPCP131305LT.U 6438100116286	
		60	45.5	50	10	SPCP131306G 6438100101756	SPCP131306T 6438100101763	SPCP131306G.U 6438100115937	SPCP131306T.U 6438100116293	
		75	60.5	25	50	SPCP131308LG 6438100101817	SPCP131308LT 6438100101824	SPCP131308LG.U 6438100115944	SPCP131308LT.U 6438100116316	
		75	60.5	50	25	SPCP131308G 6418677155208	SPCP131308T 6418677155215	SPCP131308G.U 6438100115951	SPCP131308T.U 6438100116309	
		100	85.5	25	75	SPCP131310LG 6438100101855	SPCP131310LT 6438100101862	SPCP131310LG.U 6438100115968	SPCP131310LT.U 6438100116320	
		100	85.5	50	50	SPCP131310G 6418677155260	SPCP131310T 6418677155277	SPCP131310G.U 6438100115975	SPCP131310T.U 6438100116323	
		125	110.5	50	75	SPCP131313G 6418677155321	SPCP131313T 6418677155338	SPCP131313G.U 6438100115982	SPCP131313T.U 6438100116347	
	175	175	35	20.5	25	10	SPCP131804LG 6438100101893	SPCP131804LT 6438100101909	SPCP131804LG.U 6438100115999	SPCP131804LT.U 6438100116354
			50	35.5	25	25	SPCP131805LG 6438100101930	SPCP131805LT 6438100101947	SPCP131805LG.U 6438100116002	SPCP131805LT.U 6438100116361
			60	45.5	50	10	SPCP131806G 6438100101978	SPCP131806T 6438100101985	SPCP131806G.U 6438100116019	SPCP131806T.U 6438100116378
			75	60.5	25	50	SPCP131808LG 6438100102050	SPCP131808LT 6438100102067	SPCP131808LG.U 6438100116033	SPCP131808LT.U 6438100116385
			75	60.5	50	25	SPCP131808G 6418677155383	SPCP131808T 6418677155390	SPCP131808G.U 6438100116026	SPCP131808T.U 6438100116392
			100	85.5	25	75	SPCP131810LG 6438100102098	SPCP131810LT 6438100102104	SPCP131810LG.U 6438100116057	SPCP131810LT.U 6438100116408
			100	85.5	50	50	SPCP131810G 6418677155444	SPCP131810T 6418677155451	SPCP131810G.U 6438100116040	SPCP131810T.U 6438100116415
			125	110.5	25	100	SPCP131813LG 6438100102135	SPCP131813LT 6438100102142	SPCP131813LG.U 6438100116064	SPCP131813LT.U 6438100116422
			125	110.5	50	75	SPCP131813G 6418677155505	SPCP131813T 6418677155512	SPCP131813G.U 6438100116071	SPCP131813T.U 6438100116439
			150	135.5	50	100	SPCP131815G 6418677155567	SPCP131815T 6418677155574	SPCP131815G.U 6438100116088	SPCP131815T.U 6438100116446
	250	125	110.5	50	75	SPCP132513G 6438100104696	SPCP132513T 6438100104702	SPCP132513G.U 6438100116095	SPCP132513T.U 6438100116453	
	175	175	75	60.5	50	25	SPCP181808G 6418677155628	SPCP181808T 6418677155635	SPCP181808G.U 6438100116101	SPCP181808T.U 6438100116477
			100	85.5	50	50	SPCP181810G 6418677155680	SPCP181810T 6418677155697	SPCP181810G.U 6438100116118	SPCP181810T.U 6438100116484
			125	110.5	50	75	SPCP181813G 6418677155741	SPCP181813T 6418677155758	SPCP181813G.U 6438100116125	SPCP181813T.U 6438100116460
			150	135.5	50	100	SPCP181815G 6418677155802	SPCP181815T 6418677155819	SPCP181815G.U 6438100116132	SPCP181815T.U 6438100116491
		250	75	60.5	50	25	SPCP182508G 6418677155864	SPCP182508T 6418677155871	SPCP182508G.U 6438100116149	SPCP182508T.U 6438100116507
100			85.5	50	50	SPCP182510G 6418677155925	SPCP182510T 6418677155932	SPCP182510G.U 6438100116156	SPCP182510T.U 6438100116514	
150			135.5	50	100	SPCP182515G 6418677155987	SPCP182515T 6418677155994	SPCP182515G.U 6438100116163	SPCP182515T.U 6438100116521	



SPCP131304LG



SPCP131813G



SPCP131308T



SPCP182515T



Ensto Cubo S enclosures with metric knockouts, polycarbonate

Width (mm)	Height (mm)	Depth (mm)	Inner depth (mm)	Base depth (mm)	Cover depth (mm)	Polycarbonate grey cover metric knockouts (product code, GTIN-13)	Polycarbonate transparent cover metric knockouts (product code, GTIN-13)	UL-listed polycarbonate grey cover metric knockouts (product code, GTIN-13)	UL-listed polycarbonate transparent cover metric knockouts (product code, GTIN-13)
75	125	60	45.5	50	10	SPCM081306G ⁽¹⁾ 6438100101411	SPCM081306T ⁽¹⁾ 6438100101428	SPCM081306G.U ⁽¹⁾ 6438100115371	SPCM081306T.U ⁽¹⁾ 6438100115593
		75	60.5	50	25	SPCM081308G ⁽¹⁾ 6418677166358	SPCM081308T ⁽¹⁾ 6418677166525	SPCM081308G.U ⁽¹⁾ 6438100115388	SPCM081308T.U ⁽¹⁾ 6438100115609
		100	85.5	50	50	SPCM081310G ⁽¹⁾ 6418677166365	SPCM081310T ⁽¹⁾ 6418677166532	SPCM081310G.U ⁽¹⁾ 6438100115395	SPCM081310T.U ⁽¹⁾ 6438100115616
		125	110.5	50	75	SPCM081313G ⁽¹⁾ 6418677166372	SPCM081313T ⁽¹⁾ 6418677166549	SPCM081313G.U ⁽¹⁾ 6438100115401	SPCM081313T.U ⁽¹⁾ 6438100115623
100	100	60	45.5	50	10	SPCM101006G ⁽²⁾ 6438100101657	SPCM101006T ⁽²⁾ 6438100101664	SPCM101006G.U ⁽²⁾ 6438100115418	SPCM101006T.U ⁽²⁾ 6438100115630
125	125	60	45.5	50	10	SPCM131306G ⁽³⁾ 6438100100445	SPCM131306T ⁽³⁾ 6438100100452	SPCM131306G.U ⁽³⁾ 6438100115425	SPCM131306T.U ⁽³⁾ 6438100115647
		75	60.5	50	25	SPCM131308G ⁽³⁾ 6418677166389	SPCM131308T ⁽³⁾ 6418677166556	SPCM131308G.U ⁽³⁾ 6438100115432	SPCM131308T.U ⁽³⁾ 6438100115654
		100	85.5	50	50	SPCM131310G ⁽³⁾ 6418677166396	SPCM131310T ⁽³⁾ 6418677166563	SPCM131310G.U ⁽³⁾ 6438100115449	SPCM131310T.U ⁽³⁾ 6438100115661
		125	110.5	50	75	SPCM131313G ⁽³⁾ 6418677166402	SPCM131313T ⁽³⁾ 6418677166570	SPCM131313G.U ⁽³⁾ 6438100115456	SPCM131313T.U ⁽³⁾ 6438100115678
	175	60	45.5	50	10	SPCM131806G ⁽⁴⁾ 6438100102012	SPCM131806T ⁽⁴⁾ 6438100102029	SPCM131806G.U ⁽⁴⁾ 6438100115463	SPCM131806T.U ⁽⁴⁾ 6438100115685
		75	60.5	50	25	SPCM131808G ⁽⁴⁾ 6418677166419	SPCM131808T ⁽⁴⁾ 6418677166587	SPCM131808G.U ⁽⁴⁾ 6438100115470	SPCM131808T.U ⁽⁴⁾ 6438100115692
		100	85.5	50	50	SPCM131810G ⁽⁴⁾ 6418677166426	SPCM131810T ⁽⁴⁾ 6418677166594	SPCM131810G.U ⁽⁴⁾ 6438100115487	SPCM131810T.U ⁽⁴⁾ 6438100115708
		125	110.5	50	75	SPCM131813G ⁽⁴⁾ 6418677166433	SPCM131813T ⁽⁴⁾ 6418677166600	SPCM131813G.U ⁽⁴⁾ 6438100115494	SPCM131813T.U ⁽⁴⁾ 6438100115715
250	125	110.5	50	100	SPCM131815G ⁽⁴⁾ 6418677166440	SPCM131815T ⁽⁴⁾ 6418677166617	SPCM131815G.U ⁽⁴⁾ 6438100115500	SPCM131815T.U ⁽⁴⁾ 6438100115722	
	150	135.5	50	100	SPCM132513G ⁽⁷⁾ 6438100104733	SPCM132513T ⁽⁷⁾ 6438100104740	SPCM132513G.U ⁽⁷⁾ 6438100115517	SPCM132513T.U ⁽⁷⁾ 6438100115739	
175	175	75	60.5	50	25	SPCM181808G ⁽⁵⁾ 6418677166457	SPCM181808T ⁽⁵⁾ 6418677166624	SPCM181808G.U ⁽⁵⁾ 6438100115524	SPCM181808T.U ⁽⁵⁾ 6438100115746
		100	85.5	50	50	SPCM181810G ⁽⁵⁾ 6418677166464	SPCM181810T ⁽⁵⁾ 6418677166631	SPCM181810G.U ⁽⁵⁾ 6438100115531	SPCM181810T.U ⁽⁵⁾ 6438100115753
		125	110.5	50	75	SPCM181813G ⁽⁵⁾ 6418677166471	SPCM181813T ⁽⁵⁾ 6418677166648	SPCM181813G.U ⁽⁵⁾ 6438100115548	SPCM181813T.U ⁽⁵⁾ 6438100115760
		150	135.5	50	100	SPCM181815G ⁽⁵⁾ 6418677166488	SPCM181815T ⁽⁵⁾ 6418677166655	SPCM181815G.U ⁽⁵⁾ 6438100115555	SPCM181815T.U ⁽⁵⁾ 6438100115777
	250	75	60.5	50	25	SPCM182508G ⁽⁶⁾ 6418677166495	SPCM182508T ⁽⁶⁾ 6418677166662	SPCM182508G.U ⁽⁶⁾ 6438100115562	SPCM182508T.U ⁽⁶⁾ 6438100115784
		100	85.5	50	50	SPCM182510G ⁽⁶⁾ 6418677166501	SPCM182510T ⁽⁶⁾ 6418677166679	SPCM182510G.U ⁽⁶⁾ 6438100115579	SPCM182510T.U ⁽⁶⁾ 6438100115791
		125	110.5	50	75	SPCM182515G ⁽⁶⁾ 6418677166518	SPCM182515T ⁽⁶⁾ 6418677166686	SPCM182515G.U ⁽⁶⁾ 6438100115586	SPCM182515T.U ⁽⁶⁾ 6438100115807
		150	135.5	50	100				

¹⁾ 2 x M16/25 + 6 x M12/20 knockouts

²⁾ 2 x M16/25 + 4 x M12/20 knockouts

³⁾ 4 x M16/25 + 6 x M12/20 knockouts

⁴⁾ 4 x M16/25 + 8 x M12/20 knockouts

⁵⁾ 4 x M12/20 + 4 x M16/25 + 10 x M12/20 knockouts

⁶⁾ 4 x M12/20 + 4 x M16/25 + 12 x M12/20 knockouts

⁷⁾ 4 x M20/25 knockouts

Mounting plates and DIN rails

Product code	Description	Dimensions (mm)	Package size (pcs)	GTIN-13
Mounting plates, galvanized steel				
SMP0813	For 75 x 125 mm enclosures	48 x 98 x 1.5	10	6418677156038
SMP1010	For 100 x 100 mm enclosures	78 x 78 x 1.5	10	6438100104849
SMP1313	For 125 x 125 mm enclosures	98 x 98 x 1.5	10	6418677156045
SMP1318	For 125 x 175 mm enclosures	98 x 148 x 1.5	10	6418677156052
SMP1325	For 125 x 250 mm enclosures	98 x 223 x 1.5	10	6438100104535
SMP1818	For 175 x 175 mm enclosures	148 x 148 x 1.5	10	6418677156069
SMP1825	For 175 x 250 mm enclosures	148 x 223 x 1.5	10	6418677156076
DIN rails, DIN 46277/3, galvanized steel				
DR35040.4	For 75 mm sides	35 x 50	10	6418677156090
DR35070.4	For 100 mm sides	35 x 80	10	6438100104450
DR35090.4	For 125 mm sides	35 x 100	10	6418677156106
DR35140.4	For 175 mm sides	35 x 150	10	6418677156113
DR35215.4	For 250 mm sides	35 x 225	10	6418677156120



SMP0813

Other accessories

Product code	Description	Dimensions (mm)	Package size (pcs)	GTIN-13
DSH11	Hinge, pair, polycarbonate	28 x 28	1	6418677156144
SFL1	Fastening lug, set of 4 pcs, polycarbonate	15 x 30	1	6418677156151
SBI1	Insert for pods, brass	M2	50	6418677156168
SBI1.04	Insert, set of 4 pcs	M2	1	6418677156830
SBS40	Spacer, 40 mm, for panels	7 x 48	12	6438100086022
SMS1	Mounting screw for plates and rails, steel	4 x 8	100	6418677156175
SCP08	Cover plug, short, for 25 mm cover	ø11 x 12	10	6418677156847
SCP10	Cover plug, long, for 50 mm cover	ø12 x 36.5	10	6418677156854
SCP1315	Cover plug, short, for 75 and 100 mm covers	ø11.5 x 12	10	6418677156861
SLS35	Cover screw, medium	11 x 35	100	6418677156182
SLS60	Cover screw, long, for 50 mm covers	11 x 60	50	6418677156199
SLSA23.04	Screw set, Includes 4 short cover screws for 10 mm cover and 4 mounting screws SMS1	11 x 23	1	6438100100407
SLSA35.04	Screw set, Includes 4 medium cover screws SLS35 and 4 mounting screws SMS1	11 x 35	1	6418677154980
SLSA60.04	Screw set, Includes 4 long cover screws for 50 mm cover SLS60 and 4 mounting screws SMS1	11 x 60	1	6418677154997
SLW1	Cover screw's wing head part, only for 25 and 50 mm covers	11 x 17	10	6418677154867



Hinge pair, DSH11.

Ensto Cubo D enclosures

IP66 and 67

Sizes 53 x 55 x 36 to 230 x 300 x 111 mm



Ensto Cubo D enclosure in brief:

- Available with plain sides
- Contemporary design with faceted corners and cover plugs
- Includes fastening pods inside the cover
- Slots in the base for printed circuit boards

Contents of the product package:

- Enclosure base
- Cover
- Cover screws
- Mounting screws
- Cover plugs for cover screws

Further information

- Common enclosure accessories, page 34–37
- Product cards, dimensional drawings and 3D models can be found at ensto.com.



Ensto Cubo D enclosures include fastening pods inside the cover.

This enclosure is equipped with hinges (DSH11) and fastening lugs (DFL1).

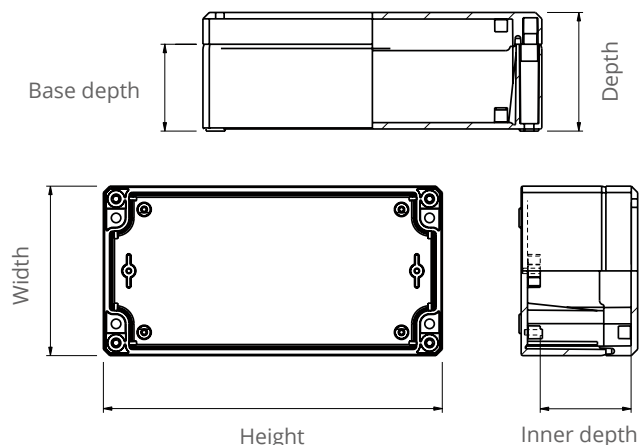


Ensto Cubo D enclosures have a modern design with faceted corners and cover plugs.

Conformity	
PC enclosures:	CE RoHS FI UL cUL GL PC
Technical information	
Degree of protection:	IP66 and IP67
Impact resistance:	PC: IK08 (-25 °C... +35 °C)
Operating temperature:	PC: -40 °C ... +80 °C
Short term temperature range:	PC: -40 °C... +120 °C
Flammability rating:	PC: UL 746C 5 inch flame
UL File no:	E189312
UL category:	NITW, NITW7
Environmental type (UL):	4, 4X, 12, 13, 6
Outdoor suitability:	PC: UL 746C f1 rated material
Insulation:	Class II
Material	
Base/cover:	Polycarbonate
Cover screws:	Stainless steel
Gasket:	PUR (polyurethane)
Enclosure side types	
PC enclosures:	Plain sides
Standard color	
Base:	Grey RAL 7035
Cover:	Grey RAL 7035 or transparent

Dimensions

You can find the following dimensions on the product tables. More information, product cards, dimensional drawings and 3D models can be found at ensto.com.



Ensto Cubo D enclosures with plain sides

Width (mm)	Height (mm)	Depth (mm)	Base depth (mm)	Inner depth (mm)	Polycarbonate grey cover (Product code, GTIN-13)	Polycarbonate transparent cover (Product code, GTIN-13)	UL -listed polycarbonate grey cover (Product code, GTIN-13)	UL -listed Polycarbonate transparent cover (Product code, GTIN-13)
53	55	36	26	27.5	DPCP050504G 6418677150005	DPCP050504T 6418677150012	DPCP050504G.U 6438100116538	DPCP050504T.U 6438100116705
	63	36	26	25.0	DPCP050704G 6418677150043	DPCP050704T 6418677150050	DPCP050704G.U 6438100116545	DPCP050704T.U 6438100116712
80	82	56	41	42.0	DPCP080806G 6418677150081	DPCP080806T 6418677150098	DPCP080806G.U 6438100116552	DPCP080806T.U 6438100116729
		86	71	72.0	DPCP080809G 6418677150128	DPCP080809T 6418677150135	DPCP080809G.U 6438100116569	DPCP080809T.U 6438100116736
	120	56	41	42.0	DPCP081206G 6418677150166	DPCP081206T 6418677150173	DPCP081206G.U 6438100116576	DPCP081206T.U 6438100116743
		86	71	72.0	DPCP081209G 6418677150203	DPCP081209T 6418677150210	DPCP081209G.U 6438100116583	DPCP081209T.U 6438100116750
	160	56	41	42.0	DPCP081606G 6418677150241	DPCP081606T 6418677150258	DPCP081606G.U 6438100116590	DPCP081606T.U 6438100116767
		86	71	72.0	DPCP081609G 6418677150289	DPCP081609T 6418677150296	DPCP081609G.U 6438100116606	DPCP081609T.U 6438100116774
120	122	56	41	42.0	DPCP121206G 6418677150326	DPCP121206T 6418677150333	DPCP121206G.U 6438100116613	DPCP121206T.U 6438100116781
		86	71	72.0	DPCP121209G 6418677150364	DPCP121209T 6418677150371	DPCP121209G.U 6438100116620	DPCP121209T.U 6438100116798
	160	91	61	77.5	DPCP121609G 6418677150401	DPCP121609T 6418677150418	DPCP121609G.U 6438100116637	DPCP121609T.U 6438100116804
	200	86	71	72.0	DPCP122009G 6418677150487	DPCP122009T 6418677150494	DPCP122009G.U 6438100116644	DPCP122009T.U 6438100116811
150	200	76	61	62.0	DPCP152008G 6418677150562	DPCP152008T 6418677150579	DPCP152008G.U 6438100116651	DPCP152008T.U 6438100116828
160	240	91	76	77.5	DPCP162409G 6418677150609	DPCP162409T 6418677150616	DPCP162409G.U 6438100116668	DPCP162409T.U 6438100116835
		121	76	107.5	DPCP162412G 6418677150647	DPCP162412T 6418677150654	DPCP162412G.U 6438100116675	DPCP162412T.U 6438100116842
230	300	86	56	72.5	DPCP233009G 6418677150722	DPCP233009T 6418677150739	DPCP233009G.U 6438100116682	DPCP233009T.U 6438100116859
		111	56	97.5	DPCP233011G 6418677150760	DPCP233011T 6418677150777	DPCP233011G.U 6438100116699	DPCP233011T.U 6438100116866



DPCP081206G



DPCP233011T

Mounting plates and DIN rails

Product code	Description	Dimensions (mm)	Package size (pcs)	GTIN-13
Mounting plates, galvanized steel				
DMP0808	For 80 x 82 mm enclosures	55 x 65 x 1.5	10	6418677150821
DMP0812	For 80 x 120 mm enclosures	65 x 93 x 1.5	10	6418677150838
DMP0816	For 80 x 160 mm enclosures	65 x 133 x 1.5	10	6418677150845
DMP1212	For 120 x 122 mm enclosures	95 x 105 x 1.5	10	6418677150852
DMP1216	For 120 x 160 mm enclosures	105 x 132 x 1.5	10	6418677150869
DMP1220	For 120 x 200 mm enclosures	105 x 172 x 1.5	10	6418677150876
DMP1520	For 150 x 200 mm enclosures	133 x 172 x 1.5	10	6418677150890
DMP1624	For 160 x 240 mm enclosures	145 x 213 x 1.5	10	6418677150906
DMP2330	For 230 x 300 mm enclosures	210 x 285 x 1.5	10	6418677150920
DIN rails 15 mm, DIN 46277/3, galvanized steel				
DR15016.4	For 53 x 55 mm enclosures	15 x 26	10	6418677150937
DR15038.4	For 53 x 63 mm enclosures	15 x 48	10	6418677150944
DR15058.4	For 80 x 82 mm enclosures	15 x 68	10	6418677150951
DR15096.4	For 80 x 120 mm and 120 x 122 mm enclosures	15 x 106	10	6418677150975
DR15136.4	For 80 x 160 mm and 120 x 160 mm enclosures	15 x 146	10	6418677150999
DIN rails 35 mm, DIN 46277/3, galvanized steel				
DR35058.4	For 80 x 82 mm enclosures	35 x 68	10	6418677150968
DR35096.4	For 80 x 120 mm and 120 x 122 mm enclosures	35 x 106	10	6418677150982
DR35136.4	For 80 x 160 mm and 120 x 160 mm enclosures	35 x 146	10	6418677151002
DR35160.4	For 150 x 200 mm enclosures	35 x 170	10	6418677151071
DR35176.4	For 120 x 200 mm enclosures	35 x 186	10	6418677151057
DR35215.4	For 160 x 240 mm enclosures	35 x 225	10	6418677156120
DR35275.4	For 230 x 300 mm enclosures	35 x 285	10	6418677151101



DMP0808



Hinge pair, DSH1.

Other accessories

Product code	Description	Dimensions (mm)	Package size (pcs)	GTIN-13
DSH1	Hinge pair	28 x 28	1	6418677156144
DFL1	Fastening lug, set of 4	33 x 21 x 9.5	1	6418677151125
DCP1	Cover plug		50	6418677151149
DLS1	Cover screw, short	3 x 18/10	100	6418677151163
DLSA1.02	Screw set, 2 short cover screws DLS1 and 2 mounting screws DMS1 and cover plugs DCP1	3 x 18/10	1	6438100070113
DLSA1.04	Screw set, 4 short cover screws DLS1 and 4 mounting screws DMS1 and cover plugs DCP1	3 x 18/10	1	6418677151293
DLSA1.06	Screw set, 6 short cover screws DLS1 and 4 mounting screws DMS1 and cover plugs DCP1	3 x 50/10	1	6418677151309
DLS2	Cover screw, long, for 162412 and 233011	3 x 50/10	1	6418677151279
DLSA2.06	Screw set, 6 long cover screws DLS2 and 4 mounting screws DMS1	3 x 50/10	1	6438100087692
DLS3	Cover screw, TORX TX20	3 x 18/10	48	6418677151286
DMS1	Mounting screw	3 x 7	100	6418677151156



Fastening lug set, DFL1.

Ensto Cubo O, C and W enclosures, IP66 and 67

Sizes 200 x 200 x 132 to 400 x 600 x 187 mm



Ensto Cubo O, C and W enclosure in brief:

- › Ensto Cubo O has plain sides or with metric knockouts
- › Ensto Cubo C has flange knockouts
- › Ensto Cubo W has pre-assembled hinges and quick release latches as standard, available with plain sides
- › Available in 8 base sizes, one base depth and one cover height
- › Ensto Cubo O and C have 55-millimeter-deep extension frame available for alternative depths in all sizes. Several extension frames can be used on top of one another in one enclosure.
- › Cover and cover screws equipped with sealing holes
- › Cover can also be mounted onto the back of the base
- › Wide range of accessories available.

Contents of the product package:

132-millimeter-deep standard enclosure includes:

- › Enclosure base
- › Cover
- › Cover screws or latches and hinges
- › Mounting screws

187-millimeter-deep standard enclosure includes:

- › Enclosure base
- › Cover
- › Extension frame
- › Cover screws or latches and hinges
- › Mounting screws
- › Screws for the extension frame

Further information

- › Common enclosure accessories, page 34-37
- › Product cards, dimensional drawings and 3D models can be found at ensto.com.



Adjustable elevators are available for the base corner slots allowing the mounting of plates and panels at any height.

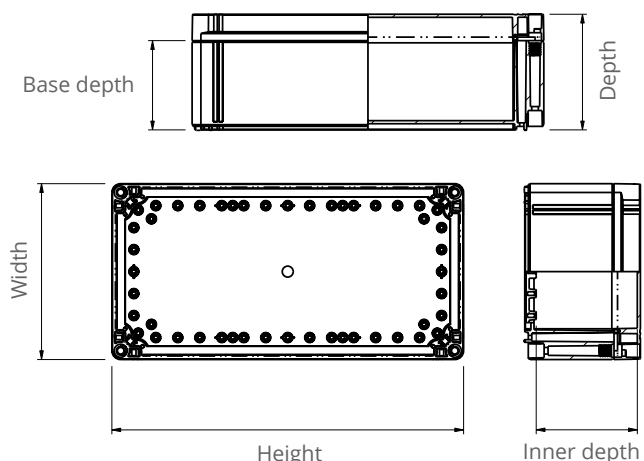


It is possible to mount the cover onto the back of the base.

Conformity	
PC enclosures:	CE RoHS FI UL cUL GL
Technical information	
Degree of protection:	IP66 and IP67
Impact resistance:	PC: IK08 (-25 °C... +35 °C)
Operating temperature:	PC: -40 °C ... +80 °C
Short term temperature range:	PC: -40 °C... +120 °C
Flammability rating:	PC: UL 746C 5 inch flame
UL File no:	E189312
UL category:	NITW, NITW7
Environmental type (UL):	4, 4X, 12, 13
Outdoor suitability:	PC: UL 746C f1 rated material
Insulation:	Class II
Material	
Base:	Fibreglass reinforced polycarbonate
Cover:	Polycarbonate
Cover screws:	Fibreglass reinforced polyamide
Gasket:	PUR (polyurethane)
Enclosure side types	
PC enclosures:	Plain sides, metric knockouts
Standard color	
Base:	Grey RAL 7035
Cover:	Grey RAL 7035 or transparent

Dimensions

You can find the following dimensions on the product tables. More information, product cards, dimensional drawings and 3D models can be found at ensto.com.



Ensto Cubo D enclosures with plain sides

Width (mm)	Height (mm)	Depth (mm)	Base depth (mm)	Inner depth (mm)	Polycarbonate grey cover (product code, GTIN-13)	Polycarbonate transparent cover (product code, GTIN-13)	UL-listed polycarbonate grey cover (product code, GTIN-13)	UL-listed polycarbonate transparent cover (product code, GTIN-13)
200	200	132	102	115.0	OPCP202013G 6418677184413	OPCP202013T 6418677184345	OPCP202013G.U 6438100116873	OPCP202013T.U 6438100117016
		187	102 + 55*	170.0	OPCP202018G 6418677184628	OPCP202018T 6418677184697	OPCP202018G.U 6438100116941	OPCP202018T.U 6438100117085
	300	132	102	115.0	OPCP203013G 6418677184420	OPCP203013T 6418677184352	OPCP203013G.U 6438100117880	OPCP203013T.U 6438100117023
		187	102 + 55*	170.0	OPCP203018G 6418677184635	OPCP203018T 6418677184703	OPCP203018G.U 6438100116958	OPCP203018T.U 6438100117092
	400	132	102	115.0	OPCP204013G 6418677184437	OPCP204013T 6418677184369	OPCP204013G.U 6438100116897	OPCP204013T.U 6438100117030
		187	102 + 55*	170.0	OPCP204018G 6418677184642	OPCP204018T 6418677184710	OPCP204018G.U 6438100116965	OPCP204018T.U 6438100117108
300	300	132	102	115.0	OPCP303013G 6418677184444	OPCP303013T 6418677184376	OPCP303013G.U 6438100116903	OPCP303013T.U 6438100117047
		187	102 + 55*	170.0	OPCP303018G 6418677184659	OPCP303018T 6418677184727	OPCP303018G.U 6438100116972	OPCP303018T.U 6438100117115
	400	132	102	115.0	OPCP304013G 6418677184451	OPCP304013T 6418677184383	OPCP304013G.U 6438100116910	OPCP304013T.U 6438100117054
		187	102 + 55*	170.0	OPCP304018G 6418677184666	OPCP304018T 6418677184734	OPCP304018G.U 6438100116989	OPCP304018T.U 6438100117122
	600	132	102	115.0	OPCP306013G 6418677184468	OPCP306013T 6418677184390	OPCP306013G.U 6438100116927	OPCP306013T.U 6438100117061
		187	102 + 55*	170.0	OPCP306018G 6418677184673	OPCP306018T 6418677184741	OPCP306018G.U 6438100116996	OPCP306018T.U 6438100117139
400	400	132	102	115.0	OPCP404013G 6438100112813	OPCP404013T 6438100112790	OPCP404013G.U 6438100117986	OPCP404013T.U 6438100117962
		187	102 + 55*	170.0	OPCP404018G 6438100112820	OPCP404018T 6438100112806	OPCP404018G.U 6438100117955	OPCP404018T.U 6438100117979
	600	132	102	115.0	OPCP406013G 6418677184475	OPCP406013T 6418677184406	OPCP406013G.U 6438100116934	OPCP406013T.U 6438100117078
		187	102 + 55*	170.0	OPCP406018G 6418677184680	OPCP406018T 6418677184758	OPCP406018G.U 6438100117009	OPCP406018T.U 6438100117146

* includes the extension frame



OPCP202013G



OPCP304013T

Ensto Cubo O enclosures with metric knock-outs

Width (mm)	Height (mm)	Depth (mm)	Base depth (mm)	Inner depth (mm)	Polycarbonate grey cover (product code, GTIN-13)	Polycarbonate transparent cover (product code, GTIN-13)	UL-listed polycarbonate grey cover (product code, GTIN-13)	UL-listed polycarbonate transparent cover (product code, GTIN-13)
300	300	132	115	115.0	OPCM303013G ⁽¹⁾ 6418677157899	OPCM303013T ⁽¹⁾ 6418677157929	OPCP202013G.U ⁽¹⁾ 6438100116873	OPCP202013T.U ⁽¹⁾ 6438100117016
		187	115 + 55*	170.0	OPCM303018G ⁽²⁾ 6418677157950	OPCM303018T ⁽²⁾ 6418677157981	OPCP202018G.U ⁽²⁾ 6438100116941	OPCP202018T.U ⁽²⁾ 6438100117085
	400	132	115	115.0	OPCM304013G ⁽³⁾ 6418677157905	OPCM304013T ⁽³⁾ 6418677157936	OPCP203013G.U ⁽³⁾ 6438100117880	OPCP203013T.U ⁽³⁾ 6438100117023
		187	115 + 55*	170.0	OPCM304018G ⁽⁴⁾ 6418677157967	OPCM304018T ⁽⁴⁾ 6418677157998	OPCP203018G.U ⁽⁴⁾ 6438100116958	OPCP203018T.U ⁽⁴⁾ 6438100117092
	600	132	115	115.0	OPCM306013G ⁽³⁾ 6418677157912	OPCM306013T ⁽³⁾ 6418677157943	OPCP204013G.U ⁽³⁾ 6438100116897	OPCP204013T.U ⁽³⁾ 6438100117030
		187	115 + 55*	170.0	OPCM306018G ⁽⁴⁾ 6418677157974	OPCM306018T ⁽⁴⁾ 6418677158001	OPCP204018G.U ⁽⁴⁾ 6438100116965	OPCP204018T.U ⁽⁴⁾ 6438100117108

* includes the extension frame

¹⁾ 12 x M20 + 1 x M16/25 + 8 x M20 + 4 x M25/40 knockouts

²⁾ 12 x M20 + 1 x M16/25 + 8 x M20 + 4 x M25/40 knockouts, Includes extension frame

³⁾ 8 x M12/20 + 5 x M16/25 + 12 x M12/20 + 1 x M32/40 knockouts

⁴⁾ 8 x M12/20 + 5 x M16/25 + 12 x M12/20 + 1 x M32/40 knockouts, Includes extension frame



OPCM304018G



OPCM306018T

Ensto Cubo C enclosures with flange knockouts, polycarbonate

Width (mm)	Height (mm)	Depth (mm)	Base depth (mm)	Inner depth (mm)	Polycarbonate grey cover (product code, GTIN-13)	Polycarbonate transparent cover (product code, GTIN-13)
200	200	132	102	115.0	CPCF202013G ⁽¹⁾ 6418677172120	CPCF202013T ⁽¹⁾ 6418677172199
		187	102 + 55*	170.0	CPCF202018G ⁽¹⁾ 6418677182167	CPCF202018T ⁽¹⁾ 6418677182235
	300	132	102	115.0	CPCF203013G ⁽²⁾ 6418677172137	CPCF203013T ⁽²⁾ 6418677172205
		187	102 + 55*	170.0	CPCF203018G ⁽²⁾ 6418677182174	CPCF203018T ⁽²⁾ 6418677182242
	400	132	102	115.0	CPCF204013G ⁽²⁾ 6418677172144	CPCF204013T ⁽²⁾ 6418677172212
		187	102 + 55*	170.0	CPCF204018G ⁽²⁾ 6418677182181	CPCF204018T ⁽²⁾ 6418677182259
300	300	132	102	115.0	CPCF303013G ⁽³⁾ 6418677172151	CPCF303013T ⁽³⁾ 6418677172229
		187	102 + 55*	170.0	CPCF303018G ⁽³⁾ 6418677182198	CPCF303018T ⁽³⁾ 6418677182266
	400	132	102	115.0	CPCF304013G ⁽³⁾ 6418677172168	CPCF304013T ⁽³⁾ 6418677172236
		187	102 + 55*	170.0	CPCF304018G ⁽³⁾ 6418677182204	CPCF304018T ⁽³⁾ 6418677182273
	600	132	102	115.0	CPCF306013G ⁽⁴⁾ 6418677172175	CPCF306013T ⁽⁴⁾ 6418677172243
		187	102 + 55*	170.0	CPCF306018G ⁽⁴⁾ 6418677182211	CPCF306018T ⁽⁴⁾ 6418677182280
400	400	132	102	115.0	CPCF404013G ⁽³⁾ 6438100112899	CPCF404013T ⁽³⁾ 6438100112875
		187	102 + 55*	170.0	CPCF404018G ⁽³⁾ 6438100112905	CPCF404018T ⁽³⁾ 6438100112882
	600	132	102	115.0	CPCF406013G ⁽⁴⁾ 6418677172182	CPCF406013T ⁽⁴⁾ 6418677172250
		187	102 + 55*	170.0	CPCF406018G ⁽⁴⁾ 6418677182228	CPCF406018T ⁽⁴⁾ 6418677182297



CPCF202013G



CPCF203018T

¹⁾ Includes the extension frame
¹⁾ 4 x F1 knockouts
²⁾ 2 x F1 knockouts + 2 x F2 knockouts

³⁾ 4 x F2 knockouts
⁴⁾ 6 x F2 knockouts

Ensto Cubo W wall cabinets with hinges and latches, plain sides, polycarbonate

Width (mm)	Height (mm)	Depth (mm)	Base depth (mm)	Inner depth (mm)	Polycarbonate grey cover (product code, GTIN-13)	Polycarbonate transparent cover (product code, GTIN-13)
200	200	132	102	115.0	WPCP202013G 6418677174308	WPCP202013T 6418677174384
		187	102 + 55*	170.0	WPCP202018G 6418677174469	WPCP202018T 6418677174544
	300	132	102	115.0	WPCP203013G 6418677174315	WPCP203013T 6418677174391
		187	102 + 55*	170.0	WPCP203018G 6418677174476	WPCP203018T 6418677174551
	400	132	102	115.0	WPCP204013G 6418677174322	WPCP204013T 6418677174407
		187	102 + 55*	170.0	WPCP204018G 6418677174483	WPCP204018T 6418677174568
300	300	132	102	115.0	WPCP303013G 6418677174339	WPCP303013T 6418677174414
		187	102 + 55*	170.0	WPCP303018G 6418677174490	WPCP303018T 6418677174575
	400	132	102 + 55*	115.0	WPCP304013G 6418677174346	WPCP304013T 6418677174421
		187	102 + 55*	170.0	WPCP304018G 6418677174506	WPCP304018T 6418677174582
	600	132	102 + 55	115.0	WPCP306013G 6418677174353	WPCP306013T 6418677174438
		187	102 + 55*	170.0	WPCP306018G 6418677174513	WPCP306018T 6418677174599
400	400	132	102 + 55	115.0	WPCP404013G 6438100113285	WPCP404013T 6438100113292
		187	102 + 55*	170.0	WPCP404018G 6438100113308	WPCP404018T 6438100113315
	600	132	102 + 55	115.0	WPCP406013G 6418677174377	WPCP406013T 6418677174452
		187	102 + 55*	170.0	WPCP406018G 6418677174537	WPCP406018T 6418677174612



WPCP202013G



WPCP406018T

^{*)} Includes the extension frame



Accessories for Ensto Cubo O, C enclosures

Bases

Includes mounting screws

Width (mm)	Height (mm)	Depth (mm)	Polycarbonate plain sides (product code, GTIN-13)	Polycarbonate Metric knockouts (product code, GTIN-13)	Polycarbonate Flange knockouts (product code, GTIN-13)
200	200	102	OPCP202010B 6418677164248		CPCF202010B ⁽⁴⁾ 6418677171697
	300	102	OPCP203010B 6418677164255		CPCF203010B ⁽⁵⁾ 6418677171703
	400	102	OPCP204010B 6418677164262		CPCF204010B ⁽⁵⁾ 6418677171710
300	300	102	OPCP303010B 6418677164279	OPCM303010B ⁽¹⁾ 6418677182600	CPCF303010B ⁽⁶⁾ 6418677171727
	400	102	OPCP304010B 6418677164286	OPCM304010B ⁽²⁾ 6418677182617	CPCF304010B ⁽⁶⁾ 6418677171734
	600	102	OPCP306010B 6418677164293	OPCM306010B ⁽³⁾ 6418677182624	CPCF306010B ⁽⁷⁾ 6418677171741
400	400	102	OPCP404010B 6438100112943		CPCF404010B ⁽⁶⁾ 6438100112929
	600	102	OPCP406010B 6418677164309		CPCF406010B ⁽⁷⁾ 6418677171758

⁽¹⁾ 12 x M20 + 1 x M16/25 + 8 x M20 + 4 x M25/40

⁽²⁾ 8 x M12/20 + 5 x M16/25 + 12 x M12/20 + 1 x M32/40

⁽³⁾ 8 x M12/20 + 5 x M16/25 + 12 x M12/20 + 1 x M32/40

⁽⁴⁾ 4 x F1 knockout,

⁽⁵⁾ 2 x F1 knockout + 2 x F2 knockout

⁽⁶⁾ 4 x F2 knockout,

⁽⁷⁾ 6 x F2 knockout



OPCM303010B



CPCF304010B

Extension frames, polycarbonate

Width (mm)	Height (mm)	Depth (mm)	Polycarbonate grey cover (product code, GTIN-13)
200	200	55	OPCP202006E 6418677164606
	300	55	OPCP203006E 6418677164613
	400	55	OPCP204006E 6418677164620
300	300	55	OPCP303006E 6418677164637
	400	55	OPCP304006E 6418677164644
	600	55	OPCP306006E 6418677164651
400	400	55	OPCP404006E 6438100112912
	600	55	OPCP406006E 6418677164668



OPCP303006E



OPCG303003L

Covers

Width (mm)	Height (mm)	Depth (mm)	Polycarbonate grey cover (product code, GTIN-13)	Polycarbonate transparent cover (product code, GTIN-13)	Grey cover with window for kWh-meter, polycarbonate (Product code, GTIN-13)
200	200	102	OPCG202003L ⁽¹⁾ 6418677164453	OPCT202003L ⁽¹⁾ 6418677164385	
	300	102	OPCG203003L ⁽¹⁾ 6418677164460	OPCT203003L ⁽¹⁾ 6418677164392	
	400	102	OPCG204003L ⁽¹⁾ 6418677164477	OPCT204003L ⁽¹⁾ 6418677164408	
300	300	102	OPCG303003L ⁽¹⁾ 6418677164484	OPCT303003L ⁽¹⁾ 6418677164415	
	400	102	OPCG304003L ⁽¹⁾ 6418677164491	OPCT304003L ⁽¹⁾ 6418677164422	
	600	102	OPCG306003L ⁽¹⁾ 6418677164507	OPCT306003L ⁽¹⁾ 6418677164439	
400	400	102	OPCG404003L ⁽¹⁾ 6438100112967	OPCT404003L ⁽¹⁾ 6438100112974	
	600	102	OPCG406003L ⁽¹⁾ 6418677164514	OPCT406003L ⁽¹⁾ 6418677164446	OPCG36KWH ⁽²⁾ 6418677174186

⁽¹⁾ Includes gasket

⁽²⁾ Inspection window 113 x 153 mm, Includes cover screws



OPCT303003L



OPCG36KWH

Accessories for Ensto Cubo O, C enclosures

Mounting plates and DIN rails

Product code	Description	Dimensions (mm)	Package size (pcs)	GTIN-13
Mounting plates, galvanized steel				
OMP2020	For 200 x 200 mm enclosures	160 x 160 x 1.5	1	6418677164675
OMP2030	For 200 x 300 mm enclosures	160 x 260 x 1.5	1	6418677164682
OMP2040	For 200 x 400 mm enclosures	160 x 360 x 1.5	1	6418677164699
OMP3030	For 300 x 300 mm enclosures	260 x 260 x 1.5	1	6418677164705
OMP3040	For 300 x 400 mm enclosures	260 x 360 x 1.5	1	6418677164712
OMP3060	For 300 x 600 mm enclosures	260 x 560 x 1.5	1	6418677164729
OMP4040	For 400 x 400 mm enclosures	360 x 360 x 1.5	1	6438100112370
OMP4060	For 400 x 600 mm enclosures	360 x 560 x 1.5	1	6418677164736
Mounting plates for kWh meter, galvanized steel				
KWHP3040	For 300 x 400 mm enclosures	260 x 360 x 1.5	1	6418677173110
KWHP3060	For 300 x 600 mm enclosures	260 x 560 x 1.5	1	6418677173097
KWHP4040	For 400 x 400 mm enclosures	360 x 360 x 1.5	1	6438100112394
KWHP4060	For 400 x 600 mm enclosures	360 x 560 x 1.5	1	6418677173127
DIN rails, DIN 46277/3, galvanized steel				
DR35150.5	For 200 mm side	35 x 160	1	6418677164743
DR35240.5	For 600 mm side/middle with front panel	35 x 250	1	6418677176647
DR35250.5	For 300 mm side	35 x 260	1	6418677164750
DR35340.5	For 600 mm side/middle with front panel	35 x 350	1	6418677176654
DR35350.5	For 400 mm side	35 x 360	1	6418677164767



OMP3040



KWHP3040

Profiles for DIN rails, galvanized steel

	Product code	Description	Dimensions (mm)	Package size (pcs)	GTIN-13
Height 14,5 mm	PRE2.14	Pair, for 200 mm side	115 x 14 x 14	1	6418677173172
	PRE3.14	Pair, for 300 mm side	215 x 14 x 14	1	6418677173134
	PRE4.14	Pair, for 400 mm side	315 x 14 x 14	1	6418677173141
	PRE75.14	Pair, for 600 mm side or center	75 x 14 x 14	1	6418677173158
Height 32,5 mm	PRE2.32	Pair, for 200 mm side	115 x 14 x 32	1	6418677173189
	PRE3.32	Pair, for 300 mm side	215 x 14 x 32	1	6418677172687
	PRE4.32	Pair, for 400 mm side	315 x 14 x 32	1	6418677172694
	PRE75.32	Pair, for 600 mm side or center	75 x 14 x 32	1	6418677173165



PRE2.14

Busbar support sets, 630 A

Product code	Description	Dimensions (mm)	Package size (pcs)	GTIN-13
KGH1.10	Support set for bars 10 mm x 10, 12, 20 or 30 mm	266 x 78 x 18	1	6418677172373
KGH1.05	Support set for bars 5 mm x 10, 12, 15 or 20 mm	266 x 78 x 18	1	6418677172380



KGH1.10

Accessories for Ensto Cubo O, C enclosures

Terminals for Al/Cu busbars

Product code	Description	Dimensions (mm)	Package size (pcs)	GTIN-13
KG81	Terminal for 25-70 mm ² cable	10 mm Al/Cu	1	6418677163739
KG83	Terminal for 16-185 mm ² cable	10 mm Al/Cu	1	6418677163746
KG85	Terminal for 2 x 35 mm ² + 2 x 16 mm ² cables	10 mm Al/Cu	1	6418677163753
KG87	Terminal for 4 x 35 mm ² + 4 x 16 mm ² cables	10 mm Al/Cu	1	6418677163760
KG80	Terminal for 25-70 mm ² cable	5 mm Al/Cu	1	6418677163852
KG82	Terminal for 6-70 mm ² cable	5 mm Al/Cu	1	6418677163869
KG84	Terminal for 3 x 16 mm ² cables	5 mm Al/Cu	1	6418677163876
KG86	Terminal for 6 x 16 mm ² cables	5 mm Al/Cu	1	6418677163883



KG85

Strain reliefs

Product code	Description	Dimensions (mm)	Package size (pcs)	GTIN-13
KJ8.13	300 mm side/for 1 cable, galvanized steel	265 x 65 x 85	1	6418677172755
KJ8.23	300 mm side/for 2 cables, galvanized steel	265 x 65 x 85	1	6418677173271
KJ8.14	400 mm side/for 1 cable, galvanized steel	365 x 65 x 85	1	6418677173288
KJ8.24	400 mm side/for 2 cables, galvanized steel	365 x 65 x 85	1	6418677173295



KJ8.13

Accessories for Ensto Cubo O, C, W enclosures

Cover screws for Ensto Cubo O, C enclosures

Product code	Description	Dimensions (mm)	Package size (pcs)	GTIN-13
OLS42	Slotted/cross head, sealable	14 x 42	1	6418677164590
OLSA42.4	Screw set, 4 slotted/cross head cover screws OLS42	14 x 42	1	6418677174704
OLSA42.6	Screw set, 6 slotted/cross head cover screws OLS42	14 x 42	1	6418677174711
OLSA42.04	Screw set, 4 slotted/cross head cover screws OLS42 and 4 mounting screws OMS1	14 x 42	1	6418677172267
OLSA42.06	Screw set, 6 slotted/cross head cover screws OLS42 and 8 mounting screws OMS1	14 x 42	1	6418677172274
OLS42N	Slotted/cross head, dark grey Noryl	14 x 42	1	6418677174728
OLS32	Slotted/cross head for 600 mm modular cover	14 x 32	1	6418677174360
PLS63	Springloaded, slotted/cross head	14 x 62	1	6418677173073
OLSH1	Hinged cover screw, slotted/cross head, blue, polyamide	14 x 96	1	6418677174247
OLWH1	Hinged cover screw, wing head, blue, polyamide	14 x 113	1	6418677174254
OLW55	Wing head	14 x 55	1	6418677171765
OLWA55.4	Screw set, 4 wing head cover screws OLW55	14 x 55	1	6418677174735
OLWA55.6	Screw set, 6 wing head cover screws OLW55	14 x 55	1	6418677174742
OLWA55.04	Screw set, 4 wing head cover screws OLW55 and 4 mounting screws OMS1	14 x 55	1	6418677172281
OLWA55.06	Screw set, 6 wing head cover screws OLW55 and 8 mounting screws OMS1	14 x 55	1	6418677174759
OLT42	DIN 3 head	14 x 42	1	6418677171772
OLTA42.4	Screw set, 4 DIN 3 head cover screws OLT42	14 x 42	1	6418677174766
OLTA42.6	Screw set, 6 DIN 3 head cover screws OLT42	14 x 42	1	6418677174773
OLTA42.04	Screw set, 4 DIN 3 head cover screws OLT42 and 4 mounting screws OMS1	14 x 42	1	6418677172298
OLTA42.06	Screw set, 6 DIN 3 head cover screws OLT42 and 8 mounting screws OMS1	14 x 42	1	6418677174780
OLTA42.041	Screw set, 4 DIN 3 head cover screws OLT42 and 4 mounting screws OMS1 + key OLT42KEY	14 x 42	1	6418677174797
OLT42KEY	Key for DIN head screw OLT42	50 x 53 x ø22	1	6418677172410



Cover screw, slotted/cross head, OLS42.



Cover screw, springloaded, slotted/cross head, PLS63.



Cover screw, wing head, OLW55.



Hinged cover screw, OLSH1.

Accessories for Ensto Cubo O, C, W enclosures

Other accessories

Product code	Description	Dimensions (mm)	Package size (pcs)	GTIN-13
OCS22.46	Customizing template, transparent	300 x 400 x 6	1	6418677184338
OES1	Extension frame screw	∅ 17 x 67	1	6418677174803
OESA1.04	Extension frame screws, set of 4 pcs	∅17 x 67	1	6438100081409
OESA1.06	Extension frame screws, set of 6 pcs	∅17 x 67	1	6438100081416
OHI1	Hinge pair, Includes mounting instruction	40 x 50 x 16.5	1	6418677164774
OHICP1	Hinge pair, Includes 2 cover plugs	40 x 50 x 16.5	1	6418677172304
OFL1	Fastening lug, set of 4 pcs	19 x 40 x 35.5	1	6418677164781
OEL1	Corner elevator, Includes M5 bolt	19 x 19 x 14	1	6418677164798
OELA1.04	Corner elevator, set of 4 OEL1	19 x 19 x 14	1	6418677181696
OPHPA1.04	Hinge set for swing panel	-		6438100200817
OTS1	Threaded bushing, for cover screw when cover mounted on the back	18/30 ∅ 16	1	6418677171789
OTSA1.04	Threaded bushing, 4 x OTS1 + 4 x OLS42	17 x 30/18	1	6418677181702
OMS1	Mounting screw, for rails and plates	5 x 10	1	6418677164804
OBI1	Brass insert, for mounting pod	M3	1	6418677172328
OBI1.04	Brass insert, set of 4 OBI1	M3	1	6418677172335
OCP1	Cover plug, polyethylene	11 x ∅ 15/17	1	6418677164811
OBS15	15 mm spacer, Includes M5 screw, steel	15 x 8	1	6418677171802
OBS15.04	15 mm spacer, set of 4 pcs	15 x 8	1	6418677172342
OBS20	20 mm spacer, Includes M5 screw, steel	20 x 8	1	6418677171819
OBS20.04	20 mm spacer, set of 4 pcs	20 x 8	1	6418677172359
OBS30	30 mm spacer, Includes M5 screw, steel	30 x 8	1	6418677171826
OBS30.04	30 mm spacer, set of 4 pcs	30 x 8	1	6418677172366
WQL1.1	Latch, pair, Includes hooks and counter parts	-	1	6418677174902



Hinge pair, OHI1.



Fastening lug set, OFL1.



Corner elevator, OEL1.



Latch, pair, WQL1.1.

Front panels

Product code, GTIN-13	Description	Dimensions (mm)	Package size (pcs)
Front panels, closed, incl. corner elevators			
Polypropylene			
OFP22 6418677182754	OFP22A 6418677182983	For 200 x 200 mm enclosure	186 x 186 x 2
OFP23 6418677182761	OFP23A 6418677182990	For 200 x 300 mm enclosure	186 x 286 x 2
OFP24 6418677182778	OFP24A 6418677183003	For 200 x 400 mm enclosure	186 x 386 x 2
OFP33 6418677182785	OFP33A 6418677183010	For 300 x 300 mm enclosure	286 x 286 x 2
OFP34 6418677182792	OFP34A 6418677183027	For 300 x 400 mm enclosure	286 x 386 x 2
OFP36 6418677182808	OFP36A 6418677183034	For 300 x 600 mm enclosure	286 x 586 x 2
OFP46 6418677182815	OFP46A 6418677183041	For 400 x 600 mm enclosure	386 x 586 x 2



OFP22

Accessories for Ensto Cubo O, C, W enclosures

Front panels

Product code, GTIN-13	Description	Dimensions (mm)	Package size (pcs)	
Hinged front panels, incl. corner elevator				
Polypropylene	Aluminium			
OHFP22 6418677183058	OHFP22A 6418677183171	For 200 x 200 mm enclosure, hinged side 200 mm	186 x 166 x 2	1
OHFP23 6418677183065	OHFP23A 6418677183188	For 200 x 300 mm enclosure, hinged side 200 mm	186 x 286 x 2	1
OHFP32 6418677183072	OHFP32A 6418677183195	For 200 x 300 mm enclosure, hinged side 300 mm	186 x 286 x 2	1
OHFP24 6418677183089	OHFP24A 6418677183201	For 200 x 400 mm enclosure, hinged side 200 mm	186 x 386 x 2	1
OHFP42 6418677183096	OHFP42A 6418677183218	For 200 x 400 mm enclosure, hinged side 400 mm	186 x 386 x 2	1
OHFP33 6418677183102	OHFP33A 6418677183225	For 300 x 300 mm enclosure, hinged side 300 mm	286 x 286 x 2	1
OHFP34 6418677183119	OHFP34A 6418677183232	For 300 x 400 mm enclosure, hinged side 300 mm	286 x 386 x 2	1
OHFP43 6418677183126	OHFP43A 6418677183249	For 300 x 400 mm enclosure, hinged side 400 mm	286 x 386 x 2	1
OHFP36 6418677183133	OHFP36A 6418677183256	For 300 x 600 mm enclosure, hinged side 300 mm	286 x 586 x 2	1
OHFP63 6418677183140	OHFP63A 6418677183263	For 300 x 600 mm enclosure, hinged side 600 mm	286 x 586 x 2	1
OHFP46 6418677183157	OHFP46A 6418677183270	For 400 x 600 mm enclosure, hinged side 400 mm	386 x 586 x 2	1
OHFP64 6418677183164	OHFP64A 6418677183287	For 400 x 600 mm enclosure, hinged side 600 mm	386 x 586 x 2	1
DIY parts for plates				
OPHPPA1.04 6438100200817		Hinge set for swing panel DIY *	-	1
OELA1.04 6418677181696		Elevator set for panel DIY *	19/19 x 14	1



OHFP22



OPHPPA1.04

* DIY for customers providing own panels, ask panel drawing from Ensto

N and PE rails

Product code	Description	Dimensions (mm)	Package size (pcs)	GTIN-13
KN15.315	For 300 mm side, N + PE, Cu 2 x (2 x 16 / 13 x 6 mm ²)	250	1	6418677153020
KN16.330	For 300 mm side, N, Cu 4 x 16 / 26 x 6 mm ²	250	1	6418677153037
KN17.332	For 300 mm side, PE, Cu 4 x 16 / 28 x 6 mm ²	250	1	6418677153044
KN15.423	For 400 mm side, N + PE, Cu 2 x (2 x 16 / 21 x 6 mm ²)	350	1	6418677153051
KN16.436	For 400 mm side, N, Cu 4 x 16 / 32 x 6 mm ²	350	1	6418677153068
KN17.436	For 400 mm side, PE, Cu 4 x 16 / 32 x 6 mm ²	350	1	6418677153075

Flanges and accessories for Ensto Cubo C enclosures, page 35



Cable spreader for 1 cable,
F2CE.1.



50 mm extension frame for F2
flange, F2C50E.



Knockout flange, F2 size, F2252



Flange bolt set, F2 size, polyamide,
F2PA30.

Ensto Modulo distribution enclosures

IP65

Sizes 166 x 231 x 113 to 418 x 586 x 148 mm



Ensto Modulo enclosure in brief:

- Available in 9 sizes, capacity for 4 to 54 modules
- Factory installed DIN-rails, earth and neutral bars
- Factory made metric knockouts from M20 to M40
- Removable DIN-rail chassis for models with two or more rows
- Sealed screws at four points for easy installation

Contents of the product package:

- Enclosure base
- Cover with hinged window
- Cover screws
- Pre-mounted DIN rails
- Pre-mounted N/PE busbars
- Cover plate
- Marker

Further information

- Common enclosure accessories, page 34-37
- Product cards, dimensional drawings and 3D models can be found at ensto.com.



Earth and Neutral bars at double height, section 12 x 6.5 mm are factory installed.



Window is hinged. This means that the opening direction can be changed quickly and safely.



Joining enclosures is easy. A channel for wiring is possible with a joining kit for mounting enclosures horizontally (MODB25M) or vertically (MODB40M).



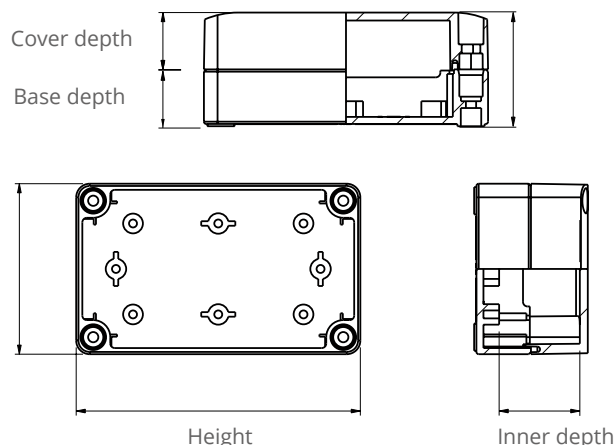
DIN-rails can be installed into two height positions. Fixing requires only one screw.

Conformity	
ABS enclosures:	CE
Technical information	
Degree of protection:	IP65
Impact resistance: (-25 °C ... +40 °C)	IK08 (5 J)
Auto-extinguishing degree:	UL 94 HB
Insulation:	Class II
Glow wire test:	650 °C
Service temperature: (empty boxes)	-25 ... +70 °C
Maximum voltage: (empty boxes)	1000 V AC / 1500 V DC
Earth and Neutral bars:	500 V / 125A
Body	
Material:	ABS
UV resistance: (ISO 4892-2 meth. A)	500 hour
Color:	Grey, RAL 7035
Window	
Material:	Polycarbonate
UV resistance: (ISO4892-2 meth. A)	1000 hour
Color:	Transparent, smoke grey

For outdoor use an enclosure of polycarbonate is highly recommended, available on request.

Dimensions

You can find the following dimensions on the product tables. More information, product cards, dimensional drawings and 3D models can be found at ensto.com.



Ensto Modulo distribution enclosures, ABS

Product code	Description	Dimensions (mm)			Weight (kg)	Package size (pcs)	GTIN-13
		Width	Height	Depth			
MODAB41PN	Distribution enclosure 4 modules	166	231	113	0.722	1	6438100196226
MODAB61PN	Distribution enclosure 6 modules	202	231	113	0.762	1	6438100196233
MODAB81PN	Distribution enclosure 8 modules	238	231	118	0.929	1	6438100196240
MODAB121PN	Distribution enclosure 12 modules	310	246	148	1.415	1	6438100196257
MODAB181PN	Distribution enclosure 18 modules	418	286	148	1.879	1	6438100196264
MODAB242PN	Distribution enclosure 24 modules	310	436	148	2.357	1	6438100196271
MODAB362PN	Distribution enclosure 36 modules	418	436	148	2.918	1	6438100196288
MODAB363PN	Distribution enclosure 36 modules	310	586	148	3.098	1	6438100196295
MODAB543PN	Distribution enclosure 54 modules	418	586	148	3.949	1	6438100196301



MODAB41PN



MODAB121PN



MODAB242PN



MODAB543PN

Accessories

Product code	Description	Weight (kg)	Package size (pcs)	GTIN-13
MODHI2	Base frame inner hinge	0.005	10	6438100197094
MODKL2	Lock triangle 2 units with key	0.018	1	6438100197100
MODKL3	Security key lock	0.038	1	6438100197117
MODB25M	Bushing joining enclosures 25M	0.017	1	6438100197124
MODB40M	Bushing joining enclosures 40M	0.025	1	6438100197131
MODKL1	Standard lock	0.012	10	6438100197148
MODHI1	Hinge, spare part	0.002	12	6438100197155

Spare parts

Product code	Description	Dimensions (mm)			Weight (kg)	Package size (pcs)	GTIN-13
		Width	Height	Depth			
MODD041	Transparent door 4 modules	170	150	30	0.092	1	6438100197759
MODD061	Transparent door 6 modules	200	150	30	0.115	1	6438100197766
MODD081	Transparent door 8 modules	240	150	30	0.129	1	6438100197773
MODD121	Transparent door 12 modules	310	170	30	0.202	1	6438100197780
MODD181	Transparent door 18 modules	420	170	30	0.249	1	6438100197797
MODD242	Transparent door 24 mod 2r	310	320	30	0.375	1	6438100197803
MODD362	Transparent door 36 mod 2r	420	320	30	0.526	1	6438100197810
MODD363	Transparent door 36 mod 3r	310	470	30	0.556	1	6438100197827
MODD543	Transparent door 54 mod 3r	420	470	30	0.742	1	6438100197834



MODHI2



MODKL3



MODB25M



MODKL1

Ensto terminal junction boxes IP67

Sizes 125 x 125 x 75 to 300 x 600 x 132 mm



Ensto Cubo T enclosure 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 choosing products (all of the required items can be ordered with one ordering number only)
- Need less storage space (no separate packages)

Conformity	
Standards	
Enclosure:	EN 62208
Ensto Clampo Compact terminal:	EN 60947-7-1
Ensto Clampo Pro terminals:	EN 61238-1 for aluminium conductors, EN 60947-7-1 for copper conductors
Material	
Enclosure:	Fiberglass reinforced polycarbonate
Housing (terminals):	Polyamide
Body and screws:	Tin-coated aluminium or nickel-coated brass
Mechanical features	
Screw head:	Hexagonal or slot
Standard color	
Base and cover:	Grey RAL 7035

Item	Ensto Cubo T1	Ensto Cubo T2	Ensto Cubo T3	Ensto Cubo T4	Ensto Cubo T5
Product code	TPM131308G001	TPCF203013G002	TPCF304013G003	TPCF304013G004	TPCF306013G005
GTIN-13	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)	-	-	-	-



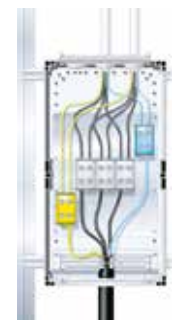
Ensto Cubo T1



Ensto Cubo T2



Ensto Cubo T3



Ensto Cubo T5



Polyester enclosures

The enclosures are made of glass-reinforced polyester and are extremely durable. They can replace stainless steel enclosures in challenging conditions. The cost-effective polyester enclosing solution used is UV-resistant, has self-extinguishing properties and is halogen-free. The cabinets can be used in various environments and application areas such as maritime, metering and control, renewable energies as well as water and waste water treatment.

BENEFITS:

- › Quick deliveries
- › Wide temperature range
- › Suitable for outdoor use

Range comparison

Ensto Cubo N wall cabinets, IP66

- › Sizes 250 x 300 x 140 to 600 x 800 x 300 mm
- › Available with plain sides or with a polycarbonate window
- › Quick fixture brackets at the back allow fitting without drilling
- › Built-in protective edge prevents entry of water when opening the door
- › Vertical patterns on the inner side of the door enables correct fitting of devices

Ensto Cubo M enclosures, IP66

- › Sizes 75 x 80 x 55 to 400 x 405 x 120 mm
- › Available with plain sides
- › Captive cover screws of stainless steel
- › Stainless steel inserts for DIN rails
- › Possible to make threaded entries for cable glands



Ensto Cubo N wall cabinets, IP66

Sizes 250 x 300 x 140 to 600 x 800 x 300 mm



Ensto Cubo N wall cabinets in brief:

- Available with plain sides or with a polycarbonate window
- The product has been tested according to standards EN 62208:2011
- Superb temperature resistance
- Sturdy construction and high resistance to corrosion and solvents
- Suitable for highly demanding environments such as waste water treatment and the petrochemical/chemical industries
- Quick fixture brackets at the back allow fitting without drilling
- Built-in protective edge allows you to open the door 180° in installations and also prevents entry of water when opening the door
- Vertical patterns on the inner side of the door enables correct fitting of devices

Contents of the product package:

- Enclosure base
- Door
- Lock and DIN 3 keys (one for each lock) (or 3-point closing with swing handle)

Further information

- Common enclosure accessories, page 34–37
- Product cards, dimensional drawings and 3D models can be found at ensto.com.

Conformity	
GRP enclosures:	CE RoHS UL cUL
Technical information	
Degree of protection:	IP66
Impact resistance:	IK10, IK08 +25 °C, window
Operating temperature:	-40 °C... 80 °C
Short term temperature range:	-50 °C... 140 °C
Glow wire test:	960 °C
Flammability rating:	UL 746C (5 inch flame)
UL File no:	E189312
UL category:	NITW, NITW7
Insulation:	Class II
Material	
Base/cover:	Fibreglass reinforced polyester
Lock:	Double bit DIN 3.0 mm
Gasket:	PUR (polyurethane)
Enclosure side types	
GRP enclosures:	Plain sides / customer-specific holes
Standard color	
Base/cover:	Grey RAL 7035

Ensto Cubo N wall cabinets

Width (mm)	Height (mm)	Depth (mm)	Polyester plain sides (product code, GTIN-13)	Polyester 3-point closing with swing handle / DIN3, plain sides (product code, GTIN-13)	Polyester polycarbonate window plain sides (product code, GTIN-13)	UL-listed, polyester plain sides (product code, GTIN-13)	UL-listed, polyester polycarbonate window plain sides (product code, GTIN-13)
250	300	140	NGRP253014 6438100123451		NGRW253014 6438100123642	NGRP253014.U 6438100133528	NGRW253014.U 6438100133597
300	400	200	NGRP304020 6438100123468	NGRP304020P3SH 6438100123581	NGRW304020 6438100123659	NGRP304020.U 6438100133535	NGRW304020.U 6438100133603
400	400	200	NGRP404020 6438100123475	NGRP404020P3SH 6438100123598	NGRW404020 6438100123666	NGRP404020.U 6438100133542	NGRW404020.U 6438100133610
	500	200	NGRP405020 6438100123482	NGRP405020P3SH 6438100123604	NGRW405020 6438100123673	NGRP405020.U 6438100133559	NGRW405020.U 6438100133627
	600	230	NGRP406023 6438100123499	NGRP406023P3SH 6438100123611	NGRW406023 6438100123680	NGRP406023.U 6438100133566	NGRW406023.U 6438100133634
500	600	230	NGRP506023 6438100123505	NGRP506023P3SH 6438100123628	NGRW506023 6438100123697	NGRP506023.U 6438100133573	NGRW506023.U 6438100133641
600	800	300	NGRP608030 6438100123512	NGRP608030P3SH 6438100123635	NGRW608030 6438100123703	NGRP608030.U 6438100133580	NGRW608030.U 6438100133658
800	600	300	NGRP806030 6438100205010	NGRP806030P3SH 6438100206772			



NGRP506023



NGRP404020P3SH



NGRW304020



NGRP806030P3SH

Front panels

Product code	Description	Dimensions (mm)	Package size (pcs)	GTIN-13
Mounting plates, GRP				
NGRMP2530	For 250 x 300 mm enclosures	213 x 268 x 4	1	6438100123833
NGRMP3040	For 300 x 400 mm enclosures	260 x 358 x 4	1	6438100123840
NGRMP4040	For 400 x 400 mm enclosures	360 x 358 x 4	1	6438100123857
NGRMP4050	For 400 x 500 mm enclosures	360 x 458 x 4	1	6438100123864
NGRMP4060	For 400 x 600 mm enclosures	360 x 558 x 4	1	6438100123871
NGRMP5060	For 500 x 600 mm enclosures	460 x 558 x 4	1	6438100123888
NGRMP6080	For 600 x 800 mm enclosures	556 x 754 x 4	1	6438100123895
Mounting plates, galvanized steel				
NMP2530	For 250 x 300 mm enclosures	207 x 268 x 2	1	6438100123970
NMP3040	For 300 x 400 mm enclosures	254 x 358 x 2	1	6438100123987
NMP4040	For 400 x 400 mm enclosures	354 x 358 x 2	1	6438100123994
NMP4050	For 400 x 500 mm enclosures	354 x 458 x 2	1	6438100124007
NMP4060	For 400 x 600 mm enclosures	354 x 558 x 2	1	6438100124014
NMP5060	For 500 x 600 mm enclosures	454 x 558 x 2	1	6438100124021
NMP6080	For 600 x 800 mm enclosures	558 x 754 x 2	1	6438100124038
DIN rails, DIN 46277/3, galvanized steel				
DR35220.6	For 250 mm sides	230 x 35	1	6438100174071
DR35270.6	For 300 mm sides	280 x 35	1	6438100174088
DR35370.6	For 400 mm sides	380 x 35	1	6438100159733
DR35470.6	For 500 mm sides	480 x 35	1	6438100174095
DR35565.6	For 600 mm sides	575 x 35	1	6438100174101



NGRMP3040



NMP5060



Chassis for modular devices, NMC4060.54. The kit includes a metal frame with DIN rails and module cover plates.

Front panels

Product code	Description	Dimensions (mm)	Package size (pcs)	GTIN-13
Mounting plates, GRP				
NMC3040.24	For 300 x 400 mm wall cabinets, 2 DIN openings for 12 modules	-	1	6438100124366
NMC4040.36	For 400 x 400 mm wall cabinets, 2 DIN openings for 18 modules	-	1	6438100124373
NMC4050.54	For 400 x 500 mm wall cabinets, 3 DIN openings for 18 modules	-	1	6438100124380
NMC4060.54	For 400 x 600 mm wall cabinets, 3 DIN openings for 18 modules	-	1	6438100124397
NMC5060.69	For 500 x 600 mm wall cabinets, 3 DIN openings for 23 modules	-	1	6438100124403
NMC6080.116	For 600 x 800 mm wall cabinets, 4 DIN openings for 29 modules	-	1	6438100124410
Internal door kit, GRP				
NID3040	For 300 x 400 mm wall cabinets	258 x 366	1	6438100124304
NID4040	For 400 x 400 mm wall cabinets	358 x 366	1	6438100124311
NID4050	For 400 x 500 mm wall cabinets	358 x 466	1	6438100124328
NID4060	For 400 x 600 mm wall cabinets	358 x 566	1	6438100124335
NID5060	For 500 x 600 mm wall cabinets	458 x 566	1	6438100124342
NID6080	For 600 x 800 mm wall cabinets	558 x 766	1	6438100124359
Wall mounting lugs				
NFL1	Set of 4 pcs, plastic	-	1	6438100124670
NFL2	Set of 4 pcs, AISI 304	-	1	6438100169954
Locks				
NDIN1	DIN 3 lock with T-handle (standard lock)	-	1	6438100160296
NKL1	Key lock with a T-handle	-	1	6438100124816
NPD3041	Padlocking accessory, AISI 304	-	1	6438100124854



Internal door kit, NID4060.



Wall mounting lugs, NFL1.



Key lock with a T-handle, NKL1.



Padlocking accessory, NPD3041.

Ensto Cubo M enclosures, IP66

Sizes 75 x 80 x 55 to 400 x 405 x 120 mm



Ensto Cubo M enclosure in brief:

- Available with plain sides
- Available in 13 sizes
- Sturdy construction and high resistance to corrosion and solvents
- Suitable for highly demanding environments such as oil refineries and the petrochemical/chemical industries
- Due to the nature of polyester, ordering enclosures with ready-made cut-outs is recommended

Contents of the product package:

- Enclosure base
- Cover
- Cover screws
- Mounting screws

Further information

- Common enclosure accessories, page 34–37
- Product cards, dimensional drawings and 3D models can be found at ensto.com.

Technical information

Degree of protection:	IP66
Impact resistance:	7 Nm
Operating temperature:	-40 °C... 110 °C
Insulation:	Class II
Material	
Base/cover:	Glass reinforced polyester (GRP)
Cover screws:	Stainless steel
Gasket:	Chloroprene (CR)
Enclosure side types	
GRP enclosures:	Plain sides
Standard color	
Base/cover:	Similar to grey RAL 7000

Width (mm)	Height (mm)	Depth (mm)	Inner depth (mm)	Polyester plain sides (product code, GTIN-13)	Mounting plates, galvanized steel	DIN rails galvanized steel	
						DIN-15	DIN-35
75	80	55	47.5	MGRP080806 6418677165610	MMP0808B 6418677157752	DR15.0808M 6418677158018	
	110	55	47.5	MGRP081106 6418677165627	MMP0811B 6418677157769	DR15.0811 6418677158025	
	160	55	47.5	MGRP081606 6418677165634	MMP0816B 6418677157776	DR15.0816 6418677158032	
	190	55	47.5	MGRP081906 6418677165641	MMP0819B 6418677157783	DR15.0819 6418677158063	
120	122	90	81.0	MGRP121209 6418677165658	MMP1212B 6418677157790		DR35.1212 6418677157059
	220	90	82.0	MGRP122209 6418677165672	MMP1222B 6418677157806		DR35.1220 6418677157066
160	160	91	81.5	MGRP161609 6418677165689	MMP1616B 6418677157813		DR35.1616 6418677157080
	260	91	80.0	MGRP162609 6418677165702	MMP1626B 6418677157820		DR35.1626 6418677157097
	360	91	81.5	MGRP163609 6418677165719	MMP1636B 6418677157837		DR35.1636 6418677158070
	560	91	81.5	MGRP165609 6418677165726	MMP1656B 6418677157844		DR35.1656 6418677157103
250	255	120	109.0	MGRP252612 6418677165733	MMP2526B 6418677157851		DR35.2526 6418677158087
	400	120	109.0	MGRP254012 6418677165757	MMP2540B 6418677157868		DR35.2540.41 6418677158094
400	405	120	109.0	MGRP404112 6418677165764	MMP4041B 6418677157875		DR35.2540.41 6418677158094



Ensto Cubo M enclosures have plain sides and captive cover screws of stainless steel.



Other accessories

Product code	Description	Dimensions (mm)	Package size (pcs)	GTIN-13
HMH12	Hinge pair	25 x 40 x 11.5	1	6418677165443

Machining polyester enclosures is difficult, for which reason ordering customized enclosures is recommended.



Aluminium enclosures

The weight of aluminium is only about a quarter of that of steel. It has high impact-resistance, a wide temperature-resistance range and excellent corrosion-resistance.

BENEFITS:

- › Quick deliveries
- › Wide size range
- › Light weight
- › Excellent water-resistance

Ensto Cubo H enclosures, IP66

Sizes 50 x 45 x 30 to 310 x 601 x 180 mm



Ensto Cubo H enclosure in brief:

- › Available with plain sides
- › Available in 29 sizes
- › Meets the requirements of the machine and military industry as regards to resistance to solvents, petrol and oil

Contents of the product package:

- › Enclosure base
- › Cover
- › Cover screws
- › Mounting screws

Further information

- › Common enclosure accessories, page 34–37
- › Product cards, dimensional drawings and 3D models can be found at ensto.com.

Technical information

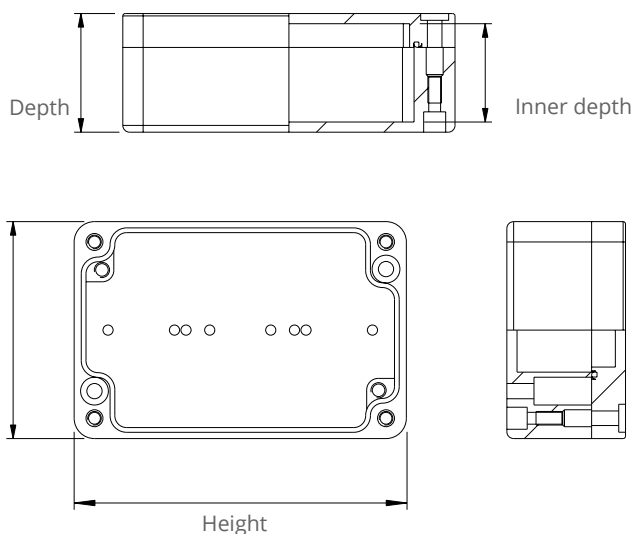
Degree of protection:	IP66
Impact resistance:	7 Nm
Operating temperature:	-40 °C... +110 °C
Material	
Base/cover:	Polyester-painted aluminium
Cover screws:	Stainless steel
Gasket:	PUR (polyurethane)
Enclosure side types	
Aluminium enclosures:	Plain sides
Standard color	
Base/cover:	Grey RAL 7001



Captive cover screws of stainless steel are included in the delivery of Ensto Cubo H enclosures. Mounting screws are integrated in the enclosure base.

Dimensions

You can find the following dimensions on the product tables. More information, product cards, dimensional drawings and 3D models can be found at ensto.com.



Ensto Cubo H enclosures

Width (mm)	Height (mm)	Depth (mm)	Inner depth (mm)	Polyester-painted aluminium plain sides (product code, GTIN-13)	Mounting plates, galvanized steel (product code, GTIN-13)	DIN rails, galvanized steel	
						DIN-15	DIN-35
50	45	30.0	24.5	HALP050503 6418677165450			
64	58	34.0	28.5	HALP060604 6418677165771			
	98	35.0	29.0	HALP061004 6418677165788		DR15.0610 6418677156991	
	150	35.0	27.5	HALP061504 6418677165795		DR15.0615 6418677157004	
80	75	57.5	51.5	HALP080806 6418677165801	HMP0808B 6418677157578	DR15.0808H 6418677157011	
		125	58.0	52.5	HALP081306 6418677165818	HMP0813B 6418677157585	DR15.0813 6418677157028
	175		125.5	117.5	HALP081313 6438100088279	HMP0813B 6418677157585	DR15.0813 6418677157028
		250	58.0	52.0	HALP081806 6418677165825	HMP0818B 6418677157592	DR15.0818 6418677157035
				57.5	50.5	HALP082506 6418677165832	
120	122	82.0	72.5	HALP121208 6438100090395	HMP1212B 6418677157608		DR35.1212 6418677157059
		92.5	83.0	HALP121209 6418677165849	HMP1212B 6418677157608		DR35.1212 6418677157059
	220	81.5	72.5	HALP122208 6438100088286	HMP1222B 6418677157615		DR35.1220 6418677157066
		91.0	82.5	HALP122009 6418677165856	HMP1222B 6418677157615		DR35.1220 6418677157066
121	360	82.5	72.5	HALP123608 6418677165863	HMP1236B 6418677157622		DR35.12/1636 6418677157073
160	160	92.0	82.0	HALP161609 6418677165870	HMP1616B 6418677157639		DR35.1616 6418677157080
	260	91.5	82.0	HALP162609 6418677165887	HMP1626B 6418677157646		DR35.1626 6418677157097
	360	91.5	82.0	HALP163609 6418677165894	HMP1636B 6418677157653		DR35.12/1636 6418677157073
	560	92.0	81.0	HALP165609 6418677165900	HMP1656B 6418677157660		DR35.1656 6418677157103
202	232	111.5	102.5	HALP202311 6418677165917	HMP2023B 6418677157677		DR35.2023 6418677157110
200	230	181.0	172.0	HALP202318 6418677165924	HMP2023B 6418677157677		DR35.2023 6418677157110
230	280	111.5	102.5	HALP232811 6418677165931	HMP2333B 6418677157691		DR35.2333 6418677157141
233	335	112.0	102.5	HALP233311 6418677165948	HMP2360B 6418677157714		DR35.23/3160 6418677157165
234	335	182.0	172.0	HALP233318 6418677165955	HMP2328B 6418677157684		DR35.2328 6418677157134
230	400.5	111.5	99.0	HALP234011 6418677165962	HMP2333B 6418677157691		DR35.2333 6418677157141
	600	114.0	101.5	HALP236011 6418677165979	HMP2340B 6418677157707		DR35.23/3140 6418677157158
310	403	111.5	100.5	HALP314011 6418677165986	HMP3160B 6418677157738		DR35.23/3160 6418677157165
		181.5	171.0	HALP314018 6418677165993	HMP3160B 6418677157738		DR35.23/3160 6418677157165
	601	112.0	102.0	HALP316011 6418677166006	HMP3140B 6418677157721		DR35.23/3140 6418677157158
		180.0	169.0	HALP316018 6418677166013	HMP3140B 6418677157721		DR35.23/3140 6418677157158

Other accessories

Product code	Description	Dimensions (mm)	Package size (pcs)	GTIN-13
HMHI2	Hinge pair	25 x 40 x 11.5	1	6418677165443



HALP050503



HALP163609



HMHI2



HMP0808B



DR15.0808H



Common enclosure accessories

We offer a wide range of accessories, for instance flanges, pole mounting brackets, thermal management accessories, cable glands, rubber grommets, expansion and reduction nipples.

BENEFITS:

- › Wide range of accessories
- › Sourcing of third-party accessories
- › Assembly services

Flanges

Product code	Description	Dimensions (mm)	Package size (pcs)	GTIN-13
Cover plates for flange openings				
F1151	F1 size excl. gasket, PC/ABS	137 x 48	1	6418677171833
F2251	F2 size Includes PUR gasket, PC	216 x 86	1	6418677171949
Gland flanges				
F1165	F1 size, excl. gasket, 3 x M20, PC/ABS	137 x 48	1	6418677152641
F1166	F1 size, excl. gasket, 3 x M25, PC/ABS	137 x 48	1	6418677152658
F1167	F1 size, excl. gasket, 1 x M32, PC/ABS	137 x 48	1	6418677152665
F2157	F2 size, Includes PUR gasket, 3 x Pg21 + 4 x Pg16, PC	216 x 86	1	6418677171956
F2158	F2 size, Includes PUR gasket, 2 x Pg29 + 6 x Pg16, PC	216 x 86	1	6418677171963
F2159	F2 size, Includes PUR gasket, 2 x Pg36 + 4 x Pg16, PC	216 x 86	1	6418677171970
F2160	F2 size, Includes PUR gasket, 8 x Pg16, PC	216 x 86	1	6418677171987
F2161	F2 size, Includes PUR gasket, 10 x Pg13.5, PC	216 x 86	1	6418677171994
F2168	F2 size, Includes PUR gasket, 4 x M20 + 1 x M25 + 2 x M32, PC	216 x 86	1	6418677152672
F2169	F2 size, Includes PUR gasket, 6 x M20 + 1 x M32 + 1 x M40, PC	216 x 86	1	6418677152689
F2170	F2 size, Includes PUR gasket, 4 x M20 + 2 x M40, PC	216 x 86	1	6418677152696
F2171	F2 size, incl. PUR gasket, 8 x M20, PC	216 x 86	1	6418677152702
F2172	F2 size, incl. PUR gasket, 10 x M16, PC	216 x 86	1	6418677152719
Knockout flanges				
F2252	F2 size, Includes PUR gasket, 7 x Pg11 + 7 x Pg9/16, PC	216 x 86	1	6418677172113
F2253	F2 size, Includes PUR gasket, 2 x Pg21/29/36 + 2 x Pg9/16 + 1 x Pg11, PC	216 x 86	1	6418677172397
F2254	F2 size, Includes PUR gasket, 5 x Pg16/21 + 2 x Pg11 + 1 x Pg9/16, PC	216 x 86	1	6418677172403
F2255	F2 size, Includes PUR gasket, 7 x M16 + 7 x M12/20, PC	216 x 86	1	6418677172595
F2256	F2 size, Includes PUR gasket, 2 x M20/32/50 + 2 x M12/20 + 2 x M16, PC	216 x 86	1	6418677172625
F2257	F2 size, Includes PUR gasket, 5 x M20/32 + 2 x M16 + 1 x M12/20, PC	216 x 86	1	6418677172700
Membrane flanges				
F1201	F1 size, for 5x ø 7-30 mm cables, EPDM	138 x 48	1	6418677171871
F2202	F2 size, for 25 x ø 5-26 mm cables, EPDM	216 x 84	1	6418677172007
F2203	F2 size, for 35 x ø 5-26 mm cables, EPDM	216 x 84	1	6418677172014
F2204	F2 size, for 3 x ø 24-60 mm cables, EPDM	216 x 84	1	6418677172021
F1155	F1 size, excl. gasket, 3 x ø 21 + 4 x ø 15 mm, TPE	135 x 47	1	6418677171888
F1156	F1 size, excl. gasket, 4 x ø 16 + 6 x ø 13 mm, TPE	135 x 47	1	6418677171895
F2162	F2 size, excl. gasket, 3 x ø30 + 6 x ø18 + 16 x ø14 mm, TPE	226 x 87	1	6418677172038
F2163	F2 size, excl. gasket, 9 x ø18 + 24 x ø14 mm, TPE	226 x 87	1	6418677172045
Membrane flange for steel enclosures only				
PMR331	F2 size, for cable ø: 37/32/27/22/17/12 mm	79 x 210 x 28	10	6418677163555

EPDM = ethylene propylene diene M-class rubber
TPE = thermoplastic elastomer



F2251



F2157



F2252



F2202

Flange accessories

Product code	Description	Dimensions (mm)	Package size (pcs)	GTIN-13
F2CE.1	Cable spreader for 1 cable	216 x 86 x 68	1	6418677181672
F2C50E	50 mm extension frame for F2 flange, polycarbonate	216 x 86 x 50	1	6418677173448
F1G	Self-adhesive flange gasket, F1 size	137 x 48	1	6418677171925
F2G	Self-adhesive flange gasket, F2 size	216 x 84	1	6418677172076
F1SS20	Flange bolt set, F1 size, steel bolt with plastic head	M6 x 20	1	6418677173066
F2SS20	Flange bolt set, F2 size, steel bolt with plastic head	M8 x 20	1	6418677171932
F2SS20L	Flange bolt set, F2 size, steel bolt with plastic head + steel connector	M8 x 20	1	6418677181689
F1PA25	Flange bolt set, F1 size, polyamide	M6 x 25	1	6418677173080
F2PA30	Flange bolt set, F2 size, polyamide	M8 x 30	1	6418677172083
PMR1857	Flange/base support for F2 size, polyamide	216 x 22	10	6418677172106
PMR1858	Isolating cup for support PMR1857, polyamide	ø 18 mm	20	6418677171796



Cable spreader for 1 cable, F2CE.1.

Flange and gland sets

Product code	Description	Dimensions (mm)	Package size (pcs)	GTIN-13
F2202KIT	Flange set, F2202, F2 size	84 x 215 x 40	1	6418677182556
F2CE.1T	Complete cable entry, F2 size	84 x 215 x 40	1	6418677181535
KTM1.1	Cable gland set: 2 x M12, 3 x M16, 2 x M20	135 x 210 x 25	1	6418677173233
KTM2.1	Cable gland set: 3 x M16, 2 x M20, 2 x M25	135 x 210 x 30	1	6418677173240
KTM3.1	Cable gland set: 4 x M20, 2 x M25, 1 x M32	135 x 210 x 55	1	6418677173257
F2GSS20T	Mounting kit for Cubo C bases, F2 size	200 x 250 x 15	1	6418677181504
OLSH1.2	Hinged and slotted cover screw, pair (blue)	130 x 170 x 15	1	6418677181511




Pole mounting brackets for Cubo O, C, W and N enclosures

Pole mounting brackets were designed to securely fasten your enclosure to a pole. The pole mounting brackets are a set of two rails or a plate with a pole clamp and needed screws.

Product code	Description	Dimensions (mm)	Package size (pcs)	GTIN-13
Sets of two rails				
PMB20	For 200 mm wide enclosure	28 x 35 x 195	1	6438100131739
PMB25	For 250 mm wide enclosure	28 x 35 x 245	1	6438100135430
PMB30	For 300 mm wide enclosure	28 x 35 x 295	1	6438100131753
PMB40	For 400 mm wide enclosure	28 x 35 x 395	1	6438100131760
PMB50	For 500 mm wide enclosure	28 x 35 x 495	1	6438100131777
PMB60	For 600 mm wide enclosure	28 x 35 x 595	1	6438100131784
Sets with a plate				
PMB2020	For 200 mm wide enclosure	41 x 200 x 205	1	6438100131746



Condensation and pressure relief

Product code	Description	Dimensions (mm)	Package size (pcs)	GTIN-13
Ventilation and drain valve				
BVD22	Ventilation device, IP55 type 4x, polycarbonate siloxane, 	50 x 50 x 20	1	6438100161590
DWP1	Drain water plug, IP44, rubber	Ø33	1	6418677172731
Breathers				
BPA10H	Breather, IP68, polyamide, grey, 120 l/h	Ø19 x 17	1	6418677184314
BPA10HB	Breather, IP68, polyamide, black, 120 l/h	Ø19 x 17	1	6418677184321



Ventilation device, IP55, BVD22.

Distance bushings

Product code	Description	Dimensions	Package size (pcs)	GTIN-13
PSK36.050	External Ø 10 mm, aluminium	Length 5.0 mm	100	6418677166907
PSK36.085	External Ø 10 mm, aluminium	Length 8.5 mm	100	6418677166914
PSK36.100	External Ø 10 mm, aluminium	Length 10.0 mm	100	6418677166921
PSK36.120	External Ø 10 mm, aluminium	Length 12.0 mm	100	6418677166938
PSK36.150	External Ø 10 mm, aluminium	Length 15.0 mm	100	6418677166945
PSK36.200	External Ø 10 mm, aluminium	Length 20.0 mm	100	6418677166952
PSK36.250	External Ø 10 mm, aluminium	Length 25.0 mm	100	6418677166969
PSK36.300	External Ø 10 mm, aluminium	Length 30.0 mm	50	6418677166976
PSK36.350	External Ø 10 mm, aluminium	Length 35.0 mm	50	6418677166983
PSK36.400	External Ø 10 mm, aluminium	Length 40.0 mm	50	6418677166990
PSK36.450	External Ø 10 mm, aluminium	Length 45.0 mm	50	6418677167003
PSK36.500	External Ø 10 mm, aluminium	Length 50.0 mm	50	6418677167010



PSK36.150

Cable glands, metric thread

Dimensions	Cable gland, grey polyamide with strain relief, IP68 (product code, GTIN-13)	Cable gland, grey polyamide with strain relief, IP68, long thread (product code, GTIN-13)	Counter nut grey polyamide (product code, GTIN-13)	Cover plug grey polyamide (product code, GTIN-13)
M12	KTM24.12 6416031851124 Cable Ø 3-6.5 mm, thread length 8 mm		PMR1218.12 6416031859120	PMR1217.12 6416031853128
M16	KTM24.16 6416031851162 Cable Ø 5-10 mm, thread length 10 mm	KTM24.16L 6418677171062 Cable Ø 5-10 mm, thread length 15 mm	PMR1218.16 6416031859168	PMR1217.16 6416031853166
M20	KTM24.20 6416031851209 Cable Ø 10-14 mm, thread length 10 mm	KTM24.20L 6418677171079 Cable Ø 10-14 mm, thread length 15 mm	PMR1218.20 6416031859205	PMR1217.20 6416031853203
M25	KTM24.25 6416031851254 Cable Ø 13-18 mm, thread length 10 mm	KTM24.25L 6418677171086 Cable Ø 13-18 mm, thread length 15 mm	PMR1218.25 6416031859250	PMR1217.25 6416031853258
M32	KTM24.32 6416031851322 Cable Ø 18-25 mm, thread length 18 mm		PMR1218.32 6416031859328	PMR1217.32 6416031853326
M40	KTM24.40 6416031851407 Cable Ø 22-32 mm, thread length 18 mm		PMR1218.40 6416031859403	PMR1217.40 6416031853401
M50	KTM24.50 6416031851506 Cable Ø 30-38 mm, thread length 18 mm		PMR1218.50 6416031859502	PMR1217.50 6416031853500
M63	KTM24.63 6418677171031 Cable Ø 34-44 mm, thread length 18 mm		PMR1218.63 6418677171048	PMR1217.63 6418677171055



KTM24.12



KT24.07

Enlargers and reducers, metric thread

Dimensions	Expansion nipple grey polyamide (Product code, GTIN-13)	Expansion nipple grey polyamide, M > Pg (Product code, GTIN-13)	Reduction nipple grey polyamide (Product code, GTIN-13)
M12	PMR1220.1216 6416031856129 M12 > M16	PMR1221.1209 6416031855122 M12 > Pg9	
M16	PMR1220.1620 6416031856167 M16 > M20	PMR1221.1609 6416031855160 M16 > Pg9	PMR1219.1612 6416031854163 M16 > M12
M20	PMR1220.2025 6416031856204 M20 > M25	PMR1221.2011 6416031855207 M20 > Pg11	PMR1219.2012 6416031854200 M20 > M12
		PMR1221.2013 6416031855214 M20 > Pg13,5	PMR1219.2016 6416031854217 M20 > M16
M32	PMR1220.2532 6416031856259 M25 > M32	PMR1221.2516 6416031855252 M25 > Pg16	PMR1219.2512 6416031854255 M25 > M12
		PMR1221.2521 6416031855269 M25 > Pg21	PMR1219.2516 6416031854262 M25 > M16
			PMR1219.2520 6416031854279 M25 > M20
M40	PMR1220.3240 6416031856327 M32 > M40	PMR1221.3229 6416031855320 M32 > Pg29	PMR1219.3216 6416031854330 M32 > M16
			PMR1219.3220 6416031854347 M32 > M20
			PMR1219.3225 6416031854354 M32 > M25
M40		PMR1221.4029 6416031855405 M40 > Pg29	PMR1219.4020 6416031854415 M40 > M20
			PMR1219.4025 6416031854422 M40 > M25
			PMR1219.4032 6416031854439 M40 > M32
M50		PMR1221.5036 6416031855504 M50 > Pg36	PMR1219.5025 6416031854514 M50 > M25
			PMR1219.5032 6416031854521 M50 > M32
			PMR1219.5040 6416031854538 M50 > M40
M63		PMR1221.6348 6416031855634 M63 > Pg48	PMR1219.6332 6416031854644 M63 > M32
			PMR1219.6340 6416031854651 M63 > M40
			PMR1219.6350 6416031854668 M63 > M50

Rubber grommets, metric thread

Dimensions	Membrane gasket (product code, GTIN-13)	Membrane gasket, V-0 (product code, GTIN-13)
M12	RGM12 6438100143442 Cable Ø 4-7 mm	RGM12.V0 6438100143305 Cable Ø 3-5 mm
M16	RGM16 6438100143459 Cable Ø 5-9 mm	RGM16.V0 6438100143312 Cable Ø 5-7 mm
M20	RGM20 6438100143466 Cable Ø 8-13 mm	RGM20.V0 6438100143329 Cable Ø 7-10 mm
M25	RGM25 6438100143473 Cable Ø 11-17 mm	RGM25.V0 6438100143336 Cable Ø 10-14 mm
M32	RGM32 6438100143480 Cable Ø 15-20 mm	RGM32.V0 6438100143343 Cable Ø 14-20 mm
M40	RGM40 6438100143497 Cable Ø 19-28 mm	RGM40.V0 6438100143350 Cable Ø 20-26 mm
M50	RGM50 6438100143503 Cable Ø 27-35 mm	RGM50.V0 6438100143367 Cable Ø 26-35 mm



PMR1220.1216



PMR1221.1209



PMR1219.1612



RGM25

Inspection windows, polycarbonate

Product code	Description	Dimensions (mm)	Package size (pcs)	GTIN-13
Hinged windows				
VMA2	For 2 modules	67 x 59	1	6418677151170
VMA4	For 4 modules	67 x 94	1	6418677151187
VMA6	For 6 modules	67 x 130	1	6418677151194
VMA8	For 8 modules	67 x 163	1	6418677151200
VMA10	For 10 modules	67 x 200	1	6418677151217
VMA12	For 12 modules	67 x 233	1	6418677151224
Window				
VMA1519	Opening: 113 x 153 mm, includes screws	150 x 190 x 10	1	6418677174193



VMA2



VMA1519

Other accessories

Product code	Description	Dimensions (mm)	Package size (pcs)	GTIN-13
PMR70.1612	Wiring plug, cable lead-through 16 mm, 12 ea./set	Ø 20/16	5	6418677163784
PMR1387	Plug for cover panel, Ø 6 mm hole	20 x 31 x 6	100	6418677166730
PME1	Cover plate, width 45 mm, length 2 m (PVC)	45 x 2000 x 7	1	6418677166747
KY2.15	Plastic latch, 15 mm closing space	Ø 23 x 26	100	6418677166754
ST80/U	Delta key, Δ 11 mm	34 x 52 x 16	10	6418677170430
KY1.20	Fixing screw for kWh meter	M5 x 22	100	6418677166792
PTK14	Sealing screw, M4 x 10/16mm	L = 16	100	6418677166808
PTK13	Sealing screw, M4 x 16/22mm	L = 22	100	6418677166815
PTK11	Sealing screw, M4 x 20/25mm	L = 25	100	6418677166822
PLE152	Sealing screw, F4,2 x 16/21 mm	L = 21	100	6418677166839



PMR1219.1612



2

Industrial components Critical to the safety of your operations

We support your operations with high-quality terminals, load-break switches and fuse bases that are designed and tested to meet a wide range of applications in various environments.

In addition to the standard components, we offer customer-specific solutions. These include e.g. standard terminals customised with prints, and customer-specific labelling and solutions designed and developed on the basis of our customers' needs. An example of these is the Ensto Clampo Pro three-pole terminal block specially designed for one of our drives industry customers and available today in our standard product range. Our service offering also includes deliveries with special packaging and manufacturing of products for private label.

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 for a global clientele.

Terminals

Our Ensto Clampo terminals are specially developed for the needs of the industry. Our offering includes a large range of terminal series, some of which are suitable for both aluminium and copper conductors. It also covers enclosed terminals, including everything needed for connecting wires, extending or branching cables and enclosing different components.

BENEFITS:

- › Connecting aluminium and copper conductors
- › Smaller stocks and reduced costs
- › Wide application range
- › Wide cross-section range

Ensto Clampo Pro universal terminals

For Al/Cu conductors from 2.5 mm² to 240 mm²



Ensto Clampo Pro universal terminals in brief:

- Certified according to the latest standards
- UL- recognized and Gost R certified (switchboards/equipment suitable for exporting 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 for the feed-in conductors (short circuit tested)
- Suitable for a wide cross-section range of conductors (a single terminal can be used in a wide range of applications)
- Also 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 of connection with hexagonal screws (possible to reuse without damage)
- Color coding for N and PE terminals

Conformity	
Standards	
For copper conductors:	EN 60947-7-1:2009 EN 60947-7-2:2009
For aluminium conductors:	EN 61238-1:2003
UL- recognition:	UL 1059
Connector class:	A
Technical information	
Cross-section range:	Al 6 – 240 mm ² , Cu 2.5 – 240 mm ²
Nominal current range:	145 – 425 A
Operating temperature:	Max. 80 °C
Pollution degree:	3
Material	
Housing:	Polyamide
Body and screws:	Tin-coated aluminium
Mechanical features	
Screw head:	Hexagonal
Mounting:	Screws or DIN rail

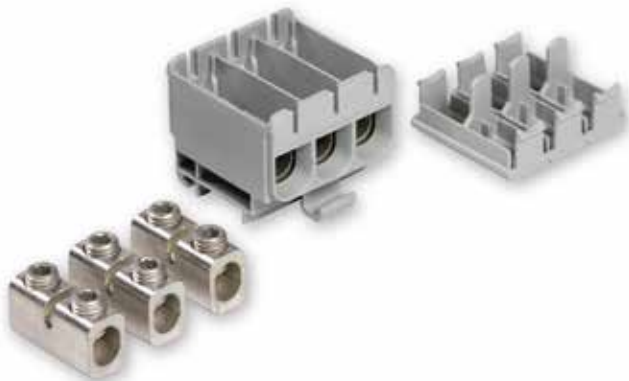
Conductor table can be found on page 58.

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.

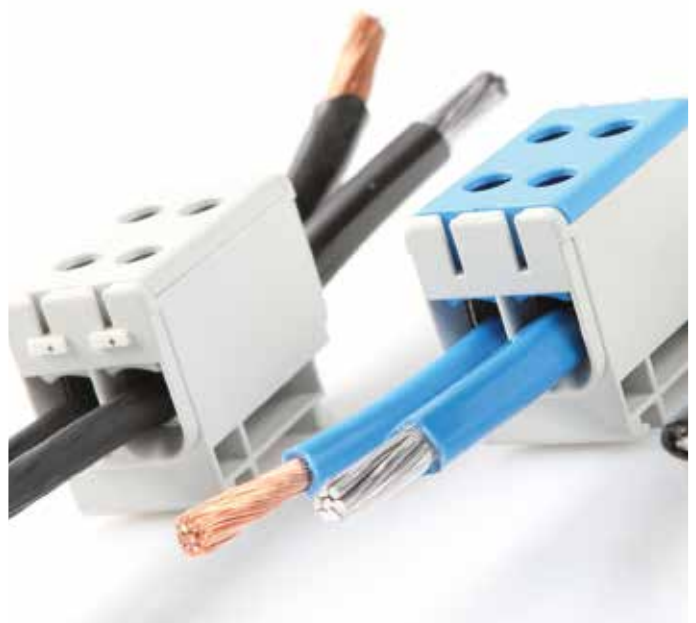
*Class 5, according to IEC 228 Second Edition 1978



KE61.03 is a three-pole terminal block with three individual circuits.



Tapping terminals consist of a single pole with four connection points (single circuit).



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



Product code	Conductor cross-section	Color	Nominal current	Nominal insulation voltage	Screw head hexagon	Bit length min.	Tightening torque	Mounting	Dimensions W x L x H (mm)	Weight (kg)	Package size (pcs)	GTIN-13
Ensto Clampo Pro, one-pole terminal blocks												
KE61	Cu 2.5-50 mm ² Al 6-50 mm ²	Grey	Cu 160 A, Al 145 A	800 V	5 mm	20	4 Nm (2.5-4mm ²), 12 Nm (6-50mm ²)	DIN rail	17.8 x 49 x 43	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	20	4 Nm (2.5-4mm ²), 12 Nm (6-50mm ²)	DIN rail	17.8 x 49 x 43	0.030	30	6418677191831
KE61.3	Cu 2.5-50 mm ² Al 6-50 mm ²	Yellow/ Green		800 V	5 mm	20	4 Nm (2.5-4mm ²), 12 Nm (6-50mm ²)	DIN rail	17.8 x 49 x 43	0.030	30	6418677191848
KE62	Al/Cu 16-95 mm ²	Grey	Cu 245 A, Al 220 A	800 V	5 mm	25	20 Nm	DIN rail/ screw	24 x 86 x 49	0.074	30	6418677191855
KE62.2	Al/Cu 16-95 mm ²	Blue	Cu 245 A, Al 220 A	800 V	5 mm	25	20 Nm	DIN rail/ screw	24 x 86 x 49	0.074	30	6418677191862
KE62.3	Al/Cu 16-95 mm ²	Yellow/ Green		800 V	5 mm	25	20 Nm	DIN rail/ screw	24 x 86 x 49	0.074	30	6418677191879
KE63	Al/Cu 35-150 mm ²	Grey	Cu 320 A, Al 290 A	800 V	8 mm	34	20 Nm (35-95mm ²), 30 Nm (120-150mm ²)	DIN rail/ screw	29.5 x 95 x 59	0.120	30	6418677191886
KE63.2	Al/Cu 35-150 mm ²	Blue	Cu 320 A, Al 290 A	800 V	8 mm	34	20 Nm (35-95mm ²), 30 Nm (120-150mm ²)	DIN rail/ screw	29.5 x 95 x 59	0.120	30	6418677191893
KE63.3	Al/Cu 35-150 mm ²	Yellow/ Green		800 V	8 mm	34	20 Nm (35-95mm ²), 30 Nm (120-150mm ²)	DIN rail/ screw	29.5 x 95 x 59	0.120	30	6418677191909
KE64	Al/Cu 35-240 mm ²	Grey	Cu 425 A, Al 380 A	800 V	8 mm	38	12 Nm (35-70mm ²), 45 Nm (95-240mm ²)	Screw	37.5 x 130 x 67	0.249	30	6418677191916
KE64.2	Al/Cu 35-240 mm ²	Blue	Cu 425 A, Al 380 A	800 V	8 mm	38	12 Nm (35-70mm ²), 45 Nm (95-240mm ²)	Screw	37.5 x 130 x 67	0.249	30	6418677191923
KE64.3	Al/Cu 35-240 mm ²	Yellow/ Green		800 V	8 mm	38	12 Nm (35-70mm ²), 45 Nm (95-240mm ²)	Screw	37.5 x 130 x 67	0.249	30	6418677191930
Ensto Clampo Pro, three-pole terminal block												
KE61.03	Cu 2.5-50 mm ² Al 6-50 mm ²	Grey	Cu 160 A, Al 145 A	800 V	5 mm	20	4 Nm (2.5-4mm ²), 12 Nm (6-50mm ²)	DIN rail	49.5 x 49 x 43	0.077	30	6418677191824
Ensto Clampo Pro, tapping blocks, single pole, four connections												
KE66	Cu 2.5-50 mm ² Al 6-50 mm ²	Grey	Cu 160 A, Al 145 A	800 V	5 mm	20	4 Nm (2.5-4mm ²), 12 Nm (6-50mm ²)	DIN rail	29.8 x 49 x 43	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	20	4 Nm (2.5-4mm ²), 12 Nm (6-50mm ²)	DIN rail	29.8 x 49 x 43	0.049	30	6418677191954
KE66.3	Cu 2.5-50 mm ² Al 6-50 mm ²	Yellow/ Green		800 V	5 mm	20	4 Nm (2.5-4mm ²), 12 Nm (6-50mm ²)	DIN rail	29.8 x 49 x 43	0.049	30	6418677191961
KE67	Al/Cu 16-95 mm ²	Grey	Cu 245 A, Al 220 A	800 V	5 mm	25	20 Nm	DIN rail/ screw	42 x 86 x 49	0.128	30	6418677191978
KE67.2	Al/Cu 16-95 mm ²	Blue	Cu 245 A, Al 220 A	800 V	5 mm	25	20 Nm	DIN rail/ screw	42 x 86 x 49	0.128	30	6418677191985
KE67.3	Al/Cu 16-95 mm ²	Yellow/ Green		800 V	5 mm	25	20 Nm	DIN rail/ screw	42 x 86 x 49	0.128	30	6418677191992
KE68	Al/Cu 35-150 mm ²	Grey	Cu 320 A, Al 290 A	800 V	8 mm	34	20 Nm (35-95mm ²), 30 Nm (120-150mm ²)	DIN rail/ screw	51.5 x 95 x 59	0.210	30	6418677192005
KE68.2	Al/Cu 35-150 mm ²	Blue	Cu 320 A, Al 290 A	800 V	8 mm	34	20 Nm (35-95mm ²), 30 Nm (120-150mm ²)	DIN rail/ screw	51.5 x 95 x 59	0.210	30	6418677192012
KE68.3	Al/Cu 35-150 mm ²	Yellow/ Green		800 V	8 mm	34	20 Nm (35-95mm ²), 30 Nm (120-150mm ²)	DIN rail/ screw	51.5 x 95 x 59	0.210	30	6418677192029
KE69	Al/Cu 35-240 mm ²	Grey	Cu 425 A, Al 380 A	800 V	8 mm	38	12 Nm (35-70mm ²), 45 Nm (95-240mm ²)	Screw	64 x 130 x 67	0.438	30	6418677192036
KE69.2	Al/Cu 35-240 mm ²	Blue	Cu 425 A, Al 380 A	800 V	8 mm	38	12 Nm (35-70mm ²), 45 Nm (95-240mm ²)	Screw	64 x 130 x 67	0.438	30	6418677192043
KE69.3	Al/Cu 35-240 mm ²	Yellow/ Green		800 V	8 mm	38	12 Nm (35-70mm ²), 45 Nm (95-240mm ²)	Screw	64 x 130 x 67	0.438	30	6418677192050

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



KE61



KE62



KE63.2



KE64.3



KE61.03



KE66



KE68.2



KE69.3

Ensto Clampo terminal sets

Packed in convenient retail packages.

Cross-section (mm ²)	Product code	GTIN-13	Description
Cu 2.5 – 50, Al 6 – 50	KE61SET	6418677191800	Mounting kit, KE61.03 + KE61.2 + KE61.3
	KE61T	6418677192326	Universal terminal, grey, bag of 3 pcs
	KE61.03T	6418677192357	Universal terminal, grey, 3-pole, bag of 2 pcs
	KE61.2T	6418677192333	Universal terminal, blue, bag of 3 pcs
	KE61.3T	6418677192340	Universal terminal, yellow-green, bag of 3 pcs
Al/Cu 16 – 95	KE62SET	6418677192432	Mounting kit, 3 x KE62 + KE62.2 + KE62.3
	KE62T	6418677192364	Universal terminal, grey, bag of 3 pcs
	KE62.2T	6418677192371	Universal terminal, blue, bag of 3 pcs
	KE62.3T	6418677192388	Universal terminal, yellow-green, bag of 3 pcs
Cu 2.5 – 50, Al 6 – 50	KE66T	6418677192395	Tapping block, grey, bag of 3 pcs
	KE66.2T	6418677192401	Tapping block, blue, bag of 3 pcs
	KE66.3T	6418677192418	Tapping block, yellow-green, bag of 3 pcs



KE61SET includes Ensto Clampo Pro universal terminals.

Accessories

Product code	Description	Weight (kg)	Package size (pcs)	GTIN-13
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



The terminal shroud is L-shaped, thus protecting both the conductor space and the hole from the tightening tool.

The terminals are easy to mark using the marking strips.

Marking strips

Each strip contains 10 markers.

Product code	Markings	Weight (kg)	Package size (strips)	GTIN-13
PM34.00	0	0.001	10	6418677192067
PM34.01	1	0.001	10	6418677192074
PM34.02	2	0.001	10	6418677192081
PM34.03	3	0.001	10	6418677192098
PM34.04	4	0.001	10	6418677192104
PM34.05	5	0.001	10	6418677192111
PM34.06	6	0.001	10	6418677192128
PM34.07	7	0.001	10	6418677192135
PM34.08	8	0.001	10	6418677192142
PM34.09	9	0.001	10	6418677192159
PM34.10	A	0.001	10	6418677192166
PM34.11	R	0.001	10	6418677192173
PM34.12	S	0.001	10	6418677192180

Product code	Markings	Weight (kg)	Package size (strips)	GTIN-13
PM34.13	T	0.001	10	6418677192197
PM34.14	U	0.001	10	6418677192203
PM34.15	V	0.001	10	6418677192210
PM34.16	W	0.001	10	6418677192227
PM34.19	L	0.001	10	6418677192234
PM34.22	+	0.001	10	6418677192241
PM34.23	-	0.001	10	6418677192258
PM34.24	⊥	0.001	10	6418677192265
PM34.25	N	0.001	10	6418677192272
PM34.26	L1	0.001	10	6418677192289
PM34.27	L2	0.001	10	6418677192296
PM34.28	L3	0.001	10	6418677192302
PM34.29	PE	0.001	10	6418677192319

UL recognitions

Product code	Wire type	AWG* 1 wire/ terminal	AWG* 2 Cu-wires/ terminal	AWG* 3 Cu-wires/ terminal	Maximum voltage	Maximum current	Tightening torque	Allen-hex socket head terminal screw	Dimensions (W x L x H)
One-pole universal terminals									
KE61	Cu	1/0 – 6	6	8	600 V	150 A	90 lb-in	5 mm	0.7 x 1.9 x 1.7 In
	Al	1/0 – 6			600 V	120 A	(10 Nm)		(17.8 x 49 x 43 mm)
KE62	Cu	4/0 – 4	2 – 6	6	600 V	230 A	126 lb-in	5 mm	0.9 x 3.4 x 1.9 In
	Al	4/0 – 4			600 V	180 A	(14 Nm)		(24 x 86 x 49 mm)
KE63	Cu	300 – 2	1/0 – 2	2	600 V	285 A	216 lb-in	8 mm	1.2 x 3.7 x 2.3 In
	Al	300 – 2			600 V	230 A	(24 Nm)		(29.5 x 95 x 59 mm)
KE64	Cu	500 – 3/0	2/0 – 2	1/0 – 2	600 V	380 A	360 lb-in	8 mm	1.5 x 5.1 x 2.6 In
	Al	500 – 3/0			600 V	310 A	(40 Nm)		(37.5 x 130 x 67 mm)
Three-pole universal terminal									
KE61.03	Cu	1/0 – 6	6	8	600 V	150 A	90 lb-in	5 mm	1.9 x 1.9 x 1.7 In
	Al	1/0 – 6			600 V	120 A	(10 Nm)		(49.5 x 49 x 43 mm)
Tapping blocks									
KE66	Cu	1/0 – 6	6	8	600 V	150 A	90 lb-in	5 mm	1.2 x 1.9 x 1.7 In
	Al	1/0 – 6			600 V	120 A	(10 Nm)		(29.8 x 49 x 43 mm)
KE67	Cu	4/0 – 4	2 – 6	6	600 V	230 A	126 lb-in	5 mm	1.7 x 3.4 x 1.9 In
	Al	4/0 – 4			600 V	180 A	(14 Nm)		(42 x 86 x 49 mm)
KE68	Cu	300 – 2	1/0 – 2	2	600 V	285 A	216 lb-in	8 mm	2.0 x 3.7 x 2.3 In
	Al	300 – 2			600 V	230 A	(24 Nm)		(51.5 x 95 x 59 mm)
KE69	Cu	500 – 3/0	2/0 – 2	1/0 – 2	600 V	380 A	360 lb-in	8 mm	2.5 x 5.1 x 2.6 In
	Al	500 – 3/0			600 V	310 A	(40 Nm)		(64 x 130 x 67 mm)

Standard UL 1059, UL category XCFR2, file no. E192532.

* AWG = American Wire Gauge

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

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

Ensto Clampo Pro 1000 V terminals

For Al/Cu conductors from 2.5 mm² to 150 mm²



Ensto Clampo Pro 1000 V terminals in brief

- 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
- Colors:
 - 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

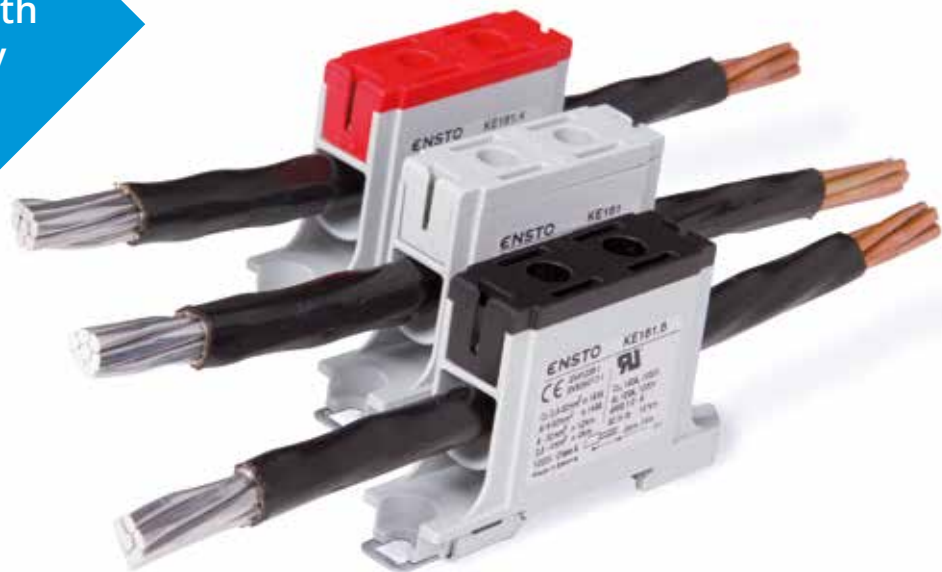
Housing:	Fiberglass reinforced polyamide
Body and screws:	Tin-coated aluminium

Mechanical features

Screw heads:	Hexagonal
Mounting:	Screws or DIN rail

Conductor table can be viewed on page 58.

➤ Reliability and protection with higher supply voltages



1000 V terminals are well suited for applications where higher supply voltages are used, such as in drivers, railway systems and ships. They are also suitable for DC applications, making them a perfect choice for photovoltaic connections.

Ensto Clampo Pro 1000 V, one-pole terminal blocks

Product code	Conductor cross-section (mm ²)	Color	Nominal current (A)	Nominal insulation voltage (V)	Screw head hexagon (mm)	Bit length min.	Tightening torque (Nm)	Mounting	Dimensions W x L x H (mm)	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	20	4 Nm (2.5–4mm ²), 12 Nm (6–50mm ²)	DIN rail/ screw	19.2 x 82.5 x 48.5	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	20	4 Nm (2.5–4mm ²), 12 Nm (6–50mm ²)	DIN rail/ screw	19.2 x 82.5 x 48.5	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	20	4 Nm (2.5–4mm ²), 12 Nm (6–50mm ²)	DIN rail/ screw	19.2 x 82.5 x 48.5	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	20	4 Nm (2.5–4mm ²), 12 Nm (6–50mm ²)	DIN rail/ screw	19.2 x 82.5 x 48.5	0.045	30	6438100181789
KE162	Al/Cu 16–95 mm ²	Grey	Cu 245 A, Al 220 A	1000 V	5 mm	25	20 Nm	DIN rail/ screw	25 x 93.5 x 55.5	0.091	30	6438100160616
KE162.2	Al/Cu 16–95 mm ²	Blue	Cu 245 A, Al 220 A	1000 V	5 mm	25	20 Nm	DIN rail/ screw	25 x 93.5 x 55.5	0.091	30	6438100160623
KE162.4	Al/Cu 16–95 mm ²	Red	Cu 245 A, Al 220 A	1000 V	5 mm	25	20 Nm	DIN rail/ screw	25 x 93.5 x 55.5	0.091	30	6438100160647
KE162.6	Al/Cu 16–95 mm ²	Black	Cu 245 A, Al 220 A	1000 V	5 mm	25	20 Nm	DIN rail/ screw	25 x 93.5 x 55.5	0.091	30	6438100160654
KE163	Al/Cu 35–150 mm ²	Grey	Cu 320 A, Al 290 A	1000 V	8 mm	34	20 Nm (35–95mm ²), 30 Nm (120–150mm ²)	DIN rail/ screw	30.4 x 108 x 64.5	0.143	30	6438100181796
KE163.2	Al/Cu 35–150 mm ²	Blue	Cu 320 A, Al 290 A	1000 V	8 mm	34	20 Nm (35–95mm ²), 30 Nm (120–150mm ²)	DIN rail/ screw	30.4 x 108 x 64.5	0.143	30	6438100181802
KE163.4	Al/Cu 35–150 mm ²	Red	Cu 320 A, Al 290 A	1000 V	8 mm	34	20 Nm (35–95mm ²), 30 Nm (120–150mm ²)	DIN rail/ screw	30.4 x 108 x 64.5	0.143	30	6438100181819
KE163.6	Al/Cu 35–150 mm ²	Black	Cu 320 A, Al 290 A	1000 V	8 mm	34	20 Nm (35–95mm ²), 30 Nm (120–150mm ²)	DIN rail/ screw	30.4 x 108 x 64.5	0.143	30	6438100181826

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 (10 Nm)	5 mm	0.76 x 3.25 x 1.91 In (19.2 x 82.5 x 48.5 mm)
	Al	1/0 – 6			1000 V	120 A			
KE162	Cu	4/0 – 4	2 – 6	6	1000 V	230 A	126 lb-in (14 Nm)	5 mm	0.98 x 3.68 x 2.19 In (25 x 93.5 x 55.5 mm)
	Al	4/0 – 4			1000 V	180 A			
KE163	Cu	300 – 2	1/0 – 2	2	1000 V	285 A	216 lb-in (24 Nm)	8 mm	1.20 x 4.25 x 2.54 In (30.4 x 108 x 64.5 mm)
	Al	300 – 2			1000 V	230 A			

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

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 aluminium and copper conductors to equipment
- › Specially developed to meet the needs of equipment manufacturers
- › Wide application area (traditional panel-building and the manufacture of machinery and equipment in which both aluminium and copper conductors can be used)
- › Used in equipment or as a transfer terminal between copper and aluminium
- › Directly connected to one or two conductors
- › Terminals with insulation base also available
- › Reliable product with simple construction
- › Oxidation-inhibiting compound applied at the factory
- › Easy to install
- › Models with two inputs also suitable for branching
- › Fixing possibilities: with a bolt to a copper bar or with a base together with screws onto a DIN rail
- › Short circuit tested class A terminals (not KE12.12 and KE12.20)

Conformity



Standards

KE12.12, KE12.20:	IEC 61545, EN 60947-7-1
Other terminals:	EN 61238-1, EN 60947-7-1
Connector class:	A

Technical information

Cross-section range:	Al 2.5 – 300 mm ² Cu 6 – 300 mm ²
Nominal current range:	145 – 630 A
Nominal insulation voltage:	750 V
Operating temperature:	max 80 °C
Pollution degree:	3

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

Conductor table can be viewed on page 58.

Ensto Clampo Apparatus, adapter terminals

Product code	Conductor cross-section	Number of poles	Nominal current	Screw head hexagon	Tightening torque	Dimensions W x L x H (mm)	Weight (kg)	Package size (pcs)	GTIN-13
KE12.12	Cu 2.5–50 mm ² Al 6–50 mm ²	1	Cu 160 A. Al 145 A	5 mm	10 Nm	16.4 x 43 x 29.1	0.013	90	6418677181788
KE12.20	Cu 2.5–50 mm ² Al 6–50 mm ²	1	Cu 160 A. Al 145 A	5 mm	10 Nm	16.4 x 51 x 29.1	0.014	90	6418677181795

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

Ensto Clampo Apparatus, equipment terminals

Product code	Conductor cross-section	Number of poles	Nominal current	Screw head hexagon	Tightening torque	Dimensions W x L x H (mm)	Weight (kg)	Package size (pcs)	GTIN-13
KE52.2	Al/Cu 16–95 mm ²	1	270 A	5 mm	14 Nm	20 x 47 x 33	0.030	30	6418677192449
KE53.2	Al/Cu 35–150 mm ²	1	320 A	8 mm	24 Nm (35–95 mm ²), 24 Nm (120–150 mm ²)	24.5 x 60 x 40	0.050	30	6418677192456
KE54.2	Al/Cu 35–240 mm ²	1	425 A	8 mm	12 Nm (35–70 mm ²), 40 Nm (95–240 mm ²)	32 x 77 x 48	0.115	15	6418677192463
KE55	Al/Cu 120–300 mm ²	1	420 A	5 mm	25 Nm	43 x 98 x 84	0.446	15	6418677161957
KE57	Al/Cu 2 x 95–185 mm ²	1	400 A	5 mm	35 Nm	39 x 83 x 102	0.360	15	6418677161964
KE58	Al/Cu 2 x 150–300 mm ²	1	630 A	5 mm	35 Nm	45 x 98 x 126	0.561	15	6418677161971

KE57 and KE58 are only suitable for two conductors.

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.



KE12.12



KE52.2



KE55



KE57

Ensto Clampo Apparatus, equipment terminals with insulation base

Product code	Conductor cross-section	Number of poles	Nominal current	Nominal insulation voltage	Screw head hexagon	Tightening torque	Dimensions W x L x H (mm)	Weight (kg)	Package size (pcs)	GTIN-13
KE73.2	35–150 mm ²	1	320 A	750 V	8 mm	24 Nm (35–95 mm ²), 24 Nm (120–150 mm ²)	58 x 63 x 79.7	0.077	15	6418677192470
KE74.2	35–240 mm ²	1	425 A	750 V	8 mm	12 Nm (35–70 mm ²), 40 Nm (95–240 mm ²)	75 x 78 x 95	0.166	15	6418677192487
KE75	120–300 mm ²	1	420 A	750 V	5 mm	25 Nm	81 x 114 x 105.5	0.521	10	6418677162008
KE77	2 x 95–185 mm ²	1	400 A	750 V	5 mm	35 Nm	75 x 95 x 131	0.416	10	6418677162015
KE78	2 x 150–300 mm ²	1	630 A	750 V	5 mm	35 Nm	81 x 114 x 158	0.615	10	6418677162022

KE57 and KE58 are only suitable for two conductors.

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

Specified I_{cw} value:

KE77: I_{cw} (1.5 s) 20.5 kA

KE78: I_{cw} (2 s) 30.5 kA



KE74.2



KE75



KE77



KE78

Ensto Clampo Apparatus equipment terminals sets

Packed in convenient retail packages

	Product code	GTIN-13	Description
Cu 2.5 – 50, Al 6 – 50	KE12.12T	6418677181764	Al transition terminal for MCB, 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, bag of 3 pcs + screw kits
Cu/Al 35 – 150	KE53.2T	6418677192500	Equipment terminal, bag of 3 pcs + screw kits
Cu/Al 35 – 240	KE54.2T	6418677192517	Equipment terminal, bag of 3 pcs + screw kits



KE53.2T includes Ensto Clampo Apparatus equipment terminals.

Accessories

Product code	Description	Weight (kg)	Package size (pcs)	GTIN-13
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 for attaching insulation bases to each other				
PLP98	For KE73.2	0.001	50	6418677162275
PLP99	For KE74.2, KE75, KE77 and KE78	0.004	50	6418677162282
Screw kits for busbar mounting				
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.

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

- › One-pole and four-pole terminal plates for 1.5 – 70 mm² copper conductors
- › Particularly suitable for use with higher voltages or when improved shrouding is required
- › Terminals have insulating partitions
- › Can be mounted onto a DIN rail

Conformity	
Standards	
All terminals:	EN 60947-7-1
Technical information	
Cross-section range:	Al/Cu 2.5 – 70 mm ²
Nominal current range:	62 – 192 A
Nominal insulation voltage:	750 V
Operating temperature:	Max. 80 °C
Pollution degree:	3
Material	
Housing:	Polyamide
Body and screws:	Steel
Mechanical features	
Screw head:	Slot head or nut
Mounting:	Screws or DIN rail

Conductor table can be viewed on page 59.

Ensto Clampo Tap, tapping terminal, 750 V

Product code	Conductor cross-section	Nominal current	Nominal insulation voltage	Screw head	Key size	Tightening torque	Mounting	Dimensions W x L x H (mm)	Weight (kg)	Package size (pcs)	GTIN-13
Four-pole terminal plates											
KF7.10	Cu 2.5 – 16 mm ²	62 A	750 V	Slot head		2.5 Nm	DIN rail/screw	66 x 63 x 43	0.110	25	6418677162589
KF7.70	Cu 6 – 70 mm ²	192 A	750 V	Nut	8 mm	4 Nm	DIN rail/screw	122 x 64 x 43	0.160	25	6418677162602
One-pole terminal plates											
KF8.10	Cu 2.5 – 16 mm ²	62 A	750 V	Slot head		2.5 Nm	DIN rail/screw	21.5 x 54 x 43	0.030	25	6418677162596
KF8.70	Cu 6 – 70 mm ²	192 A	750 V	Nut	8 mm	4 Nm	DIN rail/screw	38 x 64 x 43	0.050	20	6418677162619

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)	GTIN-13
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

Not RoHS compliant



Protective cover, KNL6.122.

Ensto Clampo Compact terminal blocks

For Cu conductors from 1.5 mm² to 16 mm²



Ensto Clampo Compact terminal blocks in brief:

- For 1.5 – 16 mm² copper conductors
- Used in controlling, instrumentation and automation applications
- Cost-effective solution
- Compact in size (ideal for installations with limited space)
- 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 tape or printing directly onto the terminal body)

Conformity	
Standards	
EN 60947-7-1, UL 1059, CSA C22.2 No. 158-1987	
Technical information	
Cross-section range:	Cu 1.5 – 16 mm ²
Nominal current range:	17.5 – 82 A
Nominal insulation voltage:	450 – 750 V
Operating temperature:	Max. 105 °C
Material	
Housing:	Polyamide
Body:	Ni-coated brass
Mechanical features	
Screw head:	Slot head
Mounting:	Screws or DIN rail

Conductor table can be viewed on page 59.

Ensto Clampo Compact, terminal blocks

Product code	Conductor cross-section	Number of poles	Nominal current	Nominal insulation voltage	Screw head slot head	Tightening torque	Mounting	Dimensions W x L x H (mm)	Weight (kg)	Package size (pcs)	GTIN-13
KR5031	Cu 1.5 mm ²	3	17.5 A	750 V (pollution degree 2)*	M2.6	0.4 Nm	DIN rail/screw	26 x 22 x 18	0.007	200	6418677111402
KR5131	Cu 1.5 mm ²	12	17.5 A	750 V (pollution degree 2)*	M2.6	0.4 Nm	DIN rail/screw	70.9 x 22 x 18	0.026	50	6418677111426
KR8031	Cu 1.5 – 6 mm ²	3	41 A	750 V (pollution degree 2)*	M3.5	0.8 Nm	DIN rail/screw	31.4 x 22 x 22	0.015	200	6418677111778
KR8041	Cu 1.5 – 6 mm ²	4	41 A	750 V (pollution degree 2)*	M3.5	0.8 Nm	DIN rail/screw	38.2 x 22 x 22	0.021	200	6418677111792
KR8121	Cu 1.5 – 6 mm ²	12	41 A	750 V (pollution degree 2)*	M3.5	0.8 Nm	DIN rail/screw	90.8 x 22 x 22	0.060	100	6418677111822
KR10021	Cu 6 – 16 mm ²	2	82 A	750 V (pollution degree 2)**	M6	2.5 Nm	DIN rail/screw	34 x 30.8 x 39.5	0.044	100	6418677111334
KR10031	Cu 6 – 16 mm ²	3	82 A	750 V (pollution degree 2)**	M6	2.5 Nm	DIN rail/screw	45.3 x 30.8 x 39.5	0.065	100	6418677111358

* 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.



KR5131



KR8041



KR10031



KR10021



UL recognitions

Product code	Number of poles	Wire type	AWG* 1 wire/terminal	Maximum voltage	Maximum current	Nominal tightening torque	Screwdriver terminal screw	Dimensions (W x L x H)
KR5031	3	Cu	14 – 22	150 V	10 A	4.4 lb-in (0.5 Nm)	Max. 3.5 mm slot	1.0 x 0.9 x 0.7 In (26 x 22 x 18 mm)
KR5131	12	Cu	14 – 22	150 V	10 A	4.4 lb-in (0.5 Nm)	Max. 3.5 mm slot	2.8 x 0.9 x 0.7 In (70.9 x 22 x 18 mm)
KR8031	3	Cu	8 – 18	150 V	50 A	7 lb-in (0.8 Nm)	Max. 5 mm slot	1.2 x 0.9 x 0.9 In (31.4 x 22 x 22 mm)
KR8041	4	Cu	8 – 18	150 V	50 A	7 lb-in (0.8 Nm)	Max. 5 mm slot	1.5 x 0.9 x 0.9 In (38.2 x 22 x 22 mm)
KR8121	12	Cu	8 – 18	150 V	50 A	7 lb-in (0.8 Nm)	Max. 5 mm slot	3.6 x 0.9 x 0.9 In (90.8 x 22 x 22 mm)
KR10021	2	Cu	6 – 18	300 V	65 A	20 lb-in (2.25 Nm)	Max. 6.5 mm slot	1.3 x 1.2 x 1.6 In (34 x 30.8 x 39.5 mm)
KR10031	3	Cu	6 – 18	300 V	65 A	20 lb-in (2.25 Nm)	Max. 6.5 mm slot	1.8 x 1.2 x 1.6 In (45.3 x 30.6 x 39.5 mm)

Standard UL 1059, UL category XCFR2, file no. E192532.

* AWG = American Wire Gauge

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

Accessories

Product code	Description	Weight (kg)	Package size (pcs)	GTIN-13
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, 3-pole, KRL6067.03.



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.

Ensto Clampo Eurostrips

For Cu conductors from 1.5 mm² to 16 mm²



Ensto Clampo Eurostrips in brief:

- For 1.5 – 16 mm² copper conductors
- For flexible, stranded and solid wires
- Produced as 12-pole
 - can be ordered precut with the required number of poles
- On request individual pole positions can be marked with desired markings
- Available with or without standoff feet
- Available with or without wire protection

Conformity	
Terminal blocks:	CE
Standards	
Terminal blocks:	EN 60998-1, EN 60998-2-1, UL1059, UL 486, CSA C22.2 No. 158-1987
Technical information	
Cross-section range:	Cu 1.5 – 16 mm ²
Nominal current range:	15 – 65 A
Nominal insulation voltage:	450 – 750 V
Operating temperature:	Max. 80 °C
Material	
Housing:	Polyamide
Body:	Ni-coated brass
Mechanical features	
Screw head:	Slot head
Mounting:	Screws

Conductor table can be viewed on page 59.

Ensto Clampo Eurostrips

Product code	Conductor cross-section	Flat base or standoff feet	Wire protection	Number of poles	Nominal current	Nominal insulation voltage	Screw head slot head	Tightening torque	Mounting hole diameter (mm)	Dimensions L x W x H (mm)	Weight (kg)	GTIN
KA16.12	1.5 mm ²	Flat base	No	12	15 A	450 V	M2.6	0.3–0.5 Nm	2.8	93.5 x 18.2 x 13.8	0.0191	6418677102608
KB16.12	1.5 mm ²	Flat base	Yes	12	15 A	450 V	M2.6	0.3–0.5 Nm	2.8	93.5 x 18.2 x 13.8	0.0191	6418677105593
KA17.12	1.5 mm ²	Standoff feet	No	12	15 A	450 V	M2.6	0.3–0.5 Nm	2.8	93.5 x 18.2 x 17.3	0.0190	6418677102721
KB17.12	1.5 mm ²	Standoff feet	Yes	12	15 A	450 V	M2.6	0.3–0.5 Nm	2.8	93.5 x 18.2 x 17.3	0.0200	6418677105715
KA241.12	4 mm ²	Flat base	No	12	30 A	450 V	M3	0.4–0.6 Nm	3.5	117 x 22.2 x 15.8	0.0320	6418677103445
KB241.12	4 mm ²	Flat base	Yes	12	30 A	450 V	M3	0.4–0.6 Nm	3.5	117 x 22.2 x 15.8	0.0330	6418677106439
KA242.12	4 mm ²	Standoff feet	No	12	30 A	450 V	M3	0.4–0.6 Nm	3.5	117 x 22.2 x 19.8	0.0350	6418677103568
KB242.12	4 mm ²	Standoff feet	Yes	12	30 A	450 V	M3	0.4–0.6 Nm	3.5	117 x 22.2 x 19.8	0.0360	6418677106552
KA460.12	6 mm ²	Flat base	No	12	40 A	450 V	M3.5	0.6–0.8 Nm	4.2	140 x 23.2 x 17.7	0.0460	6418677104701
KB460.12	6 mm ²	Flat base	Yes	12	40 A	450 V	M3.5	0.6–0.8 Nm	4.2	140 x 23.2 x 17.7	0.0480	6418677107283
KA463.12	6 mm ²	Standoff feet	No	12	40 A	450 V	M3.5	0.6–0.8 Nm	4.2	140 x 23.2 x 21.2	0.0480	6418677104824
KB463.12	6 mm ²	Standoff feet	Yes	12	40 A	450 V	M3.5	0.6–0.8 Nm	4.2	140 x 23.2 x 21.2	0.0490	6418677107405
KA612.12	16 mm ²	Standoff feet	No	12	65 A	750 V	M5	1.8–2.0 Nm	4.0	176 x 28 x 26.5	0.0920	6418677105302
KB612.12	16 mm ²	Standoff feet	Yes	12	65 A	750 V	M5	1.8–2.0 Nm	4.0	176 x 28 x 26.5	0.0940	6418677108006

Package size 250 pcs.

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



KA16.12



KA241.12



KA460.12



KA612.12



UL recognitions

Product code	AWG* 1 wire/terminal	Number of poles	Maximum current	Maximum insulation voltage	Screw head slot head	Tightening torque	Dimensions L x W x H (mm)
KA / KB16.12	12 – 22	12	20 A	300 V	M2.6	0.3 – 0.5 Nm	93.5 x 18.2 x 13.8
KA / KB17.12	12 – 22	12	20 A	600 V	M2.6	0.3 – 0.5 Nm	93.5 x 18.2 x 17.3
KA / KB241.12	10 – 20	12	30 A	300 V	M3	0.4 – 0.6 Nm	117 x 22.2 x 15.8
KA / KB242.12	10 – 20	12	30 A	600 V	M3	0.4 – 0.6 Nm	117 x 22.2 x 19.3
KA / KB460.12	8 – 20	12	40 A	300 V	M3.5	0.6 – 0.8 Nm	140 x 23.2 x 17.7
KA / KB463.12	8 – 20	12	40 A	600 V	M3.5	0.6 – 0.8 Nm	140 x 23.2 x 21.2
KA / KB612.12	6 – 14	12	65 A	600 V	M5	1.8 – 2.0 Nm	176 x 28 x 26.5

Standard UL 1059, UL category XCFR2, file no. E192532.

* AWG = American Wire Gauge

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

Accessories

Product code	Description	Weight (kg)	Package size (pcs)	GTIN-13
Cross connectors				
KRL1508.02	2-pole, 1.5 mm ²	0.0008	100	6418677111891
KRL1508.03	3-pole, 1.5 mm ²	0.0014	100	6418677111907
KRL4010.02	2-pole, 4 mm ²	0.0012	100	6418677714856
KRL4010.03	3-pole, 4 mm ²	0.0019	100	6418677111938
KRL6012.02	2-pole, 6 mm ²	0.0013	100	6418677111969
KRL6012.03	3-pole, 6 mm ²	0.0021	100	6418677111983
KRL16015.02	2-pole, 16 mm ²	0.0018	100	6418677112959
Mounting pins				
AH2242	For KA/KB242, white, total length 20.5 mm, insertion length 14 mm, hole Ø 4.5 mm	0.0002	10 000	6418677100161
AH2463	For KA/KB463, grey, total length 21.5 mm, insertion length 14.5 mm, hole Ø 4.5 mm	0.0003	10 000	6418677100178
AH2512	For KA/KB612, black, total length 24.5 mm, insertion length 19 mm, hole Ø 5.5 mm	0.0003	10 000	6418677100185
Spacer plate				
KA46	For 4–6 mm ² terminal blocks with standoff feet	0.002	1000	6418677104589



KRL6012.02



Mounting pins



KA46

Marking plates

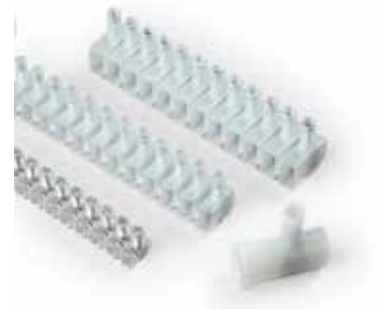
Product code	Single or double	Markings	Nominal cross- section mm ²	For products	Weight (kg)	Package size (pcs)	GTIN-13
PMK2612	2	Plain	4	241, 242	0.0040	500	6418677112485
PMK2712	2	(1–12)	4	241, 242	0.0040	500	6418677112492
PMK2812	1	Plain	4	241, 242	0.0023	500	6418677112508
PMK2912	1	(1–12)	4	241, 242	0.0023	500	6418677112515
PMK3012	2	Plain	6	460, 463	0.0050	500	6418677112522
PMK3212	1	Plain	6	460, 463	0.0050	500	6418677112546
PMK4412	2	Plain	16	612	0.0080	500	6418677112560
PMK4512	2	(1–12)	16	612	0.0080	500	6418677112577
PMK4612	1	Plain	16	612	0.0040	500	6418677112584



PMK2812, PMK3012

Ensto Clampo Wire Connectors

For Cu conductors from 2.5 mm² to 16 mm²



- Ensto Clampo Wire Connectors in brief:
- For 2.5 – 16 mm² copper conductors
- For flexible, stranded and solid wires
- Produced as 12-pole
 - can easily be cut without any tools

Conformity	
Terminal blocks:	CE ^{RoHS} (F) EAC
Standards	
Terminal blocks:	EN 60998-1
Technical information	
Cross-section range:	Cu 2.5 – 16 mm ²
Nominal insulation voltage:	450 V
Operating temperature:	Max. 80 °C
Material	
Housing:	Polyamide (KD160 Polycarbonate)
Body:	Steel (KD160 Ni-coated brass)
Mechanical features	
Screw head:	Slot head
Mounting:	Screws or DIN rail

Conductor table can be viewed on page 59.

Ensto Clampo Wire Connectors

Product code	Conductor cross-section	Number of poles	Nominal insulation voltage	Screw head slot head	Tightening torque	Dimensions W x L x H (mm)	Weight (kg)	Package size (pcs)	GTIN-13
AL1.12	3 x 2.5 mm ² / 4 x 1.5 mm ²	12	450 V	M3.5	0.8 – 1.0 Nm	128.6 x 19.2 x 28.8	0.0545	50	6410019230543
AL2.12	2 x 6 mm ² / 3 x 4 mm ² / 4 x 2.5 mm ²	12	450 V	M4.5	1.8 – 2.0 Nm	130 x 26 x 32.1	0.0812	50	6410019230550
AL13	2 x 16 mm ² / 2 x 10 mm ² / 3 x 6 mm ² / 4 x 4 mm ²	1	450 V	M6	2.5 – 2.7 Nm	16 x 39.5 x 40	0.0120	500	6410019230604
KD160.01	4 x 1 mm ² / 3 x 1.5 mm ² / 2 x 2.5 mm ²	1	450 V	M4	1.2 – 1.4 Nm	9 x 15.5 x 17	0.0002	2000	6418677109348
KD160.12	4 x 1 mm ² / 3 x 1.5 mm ² / 2 x 2.5 mm ²	12	450 V	M4	1.2 – 1.4 Nm	110 x 15.5 x 17	0.0025	500	6418677109454

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



AL1.12



AL2.12



AL13



KD160.12

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 (to prevent damage to fine wire strands)

Conformity	
Standards	
N busbars:	EN 60947-7-1
PE busbars:	EN 60947-7-2
N and PE busbars:	EN 60947-7-1, EN 60947-7-2
Technical information	
Cross-section range:	Cu 1.5 – 35 mm ²
Nominal current range:	82 – 135 A
Nominal insulation voltage:	500 V
Operating temperature:	max 80 °C
Pollution degree:	3
Material	
Body:	Polyamide/polycarbonate
Base:	Brass/steel
Mechanical features	
Screw head:	+/-
Mounting:	Screws or DIN rail

Conductor table can be viewed on page 59.

Ensto Clampo Ground, neutral busbars

Product code	Conductor cross-section	Nominal current	Nominal insulation voltage	Screw head	Tightening torque	Mounting	Dimensions W x L x H (mm)	Weight (kg)	Package size (pcs)	GTIN-13
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	+/-	2 Nm/0.8 Nm	DIN rail/screw	40 x 53 x 35	0.063	50	6418677162770
KNA4.106	Cu 2 x (1 x 16 mm ² + 5 x 6 mm ²)	82 A	500 V	+/-	2 Nm/0.8 Nm	DIN rail/screw	40 x 65 x 35	0.085	50	6418677162787
KNA4.108	Cu 2 x (1 x 16 mm ² + 7 x 6 mm ²)	82 A	500 V	+/-	2 Nm/0.8 Nm	DIN rail/screw	40 x 79 x 35	0.104	25	6418677162794
KNA4.110	Cu 2 x (2 x 16 mm ² + 8 x 6 mm ²)	82 A	500 V	+/-	2 Nm/0.8 Nm	DIN rail/screw	40 x 95 x 35	0.130	25	6418677162817
KNA4.112	Cu 2 x (2 x 16 mm ² + 10 x 6 mm ²)	82 A	500 V	+/-	2 Nm/0.8 Nm	DIN rail/screw	40 x 106 x 35	0.153	25	6418677162824
KNA4.114	Cu 2 x (3 x 16 mm ² + 11 x 6 mm ²)	82 A	500 V	+/-	2 Nm/0.8 Nm	DIN rail/screw	40 x 122 x 35	0.178	25	6418677162831
KNA4.120	Cu 2 x (4 x 16 mm ² + 16 x 6 mm ²)	82 A	500 V	+/-	2 Nm/0.8 Nm	DIN rail/screw	40 x 160 x 35	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	+/-	2 Nm/0.8 Nm	DIN rail/screw	40 x 43 x 43	0.052	100	6418677152849
KN4.104	Cu 2 x (4 x 16 mm ²)	82 A	500 V	+/-	2 Nm/0.8 Nm	DIN rail/screw	40 x 61 x 43	0.088	50	6418677152856
KN4.106	Cu 2 x (6 x 16 mm ²)	82 A	500 V	+/-	2 Nm/0.8 Nm	DIN rail/screw	40 x 79 x 43	0.122	50	6418677152863
KN4.108	Cu 2 x (8 x 16 mm ²)	82 A	500 V	+/-	2 Nm/0.8 Nm	DIN rail/screw	40 x 97 x 43	0.162	25	6418677152870
KN4.110	Cu 2 x (10 x 16 mm ²)	82 A	500 V	+/-	2 Nm/0.8 Nm	DIN rail/screw	40 x 115 x 43	0.198	25	6418677152887
KN4.112	Cu 2 x (12 x 16 mm ²)	82 A	500 V	+/-	2 Nm/0.8 Nm	DIN rail/screw	40 x 133 x 43	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	PH2	4 Nm	DIN rail/screw	41.5 x 64 x 41	0.127	50	6418677162855

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	Screw head	Tightening torque	Mounting	Dimensions W x L x H (mm)	Weight (kg)	Package size (pcs)	GTIN-13
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)	+/-	2 Nm/0.8 Nm	DIN rail/screw	40 x 58 x 35	0.063	50	6418677152900
KNA4.106P	Cu 2 x (1 x 16 mm ² + 5 x 6 mm ²)	+/-	2 Nm/0.8 Nm	DIN rail/screw	40 x 65 x 35	0.085	50	6418677152917
KNA4.108P	Cu 2 x (1 x 16 mm ² + 7 x 6 mm ²)	+/-	2 Nm/0.8 Nm	DIN rail/screw	40 x 79 x 35	0.104	25	6418677152924
KNA4.110P	Cu 2 x (2 x 16 mm ² + 8 x 6 mm ²)	+/-	2 Nm/0.8 Nm	DIN rail/screw	40 x 95 x 35	0.130	25	6418677152931
KNA4.112P	Cu 2 x (2 x 16 mm ² + 10 x 6 mm ²)	+/-	2 Nm/0.8 Nm	DIN rail/screw	40 x 106 x 35	0.153	25	6418677152948
KNA4.114P	Cu 2 x (3 x 16 mm ² + 11 x 6 mm ²)	+/-	2 Nm/0.8 Nm	DIN rail/screw	40 x 122 x 35	0.178	25	6418677152955
KNA4.120P	Cu 2 x (4 x 16 mm ² + 16 x 6 mm ²)	+/-	2 Nm/0.8 Nm	DIN rail/screw	40 x 160 x 35	0.243	25	6418677152962
PE busbars with 35 mm² pillar terminals								
KND4.103P	Cu 2 x (3 x 35 mm ²)	PH2	4 Nm	DIN rail/screw	41.5 x 64 x 41	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 busbars

Product code	Conductor cross-section	Nominal current	Nominal insulation voltage	Screw head	Tightening torque	Mounting	Dimensions W x L x H (mm)	Weight (kg)	Package size (pcs)	GTIN-13
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	+/-	2 Nm/0.8 Nm	DIN rail/screw	40 x 121.5 x 35	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	+/-	2 Nm/0.8 Nm	DIN rail/screw	40 x 152 x 35	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	+/-	2 Nm/0.8 Nm	DIN rail/screw	40 x 176.5 x 35	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	+/-	2 Nm/0.8 Nm	DIN rail/screw	40 x 195 x 35	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	+/-	2 Nm/0.8 Nm	DIN rail/screw	40 x 240.5 x 35	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	+/-	2 Nm/0.8 Nm	DIN rail/screw	40 x 271 x 35	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	+/-	2 Nm/0.8 Nm	DIN rail/screw	40 x 295.5 x 35	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	+/-	2 Nm/0.8 Nm	DIN rail/screw	40 x 320 x 35	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	+/-	2 Nm	DIN rail/screw	40 x 79 x 35	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	+/-	2 Nm	DIN rail/screw	40 x 122 x 35	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	+/-	2 Nm	DIN rail/screw	40 x 160 x 35	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	+/-	2 Nm	DIN rail/screw	40 x 203 x 35	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	+/-	2 Nm	DIN rail/screw	40 x 269 x 35	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	+/-	2 Nm	DIN rail/screw	40 x 68.5 x 40	0.100	50	6418677162909
KN4.206	Cu, N 6 x 16 mm ² , PE 6 x 16 mm ²	76 A	500 V	+/-	2 Nm	DIN rail/screw	40 x 86.5 x 40	0.146	25	6418677162916
KN4.208	Cu, N 8 x 16 mm ² , PE 8 x 16 mm ²	76 A	500 V	+/-	2 Nm	DIN rail/screw	40 x 104.5 x 40	0.181	25	6418677162923
KN4.210	Cu, N 10 x 16 mm ² , PE 10 x 16 mm ²	76 A	500 V	+/-	2 Nm	DIN rail/screw	40 x 122.5 x 40	0.219	25	6418677162930
KN4.212	Cu, N 12 x 16 mm ² , PE 12 x 16 mm ²	76 A	500 V	+/-	2 Nm	DIN rail/screw	40 x 140.5 x 40	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	PH2	4 Nm	DIN rail/screw	41.5 x 64 x 41	0.127	50	6418677153150

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	Nominal current	Nominal insulation voltage	Screw head	Tightening torque	Mounting	Dimensions W x L x H (mm)	Weight (kg)	Package size (pcs)	GTIN-13
KJ7	Cu 1.5 – 35 mm ²	135 A	500 V	Slot	3.5	Screw	14.8 x 60 x 38	0.037	250	6418677163524

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

Neutral terminal, UL recognitions

Product code	Number of poles	Wire type	AWG* 1 wire/terminal	Maximum voltage	Maximum current	Tightening torque	Screwdriver terminal screw	Dimensions (W x H x D)
KJ7**	1	Cu	2 – 16	600 V	115 A	40.5 lb·in (4.5 Nm)	Slot	0.6 x 2.4 x 1.5 In (15 x 60 x 38 mm)

Standard UL1059, UL category XCFR2, file no. 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).



KJ7

Ensto Clampo Ground, N and PE busbars in parts

Product code	Description	Nominal current	Tightening torque	Weight (kg)	Package size (pcs)	GTIN-13
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.

Terminal saddles

Product code	Description	Nominal current	Weight (kg)	Package size (pcs)	GTIN-13
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



PPK9

Pillar terminals

Product code	Description	Nominal current	Tightening torque	Screw head	Weight (kg)	Package size (pcs)	GTIN-13
KJ25	Cu 1–6 mm ² , width 6 mm	33 A	0.8 Nm	+/-	0.004	1000	6418677163135
KJ25.1	Cu 1–6 mm ² , with wire protection, width 6 mm	33 A	0.8 Nm	+/-	0.004	1000	6418677163142
KJ18	Cu 1.5–16 mm ² , width 9 mm	82 A	2 Nm	+/-	0.007	1000	6418677163173
KJ18.1	Cu 1.5–16 mm ² , with wire protection, width 9 mm	82 A	2 Nm	+/-	0.007	1000	6418677171505
KJ20	Cu 2.5–35 mm ² , width 13 mm	135 A	4 Nm	PH2	0.011	1000	6418677163425
KJ20.1	Cu 2.5–35 mm ² , width 13 mm, for hexagonal key	135 A	4 Nm	Hexagon 5 mm	0.012	1000	6418677163043



KJ25



KJ25.1



KJ20



KJ20.1

Busbar supports

Product code	Description	Weight (kg)	Package size (pcs)	GTIN-13
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, PMR117.

Busbars

2 x 10 mm brass busbars.

Product code	Description	Weight (kg)	Package size (pcs)	GTIN-13
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)	GTIN-13
PMR281	Support for 3 x 12 mm busbar	0.004	200	6418677163449
PSK131	Busbar, length 2000 mm, 3x12 mm, copper	0.630	10	6418677163456
RDP9	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 24 mm	0.007	100	6418677163036



Support for 3 x 12 mm busbar, PMR281.



Busbar, copper, PSK131.



Shroud profile, RDP9.



Earthing bar, PPK225.

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.
- 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 (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 (2.5–4 mm ²)			
	Cu		3	3	3	3	2	1	1	1							160		12 (6–50 mm 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	1		290	800	20 (35–95 mm ²)			
	Cu								3	2	1	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 (95–240 mm ²)			
KE66	Al				1	1	1	1	1	1							145	800	4 (2.5–4 mm ²)			
	Cu		3	3	3	3	2	1	1	1							160		12 (6–50 mm 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	1		290	800	20 (35–95 mm ²)			
	Cu								3	3	2	1	1	1	1		320		30 (120–150 mm ²)			
KE69	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 (95–240 mm ²)			
Ensto Clampo Pro 1000 V terminals																						
KE161	Al				1	1	1	1	1	1	1						145	1000	4 Nm (2.5–4 mm ²)			
	Cu		3	3	3	3	2	1	1	1	1						160		12 Nm (6–50 mm 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	1	1	290	1000	30 Nm (120–150 mm ²)			
	Cu								3	2	1	1	1	1	1	1	320		20 Nm (35–95 mm ²)			
Ensto Clampo Apparatus equipment terminals																						
KE12.12, KE12.20	Al				1	1	1	1	1	1	1						145	750	10			
	Cu		1	1	1	1	1	1	1	1	1						160					
KE52.2	Al						1	1	1	1	1	1	1				270		14			
	Cu						3	2	2	1	1	1	1									
KE53.2	Al								1	1	1	1	1	1	1		320		14 (35–95 mm ²)			
	Cu								3	2	1	1	1	1	1				24 (120–150 mm ²)			
KE54.2	Al								1	1	1	1	1	1	1	1	425		12 (35–70 mm ²)			
	Cu								3	3	2	1	1	1	1	1			40 (95–240 mm ²)			
KE55	Al												1	1	1	1	1	420		25		
	Cu												1	1	1	1	1					
KE57	Al											1	1	1	1	1	400		35			
	Cu											1	1	1	1	1			2 conductor spaces			
KE58	Al													1	1	1	1	1	630		35	
	Cu													1	1	1	1	1			2 conductor spaces	
KE73.2	Al								1	1	1	1	1	1	1		320	750	14 (35–95 mm ²)			
	Cu								3	2	1	1	1	1	1				24 (120–150 mm ²)			
KE74.2	Al								1	1	1	1	1	1	1	1	1	425	750	12 (35–70 mm ²)		
	Cu								3	3	2	1	1	1	1	1	1			40 (95–240 mm ²)		
KE75	Al												1	1	1	1	1	1	420	750	25	
	Cu												1	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	1	1	630	750	35
	Cu													1	1	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.
- 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 (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 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	
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	
Ensto Clampo Eurostrips																					
KA / KB16.12	Cu	1																15	450	0.3 - 0.5	
KA / KB17.12	Cu	1																15	450	0.3 - 0.5	
KA / KB241.12	Cu	1	1	1														30	450	0.4 - 0.6	
KA / KB242.12	Cu	1	1	1														30	450	0.4 - 0.6	
KA / KB460.12	Cu		1	1	1													40	450	0.6 - 0.8	
KA / KB463.12	Cu		1	1	1													40	450	0.6 - 0.8	
KA / KB612.12	Cu				1	1	1											65	750	1.8 - 2.0	
Ensto Clampo Wire connectors																					
AL1.12	Cu	4	3															24	450	0.8 - 1.0	
AL2.12	Cu		4	3	2													41	450	1.8 - 2.0	
AL13	Cu			4	3	2	2											76	450	2.5 - 2.7	
KD160.01	Cu	3	2	1														24	450	1.2 - 1.4	
KD160.12	Cu	3	2	1														24	450	1.2 - 1.4	
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	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	





Load break switches

Our range of load break switches consists of three-pole switch disconnectors, additional poles and accessories. 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.

BENEFITS:

- › Combined switch and disconnector
- › Designed and tested to work as a disconnector
- › Load break switch for demanding use
- › Suitable for overvoltage category IV

Ensto Compact switch disconnectors

Rotary switches from 16 A to 125 A



Ensto Compact switch disconnectors in brief:

- The frame of the 16 – 63 A switches is 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, changeover mechanism)
- UL-listed versions available
- Compact in size
- Advanced design with two frame sizes
- Handle padlockable in 0-position

Conformity	
Standards	
EN 60947-3	
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

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

Product code	Amperage	Conductor cross-section	Tightening torque	Mounting	Dimensions W x L x H (mm)	Weight (kg)	Package size (pcs)	GTIN-13
Three-pole with direct handle								
KS3.16	3 x 16 A	Cu 1.5–16 mm ²	2 Nm	Din rail/screw	36 x 81 x 76	0.133	50	6418677171345
KS3.20	3 x 20 A	Cu 1.5–16 mm ²	2 Nm	Din rail/screw	36 x 81 x 76	0.133	50	6418677171352
KS3.25	3 x 25 A	Cu 1.5–16 mm ²	2 Nm	Din rail/screw	36 x 81 x 76	0.133	50	6418677170003
KS3.32	3 x 32 A	Cu 1.5–16 mm ²	2 Nm	Din rail/screw	36 x 81 x 76	0.133	50	6418677171420
KS3.40	3 x 40 A	Cu 1.5–16 mm ²	2 Nm	Din rail/screw	36 x 81 x 76	0.133	50	6418677170010
KS3.63	3 x 63 A	Cu 1.5–16 mm ²	2 Nm	Din rail/screw	36 x 81 x 76	0.133	50	6418677170027
KSM3.63	3 x 63 A	Cu 10–50 mm ²	4 Nm	Din rail/screw	52 x 100 x 80	0.266	50	6418677169748
KSM3.80	3 x 80 A	Cu 10–50 mm ²	4 Nm	Din rail/screw	52 x 100 x 80	0.266	50	6418677169755
KSM3.100	3 x 100 A	Cu 10–50 mm ²	4 Nm	Din rail/screw	52 x 100 x 80	0.266	50	6418677169762
KSM3.125	3 x 125 A	Cu 10–50 mm ²	4 Nm	Din rail/screw	52 x 100 x 80	0.266	50	6418677169779
Three-pole, yellow with red handle								
KS3.16RY	3 x 16 A	Cu 1.5–16 mm ²	2 Nm	Din rail/screw	36 x 81 x 76	0.133	50	6418677171444
KS3.20RY	3 x 20 A	Cu 1.5–16 mm ²	2 Nm	Din rail/screw	36 x 81 x 76	0.133	50	6418677171451
KS3.25RY	3 x 25 A	Cu 1.5–16 mm ²	2 Nm	Din rail/screw	36 x 81 x 76	0.133	50	6418677171468
KS3.32RY	3 x 32 A	Cu 1.5–16 mm ²	2 Nm	Din rail/screw	36 x 81 x 76	0.133	50	6418677171475
KS3.40RY	3 x 40 A	Cu 1.5–16 mm ²	2 Nm	Din rail/screw	36 x 81 x 76	0.133	50	6418677171482
KS3.63RY	3 x 63 A	Cu 1.5–16 mm ²	2 Nm	Din rail/screw	36 x 81 x 76	0.133	50	6418677171499
KSM3.63RY	3 x 63 A	Cu 10–50 mm ²	4 Nm	Din rail/screw	52 x 100 x 80	0.266	50	6418677169847
KSM3.80RY	3 x 80 A	Cu 10–50 mm ²	4 Nm	Din rail/screw	52 x 100 x 80	0.266	50	6418677169854
KSM3.100RY	3 x 100 A	Cu 10–50 mm ²	4 Nm	Din rail/screw	52 x 100 x 80	0.266	50	6418677169861
KSM3.125RY	3 x 125 A	Cu 10–50 mm ²	4 Nm	Din rail/screw	52 x 100 x 80	0.266	50	6418677169878
Three-pole without handle								
KS31.16	3 x 16 A	Cu 1.5–16 mm ²	2 Nm	Din rail/screw	36 x 81 x 70	0.129	50	6418677171284
KS31.20	3 x 20 A	Cu 1.5–16 mm ²	2 Nm	Din rail/screw	36 x 81 x 70	0.129	50	6418677171291
KS31.25	3 x 25 A	Cu 1.5–16 mm ²	2 Nm	Din rail/screw	36 x 81 x 70	0.129	50	6418677171307
KS31.32	3 x 32 A	Cu 1.5–16 mm ²	2 Nm	Din rail/screw	36 x 81 x 70	0.129	50	6418677171314
KS31.40	3 x 40 A	Cu 1.5–16 mm ²	2 Nm	Din rail/screw	36 x 81 x 70	0.129	50	6418677171321
KS31.63	3 x 63 A	Cu 1.5–16 mm ²	2 Nm	Din rail/screw	36 x 81 x 70	0.129	50	6418677171338
KSM31.63	3 x 63 A	Cu 10–50 mm ²	4 Nm	Din rail/screw	52 x 100 x 70	0.260	50	6418677169700
KSM31.80	3 x 80 A	Cu 10–50 mm ²	4 Nm	Din rail/screw	52 x 100 x 70	0.260	50	6418677169717
KSM31.100	3 x 100 A	Cu 10–50 mm ²	4 Nm	Din rail/screw	52 x 100 x 70	0.260	50	6418677169724
KSM31.125	3 x 125 A	Cu 10–50 mm ²	4 Nm	Din rail/screw	52 x 100 x 70	0.260	50	6418677169731



KSM3.63



KS3.16RY



KSM31.63

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

Product code	Amperage	Conductor cross-section	Tightening torque	Mounting	Dimensions W x L x H (mm)	Weight (kg)	Package size (pcs)	GTIN-13
KS3.40N	3 x 40 A	Cu 1.5–16 mm ²	2 Nm	Din rail/screw	49 x 81 x 76	0.177	50	6438100099343
KS3.63N	3 x 63 A	Cu 1.5–16 mm ²	2 Nm	Din rail/screw	49 x 81 x 76	0.177	50	6438100099350
KSM3.80N	3 x 80 A	Cu 10–50 mm ²	4 Nm	Din rail/screw	70 x 100 x 80	0.362	50	6438100099381
KSM3.100N	3 x 100 A	Cu 10–50 mm ²	4 Nm	Din rail/screw	70 x 100 x 80	0.362	50	6438100099398



KS3.40N



Ensto Compact switch disconnectors, fourth pole

Product code	Amperage (A)	Conductor cross-section (mm ²)	Tightening torque	Mounting	Dimensions W x L x H (mm)	Weight (kg)	Package size (pcs)	GTIN-13
KS1.16	16 A	Cu 1.5–16 mm ²	2 Nm	Din rail/screw	13 x 71.5 x 55.3	0.046	50	6418677171253
KS1.20	20 A	Cu 1.5–16 mm ²	2 Nm	Din rail/screw	13 x 71.5 x 55.3	0.046	50	6418677171260
KS1.25	25 A	Cu 1.5–16 mm ²	2 Nm	Din rail/screw	13 x 71.5 x 55.3	0.046	50	6418677170065
KS1.32	32 A	Cu 1.5–16 mm ²	2 Nm	Din rail/screw	13 x 71.5 x 55.3	0.046	50	6418677171277
KS1.40	40 A	Cu 1.5–16 mm ²	2 Nm	Din rail/screw	13 x 71.5 x 55.3	0.046	50	6418677170072
KS1.63	63 A	Cu 1.5–16 mm ²	2 Nm	Din rail/screw	13 x 71.5 x 55.3	0.046	50	6418677170089
KSM1.63	63 A	Cu 10–50 mm ²	4 Nm	Din rail/screw	17.5 x 83 x 62	0.095	50	6418677169786
KSM1.80	80 A	Cu 10–50 mm ²	4 Nm	Din rail/screw	17.5 x 83 x 62	0.095	50	6418677169793
KSM1.100	100 A	Cu 10–50 mm ²	4 Nm	Din rail/screw	17.5 x 83 x 62	0.095	50	6418677169809
KSM1.125	125 A	Cu 10–50 mm ²	4 Nm	Din rail/screw	17.5 x 83 x 62	0.095	50	6418677169816



KS1.63

Additional poles

Product code	Description	Amperage (A)	Tightening torque (Nm)	Weight (kg)	Package size (pcs)	GTIN-13
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.

Handles

Product code	Description	Weight (kg)	Package size (pcs)	GTIN-13
Direct handles				
PMR241B	Direct handle for KS switch	0.005	100	6418677171437
PMR301B	Direct handle for KSM switch	0.006	100	6418677169915
External handles				
KSH29	Not padlockable, IP54, 0I1, black	0.033	100	6418677170188
KSH48	Padlockable, IP65, yellow with red handle, 0 OFFI1 ON	0.043	100	6418677170195
KSH48.01	Padlockable, IP65, black, 0 OFFI1 ON	0.043	100	6418677170201
KSH75	Pistol grip handle, black, padlockable, IP65, 0 OFFI1 ON	0.070	50	6418677169885
KSH75RY	Pistol grip handle, yellow with red handle, padlockable, IP65, 0 OFFI1 ON	0.070	50	6418677169892



Small direct handle for KS switch, PMR241B.



External handle, not padlockable, KSH29.



External handle, padlockable, KSH48.



External handle, padlockable, KSH48.01.



Pistol grip handle, padlockable, KSH75RY.

Extension shafts

Product code	Description	Weight (kg)	Package size (pcs)	GTIN-13
KS23.055	55 mm for KSH29, KSH48 and KSH75 handles	0.014	100	6418677170232
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

Other accessories

Product code	Description	Weight (kg)	Package size (pcs)	GTIN-13
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
KK66	Parallel mechanism for mounting two switches to work simultaneously	0.078	1	6418677171642
KK102.712	Changeover kit incl. shafts and black handle	0.234	20	6418677169922
KK102.7RY12	Changeover 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.



Parallel mechanism, KK66.



Changeover kit, KK102.712.



Changeover kit, KK102.7RY12.

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

Product code	Amperage	Conductor cross-section	Tightening torque	Mounting	Dimensions W x L x H (mm)	Weight (kg)	Package size (pcs)	GTIN-13
KS13.16	3 x 16 A	Cu 1.5–16 mm ²	2 Nm	Din rail/screw	39.4 x 80 x 72	0.149	50	6418677171161
KS13.20	3 x 20 A	Cu 1.5–16 mm ²	2 Nm	Din rail/screw	39.4 x 80 x 72	0.149	50	6418677171178
KS13.25	3 x 25 A	Cu 1.5–16 mm ²	2 Nm	Din rail/screw	39.4 x 80 x 72	0.149	50	6418677170034
KS13.32	3 x 32 A	Cu 1.5–16 mm ²	2 Nm	Din rail/screw	39.4 x 80 x 72	0.149	50	6418677171246
KS13.40	3 x 40 A	Cu 1.5–16 mm ²	2 Nm	Din rail/screw	39.4 x 80 x 72	0.149	50	6418677170041
KS13.63	3 x 63 A	Cu 1.5–16 mm ²	2 Nm	Din rail/screw	13 x 71.5 x 55.3	0.149	50	6418677170058



KS13.16

Ensto Compact switch disconnectors, fourth pole

Product code	Amperage	Conductor cross-section	Tightening torque	Mounting	Dimensions W x L x H (mm)	Weight (kg)	Package size (pcs)	GTIN-13
KS11.16	16 A	Cu 1.5–16 mm ²	2 Nm	Din rail/screw	13 x 71.5 x 55.3	0.045	50	6418677171130
KS11.20	20 A	Cu 1.5–16 mm ²	2 Nm	Din rail/screw	13 x 71.5 x 55.3	0.045	50	6418677171147
KS11.25	25 A	Cu 1.5–16 mm ²	2 Nm	Din rail/screw	13 x 71.5 x 55.3	0.045	50	6418677170096
KS11.32	32 A	Cu 1.5–16 mm ²	2 Nm	Din rail/screw	13 x 71.5 x 55.3	0.045	50	6418677171154
KS11.40	40 A	Cu 1.5–16 mm ²	2 Nm	Din rail/screw	13 x 71.5 x 55.3	0.045	50	6418677170102
KS11.63	63 A	Cu 1.5–16 mm ²	2 Nm	Din rail/screw	13 x 71.5 x 55.3	0.045	50	6418677170119



KS11.16

Accessories

Product code	Description	Amperage	Tightening torque	Weight (kg)	Package size (pcs)	GTIN-13
Additional poles						
KS11N	Switched neutral pole	Max. 63 A	2 Nm	0.046	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, IP65, yellow with red handle, 0 OFF/1 ON			0.043	100	6418677170195
KSH48.01	Padlockable, IP65, 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



KSH48.01

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				
		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	63
	690V	A	16	20	25	32	40	40	63	63	63	
AC 22 A	415V	A	16	20	25	32	40	40	40	63	63	63
		500V	A	16	20	25	32	40	40	63	63	63
		690V	A	16	20	25	32	40	40	63	63	63
AC 23 A	415V	A	16	20	25	32	40	40	40	63	63	63
		500V	A	16	20	25	32	40	40	40	40	40
		690V	A	16	20	25	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	22
	(for standard motor)	690V	kW	11	15	22	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	400	630	630	630
Breaking capacity	415V AC 23 A	A	128	160	200	256	320	320	320	504	504	504
Endurance (number of operations)												
Mechanical				100 000	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	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

		3-pole		KSM3.63	KSM3.80	KSM3.80N	KSM3.100	KSM3.100N		KSM3.125		
		KSM31.63	KSM31.80		KSM31.100		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	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	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}	Arms			1500	1500	1500	1500	1500	1500	1500		
Rated conditional short-circuit current	kArms			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	800		
Breaking capacity	415V AC 23 A	A	504	640	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		



Fuse bases

Our range of fuse bases covers ceramic single fuse bases and fuse blocks suitable for D-type (Diazed) fuses of sizes DII and DIII. The fuse bases are certified according to standards EN 60269-1 and HD 60269-3.

BENEFITS:

- › High breaking capacity
- › Reliable isolation
- › Flexibility
- › Good selectivity

Fuse bases

25 A and 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

Technical features:

- High quality materials with a long lifetime
- Reliable structure with simplistic design
- Many versions with different positions for connection points
- Versions suitable for aluminium conductors

Conformity



Standards

All fuse bases:	EN 60269-1 HD 60269-3
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Technical information

Nominal current range:	25 A and 63 A
Nominal insulation voltage:	500 V

Material

Housing:	Porcelain
Body:	Ni-coated brass

Mechanical features

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

Single fuse bases

Product code	Description	Weight (kg)	Package size (pcs)	GTIN-13
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



KV63.2



KV63.57



KVC1.1



KVC1.2



KV25.1



KV25.2



KV25.291



KV25.211



KV63.1



KV63.2



KV63.211



KV63.291

Fuse blocks

Product code	Description	Weight (kg)	Package size (pcs)	GTIN-13
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

Porcelain rings

Product code	Description	Weight (kg)	Package size (pcs)	GTIN-13
Porcelain rings				
PR2.25	For 25 A fuse base with slot	0.024	480	6418677161223
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
PMR450	50 x 45 mm, for KVC fuse blocks	0.012	500	6418677161285



Porcelain ring with slot, PR4.63.

Protective covers

Product code	Description	Weight (kg)	Package size (pcs)	GTIN-13
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 fuse blocks, PMR450.3.

Other accessories

Product code	Description	Weight (kg)	Package size (pcs)	GTIN-13
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				
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.



Sealing cover, KW20.



3

EnstoNet installation couplers

Well-suited to a wide range of applications

We designed the EnstoNet system to make connecting couplers to each other easy and safe. Couplers are color-coded on the basis of the recommended use, and the components intended for different applications are structurally incompatible.

The EnstoNet system is most commonly used in power supply for lighting. In addition to power distribution, the EnstoNet system is suitable for the realisation of control signal and bus solutions, either independently or alongside other electrification.

BENEFITS:

- › Easy plug & play
- › Proper connection ensured with a click sound
- › Double latches, connection can be unplugged from both plug and socket
- › Various application options due to color and mechanical coding

EnstoNet installation couplers

For Cu conductors from 0.5 mm² to 4 mm²



EnstoNet installation couplers in brief:

- ▶ Pluggable 2, 3, 4 and 5-pole couplers
- ▶ Available as screw, screwless (spring clamp connection) and PCB couplers
- ▶ Locking latches ensure the durability of the connection, also available without locking latches
- ▶ Available with and without strain relief
- ▶ Color coding for different systems, mechanical compatibility only within the same color system

Screw couplers

Couplers with strain-relief are suitable for use with device and extension cables, while the models without strain-relief can be used in boxes and connections inside a device.

Screwless couplers

Screwless couplers are mainly intended to be installed in device boxes with flange mounting. Some separate strain-reliefs are also available.

PCB couplers

Printed circuit board couplers are designed for internal connections in the device. The range includes models for both horizontal and vertical mounting.

Mechanical and color coding

Code A, white and black couplers

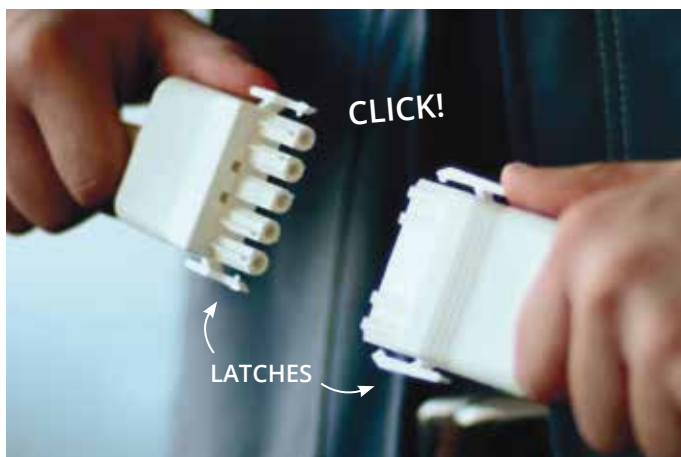
- ▶ These couplers are mainly intended for power supply.



Code B, blue couplers

- ▶ The blue series is meant for use in various control applications and they can also be used for other circuit connections when so specified by an electrical engineer.

Code C, grey couplers

- ▶ The grey couplers are intended for bus and extra low voltage solutions. 5-pole version is suitable for connecting the power supply and control line within the same wiring.



Conformity	
CE   ENEC	
Standards	
IEC 61535, EN 60998-1	
Technical information	
Nominal current range:	20 A
Nominal insulation voltage:	400 V
Operating temperature:	Max. +70 °C
Screw couplers	
Cross-section range:	0.75 – 4 mm ²
Conductor type:	Flexible, stranded and solid wires
Stripping length:	7 – 9 mm
Connector screw head:	Slot head
Tightening torque:	0.5 – 0.7 Nm
Strain-relief screw head:	Posidrive 1 - Pz 1
Strain-relief tightening torque:	0.5 – 0.8 Nm
Screwless couplers	
Cross-section range:	2 x 0.5 – 2.5 mm ² , auxiliary contact 1 x 0.5- 1.5 mm ²
Conductor type:	Stranded and solid wires
Stripping length:	8 – 10 mm
PCB couplers	
Length of soldering pin:	3.5 mm
Mounting on the board:	Vertical or horizontal
Material	
Body:	Polyamide
Terminals	Silver-plated brass

Cable diameters

Poles	Screw couplers with strain-relief	Screw couplers with strain-relief, low
2-pole	5.5 – 11.5	4.0 – 10.5
3-pole	5.5 – 12.0	4.5 – 11.0
4-pole	6.5 – 13.5	5.5 – 12.5
5-pole	6.5 – 14.5	5.5 – 10.0
Combination couplers	6.5 – 10.0	-



In tight places it's possible to get the EnstoNet couplers without latches. A separate locking device is provided with the couplers. Panel adapters are also available for narrow couplers.

2-pole installation couplers

Pole	Color	Mechanical code	Marking	Screw couplers without strain-relief		Screw couplers with strain-relief		Screw couplers with strain-relief, low		Screwless couplers	
				Plug	Socket	Plug	Socket	Plug	Socket	Plug	Socket
2	White	A	1, N	NAC21.W 6418677109027	NAC22.W 6418677109041	NAC21S.W 6418677109034	NAC22S.W 6418677109058	NAC21SL.W 6418677114861	NAC22SL.W 6418677114878	NAS21.W 6418677113192	NAS22.W 6418677113208
2	Black	A	1, N	NAC21.B 6418677113840	NAC22.B 6418677113857	NAC21S.B 6418677113871	NAC22S.B 6418677113888	NAC21SL.B 6418677114885	NAC22SL.B 6418677114892	NAS21.B 6418677115271	NAS22.B 6418677115288
2	Blue	B	A, B	NBC21.S 6418677113680	NBC22.S 6418677113703	NBC21S.S 6418677113697	NBC22S.S 6418677113710			NBS21.S 6418677117022	NBS22.S 6418677117039
2	Grey	C	a+, b-	NCC21.G 6418677117336	NCC22.G 6418677117190	NCC21S.G 6418677117343	NCC22S.G 6418677117183	NCC21SL.G 6418677117381	NCC22SL.G 6418677117473	NCS21.G 6418677117145	NCS22.G 6418677117152
2-pole narrow	White	A	1, N	NAC21H.W 6418677113314	NAC22H.W 6418677113321	NAC21SH.W 6418677113338	NAC22SH.W 6418677113345				

Package size: screw couplers without strain-relief 500 pcs, others 200 pcs



NAC21.B



NBC21.S



NAC22S.W



NCS22.G

3-pole installation couplers

Pole	Color	Mechanical code	Marking	Screw couplers without strain-relief		Screw couplers with strain-relief		Screw couplers with strain-relief, low		Screwless couplers	
				Plug	Socket	Plug	Socket	Plug	Socket	Plug	Socket
3	White	A	1, PE, N	NAC31.W 6418677109065	NAC32.W 6418677108990	NAC31S.W 6418677109003	NAC32S.W 6418677109072	NAC31SL.W 6418677708473	NAC32SL.W 6418677708480	NAS31.W 6418677707667	NAS32.W 6418677707681
3	Black	A	1, PE, N	NAC31.B 6418677113895	NAC32.B 6418677113901	NAC31S.B 6418677113949	NAC32S.B 6418677113956			NAS31.B 6418677707650	NAS32.B 6418677707674
3	Blue	B	A, B, C	NBC31.S 6418677113482	NBC32.S 6418677113475	NBC31S.S 6418677113499	NBC32S.S 6418677113505			NBS31.S 6418677117008	NBS32.S 6418677117015
3	Grey	C	a+, PE, b-	NCC31.G 6418677117114	NCC32.G 6418677117107	NCC31S.G 6418677117084	NCC32S.G 6418677117091			NCS31.G 6418677117121	NCS32.G 6418677117138
3-pole narrow	White	A	1, PE, N	NAC31H.W 6418677113352	NAC32H.W 6418677113291	NAC31SH.W 6418677113307	NAC32SH.W 6418677113369			NAS31H.W 6418677113536	NAS32H.W 6418677113529
3-pole narrow	Black	A	1, PE, N	NAC31H.B 6418677118081						NAS31H.B 6418677709364	

Package size: 200 pcs



NCC32.G



NAC32S.W



NBS31.S



NAS32.B

4-pole installation couplers

Pole	Color	Mechanical code	Marking	Screw couplers without strain-relief		Screw couplers with strain-relief		Screw couplers with strain-relief, low		Screwless couplers	
				Plug	Socket	Plug	Socket	Plug	Socket	Plug	Socket
4	White	A	1, PE, N, 2	NAC41.W 6418677113987	NAC42.W 6418677113994	NAC41S.W 6418677114069	NAC42S.W 6418677114076	NAC41SL.W 6418677708497	NAC42SL.W 6418677708503	NAS41.W 6418677114021	NAS42.W 6418677114038
4	Black	A	1, PE, N, 2	NAC41.B 6418677114007	NAC42.B 6418677114014	NAC41S.B 6418677114083	NAC42S.B 6418677114090			NAS41.B 6418677115318	NAS42.B 6418677707698
4-pole narrow	White	A	1, PE, N, 2	NAC41H.W 6418677114106	NAC42H.W 6418677114113	NAC41SH.W 6418677114120	NAC42SH.W 6418677114137				

Package size: 100 pcs



NAC42.B



NAC41SH.W



NAC42S.B



NAS41.W

5-pole installation couplers

Pole	Color	Mechanical code	Marking	Screw couplers without strain-relief		Screw couplers with strain-relief		Screw couplers with strain-relief, low		Screwless couplers	
				Plug	Socket	Plug	Socket	Plug	Socket	Plug	Socket
5	White	A	1, 2, PE, N, 3	NAC51.W 6418677109089	NAC52.W 6418677109232	NAC51S.W 6418677109225	NAC52S.W 6418677112805	NAC51SL.W 6418677114489	NAC52SL.W 6418677114496	NAS51.W 641867707704	NAS52.W 641867707711
5	Black	A	1, 2, PE, N, 3	NAC51.B 6418677114151	NAC52.B 6418677114168	NAC51S.B 6418677114182	NAC52S.B 6418677114199	NAC51SL.B 6418677116056	NAC52SL.B 6418677116063	NAS51.B 6418677117565	NAS52.B 6418677118142
5	Blue	B	A, B, C, D, E	NBC51.S 6418677113727	NBC52.S 6418677113741	NBC51S.S 6418677113734	NBC52S.S 6418677113758			NBS51.S 641867724206	NBS52.S 641867724237
5	Grey	C	1, N, PE, a+, b-	NCC51.G 6418677117503	NCC52.G 6418677117527	NCC51S.G 6418677117497	NCC52S.G 6418677117510	NCC51SL.G 6418677117855	NCC52SL.G 6418677117862	NCS51.G 641867724213	NCS52.G 641867724244
5-pole narrow	White	A	1, 2, PE, N, 3	NAC51H.W 6418677113376	NAC52H.W 6418677113383	NAC51SH.W 6418677113390	NAC52SH.W 6418677113406			NAS51H.W 6418677113666	NAS52H.W 6418677113673

Package size: 100 pcs



NBC52.S



NCC51S.G



NAS52.B



NAS52H.W

Combination couplers

Pole	Color	Mechanical code	Marking	Screw couplers with strain-relief	
				Plug	Socket
3+2	White/blue	A+B	1, PE, N, A, B	NGCST5132 641867723117	NGCST5232 641867723124
3+3	White/blue	A+B	1, PE, N, A, B, C	NGCST6133 641867723131	NGCST6233 641867723155
4+2	White/blue	A+B	1, PE, N, 2, A, B	NGCST6142 641867723148	NGCST6242 641867723162

Package size: NGCST6133 50 pcs, others 10/50 pcs



NGCST5132



NGCST5232



NGCST6133



NGCST6242

Panel adapters

With different colored panel adapters, different systems can be identified in your panel.

Color	2-pole	3-pole	3-pole narrow	4-pole	4-pole narrow	5-pole	5-pole narrow	6-pole
White	NK2P.W 6418677113062	NK3P.W 6418677113079	NK3PF.W 6418677113086	NK4P.W 6418677114045	NK4PF.W 6418677114144	NK5P.W 6418677113093	NK5PF.W 6418677114205	NK6P.W 6418677119523
Black	NK2P.B 6418677113864	NK3P.B 6418677113918	NK3PF.B 6418677115868	NK4P.B 6418677114052	NK4PF.B 6418677115912	NK5P.B 6418677114175	NK5PF.B 6418677115967	
Grey	NK2P.G 6418677701559	NK3P.G 6418677700309	NK3PF.G 6418677701566			NK5P.G 6418677700293		
Yellow	NK2P.K 6418677114724	NK3P.K 6418677114250	NK3PF.K 6418677115875	NK4P.K 6418677114755	NK4PF.K 6418677115929	NK5P.K 6418677114298	NK5PF.K 6418677115974	
Red	NK2P.P 6418677114731	NK3P.P 6418677114281	NK3PF.P 6418677115882	NK4P.P 6418677114762	NK4PF.P 6418677115936	NK5P.P 6418677114328	NK5PF.P 6418677115981	
Blue	NK2P.S 6418677114717	NK3P.S 6418677114274	NK3PF.S 6418677115899	NK4P.S 6418677114779		NK5P.S 6418677114311	NK5PF.S 6418677115998	
Green	NK2P.V 6418677114748	NK3P.V 6418677114267	NK3PF.V 6418677115905	NK4P.V 6418677114786		NK5P.V 6418677114304	NK5PF.V 6418677116001	

Package size: 2 and 3-pole 100/200 pcs, 4-6-pole 50/100 pcs.
Narrow for couplers without latches.



NGCST5132



NGCST5232



NGCST6133



NGCST6242

Special panel adapters

Product code	Description	Package size (pcs)	GTIN-13
NK35PL.W	3-pole panel mounting adaptor for 5-pole aperture	100	6418677709203



NK35PL.W

Accessories

Product code	Description	Package size (pcs)	GTIN-13
Separate locking devices			
NK2F.W	For narrow 2-pole couplers, white	1000	6418677113109
NK3F.W	For narrow 3-, 4- and 5-pole couplers, white	1000	6418677113116
Strain-reliefs			
NS3M.W	Strain-relief of 3-pole couplers for 4 mm ² cables, white	200	6418677112258
NS3M.P	Strain-relief of 3-pole couplers for 4 mm ² cables, red	200	6418677115792
NS3D.W	3-pole strain-relief of screwless couplers for two cables, for 7 - 11 mm cables, white	200	6418677118128
NS3DL.W	3-pole strain-relief of screwless couplers for two cables, for 4 - 8,5 mm cables, white	200	6418677118135
NS5M.W	5-pole strain-relief for 4 mm ² cables, for 12.0 -17.5 mm cables, white	100	6418677112265
NS5M.P	5-pole strain-relief for 4 mm ² cables, for 12.0 -17.5 mm cables, red	200	6418677115808
NS5M2L.W	5-pole strain-relief for 4 mm ² cables, for 8.0 -11.0 mm cables, white	200	641867720079
Blanking caps for panel mounting adapter			
NK3CP.W	3-pole, white	1000	6418677113970
NK3CP.B	3-pole, black	1000	6418677117206
Blanking caps			
NK3C.W	3-pole, white	1000	6418677113963
NK5C.W	5-pole, white	1000	6418677700736
Mounting pads			
NKB.W	White	1000	6418677114243
NKB.B	Black	1000	6418677115127
Blind panel mounting adapters			
NK3PB.W	3-pole, white	200	6418677114397
NK5PB.W	5-pole, white	200	6418677700729
Safety devices for locking latches			
NK3FH.W	3-pole, white	1000	6418677116605
NK5FH.W	5-pole, white	1000	6418677116612
Other accessories			
NAK3A.W	3-pole intermediate coupling, white	200	6418677113833
NAK5A.W	5-pole intermediate coupling, white	100	6418677681240
NCK5A.G	5-pole intermediate coupling, grey	100	6418677681257



NK2F.W



NS5M.W



NKB.W

PCB couplers

Pole	Color	Mechanical code	Marking	Vertical		Vertical, one latch	Horizontal		Horizontal, one latch
				Plug	Socket	Socket	Plug	Socket	Socket
2	White	A	1, N		NAE22V.W 6418677116674			NAE22H.W 6418677116650	
2	Blue	B	A, B		NBE22V.S 6418677116872	NBE22VH1.S 6418677116896		NBE22H.S 6418677116841	NBE22HH1.S 6418677116865
2	Grey	C	a+, b-		NCE22V.G 6418677701306			NCE22H.G 6418677701276	NCE22HH1.G 6418677701290
3	White	A	1, PE, N	NAE31V.W 6418677723575	NAE32V.W 6418677116711	NAE32VH2.W 6418677116735	NAE31H.W 6418677723551	NAE32H.W 6418677113925	NAE32HH2.W 6418677116704
3	Blue	B	A, B, C	NBE31V.S 6418677723612	NBE32V.S 6418677116933	NBE32VH1.S 6418677116957	NBE31H.S 6418677723599	NBE32H.S 6418677116902	NBE32HH1.S 6418677116926
3	Grey	C	a+, PE, b-	NCE31V.G 6418677723650	NCE32V.G 6418677701344	NCE32VH1.G 6418677701368	NCE31H.G 6418677723636	NCE32H.G 6418677701313	NCE32HH1.G 6418677701337
3	Red	C	1, PE, N	NCE31V.P 6418677724275			NCE31H.P 6418677724268		
4	White	A	1, PE, N, 2		NAE42V.W 6418677116773	NAE42VH2.W 6418677116797		NAE42H.W 6418677116742	NAE42HH2.W 6418677116766
5	White	A	1, 2, PE, N, 3	NAE51V.W 6418677701016	NAE52V.W 6418677116827		NAE51H.W 6418677700996	NAE52H.W 6418677116803	
5	Blue	B	A, B, C, D, E	NBE51V.S 6418677701177	NBE52V.S 6418677116988		NBE51H.S 6418677701153	NBE52H.S 6418677116964	
6	White	A+B	1, PE, N, A, B, C		NGE6233V.W 6418677709296				

Package size: 2-4-pole 200 pcs, 5-pole 100 pcs, 6-pole 250 pcs.



NBE22V.S



NCE31V.G



NAE42VH2.W



NBE52H.S

Accessories

Product code	Description	Package size (pcs)	GTIN-13
NKTE.W	PCB-coupler support, white	1000	6418677708268







4

Industrial luminaires

For demanding environments

Ensto solves industrial lighting needs. Paper mill or parking hall; our efficient, wide and light technically superior portfolio suits almost everywhere. We are also a leading manufacturer of market lighting and we'll make sure that your projects gets to the goal.

Ensto is a leading Finnish manufacturer of energy efficient lighting solutions. The principles behind the design of our luminaires are energy efficiency, easy to install and high-quality lighting techniques.



Tino

Versatile power pack for industrial and market use



Energy-efficient, low maintenance, industrial IP44 LED allround luminaire. Wide selection of optics and power options enables use of Tino in various applications from supermarkets to logistic centers and parking halls.



Structure

- › Body aluminium profile, end caps aluminium, colour white
- › Diffuser clear (C) or frosted (F) acrylic
- › Optics:
 - Wide beam (WB)
 - Medium beam (MB)
- › DALI and basic models
- › 4000 K, power factor 0,98, Ra > 80
- › Ambient temperature - 20 °C - + 30 °C
- › LED-luminaire lifespan 100 000h
- L70B50F10
- Ta=25 °C

Mounting

- › Directly to the ceiling with AMJK1 spring brackets (included in the delivery)
- › To the lighting suspension rail (MEK) with AMJK2 spring brackets
- › Through-wired -o-o- 5 x 2,5 mm², controlled models 1-phase for through-wiring

Made to order

- › Switch-Control
- › With connection lead
- › With asymmetrical light distribution, light distribution curves when requested (excl. TN3-models)
- › Product codes as Tino G2-basic models, but however the 4. character is 1 (e.g. TN2134WBF)
- › RA > 90-models made to order, luminous flux is ca. 15% lower than in Ra >80-models
- › 3000 K -models
- › With spring brackets for XYRV, OBO and Elwia MP lighting suspension rails
- › Tino LED -versions to Helvar's Select the Weather solution
- › Optimized luminous flux versions to projects

GTIN-13	Type	Product name	Output	Weight (Kg)	Length	Luminous flux
With wide beam optics, clear diffuser						
6410043603924	TN2234WBC	TN2234WBC LED IP44 41W/840 ACC	41W	1.8	880	6003 lm
6410043603948	TN2234WBCED	TN2234WBCED 41W/840 AC C DALI	41W	1.8	880	6003 lm
6410043604075	TN2244WBC	TN2244WBC LED IP44 54W/840 ACC	54W	2.4	1160	7936 lm
6410043604099	TN2244WBCED	TN2244WBCED 54W/840 AC C DALI	54W	2.4	1160	7936 lm
6410043604228	TN2254WBC	TN2254WBC LED IP44 66W/840 ACC	66W	3.0	1440	10057 lm
6410043604259	TN2254WBCED	TN2254WBCED 66W/840 AC C DALI	66W	3.0	1440	10057 lm
With wide beam optics, frosted diffuser						
6438389006704	TN3134WBF	TN3134WBF LED IP44 41W/840 ACF	41W	1.8	880	5240 lm
6438389006711	TN3134WBFED	TN3134WBFED LED IP44 41W/840 ACF DALI	41W	1.8	880	5240 lm
6410043603979	TN2234WBF	TN2234WBF LED IP44 41W/840 ACF	41W	1.8	880	5904 lm
6410043603986	TN2234WBFED	TN2234WBFED 41W/840 AC F DALI	41W	1.8	880	5904 lm
6438389006728	TN3144WBF	TN3144WBF LED IP44 53W/840 ACF	53W	2.4	1160	7500 lm
6438389006735	TN3144WBFED	TN3144WBFED LED IP44 53W/840 ACF DALI	53W	2.4	1160	7500 lm
6410043604129	TN2244WBF	TN2244WBF LED IP44 54W/840 ACF	54W	2.4	1160	7880 lm
6410043604136	TN2244WBFED	TN2244WBFED 54W/840 AC F DALI	54W	2.4	1160	7880 lm
6438389006742	TN3154WBF	TN3154WBF LED IP44 65W/840 ACF	65W	3.0	1440	9260 lm
6438389006759	TN3154WBFED	TN3154WBFED LED IP44 65W/840 ACF DALI	65W	3.0	1440	9260 lm
6410043604303	TN2254WBF	TN2254WBF LED IP44 66W/840 ACF	66W	3.0	1440	9885 lm
6410043604310	TN2254WBFED	TN2254WBFED 66W/840 AC F DALI	66W	3.0	1440	9885 lm
With medium beam optics, clear diffuser						
6410043603863	TN2234MBC	TN2234MBC LED IP44 41W/840 ACC	41W	1.8	880	5841 lm
6410043603887	TN2234MBCED	TN2234MBCED 41W/840 AC C DALI	41W	1.8	880	5841 lm
6410043604013	TN2244MBC	TN2244MBC LED IP44 54W/840 ACC	54W	2.4	1160	7812 lm
6410043604037	TN2244MBCED	TN2244MBCED 54W/840 ACC DALI	54W	2.4	1160	7812 lm
6410043604167	TN2254MBC	TN2254MBC LED IP44 66W/840 ACC	66W	3.0	1440	9826 lm
6410043604181	TN2254MBCED	TN2254MBCED 66W/840 AC C DALI	66W	3.0	1440	9826 lm
With medium beam optics, frosted diffuser						
6438389006766	TN3134MBF	TN3134MBF LED IP44 41W/840 ACF	41W	1.8	880	5220 lm
6438389006773	TN3134MBFED	TN3134MBFED LED IP44 41W/840 ACF DALI	41W	1.8	880	5220 lm
6410043603894	TN2234MBF	TN2234MBF LED IP44 41W/840 ACF	41W	1.8	880	5845 lm
6410043603917	TN2234MBFED	TN2234MBFED 41W/840 AC F DALI	41W	1.8	880	5845 lm
6438389006780	TN3144MBF	TN3144MBF LED IP44 53W/840 ACF	53W	2.4	1160	7480 lm
6438389006797	TN3144MBFED	TN3144MBFED LED IP44 53W/840 ACF DALI	53W	2.4	1160	7480 lm
6410043604044	TN2244MBF	TN2244MBF LED IP44 54W/840 ACF	54W	2.4	1160	7777 lm
6410043604068	TN2244MBFED	TN2244MBFED 54W/840 AC F DALI	54W	2.4	1160	7777 lm
6438389006803	TN3154MBF	TN3154MBF LED IP44 65W/840 ACF	65W	3.0	1440	9210 lm
6438389006810	TN3154MBFED	TN3154MBFED LED IP44 65W/840 ACF DALI	65W	3.0	1440	9210 lm
6410043604198	TN2254MBF	TN2254MBF LED IP44 66W/840 ACF	66W	3.0	1440	9775 lm
6410043604211	TN2254MBFED	TN2254MBFED 66W/840 AC F DALI	66W	3.0	1440	9775 lm
Mounting accessories						
6418584168346	AMJK1	AMJK1 SPRING BRACKET PAIR	Spring bracket pair			
6418584168445	AMJK2	AMJK2 SPRING BRACKET PAIR	Spring bracket pair for suspension rail mounting, rail width 70 mm			
6410042653821	AMJK2V	AMJK2V SPRING BRACKET PAIR, WHITE	Spring bracket pair for suspension rail mounting, rail width 70 mm			
6410042653050	AMJK3	AMJK3 SPRING BRACKET PAIR	Spring bracket pair for suspension rail mounting, rail width 110 mm			
6410043600831	AMJK3V	AMJK3V SPRING BRACKET PAIR, WHITE	Spring bracket pair for suspension rail mounting, rail width 110 mm			



Tino with clear diffuser



Tino with frosted acrylic diffuser



Marlo

Versatile, high-quality optics



Marlo was specifically designed as a lighting solution for retail premises. It is ideal for supermarkets and other store and warehouse premises that require optimal lighting system properties with regard to general lighting, highlighting, and glare. Marlo offers the perfect solution for various types of lighting projects.



Structure

- › Body, white powder coated aluminium
- › End caps - shockproof, heat and UV resistant white ABS plastic
- › Lens optics PC or acrylic (3R)
- › Optics:
 - Wide beam angle (WB/90°)
 - Medium beam angle (MB/60°)
 - Rack beam optics (O)
 - Shelf optics (DAS)
- › DALI and basic models
- › Lumen output and length: See the table
- › 4000 K, power factor 0,98, Ra>80
- › Ambient temperature range -20 °C to 30 °C
- › LED-luminaire lifespan 100000 h (L70B50), Ta= 25 °C

Mounting

- › Ceiling mounting with AMJK1 spring brackets included
- › Suspension rail (MEK) with AMJK2 spring brackets
- › Made to order: Through wiring sets for different lengths

Made to order

- › With connection lead
- › More optics options
- › EnstoNET connectors (note: IP20)
- › 3000 K models
- › Project-specific luminous flux packages
- › Models with micro-prismatic optics: With connection lead or EnstoNET connectors
- › Sensor solutions
- › Through wiring set
- › Customized spring brackets for lighting suspension rails

GTIN-13	Type	Product name	Output	Weight (Kg)	Length	Luminous flux
Marlo - Wide beam angle (WB)						
6438389006261	MA12WB	MA12WB LED IP23 42W/840	42W	3.1	1190	5500 lm
6438389006285	MA12WBED	MA12WBED LED IP23 42W/840 DA	42W	3.1	1190	5500 lm
6438389006278	MA15WB	MA15WB LED IP23 52W/840	52W	3.7	1470	7370 lm
6438389006292	MA15WBED	MA15WBED LED IP23 52W/840 DA	52W	3.7	1470	7370 lm
6438389007275	MA123RWB	MA123RWB LED IP23 39W/840	39W	3.4	1190	5840 lm
6438389007299	MA123RWBED	MA123RWBED LED IP23 39W/840 DA	39W	3.4	1190	5840 lm
6438389007282	MA153RWB	MA153RWB LED IP23 49W/840	49W	4.1	1470	7300 lm
6438389007305	MA153RWBED	MA153RWBED LED IP23 49W/840 DA	49W	4.1	1470	7300 lm
Marlo - Medium beam angle (MB)						
6438389006308	MA12MB	MA12MB LED IP23 42W/840	42W	3.1	1190	5940 lm
6438389006322	MA12MBED	MA12MBED LED IP23 42W/840 DA	42W	3.1	1190	5940 lm
6438389006315	MA15MB	MA15MB LED IP23 52W/840	52W	3.7	1470	7430 lm
6438389006339	MA15MBED	MA15MBED LED IP23 52W/840 DA	52W	3.7	1470	7430 lm
6438389007312	MA123RMB	MA123RMB LED IP23 39W/840	39W	3.4	1190	5840 lm
6438389007336	MA123RMBED	MA123RMBED LED IP23 39W/840 DA	39W	3.4	1190	5840 lm
6438389007329	MA153RMB	MA153RMB LED IP23 49W/840	49W	4.1	1470	7380 lm
6438389007343	MA153RMBED	MA153RMBED LED IP23 49W/840 DA	49W	4.1	1470	7380 lm
Marlo - Rack beam optics (O)						
6438389006346	MA12O	MA12O LED IP23 42W/840	42W	3.1	1190	5780 lm
6438389006360	MA12OED	MA12OED LED IP23 42W/840 DA	42W	3.1	1190	5780 lm
6438389006353	MA15O	MA15O LED IP23 52W/840	52W	3.7	1470	7230 lm
6438389006377	MA15OED	MA15OED LED IP23 52W/840 DA	52W	3.7	1470	7230 lm
6438389007350	MA123RO	MA123RO LED IP23 39W/840	39W	3.4	1190	5800 lm
6438389007374	MA123ROED	MA123ROED LED IP23 39W/840 DA	39W	3.4	1190	5800 lm
6438389007367	MA153RO	MA153RO LED IP23 49W/840	49W	4.1	1470	7490 lm
6438389007381	MA153ROED	MA153ROED LED IP23 49W/840 DA	49W	4.1	1470	7490 lm
Marlo - Shelf optics (DAS)						
6438389006971	MA12DAS	MA12DAS LED IP23 42W/840	42W	3.1	1190	5860 lm
6438389006995	MA12DASED	MA12DASED LED IP23 42W/840 DA	42W	3.1	1190	5860 lm
6438389006988	MA15DAS	MA15DAS LED IP23 52W/840	52W	3.7	1470	7330 lm
6438389007008	MA15DASED	MA15DASED LED IP23 52W/840 DA	52W	3.7	1470	7330 lm
6438389007398	MA123RDAS	MA123RDAS LED IP23 39W/840	39W	3.4	1190	5880 lm
6438389007411	MA123RDASED	MA123RDASED IP23 39W/840 DA	39W	3.4	1190	5880 lm
6438389007404	MA153RDAS	MA153RDAS LED IP23 49W/840	49W	4.1	1470	7600 lm
6438389007428	MA153RDASED	MA153RDASED IP23 49W/840 DA	49W	4.1	1470	7600 lm
Mounting accessories						
6418584168346	AMJK1	AMJK1 SPRING BRACKET PAIR	Spring bracket pair			
6418584168445	AMJK2	AMJK2 SPRING BRACKET PAIR	Spring bracket pair for suspension rail mounting, rail width 70 mm			
6410042653821	AMJK2V	AMJK2V SPRING BRACKET PAIR, WHITE	Spring bracket pair for suspension rail mounting, rail width 70 mm			
6410042653050	AMJK3	AMJK3 SPRING BRACKET PAIR	Spring bracket pair for suspension rail mounting, rail width 110 mm			
6410043600831	AMJK3V	AMJK3V SPRING BRACKET PAIR, WHITE	Spring bracket pair for suspension rail mounting, rail width 110 mm			



Marlo



Marlo 3R



Marlo with microprismatic optic



EnstoNET connectors


Marlo is perfect for completing EnstoNet electrification in market premises.



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ENSTO

Ensto Finland Oy
Ensio Miettisen Katu 2, P.O. Box 77
FIN-06101 Porvoo, Finland
Tel. +358 204 76 21
electrification@ensto.com

ensto.com

