Ensto Connectors



Ensto connectors have been used around the world since the mid 1960's. Our connectors are designed to resist corrosion and bimetallic electrochemical reactions and to endure varying mechanical tensions and other forces detrimental to the connection. Our portfolio includes:

- Weather- and waterproof insulation piercing connectors
- Parallel groove connectors for both Al/Al and Al/Cu conductors
- Insulating covers for the connectors
- Busbar connectors, cable lugs, cable joints

Ensto's SLIP connectors have a special multitooth construction. In comparison with the conventional blade type connectors the SLIP-series with many contact points offers many advantages:

- 1. Less mechanical damage to the main conductor
- 2. Better electrical features
- 3. Waterproof according to CENELEC TC20-WG11 SG LV-ABC
- 4. Endures vibration better

We recommend SLIP-connectors especially for Four Core System, in which the mechanical tension is applied in all conductors.



SLIP 22.1

Insulation Piercing Connectors

Weatherproof connectors for aluminium and /or copper main and branch conductors. The material is hard, corrosion resistant aluminium alloy with a tensile strength of 300 N/mm². The teeth are either of pure aluminium or tin-plated aluminium. The shape of the teeth prevents the water from entering into the conductor thus protecting the conductor against corrosion. The insulation covers are made of weather and UV resistant thermoplastic. All products are tested according to international and many national standards.

Insulation piercing connector SLIP 12.05

Easy to use also for live installations. The shear head is insulated from the bolt and the connector body. Equipped with shear head screw.

CAT.NO.	EAN	CONDUCTORS mm ²	5	CONDUCTOR DIA mm	WEIGHT g	PACKAGE pcs
		MAIN	BRANCH			
SLIP12.05	6418677441783	Al/Cu 10 - 50	Al/Cu 1.5- 50	3-12.1	100	50

Insulation piercing connector SLIP 12.1

Easy to use also for live installations. The shear head is insulated from the bolt and the connector body. Equipped with shear head screw.

CAT.NO.	EAN	CONDUCTORS mm ²		CONDUCTOR DIA mm	WEIGHT g	PACKAGE
		MAIN	BRANCH			
SLIP 12.1	6418677429033	1,5-95 Al/Cu	1,5-50 Al/Cu	3-12.1	100	50



For connecting uninsulated aluminium to insulated aluminium. The design enables hot line installation without peeling the insulation of the service conductor. Equipped with shear head screw. Cover body is black and cover hat is greyish blue.

CAT.NO.	EAN	CONDUCTORS mm ²	5	CONDUCTOR DIA mm	WEIGHT g	PACKAGE pcs
		MAIN	BRANCH			
SLIP 12.127	6418677446023	Al/Cu 10-70	Al/Cu 1.5-50	3-12.1	100	50

Insulation piercing connector SLIP 22.1

Easy to use also for live installations. The shear head is insulated from the bolt and the connector body. Equipped with shear head screw.

CAT.NO.	EAN	CONDUCTOF mm ²	RS	CONDUCTOR DIA mm	WEIGHT g	PACKAGE pcs	
		MAIN	BRANCH				
SLIP 22.1	6418677403842	10-95 Al 1.5-70 Cu	10-95 Al 1.5-70 Cu	3-16	115	50	

Insulation piercing connector SLIP 22.12

For connecting uninsulated aluminium to insulated aluminium. The design enables hot line installation without peeling the insulation of the service conductor. Equipped with shear head screw. Cover body is black and cover hat is grey.

CAT.NO.	EAN	CONDUCTO mm ²	DRS	CONDUCTOR DIA mm		WEIGHT g	PACKAGE
		MAIN	BRANCH	MAIN	BRANCH		
SLIP 22.12	6418677416187	25-95 Al	2.5-95 Al	6.5-13	3.5-16	120	50











Insulation piercing connector SLIP 22.127

For connecting uninsulated aluminium or copper to insulated aluminium or copper. The design enables hot line installation without peeling the insulation of the service conductor. Equipped with shear head screw.

CAT.NO.	EAN	CONDUCTO mm ²	CONDUCTORS mm ²		CONDUCTOR DIA mm		PACKAGE pcs
		MAIN	BRANCH	MAIN	BRANCH		
SLIP 22.127	641677416194	25-95 Al 25-70 Cu	2.5-95 Al 1.5-70 Cu	6.5-13	3-16	120	50

Insulation piercing connector SLIP 32.2 and SLIP 32.21

SLIP 32.x connectors have a special multitooth construction. In comparison with the conventional blade type connectors the SLIP-series with many contact points offers many advantages for examples less mechanical damage to the main conductor, better electrical features, endures vibration better and no need for additional end-caps. SLIP 32.x is safe and easy to use also for live installations.

CAT.NO.	EAN	CONDUCTORS mm ²		CONDUCTOR DIA mm	WEIGHT	PACKAGE pcs
		MAIN	BRANCH			
SLIP 32.2	6418677442001	Al/Cu 16-150	Al 16-120	7-19	150	50
			Cu 16-95			
SLIP 32.21	6418677442018	Al/Cu 16-150	Al 16-120	7-19	150	50
			Cu 16-95			

Insulation piercing connectors SL 11.11 and SL 11.118

Universal connector for all combinations of aluminium and copper main and branch conductors. SL 11.118 is for PEX insulated conductor.

CAT.NO.	EAN	CONDUCTORS mm ²		CONDUCTOR DIA mm	TIGHTENING TORQUE Nm	WEIGHT g	PACKAGE pcs
		MAIN	BRANCH				
SL 11.11	6418677403507	10-95 Al	10-95 Al	3-16	20	115	50
		1.5-70 Cu	1.5-70 Cu				
SL 11.118	6418677403538	"			26	115	50

Multitap insulation piercing connectors SL 29.4 and SL 29.8

Used together with SLIP 22.1 or SL 11.11, SL 11.118, SL 24.

CAT.NO.	EAN	CONDUCTORS	CONDUCTORS	TIGHTENING	WEIGHT	PACKAGE
		mm²	DIA mm	TORQUE Nm	g	pcs
SL 29.4	6418677403682	2x(1.5-25) Cu or 2x(10-35) Al	3-10.9	15	150	50
SL 29.8	6418677403699	4x(1.5-25) Cu or 4x(10-35) Al	"	15	270	25

Insulation piercing connector SL 24

All connections of insulated Al and Cu main and branch conductors.

CAT.NO.	EAN	CONDUCTORS mm ²		CONDUCTORS DIA mm		TIGHTENING TORQUE Nm	WEIGHT g	PACKAGE
		MAIN	BRANCH	D1	D2			
SL 24	6418677403620	10-150Al 10-95Cu	10-54.6Al 10-35Cu	6-19	6-13.3	26	135	50

Insulation piercing connector SL 16.24

SL 16.24 is for PEX insulated conductor.

CAT.NO.	EAN	CONDUCTORS mm ²		CONDUCTORS DIA mm		TIGHTENING TORQUE Nm	WEIGHT g	PACKAGE
		MAIN	BRANCH	D1	D2			
SL 16.24	6418677403576	50-150 Al 10-95 Al/Cu	50-120 Al 10-95 Al/Cu	6-19	6-16	26	270	25











Insulation piercing connectors SL 9.11 and SL 9.2

SL 9.21 is equipped with springs made of stainless steel to make the installation easier. SL 9.11 is with one bolt. SL 9.22 is equipped with a threaded hole for a surge arrester. The connector has teeth in one

CAT.NO.	EAN	CONDUCTOR mm ²	CONDUCTORS mm ²		UCTORS m	TIGHTENING TORQUE Nm	WEIGHT g	PACKAGE pcs
		MAIN	BRANCH	D1	D2			
SL 9.11	6418677403804	16-120 Al	16-35 Al	7-18	4.6-7.5	20	100	50
SL 9.2	6418677403811	16-120 Al	16-95 Al	7-18	4.6-12	20	150	50
SL 9.21	6418677403828	16-120 Al	16-95 Al	7-18	4.6-12	20	150	50
SL 9.22	6418677403835	16-120 Al	16-95 Al	7-18	4.6-12	20	150	50

Insulation piercing connectors SM 6.2 and SM 6.21

Used for aluminium to copper connections. SM 6.21 is equipped with springs made of stainless steel to make the installation easier. The connector has teeth in one groove, only.

CAT.NO.	EAN	CONDUCTORS mm ²		CONDUCTORS DIA mm		TIGHTENING TORQUE Nm	WEIGHT g	PACKAGE pcs
		MAIN	BRANCH	D1	D2			
SM 6.2	6418677403972	16-95 Al	6-35 Cu	7-16	2.8-7.5	20	160	50
SM 6.21	6418677403989	16-95 Al	6-35 Cu	7-16	2.8-7.5	20	160	50

End caps PK 99

Grease filled end caps are used for preventing water entry into the end of the branch cable.

CAT.NO. EAN		CONDUCTORS	CONDUCTORS	PACKAGE
		mm ²	DIA mm	pcs
PK 99.025	6418677400995	16-25	7-9.4	1/1000
PK 99.050	6418677401008	35-50	9.8-12	1/500
PK 99.095	6418677401015	70-95	12.9-16	1/400
PK 99.2595	6418677401015	25-95(120)	8.4-18	12/300

Waterproof insulation piercing connector SLIW 11.1

For use with insulated aluminium or copper conductors. Fully insulated bolt provides safe live line working. Both main and branch conductor insulations are pierced by single bolt action. Test voltage 6 kV /50 Hz/1 min in water.

CAT.NO.	EAN	CONDUCTORS		CONDUCTORS	WEIGHT	PACKAGE
		mm ²		DIA mm	g	pcs
		MAIN	BRANCH			
SLIW 11.1	6418677403651	Al/Cu	Al/Cu	6.9-15.5	50	120
		16-95	1.5-10	2.2-6		

Waterproof insulation piercing connector SLIW 15.1

For use with insulated Al or Cu conductors. Fully insulated bolt provides safe live line working. Both main and branch conductor insulations are pierced by single bolt action. Shear head bolt and end cap are included. Test voltage 6 kV /50 Hz/1 min in water.

CAT.NO.	EAN	CONDUC mm ²	TORS	CONDUCT DIA mm	ORS	WEIGHT 9	PACKAGE
		MAIN	BRANCH	MAIN	BRANCH	•	•
SLIW 15.1	6418677410734	25-95 Al/Cu	6-50 Al/Cu	9.7-16.1	5.9-12.1	85	50

Waterproof insulation piercing connectors SLIW 17.1 and SLIW 17.2

For use with insulated aluminium or copper conductors. The design enables live line installation without peel-ing the insulation of the conductors. Fully insulated bolt provides safe live line working. Both main and branch conductor insulations are pierced by single bolt action. Test voltage 6 kV /50 Hz/1 min in water.

CAT.NO.	EAN	CONDUCTORS mm ²	CONDUCTORS mm ²		WEIGHT g	PACKAGE pcs
		MAIN	BRANCH			
SLIW 17.1	6418677414398	Al/Cu 25-150	Cu 25-70, Al 95	7-18	127	50
SLIW 17.2	6418677414688	Al/Cu 25-150	Cu 25-120, Al 150	7-18	260	50

groove, only.











Aluminium to Aluminium Parallel Groove Connectors

Connectors for aluminium or steel to aluminium connection, where no mechanical tension is involved. The patented lower section of the body protects the bolts from corrosion and makes the tightening of the bolts easy (with fork wrench ST 34). The correct tightening torque is essential to the connection. The connectors are made of corrosion-resistant aluminium alloy with a tensile strength of 300 N/mm2. The 8.8 bolts are hot-dip galvanised.

Aluminium to aluminium connectors SL 37.1, SL 37.2 and SL 37.201

SL 37.1 is equipped with one M8 bolt, SL 37.2 with two M8 bolts. Connector SL 37.201 is equipped with two M8 shear head bolts.

CAT.NO.	EAN	CONDUC mm ²	TORS	COND DIA m	UCTORS	TIGHTENING torque Nm	SUITABLE COVER	WEIGHT g	PACKAGE pcs
		MAIN	BRANCH	MAIN	BRANCH				
SL 37.1	6418677414404	Al 6-95	Al 6-95	3-13	3-13	22	SP 15	55	200
SL 37.2	6418677414411	Al 6-95	Al 6-95	3-13	3.5-13	22	SP 15	100	50
SL 37.201	6418677414602	Al 6-95	Al 6-95	3-13	3.5-13	22	SP 15	100	50

Aluminium to aluminium connector SL 39.2

SL 39.2 connector is used in non tension aluminium to aluminium connections. It is not necessary to dismantle the connector during the installation work.

CAT.NO.	EAN	CONDUCTORS mm ² MAIN BRANCH	CONDUCTORS DIA mm	TIGHTENING TORQUE Nm	SUITABLE COVER	WEIGHT g	PACKAGE pcs
SL 39.2	6418677419607	Al 16-150 Al 16-150	4.5-17.5	22	SP 15	120	50

Aluminium to aluminium connector SL 2.11

SL 2.11 is brushed and prepared with joint compound; thus only the conductors need brushing and greasing. SL 2.11 is packed in individual plastic bags.

CAT.NO.	EAN	CONDUCTORS mm ²		CONDUCTORS DIA mm	TIGHTENING TORQUE Nm	SUITABLE COVER	WEIGHT g	PACKAGE
		MAIN	BRANCH					
SL 2.11	6418677403606	16-50 Al	16-50 Al	4.6-8.6	20	SP 14	50	200

Aluminium to aluminium connectors SL 4.21, SL 4.25 and SL 8.21

SL 4.21 and SL 8.21 are brushed and prepared with joint compound; thus only the conductors need brushing and greasing. SL 4.25 is equipped with springs.

CAT.NO.	EAN	CONDUCTO mm ²	RS	CONDUCTORS DIA mm	TIGHTENING TORQUE Nm	SUITABLE COVER	WEIGHT g	PACKAGE pcs
		MAIN	BRANCH					
SL 4.21	6418677403736	Al 16 - 120	Al 16 - 120	4.6-13.2	20	SP 15	125	50
SL 4.25	6418677403750	Al 16 - 120	Al 16 - 120		20	SP 15	125	50
SL 8.21	6418677403781	Al 50 - 240	Al 50 - 240	8.6-20	44	SP 16	280	25









Multi-connector SL 19.4 and insulation covers SP 24 and SP 25

Used for the branching of 1-3 out-going cables, max. 120 mm² Al. The insulation covers SP 24 and SP 25 are made of weather and UV-radiation resistant thermoplastic. SP 24 has cable outlets in one end and SP 25 has cable outlets in both ends.

CAT.NO.	EAN	CONDUCT mm ² MAIN	ORS BRANCH	CONDUCTORS DIA mm	SUITABLE COVER	WEIGHT g	PACKAGE pcs
SL 19.4	6418677403583	Al 16-120	Al 16-120	4.6-13.2	SP 24 SP 25	250	25
SP 24	6418677405259	insulation o	over			40	25
SP 25	6418677408175	insulation o	over			40	25

Surge arresters with insulation piercing connectors SE 45 and SE 46

Thanks to the special construction SE 45 and SE 46 connectors are screwed to the lower part of connector leading to proper electrical connection. The defective surge arresters can easily be replaced with a new one; there is no need to uninstall the connector from the conductor.

Connectors are equipped with shear head bolts and can be installed using standard tools, no need for torque wrench. The design enables live line installation, shear heads are insulated from the connector body.

Surge arresters with insulation piercing connectors SE 45

The new SE 45 series is especially designed for surge arrester on LV overhead lines. These connectors can not be used for branching. The connectors can be installed on insulated Al/Cu conductors with cross section range $10 - 150 \text{ mm}^2$. Ensto offers also SE 45.1 connector without a surge arrester.

CAT.NO.	EAN	SURGE ARRESTER		RATED	DISCONNECTOR	WEIGHT	PACKAGE
			VOLTAGE V	CURRENT kA	g	psc	
SE45.128-5	6418677428906	SGA128-5	280	5	-	220	20
SE45.144-5	6418677428913	SGA144-5	440	5	-	220	20
SE45.166-5	6418677428920	SGA166-5	660	5	-	220	20
SE45.128-10	6418677428937	SGA128-10	280	10	-	220	20
SE45.144-10	6418677428944	SGA144-10	440	10	-	220	20
SE45.166-10	6418677428951	SGA166-10	660	10	-	220	20
SE45.328-5	6418677434969	SGA328-5	280	5	+	220	20
SE45.344-5	6418677434969	SGA328-5	440	5	+	220	20
SE45.366-5	6418677434983	SGA366-5	660	5	+	220	20
SE45.328-10	6418677432767	SGA328-10	280	10	+	220	20
SE45.344-10	6418677433382	SGA344-10	440	10	+	220	20
SE45.366-10	6418677433399	SGA366-10	660	10	+	220	20



SE 46 series includes surge arrester on the lower part of the connector. Connectors can be installed on insulated conductors and branch executions, and there is no need for another connector when branching. Connector can be installed on insulated $10 - 95 \text{ mm}^2 \text{ Al conductors}$ and $1,5 - 70 \text{ mm}^2 \text{ Cu conductors}$. Ensto offers also SE 46.1 connector without a surge arrester.

CAT.NO.	EAN	SURGE ARRESTER	CONTINUOUS OPERATING	RATED DISCHARGE	DISCONNECTOR	WEIGHT	PACKAGE
			VOLTAGE V	CURRENT kA	g	psc	
SE46.128-5	6418677428975	SGA128-5	280	5	-	250	20
SE46.144-5	6418677428982	SGA144-5	440	5	-	250	20
SE46.166-5	6418677428999	SGA166-5	660	5	-	250	20
SE46.128-10	6418677429002	SGA128-10	280	10	-	250	20
SE46.144-10	6418677429019	SGA144-10	440	10	-	250	20
SE46.166-10	6418677429026	SGA166-10	660	10	-	250	20
SE46.328-5	6418677432736	SGA328-5	280	5	+	250	20
SE46.344-5	6418677432804	SGA344-5	440	5	+	250	20
SE46.366-5	6418677430695	SGA366-5	660	5	+	250	20
SE46.328-10	6418677432774	SGA328-10	280	10	+	250	20
SE46.344-10	6418677433405	SGA344-10	440	10	+	250	20
SE46.366-10	6418677433412	SGA366-10	660	10	+	250	20









Aluminium to Copper Parallel Groove Connectors

Connectors for aluminium or steel to copper connections, where no mechanical tension is involved. The patented lower section of the body protects the bolts from corrosion and makes tightening of the bolts easy, using fork wrench ST 34. The correct tightening torque is essential to the connection.

The body is made of corrosion resistant aluminium alloy with tin plated copper in-linings on the copper conductor side. The interface edges between the body and the linings are painted to prevent corrosion. The bolts are of hot-dip galvanized steel. All connectors are brushed and prepared with joint compound.

Aluminium to copper connectors SM 1.11, SM 2.11, SM 2.21, SM 2.25 and SM 4.21

The connectors are brushed and prepared with joint compound; thus only the conductors need brushing and greasing. SM 2.25 is equipped with springs to make the installation even easier.

CAI.NO.	EAN	mm ²		DIA mm	IORS	TORQUE Nm	COVER	q	PACKAGE
		MAIN	BRANCH	MAIN	BRANCH	l		-	
SM 1.11	6418677403880	10-50	1.5-10	3.5-8.6	1.35-3.6	20	SP 14	65	200
SM 2.11	6418677403903	16-95	2.5-25	4.6-10	2.3-6.5	20	SP 15	80	100
SM 2.21	6418677403927	16-120	6-35	4.6-13.2	2.8-7.5	20	SP 15	130	50
SM 2.25	6418677403941	16-120	6-35	4.6-13.2	2.8-7.5	20	SP 15	130	50
SM 4.21	6418677403965	50-240	10-95	8.6-20	3.5-12.5	44	SP 16	320	25



Aluminium / copper to aluminium / copper connectors SL 4.26, SL 14.2 and SL 37.27

For Al or Cu to Al or Cu connections where no mechanical tension is involved. The body is made of tin plated aluminium alloy, and the bolts are hot-dip galvanised steel.

CAT.NO.	EAN	CONDUCTORS		CONDUCTORS		TIGHTENING	SUITABLE	WEIGHT 9	PACKAGE pcs
		MAIN	BRANCH	MAIN	BRANCH			5	P • • •
SL 4.26	6418677403767	Al/Cu	Al 16-120	6.4-13.2	6.4-13.2	20	SP 15	125	50
		16 - 120	Cu 16-95						
SL 14.2	6418677403552	Al 50-240	Al 50-185	7.7-19	7.7-16	44	SP 16	280	25
		Cu 50-185	Cu 50-150						
SL 37.17	6418677436116	Al 6-95	Al 6-95	3-13	3-13	22	SP 15	55	200
		Cu 6-70	Cu 6-70						
SL 37.27	6418677416118	Al/Cu	Al/Cu	3-13	3-13	22	SP 15	100	50
		6-95	6-95						
SL 39.27	6418677438905	Al/Cu	Al 16-150	4.5-17.5	4.5-17.5	22	SP 15	120	50
		16-150	Cu 10-120						



Copper to copper crimp connectors SE 36 and SE 37

For copper to copper connections where also mechanical tension can be involved. The massive C-formed connector secures continuous electrical contact and low resistance

CAT.NO.	EAN	CONDUCTORS	WEIGHT	PACKAGE
		mm²	g	pcs
SE 36	6418677402043	Cu 10-25	18	100
SE 37	6418677406768	Cu 50-70	84	100



Copper to copper connector SE 12.1

For copper to copper connections where no mechanical tension is involved. The connector is made of copper and the bolt is stainless steel.

CAT.NO.	EAN	CONDUCTORS mm ²		CONDUCTORS DIA mm	TIGHTENING TORQUE Nm	WEIGHT g	PACKAGE pcs
		MAIN	BRANCH				
SE 12.1	6418677401831	16-70	10-50	3.5-10.7	20	115	100

Insulating covers SP 14, SP 15, SP 16

Used as connector covers. The covers have to be installed so that the drain hole for ambient water is downwards. The covers are made of UV-radiation and weather resistant thermoplastic.

CAT.NO.	EAN	FOR CONNECTORS	WEIGHT	PACKAGE
			g	pcs
SP 14	6418677405204	SL 2.11, SM 1.11	13	10/100
SP 15	6418677405211	SM 2.11, SM 2.21, SL 4.21,	30	10/100
		SL 37.1, SL 37.2, SL 39.2		
SP 16	6418677410208	SM 4.21, SL 8.21, SL 14.2, SL 25.2, SE 20	67	5/50

Automatic tension joints and joint kits

Suitable for uncovered and covered conductors, which have to be peeled. The automatic joints are reliable and the installation is fast to make without tools. The colour codes make it easy to identify the right type. The wedges ensure a safe joint.

CAT.NO.	EAN	CONDUCTORS	CONDUCTORS	COLOUR	WEIGHT	PACKAGE
		mm²	DIA mm	CODE	g	pcs
CIL 63	6418677414220	messenger 35-50	5.81-8.6	orange/red	155	25
CIL 64	6418677414237	messenger 70-95	9.27-12.06	yellow/grey	270	25
CIL 65	6418677414244	messenger 120-150	12.75-14.86	pink/black	543	25
CIL 71	6418677417726	AAC 132, AAC 201	14.73-18.40	green/brown	840	10
CIL 72	6418677418440	AAC 241	18.8-21.7	bluegreen	1080	10

Joint kits CIL 66, 67 and 68 include a joint, an insulation sleeve and an abrasive band.

CAT.NO.	NO. EAN CONDUCTORS		CONDUCTORS	COLOUR	WEIGHT	PACKAGE
		mm²	DIA mm	CODE	g	pcs
CIL 66	6418677414251	KIT Insulated messenger 35-50	5.81-8.6	orange/red	260	1
CIL 67	6418677414268	KIT Insulated messenger 70-95	9.27-12.06	yellow/grey	470	1
CIL 68	6418677414275	KIT Insulated messenger 120-150	12.75-14.86	pink/black	790	1

115 100





Busbar Connectors

Easy-to-install busbar connectors for use in the connection of Al- and Cu-conductors to Al- and Cu-bars in distribution boards and panels.

Used also as components for special connectors. The connector parts are made of corrosion-resistant aluminium alloy with a tensile strength of 300 N/mm². The bolts are of hot-dip galvanized.'

Busbar connector KG 71

The insulation piercing busbar connector facilitates the connection to apparatus terminals of insulated conductors without stripping. The connector body is made of aluminium alloy and tin-coated.

CAT.NO.	EAN	CONDUCTORS mm ²	MAX THICKNESS OF BAR mm	BOLTS	CONDUCTORS DIA mm	TIGHTENING TORQUE Nm	WEIGHT g	PACKAGE pcs
KG 71	6418677400322	Al 16-120 Cu 10-95	7.5	2 M8	7-18	20	205	50

Busbar connectors KG 6.1, KG 41 and KG 16

For connecting Al- conductors to aluminium busbars or tin plated copper busbars in distribution boards, disconnectors, medium and low voltage transformer bushings.

CAT.NO.	EAN	CONDUCTORS	MAX THICKNESS	BOLTS	CONDUCTORS	TIGHTENING	WEIGHT	PACKAGE
		mm ²	OF BAR mm		DIA mm	TORQUE Nm	g	pcs
KG 6.1	6418677400308	Al 16-70	10	2 M8	4.6-10.2	20	120	50
KG 41	6418677400230	Al 16-120	7.5	2 M8	4.6-14	20	160	50
KG 16	6418677400131	Al 16-120	10	2 M10	4.6-14	40	265	25

Busbar connector KG 43

For connecting Al- conductors to aluminium busbars or tin plated copper busbars in distribution boards, disconnectors, medium and low voltage transformer bushings.

CAT.NO.	EAN	CONDUCTORS	MAX THICKNESS	BOLTS	CONDUCTORS	TIGHTENING	WEIGHT	PACKAGE
		mm²	OF BAR mm		DIA mm	TORQUE Nm	g	pcs
KG 43	6418677400254	Al 50-240	10	2 M 10	7.7-20	40	335	25

Busbar connectors KG 26 and KG 26.4

For connecting Al- conductors to aluminium busbars or tin plated copper busbars in distribution boards, disconnectors, medium and low voltage transformer bushings.

CAT.NO.	EAN	CONDUCTORS mm ²	MAX THICKNESS OF BAR mm	BOLTS	CONDUCTORS DIA mm	TIGHTENING TORQUE Nm	WEIGHT g	PACKAGE pcs
KG 26	6418677400209	Al 120-300	15	2 M 12	14-22.5	70	745	10
KG 26.4	6418677400216	4x Al 70-120	15	2 M 12	9.3-14	70	805	10

Busbar connector KG 44

For connecting Al- or Cu- conductors to aluminium busbars or tin plated copper busbars in distribution boards, disconnectors, medium and low voltage transformer bushings.

CAT.NO.	EAN	CONDUCTORS	MAX THICKNESS	BOLTS	CONDUCTORS		WEIGHT	PACKAGE
		mm-	UF BAR MM		DIA MM	TURQUE NM	g	pcs
KG 44	6418677400261	Al 16-120	7.5	2 M 8	4.6-13.2	20	175	50
		Cu 6-35			2.8-7.5			













Busbar connector KG 20

For connecting Cu- conductors to aluminium busbars or tin plated copper busbars in distribution boards, disconnectors, medium and low voltage transformer bushings.

CAT.NO.	EAN	CONDUCTORS	MAX THICKNESS	BOLTS	CONDUCTORS	TIGHTENING	WEIGHT	PACKAGE
		mm²	OF BAR mm		DIA mm	TORQUE Nm	g	pcs
KG 20	6418677400186	Cu 16-185	7.5	2 M 8	4.6-17.5	22	155	50



Copper Bars

Copper bars are used together with busbar connectors to connect Cu- or Al- conductors to high- or low-voltage transformer bushings. It is important to brush and grease the Al-connection. Flat copper bars are tin-plated to reduce corrosion between aluminium and copper. The copper bars and connectors are delivered separately.

Copper bars for one connector

CAT.NO.	EAN	HOLE	BAR	FOR KG	WEIGHT
		DIA mm	mm²	CONNECTORS	g
PSS 10	6418677401138	14	150	All except KG 26	97
PSS 85	6418677401350	22	250	KG 6, KG 16, KG 41,	210
				KG43 KG 44, KG 20	
PSS 85.5	6418677401367	14 and 22	250	KG 6, KG 16, KG 41,	300
				KG43KG 44, KG 20	
PSS 310	6418677401220	22	400	KG 26, KG 20	
PSS 127	6418677401183	14	150	All except KG 26	
PSS 242	6418677401190	22	250	All except KG 26, KG 20	
PSS 309	6418677401213	22	400	KG 26, KG 20	
PSS 309.5	6418677406560	22	400	KG 26, KG 20	
PSS 242.5	6418677401206	14 and 22	250	All except KG 26, KG 20	





PSS 10

1.11





PSS 85.5

PSS 310



Bird Protectors

Flexible bird protector set SP 38.3

Flexible cover for low voltage bushings and transformers. Easy tie fixing. Made of weather and UV resistant rubber. SP 38.3 consists of 3 protector units. Also suitable for MV installation.

CAT.NO.	EAN	WEIGHT g / SET	PACKAGE SETS
SP 38.3	6418677405297	550	10



Cable Lugs, Cable Joints, Earthing Connectors and Earthing Bars

Ensto cable lugs and connectors with shear head bolts make it possible to join cables without pressing tools. We have also complete cable joint kits in our assortment.

Cable lugs KG 9, KG 17 and KG 18

Used for connecting Al-conductors to distribution boards, components and flat bars. The connections have to be brushed and greased. The aluminium parts of the cable lugs are made of corrosion-resistant aluminium alloy with a tensile strength of 300 N/mm². The bolts are hot-dip galvanized and of 8.8. The copper bars are tin-plated.

CAT.NO.	EAN	CONDUCTORS	CONDUCTOR	TIGHTENING	WEIGHT	PACKAGE
		mm²	DIA mm	TORQUE Nm	g	pcs
KG 9	6418677400346	2x(16-70)	4.5-10.2	20	190	50
KG 17	6418677400155	2x(35-120)	6.6-14	40	360	25
KG 18	6418677400179	2x(50-240)	7.7-20	40	453	20

Cable lug KG 50

Used for connecting Al or Cu conductors to Al or Cu bars in distribution boards and components.

CAT.NO.	EAN	CONDUCTORS	CONDUCTOR	TIGHTENING	WEIGHT	PACKAGE
		mm²	DIA mm	TORQUE Nm	g	pcs
KG 50	6418677400278	1x(16-95) or	4.5-12.5	10	100	50
		2x(16-35)	4.5-7.5			



Cable lugs with shear head bolts

Used for aluminium and copper cables. The lugs are made of corrosion resistant aluminium alloy and they are tin-plated. Required torque applied by tightening shear head bolts until break. Also available for Al - conductors only (SAL 1.2, SAL 2.2, SAL 3.2, SAL 4.2).

CAT.NO.	FAN	CONDUCTORS	HOLE	WEIGHT	PACKAGE	
•		mm ²	DIA mm	g	pcs	
SAL 1.27	6418677401404	Al/Cu 6-50	8.5	33	100	
SAL 1.272	6418677401428	Al/Cu 6-50	12.5	33	100	
SAL 2.27	6418677401442	Al/Cu 50-95	10.5	75	100	
SAL 2.272	6418677401459	Al/Cu 50-95	12.5	75	100	
SAL 3.27	6418677401473	Al/Cu 95-185	12.5	130	50	
SAL 3.272	6418677401480	Al/Cu 95-185	17	130	50	
SAL 4.27	6418677401503	Al/Cu 150-300	12.5	300	50	
SAL 4.272	6418677401510	Al/Cu 150-300	17	300	50	



Cable connectors with shear head bolts

Used for all combinations of aluminium/copper and paper/plastic cables. The joints are made of corrosion resistant aluminium alloy and they are tin-plated. Required torque applied by tightening the shear head bolts until break. Also available for Al conductors only. [SJ 2.4, SJ 3.4, SJ 4.4]

EAN	CONDUCTORS	CONDUCTORS	WEIGHT	PACKAGE	
	mm² Al/Cu	DIA mm	g	pcs	
6418677418464	6-25	2.5-6.7	15	100	
6418677403040	10-50	3-10	45	100	
6418677403064	50-95	7-15	80	100	
6418677403088	95-185	10-19	150	100	
6418677403101	150-300	12-25	320	50	
	EAN 6418677418464 6418677403040 6418677403064 6418677403088 6418677403101	EAN CONDUCTORS mm² AL/Cu 6418677418464 6-25 6418677403040 10-50 6418677403064 50-95 6418677403088 95-185 6418677403101 150-300	EAN CONDUCTORS mm² Al/Cu CONDUCTORS DIA mm 6418677418464 6-25 2.5-6.7 6418677403040 10-50 3-10 6418677403064 50-95 7-15 6418677403088 95-185 10-19 6418677403101 150-300 12-25	EAN CONDUCTORS mm² AL/Cu CONDUCTORS WEIGHT 6418677418464 6-25 2.5-6.7 15 6418677403040 10-50 3-10 45 6418677403046 50-95 7-15 80 6418677403088 95-185 10-19 150 6418677403101 150-300 12-25 320	EAN CONDUCTORS mm² AL/Cu CONDUCTORS WEIGHT PACKAGE 6418677418464 6-25 2.5-6.7 15 100 6418677403040 10-50 3-10 45 100 6418677403040 50-95 7-15 80 100 6418677403088 95-185 10-19 150 100 6418677403101 150-300 12-25 320 50







Cable joint kits

Can be used for all combinations of aluminium/copper and paper/plastic cables. SJK 1.47 contains also tinplated Cu- sleeve. Also available for Al conductors only (SJK 2.4, SJK 3.4, SJK 4.4)

Cable joint kits include

4 cable joints with shear head bolts

4 heat shrink insulation tubes for them

1 heat shrink outer tubing

1 holding tool. SJK 0.47 without shear head bolts.

CAT.NO.	EAN	CABLE JOINT	CONDUCTORS	CONDUCTORS	WEIGHT	PACKAGE
		TYPE	mm ²	DIA mm	g	pcs
SJK 0.47	64 18677418457	SJ 0.47	6-25	2.5-6.7	240	10
SJK 1.47	6418677403187	SJ 1.47	10-50	3-10	750	50
SJK 2.47	6418677403217	SJ 2.47	50-95	7-15	1250	50
SJK 3.47	6418677403248	SJ 3.47	95-185	10-19	1600	10
SJK 4.47	6418677403262	SJ 4.47	150-300	12-25	3100	10

Earthing connector set SE 15

SE 15 consists of earthing connector SM 2.24, earthing connector support PSS 116, and two fixing bolts for wooden poles.

CAT.NO.	EAN	CONDUCTO	RS	CONDUC	TORS	WEIGHT	PACKAGE
		mm²		DIA mm		g	pcs
		MAIN	BRANCH				
SM 2.24	6418677403934	Fe or Al	Cu 6-35	4.5-14	2.8-7.5	180	25
		16-120					
PSS 116	6418677401176					155	100
SE 15	6418677401848	SM 2.24, PS	S 116 and two bolts			370	25

Earthing bars PSS 396 and PSS 396.1

Used for the connection of earthings in pole transformer stations. The earthing conductors can be connected to the bar by using KG connectors as follows: Cu 16-185 mm²: KG 20 Al 16-120 mm²: KG 16 Al 50-240 mm²: KG 43

CAT.NO.	EAN	BAR	CONNECTORS	WEIGHT	PACKAGE
		mm ²	pcs	g	pcs
PSS 396	6418677401237	50	5	327	50
PSS 396.1	6418677401244	50	3	239	50

Earthing bar PSS 431

Earthing bar PSS 431 is used to connect earthing conductors in transformer stations. The busbar and the screws are tin-plated copper.

CAT.NO.	EAN	CONDUCTORS	WEIGHT	PACKAGE
		mm²	g	pcs
PSS 431	6418677401251	5 pcs x Cu 50	110	5 / 50







