

MOREK

Creating a better future for You



SHEAR BOLT CABLE LUGS AND CONNECTORS

2019



Morek brand products are quality products

Morek company overview

15 years of experience in electrotechnical field

Today, Morek Group includes 6 companies in 6 different European countries. The founding company – Morek IT OÜ – was established at the beginning of 2004 in Estonia. The higher education in the field of electrical engineering and previous relevant long-term professional experience of the enterprise founders facilitated the company's successful start-up and rapid growth. Today, we are a very strong experience-based group that has field-specific experience of 15 years.



Service staff of dedicated persons

We are a company that is a partner to its customers. Being a good partner for us primarily means understanding the needs of different market segments and providing services/products to those customers for whom we can create more value than our direct competitors. Successful sales promotion for us includes several activities that we engage in both pre-sale and post-sale to ensure customer satisfaction and long-term customer relations.

The entire Morek Group staff is committed to working every day to attain these objectives. We know that this is the only way for both our customers and ourselves to be successful.



Steady growing over the years

Morek Group has steadily grown every year since its establishment.

The growth has occurred during the construction sector boom as well as the global recession. Today, we are represented in Finland, Estonia, Latvia, Lithuania, Poland and Czech Republic. Steady growth will also continue in the coming years.



Credit rating amongst the TOP 16% companies in Estonia

Invoices paid on time, sufficient amount of products in the warehouses, timely paid salaries, tools suitable for the employees, etc. – all these things require the availability of sufficient circulating capital. Morek IT OÜ, the parent company of Morek Group, has an AA credit rating which places it among the TOP 16% of companies in Estonia.

Continuous representation at exhibitions

Following new market trends, getting an overview of competitors' activities, receiving feedback on products and meeting suppliers and customers in order to find new, innovative and suitable solutions are only a few keywords of what our aims are at international professional exhibitions. That is why we consider participation at these exhibitions to be extremely important. Our booth can be found at major fairs in the field of electrotechnics such as Amper Fair in Czech Republic, Energetab in Poland and Hannover Messe in Germany.



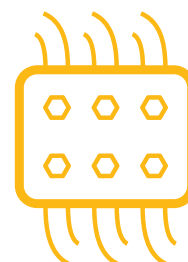
Carefully selected producers from Western European countries

Our product portfolio contains only quality products, which are made by following very high standards throughout the whole production process. We cooperate only with manufacturers who have years of experience in production, product development and research. In that way, we can be certain of offering products of the same quality as well-known large corporations.



Widest portfolio for cable connectors available on the market

We mainly specialise in cable connectors. After long-term market observation, product selection and purchasing negotiations, we can say for certain that we have the widest portfolio of cable connectors on the market.



Range of 1,000+ Morek brand products

It is important for every customer to use their time efficiently and concentrate on their main activity. We have compiled our portfolio in such a way that it represents the entire product range of cable connectors, and also accommodates the most specified expectations. Therefore, the portfolio includes more than 1,000 items and the number continues to grow.

Since we are sure of the quality of the offered products, we have assembled them all under the Morek quality brand. Selling products under our own brand name provides our guarantee that the supplied product meets the highest quality standard.

Certificates, declarations issued to/by Morek Group

In addition to quality, it is also essential that the products are safe and meet the criteria of existing regulations and standards. In our product range, you find items for which certifications have been issued by internationally acknowledged certification bodies such as UL, FIMKO and Lloyd's.

CE and RoHS declarations of conformity are self-evident keywords in the case of our product portfolio.



Morek brand products offered at a good price-quality ratio

The Morek Group companies are represented in 6 different countries so we have a permanent overview of the product range offered on our home markets and the price range. We have direct contact with different manufacturers and considerable purchase volume for bulk purchases. As a result, we can offer our customers products that are always above the average in terms of quality offered on the market while at reasonable prices. Our entire product portfolio is compiled by considering such price and quality criteria.

Innovation

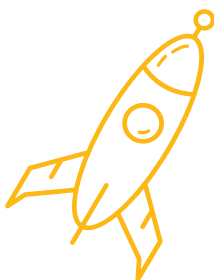
For us, innovation begins with seemingly small things.

On the one hand, it is everything that makes the customers life easier, e.g. placing a product order that is faster and simpler in comparison with what is usually offered on the market, or a quickly navigable product catalogue.

On the other hand, it is the products offered to the customers that differ from what is available in a standard range.

We also offer tailor-made solutions, which take into account the requirements of a particular customer and are especially produced at the plant for them. We have also added some products to the portfolio that consider both the market demands and what the customers may not know to ask for, yet which make their basic work easier and save time, installation space and money (e.g. OTL terminals, Moflex, gel joints, cable entry plates, MAC terminals, etc.)

Our manufacturing plants have the required competence, flexibility and production capacity for testing and manufacturing special orders over many decades.



5-year guarantee

We are convinced of our products' reliability and that is why we give a 5-year guarantee on all our products.



Timely deliveries

Our central warehouses are located in Estonia, Lithuania and Czech Republic. Goods can be shipped from any of these warehouses. Depending on the destination location, the express delivery time can be 24 h or even a couple of hours. Thereby, we ensure that the customers will get their goods exactly by the time they need them.



Quick claim settlement

We respond to all our customers' possible claims as promptly as possible. Unlike large corporations, we are able to solve technical problems with products very quickly because there are few management levels in our organisation – communication between different countries and employees takes place quickly and directly, and a production specialist of whatever product is always only a maximum of two contacts away from the customer.

Our promise: Morek brand products are quality products. We never compromise on that

One of the fundamental principles of the company's operation is the promise that all the employees know the basis on which the products are selected and the services are designed. According to this, the customer can make their most important choice – whether the products and services of this company are for them or not.

Our promise is that Morek brand products are quality products. Since this is the foundation of our business success, we never compromise on that.



Conflict minerals policy

Morek Group supports the goal of ending violence, human rights violations and environmental devastation in the DRC. We comply with any requirements applicable to our Group under the US "Conflict Minerals" rules and will follow EU law under "Conflict Minerals" regulation as soon as it will be confirmed.

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Shear Bolt cable lugs up to 12kV

| For applications up to 12kV

| Suitable for Al and
| Cu conductors

Certified according to

| **EN61238-1 class A**



Shear Bolt lugs are used for terminating aluminium or copper conductors in applications up to 12kV.

Advantages

- Shear Bolt technology allows installation of the lugs using a regular wrench or a spanner, no crimping or other special tools are needed.
- Morek Shear Bolt cable lugs are range taking products that can be used with conductors of varying cross-sections, accommodating a wide range of conductors with only a few items.
- Shear Bolt lugs' specially designed aluminium bodies are made of high-strength aluminium alloy and are tin-plated, allowing their use with both aluminium and copper conductors.
- Bolts made of aluminium or tin-plated brass are designed to break at the exact torque required for best electrical connection.
- Shear Bolts are treated with special antioxidation grease to ensure the lubrication and eliminate all kinds of oxidation in places of electrical contact.

- All Morek Shear Bolt lugs are watertight and suitable for indoor and outdoor installation, to be used with solid, stranded, sector shaped and round conductors with plastic or oil-impregnated paper isolation.
- Shear Bolt lugs are compatible with most termination kits by many manufacturers. Compact design requires less installation space, especially for larger sizes.

Certification and regulations

Tested according to IEC61238-1 class A

Technical specifications

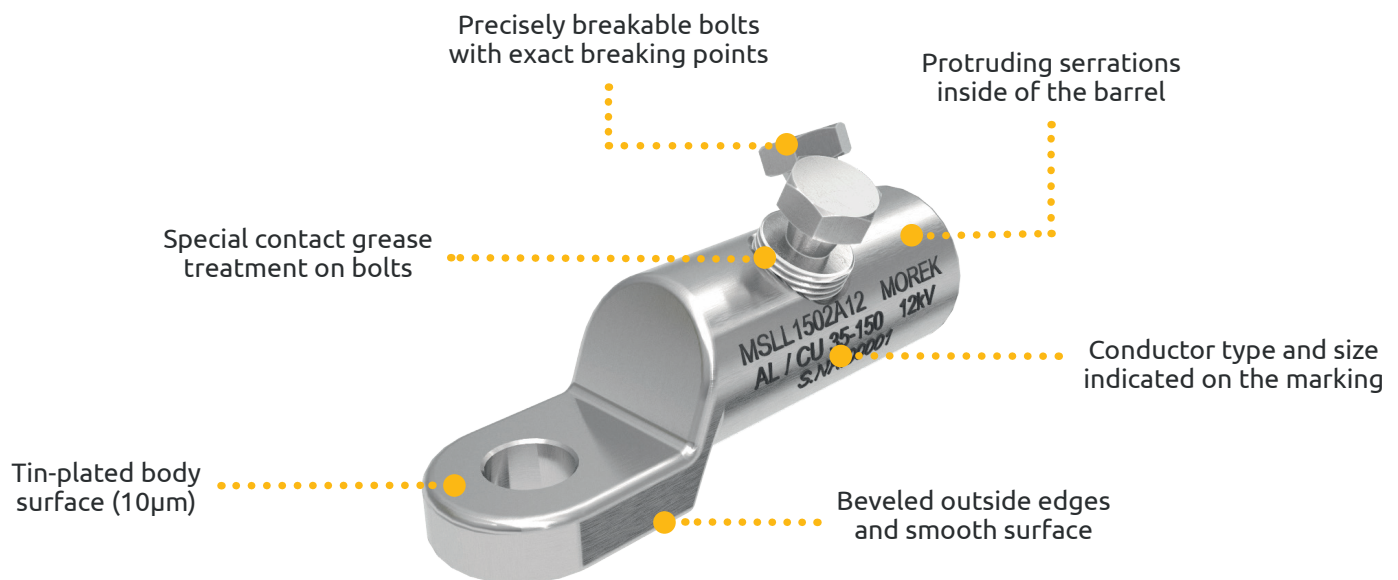
- Nominal voltage up to 12kV
- Suitable for copper and aluminium conductors
- Bolts are treated with antioxidation grease

Materials

Lug body: tin-plated high-strength aluminium alloy

Aluminium-bolt cable lug bolts: aluminium alloy

Brass-bolt cable lug bolts: tin-plated brass



EN 61238-1:2003 divides cable lugs and connectors into two classes:

Class A (heat cycle and **short-circuit tested**) - These are connectors intended for electrical distribution or industrial networks in which they can be subjected to short-circuits of relatively high intensity and duration. Therefore, Class A connectors are suitable for most applications.

Class B (heat cycle tests only, **not short-circuit tested**) - These are connectors for networks in which overloads or short-circuits are rapidly cleared by the installed protective devices, e.g. **fast-acting fuses**.



Palm opening size	MSLL35	MSLL50	MSLL51	MSLL70	MSLL95
M10	MSLL0351A10	MSLL0501A10	MSLL0502A10	-	-
M12	MSLL0351A12	MSLL0501A12	MSLL0502A12	MSLL0702A12	MSLL0951A12
M16	-	-	-	-	-

Technical data

Conductor cross-section Al (mm²)

RE	Round, solid	6 - 35	6 - 50	6 - 50	16 - 70	16 - 95
RM	Round, stranded	10 - 35	10 - 50	10 - 50	16 - 70	16 - 95
SE	Sector shaped, solid	16 - 35	16 - 50	16 - 50	16 - 70	16 - 95
SM	Sector shaped, stranded	16 - 25	16 - 35	16 - 35	16 - 70	16 - 95

Conductor cross-section Cu (mm²)

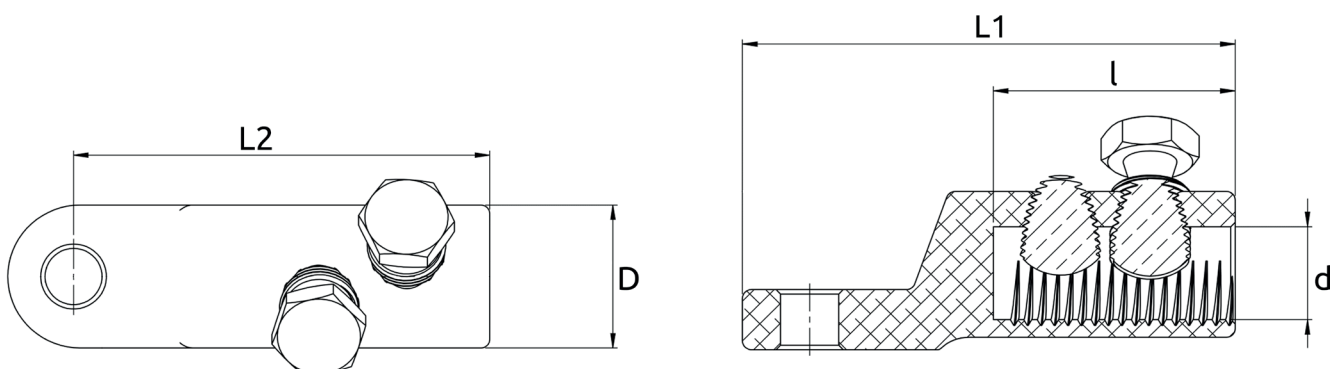
RM	Round, stranded	16 - 35	6 - 50	6 - 50	16 - 70	25 - 95
SM	Sector shaped, stranded	16 - 35	6 - 50	6 - 50	16 - 70	25 - 95
RE	Round, solid	6 - 25	6 - 35	6 - 35	6 - 35	10 - 35

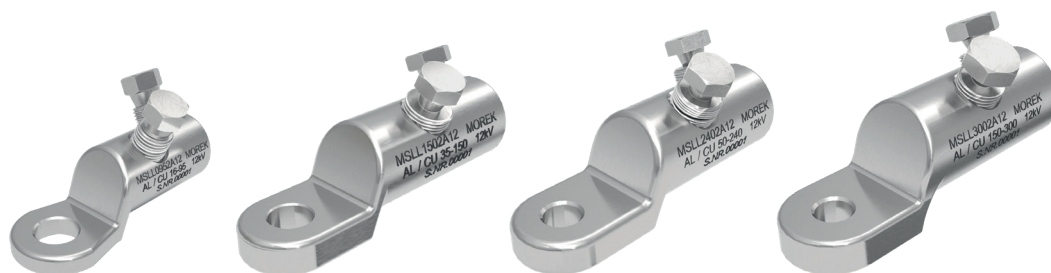
No. of bolts Ø mm	1 / M10	1 / M10	2 / M10	2 / M12	1 / M12
L1 / L2 / l	53 / 40 / 18	62 / 51 / 28	62 / 51 / 30	90 / 75 / 40	65 / 52 / 24
D / d	16 / 9	20 / 11	20 / 11	22 / 12	25 / 14
Weight (g)	23	37	42	62	65
Package (pcs)	50	50	50	50	25

Bolts: aluminium alloy

Suitable for Al/Cu applications

Dimensions












Palm opening size	MSLL96	MSLL150	MSLL240	MSLL300
M10	-	-	-	-
M12	MSLL0952A12	MSLL1502A12	MSLL2402A12	MSLL3002A12
M16	-	-	MSLL2402A16	MSLL3002A16

Technical data

Conductor cross-section Al (mm²)

RE 	Round, solid	16 - 95	35 - 150	50 - 240	120 - 300
RM 	Round, stranded	16 - 95	35 - 150	50 - 240	120 - 300
SE 	Sector shaped, solid	16 - 95	35 - 150	50 - 240	120 - 300
SM 	Sector shaped, stranded	16 - 95	35 - 120	50 - 240	120 - 300

Conductor cross-section Cu (mm²)

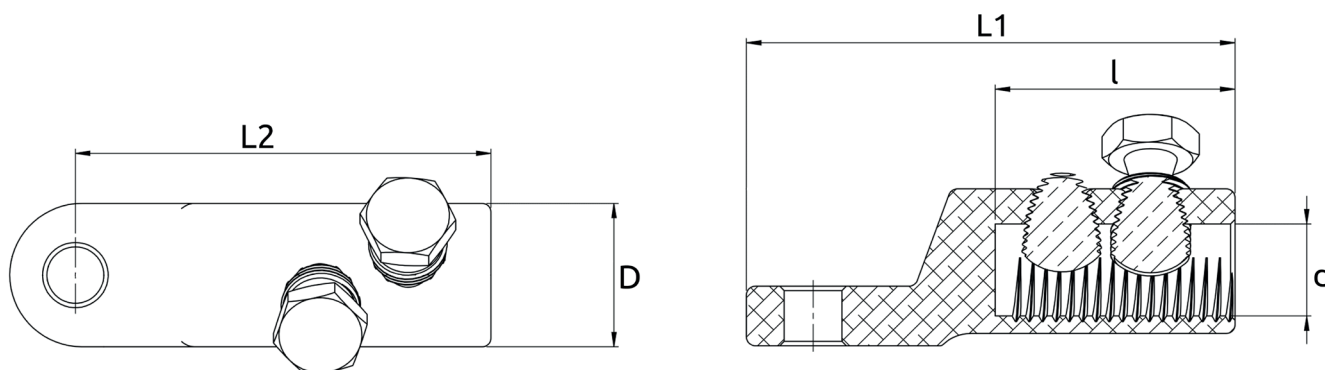
RM 	Round, stranded	25 - 95	35 - 150	50 - 240	120 - 300
SM 	Sector shaped, stranded	25 - 95	35 - 150	50 - 240	120 - 300
RE 	Round, solid	10 - 35	25 - 35	-	-

No. of bolts Ø mm	2 / M12	2 / M16	2 / M18	2 / M22
L1 / L2 / l	76 / 63 / 32	100 / 85 / 52	115 / 97 / 57	123 / 104 / 59
D / d	25 / 15	29 / 18	35 / 22	38 / 24,5
Weight (g)	82	120	250	280
Package (pcs)	25	40	15	10

Bolts: aluminium alloy

Suitable for Al/Cu applications

Dimensions





Palm opening size

MSLL35





MSLL50

MSLL70




M10	MSLL0351B10	MSLL0501B10	-
M12	MSLL0351B12	MSLL0501B12	MSLL0702B12
M16	-	-	-

Technical data

Conductor cross-section Al (mm²)

RE 	Round, solid	6 - 35	6 - 50	16 - 70
RM 	Round, stranded	10 - 35	10 - 50	16 - 70
SE 	Sector shaped, solid	16 - 35	16 - 50	16 - 70
SM 	Sector shaped, stranded	16 - 25	16 - 35	16 - 70

Conductor cross-section Cu (mm²)

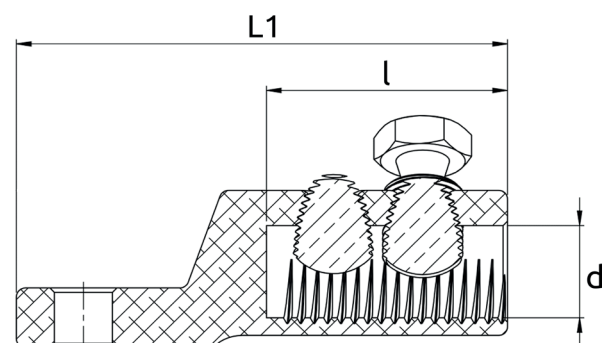
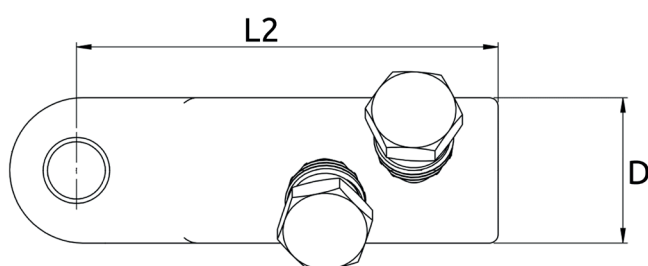
RM 	Round, stranded	16 - 35	6 - 50	16 - 70
SM 	Sector shaped, stranded	16 - 35	6 - 50	16 - 70
RE 	Round, solid	6 - 25	6 - 35	6 - 35

No. of bolts Ø mm	1 / M10	1 / M10	2 / M12
L1 / L2 / l	53 / 40 / 18	62 / 51 / 28	90 / 75 / 40
D / d	16 / 9	20 / 11	22 / 12
Weight (g)	27	47	100
Package (pcs)	50	50	30

Bolts: tin-plated brass

Suitable for Al/Cu applications

Dimensions





Palm opening size

MSLL150





MSLL240

MSLL300




M10	-	-	-
M12	MSLL1502B12	MSLL2402B12	MSLL3002B12
M16	-	MSLL2402B16	MSLL3002B16

Technical data

Conductor cross-section Al (mm²)

RE  Round, solid	35 - 150	120 - 240	120 - 300
RM  Round, stranded	35 - 150	120 - 240	120 - 300
SE  Sector shaped, solid	35 - 150	120 - 240	120 - 300
SM  Sector shaped, stranded	35 - 120	120 - 240	120 - 300

Conductor cross-section Cu (mm²)

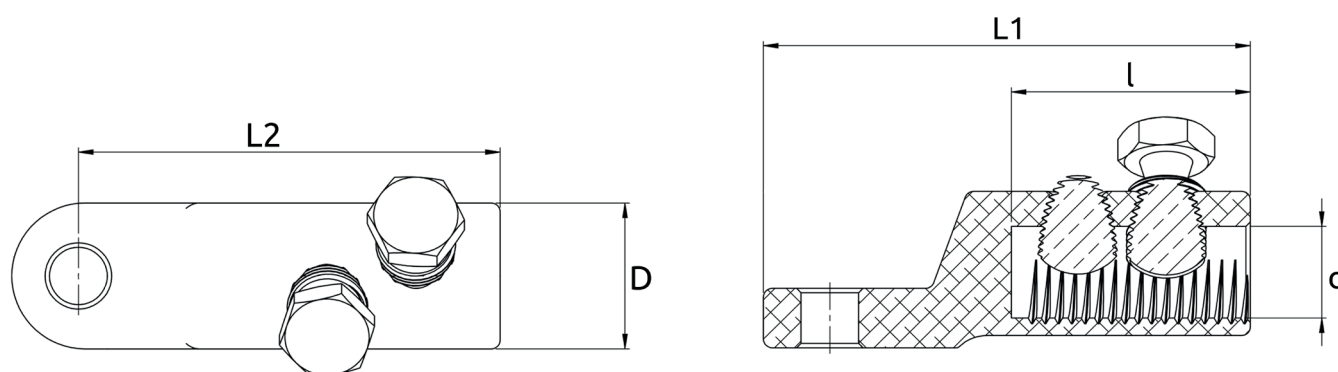
RM  Round, stranded	35 - 150	120 - 240	120 - 300
SM  Sector shaped, stranded	35 - 150	120 - 240	120 - 300
RE  Round, solid	25 - 35	-	-

No. of bolts Ø mm	2 / M16	2 / M18	2 / M22
L1 / L2 / l	100 / 85 / 52	115 / 97 / 57	123 / 104 / 59
D / d	29 / 18	35 / 22	38 / 24,5
Weight (g)	170	345	380
Package (pcs)	40	15	10

Bolts: tin-plated brass

Suitable for Al/Cu applications

Dimensions



Shear Bolt cable connectors up to 12kV

| For applications up to 12kV

| Suitable for Al and
Cu conductors

| Certified according to
EN61238-1 class A



Shear Bolt connectors are used for joining aluminium or copper conductors in applications up to 12kV.

Advantages

- Shear Bolt technology allows installation of the lugs using a regular wrench or a spanner, no crimping or other special tools are needed.
- Morek Shear Bolt cable connectors are range taking products that can be used with conductors of varying cross-sections, accommodating a wide range of conductors with only a few items.
- Shear Bolt connectors' specially designed aluminium bodies are made of high-strength aluminium alloy and are tin-plated, allowing their use with both aluminium and copper conductors.
- Bolts made of aluminium or tin-plated brass are designed to break at the exact torque required for best electrical connection.
- Shear Bolts are treated with special antioxidation grease to ensure the lubrication and eliminate all kinds of oxidation in places of electrical contact.
- All Morek Shear Bolt lugs are watertight and suitable

for indoor and outdoor installation, to be used with solid, stranded, sector shaped and round conductors with plastic or oil-impregnated paper isolation.

- Shear Bolt connectors are compatible with most termination kits by many manufacturers. Compact design requires less installation space, especially for larger sizes.

Certification and regulations

Tested according to IEC61238-1 class A

Technical specifications

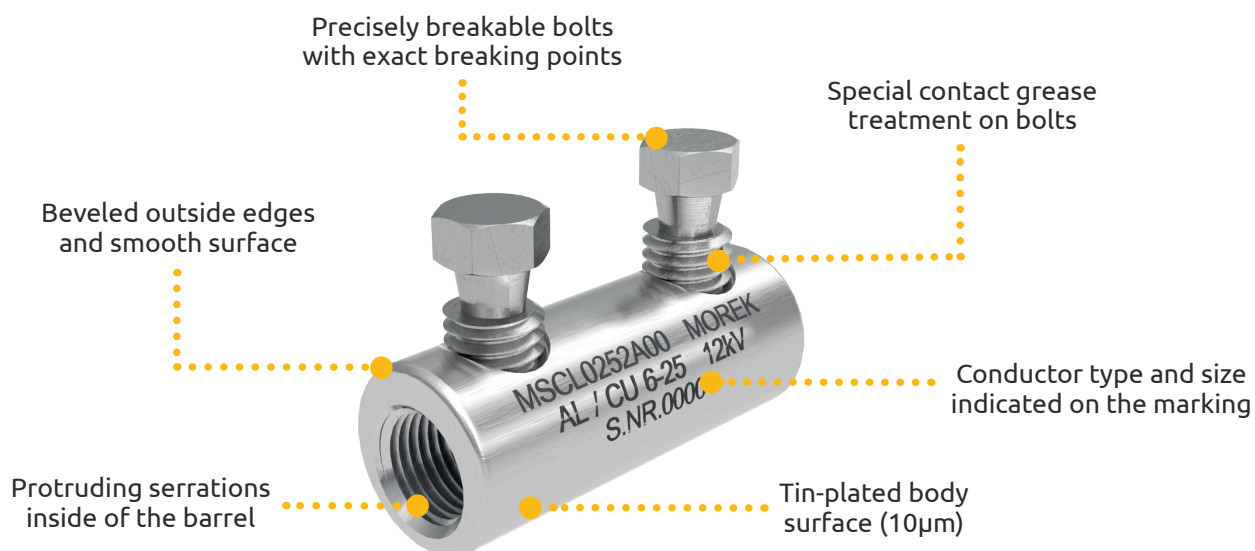
- Nominal voltage up to 12kV
- Suitable for copper and aluminium conductors
- Bolts are treated with antioxidation grease

Materials

Connector body: tin-plated high-strength aluminium alloy

Aluminium-bolt cable connector bolts: aluminium alloy

Brass-bolt cable connector bolts: tin-plated brass



EN 61238-1:2003 divides cable lugs and connectors into two classes:

Class A (heat cycle and **short-circuit tested**) - These are connectors intended for electrical distribution or industrial networks in which they can be subjected to short-circuits of relatively high intensity and duration. Therefore, Class A connectors are suitable for most applications.

Class B (heat cycle tests only, **not short-circuit tested**) - These are connectors for networks in which overloads or short-circuits are rapidly cleared by the installed protective devices, e.g. **fast-acting fuses**.



MSCL16



MSCL25



MSCL50



MSCL95

	MSCL0162A00	MSCL0252A00	MSCL0502A00	MSCL0952A00
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Technical data

Conductor cross-section Al (mm²)

RE	Round, solid	1,5 - 16	6 - 35	10 - 50	25 - 95
RM	Round, stranded	1,5 - 16	10 - 35	10 - 50	25 - 95
SE	Sector shaped, solid	1,5 - 16	16 - 35	16 - 50	25 - 95
SM	Sector shaped, stranded	1,5 - 16	16 - 25	16 - 35	25 - 95

Conductor cross-section Cu (mm²)

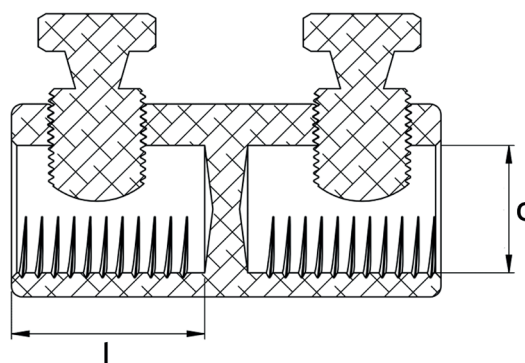
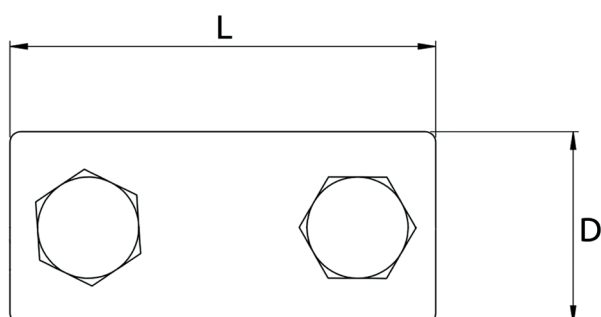
RM	Round, stranded	1,5 - 16	16 - 35	16 - 50	25 - 95
SM	Sector shaped, stranded	1,5 - 16	16 - 35	16 - 50	25 - 95
RE	Round, solid	1,5 - 16	6 - 25	16 - 35	25 - 35

No. of bolts Ø mm	2 / M6	2 / M8	2 / M10	2 / M12
L / l	30 / 14	40 / 17	37 / 17	54 / 24
D / d	12 / 6	16 / 9	18 / 10	25 / 14
Weight (g)	10	22	26	47
Package (pcs)	100	50	50	50

Bolts: aluminium alloy

Suitable for Al/Cu applications

Dimensions





MSCL150

MSCL240

MSCL241

MSCL300

	MSCL1502A00	MSCL2402A00	MSCL2404A00	MSCL3004A00
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Technical data

Conductor cross-section Al (mm²)

RE	Round, solid	25 - 150	120 - 240	50 - 240	150 - 300
RM	Round, stranded	25 - 150	120 - 240	50 - 240	150 - 300
SE	Sector shaped, solid	25 - 150	120 - 240	50 - 240	150 - 300
SM	Sector shaped, stranded	25 - 120	120 - 240	50 - 240	150 - 300

Conductor cross-section Cu (mm²)

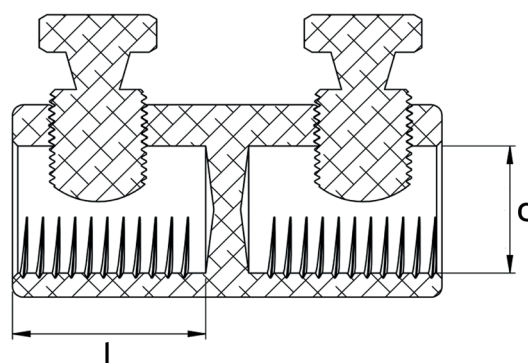
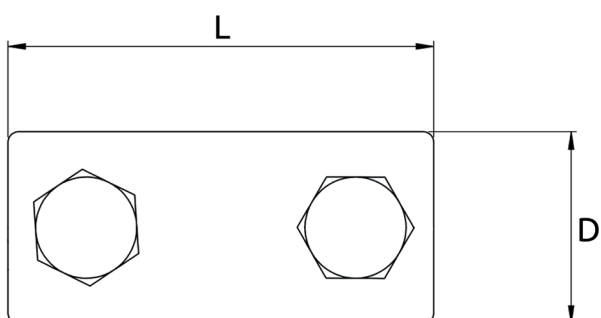
RM	Round, stranded	25 - 120	120 - 240	50 - 240	150 - 300
SM	Sector shaped, stranded	25 - 35	-	-	-
RE	Round, solid	-	-	-	-

No. of bolts Ø mm	2 / M16	2 / M18	4 / M18	4 / M22
L / l	70 / 30	80 / 36	120 / 56	112 / 52
D / d	28 / 17	36 / 24	35 / 22	38 / 24
Weight (g)	87	162	220	265
Package (pcs)	35	25	20	20








Bolts: aluminium alloy

Suitable for Al/Cu applications

Dimensions

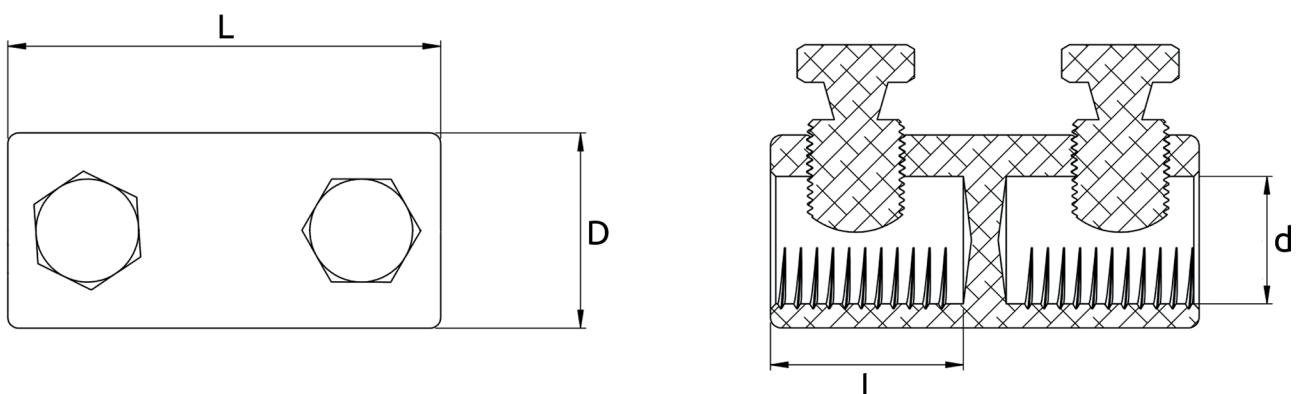




	MSCL0162B00	MSCL0252B00	MSCL0502B00	MSCL0952B00
Technical data				
Conductor cross-section Al (mm ²)				
RE 	1,5 - 16	6 - 35	16 - 50	25 - 95
RM 	1,5 - 16	10 - 25	16 - 50	25 - 95
SE 	1,5 - 16	16 - 25	16 - 50	25 - 95
SM 	1,5 - 16	16 - 25	16 - 35	25 - 95
Conductor cross-section Cu (mm ²)				
RM 	1,5 - 16	16 - 35	16 - 50	25 - 95
SM 	1,5 - 16	16 - 35	16 - 50	25 - 95
RE 	1,5 - 16	6 - 25	16 - 35	25 - 35
No. of bolts Ø mm	2 / M6	2 / M8	2 / M10	2 / M12
L / l	30 / 14	40 / 17	55 / 24	56 / 24
D / d	12 / 6	16 / 9	21 / 11	25 / 14
Weight (g)	15	32	60	90
Package (pcs)	100	50	50	50

Bolts: tin-plated brass
Suitable for Al/Cu applications

Dimensions





MSCL150



MSCL240



MSCL300

	MSCL1502B00	MSCL2402B00	MSCL3004B00
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Technical data

Conductor cross-section Al (mm²)

RE	Round, solid	35 - 150	120 - 240	150 - 300
RM	Round, stranded	35 - 150	120 - 240	150 - 300
SE	Sector shaped, solid	35 - 150	120 - 240	150 - 300
SM	Sector shaped, stranded	35 - 120	120 - 240	150 - 300

Conductor cross-section Cu (mm²)

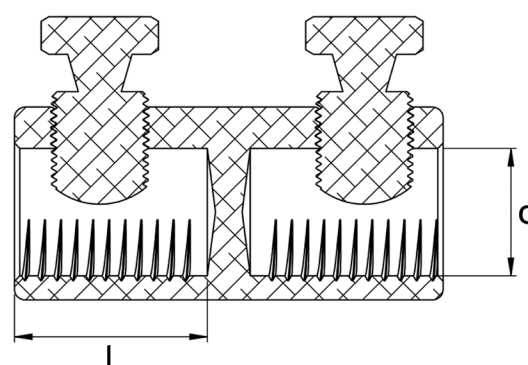
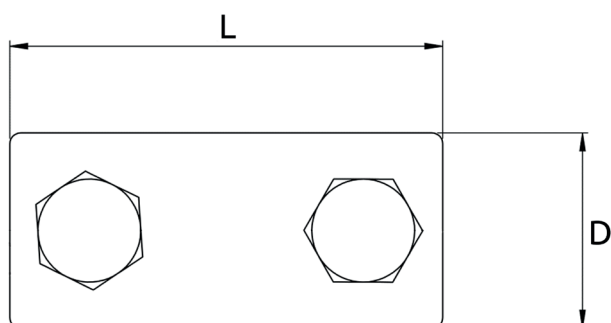
RM	Round, stranded	35 - 120	120 - 240	150 - 300
SM	Sector shaped, stranded	35 - 120	120 - 240	150 - 300
RE	Round, solid	35	-	-

No. of bolts Ø mm	2 / M16	2 / M18	4 / M22
L / l	70 / 30	80 / 36	112 / 52
D / d	28 / 18	36 / 24	38 / 24
Weight (g)	135	240	310
Package (pcs)	35	25	20

Bolts: tin-plated brass

Suitable for Al/Cu applications

Dimensions



Shear Bolt cable lugs up to 36kV

| For applications up to 36kV

| Suitable for Al and
Cu conductors

| Certified according to
EN61238-1 class A



Shear Bolt lugs are used for terminating aluminium or copper conductors in applications up to 36kV.

Advantages

- Shear Bolt technology allows installation of the lugs using a regular wrench or a spanner, no crimping or other special tools are needed.
- Morek Shear Bolt cable lugs are range taking products that can be used with conductors of varying cross-sections, accommodating a wide range of conductors with only a few items.
- Shear Bolt lugs' specially designed aluminium bodies are made of high-strength aluminium alloy and are tin-plated, allowing their use with both aluminium and copper conductors.
- Bolts made of aluminium or tin-plated brass are designed to break at the exact torque required for best electrical connection.
- Shear Bolts and barrels of lugs are treated with special antioxidation grease to ensure the lubrication and eliminate all kinds of oxidation in places of electrical contact.
- Conductor centering rings and instruction manual are supplied together with each lug to ensure proper installation.

- All Morek Shear Bolt lugs are watertight and suitable for indoor and outdoor installation, to be used with solid, stranded, sector shaped and round conductors with plastic or oil-impregnated paper isolation.
- Shear Bolt lugs are compatible with most termination kits by many manufacturers. Compact design requires less installation space, especially for larger sizes.

Certification and regulations

Tested according to IEC61238-1 class A

Technical specifications

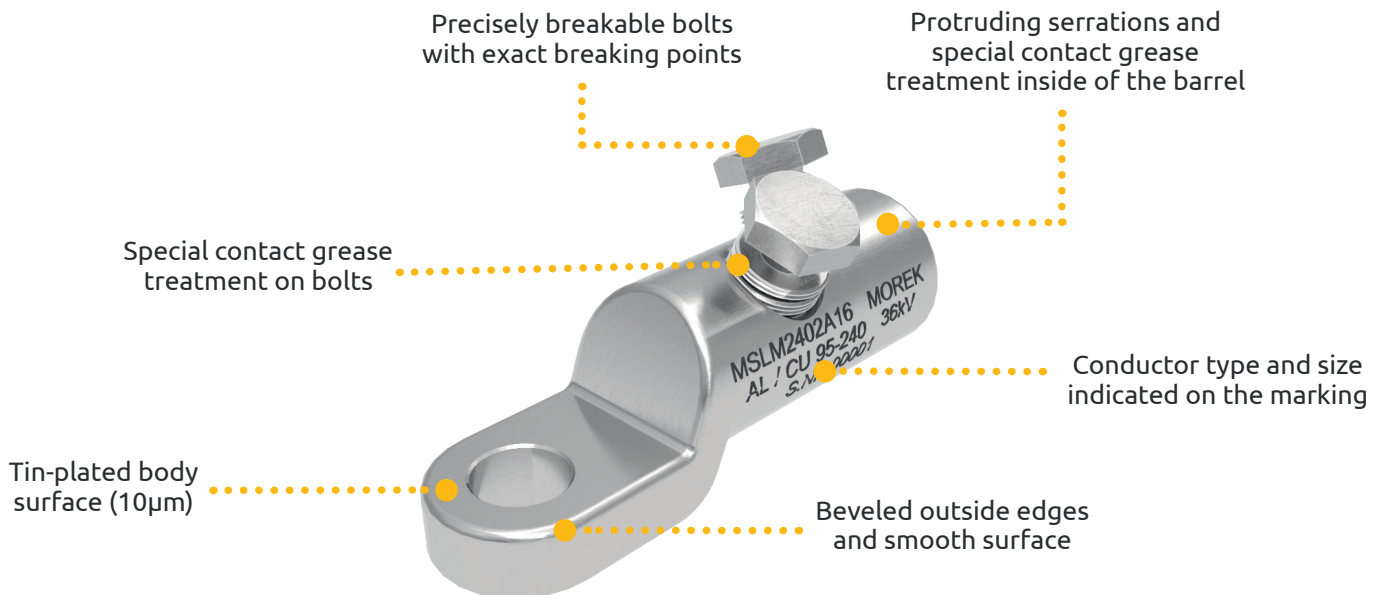
- Nominal voltage up to 36kV
- Suitable for copper and aluminium conductors
- Bolts and barrels are treated with antioxidation grease
- Conductor centering rings included

Materials

Lug body: tin-plated high-strength aluminium alloy

Aluminium-bolt cable lug bolts: aluminium alloy

Brass-bolt cable lug bolts: tin-plated brass



EN 61238-1:2003 divides cable lugs and connectors into two classes:

Class A (heat cycle and **short-circuit tested**) - These are connectors intended for electrical distribution or industrial networks in which they can be subjected to short-circuits of relatively high intensity and duration. Therefore, Class A connectors are suitable for most applications.




Class B (heat cycle tests only, **not short-circuit tested**) - These are connectors for networks in which overloads or short-circuits are rapidly cleared by the installed protective devices, e.g. **fast-acting fuses**.





Palm opening size	MSLM95	MSLM150	MSLM240	MSLM300
M12	MSLM0951A12	MSLM1501A12	MSLM2402A12	MSLM3002A12
M16	-	-	MSLM2402A16	MSLM3002A16
M20	-	-	-	-

Technical data

Conductor cross-section Al (mm²)

RE 	Round, solid	16 - 95	50 - 150	95 - 240	120 - 300
RM 	Round, stranded	16 - 95	50 - 150	95 - 240	120 - 300
SM 	Sector shaped, stranded	25 - 70	50 - 120	95 - 185	120 - 240

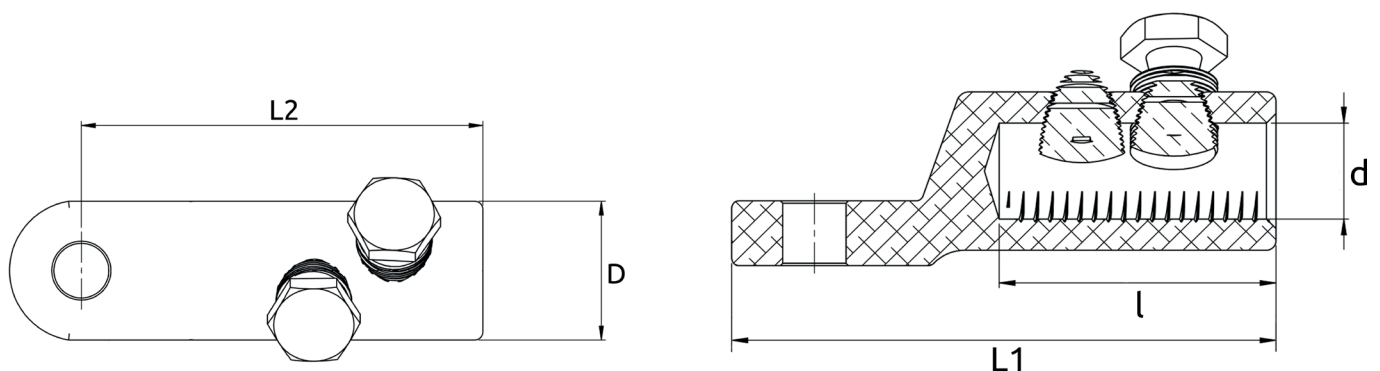
Conductor cross-section Cu (mm²)

RM 	Round, stranded	16 - 70	50 - 120	95 - 240	120 - 300
SM 	Sector shaped, stranded	25 - 70	50 - 120	95 - 185	120 - 240

No. of bolts Ø mm	1 / M12	1 / M14	2 / M18	2 / M22
L1 / L2 / l	76 / 60 / 32	95 / 78 / 42	112 / 95 / 57	125 / 105 / 67
D / d	24 / 9,5	29 / 16	33 / 20	38 / 24,5
Weight (g)	60	122	182	246
Package (pcs)	25	25	15	14

Bolts: aluminium alloy
Suitable for Al/Cu applications

Dimensions





Palm opening size

MSLM400




MSLM630

MSLM1000



M12	MSLM4003A12	MSLM6303A12	-
M16	MSLM4003A16	MSLM6303A16	MSLM10004A16
M20	-	-	MSLM10004A20

Technical data

Conductor cross-section Al (mm²)

RE 	Round, solid	185 - 400	400 - 630	630 - 1000
RM 	Round, stranded	185 - 400	400 - 630	630 - 1000
SM 	Sector shaped, stranded	185 - 300	400 - 500	630 - 800

Conductor cross-section Cu (mm²)

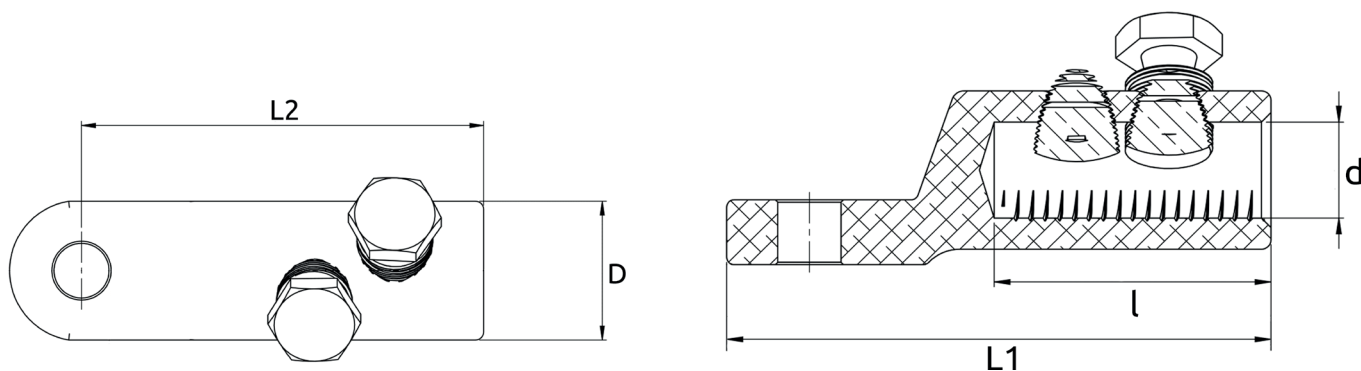
RM 	Round, stranded	185 - 400	400 - 630	630 - 1000
SM 	Sector shaped, stranded	185 - 300	400 - 500	630 - 800

No. of bolts Ø mm	3 / M22	3 / M22	4 / M22 long
L1 / L2 / l	140 / 120 / 79	163 / 136 / 94	194 / 161 / 105
D / d	42 / 26	52 / 34	65 / 41
Weight (g)	367	605	1095
Package (pcs)	10	6	3

Bolts: aluminium alloy

Suitable for Al/Cu applications

Dimensions





Palm opening size	MSLM95	MSLM150	MSLM240	MSLM300
M12	MSLM0951B12	MSLM1501B12	MSLM2402B12	MSLM3002B12
M16	-	-	MSLM2402B16	MSLM3002B16
M20	-	-	-	-

Technical data

Conductor cross-section Al (mm²)

RE	Round, solid	16 - 95	50 - 150	95 - 240	120 - 300
RM	Round, stranded	16 - 95	50 - 150	95 - 240	120 - 300
SM	Sector shaped, stranded	25 - 70	50 - 120	95 - 185	120 - 240

Conductor cross-section Cu (mm²)

RM	Round, stranded	16 - 70	50 - 120	95 - 240	120 - 300
SM	Sector shaped, stranded	25 - 70	50 - 120	95 - 185	120 - 240

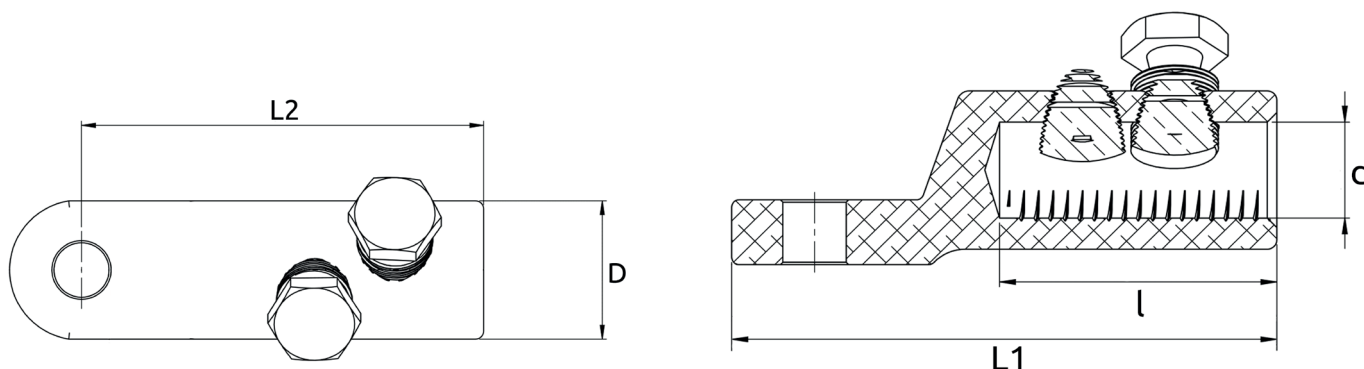
No. of bolts Ø mm	1 / M12	1 / M14	2 / M18	2 / M22
L1 / L2 / l	76 / 60 / 32	95 / 78 / 42	112 / 95 / 57	125 / 105 / 67
D / d	24 / 9,5	29 / 16	33 / 20	38 / 24,5
Weight (g)	70	145	230	320
Package (pcs)	25	25	15	14

Bolts: tin-plated brass

Suitable for Al/Cu applications

36kV lugs are also available with brass inner hexagon bolts - to order, replace letter B of the product code with D.
For example: MSLM0951D12.

Dimensions










Palm opening size	MSLM400	MSLM630	MSLM1000
M12	MSLM4003B12	MSLM6303B12	-
M16	MSLM4003B16	MSLM6303B16	MSLM10004B16
M20	-	-	MSLM10004B20

Technical data

Conductor cross-section Al (mm²)

RE  Round, solid	185 - 400	400 - 630	630 - 1000
RM  Round, stranded	185 - 400	400 - 630	630 - 1000
SM  Sector shaped, stranded	185 - 300	400 - 500	630 - 800

Conductor cross-section Cu (mm²)

RM  Round, stranded	185 - 400	400 - 630	630 - 1000
SM  Sector shaped, stranded	185 - 300	400 - 500	630 - 800

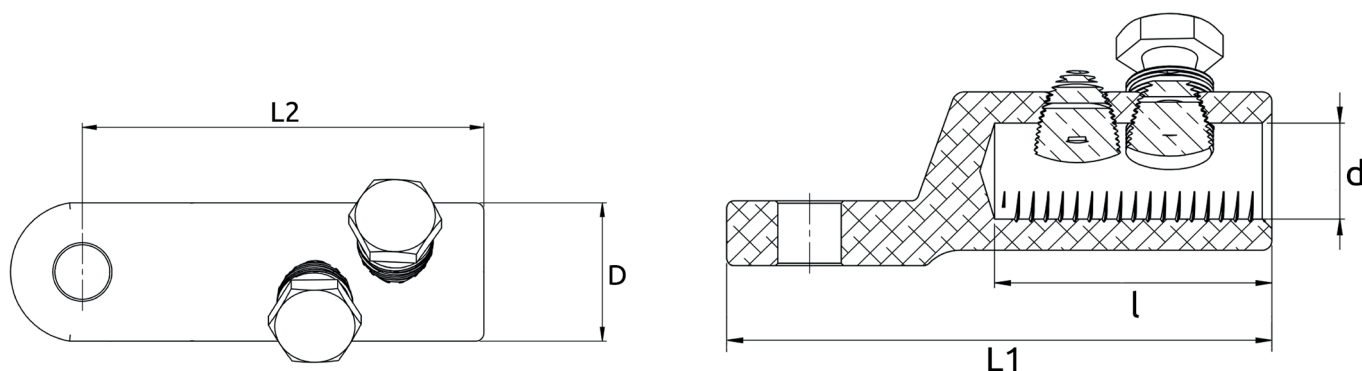
No. of bolts Ø mm	3 / M22	3 / M22	4 / M22 long
L1 / L2 / l	140 / 120 / 79	163 / 136 / 94	194 / 161 / 105
D / d	42 / 26	52 / 34	65 / 41
Weight (g)	510	720	1300
Package (pcs)	10	6	3

Bolts: tin-plated brass

Suitable for Al/Cu applications

36kV lugs are also available with brass inner hexagon bolts - to order, replace letter B of the product code with D.
For example: MSLM0951D12.

Dimensions



Shear Bolt cable connectors up to 36kV

| For applications up to 36kV

| Suitable for Al and
Cu conductors

Certified according to

| **EN61238-1 class A**



Shear Bolt connectors are used for joining aluminium or copper conductors in applications up to 36kV.

Advantages

- Shear Bolt technology allows installation of the lugs using a regular wrench or a spanner, no crimping or other special tools are needed.
- Morek Shear Bolt cable connectors are range taking products that can be used with conductors of varying cross-sections, accommodating a wide range of conductors with only a few items.
- Shear Bolt connectors' specially designed aluminium bodies are made of high-strength aluminium alloy and are tin-plated, allowing their use with both aluminium and copper conductors.
- Bolts made of aluminium or tin-plated brass are designed to break at the exact torque required for best electrical connection.
- Shear Bolts are treated with special antioxidation grease to ensure the lubrication and eliminate all kinds of oxidation in places of electrical contact.
- All Morek Shear Bolt lugs are watertight and suitable for indoor and outdoor installation, to be used with

solid, stranded, sector shaped and round conductors with plastic or oil-impregnated paper isolation.

- Shear Bolt connectors are compatible with most termination kits by many manufacturers. Compact design requires less installation space, especially for larger sizes.

Certification and regulations

Tested according to IEC61238-1 class A

Technical specifications

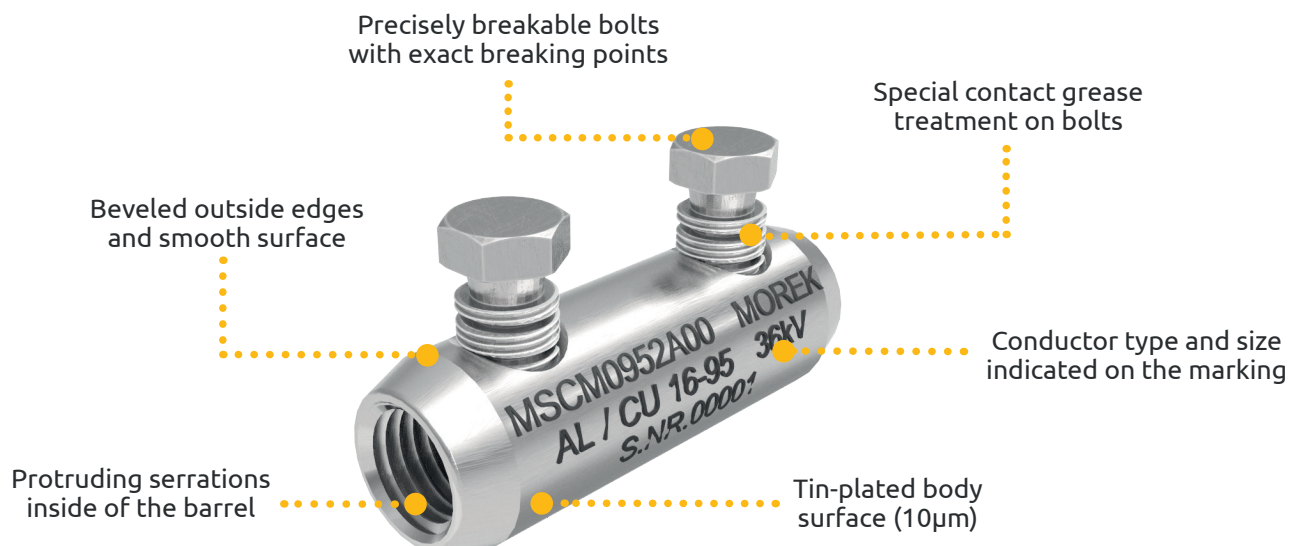
- Nominal voltage up to 36kV
- Suitable for copper and aluminium conductors
- Bolts and barrels are treated with antioxidation grease
- Conductor centering rings included

Materials

Connector body: tin-plated high-strength aluminium alloy

Aluminium-bolt cable connector bolts: aluminium alloy

Brass-bolt cable connector bolts: tin-plated brass








EN 61238-1:2003 divides cable lugs and connectors into two classes:

Class A (heat cycle and **short-circuit tested**) - These are connectors intended for electrical distribution or industrial networks in which they can be subjected to short-circuits of relatively high intensity and duration. Therefore, Class A connectors are suitable for most applications.

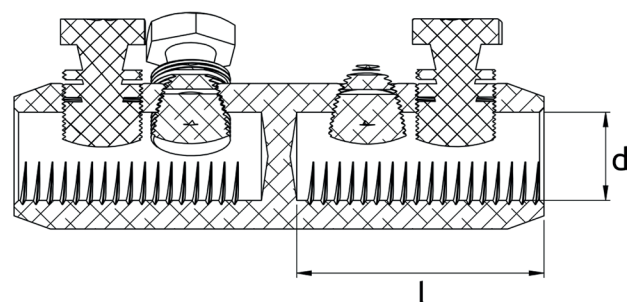
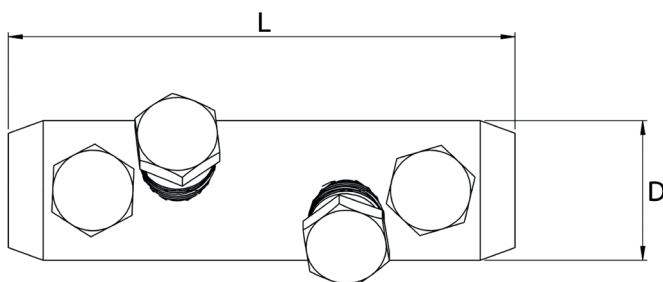
Class B (heat cycle tests only, **not short-circuit tested**) - These are connectors for networks in which overloads or short-circuits are rapidly cleared by the installed protective devices, e.g. **fast-acting fuses**.



	MSCM0952A00	MSCM1502A00	MSCM2404A00	MSCM3004A00
Technical data				
Conductor cross-section Al (mm ²)				
RE  Round, solid	16 - 95	50 - 150	95 - 240	120 - 300
RM  Round, stranded	16 - 95	50 - 150	95 - 240	120 - 300
SM  Sector shaped, stranded	25 - 70	50 - 120	95 - 185	120 - 240
Conductor cross-section Cu (mm ²)				
RM  Round, stranded	16 - 70	50 - 120	95 - 240	120 - 300
SM  Sector shaped, stranded	25 - 70	50 - 120	95 - 185	120 - 240
No. of bolts Ø mm	2 / M12	2 / M14	4 / M18	4 / M22
L / l	70 / 33	80 / 35	120 / 56	142 / 67
D / d	24 / 14	30 / 16	33 / 20	38 / 24,5
Weight (g)	74	146	230	400
Package (pcs)	30	25	15	10

Bolts: aluminium alloy
Suitable for Al/Cu applications

Dimensions





MSCM400



MSCM630






MSCM1000



	MSCM4006A00	MSCM6306A00	MSCM10008A00
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Technical data

Conductor cross-section Al (mm²)

RE 	Round, solid	185 - 400	400 - 630	630 - 1000
RM 	Round, stranded	185 - 400	400 - 630	630 - 1000
SM 	Sector shaped, stranded	185 - 300	400 - 500	630 - 800

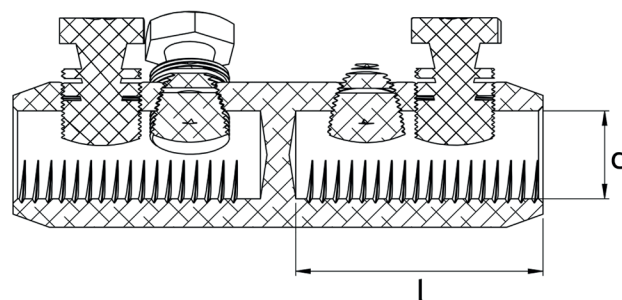
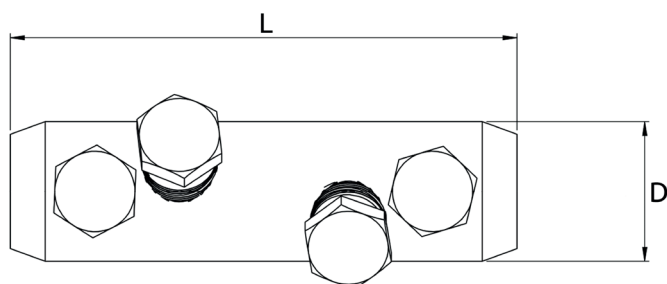
Conductor cross-section Cu (mm²)

RM 	Round, stranded	185 - 400	400 - 630	630 - 1000
SM 	Sector shaped, stranded	185 - 300	400 - 500	630 - 800

No. of bolts Ø mm	6 / M22	6 / M22	8 / M22 long
L / l	170 / 82	200 / 94	220 / 105
D / d	42 / 26	52 / 34	65 / 41
Weight (g)	580	815	1340
Package (pcs)	5	3	2

Bolts: aluminium alloy
Suitable for Al/Cu applications

Dimensions





MSCM95

MSCM150




MSCM240

MSCM300



	MSCM0952B00	MSCM1502B00	MSCM2404B00	MSCM3004B00
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Technical data

Conductor cross-section Al (mm²)

RE 	Round, solid	16 - 95	50 - 150	95 - 240	120 - 300
RM 	Round, stranded	16 - 95	50 - 150	95 - 240	120 - 300
SM 	Sector shaped, stranded	25 - 70	50 - 120	95 - 185	120 - 240

Conductor cross-section Cu (mm²)

RM 	Round, stranded	16 - 70	50 - 120	95 - 240	120 - 300
SM 	Sector shaped, stranded	25 - 70	50 - 120	95 - 185	120 - 240

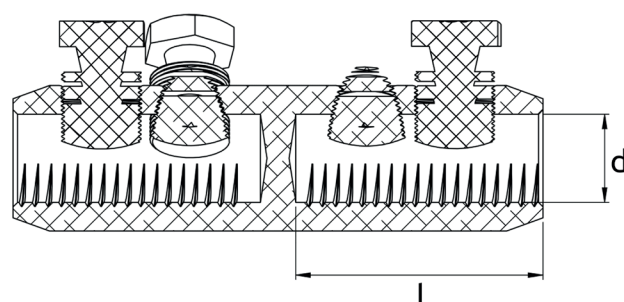
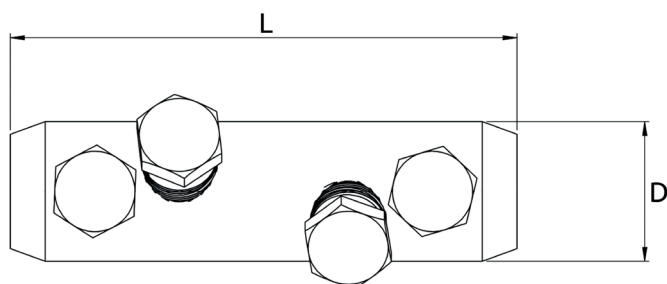
No. of bolts Ø mm	2 / M12	2 / M14	4 / M18	4 / M22
L / l	70 / 33	80 / 35	120 / 56	142 / 67
D / d	24 / 14	30 / 16	33 / 20	38 / 24,5
Weight (g)	90	170	250	510
Package (pcs)	30	25	15	10

Bolts: tin-plated brass






Suitable for Al/Cu applications

36kV connectors are also available with brass inner hexagon bolts - to order, replace letter B of the product code with D. For example: MSCM0952D00.

Dimensions





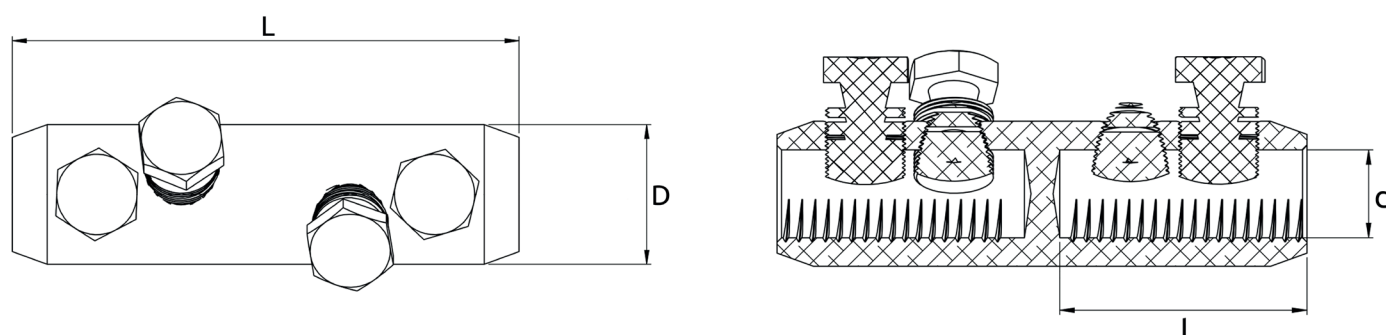
	MSCM400	MSCM630	MSCM1000
	MSCM4006B00	MSCM6306B00	MSCM10008B00
Technical data			
Conductor cross-section Al (mm ²)			
RE  Round, solid	185 - 400	400 - 630	630 - 1000
RM  Round, stranded	185 - 400	400 - 630	630 - 1000
SM  Sector shaped, stranded	185 - 300	400 - 500	630 - 800
Conductor cross-section Cu (mm ²)			
RM  Round, stranded	185 - 400	400 - 630	630 - 1000
SM  Sector shaped, stranded	185 - 300	400 - 500	630 - 800
No. of bolts Ø mm	6 / M22	6 / M22	8 / M22 long
L / l	170 / 82	200 / 94	220 / 105
D / d	42 / 26	52 / 34	65 / 41
Weight (g)	800	1200	1900
Package (pcs)	5	3	2

Bolts: tin-plated brass

Suitable for Al/Cu applications

36kV connectors are also available with brass inner hexagon bolts - to order, replace letter B of the product code with D. For example: MSCM0952D00.

Dimensions

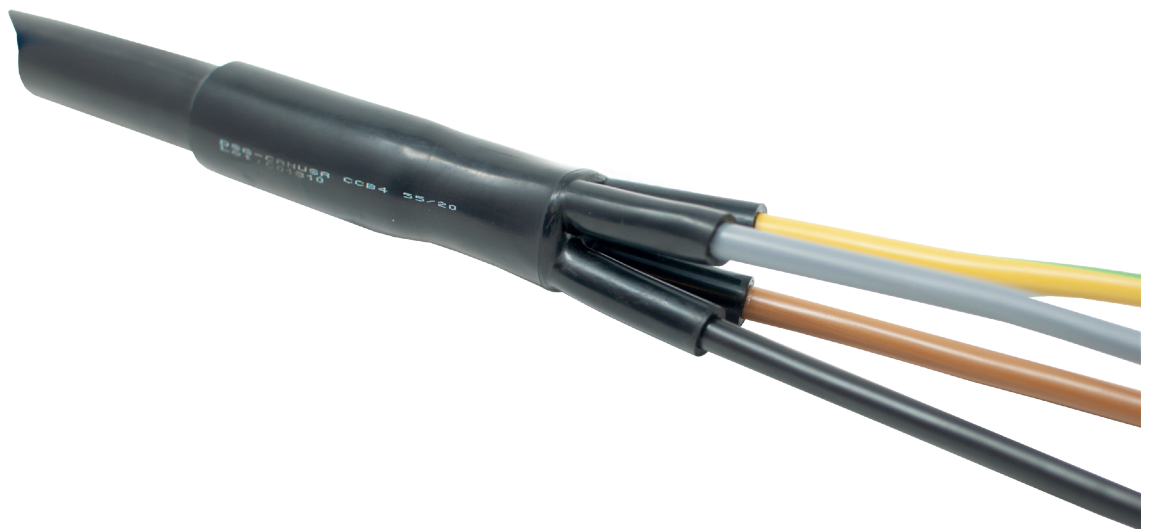


Heat-shrink sets for cables up to 1kV

| For applications up to 1kV

| Suitable for cables with
PVC/XLPE insulation

| Certified according to
EN61238-1 class A



- The termination kits are used for terminating 1kV cables with plastic insulation and outer plastic sheath. Shear Bolt cable lugs are included in the kits.
- Termination kits are available for 3, 4 or 5 core cables and are suitable for both aluminium and copper conductors.
- Sanding and cleaning materials are also included

together with instruction manuals for the kits.

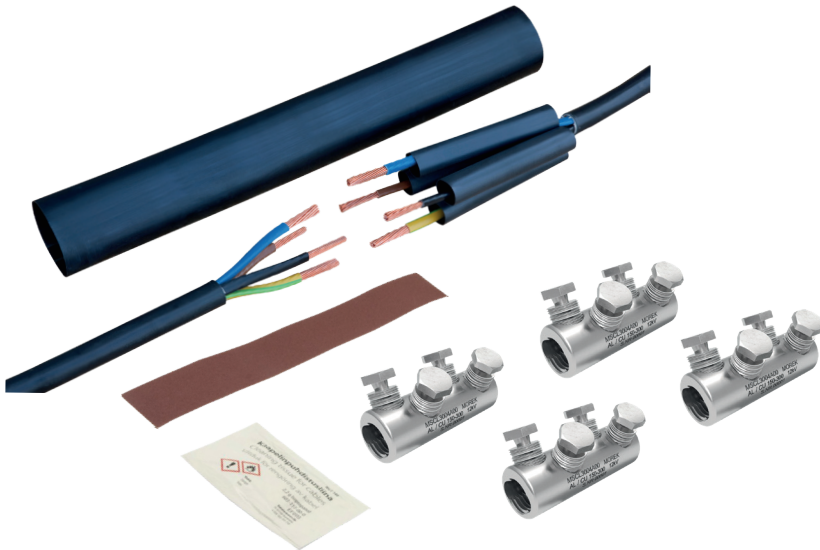
- Heat-shrink terminations and tubes are high quality products and make the process of installation easy.
- Heat-shrink cable termination kits are available for indoors and outdoors applications.



Order code	Conductor size	Lugs	Qty of cores
MSLS0351A10	Al / Cu 6 - 35 mm ²	4 x MSL0351A10	4
MSLS0701A12	Al / Cu 25 - 70 mm ²	4 x MSL0951A12	4
MSLS1202A12	Al / Cu 70 - 120 mm ²	4 x MSL1502A12	4
MSLS2402A12	Al / Cu 120 - 240 mm ²	4 x MSL2402A12	4

Please contact your Customer Service representative for information on kits for 3 and 5 core cables.

- The jointing kits are used for joining 1kV cables with plastic insulation and outer plastic sheath. Shear Bolt cable lugs are included in the kits.
- Jointing kits are available for 3, 4 or 5 core cables and are suitable for both aluminium and copper conductors.
- Sanding and cleaning materials are also included together with instruction manuals for the kits.
- Heat-shrink tubes for cores and outer sheath are high quality products and make the process of installation easy.



Order code	Conductor size	Connectors	Qty of cores
MSCS0352A00	Al / Cu 6 - 35 mm ²	4 x MSCL0252A00	4
MSCS0502A00	Al / Cu 16-50 mm ²	4 x MSCL0502A00	4
MSCS0702A00	Al / Cu 25 - 70 mm ²	4 x MSCL0952A00	4
MSCS0952A00	Al / Cu 50 - 95 mm ²	4 x MSCL0952A00	4
MSCS1202A00	Al / Cu 70 - 120 mm ²	4 x MSCL1502A00	4
MSCS2404A00	Al / Cu 95 - 240 mm ²	4 x MSCL2404A00	4
MSCS2402A00	Al / Cu 120 - 240 mm ²	4 x MSCL2402A00	4
MSCS3004A00	Al / Cu 150 - 300 mm ²	4 x MSCL3004A00	4

Please contact your Customer Service representative for information on kits for 3 and 5 core cables.

MOREK Finland

MOREK Estonia

MOREK Latvia

MOREK Lithuania

MOREK Poland

MOREK Czech Republic

MOREK Slovakia

