



MAREL

EUROPE - SERBIA

KATALOG PROIZVODA / PRODUCT CATALOGUE 2026 v3

MAREL

Privredno društvo MAREL d.o.o. osnovano je 1994. kao porodična trgovina elektromaterijalom. Prateći rastuću potražnju za kablovskom opremom, kao i uzimajući u obzir sopstvenu viziju, privredno društvo MAREL d.o.o. u Januaru 1997. godine pokreće sopstvenu proizvodnju. Prvi proizvod bio je Vijačna kablovska papučica, koja je proizvedena u porodičnoj garaži. Zahvaljujući visokom kvalitetu proizvoda i dobroj tržišnoj orijentaciji, asortiman se 1998. godine proširio na Bakarne papučice i čaure, dok se 1999. godine proširio i na NN SKS pribor. Broj zaposlenih je od 2, tokom ove dve godine porastao na 10 zaposlenih, a izgrađen je i prvi proizvodni pogon veličine 200 m².

U narednim godinama, privredno društvo MAREL d.o.o. fokusiralo se na razvoj novih proizvoda iz oblasti NN SKS pribora, uključujući prvi model IVS 16-35/35-70mm² (poznat i kao 2,5-35/16-95 mm² CBS/CT 95). Njegova unapređena verzija, u potpunosti usklađena sa savremenim tržišnim zahtevima, danas je najprodavaniji proizvod. Pored toga, razvijeni su i proizvodi poput zateznih stezaljki PA 1500, nosećih stezaljki PS 1500, kao i zateznih stezaljki PA 25. Godine 2005. celokupan sistem poslovanja je usklađen sa zahtevima standarda ISO 9001. Kao rezultat adekvatnog planiranja i razvoja proizvodnje, 2010. godine realizovan je prvi veliki izvozni ugovor. Od tog trenutka, svaki segment poslovanja privrednog društva MAREL d.o.o. usmeren je na specifične tehničke i tehnološke zahteve koji proizilaze iz različitih delova globalnog tržišta.

Prateći rastuće zahteve tržišta i trendove automatizacije proizvodnje, 2012. godine započeta je izgradnja novih proizvodnih pogona površine 2000 m², a 2015. godine nova fabrika počinje sa radom.

RAZVOJ I INOVACIJE

Dugogodišnje iskustvo u razvoju i konstrukciji NN SKS opreme rezultiralo je i razvojem opreme za SN izolovane elektrodistribucione vodove, čiji razvoj i usavršavanje čine ključne aspekte našeg trenutnog i budućeg poslovanja.

Ključna karakteristika poslovanja MAREL d.o.o. je dinamičnost, stalna inovacija proizvodnog programa, razvoj savremenog dizajna proizvoda, kao i optimizacija i unapređenje efikasnosti proizvodnih procesa.

Prateći i analizirajući kretanja tržišnih trendova, kao i kroz aktivno učešće na međunarodnim sajmovima u oblasti elektroenergetike, MAREL d.o.o. se, zahvaljujući posvećenosti svih zaposlenih u svakom segmentu poslovanja – od razvoja i istraživanja, marketinga i prezentacije, do proizvodnje, prodaje i tehničke podrške u postprodaji – kontinuirano fokusira na pronalaženje novih tehničkih rešenja za svoje proizvode.

KVALITET I MEĐUNARODNI STANDARDI

Kvalitet naših proizvoda garantuje njihovu trajnost i pouzdanost u svim vremenskim uslovima, dok precizno tehničko oblikovanje omogućava laku montažu i dugotrajnu upotrebu.

Svi proizvodi kompanije MAREL d.o.o. ispitani su u skladu sa relevantnim međunarodnim standardima EN 50483:2009 - Zahtevi za ispitivanje pribora za niskonaponske vazdušne usnopljene kablove, EN 61238-1:2020 - Stezni i mehanički konektori za energetske kablove: Metode ispitivanja i zahtevi, SRPS EN 61284:2009 - Nadzemni vodovi - Zahtevi i ispitivanja za opremu nadzemnih vodova za napon iznad 45 kV, spojnice nazivnih vodova nižih napona i sličnih spojnice za transformatorske stanice, SRPS EN ISO 1461:2022 - Prevlake cinka nanese toplim postupkom na proizvode od gvožđa i čelika. Ispitivanja su sprovedena u nezavisnoj, akreditovanoj laboratoriji prema standardu SRPS EN ISO/IEC 17025, čime se obezbeđuje pouzdanost, objektivnost i verifikovana usaglašenost proizvoda sa važećim tehničkim zahtevima.

MAREL d.o.o. posluje u skladu sa Integrisanim sistemom menadžmenta kvalitetom (IMS) koji obuhvata sistem menadžmenta kvalitetom (QMS), zaštitu životne sredine (EMS) i zaštitu zdravlja i bezbednosti na radu (OH&S). Ovaj sistem implementiran je u skladu sa zahtevima standarda ISO 9001:2015, ISO 14001:2015 i ISO 45001:2018. IMS se primenjuje u svim funkcijama organizacije prilikom realizacije svih poslovnih aktivnosti.

DELATNOST I TRŽIŠTA

Danas je osnovna delatnost Privrednog društva MAREL d.o.o. projektovanje, razvoj i proizvodnja elektroenergetske i telekomunikacione opreme, uključujući kablovske papučice i čaure, opremu za NN neizolovane mreže do 1 kV, opremu za NN SKS do 1 kV, kao i ostali kablovski pribor.

Trenutno, privredno društvo MAREL d.o.o. izvozi svoje proizvode u više od 74 zemlje širom sveta. Pored portfolija vezanog za elektroenergetiku, MAREL d.o.o. je prisutan i u sektoru nadzemnih telekomunikacionih mreža, solarnih polja, kao i mreža za napajanje električnih vozila.

ODRŽIVOST I ODGOVORNOST

MAREL d.o.o., u skladu sa pozitivnom poslovnom praksom, aktivno se posvećuje očuvanju bezbednog i zdravog radnog okruženja, obuci i edukaciji zaposlenih, kao i na povećanju svesti o značaju bezbednosti na radu, negujući pritom odnose sa lokalnom zajednicom i poštujući principe cirkularne ekonomije. U svom poslovanju, MAREL d.o.o. sprovodi kontinuirane investicije u energetske efikasne proizvodne opreme, takođe odgovorno i pravilno upravlja resursima i otpadom, čime doprinosi smanjenju potrošnje energije, implementaciji programa obnovljivih izvora energije i smanjenju emisije CO₂, odnosno smanjenju svog karbonskog otiska.

PROIZVODNJA I KAPACITETI

Proizvodni procesi odvijaju se u savremeno opremljenom proizvodnom prostoru površine 3000 m², koji se sastoji od sledećih radnih celina:

- Pogon livnice obojenih metala sa kovačnicom
- Pogon za brizganje termoplastičnih masa
- Pogon preseraja sa radionicom održavanja
- Pogon mehaničke obrade metala sa alatnicom
- Pogon montaže, ambalažiranja i pakovanja
- Pogon obrade metala na CNC strugovima
- Laboratorija za razvojna testiranja i analizu
- Laboratorija za fabrička ispitivanja, procesnu kontrolu i finalnu kontrolu
- Služba magacinskog poslovanja i proizvodnih koordinatora
- Služba prodaje i nabavke
- Služba za ljudske resurse
- Služba razvoja i istraživanja tržišta, novih proizvoda i novih tehnologija
- Služba marketinga i tehničke podrške u postprodaji

COMPANY HISTORY

MAREL was founded in 1994 as a family-owned company engaged in the trade of electrical materials. Following the growing demand for cable accessories and guided by its own business vision, MAREL launched its own production in January 1997. The first product was a Screw-type mechanical cable lug, manufactured in the family garage. Thanks to high product quality and strong market orientation, the product range was expanded in 1998 to include Tubular copper cable lugs and joints, and in 1999 to include LV ABC (Aerial Bundled Cable) accessories. During this two-year period, the number of employees increased from 2 to 10, and the first production facility with an area of 200 m² was constructed.

In the following years, MAREL focused on the development of new products in the field of LV ABC accessories, including the first model of IPC 16-35/35-70 mm² (also known as 2,5-35/16-95 mm² CBS/CT 95). Its improved version, fully aligned with modern market requirements, is today the company's best-selling product. In addition, products such as dead end clamps PA 1500, suspension clamps PS 1500 and anchoring clamps PA 25 were developed. In 2005, the entire business system was aligned with the requirements of the ISO 9001 standard. As a result of adequate planning and production development, the first major export contract was realized in 2010. Since then, every segment of MAREL's operations has been oriented toward specific technical and technological requirements arising from various parts of the global market.

Following increasing market demands and production automation trends, construction of new production facilities with an area of 2,000 m² began in 2012, and the new factory started operations in 2015.

DEVELOPMENT AND INNOVATION

Many years of experience in the development and design of LV ABC accessories have also resulted in the development of accessories for MV insulated distribution lines, whose further development and improvement represent key aspects of our current and future business activities.

A key characteristic of MAREL's operations is dynamism, continuous innovation of the product range, development of modern product design, as well as optimization and improvement of production process efficiency.

By continuously monitoring and analyzing market trends and through active participation in international power trade fairs, MAREL, thanks to dedicated work of all employees in every segment of the business - from research and development, marketing and presentation, to production, sales, and after-sales technical support - remains consistently focused on finding new technical solutions for its products.

QUALITY AND INTERNATIONAL STANDARDS

The quality of our products guarantees durability and reliability under all weather conditions, while precise technical design enables easy installation and long service life.

All MAREL's products have been tested in accordance with relevant international standards: EN 50483:2009 – Test requirements for low voltage aerial bundled cable accessories, EN 61238-1:2020 – Test methods and requirements for compression and mechanical connectors for power cables, EN 61284:2009 – Overhead lines - Requirements and tests for fittings for overhead lines of nominal voltage above 45 kV, fittings for overhead lines of lower nominal voltage and similar fittings for substations. EN ISO 1461:2022 – Hot dip galvanized coatings on fabricated iron and steel articles. Testings were carried out in an independent, accredited laboratory in accordance with EN ISO/IEC 17025, ensuring reliability, objectivity, and verified compliance of the products with applicable technical requirements.

MAREL operates in accordance with an Integrated Management System (IMS), which includes the Quality Management System (QMS), Environmental Management System (EMS), and Occupational Health and Safety Management System (OH&S). This system has been implemented in compliance with the requirements of ISO 9001:2015, ISO 14001:2015 and ISO 45001:2018, and is applied across all organizational functions and business activities.

BUSINESS ACTIVITIES AND MARKETS

The core business activity of MAREL is the design, development, and manufacturing of power and telecommunications accessories, including cable lugs and joints, accessories for LV non-insulated networks up to 1 kV, accessories for LV ABC up to 1 kV, as well as other cable accessories.

Currently, MAREL exports its products to more than 74 countries worldwide. In addition to the product portfolio related to power distribution networks, MAREL is also present in the sectors of overhead telecommunications networks, solar power plants, and electric vehicle charging networks.

SUSTAINABILITY AND RESPONSIBILITY

In accordance with best business practices, MAREL is actively committed to maintaining a safe and healthy working environment, employee training and education, and raising awareness of occupational safety, while fostering strong relationships with the local community and respecting the principles of the circular economy. In its operations, MAREL continuously invests in energy-efficient production equipment and responsibly manages resources and waste, thereby contributing to reduced energy consumption, implementation of renewable energy programs, reduction of CO₂ emissions, and overall reduction of its carbon footprint.

PRODUCTION AND CAPACITIES

Production processes take place in a modernly equipped manufacturing facility covering an area of 3,000 m², consisting of the following units:

- Non-ferrous die casting plant with forging facility
- Thermoplastic injection molding plant
- Metal fabrication plant with maintenance workshop
- Metal machining plant with mold shop
- Assembly line with packaging
- CNC turning plant
- Laboratory for development testing and analysis
- Laboratory for factory testing, process control, and final inspection
- Warehouse management and production coordination department
- Sales and procurement department
- Human resources department
- Research and development of markets, new products, and new technologies department
- Marketing and after-sales technical support department



Icy contact - **Warm safety.**

MAREL STEZALJKE KLASA A
MAREL UNIVERSAL TERMINALS CLASS A

MAREL

EUROPE - SERBIA

PRODUCT CATALOGUE 2026 V.2

SRB.

MAREL STEZALJKA KLASA A JEDNOPOLNA 1,5-16mm²

Marel Stezaljka klase A 1,5-16mm² je namenjena za spajanje bakarnih ili aluminijumskih provodnika, punog, sektorskog i okruglog preseka od 1,5mm² do 16mm² i kao takva nalazi primenu u širokom opsegu elektroenergetskih, industrijskih i infrastrukturnih objekata.



ENG.

MAREL UNIVERSAL TERMINAL CLASS A 1-POLE 1,5-16mm²

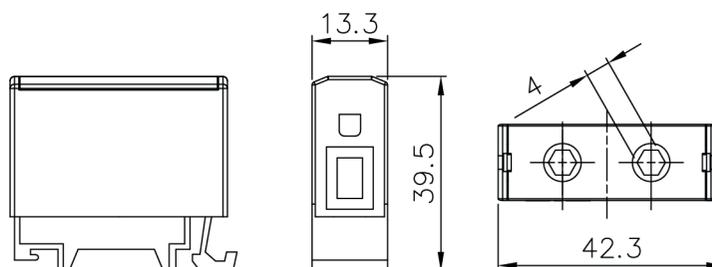
unbreakable
bond



Marel Universal Terminal Class A 1,5-16mm² is designed for connection of aluminum or copper conductors, both solid and stranded - round or sector and of cross section from 1,5 mm² up to 16 mm². They find application in a wide range of power distribution facilities, industrial and infrastructural facilities.

Kat.broj Cat. No.	Kod Code	Presek provodnika (mm ²) Cross-section (mm ²)	Boja Color	Nazivna struja (A) Nominal current (A)	Napon (V) Voltage (V)	Imbus ključ br. Socket wrench no.	Moment stezanja (Nm) Tightening torque (Nm)	Montaža Installation	Težina kg/100 kom Weight kg/100 pcs
500101	MSKA60.1	Al/Cu 1.5-16	Grey	82	750	4	7	DIN šina/busbar	1,90
500102	MSKA60.2	Al/Cu 1.5-16	Blue	82	750	4	7	DIN šina/busbar	1,90
500103	MSKA60.3	Al/Cu 1.5-16	Yellow-green	82	750	4	7	DIN šina/rbusbar	1,90

Napomena: Po zahtevu Kupca može da se isporučiti MSKA stezaljka koja može da se ugradi bez šine i to uz pomoć dva ili više vijaka, kojima se stezaljka pričvršćuje direktno na ravnu površinu u ormanu.



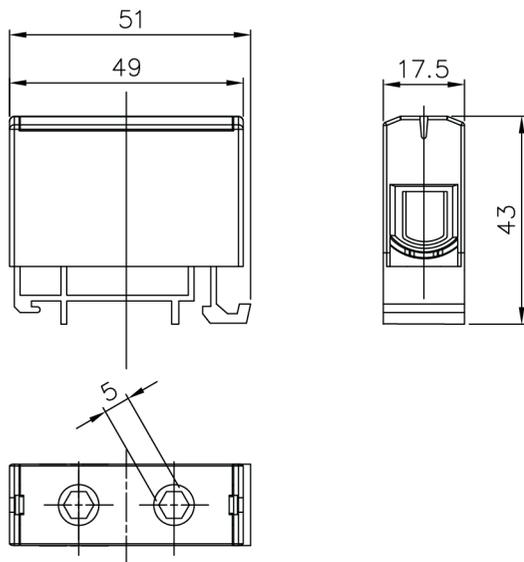
Note: At Customer request we can deliver MSKA terminal that can be installed without a busbar, with two or more screws by which the terminal is fastened directly onto the flat surface in the enclosure.

SRB.

MAREL STEZALJKA KLASE A JEDNOPOLNA 2,5-50mm²

ENG.

MAREL UNIVERSAL TERMINAL CLASS A 1-POLE 2,5-50mm²



SRB.

Marel Stezaljka klase A 2,5-50mm² je namenjena za spajanje bakarnih ili aluminijumskih provodnika, punog, sektorskog i okruglog preseka od 2,5mm² do 50mm² i kao takva nalazi primenu u širokom opsegu elektroenergetskih, industrijskih i infrastrukturnih objekata.

Napomena: Po zahtevu Kupca može da se isporuči MSKA stezaljka koja može da se ugradi bez šine i to uz pomoć dva ili više vijaka, kojima se stezaljka pričvršćuje direktno na ravnu površinu u ormanu.

ENG.

Marel Universal Terminal Class A 2,5-50mm² is designed for connection of aluminum or copper conductors, both solid and stranded - round or sector and of cross section from 2,5 mm² up to 50 mm². They find application in a wide range of power distribution facilities, industrial and infrastructural facilities.

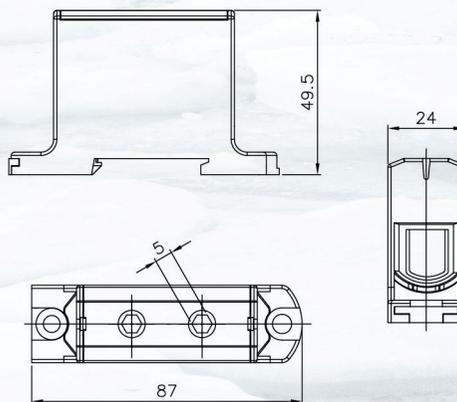
Note: At Customer request we can deliver MSKA terminal that can be installed without a busbar with two or more screws by which the terminal is fastened directly onto the flat surface in the enclosure.

Kat.broj Cat. No.	Kod Code	Presek provodnika (mm ²) Cross-section (mm ²)	Boja Color	Nazivna struja (A) Nominal current (A)	Napon (V) Voltage (V)	Imbus ključ br. Socket wrench no.	Moment stezanja (Nm) Tightening torque (Nm)	Montaža Installation	Težina kg/100 kom Weight kg/100 pcs
500104	MSKA611	Al/Cu 2,5-50	Grey	160	750	5	10	DIN šina/busbar	3,50
500105	MSKA612	Al/Cu 2,5-50	Blue	160	750	5	10	DIN šina/busbar	3,50
500106	MSKA613	Al/Cu 2,5-50	Yellow-green	160	750	5	10	DIN šina/busbar	3,50

SRB:

MAREL STEZALJKA KLASA A JEDNOPOLNA 16-95mm²

Marel Stezaljka klase A 16-95mm² je namenjena za spajanje bakarnih ili aluminijumskih provodnika, punog, sektorskog i okruglog preseka od 16mm² do 95mm² i kao takva nalazi primenu u širokom opsegu elektroenergetskih, industrijskih i infrastrukturnih objekata. od 2,5mm² do 50mm² i kao takve nalaze primenu u širokom opsegu elektroenergetskih, industrijskih i infrastrukturnih objekata.



Napomena: Po zahtevu Kupca može da se isporučiti MSKA stezaljka koja može da se ugradi bez šine i to uz pomoć dva ili više vijaka, kojima se stezaljka pričvršćuje direktno na ravnu površinu u ormanu.

ENG:

MAREL UNIVERSAL TERMINAL CLASS A 1-POLE 16-95mm²

Marel Universal Terminal Class A 16-95mm² is designed for connection of aluminum or copper conductors, both solid and stranded - round or sector and of cross section from 16mm² up to 95mm². They find application in a wide range of power distribution facilities, industrial and infrastructural facilities.



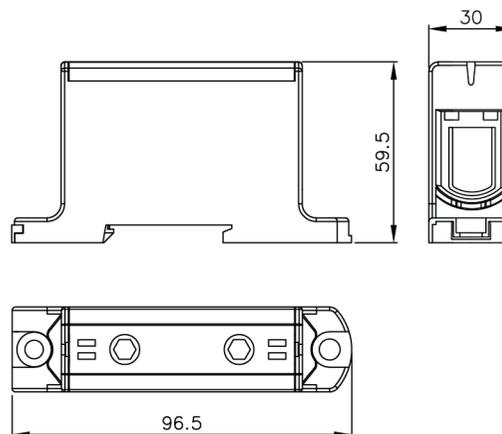
Note: At Customer request we can deliver MSKA terminal that can be installed without a busbar, with two or more screws by which the terminal is fastened directly onto the flat surface in the enclosure.

Kat.broj Cat. No.	Kod Code	Presek provodnika (mm ²) Cross-section (mm ²)	Boja Color	Nazivna struja (A) Nominal current (A)	Napon (V) Voltage (V)	Imbus ključ br. Socket wrench no.	Moment stezanja (Nm) Tightening torque (Nm)	Montaža Installation	Težina kg/100 kom Weight kg/100 pcs
500107	MSKA62.1	Al/Cu 16-95	Grey	245	750	5	20	DIN šina/busbar	9,00
500108	MSKA62.2	Al/Cu 16-95	Blue	245	750	5	20	DIN šina/busbar	9,00
500109	MSKA62.3	Al/Cu 16-95	Yellow-green	245	750	5	20	DIN šina/busbar	9,00

SRB.

MAREL STEZALJKA KLASA A JEDNOPOLNA 25-150mm²

Marel Stezaljka klase A 25-150mm² je namenjena za spajanje bakarnih ili aluminijumskih provodnika, punog, sektorskog i okruglog preseka od 25mm² do 150mm² i kao takva nalazi primenu u širokom opsegu elektroenergetskih, industrijskih i infrastrukturnih objekata.



Napomena: Po zahtevu Kupca može da se isporučiti MSKA stezaljka koja može da se ugradi bez šine i to uz pomoć dva ili više vijaka, kojima se stezaljka pričvršćuje direktno na ravnu površinu u ormanu.

ENG.

MAREL UNIVERSAL TERMINAL CLASS A 1-POLE 25-150mm²

Marel Universal Terminal Class A 25-150mm² is designed for connection of aluminum or copper conductors, both solid and stranded - round or sector and of cross section from 25mm² up to 150mm². They find application in a wide range of power distribution facilities, industrial and infrastructural facilities.



Note: At Customer request we can deliver MSKA terminal that can be installed without a busbar, with two or more screws by which the terminal is fastened directly onto the flat surface in the enclosure.

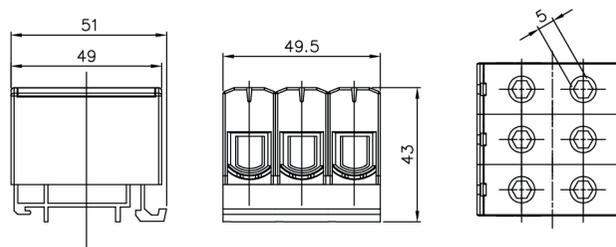
Kat.broj Cat. No.	Kod Code	Presek provodnika (mm ²) Cross-section (mm ²)	Boja Color	Nazivna struja (A) Nominal current (A)	Napon (V) Voltage (V)	Imbus ključ br. Socket wrench no.	Moment stezanja (Nm) Tightening torque (Nm)	Montaža Installation	Težina kg/100 kom Weight kg/100 pcs
500111	MSKA63.1	Al/Cu 25-150	Grey	425	750	5	20	DIN šina/busbar	16.70
500112	MSKA63.2	Al/Cu 25-150	Blue	425	750	5	20	DIN šina/busbar	16.70
500113	MSKA63.3	Al/Cu 25-150	Yellow-green	425	750	5	20	DIN šina/busbar	16.70

SRB.

MAREL STEZALJKA KLASA A TROPOLNA 2,5-50mm²

Marel Stezaljka klase A tropolna 2,5-50mm² je namenjena za spajanje bakarnih ili aluminijumskih provodnika, punog, sektorskog i okruglog preseka od 2,5mm² do 50mm² i kao takva nalazi primenu u širokom opsegu elektroenergetskih, industrijskih i infrastrukturnih objekata.

Napomena: Po zahtevu Kupca može da se isporučiti MSKA stezaljka koja može da se ugradi bez šine i to uz pomoć dva ili više vijaka, kojima se stezaljka pričvršćuje direktno na ravnu površinu u ormanu.



ENG.

MAREL UNIVERSAL TERMINAL CLASS A 3-POLE 2,5-50mm²

Marel Universal Terminal Class A 3-pole 2,5-50mm² is designed for connection of aluminum or copper conductors, both solid and stranded - round or sector and of cross section from 2,5mm² up to 50mm². They find application in a wide range of power distribution facilities, industrial and infrastructural facilities.

Note: At Customer request we can deliver MSKA terminal that can be installed without a busbar, with two or more screws by which the terminal is fastened directly onto the flat surface in the enclosure.

Kat.broj Cat. No.	Kod Code	Poprečni presek (mm ²) Cross-section (mm ²)	Boja Color	Nazivna struja (A) Nominal current (A)	Napon (V) Voltage (V)	Imbus ključ br. Socket wrench no.	Moment stezanja (Nm) Tightening torque (Nm)	Montaža Installation	Težina kg/100 kom Weight kg/100 pcs
500110	MSKA61.4	Al/Cu 2,5-50	Grey	160	750	5	10	DIN šina/busbar	9.50



SRB.

REDNE STRUJNE STEZALJKE KLASA A

Redne Stezaljke su namenjene za spajanje bakarnih ili alumijumskih provodnika, punog, sektorskog i okruglog preseka od 1,5 mm² do 240 mm² i kao takve nalaze primenu u širokom opsegu elektroenergetskih, industrijskih i infrastrukturnih objekata.

Prednosti Rednih Strujnih stezaljki klase A (MSKA) su:

* Nizak prelazni električni otpor strujne stezaljke (Ω) koji je rezultat odlične elektroprovodljivosti legure aluminijuma (35,5 x 106 S/m) od koje su izrađeni kontaktni mostovi.

* Kontaktni mostovi su površinski galvanski kalajisani (Sn) i kao takvi dozvoljavaju spajanje alumijumskih i bakarnih provodnika bez razlike i potpuno nezavisno od nivoa vlage u okruženju.

* Velika dozvoljena sila stezanja (Nm). Sila stezanja se ostvaruje preko imbus vijaka kao najpouzdanijeg rešenja za dobijanje kvalitetnog pritiska na provodnik.

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ZAŠTO BAŠ REDNE STEZALJKE KLASA A ?

Redne stezaljke klase A su testirane i sertifikovane po sledećim standardima: EN 61238-1-1, SRPS N.F 4 106, SRPS EN 60947-7. Standard EN 61238-1-1 podrazumeva testiranje na kratak spoj i ispunjavanjem tehničkih zahteva tog standarda omogućeno je klasiranje MSKA kao stezaljke klase A.

Marel strujne stezaljke klase A su bezbedne, lake za ugradnju i pouzdane strujne stezaljke odnosno strujne kleme, sposobne da dugotrajno rade u složenom okruženju izložene vibracijama, velikom električnom opterećenju, povećanoj vlažnosti vazduha i temperature.

Spajanje se vrši Imbus vijcima.

Sila pritezanja je deklarirana na svakoj stezaljci.

Strujne stezaljke imaju otvore za obeležavanje.

Na stezaljkama je označena dužina uklanjanja izolacije sa kraja provodnika koji se postavlja u telo stezaljke.

IP stepen zaštite je IP20.

Stezaljke na kontaktnim mestima sadrže elektrokontaktnu mast.

Kućiče stezaljke je izrađeno od samogasivog materijala UL 94 V-0.

Unutrašnji žljebovi stezaljke su nazubljeni radi ostvarivanja boljeg kontakta.

Stezaljke se montiraju na DIN 35 šinu.

Stezaljke poseduju CE znak.

Uporedni test:

Sklop je sastavljen od: Cu provodnika 35mm², redne stezaljke drugog proizvođača, Al provodnik 35mm², Marel stezaljke klase A, Cu provodnik 50mm².

Električna struja kroz sklop 203A. Sila stezanja 10Nm na obe stezaljke. Temperaturna razlika testiranih stezaljki nakon 120 min i jačine struje od 203A je 17,2°C što znači da se Marel stezaljka klase A za 37% manje greje.

Manje grejanje MSKA stezaljke u radnim uslovima je obezbeđeno kontaktima, koji su izrađeni od alumijumske legure, koja je za oko 30% bolji električni provodnik od legure mesinga i površinskom zaštitom kontakata galvanskim kalajisanjem, s obzirom da kalaj ima znatno manji prelazni otpor od galvanski nanešenog cinka.



WHY MAREL UNIVERSAL TERMINALS CLASS A ?

ENG.

MAREL UNIVERSAL TERMINALS CLASS A (MSKA)

Marel Universal Terminals Class A are tested and certified in accordance with the following standards: EN 61238-1-1, EN 60947-7. Heat cycle and short-circuit test are according to EN 61238-1-1 Class A and since the connectors fulfill the requirements of this standard they can be classified as class A.

Marel Universal Terminals Class A are safe, easy to install and reliable connectors, capable of long-term exploitation in complex environment exposed to vibrations, big electric load, increased air humidity and temperature.

Connection is done with socket set screws.

Tightening torque is marked on each connector.

The connectors have slits for markers.

Stripping length of the conductor which is placed into the connector's body is marked on each connector.

Ingress Protection rating is IP20.

The contact points of the connectors are protected with electrical contact grease.

The housing of the connector is made of flame retardant material UL 94 V-0.

The inside grooves of the connector are serrated in order to ensure better contact.

The connectors are mounted on busbar / DIN rail TS 35.

The connectors are CE marked.

Comparative test:

Set consists of: Copper conductor 35mm², terminal connector of another manufacturer, Aluminum conductor 35mm², Marel Universal Terminal Class A, Copper conductor 50mm². Electrical current through the assembly is 203A.

Tightening torque is 10Nm on both connectors. The difference in temperature of tested connectors after 120 min and current of 203A is 17.2°C, which means that Marel Universal Terminal Class A is 37% less heated.

Less heating of MSKA in working conditions is due to electrical contact plates which are made of aluminum alloy that has a 30% better electrical conductivity than brass alloy, as well as due to galvanic tin-plated contact plates since tin has significantly less transient resistance than zinc.



Universal Terminals are used for connection of aluminium or copper conductors, both solid and stranded - round or sector and of cross section from 1,5 mm² up to 240 mm². They find application in a wide range of power distribution facilities, industrial and infrastructural facilities.

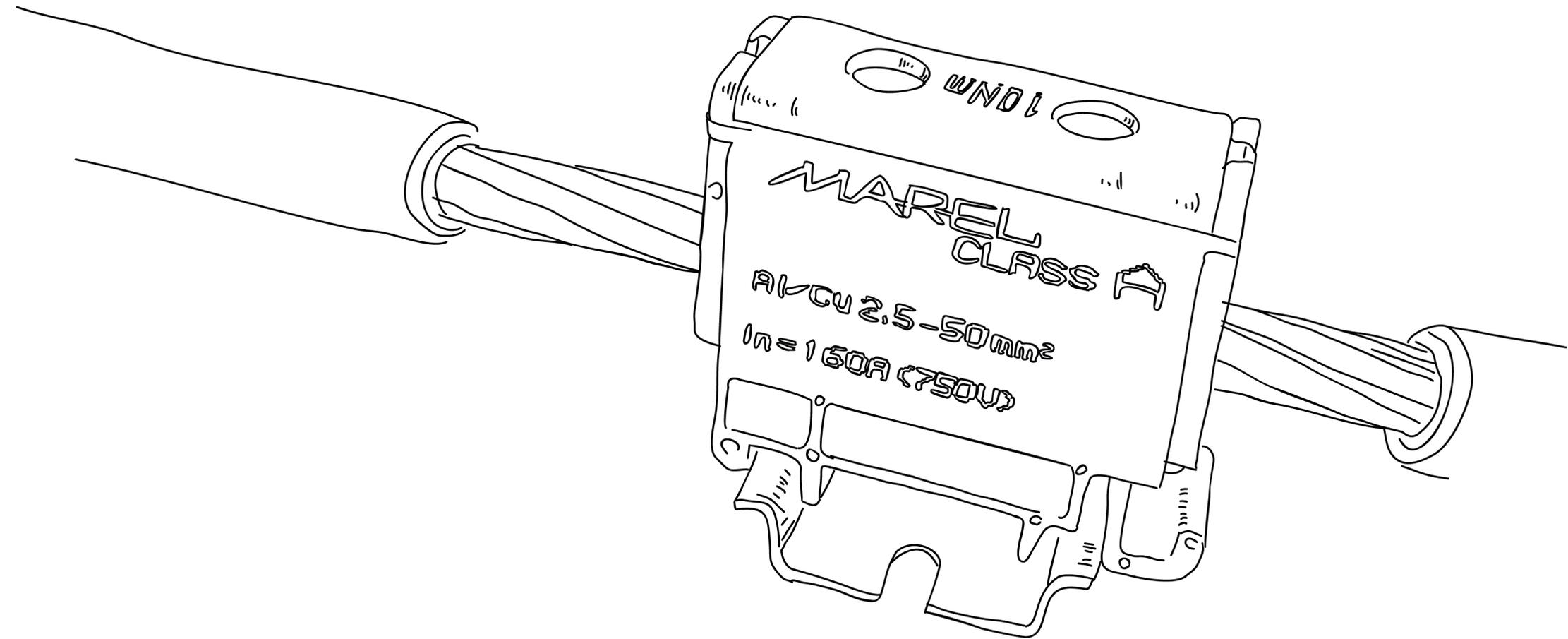
The advantages of Marel Universal Terminals Class A (MSKA) are the following:

*Low transient resistance (Ω) which is a result of excellent electric conductivity ($35,5 \times 10^6$ S/m) of the aluminum alloy of which contact plates are made.

*Contact plates are tin-plated (Sn) and allow connection of aluminum and copper conductors regardless of humidity level in the environment.

*Big permitted tightening torque (Nm).

Tightening torque is achieved through socket screws as the most reliable solution for obtaining a high quality pressure on the conductor.



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Proizvođač MAREL d.o.o. za sve svoje proizvode, a na zahtev Kupca dostavlja pismenu garanciju od minimum 3 godine na kvalitet, funkcionalnost i pouzdanost.

Štampom ovog kataloga, tehničkog priručnika svi ranije objavljeni podaci o našim proizvodima, kataloškim brojevima, tehničkim karakteristikama, prestaju da važe. Proizvođač zadržava pravo da bez prethodne najave izvrši izmene i dopune podataka u katalogu.

Svi podaci u ovom tehničkom priručniku, katalogu naših proizvoda, odgovaraju našim tehničkim saznanjima i merenjima. Ovaj tehnički priručnik se ne može upotrebiti kao garancija posebnih kvaliteta i zahteva proizvoda u čiji smo kvalitet, trajnost, funkcionalnost i pouzdanost mi kao proizvođači uvereni.

Na zahtev Kupaca dostavljamo :

- protokole i uverenja o tehničkim ispitivanjima izdatim od strane akreditovane laboratorije;
- pojedinačnu tehničku dokumentaciju za svaki proizvod;
- uputstva za upotrebu.

NAPOMENA:

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- protocols and certificates of technical testings issued by accredited laboratories;
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- Instructions manuals.

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