Prysmian Group

Rolling Stock Cables

General Catalogue

PRYSMIAN

Draka

Prysmian Group

Linking the Future

As the worldwide leader in the cable industry, Prysmian Group believes in the effective, efficient and sustainable supply of energy and information as a primary driver in the development of communities.

With this in mind, we provide major global organisations in many industries with best-in-class cable solutions, based on state-of-the-art technology. Through two renowned commercial brands - Prysmian and Draka - based in almost 100 countries, we're constantly close to our customers, enabling them to further develop the world's energy and telecoms infrastructures, and achieve sustainable, profitable growth.

In our energy business, we design, produce, distribute and install cables and systems for the transmission and distribution of power at low, medium, high and extra-high voltage.

In telecoms, the Group is a leading manufacturer of all types of copper and fibre cables, systems and accessories - covering voice, video and data transmission.

Drawing on over 130 years' experience and continuously investing in R&D, we apply excellence, understanding and integrity to everything we do, meeting and exceeding the precise needs of our customers across all continents, at the same time shaping the evolution of our industry.

What links global expertise to the wheels of industry?

High-performing cable solutions to keep the wheels of industry turning.

On every continent, in applications that range from rolling stock and vehicles for high-speed trains and urban mass transit lines, to all types of rail transport infrastructure, Prysmian's specialist cable solutions sit at the heart of significant international projects; supporting the work of major customers, with high-performing, durable and safe technology.

As the world leader in cabling, we draw on global expertise and local presence to work in close proximity with our customers, delivering products and service platforms built on easy contact, bespoke solutions and effective supply chain, meeting their specialised requirements, to help them drive the wheels of industry and achieve sustainable growth and profitability.

Rolling Stock Cables

Introduction

In the last few years, the development of rolling stock technology has been largely driven by the implementation of high speed train networks.

This development covers rolling stock for underground, mass transit lines and tramlines as well as diesel and regional trains.

The increasing need to reduce both volume and weight has lead to the development of miniaturised cables, as well as high temperature cables with enhanced performance.

This leads to highly stressed materials being used in the harsh environment of rolling stock.

Technergy™ provides a full range of products from Medium Voltage to Instrumentation cables, and from High Temperature to Thin Wall designs. The materials used have been specially developed to improve mechanical and thermal properties, fire performance and extended life using advanced technologies, such as electron beam irradiation and silan.

Application

The railway industry is continuously evolving in terms of new market requirements: increasingly demanding customer expectations, fierce competition and rapid technological changes are the main drivers of the entire Rolling Stock supply chain.

With the goal of maximizing passengers' comfort, operational efficiency, safety and speed, the train manufacturing industry is looking for new solutions in terms of both product and system development. The ever-growing challenge for train manufacturers is to meet all of the above-mentioned market needs.

Enhanced data and power transmission and advanced technology requirements, translate into an increased amount of cabling on the train. This has an impact on all types of rolling stock vehicles and carriages, especially on those for tramlines, underground and mass transit lines but also on diesel and regional trains.

To meet these requirements Prysmian Group, as the world leader in the energy and telecom cables and systems industry, is called to promote and drive product development and innovation, by minimizing the size and weight of cables and reducing the wall thickness of its insulation and outer sheath, yet maintaining or even enhancing performances.

Prysmian Group offers a full range of products from Medium Voltage to Instrumentation cables, from High Temperature to Thin Wall designs. The materials used have been specially developed to improve electrical, mechanical and thermal properties, fire performance and life expectancy of its products, using advanced technologies such as electron beam irradiation and silane cross-linking.

Benefits

> Outstanding and Complete Product Range

Prysmian Group offers a comprehensive product range covering all functionalities (MV/LV, Instrumentation & Control, Video and Data Transmission and Optical Fibres) and with a proven extended working lifetime, commonly exceeding 30 years, for the cabling of all types of trains and train equipment.

> Advanced Technology and Performance

The use of the most technologically advanced and high performing proprietary compounds allow cable design features such as:

- bending radius up to 3 times the cable outer diameter
- smallest dimensions possible and yet in strict compliance with the existing performance standards
- higher working temperature with scaled-down conductor cross-sections
- higher physical and mechanical resistance exceeding standard requirements for properties such as abrasion, notch propagation and repeated bending
- easy installation: cables designed and engineered with easy peeling properties and low friction between cables that reduce installation time
- compliance with EMC requirements for the railway environment.

> Unique Safety in Fire Hazards

Prysmian Group has always focused on ensuring safety in any working condition. Prysmian Rolling Stock cable solutions minimize fire hazards related to cables. Self-extinguishing properties, low emissions of smoke and reduced release of toxic and corrosive gases prevent the cables from contributing to the spreading of fire and related consequences.

Prysmian Rolling Stock cables are suitable in the most critical conditions (e.g. tunnels, deep metro lines, etc.) and are fully environmentally friendly (LSOH and recyclable).

> Tailor-made Solutions

Cables in trains must be resistant to a wide range of conditions, e.g. high speed effects, aggressive fluids, fuels, oils, greases, etc., as well as harsh environmental conditions (extreme low/hot temperatures, salts, mud, UV irradiation, etc.).

Prysmian Rolling Stock cables can be tailor-designed to meet all of these special requirements.

Prysmian could also provide harnessing solutions specifically tailored to customers' needs.

TECHNERGY Integrated Cabling Solutions™

Prysmian's TECHNERGY Integrated Cabling Solutions™ is one of the world's most comprehensive and technologically advanced answers to industry, infrastructure, contractors and OEM's specific requirements.

TECHNERGY Integrated Cabling Solutions™ are designed and structured into different product lines. Each one of these offer tailored designs and added value solutions to the most diverse functional and environmental requirements in various fields including trains and transportation infrastructures.

Certifications and Compliance

> IRIS (International Railway Industry Standard)

IRIS stands for International Railway Industry Standard. It is a globally recognized standard unique to the railway sector for the evaluation of management systems. The IRIS Group is a part of UNIFE – the Association of the European Rail Industry – and has the goal of securing higher quality in the railway industry and of enabling any railway component supplier to meet globally recognized levels of quality.
All Prysmian Rolling Stock cables and related production units and processes (purchasing, inventory, sales flows) worldwide are fully IRIS certified.

> REACH (Registration, evaluation and authorisation of chemicals)

Regulation of the European Parliament and the European Union Council, adopted on December 18th, 2006, which modernizes the European legislation regarding chemical substances, and sets up a unique integrated system of chemical substances in the European Union. Its objective is to improve the protection of the human health and of the environment, while maintaining the European chemical industry's competitiveness and strengthening its spirit of innovation. All Prysmian Rolling Stock cables are REACH compliant.

> RoHS (Restriction of the use of certain hazardous substances in electrical and electronic equipment)

The RoHS directive aims at restricting the use of certain dangerous substances commonly used in electric and electronic equipment (EEE). Cables concerned by this directive: any cable of rated below 250V, which function is the connection or the extension of an EEE to electrical outlet or the connection of two or more EEE to each other. All Prysmian Rolling Stock cables are RoHS compliant.

Rolling Stock Cables

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Rolling Stock Cables

Power and Control Cables
TEROL MW according to EN 50264

Power and Control Cables
TEROL SW according to EN 50264

Power Cables
TEROL HT according to EN 50382

Instrumentation and Control Cables
TEROL TW based on EN 50306

Power, Instrumentation and Control Cables
MOVIS based on EN 50264 series

Rolling Stock Cables

Identification Codes

Designation codes for cables according to EN 50264, EN 50306, EN 50382

S	screened
R	red copper (only for EN 50382)
X	extra flexible conductor class 6 (only for EN 50382)
Z	reinforced sheath (only for EN 50382)

Prysmian designation for cables according to EN 50264, EN 50306, EN 50382 (TEROL)

T	sheathed, for single core power cables
M	multicore
S	screened
X	extra flexible conductor class 6 (only for EN 50382)
Z	extra reinforced or exposed sheath
2	twisted pair
IS	individually screened (for pairs)
SWM	multicore with Standard Wall Sheath

Prysmian designation for cables based on EN standards (MOVIS)

C	screened
FLEX	multicore
FR	fire resistant

Technical information

The present catalogue illustrates Prysmian Group families of halogen free cables designed, manufactured and tested according to and/or based on CENELEC European Standards for use in rolling stock applications.

Depending on the train design category (double deck vehicles, sleeping and couchette vehicles, etc.) and on the railway operation category (underground, elevated structures, etc.), the special fire performances required combine into a matrix of more or less critical hazard levels, which are standardized according to EN 45545-2.

As far as cables are concerned the only hazard level applied as per EN 45545-2 is the most critical one, i.e. HL3. Cables shall be designed to meet the following requirements:

- 2 levels of low temperature: -25 °C and -40 °C resistant
- 2 levels of fluids resistance: oil resistant or extra oil and fuel resistant

Hazard level HL3 as per EN 45545-2 provides for different categories of temperature levels and fluids and chemicals resistance, which are identified designated as per table below.

Low temperature, oil resistant	(-25 °C, IRM 902)	C
Extra low temperature, oil resistant	(-40 °C, IRM 902)	F
Low temperature, extra oil and fuel resistant	(-25 °C, IRM 902, IRM 903)	J
Extra low temperature, extra oil and fuel resistant	(-40 °C, IRM 902, IRM 903)	M
Extra low temperature, no oil and fuel resistant	(-40 °C)	O

Note: for train cars classified as per NF F 16-101 also cables used in such cars shall be classified as such.

Reference Standards

EN 50306

Rolling Stock Thin Wall Cables having special fire performances

Special flexible conductors; +90 °C/+105 °C or +105 °C/+125 °C core temperature; 300/500 V; cables sheathed with special S1 and S2 compounds (as per EN 50306-1) or EN 50264 sheathing compounds (EM 101, EM 102, EM 103 and EM 104)

EN 50306-1: General requirements

EN 50306-2: Single core cables

EN 50306-3: Single core and multicore cables (pairs, triads, and quads) screened and thin wall sheathed

EN 50306-4: Multicore and multipair cables standard wall sheathed

EN 50264

Rolling stock power and control cables having special fire performance

Flexible conductors; +90 °C/+105 °C core temperature; 300/500 V - 0.6/1 kV - 1.8/3 kV - 3.6/6 kV

EN 50264-1: General requirements
EN 50264-2-1: Single core cables TEROL SW
EN 50264-2-2: Multicore cables TEROL SW-M

Insulation compounds: EI 101 (for C), EI 102 (for F), EI 103 (for J), EI 104 (for M) and EI 105 (for O, EPDM compound). Sheathing compounds: EM 101 (for C), EM 102 (for F), EM 103 (for J), EM 104 (for M)

EN 50264-3-1: Single core cables with reduced dimensions TEROL MW

EN 50264-3-2: Multicore cables with reduced dimensions TEROL MW-M

Insulation compounds: EI 106 (for C), EI 107 (for F), EI 108 (for J), EI 109 (for M) and EI 110 (for O, EPDM compound). Sheathing compounds: EM 101 (for C), EM 102 (for F), EM 103 (for J) and EM 104 (for M)

Note: MOVIS Cables based on EN 50264 fulfill standard requirements only as far as applicable (partial)

EN 50382

High temperature power cables for rolling stock having special fire performances

Flexible conductors; +120 °C and +150 °C core temperature; 1.8/3 kV - 3.6/6 kV

EN 50382-1: General requirements
EN 50382-2: Single core, silicon rubber insulated cables for +120 °C and +150 °C

EN 50305

Railway Application-Rolling Stock cables having special fire performance-Test Methods

EN/IEC 60332-1

Tests on electric and optical fibre cables under fire conditions: test for vertical flame propagation for single insulated wire or cable

EN/IEC 60332-3

Tests on electric and optical fibre cables under fire conditions: test for vertical flame spread of vertically mounted bunched wires or cables

EN/IEC 61034

Measurement of smoke density of cables burning under defined conditions

Rolling Stock Cables

Technical information

EN/IEC 60754

Test on gases evolved during combustion of materials from cables

EN 50355

Railway Applications-Rolling Stock Cables having special fire performance-Guide to use

EN 50343

Railway Applications-Rolling Stock Cables having special fire performance-Rules for installation of cabling

Type Tests

For “Standard Wall”, “Medium Wall” cables according to EN 50264

Ageing test at:	+120 °C
Fluid resistance:	IRM 902 for mineral oil resistance IRM 903 for fuel resistance N oxalic acid N sodium hydroxide
Test at low temperature:	-25 °C or -40 °C
Fire performance:	Flame test EN/IEC 60332-1 Fire test EN/IEC 60332-3-24 + EN/IEC 60332-3-25 + EN 50305
Halogen free performance:	Toxicity EN 50305 Low smoke EN/IEC 61034 Acid and toxic gases EN/IEC 60754-1&2
Electrical test:	Conductor resistance (EN 50305) Voltage test (EN 50305) Dielectric strength test (EN 50305) Direct Current stability test at +85 °C (EN 50305) Surface resistance of outer sheath (EN 50305) Insulation resistance (EN 50305)

For “Thin Wall” cables according to EN 50306

Type test report according to “Standard Wall test” +

Long term ageing test:	(20,000 h at +125 °C) EN 50305
Notch propagation test:	EN 50305
Abrasion test:	EN 50305

For “High Temperature” cables according to EN 50382

Type test report according to “Standard Wall test” +

Ageing test for silicon insulation at +200 °C and long term sheath ageing test (20,000 h at +140 °C)

For TEROL TW 600 based on EN 50306

Type test according to “Standard Wall test” +

Long term ageing test:	(20,000 h at +125 °C) EN 50305
Notch propagation test:	EN 50305
Abrasion test:	EN 50305

Voltage test is increased up to 600/1000 V AC for a use as signalling and control cable only on the basis of disruptive electrical tests at 3500 V AC, 5 min. Voltage peaks must be taken into account at this voltage level.

For MOVIS cables based on EN 50264

Ageing test at:	+160 °C insulation; +150 °C sheath
Fluid resistance:	IRM 902 for mineral oil resistance IRM 903 for fuel resistance N oxalic acid N sodium hydroxide
Test at low temperature:	-40 °C
Fire performance:	Flame test EN/IEC 60332-1 Fire test EN/IEC 60332-3-24 + EN/IEC 60332-3-25 + EN 50305 Fire resistance test EN 50200:2007 (only for Fire Resistant cable versions)
Halogen free performance:	Toxicity EN 50305 Low smoke EN/IEC 61034 Acid and toxic gases EN/IEC 60754-1&2
Electrical tests:	Conductor resistance (EN 50305) Voltage test (EN 50305) Dielectric strength test (EN 50305) Surface resistance of outer sheath (EN 50305) Insulation resistance (EN 50305)

Rolling Stock Cables

Technical information

Current-carrying capacity and conversion factors

The values provided in the catalogue are valid for permanent operation with DC or AC with 50 up to 60 Hz at +90 °C operation temperature, +45 °C ambient temperature, free in air, one single cable and all cores loaded. For other ambient temperature, conversion factors are as per table below.

max cond. temp. (°C)	ambient temperature (°C)																				
	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100	105	110	115	120
90	1.25	1.2	1.15	1.11	1.05	1	0.94	0.88	0.82	0.75	0.67	0.58	0.47	0.33	0	---	---	---	---	---	---
120	1.49	1.45	1.41	1.37	1.33	1.29	1.25	1.2	1.15	1.11	1.05	1	0.94	0.88	0.82	0.75	0.67	0.58	0.47	0.33	0

For +120 °C conductor temperature the max permissible short circuit current is 126 A/mm²

Permissible short circuit current: the values given in the tables refer to a start temperature of +90 °C and short-time current density: 143 A/mm²

Symbols

Ambient temperature

Permissible minimum ambient temperature during laying and maximum conductor temperature in normal operation (+90 °C; +105 °C, +120 °C, +150 °C)

Compound resistance at low temperature (-25 °C; -40 °C)

Short circuit temperature

Maximum permissible short circuit temperature at conductor (+250 °C; ....)

Fire behaviour

ACCORDING TO

EN/IEC 60332-1 flame retardant
EN/IEC 60332-3-24 + EN/IEC 60332-3-25 + EN 50305 fire retardant
EN 50200 fire resistant (only if applicable)

Smoke emission

ACCORDING TO

EN/IEC 61034

Toxicity

ACCORDING TO

EN/IEC 60754-1&2 + EN 50305

Chemicals

Outer sheath resistance to chemicals
(Acid, alkaline, oil, extra oil and fuel resistance)

Impact

Cable mechanical resistance to impacts
(Good, Excellent, ...)

Bending radius - Fixed installation

Minimum bending radius for installed cables in fixed application
Value 1
Value 2

Bending radius - Flex installation

Minimum bending radius for installed cables in flexible application xx X OD
Value 1
Value 2

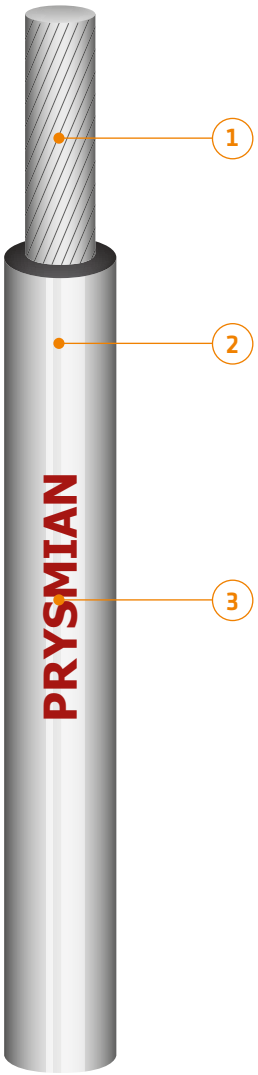
Rolling Stock Cables


INSTRUMENTATION
AND CONTROL CABLES
TEROL TW OFFERING I ETENDED
ACCORDING TO EN 50306

Instrumentation and Control Cables

TEROL TW (PTU)

300/500 V



APPLICATION

Equipment control and monitoring circuits, internal wiring of equipment. According to NF F 16-101.

Usable on railway vehicles having the hazard level HL3 according to EN 45545.

CONSTRUCTION

1 Conductor
Tin-coated annealed copper conductor class 5 according to EN 60228

2 Insulation
LSZH special compound – WHITE

3 Marking
PRYSMIAN 255 -TEROL TW - EN 50306-2 300 V 1 x 1.5 MM batch n°

Notes

- Cables are normally offered with 19 wires as per EN 50306. 37 wires version available upon request
- All thicknesses are according to EN standards
- Other colours available upon request


-40 °C; +105 °C

Not Applicable


EN/IEC 60332-1
EN/IEC 60332-3-24
+ EN/IEC 60332-3-25
+ EN 50305

EN/IEC 61034


EN/IEC 60754-1&2
+ EN 50305


GOOD

4XD


8XD

> Instrumentation cables according to EN 50306-2
> Thin Wall
> Single core

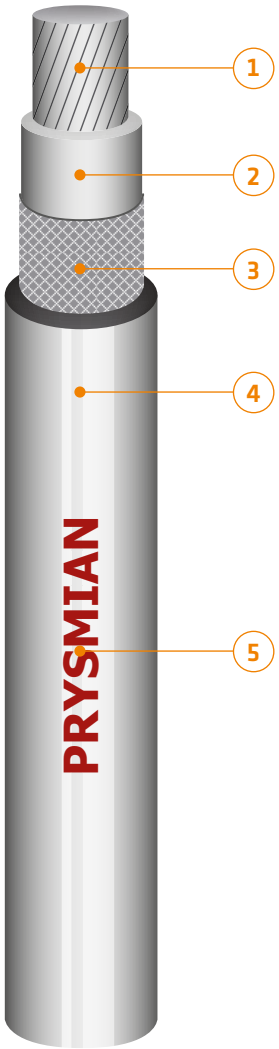
TEROL TW (PTU) - 300/500 V

Part number	Construction (nr cond x mm²)	Conductor diameter (mm)	Diameter above screen (mm)	Min. outer diameter (mm)	Nom. outer diameter (mm)	Max. outer diameter (mm)	Weight (kg/km)
PTU--062	1 x 0.5	0.875	-	1.25	1.35	1.45	7
PTU--112	1 x 0.75	1.075	-	1.45	1.55	1.65	8
PTU--162	1 x 1	1.200	-	1.60	1.70	1.80	10
PTU--212	1 x 1.5	1.550	-	2.05	2.15	2.25	17
PTU--262	1 x 2.5	2.000	-	2.55	2.70	2.85	25

Instrumentation and Control Cables

TEROL TW-S (PTUSM)

300/500 V



APPLICATION

Equipment control and monitoring circuits, internal wiring of equipment. According to NF F 16-101.

Usable on railway vehicles having the hazard level HL3 according to EN 45545.

CONSTRUCTION

1 Conductor
Tin-coated annealed copper conductor class 5 according to EN 60228

2 Insulation
LSZH special compound - WHITE

3 Screen
Tinned annealed copper wire braid

4 Outer sheath
LSZH special compound - BLACK

5 Marking
PRYSMIAN 255 -TEROL TW S- EN 50306-3 300 V 1 x 1.5 MM -S- 90 °C batch n°

Notes

- Cables are normally offered with 19 wires as per EN 50306. 37 wires version available upon request
- All thicknesses are according to EN standard


-40 °C; +90 °C

Not Applicable


EN/IEC 60332-1
EN/IEC 60332-3-24
+ EN/IEC 60332-3-25
+ EN 50305

EN/IEC 61034


EN/IEC 60754-1&2
+ EN 50305


GOOD

10XD


20XD

> Instrumentation cables according to EN 50306-3
> Thin Wall
> Single core screened

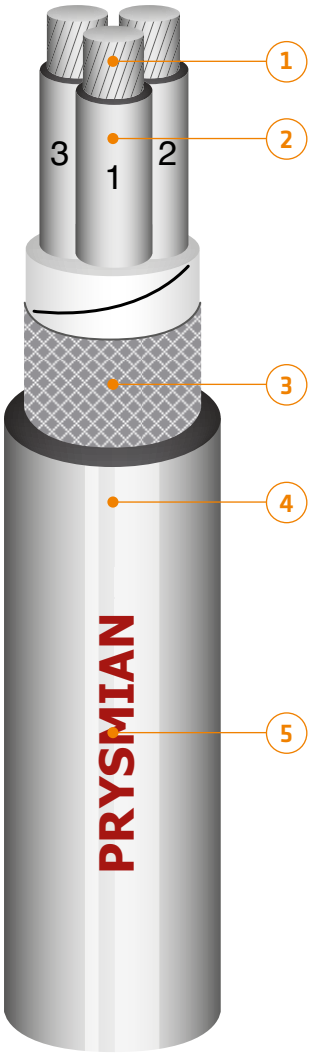
TEROL TW-S (PTUSM) - 300/500 V

Part number	Construction (nr cond x mm²)	Conductor diameter (mm)	Diameter above screen (mm)	Min sheath thickness at one point (mm)	Min. outer diameter (mm)	Nom. outer diameter (mm)	Max. outer diameter (mm)	Weight (kg/km)
PTUSM062	1 x 0.5	0.875	2.00	0.20	2.30	2.50	2.70	13
PTUSM112	1 x 0.75	1.075	2.20	0.20	2.50	2.70	2.90	17
PTUSM162	1 x 1	1.200	2.30	0.20	2.70	2.90	3.10	20
PTUSM212	1 x 1.5	1.550	2.80	0.20	3.10	3.30	3.50	28
PTUSM262	1 x 2.5	2.000	3.30	0.20	3.60	3.90	4.20	41

Instrumentation and Control Cables

TEROL TW-MS (PTMSTM)

300/500 V



APPLICATION

Control and monitoring circuits, interlocking circuits, indicating circuits, internal wiring of equipment. According to NF F 16-101.

Usable on railway vehicles having the hazard level HL3 according to EN 45545.

CONSTRUCTION

1 Conductor
Tin-coated annealed copper conductor class 5 according to EN 60228

2 Insulation
LSZH special compound, numbered identification - WHITE

3 Screen
Tinned annealed copper wire braid

4 Outer sheath
LSZH special compound - BLACK

5 Marking
PRYSMIAN 255 -TEROL TW MS- EN 50306-3 300 V 2 x 1.5 MM -S- 90 °C batch n°

Notes

- Cables are normally offered with 19 wires as per EN 50306. 37 wires version available upon request
- All thicknesses are according to EN standard
- Different colours of conductors available upon request
- Other constructions available upon request

-40 °C; +90 °C

Not Applicable

EN/IEC 60332-1
EN/IEC 60332-3-24
+ EN/IEC 60332-3-25
+ EN 50305

EN/IEC 61034

EN/IEC 60754-1&2
+ EN 50305

GOOD

10XD

20XD

> Instrumentation cables according to EN 50306-3
> Thin Wall
> Multicore screened with reduced wall thickness

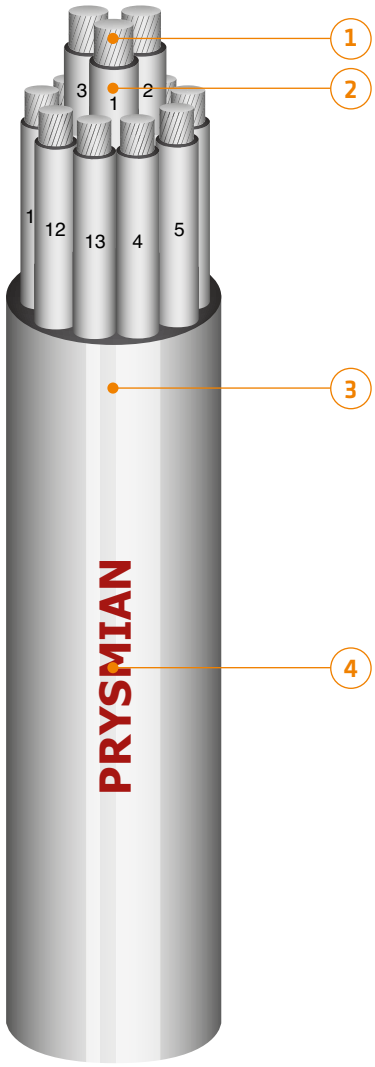
TEROL TW-MS (PTMSTM) - 300/500 V

Part number	Construction (nr cond x mm²)	Conductor diameter (mm)	Diameter above screen (mm)	Min sheath thickness at one point (mm)	Min. outer diameter (mm)	Nom. outer diameter (mm)	Max. outer diameter (mm)	Weight (kg/km)
PTMSTM01	2 x 0.5	0.875	3.40	0.20	3.50	3.90	4.30	27
PTMSTM02	3 x 0.5	0.875	3.60	0.20	3.70	4.10	4.50	34
PTMSTM03	4 x 0.5	0.875	3.90	0.20	4.00	4.50	5.00	41
PTMSTM04	2 x 0.75	1.075	3.80	0.20	3.90	4.30	4.70	34
PTMSTM05	3 x 0.75	1.075	3.90	0.20	4.00	4.50	5.00	42
PTMSTM06	4 x 0.75	1.075	4.40	0.20	4.50	5.00	5.50	56
PTMSTM07	2 x 1	1.200	4.10	0.20	4.20	4.70	5.20	40
PTMSTM08	3 x 1	1.200	4.40	0.20	4.50	5.00	5.50	55
PTMSTM09	4 x 1	1.200	4.90	0.20	5.00	5.50	6.00	67
PTMSTM10	2 x 1.5	1.550	5.00	0.20	5.10	5.60	6.10	62
PTMSTM11	3 x 1.5	1.550	5.30	0.20	5.40	5.90	6.40	79
PTMSTM12	4 x 1.5	1.550	5.90	0.20	6.00	6.50	7.00	97
PTMSTM13	2 x 2.5	2.000	6.30	0.20	6.40	6.90	7.40	87
PTMSTM14	3 x 2.5	2.000	6.70	0.20	6.80	7.30	7.80	115
PTMSTM15	3 x 2.5	2.000	7.40	0.20	7.50	8.00	8.50	144

Instrumentation and Control Cables

TEROL TW-SWM (PTMMP)

300/500 V



APPLICATION

Control and monitoring circuits, interlocking circuits, indicating circuits, internal wiring of equipment. According to NF F 16-101.

Usable on railway vehicles having the hazard level HL3 according to EN 45545.

CONSTRUCTION

1 Conductor
Tin-coated annealed copper conductor class 5 according to EN 60228

2 Insulation
LSZH special compound, numbered identification - WHITE

3 Outer sheath
LSZH special compound - BLACK

4 Marking
PRYSMIAN 255 -TEROL TW SWM - EN 50306-4 1P 300 V 4 x 2.5 MM 90 °C batch n°

Notes

- Cables are normally offered with 19 wires as per EN 50306. 37 wires version available upon request
- All thicknesses are according to EN standard
- Different colours of conductors available upon request
- Other constructions available upon request

-40 °C; +90 °C

Not Applicable

EN/IEC 60332-1
EN/IEC 60332-3-24
+ EN/IEC 60332-3-25
+ EN 50305

EN/IEC 61034

EN/IEC 60754-1&2
+ EN 50305

GOOD

D<12mm 4XD
D>12mm 5XD

D<12mm 8XD
D>12mm 10XD

> Instrumentation cables according to EN 50306-4
> Thin Wall
> Multicore with Standard Wall sheath

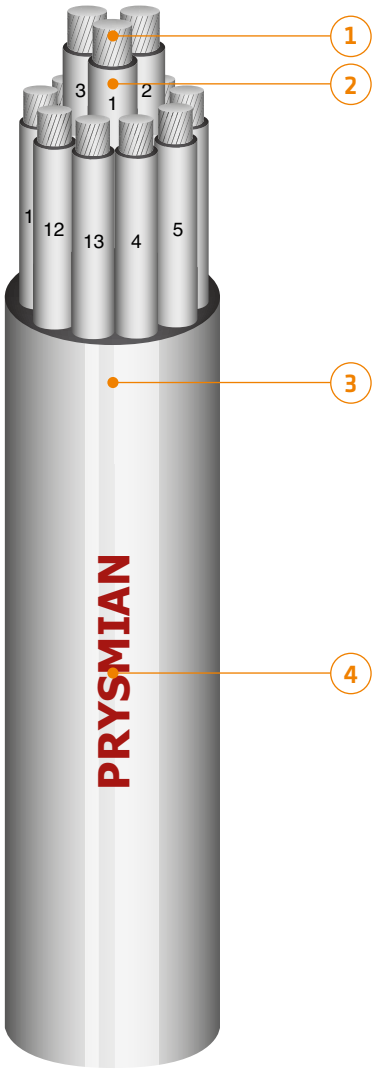
TEROL TW-SWM (PTMMP) - 300/500 V

Part number	Construction (nr cond x mm²)	Conductor diameter (mm)	Diameter above screen (mm)	Min sheath thickness at one point (mm)	Min. outer diameter (mm)	Nom. outer diameter (mm)	Max. outer diameter (mm)	Weight (kg/km)
PTMMP001	4 x 0.5	0.875	-	0.42	4.10	4.60	5.10	32
PTMMP002	7 x 0.5	0.875	-	0.42	4.90	5.40	5.90	51
PTMMP003	13 x 0.5	0.875	-	0.56	7.30	7.80	8.30	98
PTMMP004	19 x 0.5	0.875	-	0.56	8.10	8.60	9.10	135
PTMMP005	37 x 0.5	0.875	-	0.56	10.80	11.40	12.00	246
PTMMP006	4 x 0.75	1.075	-	0.42	4.60	5.10	5.60	42
PTMMP007	7 x 0.75	1.075	-	0.42	5.50	6.00	6.50	68
PTMMP008	13 x 0.75	1.075	-	0.56	8.20	8.70	9.20	130
PTMMP009	19 x 0.75	1.075	-	0.56	9.00	9.60	10.20	184
PTMMP010	37 x 0.75	1.075	-	0.56	12.20	12.80	13.40	338
PTMMP011	48 x 0.75	1.075	-	0.56	13.90	14.60	15.30	440
PTMMP012	4 x 1	1.200	-	0.42	4.90	5.40	5.90	53
PTMMP013	7 x 1	1.200	-	0.42	6.00	6.50	7.00	88
PTMMP014	13 x 1	1.200	-	0.56	8.70	9.20	9.70	163
PTMMP015	19 x 1	1.200	-	0.56	9.80	10.40	11.00	229
PTMMP016	37 x 1	1.200	-	0.56	13.30	13.90	14.50	430
PTMMP017	4 x 1.5	1.550	-	0.42	6.00	6.50	7.00	79
PTMMP018	7 x 1.5	1.550	-	0.56	7.70	8.20	8.70	136
PTMMP019	13 x 1.5	1.550	-	0.56	10.70	11.30	11.90	248
PTMMP020	19 x 1.5	1.550	-	0.56	12.00	12.60	13.20	347
PTMMP021	37 x 1.5	1.550	-	0.56	16.20	16.90	17.60	651
PTMMP022	2 x 2.5	2.000	-	0.56	6.70	7.20	7.70	74
PTMMP023	3 x 2.5	2.000	-	0.56	7.70	7.90	8.10	111
PTMMP024	4 x 2.5	2.000	-	0.56	7.90	8.40	8.90	139

Instrumentation and Control Cables

TEROL TW-SWMZ (PTMME)

300/500 V



APPLICATION

Control and monitoring circuits, interlocking circuits, indicating circuits, internal wiring of equipment run on trays exposed. According to NF F 16-101.

Usable on railway vehicles having the hazard level HL3 according to EN 45545.

CONSTRUCTION

1 Conductor
Tin-coated annealed copper conductor class 5 according to EN 60228

2 Insulation
LSZH special compound, numbered identification - WHITE

3 Outer sheath
LSZH special compound - BLACK

4 Marking
PRYSMIAN 255 -TEROL TW SWMZ - EN 50306-4 1E 300 V
4 x 2.5 MM 90 °C batch n°

Notes

- Cables are normally offered with 19 wires as per EN 50306. 37 wires version available upon request
- All thicknesses are according to EN standard
- Different colours of conductors available upon request
- Other constructions available upon request

-40 °C; +90 °C

Not Applicable

EN/IEC 60332-1
EN/IEC 60332-3-24
+ EN/IEC 60332-3-25
+ EN 50305

EN/IEC 61034

EN/IEC 60754-1&2
+ EN 50305

GOOD

D<12mm 4XD
D>12mm 5XD

D<12mm 8XD
D>12mm 10XD

> Instrumentation cables according to EN 50306-4
> Thin Wall
> Multicore with exposed Standard Wall sheath

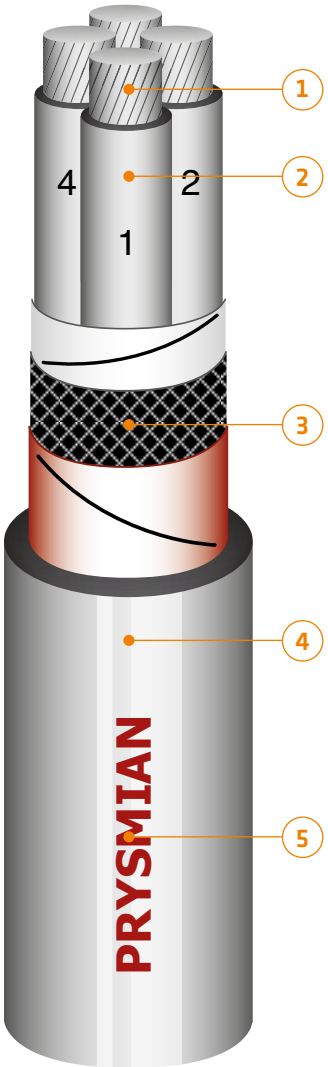
TEROL TW-SWMZ (PTMME) - 300/500 V

Part number	Construction (nr cond x mm²)	Conductor diameter (mm)	Diameter above screen (mm)	Min sheath thickness at one point (mm)	Min. outer diameter (mm)	Nom. outer diameter (mm)	Max. outer diameter (mm)	Weight (kg/km)
PTMME001	4 x 0.5	0.875	-	1.00	5.50	6.00	6.50	45
PTMME002	7 x 0.5	0.875	-	1.00	6.30	6.80	7.30	69
PTMME003	13 x 0.5	0.875	-	1.00	8.30	8.80	9.30	116
PTMME004	19 x 0.5	0.875	-	1.00	9.00	9.60	10.20	151
PTMME005	37 x 0.5	0.875	-	1.00	12.30	12.90	13.50	288
PTMME006	4 x 0.75	1.075	-	1.00	6.00	6.50	7.00	58
PTMME007	7 x 0.75	1.075	-	1.00	6.90	7.40	7.90	88
PTMME008	13 x 0.75	1.075	-	1.00	9.10	9.70	10.30	148
PTMME009	19 x 0.75	1.075	-	1.00	10.00	10.60	11.20	201
PTMME010	37 x 0.75	1.075	-	1.00	13.20	13.80	14.40	364
PTMME011	48 x 0.75	1.075	-	1.00	14.80	15.50	16.20	463
PTMME012	4 x 1	1.200	-	1.00	6.30	6.80	7.30	68
PTMME013	7 x 1	1.200	-	1.00	7.30	7.80	8.30	106
PTMME014	13 x 1	1.200	-	1.00	9.70	10.30	10.90	182
PTMME015	19 x 1	1.200	-	1.00	10.70	11.30	11.90	247
PTMME016	37 x 1	1.200	-	1.00	14.00	14.70	15.40	451
PTMME017	4 x 1.5	1.550	-	1.00	7.40	7.90	8.40	99
PTMME018	7 x 1.5	1.550	-	1.00	8.60	9.20	9.80	153
PTMME019	13 x 1.5	1.550	-	1.00	11.70	12.30	12.90	271
PTMME020	19 x 1.5	1.550	-	1.00	13.00	13.60	14.20	373
PTMME021	37 x 1.5	1.550	-	1.00	17.20	17.90	18.60	688
PTMME022	2 x 2.5	2.000	-	1.00	7.80	8.30	8.80	87
PTMME023	3 x 2.5	2.000	-	1.00	8.10	8.60	9.10	118
PTMME024	4 x 2.5	2.000	-	1.00	8.80	9.40	10.00	147

Instrumentation and Control Cables

TEROL TW-SWMS (PTMSPM)

300/500 V



APPLICATION

Control and monitoring circuits, interlocking circuits, indicating circuits, internal wiring of equipment. According to NF F 16-101.

Usable on railway vehicles having the hazard level HL3 according to EN 45545.

CONSTRUCTION

1 Conductor
Tin-coated annealed copper conductor class 5 according to EN 60228

2 Insulation
LSZH special compound, numbered identification - WHITE

3 Screen
Tinned annealed copper wire braid

4 Outer sheath
LSZH special compound - BLACK

5 Marking
PRYSMIAN 255 -TEROL TW SWMS - EN 50306-4 3P 300 V
4 x 0.5 MM -S- 90 °C batch n°

Notes

- Cables are normally offered with 19 wires as per EN 50306. 37 wires version available upon request
- All thicknesses are according to EN standard
- Different colours of conductors available upon request
- Other constructions available upon request


-40 °C; +90 °C

Not Applicable


EN/IEC 60332-1
EN/IEC 60332-3-24
+ EN/IEC 60332-3-25
+ EN 50305

EN/IEC 61034


EN/IEC 60754-1&2
+ EN 50305


GOOD

10XD


20XD

> Instrumentation cables according to EN 50306-4
> Thin Wall
> Multicore screened with Standard Wall sheath

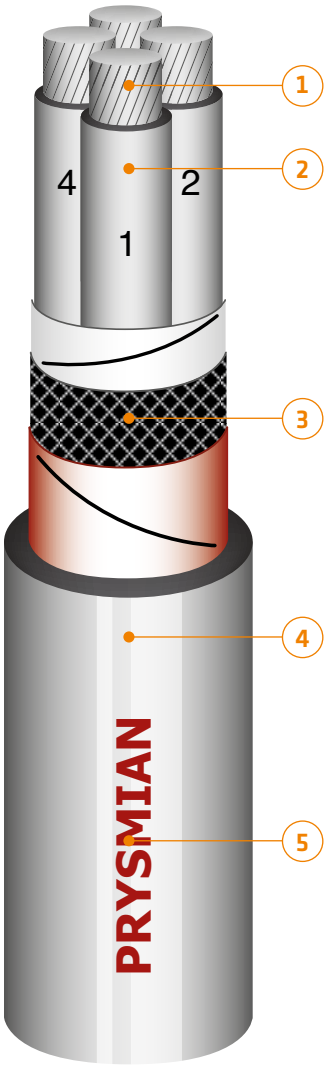
TEROL TW-SWMS (PTMSPM) - 300/500 V

Part number	Construction (nr cond x mm²)	Conductor diameter (mm)	Diameter above screen (mm)	Min sheath thickness at one point (mm)	Min. outer diameter (mm)	Nom. outer diameter (mm)	Max. outer diameter (mm)	Weight (kg/km)
PTMSPM01	2 x 0.5	0.875	3.40	0.42	4.10	4.60	5.10	33
PTMSPM02	3 x 0.5	0.875	3.70	0.42	4.30	4.80	5.30	39
PTMSPM03	4 x 0.5	0.875	4.00	0.42	4.70	5.20	5.70	48
PTMSPM04	6 x 0.5	0.875	4.90	0.42	5.50	6.00	6.50	70
PTMSPM05	8 x 0.5	0.875	5.50	0.42	6.00	6.50	7.00	88
PTMSPM06	2 x 0.75	1.075	3.90	0.42	4.50	5.00	5.50	39
PTMSPM07	3 x 0.75	1.075	4.10	0.42	4.70	5.20	5.70	49
PTMSPM08	4 x 0.75	1.075	4.50	0.42	5.20	5.70	6.20	63
PTMSPM09	6 x 0.75	1.075	5.50	0.42	6.10	6.60	7.10	87
PTMSPM10	8 x 0.75	1.075	6.40	0.42	6.60	7.10	7.60	113
PTMSPM11	2 x 1	1.200	4.20	0.42	4.80	5.20	5.60	47
PTMSPM12	3 x 1	1.200	4.40	0.42	5.00	5.50	6.00	62
PTMSPM13	4 x 1	1.200	4.90	0.42	5.50	6.00	6.50	76
PTMSPM14	6 x 1	1.200	6.30	0.42	6.60	7.10	7.60	105
PTMSPM15	8 x 1	1.200	7.20	0.56	7.70	8.20	8.70	140
PTMSPM16	2 x 1.5	1.550	5.20	0.42	5.70	6.20	6.70	67
PTMSPM17	3 x 1.5	1.550	5.50	0.42	6.00	6.50	7.00	85
PTMSPM18	4 x 1.5	1.550	6.40	0.42	6.60	7.10	7.60	104
PTMSPM19	6 x 1.5	1.550	7.90	0.56	8.30	8.80	9.30	155
PTMSPM20	8 x 1.5	1.550	8.50	0.56	8.90	9.50	10.10	198
PTMSPM21	2 x 2.5	2.000	6.40	0.56	7.30	7.80	8.30	100
PTMSPM22	3 x 2.5	2.000	6.90	0.56	7.70	8.20	8.70	127
PTMSPM23	4 x 2.5	2.000	7.70	0.56	8.40	9.00	9.60	158

Instrumentation and Control Cables

TEROL TW-SWMSZ (PTMSEM)

300/500 V



APPLICATION

Control and monitoring circuits, interlocking circuits, indicating circuits, internal wiring of equipment run on trays exposed. According to NF F 16-101.

Usable on railway vehicles having the hazard level HL3 according to EN 45545.

CONSTRUCTION

1 Conductor
Tin-coated annealed copper conductor class 5 according to EN 60228

2 Insulation
LSZH special compound, numbered identification - WHITE

3 Screen
Tinned annealed copper wire braid

4 Outer sheath
LSZH special compound - BLACK

5 Marking
PRYSMIAN 255 -TEROL TW SWMSZ - EN 50306-4 3E 300 V
4 x 0.5 MM -S- 90 °C batch n°

Notes

- Cables are normally offered with 19 wires as per EN 50306. 37 wires version available upon request
- All thicknesses are according to EN standard
- Different colours of conductors available upon request
- Other constructions available upon request

-40 °C; +90 °C

Not Applicable

EN/IEC 60332-1
EN/IEC 60332-3-24
+ EN/IEC 60332-3-25
+ EN 50305

EN/IEC 61034

EN/IEC 60754-1&2
+ EN 50305

GOOD

10XD

20XD

> Instrumentation cables according to EN 50306-4
> Thin Wall
> Multicore screened with exposed Standard Wall sheath

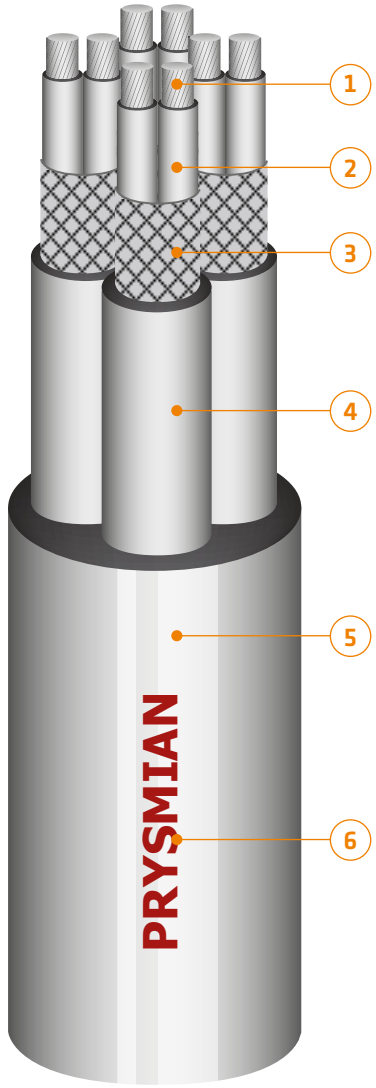
TEROL TW-SWMSZ (PTMSEM) - 300/500 V

Part number	Construction (nr cond x mm²)	Conductor diameter (mm)	Diameter above screen (mm)	Min sheath thickness at one point (mm)	Min. outer diameter (mm)	Nom. outer diameter (mm)	Max. outer diameter (mm)	Weight (kg/km)
PTMSEM01	2 x 0.5	0.875	3.40	1.00	5.50	6.00	6.50	46
PTMSEM02	3 x 0.5	0.875	3.70	1.00	5.70	6.20	6.70	54
PTMSEM03	4 x 0.5	0.875	4.10	1.00	6.10	6.60	7.10	64
PTMSEM04	6 x 0.5	0.875	5.20	1.00	6.90	7.40	7.90	87
PTMSEM05	8 x 0.5	0.875	5.80	1.00	7.50	8.00	8.50	107
PTMSEM06	2 x 0.75	1.075	3.90	1.00	5.90	6.40	6.90	56
PTMSEM07	3 x 0.75	1.075	4.10	1.00	6.20	6.70	7.20	65
PTMSEM08	4 x 0.75	1.075	4.80	1.00	6.50	7.00	7.50	79
PTMSEM09	6 x 0.75	1.075	5.50	1.00	7.50	8.00	8.50	106
PTMSEM10	8 x 0.75	1.075	6.40	1.00	8.20	8.70	9.20	133
PTMSEM11	2 x 1	1.200	4.70	1.00	6.20	6.70	7.20	62
PTMSEM12	3 x 1	1.200	4.90	1.00	6.50	7.00	7.50	79
PTMSEM13	4 x 1	1.200	5.30	1.00	6.90	7.40	7.90	93
PTMSEM14	6 x 1	1.200	6.30	1.00	8.00	8.50	9.00	128
PTMSEM15	8 x 1	1.200	7.20	1.00	8.60	9.20	9.80	157
PTMSEM16	2 x 1.5	1.550	5.60	1.00	7.10	7.60	8.10	85
PTMSEM17	3 x 1.5	1.550	5.80	1.00	7.40	7.90	8.40	103
PTMSEM18	4 x 1.5	1.550	6.40	1.00	8.00	8.50	9.00	127
PTMSEM19	6 x 1.5	1.550	7.90	1.00	9.20	9.80	10.40	174
PTMSEM20	8 x 1.5	1.550	8.50	1.00	10.20	10.80	11.40	218
PTMSEM21	2 x 2.5	2.000	6.40	1.00	8.30	8.80	9.30	117
PTMSEM22	3 x 2.5	2.000	6.90	1.00	8.60	9.20	9.80	145
PTMSEM23	4 x 2.5	2.000	7.70	1.00	9.40	10.00	10.60	180

Instrumentation and Control Cables

TEROL TW-SWM2IS (PTPSPM)

300/500 V



APPLICATION

Control and monitoring circuits, interlocking circuits, indicating circuits, internal wiring of equipment. According to NF F 16-101.

Usable on railway vehicles having the hazard level HL3 according to EN 45545.

CONSTRUCTION

1 Conductor
Tin-coated annealed copper conductor class 5 according to EN 60228

2 Insulation
LSZH special compound, numbered identification - WHITE

3 Screen
Tinned annealed copper wire braid

4 Individual sheath
LSZH special compound - BLACK

5 Outer sheath
LSZH special compound - BLACK

6 Marking
PRYSMIAN 255 -TEROL TW SWM2IS- EN 50306-4 5P 300 V
7 x 2 x 0.75 MMM -S- 90 °C batch n°

Notes

- Cables are normally offered with 19 wires as per EN 50306. 37 wires version available upon request
- All thicknesses are according to EN standard
- Different colours of conductors available upon request
- Other constructions available upon request


-40 °C; +90 °C

Not Applicable


EN/IEC 60332-1
EN/IEC 60332-3-24
+ EN/IEC 60332-3-25
+ EN 50305

EN/IEC 61034


EN/IEC 60754-1&2
+ EN 50305


GOOD

10XD


20XD

> Instrumentation cables according to EN 50306-4
> Thin Wall
> Multipair individually screened with Standard Wall sheath

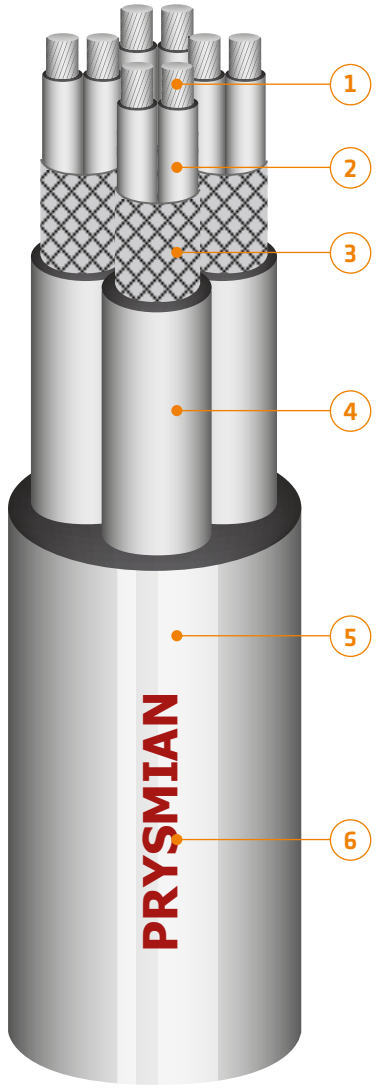
TEROL TW-SWM2IS (PTPSPM) - 300/500 V

Part number	Construction (nr cond x mm²)	Conductor diameter (mm)	Diameter above screen (mm)	Min sheath thickness at one point (mm)	Min. outer diameter (mm)	Nom. outer diameter (mm)	Max. outer diameter (mm)	Weight (kg/km)
PTPSPM01	2 x 2 x 0.5	0.875	3.40	0.56	9.00	9.60	10.20	85
PTPSPM02	3 x 2 x 0.5	0.875	3.40	0.56	9.60	10.20	10.80	118
PTPSPM03	4 x 2 x 0.5	0.875	3.40	0.56	10.70	11.30	11.90	158
PTPSPM04	7 x 2 x 0.5	0.875	3.40	0.56	13.00	13.60	14.20	244
PTPSPM05	2 x 2 x 0.75	1.075	3.90	0.56	9.80	10.40	11.00	93
PTPSPM06	3 x 2 x 0.75	1.075	3.90	0.56	10.50	11.10	11.70	147
PTPSPM07	4 x 2 x 0.75	1.075	3.90	0.56	11.60	12.20	12.80	183
PTPSPM08	7 x 2 x 0.75	1.075	3.90	0.56	14.00	14.70	15.40	293
PTPSPM09	2 x 2 x 1	1.200	4.20	0.56	10.20	10.80	11.40	107
PTPSPM10	3 x 2 x 1	1.200	4.20	0.56	10.90	11.50	12.10	163
PTPSPM11	4 x 2 x 1	1.200	4.20	0.56	12.10	12.70	13.30	204
PTPSPM12	7 x 2 x 1	1.200	4.20	0.56	14.80	15.50	16.20	332
PTPSPM13	2 x 2 x 1.5	1.550	5.20	0.56	12.20	12.80	13.40	153
PTPSPM14	3 x 2 x 1.5	1.550	5.20	0.56	13.10	13.70	14.30	232
PTPSPM15	4 x 2 x 1.5	1.550	5.20	0.56	14.30	15.00	15.70	293
PTPSPM16	7 x 2 x 1.5	1.550	5.20	0.56	17.60	18.40	19.20	493

Instrumentation and Control Cables

TEROL TW-SWM2ISZ (PTPSEM)

300/500 V



APPLICATION

Control and monitoring circuits, interlocking circuits, indicating circuits, internal wiring of equipment run on trays exposed. According to NF F 16-101.

Usable on railway vehicles having the hazard level HL3 according to EN 45545.

CONSTRUCTION

1 Conductor
Tin-coated annealed copper conductor class 5 according to EN 60228

2 Insulation
LSZH special compound, numbered identification - WHITE

3 Screen
Tinned annealed copper wire braid

4 Individual sheath
LSZH special compound - BLACK

5 Outer sheath
LSZH special compound – BLACK

6 Marking
PRYSMIAN 255 -TEROL TW SWM2ISZ - EN 50306-4 5E 300 V
7 x 2 x 0.75 MMM -S- 90 °C batch n°

Notes

- Cables are normally offered with 19 wires as per EN 50306. 37 wires version available upon request
- All thicknesses are according to EN standard
- Different colours of conductors available upon request
- Other constructions available upon request

-40 °C; +90 °C

Not Applicable

EN/IEC 60332-1
EN/IEC 60332-3-24
+ EN/IEC 60332-3-25
+ EN 50305

EN/IEC 61034

EN/IEC 60754-1&2
+ EN 50305

GOOD

10XD

20XD

> Instrumentation cables according to EN 50306-4
> Thin Wall
> Multipair individually screened with exposed Standard Wall sheath

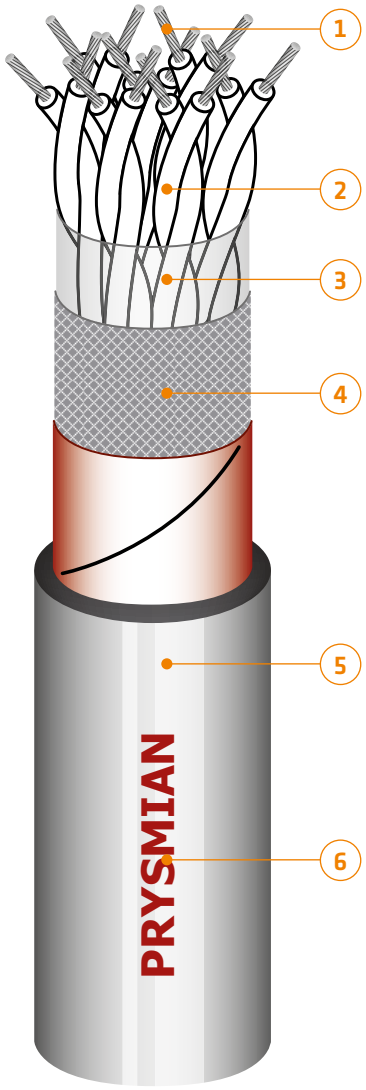
TEROL TW-SWM2ISZ (PTPSEM) - 300/500 V

Part number	Construction (nr cond x mm²)	Conductor diameter (mm)	Diameter above screen (mm)	Min sheath thickness at one point (mm)	Min. outer diameter (mm)	Nom. outer diameter (mm)	Max. outer diameter (mm)	Weight (kg/km)
PTPSEM01	2 x 2 x 0.5	0.875	3.40	1.00	10.10	10.70	11.30	100
PTPSEM02	3 x 2 x 0.5	0.875	3.40	1.00	10.80	11.40	12.00	148
PTPSEM03	4 x 2 x 0.5	0.875	3.40	1.00	11.80	12.40	13.00	180
PTPSEM04	7 x 2 x 0.5	0.875	3.40	1.00	13.90	14.60	15.30	270
PTPSEM05	2 x 2 x 0.75	1.075	3.90	1.00	10.90	11.50	12.10	119
PTPSEM06	3 x 2 x 0.75	1.075	3.90	1.00	11.60	12.20	12.80	174
PTPSEM07	4 x 2 x 0.75	1.075	3.90	1.00	12.80	13.40	14.00	218
PTPSEM08	7 x 2 x 0.75	1.075	3.90	1.00	15.10	15.80	16.50	328
PTPSEM09	2 x 2 x 1	1.200	4.20	1.00	11.30	11.90	12.50	129
PTPSEM10	3 x 2 x 1	1.200	4.20	1.00	12.00	12.60	13.20	191
PTPSEM11	4 x 2 x 1	1.200	4.20	1.00	13.20	13.80	14.40	235
PTPSEM12	7 x 2 x 1	1.200	4.20	1.00	15.70	16.40	17.10	369
PTPSEM13	2 x 2 x 1.5	1.550	5.20	1.00	13.30	13.90	14.50	181
PTPSEM14	3 x 2 x 1.5	1.550	5.20	1.00	14.00	14.70	15.40	264
PTPSEM15	4 x 2 x 1.5	1.550	5.20	1.00	15.50	16.20	16.90	337
PTPSEM16	7 x 2 x 1.5	1.550	5.20	1.00	18.70	19.50	20.30	542

Instrumentation and Control Cables

TEROL TW-SWM2S (PTPSPO)

300/500 V



APPLICATION

Control and monitoring circuits, interlocking circuits, indicating circuits, internal wiring of equipment. According to NF F 16-101.

Usable on railway vehicles having the hazard level HL3 according to EN 45545.

CONSTRUCTION

1 Conductor
Tin-coated annealed copper conductor class 5 according to EN 60228

2 Insulation
LSZH special compound, numbered identification – WHITE

3 Elementary Laying-up
Pairs

4 Screen
Tinned annealed copper wire braid

5 Outer sheath
LSZH special compound – BLACK

6 Marking
PRYSMIAN 255 -TEROL TW SWM2S - EN 50306-4 7P 300 V
7 x 2 x 0.75 MM -S- 90 °C batch n°

Notes

- Cables are normally offered with 19 wires as per EN 50306. 37 wires version available upon request
- All thicknesses are according to EN standard
- Different colours of conductors available upon request
- Other constructions available upon request

-40 °C; +90 °C

Not Applicable

EN/IEC 60332-1
EN/IEC 60332-3-24
+ EN/IEC 60332-3-25
+ EN 50305

EN/IEC 61034

EN/IEC 60754-1&2
+ EN 50305

GOOD

10XD

20XD

> Instrumentation cables according to EN 50306-4
> Thin Wall
> Multipair overall screened with Standard Wall sheath

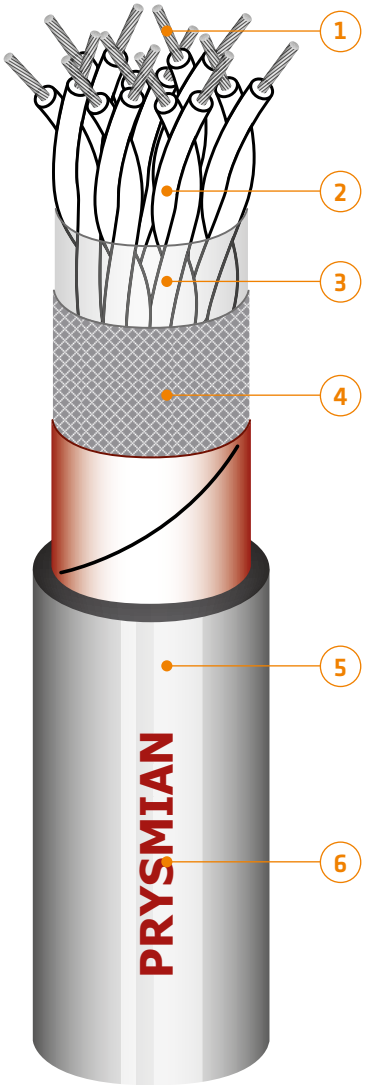
TEROL TW-SWM2S (PTPSPO) - 300/500 V

Part number	Construction (nr cond x mm²)	Conductor diameter (mm)	Diameter above screen (mm)	Min sheath thickness at one point (mm)	Min. outer diameter (mm)	Nom. outer diameter (mm)	Max. outer diameter (mm)	Weight (kg/km)
PTPSPO91	2 x 2 x 0.5	0.875	5.8	0.56	6.20	7.35	7.40	71
PTPSPO99	3 x 2 x 0.5	0.875	6.1	0.56	6.50	7.65	7.70	80
PTPSPO89	4 x 2 x 0.5	0.875	6.8	0.56	7.40	8.40	8.60	97
PTPSPO63	7 x 2 x 0.5	0.875	8.4	0.56	9.50	9.90	11.00	140
PTPSPO86	2 x 2 x 0.75	1.075	6.5	0.56	7.00	8.00	8.20	89
PTPSPO83	3 x 2 x 0.75	1.075	6.9	0.56	7.90	8.40	9.40	99
PTPSPO82	4 x 2 x 0.75	1.075	7.7	0.56	8.80	9.20	10.30	120
PTPSPO64	7 x 2 x 0.75	1.075	9.4	0.56	10.40	11.00	12.00	181
PTPSPO70	2 x 2 x 1	1.200	7	0.56	7.60	8.50	8.80	103
PTPSPO93	3 x 2 x 1	1.200	7.4	0.56	7.90	8.90	9.10	119
PTPSPO80	4 x 2 x 1	1.200	8.3	0.56	9.40	9.80	10.90	144
PTPSPO68	7 x 2 x 1	1.200	10.3	0.56	11.30	11.90	12.90	233
PTPSPO72	2 x 2 x 1.5	1.550	8.7	0.56	9.70	10.20	11.30	144
PTPSPO65	3 x 2 x 1.5	1.550	9.2	0.56	10.20	10.70	11.80	167
PTPSPO66	4 x 2 x 1.5	1.550	10.5	0.56	11.50	12.00	13.10	217
PTPSPO67	7 x 2 x 1.5	1.550	12.9	0.56	13.90	14.50	15.50	340

Instrumentation and Control Cables

TEROL TW-SWM2SZ (PTPSEO)

300/500 V



APPLICATION

Control and monitoring circuits, interlocking circuits, indicating circuits, internal wiring of equipment run on trays exposed. According to NF F 16-101.

Usable on railway vehicles having the hazard level HL3 according to EN 45545.

CONSTRUCTION

1 Conductor
Tin-coated annealed copper conductor class 5 according to EN 60228

2 Insulation
LSZH special compound, numbered identification - WHITE

3 Elementary Laying-up
Pairs

4 Screen
Tinned annealed copper wire braid

5 Outer sheath
LSZH special compound – BLACK

6 Marking
PRYSMIAN 255 -TEROL TW SWM2SZ - EN 50306-4 7E 300 V
7 x 2 x 0.75 MM -S- 90 °C batch n°

Notes

- Cables are normally offered with 19 wires as per EN 50306. 37 wires version available upon request
- All thicknesses are according to EN standard
- Different colours of conductors available upon request
- Other constructions available upon request

-40 °C; +90 °C

Not Applicable

EN/IEC 60332-1
EN/IEC 60332-3-24
+ EN/IEC 60332-3-25
+ EN 50305

EN/IEC 61034

EN/IEC 60754-1&2
+ EN 50305

GOOD

10XD

20XD

> Instrumentation cables according to EN 50306-4
> Thin Wall
> Multipair overall screened with exposed Standard Wall sheath

TEROL TW-SWM2SZ (PTPSEO) - 300/500 V

Part number	Construction (nr cond x mm²)	Conductor diameter (mm)	Diameter above screen (mm)	Min sheath thickness at one point (mm)	Min. outer diameter (mm)	Nom. outer diameter (mm)	Max. outer diameter (mm)	Weight (kg/km)
PTPSEO91	2 x 2 x 0.5	0.875	5.8	1.00	7.20	8.30	8.40	86
PTPSEO90	3 x 2 x 0.5	0.875	6.1	1.00	7.50	8.60	8.70	95
PTPSEO89	4 x 2 x 0.5	0.875	6.8	1.00	8.40	9.30	9.60	114
PTPSEO63	7 x 2 x 0.5	0.875	8.4	1.00	10.30	10.80	11.90	159
PTPSEO86	2 x 2 x 0.75	1.075	6.5	1.00	8.00	9.00	9.20	105
PTPSEO83	3 x 2 x 0.75	1.075	6.9	1.00	8.90	9.30	10.40	116
PTPSEO82	4 x 2 x 0.75	1.075	7.7	1.00	9.60	10.10	11.20	138
PTPSEO64	7 x 2 x 0.75	1.075	9.4	1.00	11.30	11.90	12.90	202
PTPSEO70	2 x 2 x 1	1.200	7	1.00	8.60	9.50	9.80	120
PTPSEO93	3 x 2 x 1	1.200	7.4	1.00	8.90	9.80	10.10	137
PTPSEO95	4 x 2 x 1	1.200	8.3	1.00	10.20	10.80	11.80	163
PTPSEO68	7 x 2 x 1	1.200	10.3	1.00	12.20	12.80	13.80	257
PTPSEO72	2 x 2 x 1.5	1.550	8.7	1.00	10.60	11.10	12.20	164
PTPSEO65	3 x 2 x 1.5	1.550	9.2	1.00	11.10	11.70	12.70	188
PTPSEO66	4 x 2 x 1.5	1.550	10.5	1.00	12.40	13.00	14.00	240
PTPSEO67	7 x 2 x 1.5	1.550	12.9	1.00	14.70	15.40	16.40	367

Rolling Stock Cables

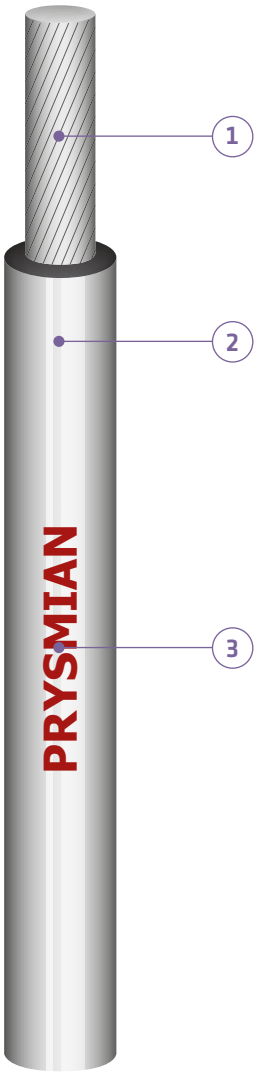
POWER AND CONTROL CABLES

TEROL MW OFFERING ACCORDING TO EN 50264

Power and Control Cables

TEROL MW (PMUM)

0.6/1 kV or 1.8/3 kV



APPLICATION

Lighting circuits powered by accumulators, equipment control and monitoring circuits, auxiliary and electric heating circuit. According to NF F 16-101 (0.6/1 kV).

Auxiliary circuits at line voltage, traction circuits, electric heating fed at line voltage in protected areas. According to NF F 16-101 (1.8/3 kV).

Usable on railway vehicles having the hazard level HL3 according to EN 45545.

CONSTRUCTION

1 Conductor
Tin-coated annealed copper conductor class 5 according to EN 60228

2 Insulation
LSZH elastomeric compound - BLACK

3 Marking
PRYSMIAN 255 -TEROL MW - EN 50264-3-1 600 V 1.5 M batch n°
PRYSMIAN 255 -TEROL MW - EN 50264-3-1 1800 V 1.5 M batch n°

Notes

- All thicknesses are according to EN standards
- FR version according to EN 50200 available upon request (0.6/1 kV)


-40 °C; +90 °C

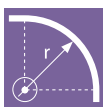
+200 °C


EN/IEC 60332-1
EN/IEC 60332-3-24
+ EN/IEC 60332-3-25
+ EN 50305

EN/IEC 61034


EN/IEC 60754-1&2
+ EN 50305


GOOD



D<12mm 4XD
D>12mm 5XD


D<12mm 8XD
D>12mm 10XD

> Power cables according to EN 50264-3-1
> Medium Wall
> Unsheathed single core

TEROL MW (PMUM) - 0.6/1 kV

Part number	Construction (nr cond x mm²)	Conductor diameter (mm)	Min. outer diameter (mm)	Nom. outer diameter (mm)	Max. outer diameter (mm)	Weight (kg/km)	Permissible current free air (A)	Short circuit current-1s (kA)
PMUM-101	1 x 1	1.3	2.50	2.60	2.70	15	20	0.12
PMUM-102	1 x 1.5	1.6	2.95	3.10	3.25	20	25	0.18
PMUM-103	1 x 2.5	2.0	3.35	3.50	3.65	35	33	0.31
PMUM-104	1 x 4	2.6	3.95	4.10	4.25	45	46	0.49
PMUM-105	1 x 6	3.1	4.40	4.60	4.80	65	60	0.73
PMUM-106	1 x 10	4.2	5.50	5.70	5.90	110	85	1.22
PMUM-107	1 x 16	5.0	6.25	6.50	6.75	160	110	1.95
PMUM-108	1 x 25	6.3	8.00	8.30	8.60	240	150	3.05
PMUM-109	1 x 35	7.5	9.20	9.60	10.00	330	190	4.27
PMUM-110	1 x 50	8.6	10.40	10.90	11.40	470	240	6.10
PMUM-111	1 x 70	9.9	12.30	12.80	13.30	660	300	8.54
PMUM-112	1 x 95	11.4	13.90	14.40	14.90	860	360	11.59
PMUM-113	1 x 120	14.5	15.70	16.20	16.70	1080	425	14.64
PMUM-114	1 x 150	16.5	17.60	18.30	19.00	1370	490	18.30
PMUM-115	1 x 185	18.5	19.60	20.30	21.00	1690	560	22.57
PMUM-116	1 x 240	20.5	22.20	23.20	24.20	2240	675	29.28
PMUM-117	1 x 300	21.0	24.60	25.90	27.20	2780	775	36.60
PMUM-118	1 x 400	24.5	29.30	30.60	31.90	3600	950	48.80

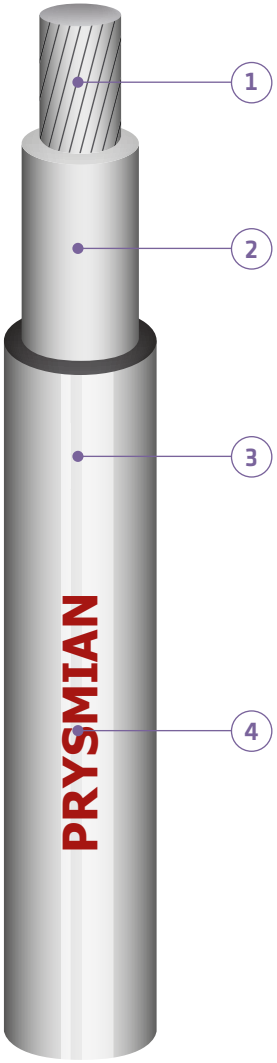
TEROL MW (PMUM) - 1.8/3 kV

Part number	Construction (nr cond x mm²)	Conductor diameter (mm)	Min. outer diameter (mm)	Nom. outer diameter (mm)	Max. outer diameter (mm)	Weight (kg/km)	Permissible current free air (A)	Short circuit current-1s (kA)
PMUM-302	1 x 1.5	1.5	5.65	5.90	6.15	55	25	0.18
PMUM-303	1 x 2.5	2.0	6.05	6.30	6.55	65	33	0.31
PMUM-304	1 x 4	2.5	6.70	7.00	7.30	85	46	0.49
PMUM-305	1 x 6	3.0	7.20	7.50	7.80	105	60	0.73
PMUM-306	1 x 10	3.9	8.20	8.50	8.80	150	85	1.22
PMUM-307	1 x 16	5.0	9.05	9.40	9.75	220	110	1.95
PMUM-308	1 x 25	6.4	10.20	10.70	11.20	300	150	3.05
PMUM-309	1 x 35	7.7	11.50	12.00	12.50	390	190	4.27
PMUM-310	1 x 50	9.2	12.60	13.10	13.60	530	240	6.10
PMUM-311	1 x 70	11.0	14.20	14.70	15.20	720	300	8.54
PMUM-312	1 x 95	12.5	16.00	16.60	17.20	940	360	11.59
PMUM-313	1 x 120	14.2	17.60	18.30	19.00	1160	425	14.64
PMUM-314	1 x 150	15.8	19.20	19.90	20.60	1450	490	18.30
PMUM-315	1 x 185	17.5	20.90	21.60	22.30	1760	560	22.57
PMUM-316	1 x 240	20.1	23.70	24.70	25.70	2350	675	29.28
PMUM-317	1 x 300	22.5	25.60	26.70	27.80	2830	775	36.60
PMUM-318	1 x 400	25.8	29.30	30.60	31.90	3650	950	48.80

Power and Control Cables

TEROL MW-T (PMUMT)

1.8/3 kV or 3.6/6 kV



APPLICATION

Auxiliary circuits at line voltage, traction circuits, electric heating fed at line voltage run on trays, exposed. According to NF F 16-101.

Usable on railway vehicles having the hazard level HL3 according to EN 45545.

CONSTRUCTION

1 Conductor
Tin-coated annealed copper conductor class 5 according to EN 60228

2 Insulation
LSZH elastomeric compound - BLACK

3 Sheath
LSZH elastometric compound - BLACK

4 Marking
PRYSMIAN 255 -TEROL MW-T - EN 50264-3-1 1800 V 25 MM batch n°
PRYSMIAN 255 -TEROL MW-T - EN 50264-3-1 3600 V 25 MM batch n°

Notes

- All thicknesses are according to EN standards

-40 °C; +90 °C

+200 °C

EN/IEC 60332-1
EN/IEC 60332-3-24
+ EN/IEC 60332-3-25
+ EN 50305

EN/IEC 61034

EN/IEC 60754-1&2
+ EN 50305

GOOD

D<12mm 4XD
D>12mm 5XD

D<12mm 8XD
D>12mm 10XD

> Power cables according to EN 50264-3-1
> Medium Wall
> Sheathed single core

TEROL MW-T (PMUMT) - 1.8/3 kV

Part number	Construction (nr cond x mm²)	Conductor diameter (mm)	Min. outer diameter (mm)	Nom. outer diameter (mm)	Max. outer diameter (mm)	Weight (kg/km)	Permissible current free air (A)	Short circuit current-1s (kA)
PMUMT302	1 x 1.5	1.6	5.90	6.10	6.30	55	25	0.18
PMUMT303	1 x 2.5	2.0	6.25	6.50	6.75	70	33	0.31
PMUMT304	1 x 4	2.6	6.80	7.10	7.40	90	46	0.49
PMUMT305	1 x 6	3.1	7.40	7.70	8.00	110	60	0.73
PMUMT306	1 x 10	4.2	8.85	9.20	9.55	170	85	1.22
PMUMT307	1 x 16	5.0	9.70	10.10	10.50	230	110	1.95
PMUMT308	1 x 25	6.3	12.10	12.60	13.10	350	150	3.05
PMUMT309	1 x 35	7.5	13.20	13.80	14.40	450	190	4.27
PMUMT310	1 x 50	8.6	14.20	14.90	15.60	590	240	6.10
PMUMT311	1 x 70	9.9	15.50	16.20	16.90	790	300	8.54
PMUMT312	1 x 95	11.4	17.70	18.50	19.30	1050	360	11.59
PMUMT313	1 x 120	14.5	20.90	21.70	22.50	1270	425	14.64
PMUMT314	1 x 150	15.8	21.50	22.30	23.10	1590	490	18.30
PMUMT315	1 x 185	17.5	23.40	24.20	25.00	1900	560	22.57
PMUMT316	1 x 240	20.1	25.90	27.10	28.30	2490	675	29.28
PMUMT317	1 x 300	22.5	28.10	29.30	29.50	3010	775	36.60
PMUMT318	1 x 400	25.8	32.10	33.60	35.10	3980	950	48.80

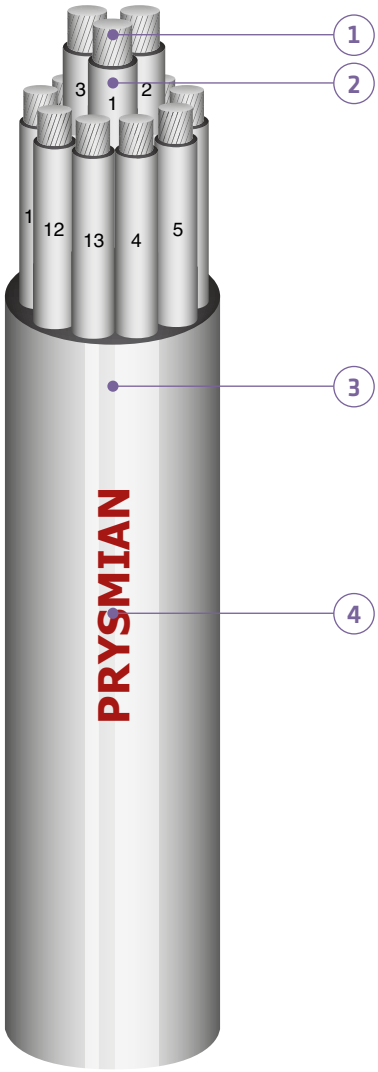
TEROL MW-T (PMUMT) - 3.6/6 kV

Part number	Construction (nr cond x mm²)	Conductor diameter (mm)	Min. outer diameter (mm)	Nom. outer diameter (mm)	Max. outer diameter (mm)	Weight (kg/km)	Permissible current free air (A)	Short circuit current-1s (kA)
PMUMT603	1 x 2.5	2.0	8.70	9.00	9.30	120	33	0.31
PMUMT604	1 x 4	2.6	9.40	9.70	10.00	145	46	0.49
PMUMT605	1 x 6	3.1	9.80	10.20	10.60	170	60	0.73
PMUMT606	1 x 10	4.2	10.70	11.20	11.70	230	85	1.22
PMUMT607	1 x 16	5.0	11.70	12.20	12.70	290	110	1.95
PMUMT608	1 x 25	6.3	14.20	14.80	15.40	420	150	3.05
PMUMT609	1 x 35	7.5	15.40	16.00	16.60	530	190	4.27
PMUMT610	1 x 50	8.6	16.50	17.10	17.70	680	240	6.10
PMUMT611	1 x 70	9.9	18.00	18.60	19.20	880	300	8.54
PMUMT612	1 x 95	11.4	19.50	20.20	20.90	1100	360	11.59
PMUMT613	1 x 120	14.5	21.50	22.40	24.30	1470	425	14.64
PMUMT614	1 x 150	15.8	23.00	23.90	24.80	1662	490	18.30
PMUMT615	1 x 185	17.5	25.10	26.00	26.90	2010	560	22.57
PMUMT616	1 x 240	20.1	28.80	29.90	31.00	2670	675	29.28
PMUMT617	1 x 300	22.5	30.60	31.70	32.80	3170	775	36.60
PMUMT618	1 x 400	25.8	33.70	35.30	36.90	4150	950	48.80

Power and Control Cables

TEROL MW-M (PMMMT)

300/500 V or 0.6/1 kV



APPLICATION

Internal safe circuits, control and monitoring circuits. According to NF F 16-101 (300/500 V).

Lighting circuits, auxiliary and electric heating circuits, control and monitoring circuits. According to NF F 16-101 (0.6/1 kV).

Usable on railway vehicles having the hazard level HL3 according to EN 45545.

CONSTRUCTION

1 Conductor
Tin-coated annealed copper conductor class 5 according to EN 60228

2 Insulation
LSZH elastomeric compound, numbered identification - BLACK

3 Sheath
LSZH elastometric compound - BLACK

4 Marking
PRYSMIAN 255 - TEROL MW-M - EN 50264 - 3-2 300 V 37x1.5 MM batch n°
PRYSMIAN 255 - TEROL MW-M - EN 50264 - 3-2 600 V 2x1.5 MM batch n°

Notes

- All thicknesses are according to EN standards
- Other constructions available upon request


-40 °C; +90 °C

+200 °C


EN/IEC 60332-1
EN/IEC 60332-3-24
+ EN/IEC 60332-3-25
+ EN 50305

EN/IEC 61034


EN/IEC 60754-1&2
+ EN 50305


GOOD

D<12mm 4XD
D>12mm 5XD


D<12mm 8XD
D>12mm 10XD

> Power cables according to EN 50264-3-2
> Medium Wall
> Multicore

TEROL MW-M (PMMMT) - 300/500 V

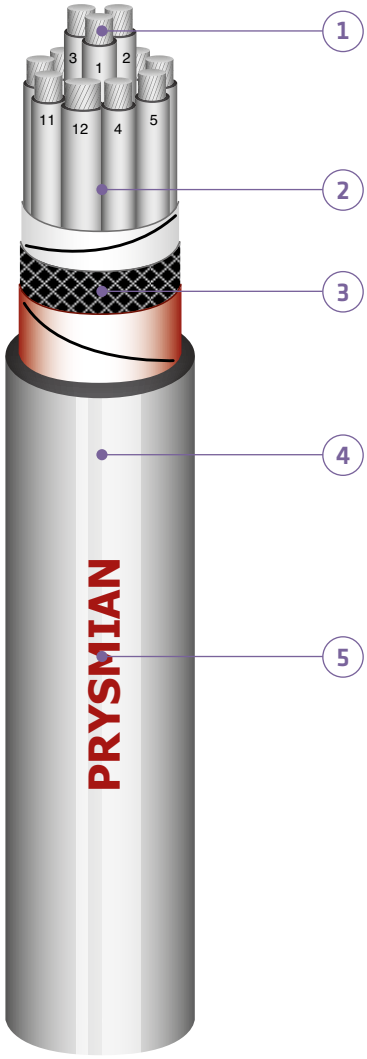
Part number	Construction (nr cond x mm²)	Conductor diameter (mm)	Diameter above screen (mm)	Min. outer diameter (mm)	Nom. outer diameter (mm)	Max. outer diameter (mm)	Weight (kg/km)	Permissible current free air (A)	Short circuit current-1s (kA)
PMMMT800	2 x 1	1.35	-	5.85	6.00	6.15	44	16.0	0.12
PMMMT801	4 x 1	1.35	-	6.85	7.00	7.15	72	16.0	0.12
PMMMT802	7 x 1	1.35	-	8.30	8.50	8.70	118	10.4	0.12
PMMMT803	9 x 1	1.35	-	9.80	10.10	10.40	159	9.3	0.12
PMMMT804	12 x 1	1.35	-	10.90	11.20	11.50	189	8.5	0.12
PMMMT805	19 x 1	1.35	-	13.10	13.40	13.70	288	7.2	0.12
PMMMT806	24 x 1	1.35	-	15.70	16.10	16.50	393	6.4	0.12
PMMMT807	32 x 1	1.35	-	17.30	17.70	18.10	492	5.6	0.12
PMMMT808	37 x 1	1.35	-	18.10	18.50	18.90	554	5.4	0.12
PMMMT809	40 x 1	1.35	-	18.80	19.20	19.60	599	5.3	0.12
PMMMT901	4 x 1.5	1.5	-	8.10	8.30	8.50	106	20.0	0.18
PMMMT902	7 x 1.5	1.5	-	9.60	9.90	10.20	167	13.0	0.18
PMMMT903	9 x 1.5	1.5	-	11.50	12.00	12.50	232	11.6	0.18
PMMMT904	12 x 1.5	1.5	-	12.80	13.30	13.80	278	10.6	0.18
PMMMT905	19 x 1.5	1.5	-	15.50	16.00	16.50	435	9.0	0.18
PMMMT906	24 x 1.5	1.5	-	18.10	18.80	19.50	560	8.0	0.18
PMMMT907	32 x 1.5	1.5	-	20.20	21.00	21.80	723	7.0	0.18
PMMMT908	37 x 1.5	1.5	-	21.20	22.00	22.80	820	6.8	0.18
PMMMT928	4 x 2.5	1.95	-	9.10	9.40	9.70	152	26.4	0.31
PMMMT929	7 x 2.5	1.95	-	10.80	11.30	11.80	244	17.2	0.31
PMMMT930	9 x 2.5	1.95	-	13.20	13.80	14.40	347	15.3	0.31
PMMMT931	12 x 2.5	1.95	-	14.90	15.60	16.30	424	14.0	0.31
PMMMT932	19 x 2.5	1.95	-	17.40	18.20	19.00	635	11.9	0.31
PMMMT933	24 x 2.5	1.95	-	20.80	21.80	22.80	840	10.6	0.31

TEROL MW-M (PMMMT) - 0.6/1 kV

Part number	Construction (nr cond x mm²)	Conductor diameter (mm)	Diameter above screen (mm)	Min. outer diameter (mm)	Nom. outer diameter (mm)	Max. outer diameter (mm)	Weight (kg/km)	Permissible current free air (A)	Short circuit current-1s (kA)
PMMMT201	2 x 1.5	1.5	-	7.80	8.10	8.40	75	20	0.18
PMMMT202	2 x 2.5	1.95	-	8.70	9.00	9.30	95	26	0.31
PMMMT203	2 x 4	2.5	-	9.70	10.20	10.70	130	37	0.49
PMMMT204	2 x 6	3.0	-	11.00	11.50	12.00	175	48	0.73
PMMMT205	2 x 10	3.9	-	13.50	14.10	14.70	290	68	1.22
PMMMT206	2 x 16	5.0	-	15.00	15.70	16.40	400	88	1.95
PMMMT207	2 x 25	6.4	-	19.00	19.80	20.60	600	120	3.05
PMMMT208	2 x 35	7.7	-	22.10	22.20	23.20	800	152	4.27
PMMMT209	2 x 50	9.2	-	25.00	26.10	27.20	1140	192	6.10
PMMMT301	3 x 1.5	1.5	-	8.40	8.70	9.00	100	20	0.18
PMMMT302	3 x 2.5	1.95	-	9.30	9.60	9.90	135	26	0.31
PMMMT303	3 x 4	2.5	-	10.50	11.00	11.50	180	37	0.49
PMMMT304	3 x 6	3.0	-	11.70	12.20	12.70	245	48	0.73
PMMMT305	3 x 10	3.9	-	14.40	15.00	15.60	420	68	1.22
PMMMT306	3 x 16	5.0	-	16.20	16.90	17.60	570	88	1.95
PMMMT307	3 x 25	6.4	-	20.20	21.10	22.00	860	120	3.05
PMMMT308	3 x 35	7.7	-	23.10	24.10	25.10	1160	152	4.27
PMMMT309	3 x 50	9.2	-	27.20	28.40	29.60	1680	192	6.10
PMMMT401	4 x 1.5	1.5	-	9.20	9.50	9.80	125	20	0.18
PMMMT402	4 x 2.5	1.95	-	10.10	10.50	10.90	170	26	0.31
PMMMT403	4 x 4	2.5	-	11.60	12.10	12.60	240	37	0.49
PMMMT404	4 x 6	3.0	-	13.30	13.90	14.50	330	48	0.73
PMMMT405	4 x 10	3.9	-	16.00	16.70	17.40	550	68	1.22
PMMMT406	4 x 16	5.0	-	18.00	18.80	19.60	750	88	1.95
PMMMT407	4 x 25	6.4	-	22.80	23.80	24.80	1140	120	3.05

TEROL MW-MS (PMMSM)

300/500 V or 0.6/1 kV



APPLICATION

Internal safe circuits, control and monitoring circuits. According to NF F 16-101 (300/500 V).

Lighting circuits, auxiliary and electric heating circuits, control and monitoring circuits. According to NF F 16-101 (0.6/1 kV).

Usable on railway vehicles having the hazard level HL3 according to EN 45545.

CONSTRUCTION

1 Conductor
Tin-coated annealed copper conductor class 5 according to EN 60228

2 Insulation
LSZH elastomeric compound , numbered identification - BLACK

3 Screen
Tinned annealed copper wire braid

4 Sheath
LSZH elastometric compound - BLACK

5 Marking
PRYSMIAN 255 -TEROL MW-MS -EN 50264-3-2 300 V 37x1.5 MMS batch n°
PRYSMIAN 255 -TEROL MW-MS -EN 50264-3-2 600 V 2x1.5 MMS batch n°

Notes

- All thicknesses are according to EN standards
- Other constructions available upon request


-40 °C; +90 °C

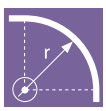
+200 °C


EN/IEC 60332-1
EN/IEC 60332-3-24
+ EN/IEC 60332-3-25
+ EN 50305

EN/IEC 61034


EN/IEC 60754-1&2
+ EN 50305


GOOD



10XD


20XD

> Power cables according to EN 50264-3-2
> Medium Wall
> Multicore screened cables

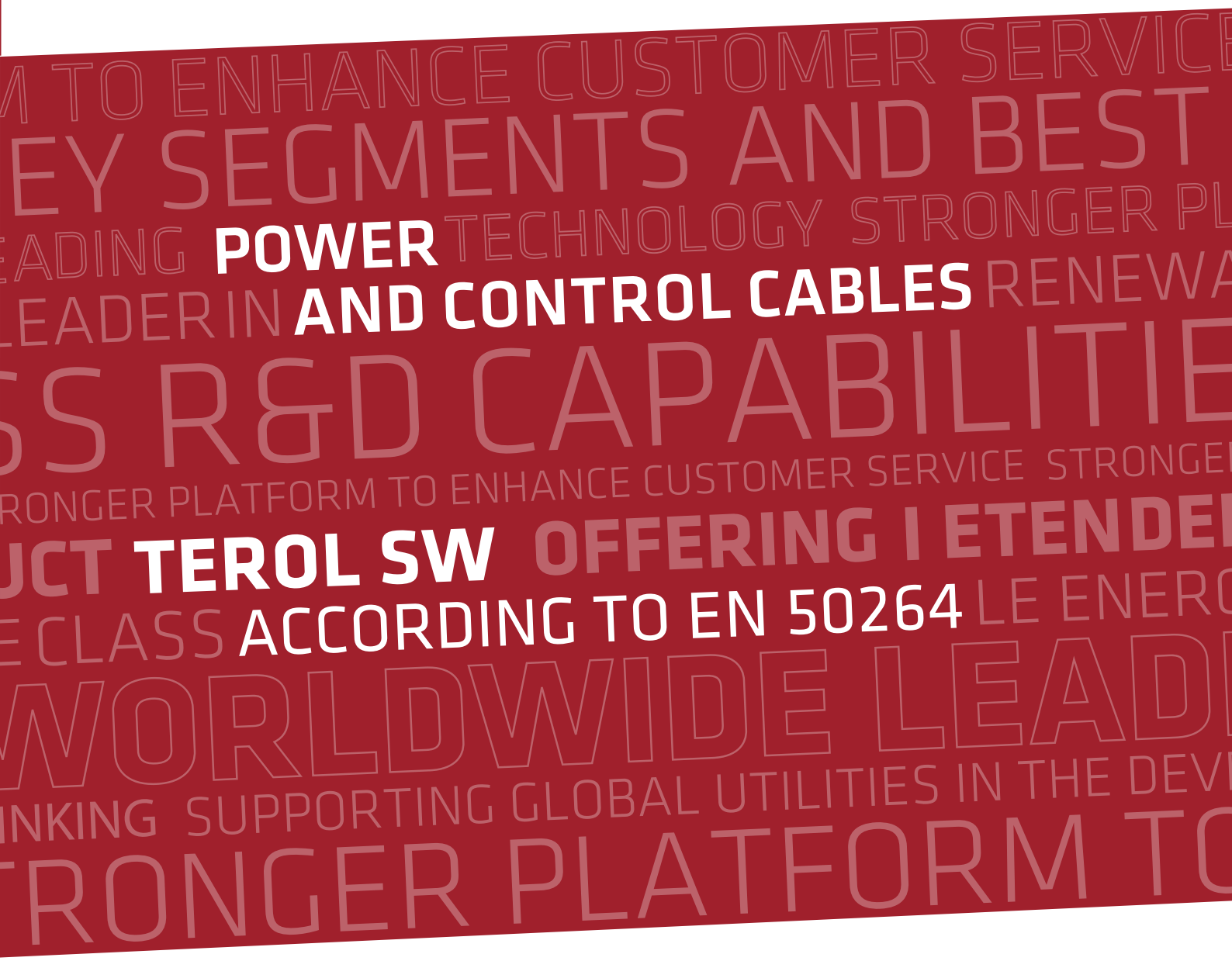
TEROL MW-MS (PMMSM) - 300/500 V

Part number	Construction (nr cond x mm²)	Conductor diameter (mm)	Diameter above screen (mm)	Min. outer diameter (mm)	Nom. outer diameter (mm)	Max. outer diameter (mm)	Weight (kg/km)	Permissible current free air (A)	Short circuit current-1s (kA)
PMMSM800	2 x 1	1.3	5.40	6.70	6.90	7.10	68	16.0	0.12
PMMSM801	4 x 1	1.3	6.40	7.80	8.00	8.20	106	16.0	0.12
PMMSM802	7 x 1	1.3	7.70	9.20	9.40	9.60	153	10.4	0.12
PMMSM803	9 x 1	1.3	10.70	11.10	11.50	11.90	222	9.3	0.12
PMMSM804	12 x 1	1.3	10.70	11.60	12.00	12.40	260	8.5	0.12
PMMSM805	19 x 1	1.3	12.80	14.60	15.00	15.40	396	7.2	0.12
PMMSM806	24 x 1	1.3	15.10	17.00	17.40	17.80	499	6.4	0.12
PMMSM807	32 x 1	1.3	16.70	18.60	19.00	19.40	609	5.6	0.12
PMMSM808	37 x 1	1.3	17.40	19.50	20.20	20.90	671	5.4	0.12
PMMSM809	40 x 1	1.3	18.20	19.90	20.60	21.30	741	5.3	0.12
PMMSM901	4 x 1.5	1.5	7.30	8.80	9.10	9.40	138	20.0	0.18
PMMSM902	7 x 1.5	1.5	9.20	10.70	11.00	11.30	221	13.0	0.18
PMMSM903	9 x 1.5	1.5	12.30	12.50	13.00	13.50	292	11.6	0.18
PMMSM904	12 x 1.5	1.5	12.30	14.20	14.70	15.20	364	10.6	0.18
PMMSM905	19 x 1.5	1.5	14.80	16.70	17.30	17.90	535	9.0	0.18
PMMSM906	24 x 1.5	1.5	17.50	19.80	20.50	21.20	698	8.0	0.18
PMMSM907	32 x 1.5	1.5	19.40	21.60	22.40	23.20	859	7.0	0.18
PMMSM908	37 x 1.5	1.5	20.20	22.40	23.20	24.00	955	6.8	0.18
PMMSM928	4 x 2.5	1.95	8.60	10.20	10.50	10.80	202	26.4	0.31
PMMSM929	7 x 2.5	1.95	10.40	12.10	12.50	12.90	308	17.2	0.31
PMMSM930	9 x 2.5	1.95	14.20	14.60	15.20	15.80	435	15.3	0.31
PMMSM931	12 x 2.5	1.95	14.20	16.10	16.80	17.50	520	14.0	0.31
PMMSM932	19 x 2.5	1.95	16.80	19.20	20.00	20.80	757	11.9	0.31
PMMSM933	24 x 2.5	1.95	19.90	22.10	23.10	24.10	974	10.6	0.31

TEROL MW-MS (PMMSM) - 0.6/1 kV

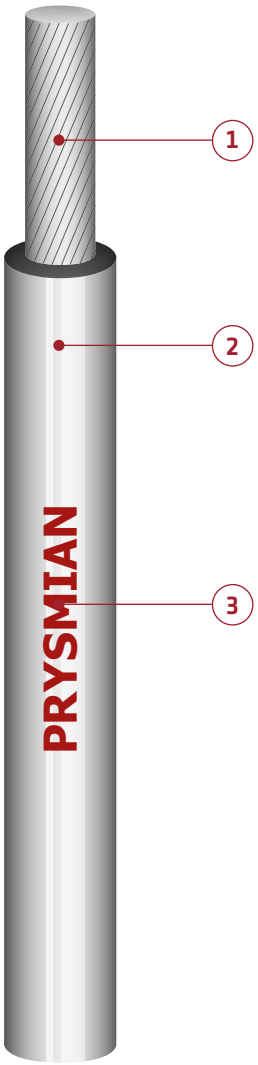
Part number	Construction (nr cond x mm²)	Conductor diameter (mm)	Diameter above screen (mm)	Min. outer diameter (mm)	Nom. outer diameter (mm)	Max. outer diameter (mm)	Weight (kg/km)	Permissible current free air (A)	Short circuit current-1s (kA)
PMMSM201	2 x 1.5	1.5	7.00	8.20	8.50	8.80	90	20	0.18
PMMSM202	2 x 2.5	1.95	7.80	9.00	9.30	9.60	115	26	0.31
PMMSM203	2 x 4	2.5	9.30	10.50	11.00	11.50	170	37	0.49
PMMSM204	2 x 6	3.0	10.30	11.50	12.00	12.50	210	48	0.73
PMMSM205	2 x 10	3.9	12.50	13.90	14.50	15.10	320	68	1.22
PMMSM206	2 x 16	5.0	14.50	16.10	16.80	17.50	465	88	1.95
PMMSM207	2 x 25	6.4	19.30	20.00	20.90	21.80	690	120	3.05
PMMSM208	2 x 35	7.7	21.10	23.00	24.00	25.00	935	152	4.27
PMMSM209	2 x 50	9.2	23.70	25.80	27.00	28.20	1260	192	6.10
PMMSM301	3 x 1.5	1.5	7.50	8.70	9.00	9.30	120	20	0.18
PMMSM302	3 x 2.5	1.95	8.30	9.70	10.10	10.50	160	26	0.31
PMMSM303	3 x 4	2.5	9.90	11.50	12.00	12.50	230	37	0.49
PMMSM304	3 x 6	3.0	11.00	12.50	13.00	13.50	295	48	0.73
PMMSM305	3 x 10	3.9	13.60	15.50	16.20	16.90	498	68	1.22
PMMSM306	3 x 16	5.0	15.50	17.70	18.50	19.30	675	88	1.95
PMMSM307	3 x 25	6.4	20.70	21.30	22.30	23.30	971	120	3.05
PMMSM308	3 x 35	7.7	22.64	24.50	25.60	26.70	1323	152	4.27
PMMSM309	3 x 50	9.2	25.44	28.30	29.40	30.50	1823	192	6.10
PMMSM401	4 x 1.5	1.5	8.30	9.60	10.00	10.40	150	20	0.18
PMMSM402	4 x 2.5	1.95	9.50	11.10	11.60	12.10	220	26	0.31
PMMSM403	4 x 4	2.5	11.00	12.60	13.20	13.80	300	37	0.49
PMMSM404	4 x 6	3.0	12.20	14.30	14.90	15.50	400	48	0.73
PMMSM405	4 x 10	3.9	15.00	17.30	18.10	18.90	640	68	1.22
PMMSM406	4 x 16	5.0	17.20	19.30	20.20	21.10	860	88	1.95
PMMSM407	4 x 25	6.4	23.20	24.10	25.10	26.10	1290	120	3.05

Rolling Stock Cables


POWER
AND CONTROL CABLES
TEROL SW
OFFERING I ETENDE
ACCORDING TO EN 50264

TEROL SW (PSUM)

0.6/1 kV or 1.8/3 kV



APPLICATION

Lighting circuits powered by accumulators, equipment control and monitoring circuits, auxiliary and electric heating circuits (0.6/1 kV).

Auxiliary circuits at line voltage, traction circuits, electric heating fed at line voltage in protected areas (1.8/3 kV).

Usable on railway vehicles having the hazard level HL3 according to EN 45545.

CONSTRUCTION

1 Conductor
Tin-coated annealed copper conductor class 5 according to EN 60228

2 Insulation
LSZH elastomeric compound – BLACK

3 Marking
PRYSMIAN 255 -TEROL SW - EN 50264-2-1 600 V 1.5 M batch n°
PRYSMIAN 255 -TEROL SW - EN 50264-2-1 1800 V 1.5 M batch n°

Notes

- All thicknesses are according to EN standards
- Other colour available upon request
- FR version according to EN 50200 available upon request (0.6/1 kV)


-40 °C; +90 °C

+200 °C


EN/IEC 60332-1
EN/IEC 60332-3-24
+ EN/IEC 60332-3-25
+ EN 50305

EN/IEC 61034


EN/IEC 60754-1&2
+ EN 50305


GOOD

D<12mm 4XD
D>12mm 5XD


D<12mm 8XD
D>12mm 10XD

> Power cables according to EN 50264-2-1
> Standard Wall
> Unsheathed single core

TEROL SW (PSUM) - 0.6/1 kV

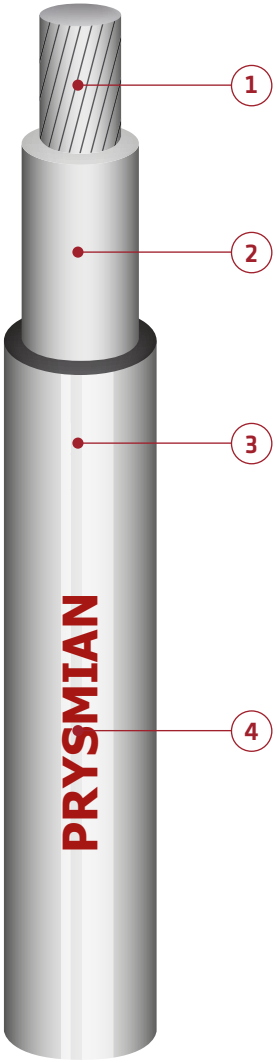
Part number	Construction (nr cond x mm²)	Conductor diameter (mm)	Min. outer diameter (mm)	Nom. outer diameter (mm)	Max. outer diameter (mm)	Weight (kg/km)	Permissible current free air (A)	Short circuit current-1s (kA)
PSUM-001	1 x 1	1.25	3.00	3.10	3.20	20	20	0.12
PSUM-002	1 x 1.5	1.5	3.30	3.40	3.50	25	25	0.18
PSUM-003	1 x 2.5	1.95	3.70	3.80	3.90	35	33	0.31
PSUM-004	1 x 4	2.5	4.30	4.45	4.60	50	46	0.49
PSUM-005	1 x 6	3.0	4.95	5.15	5.35	70	60	0.73
PSUM-006	1 x 10	3.9	6.40	6.60	6.80	125	85	1.22
PSUM-007	1 x 16	5.0	7.20	7.50	7.80	175	110	1.95
PSUM-008	1 x 25	6.4	8.75	9.15	9.55	260	150	3.05
PSUM-009	1 x 35	7.7	10.20	10.60	11.00	350	190	4.27
PSUM-010	1 x 50	9.2	11.70	12.20	12.70	500	240	6.10
PSUM-011	1 x 70	11.0	13.25	13.85	14.45	700	300	8.54
PSUM-012	1 x 95	12.5	14.90	15.60	16.30	910	360	11.59
PSUM-013	1 x 120	14.2	16.60	17.35	18.10	1130	425	14.64
PSUM-014	1 x 150	15.8	18.60	19.40	20.20	1430	490	18.30
PSUM-015	1 x 185	17.5	19.90	20.80	21.70	1720	560	22.57
PSUM-016	1 x 240	20.1	23.20	24.25	25.30	2300	675	29.28
PSUM-017	1 x 300	22.5	25.40	26.50	27.60	2810	775	36.60
PSUM-018	1 x 400	25.8	28.70	30.00	31.30	3690	950	48.80

TEROL SW (PSUM) - 1.8/3 kV

Part number	Construction (nr cond x mm²)	Conductor diameter (mm)	Min. outer diameter (mm)	Nom. outer diameter (mm)	Max. outer diameter (mm)	Weight (kg/km)	Permissible current free air (A)	Short circuit current-1s (kA)
PSUM-100	1 x 1.5	1.5	6.90	7.10	7.30	75	25	0.18
PSUM-101	1 x 2.5	1.95	7.30	7.55	7.80	90	33	0.31
PSUM-102	1 x 4	2.5	7.85	8.10	8.35	110	46	0.49
PSUM-103	1 x 6	3.0	8.30	8.60	8.90	130	60	0.73
PSUM-104	1 x 10	3.9	9.35	9.65	9.95	195	85	1.22
PSUM-105	1 x 16	5.0	10.40	10.80	11.20	250	110	1.95
PSUM-106	1 x 25	6.4	11.65	12.15	12.65	340	150	3.05
PSUM-107	1 x 35	7.7	12.80	13.40	14.00	440	190	4.27
PSUM-108	1 x 50	9.2	14.00	14.60	15.20	580	240	6.10
PSUM-109	1 x 70	11.0	15.10	15.80	16.50	770	300	8.54
PSUM-110	1 x 95	12.5	16.90	17.60	18.30	980	360	11.59
PSUM-111	1 x 120	14.2	18.60	19.40	20.20	1210	425	14.64
PSUM-112	1 x 150	15.8	20.10	21.00	21.90	1500	490	18.30
PSUM-113	1 x 185	17.5	21.50	22.40	23.30	1800	560	22.57
PSUM-114	1 x 240	20.1	24.30	25.40	26.50	2370	675	29.28
PSUM-115	1 x 300	22.5	26.30	27.50	28.70	2840	775	36.60
PSUM-116	1 x 400	25.8	30.20	31.60	33.00	3800	950	48.80

TEROL SW-T (PSUMT)

1.8/3 kV or 3.6/6 kV



APPLICATION

Auxiliary circuits at line voltage, traction circuits, electric heating fed at line voltage run on trays, exposed.

Usable on railway vehicles having the hazard level HL3 according to EN 45545.

CONSTRUCTION

1 Conductor
Tin-coated annealed copper conductor class 5 according to EN 60228

2 Insulation
LSZH elastomeric compound - BLACK

3 Sheath
LSZH elastomeric compound - BLACK

4 Marking
PRYSMIAN 255 -TEROL SW-T - EN 50264-2-1 1800 V 25 MM batch n°
PRYSMIAN 255 -TEROL SW-T - EN 50264-2-1 3600 V 25 MM batch n°

Notes

- All thicknesses are according to EN standards


-40 °C; +90 °C

+200 °C


EN/IEC 60332-1
EN/IEC 60332-3-24
+ EN/IEC 60332-3-25
+ EN 50305

EN/IEC 61034


EN/IEC 60754-1&2
+ EN 50305


GOOD

D<12mm 4XD
D>12mm 5XD


D<12mm 8XD
D>12mm 10XD

> Power cables according to EN 50264-2-1
> Standard Wall
> Sheathed single core

TEROL SW-T (PSUMT) - 1.8/3 kV

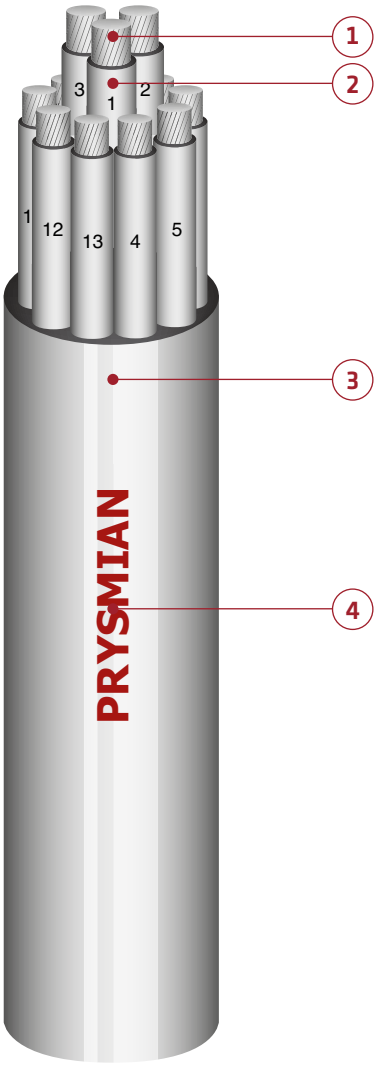
Part number	Construction (nr cond x mm²)	Conductor diameter (mm)	Min. outer diameter (mm)	Nom. outer diameter (mm)	Max. outer diameter (mm)	Weight (kg/km)	Permissible current free air (A)	Short circuit current-1s (kA)
PSUMT001	1 x 1.5	1.5	7.40	7.60	7.80	85	25	0.18
PSUMT002	1 x 2.5	1.95	7.75	8.00	8.25	100	33	0.31
PSUMT003	1 x 4	2.5	8.35	8.60	8.85	120	46	0.49
PSUMT004	1 x 6	3.0	8.85	9.15	9.45	145	60	0.73
PSUMT005	1 x 10	3.9	11.65	12.00	12.35	260	85	1.22
PSUMT006	1 x 16	5.0	12.45	13.00	13.55	320	110	1.95
PSUMT007	1 x 25	6.4	13.90	14.50	15.10	420	150	3.05
PSUMT008	1 x 35	7.7	15.00	15.70	16.40	520	190	4.27
PSUMT009	1 x 50	9.2	16.10	16.85	17.60	670	240	6.10
PSUMT010	1 x 70	11.0	17.80	18.60	19.40	890	300	8.54
PSUMT011	1 x 95	12.5	19.60	20.50	21.40	1130	360	11.59
PSUMT012	1 x 120	14.2	21.40	22.40	23.40	1370	425	14.64
PSUMT013	1 x 150	15.8	23.20	24.30	25.40	1700	490	18.30
PSUMT014	1 x 185	17.5	24.40	25.50	26.60	2000	560	22.57
PSUMT015	1 x 240	20.1	27.90	29.20	30.50	2630	675	29.28
PSUMT016	1 x 300	22.5	30.00	31.40	32.80	3140	775	36.60
PSUMT017	1 x 400	25.8	34.00	35.60	37.20	4140	950	48.80

TEROL SW-T (PSUMT) - 3.6/6 kV

Part number	Construction (nr cond x mm²)	Conductor diameter (mm)	Min. outer diameter (mm)	Nom. outer diameter (mm)	Max. outer diameter (mm)	Weight (kg/km)	Permissible current free air (A)	Short circuit current-1s (kA)
PSUMT102	1 x 2.5	1.95	10.70	11.20	11.70	170	33	0.31
PSUMT103	1 x 4	2.5	11.20	11.80	12.40	195	46	0.49
PSUMT104	1 x 6	3.0	11.70	12.30	12.90	230	60	0.73
PSUMT105	1 x 10	3.9	12.90	13.50	14.10	300	85	1.22
PSUMT106	1 x 16	5.0	13.80	14.40	15.00	360	110	1.95
PSUMT107	1 x 25	6.4	15.00	15.70	16.40	453	150	3.05
PSUMT108	1 x 35	7.7	16.20	16.90	17.60	570	190	4.27
PSUMT109	1 x 50	9.2	17.60	18.30	19.00	730	240	6.10
PSUMT110	1 x 70	11.0	19.10	19.80	20.50	930	300	8.54
PSUMT111	1 x 95	12.5	20.80	21.50	22.20	1170	360	11.59
PSUMT112	1 x 120	14.2	22.60	23.60	24.60	1440	425	14.64
PSUMT113	1 x 150	15.8	24.20	25.20	26.20	1750	490	18.30
PSUMT114	1 x 185	17.5	26.00	27.00	28.00	2080	560	22.57
PSUMT115	1 x 240	20.1	29.40	30.70	32.00	2740	675	29.28
PSUMT116	1 x 300	22.5	31.50	32.80	34.10	3230	775	36.60
PSUMT117	1 x 400	25.8	34.90	36.50	38.10	4210	950	48.80

TEROL SW-M (PSMMT)

300/500 V or 0.6/1 kV



APPLICATION

Internal safe circuits, control and monitoring circuits (300/500 V).

Lighting circuits, auxiliary and electric heating circuits, control and monitoring circuits (0.6/1 kV).

Usable on railway vehicles having the hazard level HL3 according to EN 45545.

CONSTRUCTION

1 Conductor
Tin-coated annealed copper conductor class 5 according to EN 60228

2 Insulation
LSZH elastomeric compound, numbered identification - BLACK

3 Sheath
LSZH elastomeric compound - BLACK

4 Marking
PRYSMIAN 255 -TEROL SW-M - EN 50264-2-2 300 V 37x1.5 MM batch n°
PRYSMIAN 255 -TEROL SW-M - EN 50264-2-2 600 V 2x1.5 MM batch n°

Notes

- All thicknesses are according to EN standards
- Other constructions available upon request
- FR version according to to EN 50200 available upon request (300/500V)


-40 °C; +90 °C

+200 °C


EN/IEC 60332-1
EN/IEC 60332-3-24
+ EN/IEC 60332-3-25
+ EN 50305

EN/IEC 61034


EN/IEC 60754-1&2
+ EN 50305


GOOD

D<12mm 4XD
D>12mm 5XD


D<12mm 8XD
D>12mm 10XD

> Power cables according to EN 50264-2-2
> Standard Wall
> Multicore unscreened

TEROL SW-M (PSMMT) - 300/500 V

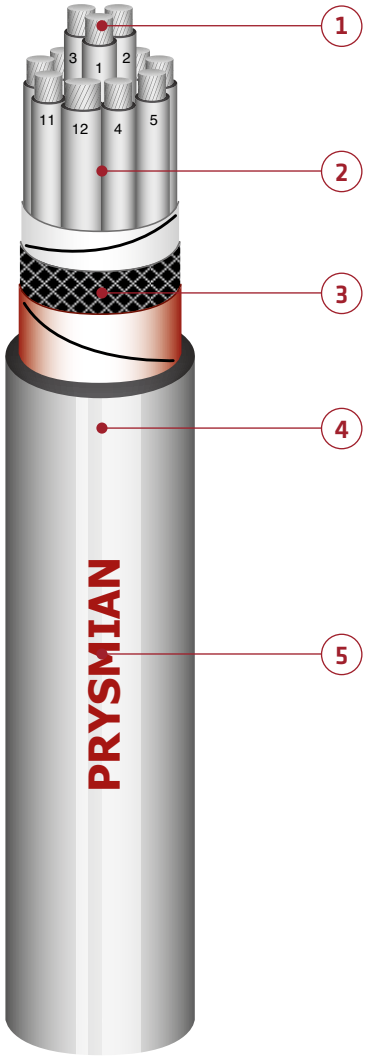
Part number	Construction (nr cond x mm²)	Conductor diameter (mm)	Diameter above screen (mm)	Min. outer diameter (mm)	Nom. outer diameter (mm)	Max. outer diameter (mm)	Weight (kg/km)	Permissible current free air (A)	Short circuit current-1s (kA)
PSMMT100	2 x 1	1.25	-	7.95	8.20	8.45	100	16.0	0.12
PSMMT101	4 x 1	1.25	-	9.00	9.30	9.60	130	16.0	0.12
PSMMT102	7 x 1	1.25	-	10.45	10.80	11.15	185	10.4	0.12
PSMMT103	9 x 1	1.25	-	12.10	12.60	13.10	230	9.3	0.12
PSMMT104	12 x 1	1.25	-	13.40	13.90	14.40	290	8.5	0.12
PSMMT105	19 x 1	1.25	-	15.60	16.10	16.60	400	7.2	0.12
PSMMT106	24 x 1	1.25	-	18.40	19.00	19.60	540	6.4	0.12
PSMMT107	32 x 1	1.25	-	20.30	21.00	21.70	660	5.6	0.12
PSMMT108	37 x 1	1.25	-	21.00	21.70	22.40	720	5.4	0.12
PSMMT109	40 x 1	1.25	-	21.70	22.50	23.30	760	5.3	0.12
PSMMT153	7 x 1.5	1.5	-	11.85	12.30	12.75	260	13.0	0.18
PSMMT154	9 x 1.5	1.5	-	13.90	14.40	14.90	310	11.6	0.18
PSMMT155	12 x 1.5	1.5	-	15.40	15.90	16.40	400	10.6	0.18
PSMMT156	19 x 1.5	1.5	-	18.20	18.80	19.40	580	9.0	0.18
PSMMT157	24 x 1.5	1.5	-	21.40	22.10	22.80	770	8.0	0.18
PSMMT158	32 x 1.5	1.5	-	23.80	24.50	25.20	950	7.0	0.18
PSMMT159	37 x 1.5	1.5	-	24.60	25.40	26.20	1040	6.8	0.18
PSMMT170	4 x 2.5	1.95	-	11.55	12.00	12.45	250	26.4	0.31
PSMMT171	7 x 2.5	1.95	-	13.70	14.30	14.90	360	17.2	0.31
PSMMT172	9 x 2.5	1.95	-	16.35	17.10	17.85	460	15.3	0.31
PSMMT173	12 x 2.5	1.95	-	18.00	18.80	19.60	590	14.0	0.31
PSMMT174	19 x 2.5	1.95	-	21.30	22.20	23.10	860	11.9	0.31
PSMMT175	24 x 2.5	1.95	-	25.30	26.40	27.50	1160	10.6	0.31

TEROL SW-M (PSMMT) - 0.6/1 kV

Part number	Construction (nr cond x mm²)	Conductor diameter (mm)	Diameter above screen (mm)	Min. outer diameter (mm)	Nom. outer diameter (mm)	Max. outer diameter (mm)	Weight (kg/km)	Permissible current free air (A)	Short circuit current-1s (kA)
PSMMT201	2 x 1.5	1.5	-	9.50	9.70	9.90	145	20	0.18
PSMMT202	2 x 2.5	1.95	-	10.30	10.60	10.90	180	26	0.31
PSMMT203	2 x 4	2.5	-	11.50	11.80	12.10	230	37	0.49
PSMMT204	2 x 6	3.0	-	12.90	13.30	13.70	310	48	0.73
PSMMT205	2 x 10	3.9	-	15.90	16.30	16.70	490	68	1.22
PSMMT206	2 x 16	5.0	-	17.50	18.30	19.10	630	88	1.95
PSMMT207	2 x 25	6.4	-	21.20	22.20	23.20	930	120	3.05
PSMMT208	2 x 35	7.7	-	23.70	24.80	25.90	1210	152	4.27
PSMMT209	2 x 50	9.2	-	27.50	28.80	30.10	1670	192	6.10
PSMMT301	3 x 1.5	1.5	-	10.00	10.25	10.50	165	20	0.18
PSMMT302	3 x 2.5	1.95	-	10.85	11.20	11.55	210	26	0.31
PSMMT303	3 x 4	2.5	-	12.10	12.50	12.90	280	37	0.49
PSMMT304	3 x 6	3.0	-	13.60	14.10	14.60	370	48	0.73
PSMMT305	3 x 10	3.9	-	16.90	17.40	17.90	610	68	1.22
PSMMT306	3 x 16	5.0	-	18.80	19.60	20.40	800	88	1.95
PSMMT307	3 x 25	6.4	-	22.70	23.80	24.90	1170	120	3.05
PSMMT308	3 x 35	7.7	-	25.50	26.70	27.90	1530	152	4.27
PSMMT309	3 x 50	9.2	-	29.20	30.60	32.00	2120	192	6.10
PSMMT401	4 x 1.5	1.5	-	10.90	11.10	11.30	195	20	0.18
PSMMT402	4 x 2.5	1.95	-	11.90	12.20	12.50	250	26	0.31
PSMMT403	4 x 4	2.5	-	13.20	13.60	14.00	340	37	0.49
PSMMT404	4 x 6	3.0	-	14.90	15.50	16.10	450	48	0.73
PSMMT405	4 x 10	3.9	-	18.60	19.20	19.80	750	68	1.22
PSMMT406	4 x 16	5.0	-	20.60	21.60	22.60	990	88	1.95
PSMMT407	4 x 25	6.4	-	25.30	26.50	27.70	1470	120	3.05

TEROL SW-MS (PSMSM)

300/500 V or 0.6/1 kV



APPLICATION

Internal safe circuits, control and monitoring circuits (300/500 V).

Lighting circuits, auxiliary and electric heating circuits, control and monitoring circuits (0.6/1 kV).

Usable on railway vehicles having the hazard level HL3 according to EN 45545.

CONSTRUCTION

1 Conductor
Tin-coated annealed copper conductor class 5 according to EN 60228

2 Insulation
LSZH elastomeric compound, numbered identification – BLACK

3 Screen
Tinned annealed copper wire braid

4 Sheath
LSZH elastomeric compound – BLACK

5 Marking
PRYSMIAN 255 -TEROL SW-MS -EN 50264-2-2 300 V 37x1.5 MMS batch n°
PRYSMIAN 255 -TEROL SW-MS -EN 50264-2-2 600 V 2x1.5 MMS batch n°

Notes

- All thicknesses are according to EN standards
- Other constructions available upon request
- FR version according to EN 50200 available upon request


-40 °C; +90 °C

+200 °C


EN/IEC 60332-1
EN/IEC 60332-3-24
+ EN/IEC 60332-3-25
+ EN 50305

EN/IEC 61034


EN/IEC 60754-1&2
+ EN 50305


GOOD

10XD


20XD

> Power cables according to EN 50264-2-2
> Standard Wall
> Multicore screened

TEROL SW-MS (PSMSM) - 300/500 V

Part number	Construction (nr cond x mm²)	Conductor diameter (mm)	Diameter above screen (mm)	Min. outer diameter (mm)	Nom. outer diameter (mm)	Max. outer diameter (mm)	Weight (kg/km)	Permissible current free air (A)	Short circuit current-1s (kA)
PSMSM101	2 x 1	1.25	6.00	8.75	9.10	9.45	110	16.0	0.12
PSMSM102	4 x 1	1.25	7.10	9.70	10.20	10.70	155	16.0	0.12
PSMSM103	7 x 1	1.25	8.60	11.20	11.70	12.20	220	10.4	0.12
PSMSM104	9 x 1	1.25	11.90	13.30	13.80	14.30	290	9.3	0.12
PSMSM105	12 x 1	1.25	11.90	14.60	15.10	15.60	340	8.5	0.12
PSMSM106	19 x 1	1.25	14.30	17.10	17.70	18.30	500	7.2	0.12
PSMSM107	24 x 1	1.25	16.90	19.80	20.50	21.20	640	6.4	0.12
PSMSM108	32 x 1	1.25	18.80	21.50	22.30	23.10	760	5.6	0.12
PSMSM109	37 x 1	1.25	19.50	22.50	23.30	24.10	840	5.4	0.12
PSMSM110	40 x 1	1.25	20.40	23.50	24.30	25.10	910	5.3	0.12
PSMSM152	7 x 1.5	1.5	10.40	13.00	13.50	14.00	300	13.0	0.18
PSMSM153	9 x 1.5	1.5	14.00	14.80	15.50	16.20	380	11.6	0.18
PSMSM154	12 x 1.5	1.5	14.00	16.80	17.50	18.20	460	10.6	0.18
PSMSM155	19 x 1.5	1.5	16.80	19.40	20.10	20.80	660	9.0	0.18
PSMSM156	24 x 1.5	1.5	19.90	22.60	23.40	24.20	860	8.0	0.18
PSMSM157	32 x 1.5	1.5	22.10	25.00	25.80	26.60	1050	7.0	0.18
PSMSM158	37 x 1.5	1.5	23.00	25.80	26.70	27.60	1170	6.8	0.18
PSMSM170	4 x 2.5	1.95	10.00	12.60	13.20	13.80	280	26.4	0.31
PSMSM171	7 x 2.5	1.95	12.20	14.75	15.40	16.05	400	17.2	0.31
PSMSM172	9 x 2.5	1.95	16.70	17.40	18.20	19.00	560	15.3	0.31
PSMSM173	12 x 2.5	1.95	16.70	19.30	20.20	21.10	660	14.0	0.31
PSMSM174	19 x 2.5	1.95	19.80	22.60	23.60	24.60	950	11.9	0.31
PSMSM175	24 x 2.5	1.95	23.50	26.50	27.70	28.90	1260	10.6	0.31

TEROL SW-MS (PSMSM) - 0.6/1 kV

Part number	Construction (nr cond x mm²)	Conductor diameter (mm)	Diameter above screen (mm)	Min. outer diameter (mm)	Nom. outer diameter (mm)	Max. outer diameter (mm)	Weight (kg/km)	Permissible current free air (A)	Short circuit current-1s (kA)
PSMSM201	2 x 1.5	1.5	7.60	10.30	10.60	10.90	150	20	0.18
PSMSM202	2 x 2.5	1.95	8.40	11.00	11.40	11.80	185	26	0.31
PSMSM203	2 x 4	2.5	9.90	12.60	13.00	13.40	250	37	0.49
PSMSM204	2 x 6	3.0	11.30	13.90	14.50	15.10	310	48	0.73
PSMSM205	2 x 10	3.9	14.30	17.00	17.60	18.20	470	68	1.22
PSMSM206	2 x 16	5.0	16.10	18.90	19.70	20.50	610	88	1.95
PSMSM207	2 x 25	6.4	21.10	22.50	23.50	24.50	830	120	3.05
PSMSM208	2 x 35	7.7	22.70	25.40	26.60	27.80	1130	152	4.27
PSMSM209	2 x 50	9.2	25.70	29.00	30.30	31.60	1500	192	6.10
PSMSM301	3 x 1.5	1.5	8.10	10.80	11.10	11.40	180	20	0.18
PSMSM302	3 x 2.5	1.95	9.00	11.70	12.10	12.50	220	26	0.31
PSMSM303	3 x 4	2.5	10.60	13.20	13.60	14.00	300	37	0.49
PSMSM304	3 x 6	3.0	12.10	14.60	15.30	16.00	380	48	0.73
PSMSM305	3 x 10	3.9	15.50	18.20	18.90	19.60	620	68	1.22
PSMSM306	3 x 16	5.0	17.20	20.10	21.00	21.90	800	88	1.95
PSMSM307	3 x 25	6.4	22.60	24.00	25.10	26.20	1150	120	3.05
PSMSM308	3 x 35	7.7	24.30	27.00	28.20	29.40	1510	152	4.27
PSMSM309	3 x 50	9.2	27.50	30.90	32.30	33.70	2050	192	6.10
PSMSM401	4 x 1.5	1.5	9.00	11.70	12.00	12.30	220	20	0.18
PSMSM402	4 x 2.5	1.95	10.30	12.90	13.40	13.90	283	26	0.31
PSMSM403	4 x 4	2.5	11.70	14.30	14.80	15.30	370	37	0.49
PSMSM404	4 x 6	3.0	13.40	16.00	16.70	17.40	470	48	0.73
PSMSM405	4 x 10	3.9	17.20	20.00	20.80	21.60	790	68	1.22
PSMSM406	4 x 16	5.0	25.20	22.20	23.20	24.20	1030	88	1.95
PSMSM407	4 x 25	6.4	27.00	27.10	28.10	29.10	1490	120	3.05

Rolling Stock Cables

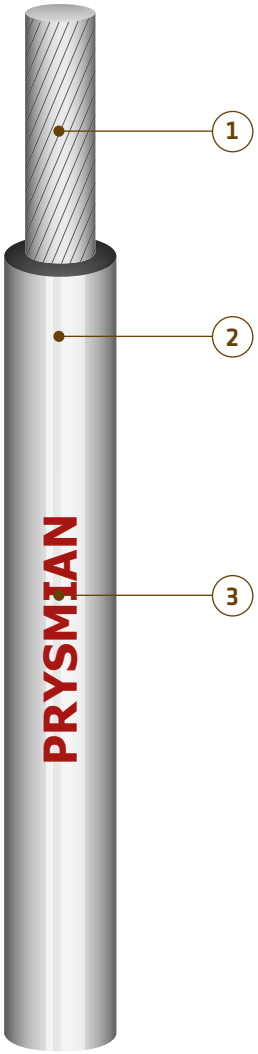
POWER CABLES

TEROL HT OFFERING I ETENDED

ACCORDING TO EN 50382

TEROL HT (PHUF)

1.8/3 kV or 3.6/6 kV



APPLICATION

Auxiliary circuits at line voltage, traction circuits, electric heating fed at line voltage in protected areas. According to NF F 16-101.

Usable on railway vehicles having the hazard level HL3 according to EN 45545.

CONSTRUCTION

1 Conductor
Flexible circular tin-coated annealed copper or plain copper conductor, class 5 according to EN 60228

2 Insulation
Silicone compound – BLACK

3 Marking
PRYSMIAN 255 - TEROL HT - EN 50382-2 1800 V 185 F 120 °C batch n°
PRYSMIAN 255 - TEROL HT - EN 50382-2 3600 V 185 F 120 °C batch n°

Notes

- All thicknesses are according to EN standards
- For use at +150 °C in steady operation, it is imperative that the conductor is annealed plain copper - Consult us
- For use in harsh environments, version with abrasion and tear resistance available upon request


-40 °C; +120 °C
or +150 °C

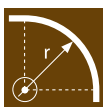
+250 °C
or +350 °C


EN/IEC 60332-1
EN/IEC 60332-3-24
+ EN/IEC 60332-3-25
+ EN 50305

EN/IEC 61034


EN/IEC 60754-1&2
+ EN 50305


GOOD



D<12mm 4XD
D>12mm 5XD


D<12mm 8XD
D>12mm 10XD

> Power cables according to EN 50382-2
> High Temperature
> Unsheathed single core

TEROL HT (PHUF) - 1.8/3 kV

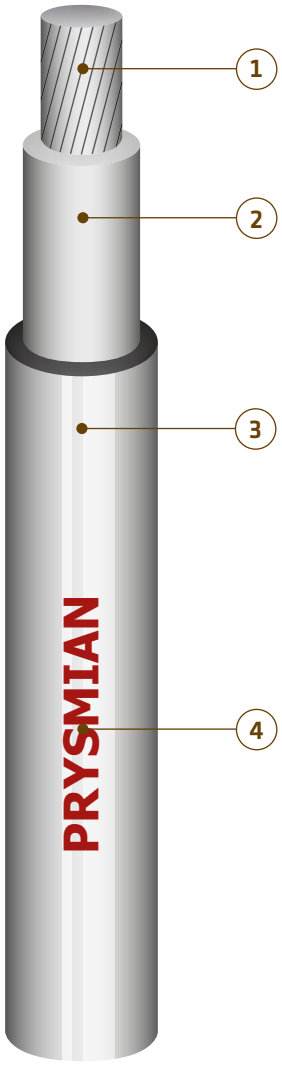
Part number	Construction (nr cond x mm²)	Conductor diameter (mm)	Min. outer diameter (mm)	Nom. outer diameter (mm)	Max. outer diameter (mm)	Weight (kg/km)	Permissible current free air (A)	Short circuit current-1s (kA)
PHUF-101	1 x 1.5	1.5	6.50	6.80	7.10	55	35	0.19
PHUF-102	1 x 2.5	2.0	6.90	7.20	7.50	65	46	0.32
PHUF-103	1 x 4	2.5	7.60	7.90	8.20	85	64	0.51
PHUF-104	1 x 6	3.0	8.10	8.40	8.70	105	84	0.76
PHUF-105	1 x 10	3.9	9.10	9.50	9.90	160	119	1.26
PHUF-106	1 x 16	5.0	9.90	10.30	10.70	210	154	2.02
PHUF-107	1 x 25	6.4	11.10	11.60	12.10	290	210	3.15
PHUF-108	1 x 35	7.7	12.30	12.90	13.50	390	266	4.42
PHUF-109	1 x 50	9.2	13.40	14.00	14.60	520	336	6.31
PHUF-110	1 x 70	11.0	15.00	15.70	16.40	720	420	8.83
PHUF-111	1 x 95	12.5	16.70	17.40	18.10	930	504	11.98
PHUF-112	1 x 120	14.2	18.60	19.30	20.00	1150	595	15.14
PHUF-113	1 x 150	15.8	20.20	20.90	21.60	1430	685	18.92
PHUF-114	1 x 185	17.5	21.70	22.40	23.10	1730	783	23.34
PHUF-115	1 x 240	20.1	24.10	25.20	26.30	2270	944	30.27
PHUF-116	1 x 300	22.5	26.40	27.40	28.40	2750	1084	37.84
PHUF-117	1 x 400	25.8	30.00	31.30	32.60	3730	1329	50.45

TEROL HT (PHUF) - 3.6/6 kV

Part number	Construction (nr cond x mm²)	Conductor diameter (mm)	Min. outer diameter (mm)	Nom. outer diameter (mm)	Max. outer diameter (mm)	Weight (kg/km)	Permissible current free air (A)	Short circuit current-1s (kA)
PHUF-120	1 x 2.5	2.0	8.00	8.30	8.60	80	46	0.32
PHUF-121	1 x 4	2.5	8.60	8.90	9.20	100	64	0.51
PHUF-122	1 x 6	3.0	9.10	9.40	9.70	125	84	0.76
PHUF-123	1 x 10	3.9	10.00	10.50	11.00	180	119	1.26
PHUF-124	1 x 16	5.0	10.80	11.30	11.80	230	154	2.02
PHUF-125	1 x 25	6.4	12.20	12.70	13.20	320	210	3.15
PHUF-126	1 x 35	7.7	13.40	13.90	14.40	410	266	4.42
PHUF-127	1 x 50	9.2	14.60	15.10	15.60	550	336	6.31
PHUF-128	1 x 70	11.0	16.10	16.60	17.10	740	420	8.83
PHUF-129	1 x 95	12.5	17.50	18.00	18.50	950	504	11.98
PHUF-130	1 x 120	14.2	19.30	20.00	20.70	1180	595	15.14
PHUF-131	1 x 150	15.8	21.00	21.70	22.40	1460	685	18.92
PHUF-132	1 x 185	17.5	22.60	23.30	24.00	1760	783	23.34
PHUF-133	1 x 240	20.1	25.50	26.70	27.90	2340	944	30.27
PHUF-134	1 x 300	22.5	27.70	28.80	29.90	2830	1084	37.84
PHUF-135	1 x 400	25.8	30.90	32.30	33.70	3800	1329	50.45

TEROL HT-T (PHUFT)

1.8/3 kV or 3.6/6 kV



APPLICATION

Auxiliary circuits at line voltage, traction circuits, electric heating fed at line voltage in non-protected areas. According to NF F 16-101.

Usable on railway vehicles having the hazard level HL3 according to EN 45545.

CONSTRUCTION

1 Conductor
Flexible circular tin-coated annealed copper or plain copper conductor, class 5 according to EN 60228

2 Insulation
Silicone compound – BLACK

3 Sheath
LSZH elastomeric compound – BLACK

4 Marking
PRYSMIAN 255 - TEROL HT-T - EN 50382-2 1800 V 185 FF 120 °C batch n°
PRYSMIAN 255 - TEROL HT-T - EN 50382-2 3600 V 185 FF 120 °C batch n°

Notes

- All thicknesses are according to EN standards
- For use at +150 °C in steady operation, it is imperative that the conductor is annealed plain copper - Consult us
- For use in harsh environments, version with abrasion and tear resistance available upon request


-40 °C; +120 °C
or +150 °C

+250 °C
or +350 °C


EN/IEC 60332-1
EN/IEC 60332-3-24
+ EN/IEC 60332-3-25
+ EN 50305

EN/IEC 61034


EN/IEC 60754-1&2
+ EN 50305


GOOD

D<12mm 4XD
D>12mm 5XD


D<12mm 8XD
D>12mm 10XD

> Power cables according to EN 50382-2
> High Temperature
> Sheathed single core

TEROL HT-T (PHUFT) - 1.8/3 kV

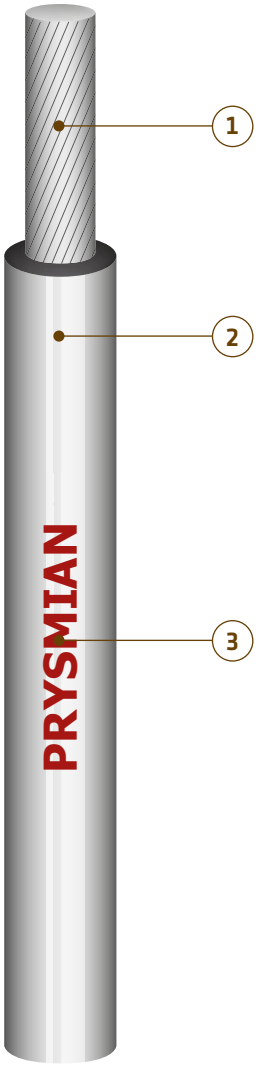
Part number	Construction (nr cond x mm²)	Conductor diameter (mm)	Min. outer diameter (mm)	Nom. outer diameter (mm)	Max. outer diameter (mm)	Weight (kg/km)	Permissible current free air (A)	Short circuit current-1s (kA)
PHUFT201	1 x 1.5	1.5	6.90	7.20	7.50	70	35	0.19
PHUFT202	1 x 2.5	1.95	7.40	7.70	8.00	85	46	0.32
PHUFT203	1 x 4	2.5	8.00	8.30	8.60	100	64	0.51
PHUFT204	1 x 6	3.0	8.50	8.80	9.10	125	84	0.76
PHUFT205	1 x 10	3.9	9.80	10.30	10.80	190	119	1.26
PHUFT206	1 x 16	5.0	10.80	11.30	11.80	240	154	2.02
PHUFT207	1 x 25	6.4	12.60	13.20	13.80	350	210	3.15
PHUFT208	1 x 35	7.7	13.80	14.40	15.00	450	266	4.42
PHUFT209	1 x 50	9.2	14.90	15.50	16.10	590	336	6.31
PHUFT210	1 x 70	11.0	16.80	17.40	18.00	790	420	8.83
PHUFT211	1 x 95	12.5	19.00	19.60	20.20	1030	504	11.98
PHUFT212	1 x 120	14.2	20.80	21.60	22.40	1270	595	15.14
PHUFT213	1 x 150	15.8	22.30	23.20	24.10	1560	685	18.92
PHUFT214	1 x 185	17.5	24.50	25.30	26.10	1890	783	23.34
PHUFT215	1 x 240	20.1	27.30	28.50	29.70	2490	944	30.27
PHUFT216	1 x 300	22.5	29.50	30.80	32.10	3000	1084	37.84
PHUFT217	1 x 400	25.8	33.50	35.00	36.50	4020	1329	50.45

TEROL HT-T (PHUFT) - 3.6/6 kV

Part number	Construction (nr cond x mm²)	Conductor diameter (mm)	Min. outer diameter (mm)	Nom. outer diameter (mm)	Max. outer diameter (mm)	Weight (kg/km)	Permissible current free air (A)	Short circuit current-1s (kA)
PHUFT220	1 x 2.5	1.95	10.00	10.40	10.80	130	33	0.32
PHUFT221	1 x 4	2.5	10.50	11.00	11.50	155	46	0.51
PHUFT222	1 x 6	3.0	11.10	11.60	12.10	180	60	0.76
PHUFT223	1 x 10	3.9	12.20	12.70	13.20	240	85	1.26
PHUFT224	1 x 16	5.0	12.90	13.50	14.10	300	110	2.02
PHUFT225	1 x 25	6.4	14.80	15.50	16.20	410	150	3.15
PHUFT226	1 x 35	7.7	16.00	16.70	17.40	510	190	4.42
PHUFT227	1 x 50	9.2	17.50	18.20	18.90	670	240	6.31
PHUFT228	1 x 70	11.0	19.20	19.90	20.60	880	300	8.83
PHUFT229	1 x 95	12.5	20.80	21.50	22.20	1100	360	11.98
PHUFT230	1 x 120	14.2	22.40	23.20	24.00	1330	425	15.14
PHUFT231	1 x 150	15.8	24.10	25.00	25.90	1640	490	18.92
PHUFT232	1 x 185	17.5	26.40	27.30	28.20	1990	560	23.34
PHUFT233	1 x 240	20.1	29.50	30.80	32.10	2620	675	30.27
PHUFT234	1 x 300	22.5	31.70	33.00	34.30	3120	775	37.84
PHUFT235	1 x 400	25.8	35.10	36.70	38.30	4150	950	50.45

TEROL HT-TX (PHUFX)

3.6/6 kV



APPLICATION

Extra flexible cables for limited flexible application, in protected areas. According to NF F 16-101.

Usable on railway vehicles having the hazard level HL3 according to EN 45545.

CONSTRUCTION

1 Conductor
Flexible circular tin-coated annealed copper or plain copper conductor, class 6 according to EN 60228

2 Insulation
Silicone compound – BLACK

3 Marking
PRYSMIAN 255 -TEROL HT-TX - EN 50382-2 3600 V 185 F 120 °C batch n°

Notes

- All thicknesses are according to EN standards
- For use at +150 °C in steady operation, it is imperative that the conductor is annealed plain copper - Consult us
- For use in harsh environments, version with abrasion and tear resistance available upon request


-40 °C; +120 °C
or +150 °C

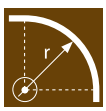
+250 °C
or +350 °C


EN/IEC 60332-1
EN/IEC 60332-3-24
+ EN/IEC 60332-3-25
+ EN 50305

EN/IEC 61034


EN/IEC 60754-1&2
+ EN 50305


GOOD



D<12mm 4XD
D>12mm 5XD


D<12mm 8XD
D>12mm 10XD

> Power cables according to EN 50382-2
> High Temperature
> Unsheathed single core with extra flexible conductor

TEROL HT-TX (PHUFX) - 3.6/6 kV

Part number	Construction (nr cond x mm²)	Conductor diameter (mm)	Min. outer diameter (mm)	Nom. outer diameter (mm)	Max. outer diameter (mm)	Weight (kg/km)	Permissible current free air (A)	Short circuit current-1s (kA)
PHUFX301	1 x 50	8.6	15.20	15.70	16.20	570	336	6.31
PHUFX302	1 x 70	11.0	16.90	17.50	18.10	770	420	8.83
PHUFX303	1 x 95	12.5	18.40	19.00	19.60	980	504	11.98
PHUFX304	1 x 120	14.2	20.10	20.80	21.50	1200	595	15.14
PHUFX305	1 x 150	15.8	21.60	22.30	23.00	1480	685	18.92
PHUFX306	1 x 185	17.5	23.40	24.20	25.00	1800	783	23.34

Rolling Stock Cables

INSTRUMENTATION AND CONTROL CABLES

TEROL TW OFFERING I ETENDED BASED ON EN 50306

Instrumentation and Control Cables

TEROL TW 600

0.6/1 kV

APPLICATION

Equipment control and monitoring circuits, internal wiring of equipment. For a use as signalling and control cable only.

Usable on railway vehicles having the hazard level HL3 according to EN 45545.

CONSTRUCTION

1 Conductor
Tin-coated annealed copper conductor class 5 according to EN 60228

2 Insulation
LSZH special compound – WHITE

3 Marking
PRYSMIAN 255 - TEROL TW 600 - 600 V -1 x 1.5 - M - batch n°

Notes

- Cables are normally offered with 19 wires as per EN 50306. 37 wires version available upon request
- All thicknesses are according to EN standards
- Other colours available upon request


-40 °C; +105 °C

Not Applicable


EN/IEC 60332-1
EN/IEC 60332-3-24
+ EN/IEC 60332-3-25
+ EN 50305

EN/IEC 61034


EN/IEC 60754-1&2
+ EN 50305


GOOD

4XD


8XD

TEROL TW 600 - 0.6/1 kV

Part number	Construction (nr cond x mm²)	Conductor diameter (mm)	Diameter above screen (mm)	Min. outer diameter (mm)	Nom. outer diameter (mm)	Max. outer diameter (mm)	Weight (kg/km)
PTU - 6062	1 x 0.5	0.875	-	1.25	1.35	1.45	7
PTU - 6112	1 x 0.75	1.075	-	1.45	1.55	1.65	8
PTU - 6162	1 x 1	1.200	-	1.60	1.70	1.80	10
PTU - 6212	1 x 1.5	1.550	-	2.05	2.15	2.25	17
PTU - 6262	1 x 2.5	2.000	-	2.55	2.70	2.85	25

Instrumentation and Control Cables

TEROL TW FR

300/500 V

APPLICATION

Equipment control and monitoring circuits, internal wiring of equipment. Fire resistant version according to EN 50200.

Usable on railway vehicles having the hazard level HL3 according to EN 45545.

CONSTRUCTION

1 Conductor
Tin-coated annealed copper conductor class 5 according to EN 60228

2 Flame barrier
Fire resistant insulating tape

3 Flame barrier
LSZH special compound – GREY

4 Marking
PRYSMIAN 255 - TEROL TW FR - 300 V - EN 50200 - PH* -1 x 1.5 - M -- batch n°**

Notes

- Cables are normally offered with 19 wires as per EN 50306. 37 wires version available upon request
- All thicknesses are according to EN standards
- Other colours available upon request


-40 °C; +105 °C

Not Applicable


EN/IEC 60332-1
EN/IEC 60332-3-24
+ EN/IEC 60332-3-25
+ EN 50305
EN 50200

EN/IEC 61034


EN/IEC 60754-1&2
+ EN 50305


GOOD

10XD

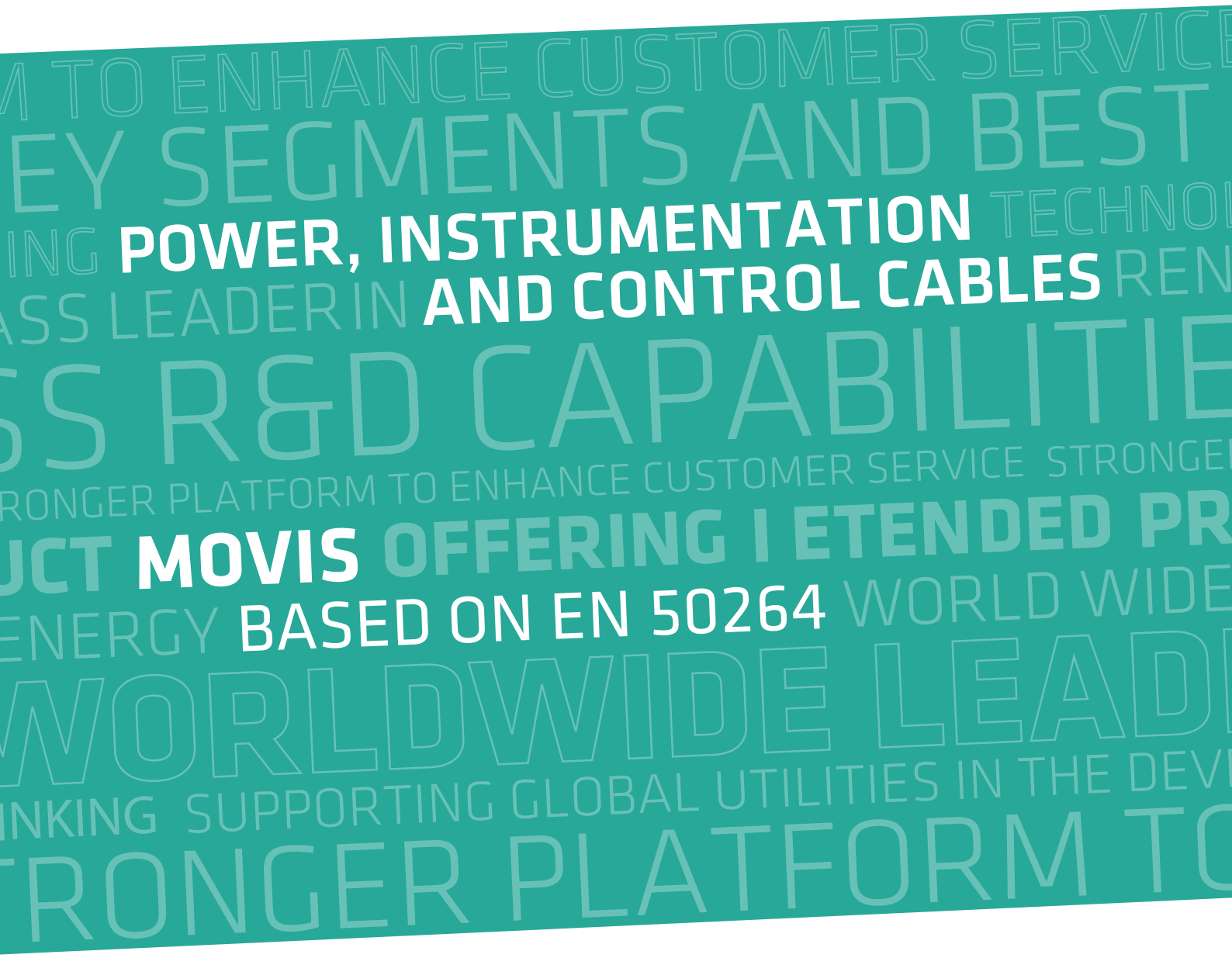

20XD

> Instrumentation cables based on EN 50306
> Single core - Fire resistant

TEROL TW FR - 300/500 V

Part number	Construction (nr cond x mm²)	Conductor diameter (mm)	Diameter above screen (mm)	Min. outer diameter (mm)	Nom. outer diameter (mm)	Max. outer diameter (mm)	Weight (kg/km)
PTUFR162	1 x 1	1.200	-	2.40	2.50	2.60	15
PTUFR212	1 x 1.5	1.550	-	2.70	2.80	2.90	19
PTUFR262	1 x 2.5	2.000	-	3.10	3.20	3.30	30

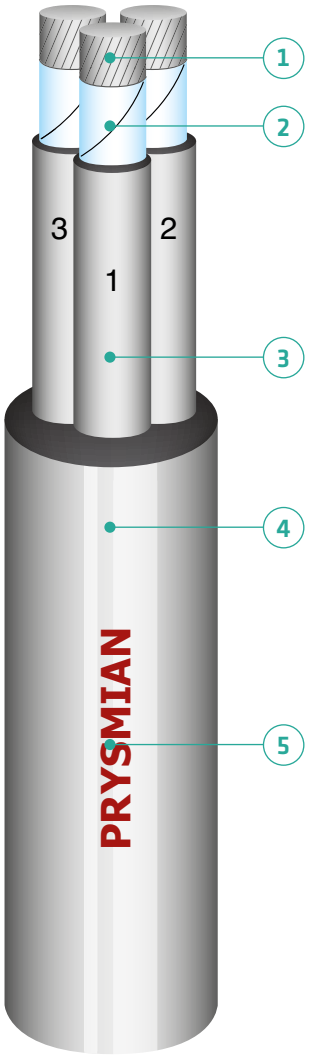
Rolling Stock Cables


POWER, INSTRUMENTATION
AND CONTROL CABLES
MOVIS
BASED ON EN 50264

Control Cables

MOVIS 2GKW FR Flex

300/500 V



APPLICATION

Halogen-free multicore control cables for rolling stock, having circuit integrity in case of fire and special fire performance, increased heat resistance and reduced dimensions. These cables are intended for fixed wiring or occasionally movement in rolling stock. Typical uses are lighting circuits, auxiliary and electric heating circuits, control and monitoring circuits. In other respects, EN 50355 and EN 50343 apply. Usable on railway vehicles having the hazard level HL3 according to EN 45545.

CONSTRUCTION

1 Conductor
Copper, tinned, finely stranded class 5 according to EN 60228

2 Flame barrier
Fire resistant insulating tape

3 Insulation
LSZH, heat resistant, cross-linked elastomeric special compound, requirements based on type EI 110 according to EN 50264; numbered identification - RAW

4 Sheath
LSZH, heat resistant, cross-linked elastomeric special compound, requirements based on type EM 104 according to EN 50264 - BLACK

5 Marking
MOVIS 2GKW FR FLEX 7G1 300/500 V OM PH30

Notes

- Other constructions available upon request
- Insulated cores colours:
  - bright raw cores with black numbers and one GNYE PE-core (e.g. 2G0.5): add -1 to part number
  - bright raw cores with black numbers (e.g. 2 x 0.5): add -2 to part number

-40 °C; +90 °C (+120 °C)

+250 °C

EN/IEC 60332-1
EN/IEC 60332-3-24
+ EN/IEC 60332-3-25
+ EN 50305
EN 50200

low
EN/IEC 61034

EN/IEC 60754-1&2
+ EN 50305

GOOD

D<12 mm 5XD
D>12 mm 6XD

D<12 mm 10XD
D>12 mm 12XD

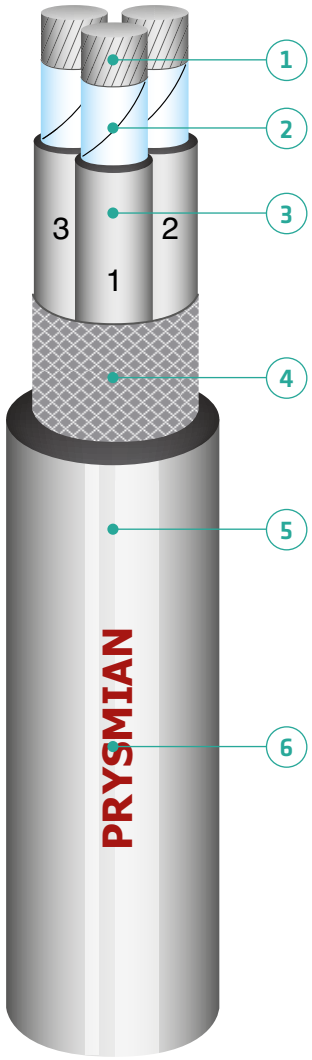
MOVIS 2GKW FR Flex - 300/500 V

Part number	Construction (nr cond x mm²)	Conductor diameter (mm)	Diameter above screen (mm)	Min. outer diameter (mm)	Nom. outer diameter (mm)	Max. outer diameter (mm)	Weight (kg/km)	Permissible current free air (A)	Short circuit current-1s (kA)
5DB6 801	2 x 0.5	0.9	-	7.60	8.35	9.10	65	12	0.07
5DB6 806	4 x 0.5	0.9	-	8.90	9.40	9.90	98	11	0.07
5DB6 807	6 x 0.5	0.9	-	10.60	11.40	12.20	151	10	0.07
5DB6 808	2 x 0.75	1.1	-	7.90	8.40	8.90	73	14	0.11
5DB6 809	4 x 0.75	1.1	-	9.30	9.80	10.30	112	12	0.11
5DB6 810	6 x 0.75	1.1	-	11.20	12.00	12.80	173	12	0.11
5DB6 811	2 x 1	1.25	-	8.30	8.75	9.20	85	17	0.14
5DB6 812	4 x 1	1.25	-	9.60	10.40	11.20	130	16	0.14
5DB6 813	6 x 1	1.25	-	12.10	12.90	13.70	210	15	0.14
5DB6 814	3 x 1.5	1.5	-	9.70	10.50	11.30	130	20	0.21
5DB6 815	5 x 1.5	1.5	-	12.30	13.10	13.90	220	19	0.21
5DB6 816	7 x 1.5	1.5	-	14.50	15.50	16.50	316	19	0.21
5DB6 817	3 x 2.5	1.95	-	10.70	11.50	12.30	166	27	0.36
5DB6 818	5 x 2.5	1.95	-	13.50	14.30	15.10	281	25	0.36
5DB6 819	7 x 2.5	1.95	-	16.00	17.00	18.00	405	24	0.36

Control Cables

MOVIS 2GKW C FR Flex

300/500 V



APPLICATION

Halogen-free multicore control cables for rolling stock, having circuit integrity in case of fire and special fire performance, increased heat resistance and reduced dimensions. These cables are intended for fixed wiring in rolling stock. Typical uses are lighting circuits, auxiliary and electric heating circuits, control and monitoring circuits. In other respects, EN 50355 and EN 50343 apply. Usable on railway vehicles having the hazard level HL3 according to EN 45545.

CONSTRUCTION

1 Conductor
Copper, tinned, finely stranded class 5 according to EN 60228

2 Flame barrier
Fire resistant insulating tape

3 Insulation
LSZH, heat resistant, cross-linked elastomeric special compound, requirements based on type EI 110 according to EN 50264; numbered identification - RAW

4 Screen
Tinned annealed copper wire braid

5 Sheath
LSZH, heat resistant, cross-linked elastomeric special compound, requirements based on type EM 104 according to EN 50264 - BLACK

6 Marking
MOVIS 2GKW C FR FLEX 7G1 300/500 V OM S PH30

Notes

- Other constructions available upon request
- Insulated cores colours:
  - bright raw cores with black numbers and one GNYE PE-core (e.g. 2G0.5): add -1 to part number
  - bright raw cores with black numbers (e.g. 2 x 0.5): add -2 to part number


-40 °C; +90 °C
(+120 °C)

+250 °C


EN/IEC 60332-1
EN/IEC 60332-3-24
+ EN/IEC 60332-3-25
+ EN 50305
EN 50200

EN/IEC 61034


EN/IEC 60754-1&2
+ EN 50305


GOOD

D<12 mm 5XD
D>12 mm 6XD


D<12 mm 10XD
D>12 mm 12XD

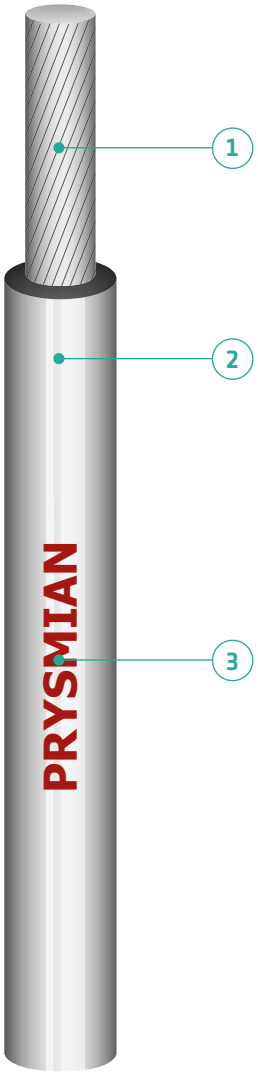
> Control cables based on EN 50264
> Multicore screened - Fire resistant

MOVIS 2GKW C FR Flex - 300/500 V

Part number	Construction (nr cond x mm²)	Conductor diameter (mm)	Diameter above screen (mm)	Min. outer diameter (mm)	Nom. outer diameter (mm)	Max. outer diameter (mm)	Weight (kg/km)	Permissible current free air (A)	Short circuit current-1s (kA)
5DB6 820	2 x 0.5	0.9	7.10	8.50	9.00	9.50	100	12	0.07
5DB6 821	4 x 0.5	0.9	8.40	9.50	10.30	11.10	141	11	0.07
5DB6 822	6 x 0.5	0.9	10.50	12.20	13.00	13.80	224	10	0.07
5DB6 823	2 x 0.75	1.1	7.40	8.90	9.40	9.90	111	14	0.11
5DB6 824	4 x 0.75	1.1	9.00	10.30	11.10	11.90	168	12	0.11
5DB6 825	6 x 0.75	1.1	11.00	12.70	13.50	14.30	245	12	0.11
5DB6 826	2 x 1	1.25	7.80	9.20	9.70	10.20	117	17	0.14
5DB6 827	4 x 1	1.25	9.40	10.80	11.60	12.40	183	16	0.14
5DB6 828	6 x 1	1.25	11.50	13.30	14.10	14.90	269	15	0.14
5DB6 829	3 x 1.5	1.5	9.50	10.90	11.70	12.50	182	20	0.21
5DB6 830	5 x 1.5	1.5	11.70	13.40	14.20	15.00	284	19	0.21
5DB6 831	7 x 1.5	1.5	14.10	15.60	16.60	17.60	393	19	0.21
5DB6 832	3 x 2.5	1.95	10.50	12.20	13.00	13.80	238	27	0.36
5DB6 833	5 x 2.5	1.95	12.90	14.40	15.40	16.40	350	25	0.36
5DB6 834	7 x 2.5	1.95	15.60	17.50	18.50	19.50	510	24	0.36

MOVIS 3GKW

0.6/1 kV



APPLICATION

Halogen-free single core cables for rolling stock, having special fire performance, increased heat resistance and reduced dimensions. These cables are indented for use in railway rolling stock as fixed wiring, or wiring where limited flexing in operation is encountered. Typical uses are lighting circuits powered by accumulators, equipment control and monitoring circuits, auxiliary and electric heating circuits. In other respects, EN 50355 and EN 50343 apply. Usable on railway vehicles having the hazard level HL3 according to EN 45545.

CONSTRUCTION

1 Conductor
Copper, tinned, finely stranded class 5 according to EN 60228

2 Insulation
LSZH, heat resistant, cross-linked elastomeric special compound, requirements based on type EI 109 according to EN 50264

3 Marking
MOVIS 3GKW 25 0.6/1 kV MT

Notes

- Colours: codes to be added to part number

0	BK	black
1	GNYE	green/yellow
2	GY	grey
3	BU	blue
4	YE	yellow
5	RD	red
6	WH	white


-40 °C; +90 °C
(+120 °C)

+250 °C


EN/IEC 60332-1
EN/IEC 60332-3-24
+ EN/IEC 60332-3-25
+ EN 50305

EN/IEC 61034


EN/IEC 60754-1&2
+ EN 50305


GOOD

D<12 mm 3XD
D>12 mm 4XD


D<12 mm 4XD
D>12 mm 5XD

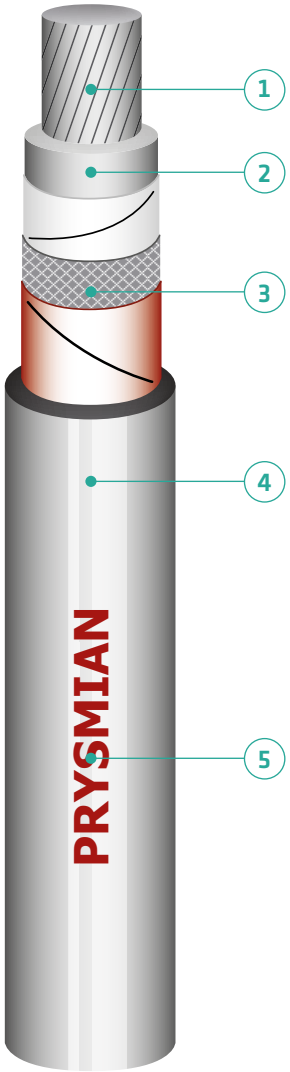
MOVIS 3GKW - 0.6/1 kV

Part number	Construction (nr cond x mm²)	Conductor diameter (mm)	Diameter above screen (mm)	Min. outer diameter (mm)	Nom. outer diameter (mm)	Max. outer diameter (mm)	Weight (kg/km)	Permissible current free air (A)	Short circuit current-1s (kA)
5DB6 001	1 x 0.5	0.9	-	2.20	2.40	2.60	9	14	0.07
5DB6 002	1 x 0.75	1.1	-	2.40	2.60	2.80	12	16	0.11
5DB6 003	1 x 1	1.3	-	2.50	2.70	2.90	14	20	0.14
5DB6 004	1 x 1.5	1.5	-	2.80	3.00	3.20	19	25	0.21
5DB6 005	1 x 2.5	1.9	-	3.40	3.65	3.90	30	33	0.36
5DB6 006	1 x 4	2.4	-	3.80	4.05	4.30	44	46	0.57
5DB6 007	1 x 6	2.9	-	4.40	4.65	4.90	62	60	0.86
5DB6 008	1 x 10	3.9	-	5.40	5.75	6.10	100	85	1.43
5DB6 009	1 x 16	5.4	-	6.80	7.15	7.50	152	110	2.29
5DB6 010	1 x 25	6.3	-	8.20	8.55	8.90	240	150	3.58
5DB6 011	1 x 35	7.4	-	9.30	9.70	10.10	322	190	5.01
5DB6 012	1 x 50	8.9	-	11.00	11.60	12.20	463	240	7.15
5DB6 013	1 x 70	10.6	-	12.90	13.50	14.10	648	300	10.0
5DB6 014	1 x 95	12.1	-	14.30	15.05	15.80	839	360	13.6
5DB6 015	1 x 120	14.2	-	16.60	17.35	18.10	1095	425	17.2
5DB6 016	1 x 150	15.8	-	18.60	19.35	20.10	1341	490	21.5
5DB6 017	1 x 185	17.4	-	20.60	21.35	22.10	1641	560	26.5
5DB6 018	1 x 240	20.2	-	23.60	24.45	25.30	2161	675	34.3
5DB6 019	1 x 300	22.9	-	26.30	27.40	28.50	2691	775	42.9
5DB6 020	1 x 400	26.2	-	30.20	31.30	32.40	3550	950	57.2

Power Cables

MOVIS 3GKW C

0.6/1 kV



APPLICATION

Halogen-free screened single core cables for rolling stock, having special fire performance, increased heat resistance and reduced dimensions. These cables are indented for use in railway rolling stock as fixed wiring, or wiring where limited flexing in operation is encountered. Typical uses are lighting circuits powered by accumulators, equipment control and monitoring circuits, auxiliary and electric heating circuits. In other respects, EN 50355 and EN 50343 apply. Usable on railway vehicles having the hazard level HL3 according to EN 45545.

CONSTRUCTION

1 Conductor
Copper, tinned, finely stranded class 5 according to EN 60228

2 Insulation
LSZH, heat resistant, cross-linked elastomeric special compound, requirements based on type EI 109 according to EN 50264

3 Screen
Tinned annealed copper wire braid

4 Sheath
LSZH, heat resistant, cross-linked elastomeric special compound, requirements based on type EM 104 according to EN 50264;

5 Marking
MOVIS 3GKW C 25 0.6/1 kV MM S

Notes

- Colours: codes to be added to part number

0	BK	black
1	GNYE	green/yellow
2	GY	grey
3	BU	blue
4	YE	yellow
5	RD	red
6	WH	white


-40 °C; +90 °C
(+120 °C)

+250 °C


EN/IEC 60332-1
EN/IEC 60332-3-24
+ EN/IEC 60332-3-25
+ EN 50305

EN/IEC 61034


EN/IEC 60754-1&2
+ EN 50305


GOOD

D<12 mm 5XD
D>12 mm 10XD


D<12 mm 10XD
D>12 mm 10XD

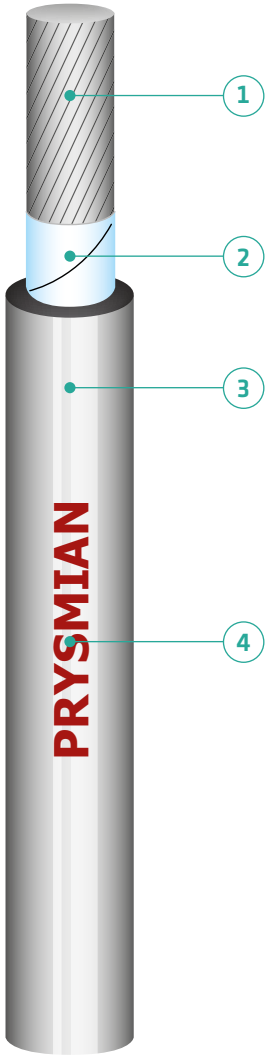
> Power cables based on EN 50264
> Single core screened

MOVIS 3GKW C - 0.6/1 kV

Part number	Construction (nr cond x mm²)	Conductor diameter (mm)	Diameter above screen (mm)	Min. outer diameter (mm)	Nom. outer diameter (mm)	Max. outer diameter (mm)	Weight (kg/km)	Permissible current free air (A)	Short circuit current-1s (kA)
5DB6 034	1 x 1.5	1.5	3.60	5.10	5.45	5.80	50	25	0.21
5DB6 035	1 x 2.5	1.9	4.30	5.80	6.15	6.50	67	33	0.36
5DB6 036	1 x 4	2.4	4.70	6.20	6.55	6.90	85	46	0.57
5DB6 037	1 x 6	2.9	5.30	6.70	7.05	7.40	105	60	0.86
5DB6 038	1 x 10	3.9	6.30	7.70	8.05	8.40	153	85	1.43
5DB6 039	1 x 16	5.4	7.70	9.00	9.60	10.20	215	110	2.29
5DB6 040	1 x 25	6.3	9.10	10.60	11.20	11.80	318	150	3.58
5DB6 041	1 x 35	7.4	10.20	11.70	12.30	12.90	410	190	5.01
5DB6 042	1 x 50	8.9	12.20	13.80	14.55	15.30	589	240	7.15
5DB6 043	1 x 70	10.6	14.20	15.80	16.55	17.30	793	300	10.0
5DB6 044	1 x 95	12.1	15.70	17.30	18.05	18.80	994	360	13.6
5DB6 045	1 x 120	14.2	18.00	19.60	20.35	21.10	1262	425	17.2
5DB6 046	1 x 150	15.8	20.00	21.80	22.90	24.00	1569	490	21.5
5DB6 047	1 x 185	17.4	22.00	23.80	24.90	26.00	1892	560	26.5
5DB6 048	1 x 240	20.2	25.00	26.80	27.40	28.00	2431	675	34.3
5DB6 049	1 x 300	22.9	28.10	29.90	31.00	32.10	3027	775	42.9
5DB6 050	1 x 400	26.2	32.20	34.40	35.50	36.60	4009	950	57.2

MOVIS 3GKW FR

0.6/1 kV



APPLICATION

Halogen-free single core cables for rolling stock, having circuit integrity in case of fire and special fire performance, increased heat resistance and reduced dimensions. These cables are intended for fixed wiring or occasionally movement in rolling stock. Typical uses are lighting circuits, auxiliary and electric heating circuits, control and monitoring circuits. In other respects, EN 50355 and EN 50343 apply. Usable on railway vehicles having the hazard level HL3 according to EN 45545.

CONSTRUCTION

1 Conductor
Copper, tinned, finely stranded class 5 according to EN 60228

2 Flame Barrier
Fire resistant insulating tape

3 Insulation
LSZH, heat resistant, cross-linked elastomeric special compound, requirements based on type EI 109 according to EN 50264

4 Marking
MOVIS 3GKW FR 1.5 0.6/1 kV MT PH30

Notes

- Colours: codes to be added to part number

0	BK	black
1	GNYE	green/yellow
2	GY	grey
3	BU	blue
4	YE	yellow
5	RD	red
6	WH	white


-40 °C; +90 °C
(+120 °C)

+250 °C


EN/IEC 60332-1
EN/IEC 60332-3-24
+ EN/IEC 60332-3-25
+ EN 50305
EN 50200

EN/IEC 61034


EN/IEC 60754-1&2
+ EN 50305


GOOD

D<12 mm 5XD
D>12 mm 6XD


D<12 mm 10XD
D>12 mm 12XD

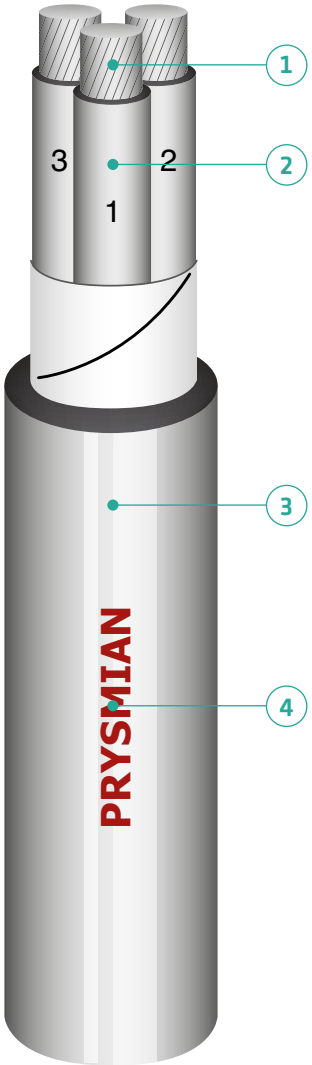
MOVIS 3GKW FR - 0.6/1 kV

Part number	Construction (nr cond x mm²)	Conductor diameter (mm)	Diameter above screen (mm)	Min. outer diameter (mm)	Nom. outer diameter (mm)	Max. outer diameter (mm)	Weight (kg/km)	Permissible current free air (A)	Short circuit current-1s (kA)
5DB6 063	1 x 1	1.3	-	3.10	3.35	3.60	19	20	0.14
5DB6 064	1 x 1.5	1.5	-	3.40	3.60	3.80	23	25	0.21
5DB6 065	1 x 2.5	2.0	-	3.90	4.10	4.30	34	33	0.36
5DB6 066	1 x 4	2.4	-	4.40	4.60	4.80	49	46	0.57
5DB6 067	1 x 6	2.9	-	4.90	5.10	5.30	67	60	0.86
5DB6 068	1 x 10	4.0	-	5.80	6.15	6.50	108	85	1.43
5DB6 069	1 x 16	5.4	-	7.40	7.75	8.10	160	110	2.29
5DB6 070	1 x 25	6.3	-	8.60	8.95	9.30	249	150	3.58
5DB6 071	1 x 35	7.4	-	9.70	10.05	10.40	332	190	5.01
5DB6 072	1 x 50	8.9	-	11.50	12.10	12.70	474	240	7.15
5DB6 073	1 x 70	10.6	-	13.40	14.00	14.60	661	300	10.0
5DB6 074	1 x 95	12.1	-	15.10	15.70	16.30	852	360	13.6
5DB6 075	1 x 120	14.2	-	17.30	18.05	18.80	1104	425	17.2
5DB6 076	1 x 150	15.8	-	19.30	20.05	20.80	1366	490	21.5
5DB6 077	1 x 185	17.4	-	21.30	22.05	22.80	1668	560	26.5
5DB6 078	1 x 240	20.2	-	24.20	25.10	26.00	2190	675	34.3
5DB6 079	1 x 300	22.9	-	27.00	28.10	29.20	2725	775	42.9
5DB6 080	1 x 400	26.2	-	30.90	32.00	33.10	3589	950	57.2

Power and Control Cables

MOVIS 3GKW Flex

0.6/1 kV



APPLICATION

Halogen-free multicore power and control cables for rolling stock, having special fire performance, increased heat resistance and reduced dimensions. These cables are intended for fixed wiring, or wiring where limited flexing in operation is encountered. Typical uses are lighting circuits, auxiliary and electric heating circuits, control and monitoring circuits. In other respects, EN 50355 and EN 50343 apply. Usable on railway vehicles having the hazard level HL3 according to EN 45545.

CONSTRUCTION

1 Conductor
Copper, tinned, finely stranded class 5 according to EN 60228

2 Insulation
LSZH, heat resistant, cross-linked elastomeric special compound, requirements based on type EI 110 according to EN 50264; numbered identification - RAW

3 Sheath
LSZH, heat resistant, cross-linked elastomeric special compound, requirements based on type EM 104 according to EN 50264 - BLACK

4 Marking
MOVIS 3GKW FLEX 4G2.5 0.6/1 kV OM

Notes

- Other constructions available upon request
- Insulated cores colours:
  - bright raw cores with black numbers and one GNYE PE-core (e.g. 2G0.5): add -1 to part number
  - bright raw cores with black numbers (e.g. 2 x 0.5): add -2 to part number


-40 °C; +90 °C
(+120 °C)

+250 °C


EN/IEC 60332-1
EN/IEC 60332-3-24
+ EN/IEC 60332-3-25
+ EN 50305

EN/IEC 61034


EN/IEC 60754-1&2
+ EN 50305


GOOD

D<12 mm 3XD
D>12 mm 4XD


D<12 mm 4XD
D>12 mm 5XD

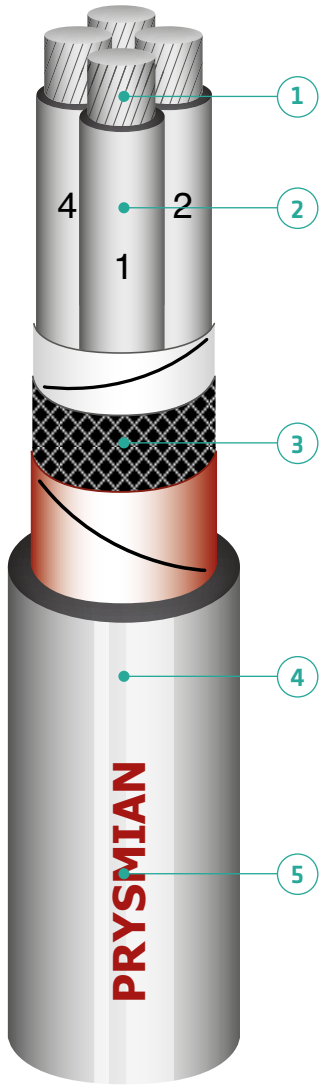
MOVIS 3GKW Flex - 0.6/1 kV

Part number	Construction (nr cond x mm²)	Conductor diameter (mm)	Diameter above screen (mm)	Min. outer diameter (mm)	Nom. outer diameter (mm)	Max. outer diameter (mm)	Weight (kg/km)	Permissible current free air (A)	Short circuit current-1s (kA)
5DB6 501	2 x 1.5	1.55	-	7.00	7.50	8.00	76	21	0.21
5DB6 502	2 x 2.5	1.90	-	8.30	8.80	9.30	101	28	0.36
5DB6 505	2 x 10	3.90	-	12.40	13.20	14.00	302	68	1.43
5DB6 506	3 x 1.5	1.55	-	7.40	7.90	8.40	102	21	0.21
5DB6 507	3 x 2.5	1.95	-	8.80	9.30	9.80	149	28	0.36
5DB6 508	3 x 4	2.40	-	9.70	10.50	11.30	208	37	0.57
5DB6 509	3 x 6	2.90	-	10.70	11.50	12.30	271	49	0.86
5DB6 510	3 x 10	3.90	-	13.20	14.00	14.80	430	68	1.43
5DB6 511	4 x 1.5	1.55	-	8.30	8.80	9.30	138	17	0.21
5DB6 512	4 x 2.5	1.90	-	9.60	10.40	11.20	184	23	0.36
5DB6 513	4 x 4	2.40	-	10.60	11.40	12.20	255	31	0.57
5DB6 514	4 x 6	2.90	-	12.10	12.90	13.70	350	41	0.86
5DB6 515	4 x 10	3.90	-	14.40	15.40	16.40	546	57	1.43
5DB6 537	4 x 16	5.40	-	18.20	19.20	20.20	825	76	2.29
5DB6 516	5 x 1.5	1.55	-	8.90	9.40	9.90	154	16	0.21
5DB6 517	5 x 2.5	1.90	-	10.50	11.30	12.10	228	21	0.36
5DB6 518	5 x 4	2.40	-	12.20	13.00	13.80	325	28	0.57
5DB6 519	5 x 6	2.90	-	13.50	14.30	15.10	430	37	0.86
5DB6 521	6 x 1.5	1.55	-	9.70	10.50	11.30	189	14	0.21
5DB6 522	6 x 2.5	1.90	-	12.00	12.80	13.60	285	19	0.36
5DB6 523	7 x 1.5	1.55	-	10.60	11.40	12.20	224	14	0.21
5DB6 524	7 x 2.5	1.90	-	13.10	13.90	14.70	336	18	0.36

Power and Control Cables

MOVIS 3GKW C Flex

0.6/1 kV



APPLICATION

Halogen-free multicore power and control cables for rolling stock, having special fire performance, increased heat resistance and reduced dimensions. These cables are intended for fixed wiring, or wiring where limited flexing in operation is encountered. Typical uses are lighting circuits, auxiliary and electric heating circuits, control and monitoring circuits. In other respects, EN 50355 and EN 50343 apply. Usable on railway vehicles having the hazard level HL3 according to EN 45545.

CONSTRUCTION

1 Conductor
Copper, tinned, finely stranded class 5 according to EN 60228

2 Insulation
LSZH, heat resistant, cross-linked elastomeric special compound, requirements based on type EI 110 according to EN 50264; numbered identification - RAW

3 Screen
Tinned annealed copper wire braid (with separating layer below and above)

4 Sheath
LSZH, heat resistant, cross-linked elastomeric special compound, requirements based on type EM 104 according to EN 50264 - BLACK

5 Marking
MOVIS 3GKW C FLEX 4G2.5 0.6/1 kV OM S

Notes

- Other constructions available upon request
- Insulated cores colours:
  - bright raw cores with black numbers and one GNYE PE-core (e.g. 2G0.5): add -1 to part number
  - bright raw cores with black numbers (e.g. 2 x 0.5): add -2 to part number


-40 °C; +90 °C
(+120 °C)

+250 °C


EN/IEC 60332-1
EN/IEC 60332-3-24
+ EN/IEC 60332-3-25
+ EN 50305

EN/IEC 61034


EN/IEC 60754-1&2
+ EN 50305


GOOD

D<12 mm 5XD
D>12 mm 5XD


D<12 mm 10XD
D>12 mm 10XD

> Power and Control cables based on EN 50264
> Multicore screened

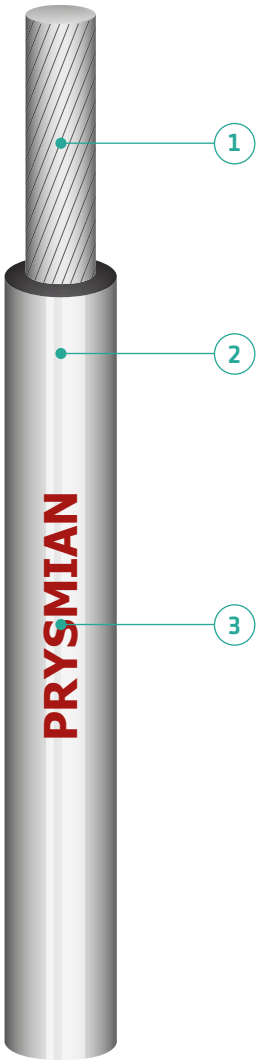
MOVIS 3GKW C Flex - 0.6/1 kV

Part number	Construction (nr cond x mm²)	Conductor diameter (mm)	Diameter above screen (mm)	Min. outer diameter (mm)	Nom. outer diameter (mm)	Max. outer diameter (mm)	Weight (kg/km)	Permissible current free air (A)	Short circuit current-1s (kA)
5DB6 755	2 x 10	3.9	12.20	13.80	14.60	15.40	436	68	1.43
5DB6 785	2 x 16	5.4	15.00	16.70	17.70	18.70	567	90	2.29
5DB6 756	3 x 1.5	1.55	7.70	8.70	9.20	9.70	130	21	0.21
5DB6 757	3 x 2.5	1.95	8.50	9.60	10.40	11.20	186	28	0.36
5DB6 758	3 x 4	2.4	9.40	10.60	11.40	12.20	225	37	0.57
5DB6 761	4 x 1.5	1.55	8.00	9.20	9.70	10.20	151	17	0.21
5DB6 762	4 x 2.5	1.95	9.40	10.50	11.30	12.10	214	23	0.36
5DB6 763	4 x 4	2.4	10.40	11.40	12.20	13.00	276	31	0.57
5DB6 764	4 x 6	2.9	11.60	13.00	13.80	14.60	374	41	0.86
5DB6 765	4 x 10	3.9	14.40	15.70	16.70	17.70	587	57	1.43
5DB6 766	5 x 1.5	1.55	8.80	10.00	10.80	11.60	192	16	0.21
5DB6 767	5 x 2.5	1.95	10.40	12.00	12.80	13.60	271	21	0.36
5DB6 768	5 x 4	2.4	11.90	13.40	14.20	15.00	384	28	0.57
5DB6 769	5 x 6	2.9	13.30	14.60	15.60	16.60	494	37	0.86
5DB6 773	7 x 1.5	1.55	10.50	12.10	12.90	13.70	272	14	0.21
5DB6 774	7 x 2.5	1.95	12.70	14.20	15.00	15.80	393	18	0.36
5DB6 775	7 x 4	2.4	14.10	15.40	16.40	17.40	519	24	0.57
5DB6 783	12 x 1.5	1.55	13.20	14.60	15.60	16.60	399	11	0.21
5DB6 784	12 x 2.5	1.95	15.70	17.40	18.40	19.40	561	15	0.36

Power Cables

MOVIS 4GKW

1.8/3 kV



APPLICATION

Halogen-free single core cables for rolling stock, having special fire performance, increased heat resistance and reduced dimensions. These cables are indented for use in railway rolling stock as fixed wiring, or wiring where limited flexing in operation is encountered. Typical uses are lighting circuits powered by accumulators, equipment control and monitoring circuits, auxiliary and electric heating circuits. In other respects, EN 50355 and EN 50343 apply. Usable on railway vehicles having the hazard level HL3 according to EN 45545.

CONSTRUCTION

1 Conductor
Copper, tinned, finely stranded class 5 according to EN 60228

2 Insulation
LSZH, heat resistant, cross-linked elastomeric special compound, requirements based on type EI 109 according to EN 50264 - BLACK

3 Marking
MOVIS 4GKW 25 1.8/3 kV MT

Notes

- Different colours available upon request


-40 °C; +90 °C
(+120 °C)

+250 °C


EN/IEC 60332-1
EN/IEC 60332-3-24
+ EN/IEC 60332-3-25
+ EN 50305

EN/IEC 61034


EN/IEC 60754-1&2
+ EN 50305


GOOD

D<12 mm 3XD
D>12 mm 4XD

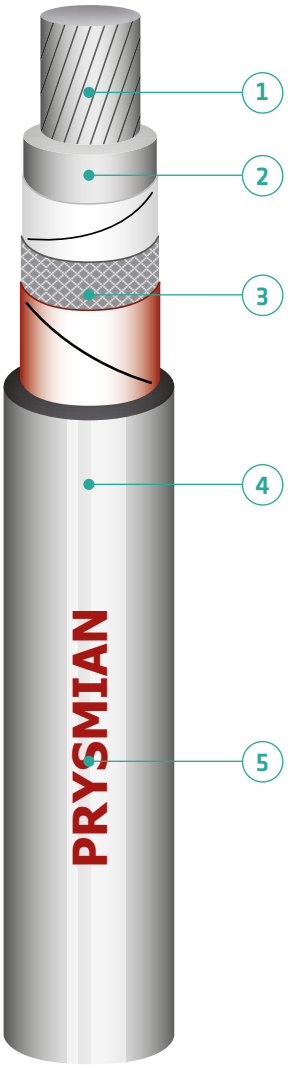

D<12 mm 4XD
D>12 mm 5XD

MOVIS 4GKW - 1.8/3 kV

Part number	Construction (nr cond x mm²)	Conductor diameter (mm)	Diameter above screen (mm)	Min. outer diameter (mm)	Nom. outer diameter (mm)	Max. outer diameter (mm)	Weight (kg/km)	Permissible current free air (A)	Short circuit current-1s (kA)
5DB6 303	1 x 1	1.2	-	2.90	3.10	3.30	17	20	0.14
5DB6 304	1 x 1.5	1.5	-	3.20	3.40	3.60	22	25	0.21
5DB6 305	1 x 2.5	1.9	-	3.60	3.85	4.10	31	33	0.36
5DB6 306	1 x 4	2.4	-	4.20	4.45	4.70	47	46	0.57
5DB6 307	1 x 6	2.9	-	4.70	5.05	5.40	65	60	0.86
5DB6 308	1 x 10	3.9	-	6.10	6.45	6.80	109	85	1.43
5DB6 309	1 x 16	5.4	-	8.20	8.55	8.90	173	110	2.29
5DB6 310	1 x 25	6.3	-	9.50	9.85	10.20	264	150	3.58
5DB6 311	1 x 35	7.4	-	10.80	11.40	12.00	358	190	5.01
5DB6 312	1 x 50	8.9	-	12.90	13.50	14.10	511	240	7.15
5DB6 313	1 x 70	10.6	-	14.50	15.25	16.00	697	300	10.0
5DB6 314	1 x 95	12.1	-	16.20	16.95	17.70	899	360	13.6
5DB6 315	1 x 120	14.2	-	18.70	19.45	20.20	1167	425	17.2
5DB6 316	1 x 150	15.8	-	20.50	21.25	22.00	1425	490	21.5
5DB6 317	1 x 185	17.4	-	22.50	23.25	24.00	1732	560	26.5
5DB6 318	1 x 240	20.2	-	25.50	26.60	27.70	2276	675	34.3
5DB6 319	1 x 300	22.9	-	28.20	29.20	30.20	2807	775	42.9
5DB6 320	1 x 400	26.2	-	31.70	32.80	33.90	3653	950	57.2

MOVIS 4GKW C

1.8/3 kV



APPLICATION

Halogen-free screened single core cables for rolling stock, having special fire performance, increased heat resistance and reduced dimensions. These cables are indented for use in railway rolling stock as fixed wiring, or wiring where limited flexing in operation is encountered. Typical uses are lighting circuits powered by accumulators, equipment control and monitoring circuits, auxiliary and electric heating circuits. In other respects, EN 50355 and EN 50343 apply. Usable on railway vehicles having the hazard level HL3 according to EN 45545.

CONSTRUCTION

1 Conductor
Copper, tinned, finely stranded class 5 according to EN 60228

2 Insulation
LSZH, heat resistant, cross-linked elastomeric special compound, requirements based on type EI 109 according to EN 50264

3 Screen
Tinned annealed copper wire braid

4 Sheath
LSZH, heat resistant, cross-linked elastomeric special compound, requirements based on type EM 104 according to EN 50264 - BLACK

5 Marking
MOVIS 4GKW C 25 1.8/3 kV MM S

Notes

- Different colours available upon request


-40 °C; +90 °C
(+120 °C)

+250 °C


EN/IEC 60332-1
EN/IEC 60332-3-24
+ EN/IEC 60332-3-25
+ EN 50305

EN/IEC 61034


EN/IEC 60754-1&2
+ EN 50305


GOOD

D<12 mm 5XD
D>12 mm 10XD


D<12 mm 10XD
D>12 mm 10XD

> Power cables based on EN 50264
> Single core screened

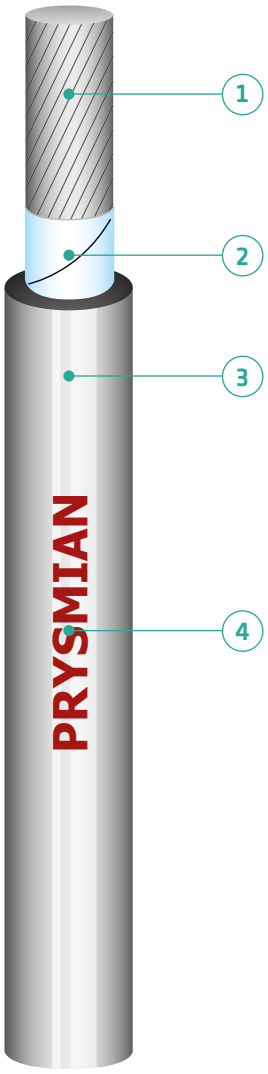
MOVIS 4GKW C - 1.8/3 kV

Part number	Construction (nr cond x mm²)	Conductor diameter (mm)	Diameter above screen (mm)	Min. outer diameter (mm)	Nom. outer diameter (mm)	Max. outer diameter (mm)	Weight (kg/km)	Permissible current free air (A)	Short circuit current-1s (kA)
5DB6 334	1 x 1.5	1.5	4.00	5.50	5.85	6.20	58	25	0.21
5DB6 335	1 x 2.5	1.9	4.40	5.80	6.15	6.50	71	33	0.36
5DB6 336	1 x 4	2.4	5.10	6.50	6.85	7.20	90	46	0.57
5DB6 337	1 x 6	2.9	5.60	7.10	7.45	7.80	110	60	0.86
5DB6 338	1 x 10	3.9	6.90	8.30	8.65	9.00	164	85	1.43
5DB6 339	1 x 16	5.4	8.90	10.20	10.80	11.40	245	110	2.29
5DB6 340	1 x 25	6.3	10.30	11.80	12.40	13.00	353	150	3.58
5DB6 341	1 x 35	7.4	12.00	13.50	14.10	14.70	476	190	5.01
5DB6 342	1 x 50	8.9	14.10	15.60	16.35	17.10	655	240	7.15
5DB6 343	1 x 70	10.6	16.00	17.40	18.15	18.90	854	300	10.0
5DB6 344	1 x 95	12.1	17.70	19.10	19.90	20.60	1073	360	13.6
5DB6 345	1 x 120	14.2	20.00	21.60	22.35	23.10	1369	425	17.2
5DB6 346	1 x 150	15.8	21.80	23.60	24.70	25.80	1660	490	21.5
5DB6 347	1 x 185	17.4	23.80	25.60	26.70	27.80	1992	560	26.5
5DB6 348	1 x 240	20.2	27.20	29.00	30.10	31.20	2600	675	34.3
5DB6 349	1 x 300	22.9	29.90	31.70	32.80	33.90	3177	775	42.9
5DB6 350	1 x 400	26.2	33.60	35.80	36.90	38.00	4116	950	57.2

Power Cables

MOVIS 4GKW FR

1.8/3 kV



APPLICATION

Halogen-free single core cables for rolling stock, having circuit integrity in case of fire and special fire performance, increased heat resistance and reduced dimensions. These cables are intended for fixed wiring or occasionally movement in rolling stock. Typical uses are lighting circuits, auxiliary and electric heating circuits, control and monitoring circuits. In other respects, EN 50355 and EN 50343 apply. Usable on railway vehicles having the hazard level HL3 according to EN 45545.

CONSTRUCTION

1 Conductor
Copper, tinned, finely stranded class 5 according to EN 60228

2 Flame Barrier
Fire resistant insulating tape

3 Insulation
LSZH, heat resistant, cross-linked elastomeric special compound, requirements based on type EI 109 according to EN 50264 - BLACK

4 Marking
MOVIS 4GKW FR 1.5 1.8/3 kV MT PH30

Notes

- Different colours available upon request

-40 °C; +90 °C (+120 °C)

+250 °C

EN/IEC 60332-1
EN/IEC 60332-3-24
+ EN/IEC 60332-3-25
+ EN 50305
EN 50200

EN/IEC 61034

EN/IEC 60754-1&2
+ EN 50305

GOOD

D<12 mm 5XD
D>12 mm 6XD

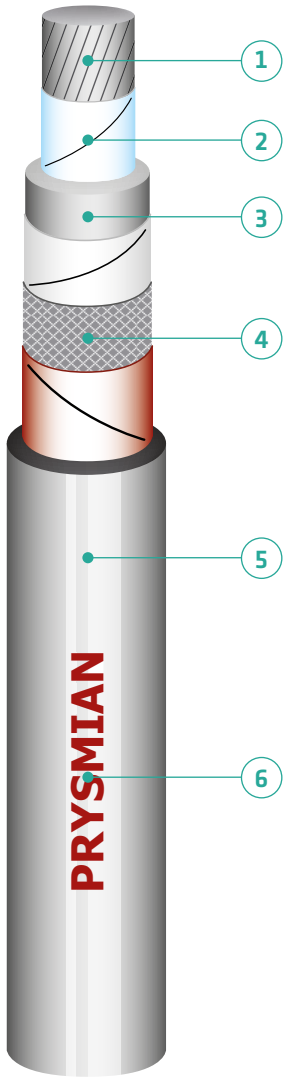
D<12 mm 10XD
D>12 mm 12XD

MOVIS 4GKW FR - 1.8/3 kV

Part number	Construction (nr cond x mm²)	Conductor diameter (mm)	Diameter above screen (mm)	Min. outer diameter (mm)	Nom. outer diameter (mm)	Max. outer diameter (mm)	Weight (kg/km)	Permissible current free air (A)	Short circuit current-1s (kA)
5DB6 364	1 x 1.5	1.5	-	3.80	4.00	4.20	27	25	0.21
5DB6 365	1 x 2.5	1.9	-	4.20	4.40	4.60	36	33	0.36
5DB6 366	1 x 4	2.4	-	4.90	5.10	5.30	54	46	0.57
5DB6 367	1 x 6	2.9	-	5.30	5.65	6.00	72	60	0.86
5DB6 368	1 x 10	3.9	-	6.50	6.85	7.20	116	85	1.43
5DB6 369	1 x 16	5.4	-	8.60	8.95	9.30	182	110	2.29
5DB6 370	1 x 25	6.3	-	9.70	10.30	10.90	273	150	3.58
5DB6 371	1 x 35	7.4	-	11.20	11.80	12.40	371	190	5.01
5DB6 372	1 x 50	8.9	-	13.20	13.95	14.70	526	240	7.15
5DB6 373	1 x 70	10.6	-	15.10	15.75	16.40	713	300	10.0
5DB6 374	1 x 95	12.1	-	16.80	17.55	18.30	918	360	13.6
5DB6 375	1 x 120	14.2	-	19.30	20.05	20.80	1188	425	17.2
5DB6 376	1 x 150	15.8	-	21.10	21.85	22.60	1449	490	21.5
5DB6 377	1 x 185	17.4	-	22.90	24.00	25.10	1759	560	26.5
5DB6 378	1 x 240	20.2	-	26.10	27.20	28.30	2306	675	34.3
5DB6 379	1 x 300	22.9	-	28.80	29.90	31.00	2840	775	42.9
5DB6 380	1 x 400	26.2	-	32.30	33.40	34.50	3690	950	57.2

MOVIS 4GKW C FR

1.8/3 kV



APPLICATION

Halogen-free screened single core cables for rolling stock, having circuit integrity in case of fire and special fire performance, increased heat resistance and reduced dimensions. These cables are indented for use in railway rolling stock as fixed wiring, or wiring where limited flexing in operation is encountered. Typical uses are lighting circuits powered by accumulators, equipment control and monitoring circuits, auxiliary and electric heating circuits. In other respects, EN 50355 and EN 50343 apply. Usable on railway vehicles having the hazard level HL3 according to EN 45545.

CONSTRUCTION

1 Conductor
Copper, tinned, finely stranded class 5 according to EN 60228

2 Flame Barrier
Fire resistant insulating tape

3 Insulation
LSZH, heat resistant, cross-linked elastomeric special compound, requirements based on type EI 109 according to EN 50264

4 Screen
Tinned annealed copper wire braid

5 Sheath
LSZH, heat resistant, cross-linked elastomeric special compound, requirements based on type EM 104 according to EN 50264 - BLACK

6 Marking
MOVIS 4GKW C FR 1.5 1.8/3 kV MT S PH30

Notes

- Different colours available upon request

-40 °C; +90 °C (+120 °C)

+250 °C

EN/IEC 60332-1
EN/IEC 60332-3-24
+ EN/IEC 60332-3-25
+ EN 50305
EN 50200

EN/IEC 61034

EN/IEC 60754-1&2
+ EN 50305

GOOD

D<12 mm 5XD
D>12 mm 6XD

D<12 mm 10XD
D>12 mm 12XD

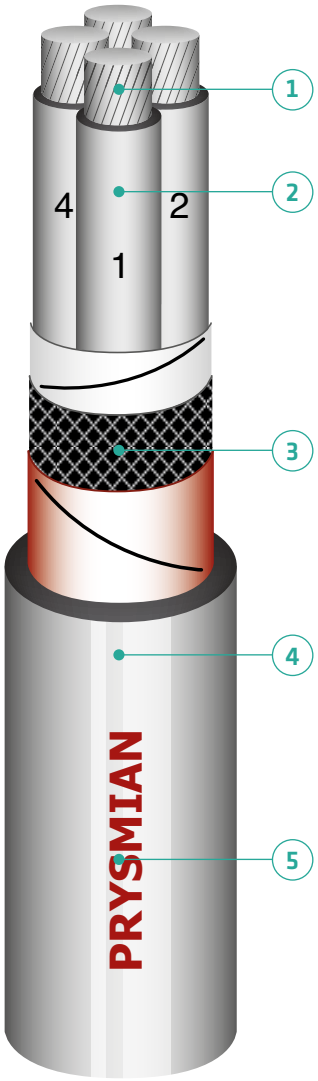
> Power cables based on EN 50264
> Single core screened - Fire resistant

MOVIS 4GKW C FR - 1.8/3 kV

Part number	Construction (nr cond x mm²)	Conductor diameter (mm)	Diameter above screen (mm)	Min. outer diameter (mm)	Nom. outer diameter (mm)	Max. outer diameter (mm)	Weight (kg/km)	Permissible current free air (A)	Short circuit current-1s (kA)
5DB6 394	1 x 1.5	1.5	4.60	6.10	6.45	6.80	65	25	0.21
5DB6 395	1 x 2.5	1.9	5.00	6.50	6.85	7.20	78	33	0.36
5DB6 396	1 x 4	2.4	5.70	7.20	7.55	7.90	98	46	0.57
5DB6 397	1 x 6	2.9	6.20	7.60	7.95	8.30	124	60	0.86
5DB6 398	1 x 10	3.9	7.40	8.90	9.25	9.60	171	85	1.43
5DB6 399	1 x 16	5.4	9.50	10.70	11.30	11.90	258	110	2.29
5DB6 400	1 x 25	6.3	11.00	12.50	13.10	13.70	387	150	3.58
5DB6 401	1 x 35	7.4	12.50	13.90	14.65	15.40	489	190	5.01
5DB6 402	1 x 50	8.9	14.60	16.10	16.85	17.60	670	240	7.15
5DB6 403	1 x 70	10.6	16.30	17.90	18.65	19.40	875	300	10.0
5DB6 404	1 x 95	12.1	18.20	19.80	20.55	21.30	1098	360	13.6
5DB6 405	1 x 120	14.2	20.70	22.30	23.05	23.80	1398	425	17.2
5DB6 406	1 x 150	15.8	22.50	24.30	25.40	26.50	1694	490	21.5
5DB6 407	1 x 185	17.4	24.50	26.30	27.40	28.50	2024	560	26.5
5DB6 408	1 x 240	20.2	27.90	29.70	30.80	31.90	2637	675	34.3
5DB6 409	1 x 300	22.9	30.60	32.30	33.40	34.50	3217	775	42.9
5DB6 410	1 x 400	26.2	34.30	36.50	37.60	38.70	4199	950	57.2

MOVIS 4GKW C Flex

1.8/3 kV



APPLICATION

Halogen-free screened multicore cables for rolling stock, having special fire performance, increased heat resistance and reduced dimensions. These cables are intended for fixed wiring, or wiring where limited flexing in operation is encountered. Typical uses are lighting circuits, auxiliary and electric heating circuits, control and monitoring circuits. In other respects, EN 50355 and EN 50343 apply. Usable on railway vehicles having the hazard level HL3 according to EN 45545.

CONSTRUCTION

1 Conductor
Copper, tinned, finely stranded class 5 according to EN 60228

2 Insulation
LSZH, heat resistant, cross-linked elastomeric special compound, requirements based on type EI 110 according to EN 50264; numbered identification - RAW

3 Screen
Tinned annealed copper wire braid (with separating layer below and above)

4 Sheath
LSZH, heat resistant, cross-linked elastomeric special compound, requirements based on type EM 104 according to EN 50264 - BLACK

5 Marking
MOVIS 4GKW C FLEX 4G2.5 1.8/3 kV OM S

Notes

- Other constructions available upon request
- Insulated cores colours:
  - bright raw cores with black numbers and one GNYE PE-core (e.g. 2G0.5): add -1 to part number
  - bright raw cores with black numbers (e.g. 2 x 0.5): add -2 to part number


-40 °C; +90 °C
(+120 °C)

+250 °C


EN/IEC 60332-1
EN/IEC 60332-3-24
+ EN/IEC 60332-3-25
+ EN 50305

EN/IEC 61034


EN/IEC 60754-1&2
+ EN 50305


GOOD

D<12 mm 5XD
D>12 mm 5XD


D<12 mm 10XD
D>12 mm 10XD

> Power cables based on EN 50264
> Multicore screened

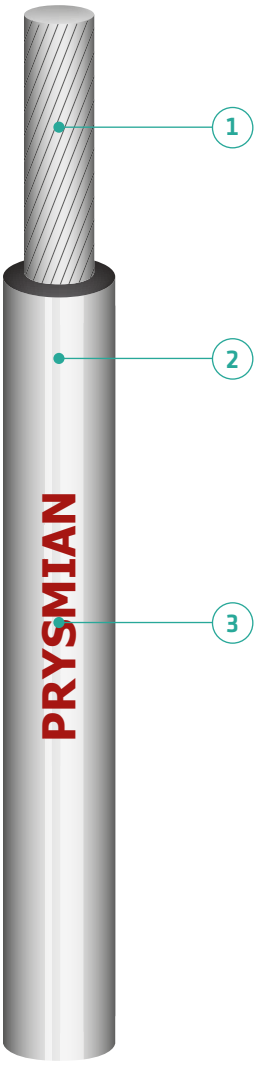
MOVIS 4GKW C Flex - 1.8/3 kV

Part number	Construction (nr cond x mm²)	Conductor diameter (mm)	Diameter above screen (mm)	Min. outer diameter (mm)	Nom. outer diameter (mm)	Max. outer diameter (mm)	Weight (kg/km)	Permissible current free air (A)	Short circuit current-1s (kA)
5DB6 851	2 x 1.5	1.55	7.50	8.80	9.30	9.80	129	22	0.21
5DB6 852	2 x 2.5	1.95	8.30	9.30	10.10	10.90	158	29	0.36
5DB6 853	2 x 35	7.5	23.40	25.10	26.60	28.10	1238	165	5.01
5DB6 854	2 x 50	8.9	27.20	29.30	30.75	32.20	1680	209	7.15
5DB6 855	3 x 2.5	1.95	8.90	10.00	10.80	11.60	195	27	0.36
5DB6 856	3 x 6	2.9	11.50	13.10	13.90	14.70	365	49	0.86
5DB6 857	3 x 35	7.5	25.00	27.20	28.70	30.20	1600	154	5.01
5DB6 858	4G2.5	1.95	9.80	11.00	11.80	12.60	224	26	0.36
5DB6 859	6 x 1	1.25	9.90	11.10	11.90	12.70	212	15	0.14
5DB6 860	3 x 70+1 x 10	10.6	32.90	35.80	37.30	38.80	3005	234 / 66	10.0 / 1.43

Power Cables

MOVIS 9GKW

3.6/6 kV



APPLICATION

Halogen-free single core cables for rolling stock, having special fire performance, increased heat resistance and reduced dimensions. These cables are indented for use in railway rolling stock as fixed wiring, or wiring where limited flexing in operation is encountered. Typical uses are lighting circuits powered by accumulators, equipment control and monitoring circuits, auxiliary and electric heating circuits. In other respects, EN 50355 and EN 50343 apply. Usable on railway vehicles having the hazard level HL3 according to EN 45545.

CONSTRUCTION

1 Conductor
Copper, tinned, finely stranded class 5 according to EN 60228

2 Insulation
LSZH, heat resistant, cross-linked elastomeric special compound, requirements based on type EI 109 according to EN 50264 - BLACK

3 Marking
MOVIS 9GKW 25 3.6/6 kV MT

Notes

- Different colours available upon request


-40 °C; +90 °C
(+120 °C)

+250 °C


EN/IEC 60332-1
EN/IEC 60332-3-24
+ EN/IEC 60332-3-25
+ EN 50305

EN/IEC 61034


EN/IEC 60754-1&2
+ EN 50305


GOOD

D<12 mm 3XD
D>12 mm 4XD

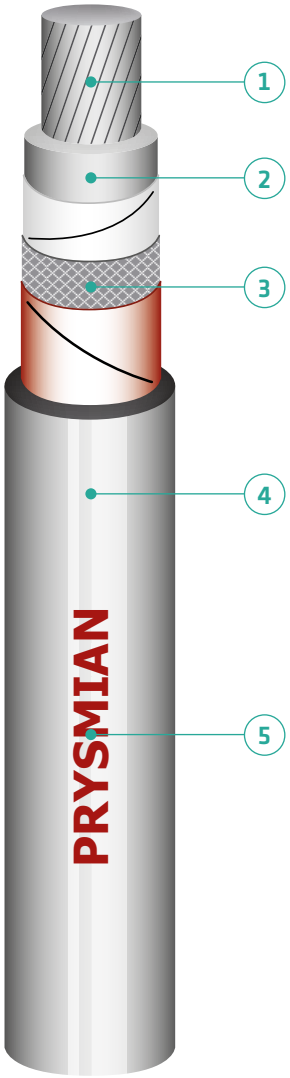

D<12 mm 4XD
D>12 mm 5XD

MOVIS 9GKW - 3.6/6 kV

Part number	Construction (nr cond x mm²)	Conductor diameter (mm)	Diameter above screen (mm)	Min. outer diameter (mm)	Nom. outer diameter (mm)	Max. outer diameter (mm)	Weight (kg/km)	Permissible current free air (A)	Short circuit current-1s (kA)
5DB6 604	1 x 1.5	1.5	-	4.40	4.60	4.80	33	25	0.21
5DB6 605	1 x 2.5	1.9	-	4.70	4.95	5.20	43	33	0.36
5DB6 606	1 x 4	2.4	-	5.40	5.75	6.10	61	46	0.57
5DB6 607	1 x 6	2.9	-	6.10	6.45	6.80	83	60	0.86
5DB6 608	1 x 10	3.9	-	7.90	8.25	8.60	129	85	1.43
5DB6 609	1 x 16	5.4	-	9.40	9.75	10.10	197	110	2.29
5DB6 610	1 x 25	6.3	-	10.40	11.00	11.60	286	150	3.58
5DB6 611	1 x 35	7.4	-	11.90	12.50	13.10	384	190	5.01
5DB6 612	1 x 50	8.9	-	13.90	14.50	15.10	541	240	7.15
5DB6 613	1 x 70	10.6	-	15.60	16.30	16.90	730	300	10.0
5DB6 614	1 x 95	12.1	-	17.90	18.65	19.40	961	360	13.6
5DB6 615	1 x 120	14.2	-	20.00	20.75	21.50	1218	425	17.2
5DB6 616	1 x 150	15.8	-	21.60	22.35	23.10	1471	490	21.5
5DB6 617	1 x 185	17.4	-	23.80	24.55	25.30	1795	560	26.5
5DB6 618	1 x 240	20.2	-	26.80	27.90	29.00	2346	675	34.3
5DB6 619	1 x 300	22.9	-	29.50	30.60	31.70	2884	775	42.9
5DB6 620	1 x 400	26.2	-	32.80	33.90	35.00	3724	950	57.2

MOVIS 9GKW C

3.6/6 kV



APPLICATION

Halogen-free screened single core cables for rolling stock, having special fire performance, increased heat resistance and reduced dimensions. These cables are indented for use in railway rolling stock as fixed wiring, or wiring where limited flexing in operation is encountered. Typical uses are lighting circuits powered by accumulators, equipment control and monitoring circuits, auxiliary and electric heating circuits. In other respects, EN 50355 and EN 50343 apply. Usable on railway vehicles having the hazard level HL3 according to EN 45545.

CONSTRUCTION

1 Conductor
Copper, tinned, finely stranded class 5 according to EN 60228

2 Insulation
LSZH, heat resistant, cross-linked elastomeric special compound, requirements based on type EI 109 according to EN 50264

3 Screen
Tinned annealed copper wire braid

4 Sheath
Sheath
LSZH, heat resistant, cross-linked elastomeric special compound, requirements based on type EM 104 according to EN 50264 - BLACK

5 Marking
MOVIS 9GKW C 25 3.6/6 kV MM S

Notes

- Different colours available upon request

-40 °C; +90 °C (+120 °C)

+250 °C

EN/IEC 60332-1
EN/IEC 60332-3-24
+ EN/IEC 60332-3-25
+ EN 50305

EN/IEC 61034

EN/IEC 60754-1&2
+ EN 50305

GOOD

D<12 mm 5XD
D>12 mm 10XD

D<12 mm 10XD
D>12 mm 10XD

> Power cables based on EN 50264
> Single core screened

MOVIS 9GKW C - 3.6/6 kV

Part number	Construction (nr cond x mm²)	Conductor diameter (mm)	Diameter above screen (mm)	Min. outer diameter (mm)	Nom. outer diameter (mm)	Max. outer diameter (mm)	Weight (kg/km)	Permissible current free air (A)	Short circuit current-1s (kA)
5DB6 634	1 x 1.5	1.5	5.60	7.10	7.45	7.80	80	25	0.21
5DB6 635	1 x 2.5	1.9	6.00	7.50	7.90	8.30	94	33	0.36
5DB6 636	1 x 4	2.4	6.70	7.90	8.30	8.70	118	46	0.57
5DB6 637	1 x 6	2.9	7.40	8.80	9.20	9.60	143	60	0.86
5DB6 638	1 x 10	3.9	9.40	10.70	11.30	11.90	216	85	1.43
5DB6 639	1 x 16	5.4	10.90	12.20	12.80	13.40	305	110	2.29
5DB6 640	1 x 25	6.3	12.10	13.60	14.20	14.80	408	150	3.58
5DB6 641	1 x 35	7.4	13.60	15.00	15.60	16.20	519	190	5.01
5DB6 642	1 x 50	8.9	15.60	17.20	17.95	18.70	707	240	7.15
5DB6 643	1 x 70	10.6	17.40	19.00	19.75	20.50	914	300	10.0
5DB6 644	1 x 95	12.1	19.70	21.30	22.05	22.80	1162	360	13.6
5DB6 645	1 x 120	14.2	21.80	23.40	24.15	24.90	1443	425	17.2
5DB6 646	1 x 150	15.8	23.40	25.20	26.30	27.40	1740	490	21.5
5DB6 647	1 x 185	17.4	25.60	27.60	28.70	29.80	2089	560	26.5
5DB6 648	1 x 240	20.2	29.00	30.80	31.90	33.00	2722	675	34.3
5DB6 649	1 x 300	22.9	31.90	33.70	34.80	35.90	3319	775	42.9
5DB6 650	1 x 400	26.2	35.20	37.30	38.40	39.50	4252	950	57.2

Notes

Linking global expertise to the wheels of industry

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