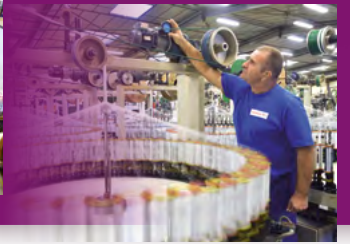




5

CABLE SOLUTIONS FOR ROLLING STOCK

omerin
LES CABLES DE L'EXTREME

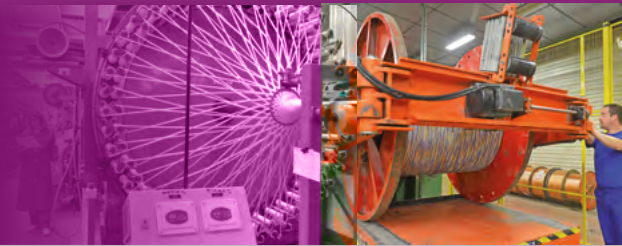


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The Omerin group has been producing electrical cables for extreme conditions since 1959

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List of all the available catalogues:

HIGH TEMPERATURE WIRES AND CABLES FOR THE GENERAL MARKET

1

SECTION I: CROSS LINKED ELASTOMERS

HIGH TEMPERATURE WIRES AND CABLES FOR THE GENERAL MARKET

2

SECTION II: FLUOROPOLYMERS AND THERMOPLASTICS

HIGH TEMPERATURE WIRES AND CABLES FOR THE GENERAL MARKET

3

SECTION III: COMPOSITE INSULATIONS

FIRE RESISTANT SAFETY CABLES

4

CABLE SOLUTIONS FOR ROLLING STOCK

5

CABLES FOR POWER STATIONS AND HIGH-RISK SITES

6

MARINE CABLES

7

PYROMETRY CABLES

8

BRAIDED INSULATING SLEEVEINGS

9

HIGH TEMPERATURE MEDIUM VOLTAGE POWER CABLES

10

CABLE SOLUTIONS FOR AUTOMOTIVE AND E-MOBILITY

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PACKAGING AND TECHNICAL DATA

Ultimately, this catalogue is the result of the passionate endeavours of an entire team, who have displayed great talent in writing it for you.

It is designed to be a simple and concise working tool for you, serving as a reference document that is able to meet the majority of your needs.

This catalogue, as well as ten others from our collection are available on line with real time updates and much more information at

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OILPLAST® Cables for industrial environments and intrinsically safe system

OMBILIFLEX® High performance special multi-function cables

PLASTHERM® Special thermoplastic insulated wires and cables

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PYRITEL® Fire resistant communication cables for safety circuits

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SILICABLE® Special high temperature wires and cables

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SILIFLAM® Very high safety cables for extreme temperatures

SILIFLON® Fluoropolymer insulated high temperature wires and cables

SILIGAIN® Braided insulating sleeveings

SILIRAD® Electron beam cross-linked cables

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TS COM 900® Telephonic cables for very speed reception

TS LAN® Copper LAN cables

TWINLINK® High temperature controlled impedance twisted pair cables

TWINPLAST® Extra flexible cables for battery chargers or jump starters

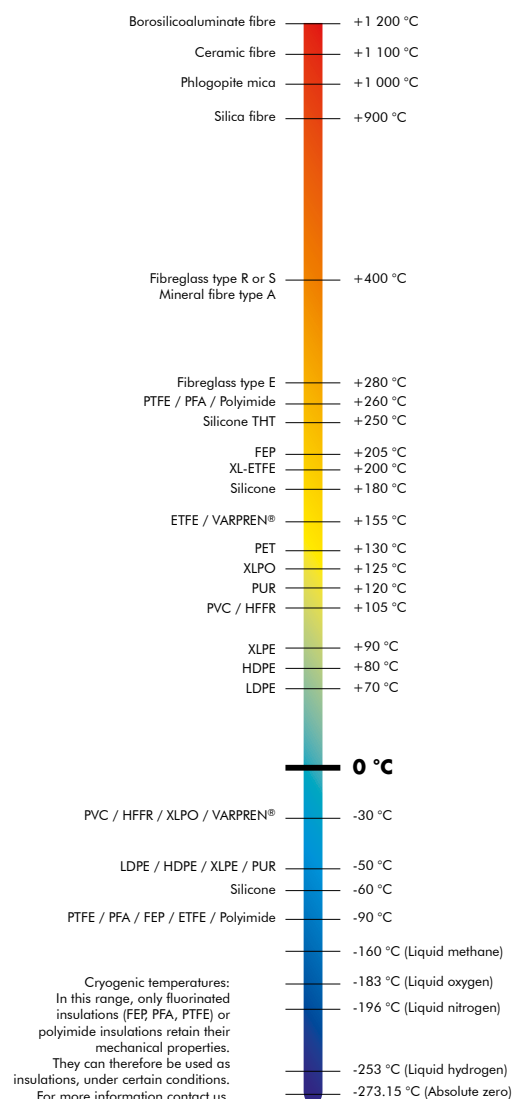
VARPREN® Wires and cables with special cross-linked Varpren® insulation

VEROX® Fiberglass braided seals

VIDEOCOAX® Analog and digital video cables



Thermal classification of insulations



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LOW VOLTAGE CABLES EN 50306

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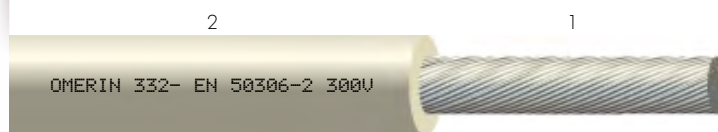
CABLE SOLUTIONS FOR ROLLING STOCK

LOW VOLTAGE CABLES EN 50306

FT No.	OMERIN reference	Single or multicore type	Core insulation type	Core insulation thickness Thin	Screened by a tin-plated copper braid	Outer sheath type	Operating temperature (°C)	Operating voltage (V)	IRM902 Mineral Oil Resistant	IRM 903 Fuel Resistant	Halogen-free Low Smoke	Application
5101	VARPREN RW EN 50306-2 300V M		LSZH special compound	✓			105	300	✓	✓	✓	Control and command cables with special fire performance used as either fixed wiring or wiring with limited flexing operation.
5102	VARPREN RW EN 50306-3 300V MM S	Multicore	LSZH special compound	✓	✓	S2	105	300	✓	✓	✓	Fire performance used as either fixed wiring or wiring with limited flexing operation, where electrical protection is needed for disturbance.
5103	VARPREN RW EN 50306-4 300V MM 1E or 1P	Multicore	LSZH special compound	✓		S2 ou EM 104	90	300	✓	✓	✓	Control and command cables with special fire performance used in PROTECTED situations (class P: minimum thickness of sheath 0.42 mm) or EXPOSED situations (class E: minimum thickness of sheath 1 mm) as either fixed wiring or wiring with limited flexing operation.
5104	VARPREN RW EN 50306-4 300V MM S 3E or 3P	Multicore	LSZH special compound	✓	✓	S2 ou EM 104	90	300	✓	✓	✓	Control and command cables with special fire performance used in PROTECTED situations (class P: minimum thickness of sheath 0.42 mm) or EXPOSED situations (class E: minimum thickness of sheath 1 mm) as either fixed wiring or wiring with limited flexing operation.
5105	VARPREN RW EN 50306-4 300V MMM S 5E or 5P	Multicore	LSZH special compound	✓	✓	Thin internal wall sheath type S2/ standard wall external sheath type EM 104	90	300	✓	✓	✓	Control and command cables with special fire performance used in PROTECTED situations (class P: minimum thickness of sheath 0.42 mm) or EXPOSED situations (class E: minimum thickness of sheath 1 mm) as either fixed wiring or wiring with limited flexing operation.
5106	VARPREN RW EN 50306-4 300V MM S 7E or 7P	Multipair	LSZH special compound	✓	✓	EM 104	90	300	✓	✓	✓	Control and command cables with special fire performance used in PROTECTED situations (class P: minimum thickness of sheath 0.56 mm) or EXPOSED situations (class E: minimum thickness of sheath 1 mm) as either fixed wiring or wiring with limited flexing operation.

CABLE SOLUTIONS
FOR ROLLING STOCK

LOW VOLTAGE CABLES - EN 50306

VARPREN® RW
EN 50306-2 300V M
Unsheathed cable

- 1 • Tin-plated copper core.
2 • Thin wall insulation.

Characteristics**Thermal**

Continuous operating temperature:
-40 °C to +105 °C.

Electrical

Operating voltage: 300 / 500 V.
Test voltage: 2 kV A.C.

Mechanical

Cut-through resistance: ★★★★★
Resistance to abrasion: ★★★★★
Minimum static internal bending radius:
as per EN 50355 (Table 16)
and EN 50343 (Table 4)

Chemical

Acid and base resistance: ★★★★★
Mineral oil resistance: ★★★★★
Fuel resistance only for class M: ★★★★★

Fire-smoke

Halogen-free (EN 60754-1).
Low toxicity (EN 60754-2).
Low smoke (EN 61034-2).
Flame retardant (EN 60332-1-2, EN 60332-3-24).
Fire-smoke protection (EN 45545-2, NFPA 130).

Options

Other cross-sections on request

Standards and approvals

- EN 60228, EN 50306-1, EN 50306-2.
- EN 60754-1, EN 60754-2.
- EN 60332-1-2, EN 60332-3-24, EN 61034-2.

Marking

OMERIN 332- EN 50306-2 300V 1 x < cross-section > M - batch number - week/year

Item Code	Nominal cross-section (mm²)	Nominal stranding	Minimum wall thickness (mm)	Cable outer diameter (mm)		Maximum linear resistance at 20 °C (Ω/km)	Approx. linear weight (kg/km)
				Mini	Maxi		
383A0101	0.5	19 x 0.18	0.18	1.15	1.45	40.1	6.0
383A0201	0.75	19 x 0.22	0.18	1.35	1.65	26.7	8.5
383A0301	1	19 x 0.26	0.18	1.40	1.80	20.0	10.5
383A0401	1.5	19 x 0.30	0.22	1.90	2.30	13.7	16.5
383A0501	2.5	19 x 0.40	0.28	2.45	2.85	8.21	26.0

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The information provided in this technical data sheet is indicative and may be modified without prior notice, laying, wiring and electrical conditions and the environment of the cable can not be fully considered in our studies. In some cases, for production purposes, a separating tape may be added between two successive layers. In no way the company OMERIN shall be held responsible for any incidents in the case of inappropriate uses, particularly in the case of wiring conditions that do not respect the good practice and the standards in force. For an optimum use of the cables produced by our company, we recommend testing in real conditions. Our sales department is available for a possible provision of samples, and/or for the conditions of a complete study in our laboratories.

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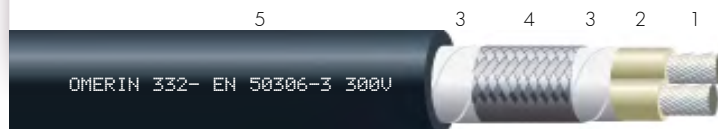
CABLE SOLUTIONS
FOR ROLLING STOCK

LOW VOLTAGE CABLES - EN 50306

VARPREN® RW

EN 50306-3 300V MM S

Screened and sheathed cable



- 1 • Tin-plated copper core.
- 2 • Thin wall insulation.
- 3 • Separating tape (optional).
- 4 • Tin-plated copper braid.
- 5 • Thin wall sheath type S2.

Characteristics

Thermal
Continuous operating temperature:
-40 °C to +105 °C.

Electrical
Operating voltage: 300 / 500 V.
Test voltage: 2 kV A.C.

Mechanical
Cut-through resistance: ★★★★★
Resistance to abrasion: ★★★★★
Minimum static internal bending radius: 5xD

Chemical
Acid and base resistance: ★★★★★
Mineral oil resistance: ★★★★★
Fuel resistance only for class M: ★★★★★

Fire-smoke
Halogen-free (EN 60754-1).
Low toxicity (EN 60754-2).
Low smoke (EN 61034-2).
Flame retardant (EN 60332-1-2, EN 60332-3-24).
Fire-smoke protection (EN 45545-2, NFPA 130).

Options

Other cross-sections or constructions on request.

Standards and approvals

- EN 60228, EN 50306-1, EN 50306-2, EN 50306-3.
- EN 60754-1, EN 60754-2.
- EN 60332-1-2, EN 60332-3-24, EN 61034-2.

Marking

OMERIN 332- EN 50306-3 300V number of cores x < cross-section >
MM S 90 - batch number - week/year

BASE CORE

Nominal cross-section (mm²)	Nominal stranding	Minimum wall thickness (mm)	Cable outer diameter (mm)		Maximum linear resistance at 20 °C (Ω/km)	Approx. linear weight (kg/km)
			Mini	Maxi		
0.5	19 x 0.18	0.18	1.15	1.45	40.1	6.0
0.75	19 x 0.22	0.18	1.35	1.65	26.7	8.5
1	19 x 0.26	0.18	1.40	1.80	20.0	10.5
1.5	19 x 0.30	0.22	1.90	2.30	13.7	16.5
2.5	19 x 0.40	0.28	2.45	2.85	8.21	26.0

REFERENCE EN 50306-3 300V MM S

Item code	Nominal cross-section (mm²)	Minimum sheath thickness (mm)	Cable outer diameter (mm)		Approx. linear weight (kg/km)
			Mini	Maxi	
383B0102	1 x 0.5	0.2	2.3	2.9	15
383B0202	2 x 0.5	0.2	3.5	4.4	29
383B0302	3 x 0.5	0.2	3.7	4.7	36
383B0402	4 x 0.5	0.2	4	5.2	44
383B0502	6 x 0.5	0.2	5.5	6.5	61
383B2202	8 x 0.5	0.2	6.1	7.1	75
383B0602	1 x 0.75	0.2	2.5	3.1	19
383B0702	2 x 0.75	0.2	3.9	4.8	37
383B0802	3 x 0.75	0.2	4	5.2	47
383B0902	4 x 0.75	0.2	4.5	5.7	57
383B2302	6 x 0.75	0.2	6.1	7.1	79
383B2402	8 x 0.75	0.2	7.3	8.3	100
383B1002	1 x 1	0.2	2.7	3.3	22
383B1102	2 x 1	0.2	4.2	5.3	42
383B1202	3 x 1	0.2	4.5	5.7	54
383B1302	4 x 1	0.2	5	6.2	72
383B2502	6 x 1	0.2	6.3	7.3	95
383B2702	8 x 1	0.2	7.5	8.5	119
383B1402	1 x 1.5	0.2	3.1	3.7	30
383B1502	2 x 1.5	0.2	5.1	6.2	64
383B1602	3 x 1.5	0.2	5.4	6.6	82
383B1702	4 x 1.5	0.2	6	7.2	102
383B2802	6 x 1.5	0.2	7.3	8.3	141
383B2902	8 x 1.5	0.2	8.5	9.5	179
383B1802	1 x 2.5	0.2	3.6	4.5	44
383B1902	2 x 2.5	0.2	6.4	7.5	91
383B2002	3 x 2.5	0.2	6.8	8	121
383B2102	4 x 2.5	0.2	7.5	8.7	151

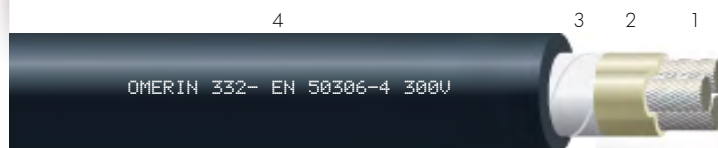
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CABLE SOLUTIONS
FOR ROLLING STOCK

LOW VOLTAGE CABLES - EN 50306

VARPREN® RW
EN 50306-4 300V MM

- 1 • Tin-plated copper core.
- 2 • Thin wall insulation.
- 3 • Separating tape (optional).
- 4 • Standard wall sheath type EM 104.

Characteristics

Thermal

Continuous operating temperature:
-40°C at +90°C.

Electrical

Operating voltage: 300 / 500 V.
Test voltage: 2 kV A.C.

Mechanical

Cut-through resistance: ★★★★★
Resistance to abrasion: ★★★★★
Minimum static internal bending radius:
as per EN 50355 (Table 16)
and EN 50343 (Table 4)

Chemical

Acid and base resistance: ★★★★★
Mineral oil resistance: ★★★★★
Fuel resistance only for class M: ★★★★★

Fire-smoke

Halogen-free (EN 60754-1).
Low toxicity (EN 60754-2).
Low smoke (EN 61034-2).
Flame retardant (EN 60332-1-2,
EN 60332-3-24).
Firesmoke protection (EN 45545-2, NFPA 130).

Options

Other cross-sections or constructions
on request.

Marking

OMERIN 332 EN 50306-4 1E or 1P
300V number of cores x < cross-section >
MM 90 - batch number - week/year

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Standards and approvals

- EN 60228, EN 50306-1, EN 50306-2, EN 50306-4.
- EN 60754-1, EN 60754-2.
- EN 60332-1-2, EN 60332-3-24, EN 61034-2.

BASE CORE

Nominal cross-section (mm²)	Nominal stranding	Minimum wall thickness (mm)	Cable outer diameter (mm)		Maximum linear resistance at 20 °C (Ω/km)	Approx. linear weight (kg/km)
			Mini	Maxi		
0.5	19 x 0.18	0.18	1.15	1.45	40.1	6.0
0.75	19 x 0.22	0.18	1.35	1.65	26.7	8.5
1	19 x 0.26	0.18	1.40	1.80	20.0	10.5
1.5	19 x 0.30	0.22	1.90	2.30	13.7	16.5
2.5	19 x 0.40	0.28	2.45	2.85	8.21	26.0

REFERENCE EN 50306-4 300V MM

Nominal cross-section (mm²)	Class cable E					Class cable P				
	Item code	Minimum sheath thickness (mm)	Cable outer diameter (mm)		Approx. linear weight (kg/km)	Item code	Minimum sheath thickness (mm)	Cable outer diameter (mm)		Approx. linear weight (kg/km)
			Mini	Maxi				Mini	Maxi	
2 x 0.5	383C0102	1.0	4.9	5.9	34	383C3502	0.42	3.5	4.5	23
3 x 0.5	383C0202	1.0	5.1	6.1	41	383C3602	0.42	3.8	4.8	29
4 x 0.5	383C0302	1.0	5.5	6.5	48	383C3702	0.42	4.1	5.1	35
7 x 0.5	383C0402	1.0	6.3	7.3	71	383C3802	0.42	4.9	5.9	55
13 x 0.5	383C0502	1.0	8.3	9.3	117	383C3902	0.42	7.3	8.3	96
19 x 0.5	383C0602	1.0	9.0	10.2	158	383C4002	0.42	8.1	9.1	135
37 x 0.5	383C0702	1.0	12.3	13.5	281	383C4102	0.42	10.8	12.0	250
2 x 0.75	383C0802	1.0	5.3	6.3	41	383C4202	0.42	4.0	5.0	29
3 x 0.75	383C0902	1.0	5.5	6.5	50	383C4302	0.42	4.2	5.2	37
4 x 0.75	383C1002	1.0	6.0	7.0	59	383C4402	0.42	4.6	5.6	44
7 x 0.75	383C1102	1.0	6.9	7.9	89	383C4502	0.42	5.5	6.5	72
13 x 0.75	383C1202	1.0	9.1	10.3	151	383C4602	0.42	8.2	9.2	127
19 x 0.75	383C1302	1.0	10.0	11.2	206	383C4702	0.42	9.0	10.2	180
37 x 0.75	383C1402	1.0	13.2	14.4	373	383C4802	0.42	12.2	13.4	338
48 x 0.75	383C1502	1.0	14.8	16.4	474	383C4902	0.42	13.9	15.5	435
2 x 1	383C1602	1.0	5.6	6.6	48	383C5002	0.42	4.3	5.3	35
3 x 1	383C1702	1.0	5.9	6.9	60	383C5102	0.42	4.6	5.6	47
4 x 1	383C1802	1.0	6.3	7.3	69	383C5202	0.42	4.9	5.9	53
7 x 1	383C1902	1.0	7.3	8.3	106	383C5302	0.42	6.0	7.0	87
13 x 1	383C2002	1.0	9.7	10.9	181	383C5402	0.42	8.7	9.9	156
19 x 1	383C2102	1.0	10.7	11.9	250	383C5502	0.42	9.8	11.0	222
37 x 1	383C2202	1.0	14.0	15.6	456	383C5602	0.42	13.3	14.5	420
2 x 1.5	383C2302	1.0	6.3	7.3	60	383C5702	0.42	5.0	6.0	46
3 x 1.5	383C2402	1.0	6.6	7.6	76	383C5802	0.42	5.3	6.3	62
4 x 1.5	383C2502	1.0	7.4	8.4	99	383C5902	0.42	6.0	7.0	80
7 x 1.5	383C2602	1.0	8.6	9.8	154	383C6002	0.42	7.7	8.7	132
13 x 1.5	383C2702	1.0	11.7	12.9	268	383C6102	0.42	10.7	11.9	237
19 x 1.5	383C2802	1.0	13.0	14.2	373	383C6202	0.56	12.0	13.2	339
37 x 1.5	383C2902	1.0	17.2	18.8	690	383C6302	0.56	16.2	17.8	644
2 x 2.5	383C3002	1.0	7.7	8.7	86	383C6402	0.56	6.7	7.7	123
3 x 2.5	383C3102	1.0	8.1	9.1	115	383C6502	0.56	7.7	8.1	206
4 x 2.5	383C3202	1.0	8.8	10.0	145	383C6602	0.56	7.9	8.9	373

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CABLE SOLUTIONS
FOR ROLLING STOCK

LOW VOLTAGE CABLES - EN 50306

VARPREN® RW

EN 50306-4 300V MM S

Screened and sheathed multicore cables



Characteristics

Thermal

Continuous operating temperature:
-40 °C to +90 °C.

Electrical

Operating voltage: 300 / 500 V.
Test voltage: 2 kV A.C.

Mechanical

Cut-through resistance: ★★★★★
Resistance to abrasion: ★★★★★
Minimum static internal bending radius: 5xD

Chemical

Acid and base resistance: ★★★★★
Mineral oil resistance: ★★★★★
Fuel resistance only for class M: ★★★★★

Fire-smoke

Halogen-free (EN 60754-1).
Low toxicity (EN 60754-2).
Low smoke (EN 61034-2).
Flame retardant (EN 60332-1-2,
EN 60332-3-24).
Firesmoke protection (EN 45545-2).

Options

Other cross-sections
or constructions on request.

Standards and approvals

- EN 60228, EN 50306-1, EN 50306-2, EN 50306-4.
- EN 60754-1, EN 60754-2.
- EN 60332-1-2, EN 60332-3-24, EN 61034-2.

Marking

OMERIN 332- EN 50306-4 3E or 3P 300V number of cores x < cross-section >
MM S 90 - batch number - week/year

BASE CORE

Nominal cross-section (mm²)	Nominal stranding	Minimum wall thickness (mm)	Cable outer diameter (mm)		Maximum linear resistance at 20 °C (Ω/km)	Approx. linear weight (kg/km)
			Mini	Maxi		
0.5	19 x 0.18	0.18	1.15	1.45	40.1	6.0
0.75	19 x 0.22	0.18	1.35	1.65	26.7	8.5
1	19 x 0.26	0.18	1.40	1.80	20.0	10.5
1.5	19 x 0.30	0.22	1.90	2.30	13.7	16.5
2.5	19 x 0.40	0.28	2.45	2.85	8.21	26.0

REFERENCE EN 50306-4 300V MMS

Nominal cross-section (mm²)	Class cable E					Class cable P				
	Item code	Minimum sheath thickness (mm)	Cable outer diameter (mm)		Approx. linear weight (kg/km)	Item code	Minimum sheath thickness (mm)	Cable outer diameter (mm)		Approx. linear weight (kg/km)
			Mini	Maxi				Mini	Maxi	
2 x 0.5	383D0102	1.0	5.5	6.5	46	383D2402	0.42	4.1	5.1	34
3 x 0.5	383D0202	1.0	5.7	6.7	54	383D2502	0.42	4.3	5.3	41
4 x 0.5	383D0302	1.0	6.1	7.1	64	383D2602	0.42	4.7	5.7	50
6 x 0.5	383D0402	1.0	6.9	7.9	88	383D2702	0.42	5.5	6.5	72
8 x 0.5	383D0502	1.0	7.5	8.5	107	383D2802	0.42	6.0	7.0	89
2 x 0.75	383D0602	1.0	5.9	6.9	54	383D2902	0.42	4.5	5.5	40
3 x 0.75	383D0702	1.0	6.2	7.2	64	383D3002	0.42	4.7	5.7	50
4 x 0.75	383D0802	1.0	6.5	7.5	76	383D3102	0.42	5.2	6.2	66
6 x 0.75	383D0902	1.0	7.5	8.5	107	383D3202	0.42	6.1	7.1	89
8 x 0.75	383D1002	1.0	8.2	9.2	131	383D3302	0.42	6.6	7.6	112
2 x 1	383D1102	1.0	6.2	7.2	60	383D3402	0.42	4.7	5.7	46
3 x 1	383D1202	1.0	6.5	7.5	73	383D3502	0.42	5.1	6.0	58
4 x 1	383D1302	1.0	6.9	7.9	92	383D3602	0.42	5.5	6.5	76
6 x 1	383D1402	1.0	8.0	9.0	123	383D3702	0.42	6.6	7.6	105
8 x 1	383D1502	1.0	8.6	9.8	152	383D3802	0.42	7.7	8.7	131
2 x 1.5	383D1602	1.0	7.1	8.1	87	383D3902	0.42	5.7	6.7	69
3 x 1.5	383D1702	1.0	7.4	8.4	107	383D4002	0.42	6.0	7.0	88
4 x 1.5	383D1802	1.0	8.0	9.0	129	383D4102	0.42	6.6	7.6	108
6 x 1.5	383D1902	1.0	9.2	10.4	175	383D4202	0.56	8.3	9.3	156
8 x 1.5	383D2002	1.0	10.2	11.4	218	383D4302	0.56	8.9	10.1	197
2 x 2.5	383D2102	1.0	8.3	9.3	117	383D4402	0.56	7.3	8.3	101
3 x 2.5	383D2202	1.0	8.6	9.8	148	383D4502	0.56	7.7	8.7	131
4 x 2.5	383D2302	1.0	9.4	10.6	181	383D4602	0.56	8.4	9.6	163

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CABLE SOLUTIONS
FOR ROLLING STOCK

LOW VOLTAGE CABLES - EN 50306

VARPREN® RW

EN 50306-4 300V MMM S

Individually screened
and sheathed multicore cables



Characteristics

Thermal

Continuous operating temperature:
-40 °C to +90 °C.

Electrical

Operating voltage: 300 / 500 V.
Test voltage: 2 kV A.C.

Mechanical

Cut-through resistance: ★★★★★
Resistance to abrasion: ★★★★★
Minimum static internal bending radius:
5xD

Chemical

Acid and base resistance: ★★★★★
Mineral oil resistance: ★★★★★
Fuel resistance only for class M: ★★★★★

Fire-smoke

Halogen-free (EN 60754-1).
Low toxicity (EN 60754-2).
Low smoke (EN 61034-2).
Flame retardant (EN 60332-1-2,
EN 60332-3-24).
Firesmoke protection (EN 45545-2).

Options

Other cross-sections
or constructions on request.

Standards and approvals

- EN 60228, EN 50306-1, EN 50306-2, EN 50306-4.
- EN 60754-1, EN 60754-2.
- EN 60332-1-2, EN 60332-3-24, EN 61034-2.

Marking

OMERIN 332- EN 50306-4 5E or 5P 300V number of pairs x < cross-section >
MMM S 90 - batch number - week/year

BASE CORE

Nominal cross-section (mm²)	Nominal stranding	Minimum wall thickness (mm)	Cable outer diameter (mm)		Maximum linear resistance at 20 °C (Ω/km)	Approx. linear weight (kg/km)
			Mini	Maxi		
0.5	19 x 0.18	0.18	1.15	1.45	40.1	6.0
0.75	19 x 0.22	0.18	1.35	1.65	26.7	8.5
1	19 x 0.26	0.18	1.40	1.80	20.0	10.5
1.5	19 x 0.30	0.22	1.90	2.30	13.7	16.5
2.5	19 x 0.40	0.28	2.45	2.85	8.21	26.0

REFERENCE EN 50306-4 300V MMM S

Nominal cross-section (mm²)	Class cable E					Class cable P				
	Item code	Minimum sheath thickness (mm)	Cable outer diameter (mm)		Approx. linear weight (kg/km)	Item code	Minimum sheath thickness (mm)	Cable outer diameter (mm)		Approx. linear weight (kg/km)
			Mini	Maxi				Mini	Maxi	
2 x 2 x 0.5	383E0102	1.0	10.1	11.3	135	383E1702	0.56	9.0	10.2	105
3 x 2 x 0.5	383E0202	1.0	10.8	12.0	165	383E1802	0.56	9.6	10.8	132
4 x 2 x 0.5	383E0302	1.0	11.8	13.0	188	383E1902	0.56	10.7	11.9	154
7 x 2 x 0.5	383E0402	1.0	13.9	15.5	280	383E2002	0.56	13.0	14.2	242
2 x 2 x 0.75	383E0502	1.0	10.9	12.1	158	383E2102	0.56	9.8	11.0	128
3 x 2 x 0.75	383E0602	1.0	11.6	12.8	195	383E2202	0.56	10.5	11.7	164
4 x 2 x 0.75	383E0702	1.0	12.8	14.0	225	383E2302	0.56	11.6	12.8	186
7 x 2 x 0.75	383E0802	1.0	15.1	16.7	335	383E2402	0.56	14.0	15.6	297
2 x 2 x 1.0	383E0902	1.0	11.3	12.5	170	383E2502	0.56	10.2	11.6	138
3 x 2 x 1.0	383E1002	1.0	12.0	13.2	210	383E2602	0.56	10.9	12.1	179
4 x 2 x 1.0	383E1102	1.0	13.2	14.4	234	383E2702	0.56	12.1	13.3	205
7 x 2 x 1.0	383E1202	1.0	15.7	17.3	365	383E2802	0.56	14.6	16.2	348
2 x 2 x 1.5	383E1302	1.0	13.3	14.5	240	383E2902	0.56	12.2	13.4	203
3 x 2 x 1.5	383E1402	1.0	14.0	15.6	294	383E3002	0.56	13.1	14.3	263
4 x 2 x 1.5	383E1502	1.0	15.5	17.1	340	383E3102	0.56	14.3	15.9	297
7 x 2 x 1.5	383E1602	1.0	18.7	20.3	539	383E3202	0.56	17.6	19.2	501

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LES CABLES DE L'EXTREME

CABLE SOLUTIONS
FOR ROLLING STOCK

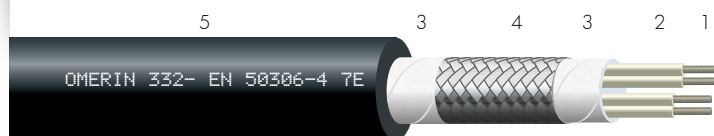
LOW VOLTAGE CABLES - EN 50306

VARPREN® RW

EN 50306-4 300V MM S

Multipair cables

general screened and sheathed



Characteristics

Thermal

Continuous operating temperature:
-40 °C to +90 °C.

Electrical

Operating voltage: 300 / 500 V.
Test voltage: 2 kV A.C.

Mechanical

Cut-through resistance: ★★★★★
Resistance to abrasion: ★★★★★
Minimum static internal bending radius:
5xD

Chemical

Acid and base resistance: ★★★★★
Mineral oil resistance: ★★★★★
Fuel resistance only for class M: ★★★★★

Fire-smoke

Halogen-free (EN 60754-1).
Low toxicity (EN 60754-2).
Low smoke (EN 61034-2).
Flame retardant (EN 60332-1-2,
EN 60332-3-24).
Firesmoke protection (EN 45545-2).

Options

Other cross-sections
or constructions on request.

Standards and approvals

- EN 60228, EN 50306-1, EN 50306-2, EN 50306-4.
- EN 60754-1, EN 60754-2.
- EN 60332-1-2, EN 60332-3-24, EN 61034-2.

Marking

OMERIN 332- EN 50306-4 7E or 7P 300V number of pairs x < cross-section >
MM S 90 - batch number - week/year

BASE CORE

Nominal cross-section (mm²)	Nominal stranding	Minimum wall thickness (mm)	Cable outer diameter (mm)		Maximum linear resistance at 20 °C (Ω/km)	Approx. linear weight (kg/km)
			Mini	Maxi		
0.5	19 x 0.18	0.18	1.15	1.45	40.1	6.0
0.75	19 x 0.22	0.18	1.35	1.65	26.7	8.5
1	19 x 0.26	0.18	1.40	1.80	20.0	10.5
1.5	19 x 0.30	0.22	1.90	2.30	13.7	16.5
2.5	19 x 0.40	0.28	2.45	2.85	8.21	26.0

REFERENCE EN 50306-4 300V MM S

Nominal cross-section (mm²)	Class cable E					Class cable P				
	Item code	Minimum sheath thickness (mm)	Cable outer diameter (mm)		Approx. linear weight (kg/km)	Item code	Minimum sheath thickness (mm)	Cable outer diameter (mm)		Approx. linear weight (kg/km)
			Mini	Maxi				Mini	Maxi	
2 x 2 x 0.5	383F0102	1.0	7.1	8.9	78	383F1702	0.56	6.6	7.9	70
3 x 2 x 0.5	383F0202	1.0	7.5	9.1	90	383F1802	0.56	7.0	8.1	79
4 x 2 x 0.5	383F0302	1.0	8.3	9.7	109	383F1902	0.56	7.7	8.7	99
7 x 2 x 0.5	383F0402	1.0	9.6	11.6	154	383F2002	0.56	9.0	10.6	143
2 x 2 x 0.75	383F0502	1.0	7.6	10.0	95	383F2102	0.56	7.1	9.0	86
3 x 2 x 0.75	383F0602	1.0	8.2	10.2	109	383F2202	0.56	7.7	9.2	102
4 x 2 x 0.75	383F0702	1.0	9.5	10.8	143	383F2302	0.56	9.0	10.0	132
7 x 2 x 0.75	383F0802	1.0	11.4	12.8	219	383F2402	0.56	10.8	11.8	203
2 x 2 x 1.0	383F0902	1.0	8.3	10.5	119	383F2502	0.56	7.8	9.5	107
3 x 2 x 1.0	383F1002	1.0	8.8	10.7	130	383F2602	0.56	8.3	9.7	122
4 x 2 x 1.0	383F1102	1.0	9.6	11.3	160	383F2702	0.56	9.1	10.3	150
7 x 2 x 1.0	383F1202	1.0	11.6	13.4	251	383F2802	0.56	11.0	12.4	238
2 x 2 x 1.5	383F1302	1.0	10.3	12.2	175	383F2902	0.56	9.8	11.2	162
3 x 2 x 1.5	383F1402	1.0	11.0	12.4	194	383F3002	0.56	10.4	11.4	178
4 x 2 x 1.5	383F1502	1.0	12.1	13.1	243	383F3102	0.56	11.6	12.6	229
7 x 2 x 1.5	383F1602	1.0	14.5	16.3	376	383F3202	0.56	14.0	15.3	359

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LES CABLES DE L'EXTREME

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STANDARD POWER CABLES EN 50264-3-1/-3-2

FT No.	PRODUCT REFERENCE	PAGE
5200	STANDARD POWER CABLES – EN 50264-3-1/-3-2	14
5212	VARPREN® RW EN 50264-3-1 600V M	15
5213	VARPREN® RW EN 50264-3-1 1800V M	16
5214	VARPREN® RW EN 50264-3-1 1800V MM	17
5215	VARPREN® RW EN 50264-3-1 3600V MM	18
5216	VARPREN® RW EN 50264-3-2 300V MM	19
5217	VARPREN® RW EN 50264-3-2 600V MM	20
5218	VARPREN® RW EN 50264-3-2 300V MM S	21
5219	VARPREN® RW EN 50264-3-2 600V MM S	22

CABLE SOLUTIONS FOR ROLLING STOCK

STANDARD POWER CABLES

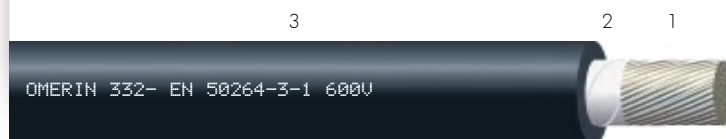
EN 50264-3-1/-3-2

FT No.	OMERIN reference	Single or multicore type	Core insulation type	Core insulation thickness		Screened by a tin-plated copper braid	Outer sheath type	Operating temperature (°C)	Operating voltage (V)	IRM902 Mineral Oil Resistant	IRM 903 Fuel Resistant	Halogen-free Low Smoke	Application
				Medium	Standard								
5212	VARPREN RW EN 50264-3-1 600V M	Single core	EI 109	✓				90	600	✓	✓	✓	Power cables with special fire performance used inboards safety circuits, lighting circuits, auxiliary circuits.
5213	VARPREN RW EN 50264-3-1 1800V M	Single core	EI 109	✓				90	1800	✓	✓	✓	Power cables with special fire performance used inboards safety circuits, lighting circuits, auxiliary circuits.
5214	VARPREN RW EN 50264-3-1 1800V MM	Single core	EI 109	✓			EM 104	90	1800	✓	✓	✓	Power cables with special fire performance used in medium voltage circuits.
5215	VARPREN RW EN 50264-3-1 3600V MM	Multicore	EI 109	✓			EM 104	90	3600	✓	✓	✓	Power cables with special fire performance used in medium voltage circuits.
5216	VARPREN RW EN 50264-3-2 300V MM	Multicore	EI 109	✓			EM 104	90	300	✓	✓	✓	Power cables with special fire performance used inboards safety circuits, lighting circuits, auxiliary circuits.
5217	VARPREN RW EN 50264-3-2 600V MM	Multicore	EI 109	✓			EM 104	90	600	✓	✓	✓	Power cables with special fire performance used inboards safety circuits, lighting circuits, auxiliary circuits.
5218	VARPREN RW EN 50264-3-2 300V MM S	Multicore	EI 109	✓			EM 104	90	300	✓	✓	✓	Power cables with special fire performance and with an overall screen made by a tin-plated copper braid, used inboards safety circuits, lighting circuits, auxiliary circuits.
5219	VARPREN RW EN 50264-3-2 600V MM S		EI 109	✓			EM 104	90	600	✓		✓	Power cables with special fire performance and with an overall screen made by a tin-plated copper braid, used inboards safety circuits, lighting circuits, auxiliary circuits.

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CABLE SOLUTIONS
FOR ROLLING STOCK

STANDARD POWER CABLES - EN 50264-3

VARPREN® RW
EN 50264-3-1 600V M
Unsheathed cable

- 1 • Tin-plated copper core - class 5 - EN 60228.
- 2 • Separating tape (optional).
- 3 • Fire resistant elastomer - type EI 109 as per EN 50264-3-1.

Characteristics**Thermal**

Continuous operating temperature:
-40 °C to +90 °C.

Electrical

Operating voltage: 0.6 / 1 kV.
Test voltage: 3.5 kV A.C.

Mechanical

Cut-through resistance: ★★★★★
Resistance to abrasion: ★★★★★
Minimum static internal bending radius:
as per EN 50355 (Table 16)
and EN 50343 (Table 4)

Chemical

Acid and base resistance: ★★★★★
Mineral oil resistance: ★★★★★
Fuel resistance only for class M: ★★★★★

Fire-smoke

Halogen-free (EN 60754-1).
Low toxicity (EN 60754-2).
Low smoke (EN 61034-2).
Flame retardant (EN 60332-1-2, EN 60332-3-24).
Fire-smoke protection (EN 45545-2, NFPA 130).

Options

Other cross-sections on request.
VARPREN® RW EN 50264-2-1 600V M on request.

Standards and approvals

- EN 60228, EN 50264-3-1.
- EN 60754-1, EN 60754-2.
- EN 60332-1-2, EN 60332-3-24, EN 61034-2.

Marking

OMERIN 332- EN 50264-3-1 600V < cross-section > M - batch number - week/year

Item code	Nominal cross-section (mm²)	Nominal stranding	Nominal wall thickness (mm)	Cable outer diameter (mm)		Maximum linear resistance at 20 °C (Ω/km)	Approx. linear weight (kg/km)
				Mini	Maxi		
374I0302	1	32 x 0.20	0.6	2.4	2.8	20	15
374I0402	1.5	30 x 0.25	0.7	2.8	3.3	13.7	22
374I0202	2.5	50 x 0.25	0.7	3.2	3.8	8.21	33
374I0502	4	56 x 0.30	0.7	3.8	4.4	5.09	46
374I0602	6	84 x 0.30	0.7	4.2	5.0	3.39	67
374I0102	10	80 x 0.40	0.7	5.1	5.9	1.95	106
374I0702	16	126 x 0.40	0.7	6.1	7.2	1.24	165
374I0802	25	196 x 0.40	0.9	7.8	9.1	0.795	258
374I0902	35	276 x 0.40	0.9	9.0	10.6	0.565	353
374I1002	50	396 x 0.40	1.0	10.6	12.4	0.393	499
374I1102	70	360 x 0.50	1.1	12.5	14.6	0.277	695
374I1202	95	485 x 0.50	1.1	13.9	16.3	0.210	927
374I1302	120	608 x 0.50	1.2	15.7	18.4	0.164	1146
374I1402	150	756 x 0.50	1.4	17.6	20.6	0.132	1470
374I1502	185	944 x 0.50	1.6	19.6	22.9	0.108	1766
374I1602	240	1221 x 0.50	1.7	22.2	26.0	0.0817	2330
374I1702	300	1525 x 0.50	1.8	24.6	28.8	0.0654	2909

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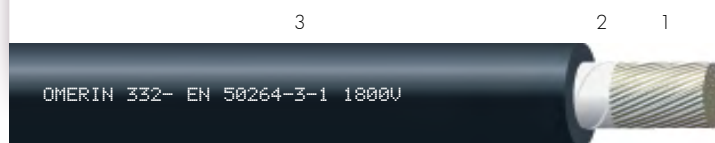
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CABLE SOLUTIONS
FOR ROLLING STOCK

STANDARD POWER CABLES - EN 50264-3

VARPREN® RW
EN 50264-3-1 1800V M
Unsheathed cable

- 1 • Tin-plated copper core - class 5 - EN 60228.
- 2 • Separating tape (optional).
- 3 • Fire resistant elastomer - type EI 109 as per EN 50264-3-1.

Characteristics**Thermal**

Continuous operating temperature:
-40 °C to +90 °C.

Electrical

Operating voltage: 1.8 kV / 3 kV.
Test voltage: 6.5 kV A.C.

Mechanical

Cut-through resistance: ★★★★★
Resistance to abrasion: ★★★★★
Minimum static internal bending radius:
as per EN 50355 (Table 16)
and EN 50343 (Table 4)

Chemical

Acid and base resistance: ★★★★★
Mineral oil resistance: ★★★★★
Fuel resistance only for class M: ★★★★★

Fire-smoke

Halogen-free (EN 60754-1).
Low toxicity (EN 60754-2).
Low smoke (EN 61034-2).
Flame retardant (EN 60332-1-2, EN 60332-3-24).
Fire-smoke protection (EN 45545-2, NFPA 130).

Options

Other cross-sections on request.
VARPREN® RW EN 50264-2-1 1800V M on request.

Standards and approvals

- EN 60228, EN 50264-3-1.
- EN 60754-1, EN 60754-2.
- EN 60332-1-2, EN 60332-3-24, EN 61034-2.

Marking

OMERIN 332- EN 50264-3-1 1800V < cross-section > M - batch number - week/year

Item code	Nominal cross-section (mm²)	Nominal stranding	Nominal wall thickness (mm)	Cable outer diameter (mm)		Maximum linear resistance at 20 °C (Ω/km)	Approx. linear weight (kg/km)
				Mini	Maxi		
374J0102	1.5	30 x 0.25	2.0	5.3	6.2	13.7	49
374J0202	2.5	50 x 0.25	2.0	5.7	6.7	8.21	63
374J0302	4	56 x 0.30	2.0	6.2	7.3	5.09	77
374J0402	6	84 x 0.30	2.0	6.7	7.8	3.39	105
374J0502	10	80 x 0.40	2.0	7.5	8.8	1.95	151
374J0602	16	126 x 0.40	2.0	8.6	10.0	1.24	216
374J0702	25	196 x 0.40	2.0	9.9	11.6	0.795	312
374J0802	35	276 x 0.40	2.0	11.1	13.0	0.565	411
374J0902	50	396 x 0.40	2.0	12.5	14.6	0.393	560
374J1002	70	360 x 0.50	2.0	14.2	16.6	0.277	754
374J1102	95	485 x 0.50	2.2	16.0	18.7	0.210	1013
374J1202	120	608 x 0.50	2.2	17.6	20.6	0.164	1234
374J1302	150	756 x 0.50	2.2	19.1	22.3	0.132	1559
374J1402	185	944 x 0.50	2.4	20.9	24.4	0.108	1853
374J1502	240	1221 x 0.50	2.4	23.7	27.5	0.0817	2415
374J1602	300	1525 x 0.50	2.4	25.6	30.1	0.0654	2957

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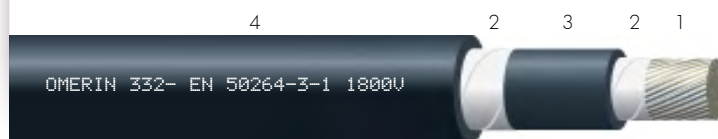
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CABLE SOLUTIONS
FOR ROLLING STOCK

STANDARD POWER CABLES - EN 50264-3

VARPREN® RW
EN 50264-3-1 1800V MM
Sheathed cable

- 1 • Tin-plated copper core - class 5 - EN 60228.
- 2 • Separating tape (optional).
- 3 • Fire resistant elastomer - type EI 109 as per EN 50264-3-1.
- 4 • Fire resistant elastomer - type EM 104 as per EN 50264-3-1.

Characteristics**Thermal**

Continuous operating temperature:
-40 °C to +90 °C.

Electrical

Operating voltage: 1.8 kV / 3 kV.
Test voltage: 6.5 kV A.C.

Mechanical

Cut-through resistance: ★★★★★
Resistance to abrasion: ★★★★★
Minimum static internal bending radius:
as per EN 50355 (Table 16)
and EN 50343 (Table 4)

Chemical

Acid and base resistance: ★★★★★
Mineral oil resistance: ★★★★★
Fuel resistance only for class M: ★★★★★

Fire-smoke

Halogen-free (EN 60754-1).
Low toxicity (EN 60754-2).
Low smoke (EN 61034-2).
Flame retardant (EN 60332-1-2, EN 60332-3-24).

Options

Other cross-sections on request.
VARPREN® RW EN 50264-2-1 1800V MM on request.

Standards and approvals

- EN 60228, EN 50264-3-1.
- EN 60754-1, EN 60754-2.
- EN 60332-1-2, EN 60332-3-24, EN 61034-2.

Marking

OMERIN 332- EN 50264-3-1 1800V < cross-section > MM - batch number - week/year

Item code	Nominal cross-section (mm²)	Nominal stranding	Nominal insulation thickness (mm)	Nominal sheath thickness (mm)	Cable outer diameter (mm)		Maximum linear resistance at 20 °C (Ω/km)	Approx. linear weight (kg/km)
					Mini	Maxi		
374K0602	1.5	30 x 0.25	1.3	0.8	5.7	6.7	13.7	54
374K0702	2.5	50 x 0.25	1.3	0.8	6.0	7.0	8.21	74
374K0802	4	56 x 0.30	1.3	0.8	6.5	7.6	5.09	95
374K0902	6	84 x 0.30	1.3	0.8	7.0	8.1	3.39	119
374K0202	10	80 x 0.40	1.5	0.8	8.2	9.6	1.95	179
374K1002	16	126 x 0.40	1.5	0.8	9.2	10.8	1.24	252
374K1102	25	196 x 0.40	1.8	1.0	11.5	13.4	0.795	382
374K1202	35	276 x 0.40	1.8	1.0	12.7	14.9	0.565	491
374K1302	50	396 x 0.40	1.8	1.0	14.1	16.5	0.393	649
374K0302	70	360 x 0.50	1.8	1.0	15.8	18.5	0.277	857
374K0402	95	485 x 0.50	2.2	1.0	18.0	21.0	0.210	1145
374K0502	120	608 x 0.50	2.2	1.0	19.6	22.9	0.164	1409
374K1402	150	756 x 0.50	2.2	1.2	21.4	25.1	0.132	1756
374K1502	185	944 x 0.50	2.4	1.2	23.4	27.4	0.108	2124
374K1602	240	1221 x 0.50	2.4	1.2	25.9	30.3	0.0817	1575
374K1702	300	1525 x 0.50	2.4	1.2	28.1	32.9	0.0654	1939

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CABLE SOLUTIONS
FOR ROLLING STOCK

STANDARD POWER CABLES - EN 50264-3

VARPREN® RW
EN 50264-3-1 3600V MM
Sheathed cable

- 1 • Tin-plated copper core - class 5 - EN 60228.
- 2 • Semi-conductive tape.
- 3 • Fire resistant elastomer - type EI 109 as per EN 50264-3-1.
- 4 • Separating tape (optional).
- 5 • Fire resistant elastomer - type EM 104 as per EN 50264-3-1.

Characteristics**Thermal**

Continuous operating temperature:
-40 °C to +90 °C.

Electrical

Operating voltage: 3.6 / 6 kV.
Test voltage: 11 kV A.C.

Mechanical

Cut-through resistance: ★★★★★
Resistance to abrasion: ★★★★★
Minimum static internal bending radius:
as per EN 50355 (Table 16)
and EN 50343 (Table 4)

Chemical

Acid and base resistance: ★★★★★
Mineral oil resistance: ★★★★★
Fuel resistance only for class M: ★★★★★

Fire-smoke

Halogen-free (EN 60754-1).
Low toxicity (EN 60754-2).
Low smoke (EN 61034-2).
Flame retardant (EN 60332-1-2, EN 60332-3-24).
Fire smoke protection (EN 45545-2).

Options

Other cross-sections on request.
VARPREN® RW EN 50264-2-1 3600V MM on request.

Standards and approvals

- EN 60228, EN 50264-3-1.
- EN 60754-1, EN 60754-2.
- EN 60332-1-2, EN 60332-3-24, EN 61034-2.

Marking

OMERIN 332- EN 50264-3-1 3600V < cross-section > MM - batch number - week/year

Item code	Nominal cross-section (mm²)	Nominal stranding	Nominal insulation thickness (mm)	Nominal sheath thickness (mm)	Cable outer diameter (mm)		Maximum linear resistance at 20 °C (Ω/km)	Approx. linear weight (kg/km)
					Mini	Maxi		
374L0102	2.5	50 x 0.25	2.6	0.8	8.6	10.1	8.21	113
374L0302	4	56 x 0.30	2.6	0.8	9.1	10.7	5.09	137
374L0402	6	84 x 0.30	2.6	0.8	9.6	11.2	3.39	164
374L0502	10	80 x 0.40	2.6	0.8	10.4	12.2	1.95	221
374L0602	16	126 x 0.40	2.6	0.8	11.5	13.4	1.24	294
374L0702	25	196 x 0.40	2.9	1.0	13.7	16.1	0.795	432
374L0802	35	276 x 0.40	2.9	1.0	14.9	17.5	0.565	546
374L0902	50	396 x 0.40	2.9	1.0	16.4	19.1	0.393	709
374L1002	70	360 x 0.50	2.9	1.0	18.0	21.1	0.277	920
374L1102	95	485 x 0.50	2.9	1.0	19.5	22.8	0.210	1174
374L1202	120	608 x 0.50	2.9	1.2	21.4	25.1	0.164	1465
374L1302	150	756 x 0.50	2.9	1.2	22.9	26.8	0.132	1788
374L1402	185	944 x 0.50	3.2	1.2	25.1	29.4	0.108	2172
374L0202	240	1221 x 0.50	3.4	1.4	28.3	33.1	0.0817	2758
374L1502	300	1525 x 0.50	3.4	1.4	30.6	35.8	0.0654	3364

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CABLE SOLUTIONS
FOR ROLLING STOCK

STANDARD POWER CABLES - EN 50264-3

VARPREN® RW
EN 50264-3-2 300V MM
Sheathed cable

- 1 • Tin-plated copper core - class 5 - EN 60228.
- 2 • Separating tape (optional).
- 3 • Fire resistant elastomer - type EI 109 as per EN 50264-3-2.
- 4 • Fire resistant elastomer - type EM 104 as per EN 50264-3-2.

Characteristics**Thermal**

Continuous operating temperature:
-40 °C to +90 °C.

Electrical

Operating voltage: 300 / 500 V.
Test voltage: 2 kV A.C.

Mechanical

Cut-through resistance: ★★★★★
Resistance to abrasion: ★★★★★
Minimum static internal bending radius:
as per EN 50355 (Table 16)
and EN 50343 (Table 4)

Chemical

Acid and base resistance: ★★★★★
Mineral oil resistance: ★★★★★
Fuel resistance only for class M: ★★★★★

Fire-smoke

Halogen-free (EN 60754-1).
Low toxicity (EN 60754-2).
Low smoke (EN 61034-2).
Flame retardant (EN 60332-1-2, EN 60332-3-24).
Fire-smoke protection (EN 45545-2, NFPA 130).

Options

Other cross-sections or constructions on request.
VARPREN® RW EN 50264-2-2 300V MM on request.

Standards and approvals

- EN 60228, EN 50264-3-2.
- EN 60754-1, EN 60754-2.
- EN 60332-1-2, EN 60332-3-24, EN 61034-2.

Marking

OMERIN 332- EN 50264-3-2 300V number of cores < cross-section > MM - batch number - week/year

Item code	Nominal cross-section (mm²)	Nominal insulation thickness (mm)	Nominal conductor diameter (mm)	Nominal sheath thickness (mm)	Cable outer diameter (mm)		Approx. linear weight (kg/km)
					Mini	Maxi	
374M0102	2 x 1	0.4	2.2	0.6	5.3	6.2	40
374M0202	4 x 1	0.4	2.2	0.6	6.1	7.2	68
374M0302	7 x 1	0.4	2.2	0.6	7.5	8.7	114
374M0402	9 x 1	0.4	2.2	0.6	9.1	10.6	145
374M0502	12 x 1	0.4	2.2	0.6	9.8	11.5	185
374M0602	19 x 1	0.4	2.2	0.7	11.7	13.7	286
374M0702	24 x 1	0.4	2.2	0.7	14.1	16.5	371
374M0802	32 x 1	0.4	2.2	0.7	15.5	18.2	479
374M0902	37 x 1	0.4	2.2	0.8	16.1	18.9	546
374M1002	40 x 1	0.4	2.2	1.0	16.7	19.6	587
374M1102	4 x 1.5	0.5	2.7	1.0	7.3	8.6	98
374M1202	7 x 1.5	0.5	2.7	1.0	8.7	10.2	156
374M1302	9 x 1.5	0.5	2.7	1.0	10.9	12.7	212
374M1402	12 x 1.5	0.5	2.7	0.7	11.8	13.8	273
374M1502	19 x 1.5	0.5	2.7	0.7	14.2	16.6	427
374M1602	24 x 1.5	0.5	2.7	0.8	16.6	19.5	534
374M1702	32 x 1.5	0.5	2.7	0.8	18.7	21.9	713
374M1802	37 x 1.5	0.5	2.7	1.0	19.5	22.8	811
374M1902	4 x 2.5	0.5	3.1	1.0	8.3	9.8	140
374M2002	7 x 2.5	0.5	3.1	1.2	10.2	11.9	232
374M2102	9 x 2.5	0.5	3.1	1.2	12.9	15.1	319
374M2202	12 x 2.5	0.5	3.1	0.7	13.9	16.3	410
374M2302	19 x 2.5	0.5	3.1	0.8	16.3	19.1	623
374M2402	24 x 2.5	0.5	3.1	1.0	19.6	22.9	800

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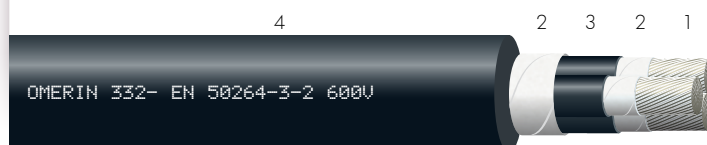
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CABLE SOLUTIONS
FOR ROLLING STOCK

STANDARD POWER CABLES - EN 50264-3

VARPREN® RW
EN 50264-3-2 600V MM
Sheathed cable

- 1 • Tin-plated copper core - class 5 - EN 60228.
- 2 • Separating tape (optional).
- 3 • Fire resistant elastomer - type EI 109 as per EN 50264-3-2.
- 4 • Fire resistant elastomer - type EM 104 as per EN 50264-3-2.

Characteristics**Thermal**

Continuous operating temperature:
-40 °C to +90 °C.

Electrical

Operating voltage: 0.6 / 1 kV.
Test voltage: 3.5 kV A.C.

Mechanical

Cut-through resistance: ★★★★★
Resistance to abrasion: ★★★★★
Minimum static internal bending radius:
as per EN 50355 (Table 16)
and EN 50343 (Table 4)

Chemical

Acid and base resistance: ★★★★★
Mineral oil resistance: ★★★★★
Fuel resistance only for class M: ★★★★★

Fire-smoke

Halogen-free (EN 60754-1).
Low toxicity (EN 60754-2).
Low smoke (EN 61034-2).
Flame retardant (EN 60332-1-2, EN 60332-3-24).
Fire-smoke protection (EN 45545-2, NFPA 130).

Options

Other cross-sections or constructions on request.
VARPREN® RW EN 50264-2-2 600V MM on request.

Standards and approvals

- EN 60228, EN 50264-3-2.
- EN 60754-1, EN 60754-2.
- EN 60332-1-2, EN 60332-3-24, EN 61034-2.

Marking

OMERIN 332- EN 50264-3-2 600V < cross-section > MM - batch number - week/year

Item code	Nominal cross-section (mm²)	Nominal insulation thickness (mm)	Nominal conductor diameter (mm)	Nominal sheath thickness (mm)	Cable outer diameter (mm)		Approx. linear weight (kg/km)
					Mini	Maxi	
374N0302	2 x 1.5	0.7	3.1	0.7	7.2	9.0	77
374N1202	3 x 1.5	0.7	3.1	0.7	7.7	9.5	131
374N1902	4 x 1.5	0.7	3.1	0.7	8.5	10.5	204
374N0402	2 x 2.5	0.7	3.5	0.7	8.0	10.0	91
374N0102	3 x 2.5	0.7	3.5	0.7	8.5	10.5	124
374N2002	4 x 2.5	0.7	3.5	0.7	9.4	11.6	158
374N5002	2 x 4	0.7	4.0	0.7	9.1	11.3	127
374N1302	3 x 4	0.7	4.0	0.7	9.7	12.0	176
374N2102	4 x 4	0.7	4.0	0.8	10.9	13.4	231
374N7602	2 x 6	0.7	4.6	0.8	10.1	12.4	175
374N5702	3 x 6	0.7	4.6	0.8	10.7	13.2	244
374N2202	4 x 6	0.7	4.6	1.0	12.2	14.9	327
374N7702	2 x 10	0.7	5.8	1.0	12.5	15.4	279
374N0202	3 x 10	0.7	5.8	1.0	13.3	16.5	390
374N2302	4 x 10	0.7	5.8	1.0	14.7	18.2	503
374N7802	2 x 16	0.7	7.0	1.0	14.9	18.4	407
374N7902	3 x 16	0.7	7.0	1.0	16.0	19.6	576
374N8002	4 x 16	0.7	7.0	1.2	18.0	22.1	766
374N8102	2 x 25	0.9	8.8	1.2	18.7	23.0	630
374N1602	3 x 25	0.9	8.8	1.2	20.0	24.7	895
374N2502	4 x 25	0.9	8.8	1.2	22.6	27.6	1187
374N8202	2 x 35	0.9	10.2	1.2	21.2	25.9	835
374N8302	3 x 35	0.9	10.2	1.2	23	28.2	1196
374N8402	2 x 50	1.0	11.9	1.4	25.1	30.7	1175
374N8502	3 x 50	1.0	11.9	1.4	26.3	32.2	1684

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CABLE SOLUTIONS
FOR ROLLING STOCK

STANDARD POWER CABLES - EN 50264-3

VARPREN® RW

EN 50264-3-2 300V MM S

Sheathed and screened cable



- 1 • Tin-plated copper core - class 5 - EN 60228.
- 2 • Separating tape (optional).
- 3 • Fire resistant elastomer - type EI 109 as per EN 50264-3-2.
- 4 • Tin-plated copper braid.
- 5 • Fire resistant elastomer - type EM 104 as per EN 50264-3-2.

Characteristics

Thermal

Continuous operating temperature:
-40 °C to +90 °C.

Electrical

Operating voltage: 300 / 500 V.
Test voltage: 2 kV A.C.

Mechanical

Cut-through resistance: ★★★★★
Resistance to abrasion: ★★★★★
Minimum static internal bending radius:
as per EN 50355 (Table 16)
and EN 50343 (Table 4)

Chemical

Acid and base resistance: ★★★★★
Mineral oil resistance: ★★★★★
Fuel resistance only for class M: ★★★★★

Fire-smoke

Halogen-free (EN 60754-1).
Low toxicity (EN 60754-2).
Low smoke (EN 61034-2);
Flame retardant (EN 60332-1-2, EN 60332-3-24).

Options

Other cross-sections or constructions on request.
VARPREN® RW EN 50264-2-2 300V MM S on request.

Standards and approvals

- EN 60228, EN 50264-3-2.
- EN 60754-1, EN 60754-2.
- EN 60332-1-2, EN 60332-3-24, EN 61034-2.

Marking

OMERIN 332- EN 50264-3-2 300V number of cores < cross-section > MM S - batch number - week/year

Item code	Nominal cross-section (mm²)	Nominal insulation thickness (mm)	Nominal conductor diameter (mm)	Nominal sheath thickness (mm)	Cable outer diameter (mm)		Approx. linear weight (kg/km)
					Mini	Maxi	
374O1502	2 x 1	0.4	2.2	0.6	6.0	7.4	67
374O1602	4 x 1	0.4	2.2	0.7	7.0	8.6	103
374O1702	7 x 1	0.4	2.2	0.7	8.2	10.0	152
374O1802	9 x 1	0.4	2.2	0.8	10.1	12.1	204
374O1902	12 x 1	0.4	2.2	0.8	10.8	13.0	250
374O1002	19 x 1	0.4	2.2	1.0	12.9	15.5	369
374O1102	24 x 1	0.4	2.2	1.0	15.1	18.1	480
374O1202	32 x 1	0.4	2.2	1.0	16.4	19.8	600
374O2002	37 x 1	0.4	2.2	1.0	17.1	20.6	672
374O2102	40 x 1	0.4	2.2	1.2	18.1	21.7	737
374O1402	4 x 1.5	0.5	2.7	0.7	8.1	9.7	138
374O2202	7 x 1.5	0.5	2.7	0.8	9.6	11.4	208
374O0602	9 x 1.5	0.5	2.7	0.7	12.3	14.3	290
374O2302	12 x 1.5	0.5	2.7	1.0	13.2	15.4	357
374O2402	19 x 1.5	0.5	2.7	1.0	15.4	18.0	538
374O2502	24 x 1.5	0.5	2.7	1.0	18.3	21.3	684
374O2602	32 x 1.5	0.5	2.7	1.2	20.0	23.4	859
374O2702	37 x 1.5	0.5	2.7	1.2	20.8	24.2	964
374O2802	4 x 2.5	0.5	3.1	1.2	9.0	10.6	185
374O2902	7 x 2.5	0.5	3.1	0.7	11.0	12.8	299
374O3002	9 x 2.5	0.5	3.1	0.8	13.7	15.7	393
374O3102	12 x 2.5	0.5	3.1	1.0	14.9	17.1	515
374O3202	19 x 2.5	0.5	3.1	1.0	17.6	20.2	764
374O3302	24 x 2.5	0.5	3.1	1.2	20.5	23.5	949

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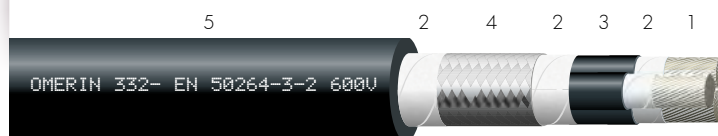
CABLE SOLUTIONS
FOR ROLLING STOCK

STANDARD POWER CABLES - EN 50264-3

VARPREN® RW

EN 50264-3-2 600V MM S

Sheathed and screened cable



- 1 • Tin-plated copper core - class 5 - EN 60228.
- 2 • Separating tape (optional).
- 3 • Fire resistant elastomer - type EI 109 as per EN 50264-3-2.
- 4 • Tin-plated copper braid.
- 5 • Fire resistant elastomer - type EM 104 as per EN 50264-3-2.

Characteristics

Thermal

Continuous operating temperature:
-40 °C to +90 °C.

Electrical

Operating voltage: 0.6 / 1 kV.
Test voltage: 3.5 kV A.C.

Mechanical

Cut-through resistance: ★★★★★
Resistance to abrasion: ★★★★★
Minimum static internal bending radius:
as per EN 50355 (Table 16)
and EN 50343 (Table 4)

Chemical

Acid and base resistance: ★★★★★
Mineral oil resistance: ★★★★★
Fuel resistance only for class M: ★★★★★

Fire-smoke

Halogen-free (EN 60754-1).
Low toxicity (EN 60754-2).
Low smoke (EN 61034-2).
Flame retardant (EN 60332-1-2, EN 60332-3-24).

Options

Other cross-sections or constructions on request.
VARPREN® RW EN 50264-2-2 600V MM S on request.

Standards and approvals

- EN 60228, EN 50264-3-2.
- EN 60754-1, EN 60754-2.
- EN 60332-1-2, EN 60332-3-24, EN 61034-2.

Marking

OMERIN 332- EN 50264-3-2 600V number of cores < cross-section > MM S - batch number - week/year

Item code	Nominal cross-section (mm ²)	Nominal insulation thickness (mm)	Nominal conductor diameter (mm)	Nominal sheath thickness (mm)	Cable outer diameter (mm)		Approx. linear weight (kg/km)
					Mini	Maxi	
374P0302	2 x 1.5	0.7	3.1	0.7	7.8	9.4	103
374P0802	3 x 1.5	0.7	3.1	0.7	8.3	9.9	129
374P0502	4 x 1.5	0.7	3.1	0.7	9.2	10.6	157
374P0402	2 x 2.5	0.7	3.5	0.7	8.4	10.7	132
374P0702	3 x 2.5	0.7	3.5	0.7	8.5	11.7	169
374P1802	4 x 2.5	0.7	3.5	0.8	10.5	12.1	93
374P1902	2 x 4	0.7	4.0	0.8	9.1	11.7	172
374P0102	3 x 4	0.7	4.0	0.8	9.4	12.7	230
374P0202	4 x 4	0.7	4.0	0.8	11.1	13.1	286
374P1202	2 x 6	0.7	4.6	0.8	10.4	13.5	233
374P2002	3 x 6	0.7	4.6	0.8	10.8	14.6	307
374P0902	4 x 6	0.7	4.6	1.0	12.6	15.9	399
374P1302	2 x 10	0.7	5.8	1.0	12.9	17.0	353
374P2102	3 x 10	0.7	5.8	1.0	13.6	18.5	494
374P2202	4 x 10	0.7	5.8	1.0	16.3	18.8	619
374P2302	2 x 16	0.7	7.0	1.0	15.4	19.8	520
374P1002	3 x 16	0.7	7.0	1.2	16.3	21.8	717
374P2402	4 x 16	0.7	7.0	1.2	18.8	23.0	906
374P2502	2 x 25	0.9	8.8	1.2	19.0	24.2	772
374P2602	3 x 25	0.9	8.8	1.2	19.5	26.5	1049
374P2702	4 x 25	0.9	8.8	1.4	24.3	27.3	1400
374P2802	2 x 35	0.9	10.2	1.4	21.7	27.8	1057
374P2902	3 x 35	0.9	10.2	1.4	22.9	29.9	1436
374P3002	2 x 50	1.0	11.2	1.4	24.8	32.0	1407
374P3102	3 x 50	1.0	12.0	1.6	28.1	33.2	1966

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* Sections not specified by the standard EN 50264-3-2 600V MM S.

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HIGH TEMPERATURE POWER CABLES EN 50382-2

FT No.	PRODUCT REFERENCE	PAGE
5300	HIGH TEMPERATURE POWER CABLES – EN 50382-2	24
5301	SILICABLE® RW EN 50382-2 1800V F 120 °C	26
5302	SILICABLE® RW EN 50382-2 1800V F 150 °C	27
5303	SILICABLE® RW EN 50382-2 3600V F 120 °C	28
5304	SILICABLE® RW EN 50382-2 3600V F 150 °C	29
5305	SILICABLE® RW EN 50382-2 1800V FF 120 °C	30
5306	SILICABLE® RW EN 50382-2 1800V FF 150 °C	31
5307	SILICABLE® RW EN 50382-2 3600V FF 150 °C	32
5308	SILICABLE® RW EN 50382-2 3600V FF 120 °C	33
5309	SILICABLE® RW EN 50382-2 3600V FXZ 120 °C	34
5310	SILICABLE® RW EN 50382-2 3600V FXZ 150 °C	35
5311	SILICABLE® RW EN 50382-2 1800V FF S 120 °C	36
5312	SILICABLE® RW EN 50382-2 3600V FF S 120 °C	37
5313	SILICABLE® RW EN 50382-2 3600V FFXZ S 120 °C	38

CABLE SOLUTIONS
FOR ROLLING STOCKHIGH TEMPERATURE
POWER CABLES

EN 50382-2

FT No.	OMERIN reference	Single or multicore type	Core insulation type	Core insulation thickness	Screened by a tin-plated copper braid	Outer sheath type	Operating temperature (°C)	Operating voltage (V)	IRM902 Mineral Oil Resistant	IRM 903 Fuel Resistant	Halogen-free Low Smoke	Application
				Standard								
5301	SILICABLE RW EN 50382-2 1800V F 120 °C	Single core	EI 111	✓			120	1800	✓		✓	High temperature power cables with special fire performance for traction and power circuits.
5302	SILICABLE RW EN 50382-2 1800V F 150 °C	Single core	EI 111	✓			150	1800	✓		✓	High temperature power cables with special fire performance for traction and power circuits.
5303	SILICABLE RW EN 50382-2 3600V F 120 °C	Single core	EI 111	✓			120	3600	✓		✓	High temperature power cables with special fire performance for traction and power circuits.
5304	SILICABLE RW EN 50382-2 3600V F 150 °C	Single core	EI 111	✓			150	3600	✓		✓	High temperature power cables with special fire performance for traction and power circuits.
5305	SILICABLE RW EN 50382-2 1800V FF 120 °C	Single core	EI 111	✓		EM 106	120	1800	✓		✓	High temperature power cables with special fire performance for traction and power circuits, with protective outer sheath and flexible class 5 tin-plated copper core.
5306	SILICABLE RW EN 50382-2 1800V FF 150 °C	Single core	EI 111	✓		EM 107	150	1800	✓		✓	High temperature power cables with special fire performance for traction and power circuits, with protective outer sheath and flexible class 5 bare copper core.
5307	SILICABLE RW EN 50382-2 3600V FF 150 °C	Single core	EI 111	✓		EM 107	150	3600	✓		✓	High temperature power cables with special fire performance for traction and power circuits, with protective outer sheath and flexible class 5 bare copper core.
5308	SILICABLE RW EN 50382-2 3600V FF 120 °C	Single core	EI 111	✓		EM 106	120	3600	✓		✓	High temperature power cables with special fire performance for traction and power circuits, with protective outer sheath and flexible class 5 bare copper core.
5309	SILICABLE RW EN 50382-2 3600V FXZ 120 °C	Single core	EI 111	✓			120	3600	✓		✓	High temperature power cables with special fire performance for traction and power circuits, with synthetic reinforcing braid within the insulation and extra flexible class 6 tin-plated copper core.
5310	SILICABLE RW EN 50382-2 3600V FXZ 150 °C	Single core	EI 111	✓			150	3600	✓		✓	High temperature power cables with special fire performance for traction and power circuits, with synthetic reinforcing braid within the insulation and extra flexible class 6 tin-plated copper core.

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FT No.	OMERIN reference	Single or multicore type	Core insulation type	Core insulation thickness	Screened by a tin-plated copper braid	Outer sheath type	Operating temperature (°C)	Operating voltage (V)	IRM902 Mineral Oil Resistant	IRM 903 Fuel Resistant	Halogen-free Low Smoke	Application
				Standard								
5311	SILICABLE RW EN 50382-2 1800V FF S 120 °C	Single core	EI 111	✓	✓	EM 107	120	1800	✓		✓	High temperature power cables with special fire performance for traction and power circuits, with synthetic reinforcing braid within the insulation and extra flexible class 5 tin-plated copper core.
5312	SILICABLE RW EN 50382-2 3600V FF S 120 °C	Single core	EI 111	✓	✓	EMI 107	120	3600	✓		✓	High temperature power cables with special fire performance for traction and power circuits, with synthetic reinforcing braid within the insulation, tin-plated copper braid screen and extra flexible class 6 tin-plated copper core.
5313	SILICABLE RW EN 50382-2 3600V FFXZS 120 °C	Single core	EI 111	✓	✓	EM 107	120	3600	✓		✓	High temperature power cables with special fire performance for traction and power circuits, with synthetic reinforcing braid within the insulation and extra flexible class 5 tin-plated copper core.

CABLE SOLUTIONS
FOR ROLLING STOCK

SILICABLE® RW

EN 50382-2 1800V F 120 °C

Unsheathed cable

HIGH TEMPERATURE POWER CABLES
EN 50382-2

- 1 • Flexible tin-plated copper core - class 5 - EN 60228.
- 2 • Separating tape (optional).
- 3 • Silicone rubber with high mechanical properties - type EI 111 as per EN 50382-1.

Characteristics

Thermal

Continuous operating temperature:
-40 °C to +120 °C.

Electrical

Operating voltage: 1.8 / 3 kV.
Test voltage: 6.5 kV A.C.

Mechanical

Resistance to alternate bending: ★★★★★
Resistance to abrasion: ★★★★★
Minimum static internal bending radius
(EN 50355): 3xD.

Chemical

Acid and base resistance: ★★★★★
Mineral oil resistance: ★★★★★

Fire-smoke

Halogen-free (EN 60754-1).
Low toxicity (EN 60754-2).
Low smoke (EN 61034-2).
Flame retardant (EN 60332-1-2, EN 60332-3-24).
Fire-smoke protection (EN 45545-2, NFPA 130).

Options

Cable with synthetic reinforcing braid.

Ref: SILICABLE® RW EN 50382-2 1800V FZ 120 °C.
Temperature 150 °C authorized for CuSn.

Standards and approvals

- EN 60228, EN 50382-1, EN 50382-2.
- EN 60754-1, EN 60754-2.
- EN 60332-1-2, EN 60332-3-24, EN 61034-2.

Marking

OMERIN 369- EN 50382-2 1800V 1x < cross-section > F 120 °C - batch number - week/year

Item code	Nominal cross-section (mm²)	Nominal stranding	Nominal wall thickness (mm)	Cable outer diameter (mm)		Maximum linear resistance at 20 °C (Ω/km)	Approx. linear weight (kg/km)
				Mini	Maxi		
A0821005	1.5	30 x 0.25	2.5	6.3	7.3	13.7	60
A0821006	2.5	50 x 0.25	2.5	6.7	7.8	8.21	70
A0821007	4	56 x 0.30	2.5	7.2	8.4	5.09	90
A0821008	6	84 x 0.30	2.5	7.7	9	3.39	115
A0821009	10	80 x 0.40	2.5	8.5	10	1.95	160
A0821010	16	126 x 0.40	2.5	9.6	11.2	1.24	230
A0821003	25	196 x 0.40	2.5	10.9	12.7	0.795	320
A0821011	35	276 x 0.40	2.5	12.1	14.1	0.565	420
A0821012	50	396 x 0.40	2.5	13.5	15.8	0.393	570
A0821004	70	360 x 0.50	2.5	15.2	17.8	0.277	770
A0821002	95	485 x 0.50	2.7	17	19.9	0.210	1030
A0821013	120	608 x 0.50	2.7	18.6	21.7	0.164	1270
A0821014	150	756 x 0.50	2.7	20.1	23.5	0.132	1560
A0821001	185	944 x 0.50	2.7	21.7	25.4	0.108	1900
A0821015	240	1221 x 0.50	2.7	24.1	28.2	0.0817	2410
A0821016	300	1525 x 0.50	2.7	26.4	30.9	0.0654	2970
A0821017	400	2037 x 0.50	2.9	29.9	34.9	0.0495	3900

If textile braid, maximal diameter should be increased by 0.8 mm.

For this product, please contact :

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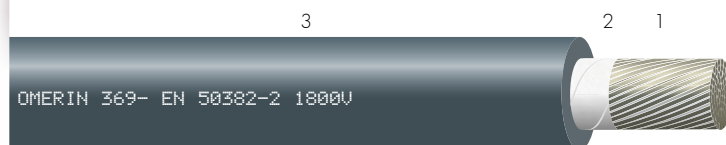
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LES CABLES DE L'EXTREME

CABLE SOLUTIONS
FOR ROLLING STOCK

SILICABLE® RW

EN 50382-2 1800V F 150 °C

Unsheathed cable

HIGH TEMPERATURE POWER CABLES
EN 50382-2

- 1 • Flexible tin-plated copper core - class 5 - EN 60228.
- 2 • Separating tape (optional).
- 3 • Silicone rubber with high mechanical properties - type EI 111 as per EN 50382-1.

Characteristics

Thermal

Continuous operating temperature:
-40 °C to +150 °C.

Electrical

Operating voltage: 1.8 / 3 kV.
Test voltage: 6.5 kV A.C.

Mechanical

Resistance to alternate bending: ★★★★★
Resistance to abrasion: ★★★★★
Minimum static internal bending radius
(EN 50355): 3xD.

Chemical

Acid and base resistance: ★★★★★
Mineral oil resistance: ★★★★★

Fire-smoke

Halogen-free (EN 60754-1).
Low toxicity (EN 60754-2).
Low smoke (EN 61034-2).
Flame retardant (EN 60332-1-2, EN 60332-3-24).
Fire-smoke protection (EN 45545-2).

Options

Cable with synthetic reinforcing braid.

Ref: SILICABLE® RW EN 50382-2 1800V FZ 150 °C.
Flexible red copper core - class 5 - EN 60228.

Standards and approvals

- EN 60228, EN 50382-1, EN 50382-2.
- EN 60754-1, EN 60754-2.
- EN 60332-1-2, EN 60332-3-24, EN 61034-2.

Marking

OMERIN 369- EN 50382-2 1800V 1x < cross-section > F 150 °C - batch number - week/year

Item code	Nominal cross-section (mm²)	Nominal stranding	Nominal wall thickness (mm)	Cable outer diameter (mm)		Maximum linear resistance at 20 °C (Ω/km)	Approx. linear weight (kg/km)
				Mini	Maxi		
A0822005	1.5	30 x 0.25	2.5	6.3	7.3	13.3	60
A0822006	2.5	50 x 0.25	2.5	6.7	7.8	7.98	70
A0822023	4	56 x 0.30	2.5	7.2	8.4	4.95	90
A0822007	6	84 x 0.30	2.5	7.7	9	3.30	115
A0822010	10	80 x 0.40	2.5	8.5	10	1.91	160
A0822011	16	126 x 0.40	2.5	9.6	11.2	1.21	230
A0822012	25	196 x 0.40	2.5	10.9	12.7	0.78	320
A0822013	35	276 x 0.40	2.5	12.1	14.1	0.554	420
A0822014	50	396 x 0.40	2.5	13.5	15.8	0.386	570
A0822015	70	360 x 0.50	2.5	15.2	17.8	0.272	770
A0822016	95	485 x 0.50	2.7	17	19.9	0.206	1030
A0822017	120	608 x 0.50	2.7	18.6	21.7	0.161	1270
A0822018	150	756 x 0.50	2.7	20.1	23.5	0.129	1560
A0822019	185	944 x 0.50	2.7	21.7	25.4	0.106	1900
A0822020	240	1221 x 0.50	2.7	24.1	28.2	0.0801	2410
A0822021	300	1525 x 0.50	2.7	26.4	30.9	0.0641	2970
A0822022	400	2037 x 0.50	2.9	29.9	34.9	0.0486	3900

If textile braid, maximal diameter should be increased by 0.8 mm.

For this product, please contact :

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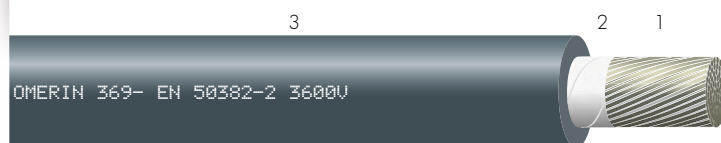
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CABLE SOLUTIONS
FOR ROLLING STOCK**SILICABLE® RW**
EN 50382-2 3600V F 120°C
Unsheathed cableHIGH TEMPERATURE POWER CABLES
EN 50382-2

- 1 • Flexible tin-plated copper core - class 5 - EN 60228.
- 2 • Separating tape (optional).
- 3 • Silicone rubber with high mechanical properties - type EI 111 as per EN 50382-1.

Characteristics**Thermal**

Continuous operating temperature:
-40 °C to +120 °C.

Electrical

Operating voltage: 3.6 / 6 kV.
Test voltage: 11 kV A.C.

Mechanical

Resistance to alternate bending: ★★★★★
Resistance to abrasion: ★★★★★
Minimum static internal bending radius
(EN 50355): 3xD.

Chemical

Acid and base resistance: ★★★★★
Mineral oil resistance: ★★★★★

Fire-smoke

Halogen-free (EN 60754-1).
Low toxicity (EN 60754-2).
Low smoke (EN 61034-2).
Flame retardant (EN 60332-1-2, EN 60332-3-24).
Fire-smoke protection (EN 45545-2, NFPA 130).

Options

Cable with synthetic reinforcing braid.
Ref: SILICABLE® RW EN 50382-2 3600V FZ 120°C.
Temperature 150°C authorized for CuSn.

Standards and approvals

- EN 60228, EN 50382-1, EN 50382-2.
- EN 60754-1, EN 60754-2.
- EN 60332-1-2, EN 60332-3-24, EN 61034-2.

Marking

OMERIN 369- EN 50382-2 3600V 1x < cross-section > F 120°C - batch number - week/year

Item code	Nominal cross-section (mm²)	Nominal stranding	Nominal wall thickness (mm)	Cable outer diameter (mm)		Maximum linear resistance at 20 °C (Ω/km)	Approx. linear weight (kg/km)
				Mini	Maxi		
A0819001	2.5	50 x 0.25	3	7.6	8.9	8.21	80
A0819002	4	56 x 0.30	3	8.1	9.5	5.09	100
A0819003	6	84 x 0.30	3	9.0	10.6	3.39	130
A0819004	10	80 x 0.40	3	9.5	11.1	1.95	180
A0819005	16	126 x 0.40	3	10.5	12.3	1.24	250
A0819006	25	196 x 0.40	3	11.8	13.8	0.795	350
A0819007	35	276 x 0.40	3	13.0	15.2	0.565	450
A0819008	50	396 x 0.40	3	14.4	16.9	0.393	600
A0819009	70	360 x 0.50	3	16.1	18.9	0.277	800
A0819010	95	485 x 0.50	3	17.5	20.5	0.210	1050
A0819011	120	608 x 0.50	3.1	19.3	22.6	0.164	1300
A0819012	150	756 x 0.50	3.1	20.8	24.4	0.132	1550
A0819013	185	944 x 0.50	3.2	22.6	26.5	0.108	1950
A0819014	240	1221 x 0.50	3.4	25.4	29.8	0.0817	2500
A0819015	300	1525 x 0.50	3.4	27.7	32.4	0.0654	3050
A0819016	400	2037 x 0.50	3.4	30.8	36.0	0.0495	3950

If textile braid, maximal diameter should be increased by 0.8 mm.

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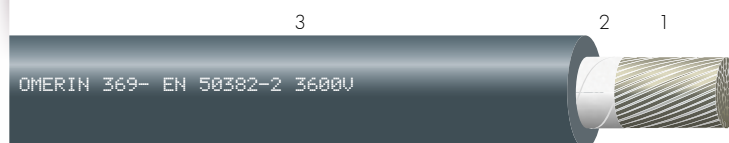
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CABLE SOLUTIONS
FOR ROLLING STOCK**SILICABLE® RW**
EN 50382-2 3600V F 150°C
Unsheathed cableHIGH TEMPERATURE POWER CABLES
EN 50382-2

- 1 • Flexible tin-plated copper core - class 5 - EN 60228.
- 2 • Separating tape (optional).
- 3 • Silicone rubber with high mechanical properties - type EI 111 as per EN 50382-1.

Characteristics**Thermal**

Continuous operating temperature:
-40 °C to +150 °C.

Electrical

Operating voltage: 3.6 / 6 kV.
Test voltage: 11 kV A.C.

Mechanical

Resistance to alternate bending: ★★★★★
Resistance to abrasion: ★★★★★
Minimum static internal bending radius
(EN 50355): 3xD.

Chemical

Acid and base resistance: ★★★★★
Mineral oil resistance: ★★★★★

Fire-smoke

Halogen-free (EN 60754-1).
Low toxicity (EN 60754-2).
Low smoke (EN 61034-2).
Flame retardant (EN 60332-1-2, EN 60332-3-24).
Fire-smoke protection (EN 45545-2).

Options

Cable with synthetic reinforcing braid.
Ref: SILICABLE® RW EN 50382-2 3600V FZ 150 °C.
Flexible red copper core - class 5 - EN 60228.

Standards and approvals

- EN 60228, EN 50382-1, EN 50382-2.
- EN 60754-1, EN 60754-2.
- EN 60332-1-2, EN 60332-3-24, EN 61034-2

Marking

OMERIN 369- EN 50382-2 3600V 1x < cross-section > F 150 °C - batch number - week/year

Item code	Nominal cross-section (mm²)	Nominal stranding	Nominal wall thickness (mm)	Cable outer diameter (mm)		Maximum linear resistance at 20 °C (Ω/km)	Approx. linear weight (kg/km)
				Mini	Maxi		
A0820007	2.5	50 x 0.25	3	7.6	8.9	7.98	80
A0820008	4	56 x 0.30	3	8.1	9.5	4.95	100
A0820009	6	84 x 0.30	3	9.0	10.6	3.30	130
A0820010	10	80 x 0.40	3	9.5	11.1	1.91	180
A0820022	16	126 x 0.40	3	10.5	12.3	1.21	250
A0820011	25	196 x 0.40	3	11.8	13.8	0.780	350
A0820012	35	276 x 0.40	3	13.0	15.2	0.554	450
A0820013	50	396 x 0.40	3	14.4	16.9	0.386	600
A0820005	70	360 x 0.50	3	16.1	18.9	0.272	800
A0820015	95	485 x 0.50	3	17.5	20.5	0.206	1050
A0820004	120	608 x 0.50	3.1	19.3	22.6	0.161	1300
A0820017	150	756 x 0.50	3.1	20.8	24.4	0.129	1550
A0820018	185	944 x 0.50	3.2	22.6	26.5	0.106	1950
A0820019	240	1221 x 0.50	3.4	25.4	29.8	0.0801	2500
A0820020	300	1525 x 0.50	3.4	27.7	32.4	0.0641	3050
A0820021	400	2037 x 0.50	3.4	30.8	36.0	0.0486	3950

If textile braid, maximal diameter should be increased by 0.8 mm.

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CABLE SOLUTIONS
FOR ROLLING STOCK**SILICABLE® RW**
EN 50382-2 1800V FF 120 °C
Sheathed cableHIGH TEMPERATURE POWER CABLES
EN 50382-2**Characteristics****Thermal**

Continuous operating temperature:
-40 °C to +120 °C.

Electrical

Operating voltage: 1.8 / 3 kV.
Test voltage: 6.5 kV A.C.

Mechanical

Cut-through resistance: ★★★★★
Resistance to alternate bending: ★★★★★
Resistance to abrasion: ★★★★★
Minimum static internal bending radius:
8xD.

Chemical

Acid and base resistance: ★★★★★
Mineral oil resistance: ★★★★★

Fire-smoke

Halogen-free (EN 60754-1).
Low toxicity (EN 60754-2).
Low smoke (EN 61034-2).
Flame retardant (EN 60332-1-2, EN 60332-3-24).

Options

Temperature 150 °C authorized for CuSn.

Standards and approvals

- EN 60228, EN 50382-1, EN 50382-2.
- EN 60754-1, EN 60754-2.
- EN 60332-1-2, EN 60332-3-24, EN 61034-2.

Marking

OMERIN 369- EN 50382-2 1800V 1x < cross-section > FF 120 °C - batch number - week/year

Item code	Nominal cross-section (mm²)	Nominal stranding	Nominal insulation thickness (mm)	Nominal sheath thickness (mm)	Cable outer diameter (mm)		Maximum linear resistance at 20 °C (Ω/km)	Approx. linear weight (kg/km)
					Mini	Maxi		
A0823001	1.5	30 x 0.25	1.3	1.4	6.8	7.9	13.7	60
A0823002	2.5	50 x 0.25	1.3	1.4	7.2	8.4	8.21	75
A0823003	4	56 x 0.30	1.3	1.4	7.7	9.0	5.09	100
A0823004	6	84 x 0.30	1.3	1.4	8.2	9.6	3.39	120
A0823005	10	80 x 0.40	1.5	1.4	9.4	11	1.95	180
A0823006	16	126 x 0.40	1.5	1.4	10.5	12.2	1.24	240
A0823007	25	196 x 0.40	1.8	1.4	12.3	14.4	0.795	360
A0823008	35	276 x 0.40	1.8	1.4	13.6	15.9	0.565	460
A0823009	50	396 x 0.40	1.8	1.4	15	17.5	0.393	610
A0823010	70	360 x 0.50	1.8	1.5	16.8	19.7	0.277	830
A0823011	95	485 x 0.50	2.2	1.5	19	22.2	0.210	1100
A0823012	120	608 x 0.50	2.2	1.6	20.8	24.3	0.164	1360
A0823013	150	756 x 0.50	2.2	1.6	22.3	26.1	0.132	1660
A0823014	185	944 x 0.50	2.4	1.7	24.5	28.6	0.108	2030
A0823015	240	1221 x 0.50	2.4	1.8	27.1	31.7	0.0817	2580
A0823016	300	1525 x 0.50	2.4	1.9	29.5	34.6	0.0654	3180
A0823017	400	2037 x 0.50	2.6	2	33.2	38.9	0.0495	4180

For this product, please contact :

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CABLE SOLUTIONS
FOR ROLLING STOCK**SILICABLE® RW**
EN 50382-2 1800V FF 150 °C
Sheathed cableHIGH TEMPERATURE POWER CABLES
EN 50382-2

- 1 • Flexible tin-plated copper core - class 5 - EN 60228.
- 2 • Separating tape (optional).
- 3 • Silicone rubber with high mechanical properties - type EI 111 as per EN 50382-1.
- 4 • Silicone rubber with high mechanical properties - type EM 107 as per EN 50382-1.

Characteristics**Thermal**

Continuous operating temperature:
-40 °C at +150 °C.

Electrical

Operating voltage: 1.8 / 3 kV.
Test voltage: 6.5 kV A.C.

Mechanical

Cut-through resistance: ★★★★★
Resistance to alternate bending: ★★★★★
Resistance to abrasion: ★★★★★
Minimum static internal bending radius
(EN 50355): 5xD.

Chemical

Acid and base resistance: ★★★★★
Mineral oil resistance: ★★★★★

Fire-smoke

Halogen-free (EN 60754-1).
Low toxicity (EN 60754-2).
Low smoke (EN 61034-2).
Flame retardant (EN 60332-1-2, EN 60332-3-24).

Options

Flexible red copper core - class 5 - EN 60228.

Standards and approvals

- EN 60228, EN 50382-1, EN 50382-2.
- EN 60754-1, EN 60754-2.
- EN 60332-1-2, EN 60332-3-24, EN 61034-2.

Marking

OMERIN 369- EN 50382-2 1800V 1x < cross-section > FF 150 °C - batch number - week/year

Item code	Nominal cross-section (mm ²)	Nominal stranding	Nominal insulation thickness (mm)	Nominal sheath thickness (mm)	Cable outer diameter (mm)		Maximum linear resistance at 20 °C (Ω/km)	Approx. linear weight (kg/km)
					Mini	Maxi		
A0824001	1.5	30 x 0.25	1.3	1.4	6.8	7.9	13.3	60
A0824002	2.5	50 x 0.25	1.3	1.4	7.2	8.4	7.98	75
A0824003	4	56 x 0.30	1.3	1.4	7.7	9.0	4.95	100
A0824004	6	84 x 0.30	1.3	1.4	8.2	9.6	3.30	120
A0824005	10	80 x 0.40	1.5	1.4	9.4	11	1.91	180
A0824006	16	126 x 0.40	1.5	1.4	10.5	12.2	1.21	240
A0824007	25	196 x 0.40	1.8	1.4	12.3	14.4	0.78	360
A0824008	35	276 x 0.40	1.8	1.4	13.6	15.9	0.554	460
A0824009	50	396 x 0.40	1.8	1.4	15	17.5	0.386	610
A0824010	70	360 x 0.50	1.8	1.5	16.8	19.7	0.272	830
A0824011	95	485 x 0.50	2.2	1.5	19	22.2	0.206	1100
A0824012	120	608 x 0.50	2.2	1.6	20.8	24.3	0.161	1360
A0824013	150	756 x 0.50	2.2	1.6	22.3	26.1	0.129	1660
A0824014	185	944 x 0.50	2.4	1.7	24.5	28.6	0.106	2030
A0824015	240	1221 x 0.50	2.4	1.8	27.1	31.7	0.0801	2580
A0824016	300	1525 x 0.50	2.4	1.9	29.5	34.6	0.0641	3180
A0824017	400	2037 x 0.50	2.6	2	33.2	38.9	0.0486	4180

For this product, please contact :

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CABLE SOLUTIONS
FOR ROLLING STOCKHIGH TEMPERATURE POWER CABLES
EN 50382-2**SILICABLE® RW**
EN 50382-2 3600V FF 150 °C
Sheathed cable

- 1 • Flexible tin-plated copper core - class 5 - EN 60228.
- 2 • Separating tape (optional).
- 3 • Silicone rubber with high mechanical properties - type EI 111 as per EN 50382-1.
- 4 • Silicone rubber with high mechanical properties - type EM 107 as per EN 50382-1.

Characteristics**Thermal**

Continuous operating temperature:
-40 °C at +150 °C.

Electrical

Operating voltage: 3.6 / 6 kV.
Test voltage: 11 kV A.C.

Mechanical

Cut-through resistance: ★★★★★
Resistance to alternate bending: ★★★★★
Resistance to abrasion: ★★★★★
Minimum static internal bending radius
(EN 50355): 5xD.

Chemical

Acid and base resistance: ★★★★★
Mineral oil resistance: ★★★★★

Fire-smoke

Halogen-free (EN 60754-1).
Low toxicity (EN 60754-2).
Low smoke (EN 61034-2).
Flame retardant (EN 60332-1-2, EN 60332-3-24).

Options

Flexible red copper core - class 5 - EN 60228.

Standards and approvals

- EN 60228, EN 50382-1, EN 50382-2.
- EN 60754-1, EN 60754-2.
- EN 60332-1-2, EN 60332-3-24, EN 61034-2.

Marking

OMERIN 369- EN 50382-2 3600V 1x < cross-section > FF 150 °C - batch number - week/year

Item code	Nominal cross-section (mm²)	Nominal stranding	Nominal insulation thickness (mm)	Nominal sheath thickness (mm)	Cable outer diameter (mm)		Maximum linear resistance at 20 °C (Ω/km)	Approx. linear weight (kg/km)
					Mini	Maxi		
A0828007	2.5	50 x 0.25	2.6	1.4	9.9	11.6	7.98	120
A0828008	4	56 x 0.30	2.6	1.4	10.4	12.2	4.95	140
A0823009	6	84 x 0.30	2.6	1.4	10.9	12.8	3.30	170
A0823010	10	80 x 0.40	2.6	1.4	11.8	13.8	1.91	220
A0823011	16	126 x 0.40	2.6	1.4	12.8	15.0	1.21	300
A0823012	25	196 x 0.40	2.9	1.4	14.7	17.2	0.78	420
A0823013	35	276 x 0.40	2.9	1.4	15.9	18.6	0.554	520
A0823014	50	396 x 0.40	2.9	1.5	17.5	20.5	0.386	690
A0823015	70	360 x 0.50	2.9	1.5	19.2	22.4	0.272	910
A0823016	95	485 x 0.50	2.9	1.6	20.8	24.3	0.206	1170
A0823017	120	608 x 0.50	2.9	1.6	22.4	26.2	0.161	1420
A0823018	150	756 x 0.50	2.9	1.7	24.1	28.2	0.129	1740
A0823019	185	944 x 0.50	3.2	1.8	26.4	30.9	0.106	2130
A0823020	240	1221 x 0.50	3.4	1.9	29.4	34.4	0.0801	2710
A0823021	300	1525 x 0.50	3.4	1.9	31.7	37.1	0.0641	3310
A0823022	400	2037 x 0.50	3.4	2.0	35.0	40.9	0.0486	4300

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CABLE SOLUTIONS
FOR ROLLING STOCKHIGH TEMPERATURE POWER CABLES
EN 50382-2**SILICABLE® RW**
EN 50382-2 3600V FF 120 °C
Sheathed cable

- 1 • Flexible tin-plated copper core - class 5 - EN 60228.
- 2 • Separating tape (optional).
- 3 • Silicone rubber with high mechanical properties - type EI 111 as per EN 50382-1.
- 4 • Fire resistant elastomer with high mechanical properties - type EM 106. as per EN 50382-1.

Characteristics**Thermal**

Continuous operating temperature:
-40 °C at +120 °C.

Electrical

Operating voltage: 3.6 / 6 kV.
Test voltage: 11 kV A.C.

Mechanical

Cut-through resistance: ★★★★★
Resistance to alternate bending: ★★★★★
Resistance to abrasion: ★★★★★
Minimum static internal bending radius : 8xD.

Chemical

Acid and base resistance: ★★★★★
Mineral oil resistance: ★★★★★

Fire-smoke

Halogen-free (EN 60754-1).
Low toxicity (EN 60754-2).
Low smoke (EN 61034-2).
Flame retardant (EN 60332-1-2, EN 60332-3-24).

Standards and approvals

- EN 60228, EN 50382-1, EN 50382-2.
- EN 60754-1, EN 60754-2.
- EN 60332-1-2, EN 60332-3-24, EN 61034-2.

Marking

OMERIN 369- EN 50382-2 3600V 1x < cross-section > FF 120 °C - batch number - week/year

Item code	Nominal cross-section (mm²)	Nominal stranding	Nominal insulation thickness (mm)	Nominal sheath thickness (mm)	Cable outer diameter (mm)		Maximum linear resistance at 20 °C (Ω/km)	Approx. linear weight (kg/km)
					Mini	Maxi		
A0827002	2.5	50 x 0.25	2.6	1.4	9.9	11.6	8.21	120
A0827003	4	56 x 0.30	2.6	1.4	10.4	12.2	5.09	140
A0827004	6	84 x 0.30	2.6	1.4	10.9	12.8	3.39	170
A0827005	10	80 x 0.40	2.6	1.4	11.8	13.8	1.95	220
A0827006	16	126 x 0.40	2.6	1.4	12.8	15.0	1.24	300
A0827007	25	196 x 0.40	2.9	1.4	14.7	17.2	0.795	420
A0827008	35	276 x 0.40	2.9	1.4	15.9	18.6	0.565	520
A0827009	50	396 x 0.40	2.9	1.5	17.5	20.5	0.393	690
A0827010	70	360 x 0.50	2.9	1.5	19.2	22.4	0.277	910
A0827011	95	485 x 0.50	2.9	1.6	20.8	24.3	0.210	1170
A0827012	120	608 x 0.50	2.9	1.6	22.4	26.2	0.164	1420
A0827013	150	756 x 0.50	2.9	1.7	24.1	28.2	0.132	1740
A0827014	185	944 x 0.50	3.2	1.8	26.4	30.9	0.108	2130
A0827001	240	1221 x 0.50	3.4	1.9	29.4	34.4	0.0817	2710
A0827015	300	1525 x 0.50	3.4	1.9	31.7	37.1	0.0654	3310
A0827016	400	2037 x 0.50	3.4	2.0	35.0	40.9	0.0495	4310

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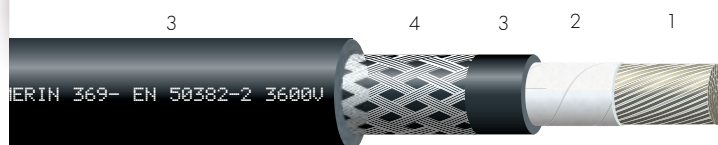
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CABLE SOLUTIONS
FOR ROLLING STOCK

SILICABLE® RW

EN 50382-2 3600V FXZ 120 °C

Unsheathed cable

HIGH TEMPERATURE POWER CABLES
EN 50382-2

- 1 • Extra-flexible tin-plated copper core - class 6 - EN 60228.
- 2 • Separating tape (optional).
- 3 • Silicone rubber with high mechanical properties - type EI 111 as per EN 50382-1.
- 4 • Synthetic reinforcing braid within the insulation.

Characteristics

Thermal

Continuous operating temperature:
-40 °C to +120 °C.

Electrical

Operating voltage: 3.6 / 6 kV.
Test voltage: 11 kV A.C.

Mechanical

Cut-through resistance: ★★★★★
Resistance to alternate bending: ★★★★★
Resistance to abrasion: ★★★★★
Minimum static internal bending radius
(EN 50355): 3xD.

Chemical

Acid and base resistance: ★★★★★
Mineral oil resistance: ★★★★★

Fire-smoke

Halogen-free (EN 60754-1).
Low toxicity (EN 60754-2).
Low smoke (EN 61034-2).
Flame retardant (EN 60332-1-2, EN 60332-3-24).
Fire-smoke protection (EN 45545-2, NFPA 130).

Options

Other cross-sections on request.

Standards and approvals

- EN 60228, EN 50382-1, EN 50382-2.
- EN 60754-1, EN 60754-2.
- EN 60332-1-2, EN 60332-3-24, EN 61034-2.

Marking

OMERIN 369- EN 50382-2 3600V 1x < cross-section > FXZ 120 °C - batch number - week/year

Item code	Nominal cross-section (mm²)	Nominal stranding	Total wall thickness (mm)	Cable outer diameter (mm)		Maximum linear resistance at 20 °C (Ω/km)	Approx. linear weight (kg/km)
				Mini	Maxi		
B2015001	50	703 x 0.30	3.0	15.2	18.6	0.393	610
B2015004	70	999 x 0.30	3.0	16.9	20.6	0.277	820
B2015002	95	1332 x 0.30	3.0	18.3	22.2	0.210	1060
B2015005	120	1739 x 0.30	3.1	20.1	24.3	0.164	1310
B2015006	150	2146 x 0.30	3.1	21.6	26.1	0.132	1610
B2015003	185	2590 x 0.30	3.2	23.4	28.2	0.108	1960

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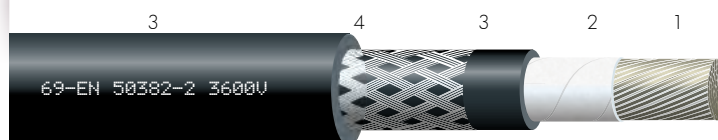
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CABLE SOLUTIONS
FOR ROLLING STOCK

SILICABLE® RW

EN 50382-2 3600V FXZ 150 °C

Unsheathed cable

HIGH TEMPERATURE POWER CABLES
EN 50382-2

- 1 • Extra-flexible tin-plated copper core - class 6 - EN 60228.
- 2 • Separating tape (optional).
- 3 • Silicone rubber with high mechanical properties - type EI 111 as per EN 50382-1.
- 4 • Synthetic reinforcing braid within the insulation.

Characteristics

Thermal

Continuous operating temperature:
-40 °C to +150 °C.

Electrical

Operating voltage: 3.6 / 6 kV.
Test voltage: 11 kV A.C.

Mechanical

Cut-through resistance: ★★★★★
Resistance to alternate bending: ★★★★★
Resistance to abrasion: ★★★★★
Minimum static internal bending radius
(EN 50355): 3xD.

Chemical

Acid and base resistance: ★★★★★
Mineral oil resistance: ★★★★★

Fire-smoke

Halogen-free (EN 60754-1).
Low toxicity (EN 60754-2).
Low smoke (EN 61034-2).
Flame retardant (EN 60332-1-2, EN 60332-3-24).
Fire-smoke protection (EN 45545-2).

Options

Other cross-sections on request.

Standards and approvals

- EN 60228, EN 50382-1, EN 50382-2.
- EN 60754-1, EN 60754-2.
- EN 60332-1-2, EN 60332-3-24, EN 61034-2.

Marking

OMERIN 369- EN 50382-2 3600V 1x < cross-section > FXZ 150 °C - batch number - week/year

Item code	Nominal cross-section (mm ²)	Nominal stranding	Total wall thickness (mm)	Cable outer diameter (mm)		Maximum linear resistance at 20 °C (Ω/km)	Approx. linear weight (kg/km)
				Mini	Maxi		
B2016002	50	703 x 0.30	3.0	15.2	18.6	0.393	610
B2016003	70	999 x 0.30	3.0	16.9	20.6	0.277	820
B2016004	95	1332 x 0.30	3.0	18.3	22.2	0.210	1060
B2016005	120	1739 x 0.30	3.1	20.1	24.3	0.164	1310
B2016001	150	2146 x 0.30	3.1	21.6	26.1	0.132	1610
B2016006	185	2590 x 0.30	3.2	23.4	28.2	0.108	1960

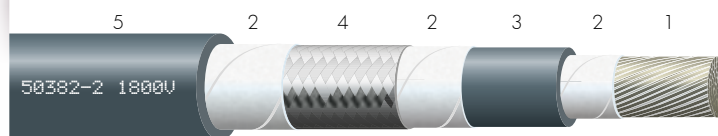
For this product, please contact :

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CABLE SOLUTIONS
FOR ROLLING STOCK**SILICABLE® RW**
EN 50382-2 1800V FF S 120 °C
Sheathed and screened cableHIGH TEMPERATURE POWER CABLES
EN 50382-2**Characteristics****Thermal**

Continuous operating temperature:
-40 °C to +120 °C.

Electrical

Operating voltage: 1.8 / 3 kV.
Test voltage: 6.5 kV A.C.

Mechanical

Cut-through resistance: ★★★★★
Resistance to alternate bending: ★★★★★
Resistance to abrasion: ★★★★★
Minimum static internal bending radius
(EN 50355): 10xD.

Chemical

Acid and base resistance: ★★★★★
Mineral oil resistance: ★★★★★

Fire-smoke

Halogen-free (EN 60754-1).
Low toxicity (EN 60754-2).
Flame retardant (EN 60332-1-2, EN 60332-3-24).
Fire-smoke protection (EN 45545-2).

Options

Temperature 150 °C authorized for CuSn.

- 1 • Flexible tin-plated copper core - class 5 - EN 60228.
- 2 • Separating tape (optional).
- 3 • Silicone rubber insulation with high mechanical properties - type EI 111 as per EN 50382-1.
- 4 • Tin-plated copper braid.
- 5 • Silicone rubber sheath with high mechanical properties - type EM 107 as per EN 50382-1.

Standards and approvals

- EN 60228, EN 50382-1, EN 50382-2.
- EN 60754-1, EN 60754-2.
- EN 60332-1-2, EN 60332-3-24, EN 61034-2.

Marking

OMERIN 369- EN 50382-2 1800V 1x < cross-section > FF S 120 °C - batch number - week/year

Item code	Nominal cross-section (mm²)	Nominal stranding	Nominal insulation thickness (mm)	Insulation diameter (mm)		Nominal sheath thickness (mm)	Cable outer diameter (mm)		Maximum linear resistance at 20 °C (Ω/km)	Approx. linear weight (kg/km)
				Mini	Maxi		Mini	Maxi		
A0835012	1.5	30 x 0.25	2.5	4.3	7.4	1.2	8	10.7	13.7	130
A0835013	2.5	50 x 0.25	2.5	4.8	7.9	1.4	8.5	11.7	8.21	160
A0835014	4	56 x 0.30	2.5	5.2	8.5	1.4	8.8	12.4	5.09	190
A0835015	6	84 x 0.30	2.5	5.7	9	1.4	9.3	12.9	3.39	220
A0835006	10	80 x 0.40	2.5	7.3	10.3	1.4	10.9	14.2	1.95	280
A0835009	16	126 x 0.40	2.5	8.4	11.4	1.5	12	15.5	1.24	365
A0835016	25	196 x 0.40	2.5	10	12.9	1.5	13.8	17.2	0.795	500
A0835002	35	276 x 0.40	2.5	11.4	14.4	1.5	15.2	18.7	0.565	635
A0835003	50	396 x 0.40	2.5	12.6	15.6	1.6	16.6	20.2	0.393	790
A0835001	70	360 x 0.50	2.5	14.5	18.1	1.8	18.7	23	0.277	1060
A0835008	95	485 x 0.50	2.7	16.4	20.4	1.8	20.8	25.3	0.210	1330
A0835005	120	608 x 0.50	2.7	18.6	22.1	2.0	23.3	27.6	0.164	1660
A0835007	150	756 x 0.50	2.7	20	24.4	2.2	24.8	30.3	0.132	2010
A0835004	185	944 x 0.50	2.7	22.6	26.1	2.4	27.6	32.6	0.108	2390
A0835017	240	1221 x 0.50	2.7	25	29	2.4	30.1	35.4	0.0817	2975
A0835018	300	1525 x 0.50	2.7	28.3	32.3	2.6	34	39.2	0.0654	3630
A0835019	400	2037 x 0.50	2.9	33.3	36.8	2.8	39.8	44	0.0495	4690

This product is a cable EN 50382-2 1800V F 120 °C screened and sheathed.
It is not described in EN 50382-1 and EN 50382-2 standards.

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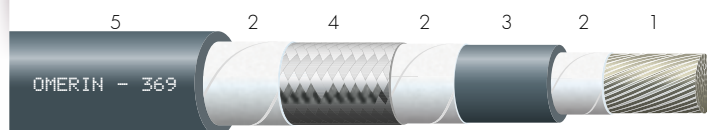
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CABLE SOLUTIONS
FOR ROLLING STOCK

SILICABLE® RW

EN 50382-2 3600V FF S 120 °C

Sheathed and screened cable

HIGH TEMPERATURE POWER CABLES
EN 50382-2

Characteristics

Thermal

Continuous operating temperature:
-40 °C to +120 °C.

Electrical

Operating voltage: 3.6 / 6 kV.
Test voltage: 11 kV A.C.

Mechanical

Cut-through resistance: ★★★★★
Resistance to alternate bending: ★★★★★
Resistance to abrasion: ★★★★★
Minimum static internal bending radius
(EN 50355): 10xD.

Chemical

Acid and base resistance: ★★★★★
Mineral oil resistance: ★★★★★

Fire-smoke

Halogen-free (EN 60754-1).
Low toxicity (EN 60754-2).
Flame retardant (EN 60332-1-2, EN 60332-3-24).

Standards and approvals

- EN 60228, EN 50382-1, EN 50382-2.
- EN 60754-1, EN 60754-2.
- EN 60332-1-2, EN 60332-3-24, EN 61034-2.

Marking

OMERIN 369- EN 50382-2 3600V 1x < cross-section > FF S 120 °C - batch number - week/year

Item code	Nominal cross-section (mm²)	Nominal stranding	Nominal insulation thickness (mm)	Insulation diameter (mm) Mini	Maxi	Nominal sheath thickness (mm)	Cable outer diameter (mm) Mini	Maxi	Maximum linear resistance at 20 °C (Ω/km)	Approx. linear weight (kg/km)
A0834017	2.5	50 x 0.25	3	7.6	9	1.4	11.3	13.5	8.21	195
A0834018	4	56 x 0.30	3	8.1	9.6	1.4	11.7	13.4	5.09	220
A0834019	6	84 x 0.30	3	8.6	10.1	1.4	12.3	14	3.39	250
A0834020	10	80 x 0.40	3	9.8	11.3	1.5	13.6	15.4	1.95	320
A0834021	16	126 x 0.40	3	10.8	12.5	1.5	14.6	16.6	1.24	400
A0834022	25	196 x 0.40	3	12.3	14.2	1.5	16.2	18.5	0.795	540
A0834023	35	276 x 0.40	3	13.7	15.2	1.6	17.7	19.7	0.565	660
A0834024	50	396 x 0.40	3	14.9	16.8	1.6	19.1	21.3	0.393	840
A0834025	70	360 x 0.50	3	16.8	19.1	1.8	21.2	24	0.277	1090
A0834026	95	485 x 0.50	3	18	21.1	2	22.6	26.7	0.210	1420
A0834027	120	608 x 0.50	3.1	20.1	22.9	2	25	28.5	0.164	1700
A0834028	150	756 x 0.50	3.1	21.6	25.3	2.4	26.5	31.7	0.132	2085
A0834029	185	944 x 0.50	3.2	24.2	27.3	2.4	29.5	33.7	0.108	2465
A0834030	240	1221 x 0.50	3.4	27.1	30.5	2.6	32.5	37.3	0.0817	3100
A0834031	300	1525 x 0.50	3.4	30.4	33.8	2.6	34.2	40.6	0.0654	3740
A0834032	400	2037 x 0.50	3.4	34.2	37.8	2.8	42.9	45	0.0495	4780

This product is a cable EN 50382-2 3600V 120 °C screened and sheathed.
It is not described in EN 50382-1 and EN 50382-2 standards.

For this product, please contact :

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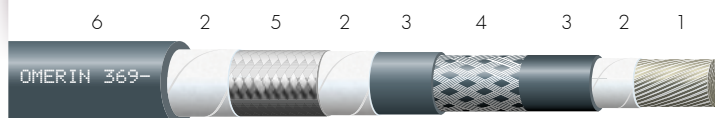
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CABLE SOLUTIONS
FOR ROLLING STOCK

SILICABLE® RW

EN 50382-2 3600V FFXZ S 120 °C

Sheathed and screened cable

HIGH TEMPERATURE POWER CABLES
EN 50382-2

Characteristics

Thermal

Continuous operating temperature:
-40 °C to +120 °C.

Electrical

Operating voltage: 3.6 / 6 kV.
Test voltage: 11 kV A.C.

Mechanical

Cut-through resistance: ★★★★★
Resistance to alternate bending: ★★★★★
Resistance to abrasion: ★★★★★
Minimum static internal bending radius
(EN 50355): 5xD.

Chemical

Acid and base resistance: ★★★★★
Mineral oil resistance: ★★★★★

Fire-smoke

Halogen-free (EN 60754-1).
Low toxicity (EN 60754-2).
Flame retardant (EN 60332-1-2, EN 60332-3-24).

Options

Other cross-sections on request.

- 1 • Extra-flexible tin-plated copper conductive core - class 6 - EN 60228.
- 2 • Separating tape (optional).
- 3 • Silicone rubber with high mechanical properties - type EI 111 as per EN 50382-1.
- 4 • Synthetic reinforcing braid within the insulation.
- 5 • Tin-plated copper braid.
- 6 • Silicone rubber with high mechanical properties - type EM 107 as per EN 50382-1.

Standards and approvals

- EN 60228, EN 50382-1, EN 50382-2.
- EN 60754-1, EN 60754-2.
- EN 60332-1-2, EN 60332-3-24, EN 61034-2.

Marking

OMERIN 369- EN 50382-2 3600V 1x < cross-section > FFXZ S 120 °C - batch number - week/year

Item code	Nominal cross-section (mm ²)	Nominal stranding	Nominal insulation thickness (mm)	Insulation diameter (mm)		Nominal sheath thickness (mm)	Cable outer diameter (mm)		Maximum linear resistance at 20 °C (Ω/km)	Approx. linear weight (kg/km)
				Mini	Maxi		Mini	Maxi		
B2024002	50	703 x 0.30	3.0	15.2	18.6	1.6	19.8	21.8	0.393	860
B2024001	70	999 x 0.30	3.0	16.9	20.6	1.8	22.4	24.4	0.277	1120
B2024003	95	1332 x 0.30	3.0	18.3	22.2	2	25.3	27.3	0.210	1470
B2024004	120	1739 x 0.30	3.1	20.1	24.3	2.3	28.5	30.5	0.164	1840
B2024005	150	2146 x 0.30	3.1	21.6	26.1	2.4	29.7	32.2	0.132	2150
B2024006	185	2590 x 0.30	3.2	23.4	28.2	2.4	31.7	34.2	0.108	2540

This product is a cable EN 50382-2 3600V FFXZ S 120 °C, screened and sheathed.
It is not described in EN 50382-1 and EN 50382-2 standards.

For this product, please contact :

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FIRE RESISTANT POWER CABLES EN 50264-3-1/-3-2 & EN 50200

FT No.	PRODUCT REFERENCE	PAGE
5400	FIRE RESISTANT POWER CABLES – EN 50264-2-1/-2-2 & EN 50200 / EN50264-3-1/-3-2 & EN 50200	40
5407	VARPREN® RW EN 50264-3-1 600V M FR	41
5408	VARPREN® RW EN 50264-3-1 1800V M FR	42
5409	VARPREN® RW EN 50264-3-2 300V MM FR	43
5410	VARPREN® RW EN 50264-3-2 600V MM FR	44
5411	VARPREN® RW EN 50264-3-2 300V MM S FR	45
5412	VARPREN® RW EN 50264-3-2 600V MM S FR	46

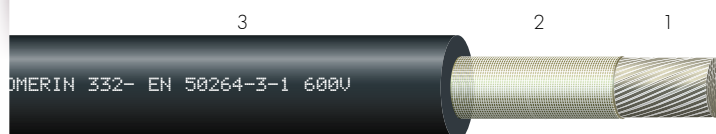
CABLE SOLUTIONS FOR ROLLING STOCK

FIRE RESISTANT POWER CABLES

EN 50264-2-1/-2-2 & EN 50200

EN 50264-3-1/-3-2 & EN 50200

FT No.	OMERIN reference	Single or multicore type	Core insulation type	Core insulation thickness		Screened by a tin-plated copper braid	Outer sheath type	Operating temperature (°C)	Operating voltage (V)	IRM902 Mineral Oil Resistant	IRM 903 Fuel Resistant	Halogen-free Low Smoke	Application
				Medium	Standard								
5407	VARPREN RW EN 50264-3-1 600V M FR	Single core	Mica tape + EI 109	✓				90	600	✓	✓	✓	Power cables with special fire performance used in medium voltage circuits.
5408	VARPREN RW EN 50264-3-1 1800V M FR	Single core	Mica tape + EI 109	✓		✓		90	1800	✓	✓	✓	Power cables with special fire performance used in medium voltage circuits.
5409	VARPREN RW EN 50264-3-2 300V MM FR	Multicore	Mica tape + EI 109	✓			EM 104	90	300	✓	✓	✓	Power cables with special fire performance used in medium voltage circuits.
5410	VARPREN RW EN 50264-3-2 600V MM FR	Multicore	Mica tape + EI 109	✓	✓		EM 104	90	600	✓	✓	✓	Power cables with special fire performance used in medium voltage circuits.
5411	VARPREN RW EN 50264-3-2 300V MM S FR	Multicore	Mica tape + EI 109	✓	✓	✓	EM 104	90	300	✓	✓	✓	Fire resistant power cables used inboards safety circuits, lighting circuits, auxiliary circuits with a tin-plated copper braid screen.
5412	VARPREN RW EN 50264-3-2 600V M S FR	Multicore	Mica tape + EI 109	✓		✓	EM 104	90	600	✓	✓	✓	Fire resistant power cables used inboards safety circuits, lighting circuits, auxiliary circuits, with a tin-plated copper braid screen.

CABLE SOLUTIONS
FOR ROLLING STOCK**VARPREN® RW**
EN 50264-3-1 600V M FR
*Unsheathed cable*FIRE RESISTANT POWER CABLES
EN 50264-3 & EN 50200

- 1 • Tin-plated copper core - class 5 - EN 60228.
- 2 • Mica tape.
- 3 • Fire resistant elastomer - type EI 109 as per EN 50264-3-1.

Characteristics**Thermal**

Continuous operating temperature:
-40 °C to +90 °C.

Electrical

Operating voltage: 0.6 / 1 kV.
Test voltage: 3.5 kV A.C.

Mechanical

Cut-through resistance: ★★★★★
Resistance to abrasion: ★★★★★
Minimum static internal bending radius:
as per EN 50355 (Table 16)
and EN 50343 (Table 4)

Chemical

Acid and base resistance: ★★★★★
Mineral oil resistance: ★★★★★
Fuel resistance only for class M: ★★★★★

Fire-smoke

Halogen-free (EN 60754-1).
Low toxicity (EN 60754-2).
Low smoke (EN 61034-2).
Flame retardant (EN 60332-1-2, EN 60332-3-24).
Fire resistance (EN 50200 or EN 50362).

Options

Other cross-sections or constructions on request.
VARPREN® RW EN 50264-2-1 600V M FR on request.

Marking

OMERIN 332- EN 50264-3-1 600V < cross-section > M FR - EN 50200 PH120 - batch number - week/year

Item code	Nominal cross-section (mm²)	Nominal stranding	Nominal wall thickness (mm)	Cable outer diameter (mm)		Maximum linear resistance at 20 °C (Ω/km)	Approx. linear weight (kg/km)
				Mini	Maxi		
379E0102	0.5	16 x 0.20	0.6	2.6	2.9	40.1	11
379E1802	0.75	24 x 0.20	0.6	2.8	3.1	26.7	13
379E0302	1	32 x 0.20	0.6	2.9	3.3	20	18
379E0402	1.5	30 x 0.25	0.7	3.4	3.8	13.7	25
379E0502	2.5	50 x 0.25	0.7	3.7	4.2	8.21	36
379E0602	4	56 x 0.30	0.7	4.3	4.9	5.09	49
379E0702	6	84 x 0.30	0.7	4.8	5.6	3.39	72
379E0802	10	80 x 0.40	0.7	6.1	6.9	1.95	114
379E0902	16	126 x 0.40	0.7	7.1	8.2	1.24	171
379E1002	25	196 x 0.40	0.9	8.9	10.2	0.795	265
379E1102	35	276 x 0.40	0.9	10.1	11.7	0.565	35
379E1202	50	396 x 0.40	1.0	11.6	13.4	0.393	488
379E1302	70	360 x 0.50	1.1	13.3	15.4	0.277	677
379E1402	95	485 x 0.50	1.1	14.9	17.3	0.210	870
379E1502	120	608 x 0.50	1.2	16.8	19.5	0.164	1107
379E1602	150	756 x 0.50	1.4	19.1	22.1	0.132	1407
379E1902	185	944 x 0.50	1.6	21.2	24.5	0.108	1735
379E2002	240	1221 x 0.50	1.7	23.9	27.7	0.0817	2288

This product is a cable EN 50264-3-1 600 V M with a mica tape on the core.
It is not described in EN 50264-1 and EN 50264-3-1 standards.

For this product, please contact :

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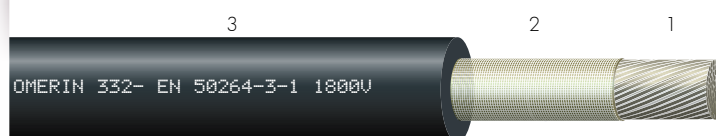
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CABLE SOLUTIONS
FOR ROLLING STOCK**VARPREN® RW**
EN 50264-3-1 1800V M FR
*Unsheathed cable*FIRE RESISTANT POWER CABLES
EN 50264-3 & EN 50200

- 1 • Tin-plated copper core - class 5 - EN 60228.
- 2 • Mica tape.
- 3 • Fire resistant elastomer - type EI 109 as per EN 50264-3-1.

Characteristics**Thermal**

Continuous operating temperature:
-40°C to +90°C.

Electrical

Operating voltage: 1.8 kV / 3 kV.
Test voltage: 6.5 kV A.C.

Mechanical

Cut-through resistance: ★★★★★
Resistance to abrasion: ★★★★★
Minimum static internal bending radius:
as per EN 50355 (Table 16)
and EN 50343 (Table 4)

Chemical

Acid and base resistance: ★★★★★
Mineral oil resistance: ★★★★★
Fuel resistance only for class M: ★★★★★

Fire-smoke

Halogen-free (EN 60754-1).
Low toxicity (EN 60754-2).
Low smoke (EN 61034-2).
Flame retardant (EN 60332-1-2, EN 60332-3-24).
Fire resistance (EN 50200 or EN 50362).

Options

Other cross-sections on request.
VARPREN® RW EN 50264-2-1 1800V M FR on request.

Marking

OMERIN 332- EN 50264-3-1 1800V < cross-section > M FR - EN 50200 PH120 - batch number - week/year

Item code	Nominal cross-section (mm²)	Nominal stranding	Nominal wall thickness (mm)	Cable outer diameter (mm)		Maximum linear resistance at 20 °C (Ω/km)	Approx. linear weight (kg/km)
				Mini	Maxi		
379F0102	1.5	30 x 0.25	2	5.6	6.5	13.7	54
379F0202	2.5	50 x 0.25	2	6.0	7.0	8.21	67
379F0302	4	56 x 0.30	2	6.5	7.6	5.09	84
379F0402	6	84 x 0.30	2	7.1	8.3	3.39	111
379F0502	10	80 x 0.40	2	8.3	9.6	1.95	162
379F0602	16	126 x 0.40	2	9.4	10.8	1.24	225
379F0702	25	196 x 0.40	2	10.7	12.4	0.795	319
379F0802	35	276 x 0.40	2	11.9	13.8	0.565	419
379F0902	50	396 x 0.40	2	13.2	15.3	0.393	551
379F1002	70	360 x 0.50	2	14.8	17.2	0.277	741
379F1102	95	485 x 0.50	2.2	16.7	19.4	0.210	958
379F1202	120	608 x 0.50	2.2	18.5	21.5	0.164	1197
379F1302	150	756 x 0.50	2.2	20.7	23.9	0.132	1507
379F1402	185	944 x 0.50	2.4	22.4	25.9	0.108	1823
379F1502	240	1221 x 0.50	2.4	25.0	28.8	0.0817	2374

This product is a cable EN 50264-3-1 1800 V M with a mica tape on the core.
It is not described in EN 50264-1 and EN 50264-3-1 standards.

For this product, please contact :

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CABLE SOLUTIONS
FOR ROLLING STOCK**VARPREN® RW**
EN 50264-3-2 300V MM FR
Sheathed cableFIRE RESISTANT POWER CABLES
EN 50264-2 & EN 50200 / EN 50264-3 & EN 50200

- 1 • Tin-plated copper core - class 5 - EN 60228.
- 2 • Mica tape.
- 3 • Black fire resistant elastomer - type EI 109 as per EN 50264-3-2.
- 4 • Separating tape (optional).
- 5 • Fire resistant elastomer - type EM 104 as per EN 50264-3-2.

Characteristics**Thermal**

Continuous operating temperature:
-40 °C to +90 °C.

Electrical

Operating voltage: 300 / 500 V.
Test voltage: 2 kV A.C.

Mechanical

Cut-through resistance: ★★★★★
Resistance to abrasion: ★★★★★☆
Minimum static internal bending radius:
as per EN 50355 (Table 16)
and EN 50343 (Table 4)

Chemical

Acid and base resistance: ★★★★★☆
Mineral oil resistance: ★★★★★☆
Fuel resistance only for class M: ★★★★★☆

Fire-smoke

Halogen-free (EN 60754-1).
Low toxicity (EN 60754-2).
Low smoke (EN 61034-2).
Flame retardant (EN 60332-1-2, EN 60332-3-24).
Fire resistance (EN 50200 or EN 50362).

Options

Other cross-sections or constructions on request.
VARPREN® RW EN 50264-2-2 300V MM FR on request.

Marking

OMERIN 332- EN 50264-3-2 300V < cross-section > MM FR - EN 50200 PH120 - batch number - week/year

Item code	Nominal cross-section (mm²)	Nominal insulation thickness (mm)	Nominal conductor diameter (mm)	Nominal sheath thickness (mm)	Cable outer diameter (mm)		Approx. linear weight (kg/km)
					Mini	Maxi	
379J0302	2 x 1	0.4	2.4	0.6	6.1	7.0	51
379J0402	4 x 1	0.4	2.4	0.6	7.0	8.1	83
379J0502	7 x 1	0.4	2.4	0.7	8.6	9.8	134
379J0602	9 x 1	0.4	2.4	0.7	10.4	11.9	171
379J0702	12 x 1	0.4	2.4	0.7	11.4	13.1	222
379J0802	19 x 1	0.4	2.4	0.8	13.3	15.3	329
379J0902	24 x 1	0.4	2.4	1.0	15.9	18.3	426
379J1002	32 x 1	0.4	2.4	1.0	17.4	20.1	547
379J1102	37 x 1	0.4	2.4	1.0	18.1	20.9	621
379J0102	4 x 1.5	0.5	2.9	0.7	8.3	9.6	118
379J1202	7 x 1.5	0.5	2.9	0.7	9.9	11.4	186
379J1302	9 x 1.5	0.5	2.9	0.8	12.3	14.1	244
379J1402	12 x 1.5	0.5	2.9	0.8	13.2	15.2	310
379J1502	19 x 1.5	0.5	2.9	1.0	15.9	18.3	481
379J1602	4 x 2.5	0.5	3.3	0.7	9.2	10.7	163
379J1702	7 x 2.5	0.5	3.3	0.8	11.3	13.0	270
379J1802	9 x 2.5	0.5	3.3	1.0	14.1	16.3	358
379J1902	12 x 2.5	0.5	3.3	1.0	15.2	17.6	457
379J2002	19 x 2.5	0.5	3.3	1.0	17.8	20.6	689

This product is a cable EN 50264-3-2 300 V MM with a mica tape on the core.
It is not described in EN 50264-1 and EN 50264-3-2 standards.

For this product, please contact :

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CABLE SOLUTIONS
FOR ROLLING STOCK**VARPREN® RW**
EN 50264-3-2 600V MM FR
Sheathed cableFIRE RESISTANT POWER CABLES
EN 50264-3 & EN 50200

- 1 • Tin-plated copper core - class 5 - EN 60228.
- 2 • Mica tape.
- 3 • Black fire resistant elastomer - type EI 109 as per EN 50264-3-2.
- 4 • Separating tape (optional).
- 5 • Fire resistant elastomer - type EM 104 as per EN 50264-3-2.

Characteristics**Thermal**

Continuous operating temperature:
-40 °C to +90 °C.

Electrical

Operating voltage: 0.6 / 1 kV.
Test voltage: 3.5 kV A.C.

Mechanical

Cut-through resistance: ★★★★★
Resistance to abrasion: ★★★★★
Minimum static internal bending radius:
as per EN 50355 (Table 16)
and EN 50343 (Table 4)

Chemical

Acid and base resistance: ★★★★★
Mineral oil resistance: ★★★★★
Fuel resistance only for class M: ★★★★★

Fire-smoke

Halogen-free (EN 60754-1).
Low toxicity (EN 60754-2).
Low smoke (EN 61034-2).
Flame retardant (EN 60332-1-2, EN 60332-3-24).
Fire resistance (EN 50200 or EN 50362).

Options

Other cross-sections or constructions on request.
VARPREN® RW EN 50264-2-2 600V MM FR on request.

Marking

OMERIN 332 - EN 50264-3-2 600V < cross-section > MM FR - EN 50200 PH120 - batch number - week/year

Item code	Nominal cross-section (mm²)	Nominal insulation thickness (mm)	Nominal conductor diameter (mm)	Nominal sheath thickness (mm)	Cable outer diameter (mm)		Approx. linear weight (kg/km)
					Mini	Maxi	
379L0102	2 x 1.5	0.7	3.5	0.7	8.0	9.8	84
379L0202	3 x 1.5	0.7	3.5	0.7	8.5	10.3	111
379L0302	4 x 1.5	0.7	3.5	0.7	9.3	11.3	140
379L0402	2 x 2.5	0.7	3.9	0.7	8.7	10.7	109
379L0502	3 x 2.5	0.7	3.9	0.7	9.3	11.3	148
379L0602	4 x 2.5	0.7	3.9	0.7	10.2	12.4	188
379L0702	2 x 4	0.7	4.5	0.7	9.8	12.0	140
379L0802	3 x 4	0.7	4.5	0.7	10.4	12.7	192
379L0902	4 x 4	0.7	4.5	0.8	11.5	14.0	246
379L1002	2 x 6	0.7	5.1	0.8	11.1	13.4	197
379L1102	3 x 6	0.7	5.1	0.8	11.8	14.3	272
379L1202	4 x 6	0.7	5.1	1.0	13.0	15.7	350
379L1302	2 x 10	0.7	6.4	1.0	13.8	16.7	308
379L1402	3 x 10	0.7	6.4	1.0	14.7	17.9	429
379L1502	4 x 10	0.7	6.4	1.0	16.1	19.6	552
379L1602	2 x 16	0.7	7.5	1.0	15.7	19.2	434
379L1702	3 x 16	0.7	7.5	1.0	16.9	20.5	612
379L1802	4 x 16	0.7	7.5	1.2	18.5	22.6	793
379L1902	2 x 25	0.9	9.4	1.2	19.5	23.8	663
379L2002	3 x 25	0.9	9.4	1.2	20.8	25.5	938
379L2102	4 x 25	0.9	9.4	1.4	23.0	28.0	1218
379L2202	2 x 35	0.9	10.7	1.2	21.9	26.6	867
379L2302	3 x 35	0.9	10.7	1.2	23.4	28.6	1236
379L2402	2 x 50	1.0	12.3	1.4	25.1	30.7	1174
379L2502	3 x 50	1.0	12.3	1.4	26.9	32.8	1677

This product is a cable EN 50264-3-2 600 V MM with a mica tape on the core.
It is not described in EN 50264-1 and EN 50264-3-2 standards.

For this product, please contact :

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CABLE SOLUTIONS
FOR ROLLING STOCK

VARPREN® RW

EN 50264-3-2 300V MM S FR

Sheathed and screened cable

FIRE RESISTANT POWER CABLES
EN 50264-3 & EN 50200

Characteristics

Thermal

Continuous operating temperature:
-40 °C to +90 °C.

Electrical

Operating voltage: 300 / 500 V.
Test voltage: 2 kV A.C.

Mechanical

Cut-through resistance: ★★★★★
Resistance to abrasion: ★★★★★
Minimum static internal bending radius:
as per EN 50355 (Table 16)
and EN 50343 (Table 4)

Chemical

Acid and base resistance: ★★★★★
Mineral oil resistance: ★★★★★
Fuel resistance only for class M: ★★★★★

Fire-smoke

Halogen-free (EN 60754-1).
Low toxicity (EN 60754-2).
Low smoke (EN 61034-2).
Flame retardant (EN 60332-1-2, EN 60332-3-24).
Fire resistance (EN 50200 or EN 50362).

Options

Other cross-sections or constructions on request.
VARPREN® RW EN 50264-2-2 600V MM FR on request.

Marking

OMERIN 332- TYPE EN 50264-3-2 300V < cross-section > MM S FR - EN 50200 PH120 -
batch number - week/year

Item code	Nominal cross-section (mm²)	Nominal insulation thickness (mm)	Nominal conductor diameter (mm)	Nominal sheath thickness (mm)	Cable outer diameter (mm)		Approx. linear weight (kg/km)
					Mini	Maxi	
379I0102	2 x 0.5	0.35	2.05	0.7	6.1	7.1	61
379I2002	3 x 0.5	0.35	2.05	0.7	6.4	7.4	68
379I1202	4 x 0.5	0.35	2.05	0.7	7.1	8.1	83
379I1102	6 x 0.5	0.35	2.05	0.8	8.2	9.2	110
379I1902	1 x 0.75	0.35	2.2	0.7	4.0	5.0	36
379I0602	2 x 0.75	0.35	2.2	0.7	6.5	7.5	74
379I1502	4 x 0.75	0.35	2.2	0.7	6.8	7.8	85
379I0302	1 x 1	0.4	2.7	0.8	4.5	5.5	43
379I0202	2 x 1	0.4	2.7	0.85	7.4	8.4	75
379I1602	3 x 1	0.4	2.7	0.85	7.8	8.8	100
379I1002	4 x 1	0.4	2.7	0.9	8.6	9.6	115
379I1402	6 x 1	0.4	2.7	0.9	9.9	11.3	178
379I2402	7 x 1	0.4	2.7	0.9	9.9	11.3	178
379I2102	8 x 1	0.4	2.7	0.9	11.8	13.2	220
379I2502	9 x 1	0.4	2.7	1.0	12.6	14.2	243
379I2602	12 x 1	0.4	2.7	1.0	13.0	14.8	294
379I2702	19 x 1	0.4	2.7	1.2	15.6	17.8	430
379I2802	24 x 1	0.4	2.7	1.2	18.2	20.8	560
379I2902	32 x 1	0.4	2.7	1.2	20.5	23.3	710
379I3002	37 x 1	0.4	2.7	1.2	21.3	24.1	800
379I0702	1 x 1.5	0.5	2.9	0.8	5.0	6.0	52
379I0402	2 x 1.5	0.5	2.9	0.8	8.0	9.0	112
379I1302	3 x 1.5	0.5	2.9	0.8	8.4	9.4	124
379I1702	4 x 1.5	0.5	2.9	0.9	8.8	10.2	151
379I0802	6 x 1.5	0.5	2.9	0.9	10.4	12.1	233
379I3102	7 x 1.5	0.5	2.9	0.9	10.4	12.1	233
379I0902	8 x 1.5	0.5	2.9	1.0	12.9	14.3	306
379I3202	9 x 1.5	0.5	2.9	1.0	13.1	15.2	316
379I3302	12 x 1.5	0.5	2.9	1.0	14.1	16.7	411
379I3402	19 x 1.5	0.5	2.9	1.0	16.3	19.4	585
379I0502	1 x 2.5	0.5	3.3	0.8	5.3	6.3	60
379I1802	2 x 2.5	0.5	3.3	0.8	8.8	9.8	140
379I3502	4 x 2.5	0.5	3.3	0.8	9.8	11.4	207
379I3602	7 x 2.5	0.5	3.3	0.8	11.8	13.7	323
379I3702	9 x 2.5	0.5	3.3	1.0	14.8	17.2	450
379I3802	12 x 2.5	0.5	3.3	1.0	16.0	18.5	557
379I3902	19 x 2.5	0.5	3.3	1.2	18.9	21.9	826

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This product is a cable EN 50264-3-2 300 V MM S with a mica tape on the core.
It is not described in EN 50264-1 and EN 50264-3-2 standards.

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CABLE SOLUTIONS
FOR ROLLING STOCKFIRE RESISTANT POWER CABLES
EN 50264-3 & EN 50200**VARPREN® RW**
EN 50264-3-2 600V MM S FR
Sheathed and screened cable**Characteristics****Thermal**

Continuous operating temperature:
-40 °C to +90 °C.

Electrical

Operating voltage: 0.6 / 1 kV.
Test voltage: 3.5 kV A.C.

Mechanical

Cut-through resistance: ★★★★★
Resistance to abrasion: ★★★★★
Minimum static internal bending radius:
as per EN 50355 (Table 16)
and EN 50343 (Table 4)

Chemical

Acid and base resistance: ★★★★★
Mineral oil resistance: ★★★★★
Fuel resistance only for class M: ★★★★★

Fire-smoke

Halogen-free (EN 60754-1).
Low toxicity (EN 60754-2).
Low smoke (EN 61034-2).
Flame retardant (EN 60332-1-2, EN 60332-3-24).
Fire resistance (EN 50200 or EN 50362).

Options

Other cross-sections or constructions on request.
VARPREN® RW EN 50264-2-2 600V MM S FR
on request.

Marking

OMERIN 332 - EN 50264-3-2 600V < cross-section > MM S FR - EN 50200 PH120 - batch number - week/year

Item code	Nominal cross-section (mm²)	Nominal insulation thickness (mm)	Nominal conductor diameter (mm)	Nominal sheath thickness (mm)	Cable outer diameter (mm)		Approx. linear weight (kg/km)
					Mini	Maxi	
379S0102	2 x 1.5	0.7	3.5	0.7	8.5	10.5	119
379S0202	3 x 1.5	0.7	3.5	0.7	9.0	11.0	149
379S0302	4 x 1.5	0.7	3.5	0.7	9.9	12.1	188
379S0402	2 x 2.5	0.7	3.9	0.7	9.4	11.3	148
379S0502	3 x 2.5	0.7	3.9	0.7	9.9	12.1	196
379S0602	4 x 2.5	0.7	3.9	0.8	11.0	13.5	247
379S0702	2 x 4	0.7	4.5	0.8	10.5	13.0	197
379S0802	3 x 4	0.7	4.5	0.8	11.2	13.7	253
379S0902	4 x 4	0.7	4.5	0.8	12.3	15.0	313
379S1002	2 x 6	0.7	5.1	0.8	11.6	14.3	254
379S1102	3 x 6	0.7	5.1	0.8	12.4	15.1	334
379S1202	4 x 6	0.7	5.1	1.0	14.1	17.1	456
379S1302	2 x 10	0.7	6.4	1.0	14.6	17.8	404
379S1402	3 x 10	0.7	6.4	1.0	15.4	19.0	532
379S1502	4 x 10	0.7	6.4	1.0	17.0	20.6	666
379S1602	2 x 16	0.7	7.5	1.0	16.5	20.3	545
379S1702	3 x 16	0.7	7.5	1.2	18.0	21.9	750
379S1802	4 x 16	0.7	7.5	1.2	19.7	24.0	946
379S1902	2 x 25	0.9	9.4	1.2	20.2	25.0	802
379S2002	3 x 25	0.9	9.4	1.2	21.7	26.5	1087
379S2102	4 x 25	0.9	9.4	1.4	24.4	29.7	1450
379S2202	2 x 35	0.9	10.7	1.4	23.2	28.3	1087
379S2302	3 x 35	0.9	10.7	1.4	24.8	30.1	1473
379S2402	2 x 50	1.0	12.3	1.4	26.0	31.9	1399
379S2502	3 x 50	1.0	12.3	1.6	28.2	34.5	1948

This product is a cable EN 50264-3-2 600 V MMS with a mica tape on the core.
It is not described in EN 50264-1 and EN 50264-3-2 standards...

For this product, please contact :

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LES CABLES DE L'EXTREME

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DATA & COMMUNICATION CABLES

FT No.	PRODUCT REFERENCE	PAGE
5600	DATA & COMMUNICATION CABLES	48
5602	DATARAIL® 100BE85EM101 4x0.5	49

CABLE SOLUTIONS
FOR ROLLING STOCK**DATARAIL®****DATA & COMMUNICATION CABLES**

FT No.	OMERIN reference	Single or multicore type	Core insulation thickness	Core insulation type	Screened by a tin-plated copper braid	Outer sheath type	Operating temperature (°C)	Nominal impedance from 1 to 100 MHz (Ω)	IRM902 Mineral Oil Resistant	IRM 903 Fuel Resistant	Halogen-free Low Smoke	Application
5602	DATARAIL 100BE85EM101 4 x 0.5	Multicore	Single core	Polyolefin	✓	EM101	85°C	100	✓	✓	✓	ETHERNET LINK

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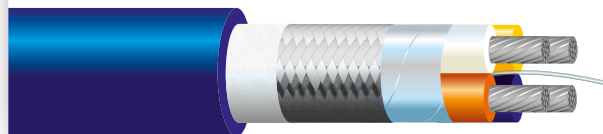
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DATARAIL®**100BE85EM101****4x0.5 mm²****Sheathed cable****Characteristics****Thermal**

Continuous operating temperature:
-25 °C to +85 °C.

Electrical

Operating voltage: 300 V.
Test voltage: 2 kV A.C.

Nominal impedance from 1 to 100 MHz: 100 Ω.
Mutual capacitance: ≤ 55 pF/m.
Capacitance unbalance
pair to ground: ≤ 1600 pF/km.
Nominal velocity ratio: 70 %.
Transfer impedance
from 100 KHz to 30 MHz: ≤ 10 mΩ/m.
from 30 to 100 MHz: ≤ 50 mΩ/m.
Insulation resistance at 20 °C: ≥ 150 MΩ.km.
Linear resistance at 20 °C: ≤ 40.1 Ω/km.

Mechanical

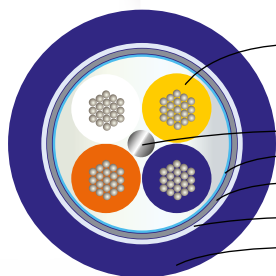
Cut-through resistance: ★★★★★
Resistance to abrasion: ★★★★★☆
Minimum static internal bending radius: 8xD.

Chemical

Acid and base resistance: ★★★★★☆
Mineral oil resistance: ★★★★★☆
Fuel resistance only for class M: ★★★★★☆

Fire-smoke

Halogen-free (EN 60754-1).
Low toxicity (EN 60754-2).
Low smoke (EN 61034-2).
Flame retardant (EN 60332-1-2).
Fire smoke protection: EN45545-2.



- 1 • Twisted quad (4x0.5 mm²)
 > Conductor : Tin-plated copper core (19/0.18 mm)
 Class 5 - EN 60228
 > Insulation : Polyolefin
- 2 • Optional filler
- 3 • PET and ALU/PET tapes
- 4 • General electrical shielding (tin-plated copper braid)
- 5 • Fire-retardant tape
- 6 • Fire resistant elastomer EM101 according to EN 50264-1

Marking

DTREN 150002 - 300V - 4x0.5mm² C S - QUADRAX 100 OHMS - OMERIN 369 - batch number - week/year

Frequency (MHz)	1	4	10	16	20	31.25	62.5	100
Max. Insertion Loss (dB/100 m)	3.2	6	9.5	12.1	13.6	17.1	24.8	32
Min. PS NEXT (dB)	62.3	53.3	47.3	44.2	42.8	39.9	35.4	32.3
Min. Return Loss (dB)	-	23	25	25	25	23.3	20.7	19
Min. EL FEXT (dB)	61	49	41	36.9	35	31.1	25.1	21

Core number	Nominal cross-section (mm ²)	Nominal conductor diameter (mm)	Nominal cable outer diameter (mm)	Approx. linear weight (kg/km)
4	0.5	1.95	8.5	40.1

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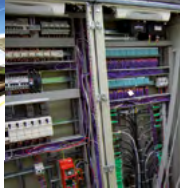
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