

GOING BEYOND

Achieving more with our 110°C Cables



DATA CENTERS ARE PUSHING THE LIMITS

Rising computing demand, denser racks, and higher temperatures mean traditional cables now face stresses they were never designed for.



Heat Stress

Today's power distribution runs hotter, shortening cable life and risking unplanned downtime.

Fire Safety

In high density setting, a single fault can disrupt critical operations threatening people and infrastructure.

Sustainability

Operators must reduce carbon footprint and toxic emissions while improving efficiency and compliance.

BEYOND LIMITS: OUR 110°C CABLES

Prysmian AFUMEX and FLEXTREME® deliver higher thermal resilience, safer performance, and lower environmental impact without compromising installation speed or reliability.



Cable Standards:

LV-IEC 60502-1
LV-AS/NZS 5000.1

Design:

Conductor : Copper cl2 or cl5 flexible
Insulation : Special 110 °C grade XLPE-FR
Sheath : Special 110 °C grade LSHF

Type Tests:

Electrical and non-electrical
Thermic and mechanical tests
Flame, smoke, halogen
3rd party approved SIRIM

Engineered for Higher Heat

110°C operating temperature means more capacity, more stability, and longer life under continuous load.

Flame Propagation tests:
IEC 60332-1-2, IEC 60332-3-24 Cat C
Smoke Test:
IEC/EN 61034-2 ≥ 60% LT

Safer by Design

Low smoke, halogen free materials help protect people, equipment, and optimize uptime.

IEC 60754-1 : HCl max 0.5%
IEC/EN 60754-2 : pH min. 4.3,
conductivity max. 10µS/mm
IEC 60684-2 : Fluorine content max 0.1%

Better for the Planet

E PATH certified with lower carbon footprint and reduced substances of concern. Scan the QR code to learn more about E PATH





FLEXIBILITY TO WIN

Discover how our AFUMEX and FLEXTREME® AFUMEX cables can help you achieve:



Better budget efficiency
Competitively priced, upfront cost saving for your projects



Space and time optimization
Optimized diameter means our cables are lighter, easier to transport, and FLEXTREME® AFUMEX allows you to master tight bending radius



Your sustainability goals
Lighter, lower impact cable that help you achieve your sustainability goals and manage scope 3 emission

KEY ADVANTAGES*



21%
Lighter cable weight



18%
Less cable space



12%
Smaller minimum bending radius



>10%
Lower cable cost



10%
Smaller cable diameter



6%
Reduction in cable drum size



20%
Carbon emission reduction on cable and transportation

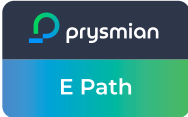
Current Rating Comparison:
XLPE 90°C vs. AFUMEX 110°C

Standard XLPE 90°C Cable		AFUMEX 110°C Cable	
Cu Conductor cross section (mm²)	Current rating for 90°C (A)	Cu Conductor cross section (mm²)	Current rating for 110°C (A)
120	383	95	386
150	444	120	453
185	510	150	519
240	607	185	603
300	703	240	720
400	823	300	824
500	946	400	965
630	1088	500	1124

*Figures are based on the comparison between 90°C standard cables with 400 mm² copper conductor and Afumex 110°C cables with smaller 300mm² copper conductor cross section, delivering the same current rating

Single Core

AFUMEX 110°C 0.6/1kV



Flame Retardant, Low Smoke Halogen Free Power Cables

GENERAL INFO

Enhanced from Cu/XLPE/LSHF cable range, these cables can be operated at maximum 110°C conductor operating temperature. Exclusive for Data Centres application.

CABLE CONSTRUCTION



Conductor material	: Copper
Conductor surface	: Bare
Insulation material	: Crosslinked Polyethylene (XLPE) 110°C
Inner sheath material	: Low Smoke Halogen Free (LSHF)

STANDARDS APPLIED

IEC 60502-1, AS/NZS 5000.1
IEC 60228 Class 2, AS/NZS 1125
IEC 60502-1, AS/NZS 3808
IEC 60502-1, AS/NZS 3808
IEC 60502-1
IEC 60332-1
IEC 60332-3-24 (3C)
IEC 61034-2
IEC 60754-1, IEC 60754-2, IEC 60684-2

Construction
Conductors
Insulation
Armour
Sheath
Flame retardant properties
Flame retardant properties (Bunched)
Low smoke emission properties
Halogen free content properties

Special feature available on request:

- Anti-termite
- Anti-rodent
- Oil resistance
- UV resistance

CORE IDENTIFICATION

1-core	Natural
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* Other colours available upon request

APPLICATION PROPERTIES

Nominal voltage U0 [V]	600
Nominal voltage U [V]	1000
Test voltage [kV / min]	3.5 kV for 5mins
Flame retardant	In accordance with IEC 60332-1, IEC 60332-3-24 (3C)
Halogen free	Yes
Low smoke	Yes
Max. conductor operating temperature [°C]	110
Min. ambient temperature, fixed installation [°C]	-15
Max. ambient temperature, fixed installation [°C]	60
Outdoor installation	Yes
Bending radius (during installation)	10 x OD
Bending radius (fixed installed)	8 x OD

Product Dimensional Data

Cross Section (mm²)	Conductor Diameter (mm)	Insulation Diameter (mm)	Overall Cable Diameter (mm)	Cable Weight (kg/km)	Min. Bending Radius During Installation (mm)	Standard Packing Length (m)
1 x 25	6.3	8.1	11.1	325	88	3000
1 x 35	6.9	8.8	11.9	412	95	3000
1 x 50	8.2	10.2	13.3	546	106	3000
1 x 70	9.7	11.9	15.0	746	120	3000
1 x 95	11.4	13.6	16.9	1005	135	3000
1 x 120	13.0	15.5	18.8	1265	150	2000
1 x 150	14.2	17.1	20.6	1535	164	2000
1 x 185	16.0	19.2	22.8	1920	182	1500
1 x 240	18.4	21.9	25.6	2475	204	1000
1 x 300	20.6	24.3	28.2	3090	225	800
1 x 400	22.9	27.0	31.5	3892	252	500
1 x 500	26.1	30.6	35.0	4938	280	500
1 x 630	29.9	34.8	39.5	6335	316	500

Product Technical Data

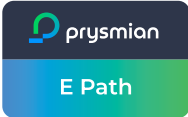
Cross Section (mm²)	Max. DC Conductor Resistance at 20°C (Ω/km)	Max. AC Conductor Resistance at 90°C (Ω/km)	Min. Insulation Resistance at 20°C (MΩ.km)	Current Rating in Air* at 110°C (A)	Voltage Drop* at 110°C (mV/A/m)	Max. Cable Pulling Tension (kN)	Max. Sidewall Pressure to Cable (kN/m)
1 x 25	0.727	0.984	1500	155	1.978	1.7	4.5
1 x 35	0.524	0.710	1500	202	1.432	2.4	5.3
1 x 50	0.387	0.524	1500	247	1.064	3.4	5.6
1 x 70	0.268	0.363	1500	313	0.747	4.8	6.6
1 x 95	0.193	0.262	1500	386	0.551	6.5	7.4
1 x 120	0.153	0.208	1500	453	0.449	8.2	8.0
1 x 150	0.124	0.169	1500	519	0.378	10.3	9.1
1 x 185	0.0991	0.1361	1500	603	0.318	12.7	9.9
1 x 240	0.0754	0.1047	1500	720	0.265	16.5	11.2
1 x 300	0.0601	0.0847	1500	824	0.233	20.6	12.4
1 x 400	0.0470	0.0678	1500	965	0.209	27.5	13.7
1 x 500	0.0366	0.0560	1500	1124	0.168	34.3	14.2
1 x 630	0.0283	0.0450	1500	1303	0.158	43.2	14.2

*) Air Temp.=30°C, Ground Temp.= 20°C, Soil Thermal Resistivity =1.0K.m/W, Depth of Laying =500mm

Cable Gland Section Data

Cross Section (mm²)	Overall Cable Diameter (mm)	Recommended Cable Gland Size	BICON Cable Gland Part Number	BICON Ex-Proof Cable Gland Part Number
1 x 25	11.1	M20	KM409-53	KM494-53
1 x 35	11.9	M20	KM409-53	KM494-55
1 x 50	13.3	M25	KM409-55	KM494-55
1 x 70	15.0	M25	KM409-55	KM494-55
1 x 95	16.9	M25	KM409-55	KM494-55
1 x 120	18.8	M25	KM409-55	KM494-56
1 x 150	20.6	M32	KM409-56	KM494-56
1 x 185	22.8	M32	KM409-56	KM494-56
1 x 240	25.6	M40	KM409-57	KM494-57
1 x 300	28.2	M40	KM409-57	KM494-57
1 x 400	31.5	M50S	KM409-58	KM494-59
1 x 500	26.1	M40	KM409-57	KM494-57
1 x 630	29.9	M40	KM409-57	KM494-57

Single Core FLEXTREME AFUMEX 110°C 0.6/1kV



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Conductor material	: Flexible Copper
Conductor surface	: Bare
Insulation material	: Cross-linked Polyethylene (XLPE) 110°C
Inner sheath material	: Low Smoke Halogen Free (LSHF)

STANDARDS APPLIED

IEC 60502-1, AS/NZS 5000.1
IEC 60228 Class 5, AS/NZS 1125
IEC 60502-1, AS/NZS 3808
IEC 60502-1, AS/NZS 3808
IEC 60502-1
IEC 60332-1
IEC 60332-3-24 (3C)
IEC 61034-2
IEC 60754-1, IEC 60754-2, IEC 60684-2

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Conductors
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Sheath
Flame retardant properties
Flame retardant properties (Bunched)
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Halogen free content properties

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Halogen free	Yes
Low smoke	Yes
Max. conductor operating temperature [°C]	110
Min. ambient temperature, fixed installation [°C]	-15
Max. ambient temperature, fixed installation [°C]	60
Outdoor installation	Yes
Bending radius (during installation)	10 x OD
Bending radius (fixed installed)	5 x OD

Product Dimensional Data

Cross Section (mm²)	Conductor Diameter (mm)	Insulation Diameter (mm)	Overall Cable Diameter (mm)	Cable Weight (kg/km)	Min. Bending Radius During Installation (mm)	Standard Packing Length (m)
1 x 25	6.7	8.4	11.4	313	57	3000
1 x 35	7.6	9.4	12.5	414	62	3000
1 x 50	9.4	11.4	14.5	586	72	3000
1 x 70	11.5	13.7	16.8	776	84	3000
1 x 95	13.3	15.5	18.8	994	94	3000
1 x 120	14.7	17.2	20.5	1262	102	2000
1 x 150	16.4	19.3	22.8	1542	114	2000
1 x 185	18.1	21.4	24.9	1898	124	1500
1 x 240	20.7	24.2	27.9	2441	139	1000
1 x 300	23.5	27.2	31.5	3010	157	800
1 x 400	27.0	31.1	35.5	3964	177	500
1 x 500	39.0	34.5	39.0	4952	195	500
1 x 630	44.5	39.5	44.5	6521	222	500

Product Technical Data

Cross Section (mm²)	Max. DC Conductor Resistance at 20°C (Ω/km)	Max. AC Conductor Resistance at 90°C (Ω/km)	Min. Insulation Resistance at 20°C (MΩ.km)	Current Rating in Air* at 110°C (A)	Voltage Drop* at 110°C (mV/A/m)	Max. Cable Pulling Tension (kN)	Max. Sidewall Pressure to Cable (kN/m)
1 x 25	0.78	1.063	1500	160	1.978	1.7	5.5
1 x 35	0.554	0.755	1500	198	1.432	2.4	6
1 x 50	0.386	0.526	1500	253	1.064	3.4	6
1 x 70	0.272	0.371	1500	321	0.747	4.8	7.4
1 x 95	0.206	0.282	1500	387	0.551	6.5	8
1 x 120	0.161	0.221	1500	452	0.449	8.2	9.1
1 x 150	0.129	0.177	1500	526	0.378	10.3	9.9
1 x 185	0.106	0.146	1500	600	0.318	12.7	11
1 x 240	0.0801	0.112	1500	720	0.265	16.5	12.1
1 x 300	0.0641	0.091	1500	836	0.233	20.6	13.7
1 x 400	0.0486	0.071	1500	996	0.209	27.5	14.2
1 x 500	0.0384	0.058	1500	1145	0.144	34.3	14.2
1 x 630	0.0287	0.046	1500	1351	0.154	43.2	14.2

*) Air Temp.=30°C, Ground Temp.= 20°C, Soil Thermal Resistivity =1.0K.m/W, Depth of Laying =500mm

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1 x 70	16.8	M25	KM409-55	KM494-55
1 x 95	18.8	M25	KM409-55	KM494-56
1 x 120	20.5	M32	KM409-56	KM494-56
1 x 150	22.8	M32	KM409-56	KM494-56
1 x 185	24.9	M32	KM409-56	KM494-57
1 x 240	27.9	M40	KM409-57	KM494-57
1 x 300	31.5	M50S	KM409-58	KM494-59
1 x 400	35.5	M50S	KM409-58	KM494-59
1 x 500	39.0	M50	KM409-59	KM494-59
1 x 630	44.5	M63S	KM409-60	KM494-61



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