

# (N)A2XS(FL)2Y 19/33KV CPR F

Aluminum medium voltage cables 33kV





Medium voltage cables for rated voltages from 6 kV (Um = 7,2 kV) up to 33 kV (Um = 36 kV) used in outdoor applications such as industrial installations and electrical stations. The cables are suitable for laying in ground, in trench or in ducts, in water, free in air or indoors. The ingress of water in case of a damaged outer sheath is limited by the longitudinal and transversal watertight screen area.

Conductor shape round, class 2 = stranded; black outer sheath

#### STANDARDS AND CERTIFICATIONS

RoHS REACH

**EN 60228** Conductors of insulated cables

IEC 60502-2 Cables for rated voltages from 6 kV (Um = 7,2 kV) up to 30 kV

(Um = 36 kV)

**EN 60754-1** Test on gases evolved during combustion of materials from

cables. Halogen acid gas content.

#### **CABLE DESIGN**

Conductor material Aluminium
Core insulation material XLPE

Screen construction Wire screen and counterhelix tape

Screen material Copper, bare

Longitudinal water blocking screen Yes
Longitudinal water blocking cable Yes

Longitudinal water blocking construction Water swellable tape(s)

Radial water blocking cable

Material outer sheath Polyethylene (PE)

Cable shape Round

# **ELECTRICAL & THERMAL PARAMETERS**

Nominal voltage U0 [V] 19,000
Nominal voltage U [V] 33,000
Test voltage [kV] 63

Rated voltage U0/U (Um) 19/33 (36) kV

Max. conductor temperature [°C]90Max. conductor temperature at short circuit [°C]250Laying temperature (min) [°C]-20Laying temperature (max) [°C]50

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### **CHEMICAL PROPERTIES**

CPR reaction to fire Fca
Resistant to UV Yes
UV resistant Yes
Silicon free Yes
Lead free Yes

#### **CHARACTERISTICS**

With rodent protection No
Outdoor installation Yes
Underground installation Yes
Suitable as installation cable Yes

Bending radius (rule) During installing: 15 x D single-core cables

#### SUSTAINABILITY COMMITMENT

Our commitment to a low-carbon future remains unwavering as we strive to create sustainable solutions while upholding quality standards. We prioritize sustainability and environmental protection in our daily operations, collaborating with local communities to ensure workplace safety and safeguard the areas we operate in.

Sustainability and environmental responsibility is evident also in our **packaging** solutions across the CEE region. We use fully recyclable drum cover foils to minimize environmental impact. Our packaging for rings is made from 30% recycled materials, supporting a circular economy. Additionally, our boxes are made from recyclable, environment-friendly cardboard, promoting eco-conscious choices. By choosing Prysmian, you are not only selecting high-quality products but also contributing to a greener future.

Check for more details about our sustainability commitment here: Sustainability: report and responsibility.











## **CABLE PROPERTIES**

Basic construction	SAP code	Nominal thickness insulation [mm]	Nominal diameter over insulation [mm]	Nominal outer diameter [mm]	Cable weight [kg/km]	Bending radius, during laying (min) [mm]	Conductor resistance at 20° C [Ohm/km]	Short circuit current conductor (1sec) [kA]	Short circuit current screen (Isec) [kA]	DOP number
1x120RM/16	17010100187	8	30.4	38.1	1,275	572	0.253	11.6	2.6	
1x150RM/25	20396841	8	31	39.8	1,469	600	0.206	14.5	6.7	1003520
1x150RM/35	17170001071	8	31	39.8	1,562	600	0.206	14.5	8.5	1003520
1x240RM/25	20406878	8	35	44	1,855	660	0.125	23.1	7.1	1003520
1x240RM/35	17170001072	8	35	44	1,954	660	0.125	23.1	8.7	1003520
1x300RM/25	20396831	8	37.7	46.7	2,132	704	0.1	28.8	7.2	1003520
1x400RM/35	20406955	8	40.6	50	2,563	750	0.0778	38.3	9.3	1003520
1x500RM/35	20396710	8	43.6	53.2	2,973	798	0.0605	47.8	9.4	1003520
1x630RM/35	20396832	8	46.9	56.8	3,489	851	0.0469	60.2	9.7	1003520
1x800RM/35	20414885	8	51.1	61	4,132	915	0.0367	76.5	10	1003520
1x1000RM/35	17170001065	8	55.3	65.7	4,855	986	0.0291	95.3	10.2	1003520
1x1200RM/35	17170001066	8	59.2	69.8	5,497	1,047	0.0247	114	10.4	1003520

# **CURRENT CARRYING CAPACITY**

Cross-section (mm²)	Direct in ground trefoil (A)	Direct in ground flat spaced (A)	Air trefoil (A)	Air flat spaced (A)
70	186	192	230	278
95	221	229	280	338
120	252	260	324	391
150	281	288	368	440
185	317	324	424	504
240	367	373	502	593
300	414	419	577	677
400	470	466	673	769
500	535	524	781	884
630	608	578	903	996
800	681	630	1029	1105
1000	753	681	1165	1219
1200	885	790	1274	1305

Ground temperature: 20°C; Air temperature: 30°C Depth of laying: 0,8 m; Soil resistivity, moist: 1,5 K.m/W Screen bonded at both ends

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## **ADDITIONALTECHNICAL PARAMETERS**

#### (N)A2XS(FL)2Y 1200/35 19/33 kV

- I = 788,3 A
- $C = 0,408 \mu F/km$
- L = 0,293 mH/km
- RDC(20 $^{\circ}$ C) = 0,0247  $\Omega$ /km
- R+ =  $0.0442 \Omega/km$
- $X + = 0.0920 \Omega/km$
- R0 = 0,3420 Ω/km
- $X0 = 0.0405 \Omega/km$
- Z = R + jX
- XC = 7,803  $k\Omega/km$

#### Inputs:

- Soil resistivity: 1,5Kxm/W;
- Soil temperature: 20°C;
- Air temperature: : 35°C;
- Single circuit;
- Trefoil formation;
- Directly buried;
- Metallic screen connected solidly bonded (at both ends);
- Load factor: 1;
- Laying depth: 0,8 m for MV and 0,5 m for LV.