NA2XS(F)2Y

18/30 (36) kV

PROTOTHEN-X

Standards /Certification

> **DIN VDE 0276-620**
> **IEC 60502-2**

Design elements

> **Conductor**
> Aluminium conductor,
> stranded circular, compacted (RM)

> **Inner and outer semi-conducting layer**
> Semi-conducting XLPE, firmly bonded to the insulation

> **Insulation**
> Crosslinked Polyethylen (XLPE)

> **Tape under the screen**
> Semi-conducting swelling tape

> **Screen**
> Copper wires and copper binder tape,
> defined by its geometrical cross-section

> **Separation layer**
> Crepe paper

> **Outer sheath**
> Polyethylen (PE), black

Application and properties

> Distribution cables in supply networks

permissible conductor temperature during normal operation

permissible conductor temperature during short circuit ≤ 5 s

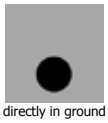

minimum bending radius
15 x D

lead-free

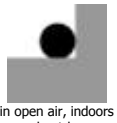

UV-resistant

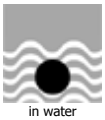
Laying conditions


minimum permissible temperature during laying
-20°C


directly in ground


in ducts


in open air, indoors and outdoors


in water

Additional information

In open air, indoors and in ducts: non flame retardant according DIN EN 60332-1-2.
The ingress of water in case of a damaged outer sheath is limited by the longitudinal watertight screen area.

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Order details and design characteristics

Number of cores and nominal cross-section of conductor mm²	Part number	Insulation thickness (nominal) mm	Outer sheath thickness (nominal) mm	Outer diameter (approx.) mm	Weight (approx.) kg/km	Minimum bending radius mm	Permissible pulling force (max.) N
NA2XS(F)2Y							
1 x 50 RM / 16	5BP6 4041JF20	8,0	2,5	34	990	510	1500
1 x 70 RM / 16	5BP6 4041KF20	8,0	2,5	36	1100	540	2100
1 x 95 RM / 16	5BP6 4041LF20	8,0	2,5	37	1250	555	2850
1 x 120 RM / 16	5BP6 4041MF20	8,0	2,5	38	1350	570	3600
1 x 150 RM / 25	5BP6 4041NG20	8,0	2,5	40	1550	600	4500
1 x 185 RM / 25	5BP6 4041PG20	8,0	2,5	42	1700	630	5550
1 x 240 RM / 25	5BP6 4041QG20	8,0	2,5	44	1950	660	7200
1 x 300 RM / 25	5BP6 4041RG20	8,0	2,5	46	2200	690	9000
1 x 400 RM / 35	5BP6 4041SH20	8,0	2,5	49	2600	735	12000
1 x 500 RM / 35	5BP6 4041TH20	8,0	2,6	52	3000	780	15000
1 x 630 RM / 35	5BP6 4041UH20	8,0	2,7	56	3500	840	18900
1 x 800 RM / 35	5BP6 4041VH20	8,0	2,8	62	4300	930	24000
1 x 10000 RM / 35	5BP6 4041WH20	8,0	3,0	66	4950	990	30000

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Electrical properties and current-carrying capacity

Number of cores and nominal cross-section of conductor mm²	D.C. resistance at 20 °C Ω/km	Effective resistance at 90 °C Ω/km	Operating capacitance µF/km	Inductance per conductor mH/km	Current-carrying capacity during normal operation		Rated short-time current for a duration of 1 s	
					laid in the ground [1] A	installed in air [2] A	conductor kA	screen kA
NA2XS(F)2Y								
1 x 50 RM / 16	0,641	0,825	0,133	0,493	174	187	4,70	3,3
1 x 70 RM / 16	0,443	0,571	0,148	0,466	213	232	6,58	3,3
1 x 95 RM / 16	0,320	0,413	0,163	0,443	254	282	8,93	3,3
1 x 120 RM / 16	0,253	0,327	0,176	0,427	289	325	11,3	3,3
1 x 150 RM / 25	0,206	0,269	0,188	0,413	322	367	14,1	5,1
1 x 185 RM / 25	0,164	0,215	0,203	0,399	364	421	17,4	5,1
1 x 240 RM / 25	0,125	0,165	0,223	0,383	422	496	22,6	5,1
1 x 300 RM / 25	0,100	0,133	0,241	0,370	476	568	28,2	5,1
1 x 400 RM / 35	0,0778	0,107	0,264	0,357	541	659	37,6	7,1
1 x 500 RM / 35	0,0605	0,0849	0,291	0,345	616	764	47,0	7,1
1 x 630 RM / 35	0,0469	0,0680	0,321	0,334	701	886	59,2	7,1
1 x 800 RM / 35	0,0367	0,0559	0,359	0,308	789	1011	75,2	7,1
1 x 1000 RM / 35	0,0291	0,0471	0,392	0,298	875	1144	94,0	7,1

Closed trefoil formation, copper screens bonded at both ends.

[1] Ground temperature 20 °C; laying depth 0,7 m; soil thermal resistivity 1,0 Km/W (desiccated soil 2,5 Km/W); load factor 0,7

[2] Air temperature 30 °C; load factor 1,0