

N2XRH FE180



CONSTRUCTION

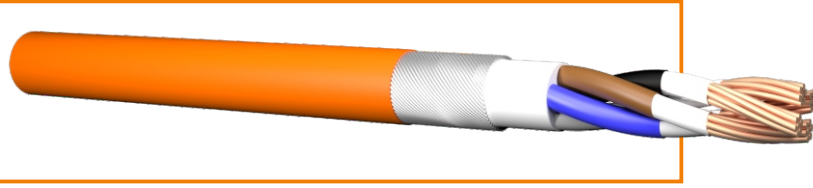
CONDUCTOR	Stranded Annealed Copper Conductor (IEC 60228-Class 2)		
FIRE RESISTANT TAPE	Mica Glass Tape		
INSULATION	XLPE	HD 308 S2	XLPE (IEC 60502-1)
BEDDING	LSZH Compound		
ARMOUR	Galvanised Steel Wire (Aluminium Wire for Single Core)		
SHEATH	LSZH Compound	Orange	St8 (IEC 60502-1)

PHYSICAL&ELECTRICAL CHARACTERISTICS

MAX. CONDUCTOR TEMPERATURE DURING SHORT CIRCUIT	250°C
NOMINAL VOLTAGE	600/1000 V
TEST VOLTAGE	3500 V
OPERATING TEMPERATURE	-40°C ... +90°C
MINIMUM BENDING RADIUS	12 X D

FIRE PERFORMANCE CHARACTERISTICS

FLAME RETARDANT	IEC 60332-1
NO FLAME PROPAGATION	IEC 60332-3-24
HALOGEN-FREE	IEC 60754-1, VDE 0482 P267-2-1, DIN EN50267-2-1
NO CORROSIVE GASES	IEC 60754-2, VDE 0482 P267-2-2, DIN EN 50267-2-2
LOW SMOKE EMISSION	IEC 61034-1/-2, VDE 0482 P268-1/-2, DIN EN 50268-1/-2



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OTHER CHARACTERISTICS

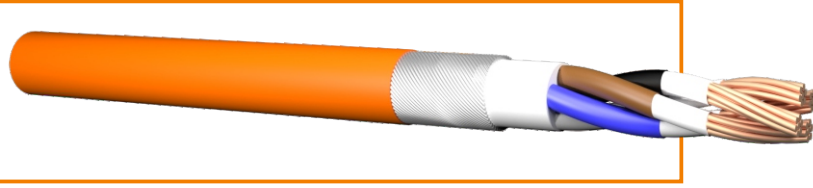
CIRCUIT INTEGRITY	IEC 60331
UV RESISTANCE	ISO 4892-2 / ISO 4892-3
WATER RESISTANCE	AD7
OIL RESISTANCE	ASTM NO: 2 (4 hours 70°C)
HYDROCARCON RESISTANCE	NF-M87-202 (Aliphatic Hydrocarbon)

DIMENSIONS

Number of Core and Cross Section Area (mm ²)	Approx. Overall Diameter (mm) (±5%)	Approx. Cable Weight (kg/km)	Max. Conductor Resistance DC at 20°C (Ohm/km)
4 x 70 mm	49,60	5958	0,272
4 x 120 mm	58,70	8641	0,161
4 x 150 mm	65,10	10461	0,129
4 x 185 mm	74,90	13809	0,106



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Multicore 90°C Thermosetting Insulated and Thermoplastic sheathed cables, non-armoured CURRENT CARRYING CAPACITY

Air ambient temperature: 30°C | Conductor operating temperature 90°C

Conductor Cross-Sectional Area (mm²)	Reference Method C		Reference Method E		Reference Method D	
	(clipped direct)		(in free air or on a perforated cable tray etc, horizontal or vertical)		(direct in ground or in ducting in ground, in or around buildings)	
	1 two-core cable, single phase	1 three- or four- core cable	1 two-core cable, single phase	1 three- or four- core cable	1 two-core cable, single phase	1 three- or four- core cable
	a.c or d.c	three-phase a.c.	a.c or d.c	three-phase a.c.	a.c or d.c	three-phase a.c.
	(Ampere)					
1,5	27	23	29	25	25	21
2,5	36	31	39	33	33	28
4	49	42	52	44	43	36
6	62	53	66	56	53	44
10	85	73	90	78	71	58
16	110	94	115	99	91	75
25	146	124	152	131	116	96
35	180	154	188	162	139	115
50	219	187	228	197	164	135
70	279	238	291	251	203	167
95	338	289	354	304	239	197
120	392	335	410	353	271	223
150	451	386	472	406	306	251
185	515	441	539	463	343	2381
240	607	520	636	546	395	324
300	698	599	732	628	446	365
400	787	673	847	728	-	-

VOLTAGE DROP

Conductor operating temperature 90°C

Conductor Cross- Sectional Area (mm²)	Two-core cable, d.c.		Two-core cable, single-phase a.c.(mm²)			Three- or four-core cable, three-phase a.c.		
	(mV/A/m²)							
1,5	31		31			27		
2,5	19		19			16		
4	12		12			10		
6	7,9		7,9			6,8		
10	4,7		4,7			4		
16	2,9		2,9			2,5		
		r	x	z	r	x	z	
25	1,85	1,85	0,16	1,90	1,60	0,14	1,65	
35	1,35	1,35	0,155	1,35	1,15	0,135	1,15	
50	0,98	0,99	0,155	1,00	0,86	0,135	0,87	
70	0,67	0,67	0,15	0,69	0,59	0,13	0,60	
95	0,49	0,50	0,15	0,52	0,43	0,13	0,45	
120	0,39	0,40	0,145	0,42	0,34	0,13	0,37	
150	0,31	0,32	0,145	0,35	0,28	0,125	0,30	
185	0,25	0,26	0,145	0,29	0,22	0,125	0,26	
240	0,195	0,20	0,14	0,24	0,175	0,125	0,21	
300	0,155	0,16	0,14	0,21	0,14	0,12	0,185	
400	0,12	0,13	0,14	0,19	0,115	0,12	0,165	

RATING FACTORS (C a)

Air ambient other than temperature: 30°C | Ground ambient other than temperature: 20°C

Ambient temperature °C	Insulation 90°C thermosetting	
	Ground	Air
10	1,07	-
15	1,04	-
20	1,00	-
25	0,96	1,02
30	0,93	1,00
35	0,89	0,96
40	0,85	0,91
45	0,80	0,87
50	0,76	0,82
55	0,71	0,76
60	0,65	0,71
65	0,60	0,65
70	0,53	0,58
75	0,46	0,50
80	0,38	0,41