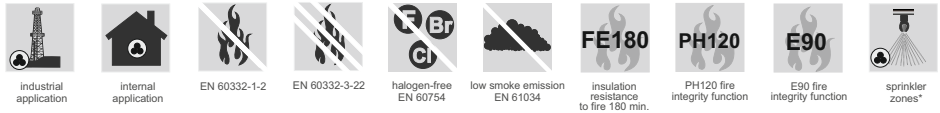


NHXCH FE180/PH120/E90 MICA



Fire resistant cables

Fire resistant, halogen-free power cable with concentric conductor



Technical data:

Thermal parameters:

Temperature range:
fixed installation: -30 °C to 90 °C
min. installation temp: -5 °C
max. installation temp: 50 °C

Electrical parameters:

Permissible conductor operating temperature: 90 °C
Permissible conductor temperature during short circuit: 250 °C
Operating voltage: $U_0/U = 0,6/1$ kV
Test voltage: 4 kV
Conductor resistance (at 20 °C): acc. to EN 60288 cl. 1 and 2, IEC 60288 cl. 1 and 2

Mechanical parameters:

Minimum bending radius: 15 x Ø

Design:

Conductors: bare copper conductor, solid (cl. 1) or stranded (cl. 2) according to EN 60228 and IEC 60228
Insulation: mica tape wrapping and cross linked polymer HX11 acc. to DIN VDE 0266
Core colors: acc. to information - chapter - Technical Data
Inner sheath: special halogen-free compound
Concentric conductor: copper wires over the inner sheath with helically applied copper tape
Outer sheath: halogen-free polymer compound HM4 acc. to DIN VDE 207 p.24; colour: orange

Application:

Fire resistant power and control cables have E90 fire integrity function which means the assurance of power supply or control under fire conditions for 90 minutes. They are intended for use in buildings with increased fire safety requirements due to high concentration of people, material and cultural assets of high value (sky scrapers, hospitals, shopping centres, tunnels, museums, cinemas, theatres). Cables can be used for power supply or control (lighting, lifts, fire-fighting equipment, pumps). They can be used in fixed installations inside buildings. In case of outdoor application cables should be secured against UV radiation and the external factors. Cables with improved fire characteristic E90 must be installed on the supporting systems tested according to DIN 4102-12.

Tests:

Flame propagation test for a single insulated cable: EN 60332-1-2, IEC 60332-1-2, VDE 0482-332-1
Flame propagation test for vertically-mounted bunched cables: EN 60332-3-22, IEC 60332-3-22, VDE 0482-332-3-22
Test on corrosive gases emitted during burning: EN 60754-2, IEC 60754-2, VDE 0482-754-2
Smoke density emission during burning: EN 61034-2, IEC 61034-2, VDE 0482-1034-2
Insulation resistance to long term fire exposure FE180: PN-IEC 60331-21, IEC 60331-21, VDE 0472-814
Fire integrity function of cable support system E90: DIN 4102-12
Fire integrity function of cable installation (PH120): EN 50200
*Water resistance under fire conditions: EN 50200 Annex E (applies to cables with a diameter not exceeding 20 mm)

Cable characteristics:

- fire resistant (fire retardant, self extinguishing, flame retardant, without self-ignition properties)
- halogen-free
- flame retardant
- no corrosive gases
- low smoke emission
- increased insulation resistance (FE180)
- fire integrity function (E90)
- low fire load (calorific value)

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Fire resistant, halogen-free power cable with concentric conductor

Cat. no.	n x mm ²	Outer diameter* [mm]	Approximate cable weight [kg/km]
B64150	3x1,5RE/1,5	15,3	292
B64151	3x2,5RE/2,5	16,3	350
B64152	3x4RE/4	17,5	436
B64153	3x6RE/6	18,9	540
B64154	3x10RE/10	21,0	743
B64155	3x16RM/16	24,2	1098
B64156	3x25RM/16	27,9	1505
B64157	3x35RM/16	30,3	1891
B64158	3x50RM/25	35,9	2599
B64159	3x70RM/35	39,4	3382
B64160	3x95RM/50	44,4	4517
B64161	3x120RM/70	49,1	5598
B64162	3x150RM/70	54,4	6961
B64163	3x185RM/95	58,6	8464
B64164	3x240RM/120	66,5	10840
B64165	4x1,5RE/1,5	16,3	338
B64166	4x2,5RE/2,5	17,4	409
B64167	4x4RE/4	18,7	513
B64168	4x6RE/6	20,3	639
B64169	4x10RE/10	22,6	887
B64170	4x16RM/16	26,1	1321
B64171	4x25RM/16	30,5	1849
B64172	4x35RM/16	33,2	2339
B64173	4x50RM/25	39,3	3216
B64174	4x70RM/35	43,2	4198
B64175	4x95RM/50	49,3	5681
B64176	4x120RM/70	54,0	6949
B64177	4x150RM/70	59,5	8761
B64178	4x185RM/95	64,5	10634
B64179	4x240RM/120	73,3	13533
B64180	5x2,5RE/2,5	18,7	503
B64181	5x4RE/4	20,1	625
B64182	5x6RE/6	21,6	777
B64183	5x10RE/10	24,4	1077

Cat. no.	n x mm ²	Outer diameter* [mm]	Approximate cable weight [kg/km]
B64184	5x16RM/16	28,5	1582
B64185	5x25RM/16	33,4	2267
B64186	5x35RM/16	36,4	2866
B64187	5x50RM/25	42,5	3918
B64188	5x70RM/35	47,8	5202
B64189	5x95RM/50	54,1	7018
B64190	5x120RM/70	58,9	8698
B64191	5x150RM/70	65,6	10738
B64192	5x185RM/95	71,0	12993
B64193	7x1,5RE/2,5	18,8	464
B64194	7x2,5RE/2,5	20,0	561
B64195	7x4RE/4	21,5	714
B64196	7x10RE/10	25,9	1313
B64197	7x16RE/16	30,9	1967
B64198	7x25RE/16	36,7	2870
B64199	7x35RE/16	40,0	3612
B64200	7x50RE/25	46,7	4994
B64201	7x70RE/35	51,2	6532
B64202	10x1,5RE/2,5	22,6	609
B64203	10x2,5RE/4	24,3	757
B64204	10x4RE/6	26,4	967
B64205	12x1,5RE/2,5	23,2	678
B64206	12x2,5RE/4	25,0	851
B64207	12x4RE/6	27,2	1093
B64208	14x1,5RE/2,5	24,3	757
B64209	14x2,5RE/4	26,1	953
B64210	14x4RE/6	28,5	1238
B64211	19x1,5RE/4	26,8	946
B64212	19x2,5RE/6	29,1	1211
B64213	19x4RE/10	32,0	1610
B64214	24x1,5RE/6	31,3	1184
B64215	24x2,5RE/10	34,6	1577
B64216	30x1,5RE/6	33,4	1393
B64217	30x2,5RE/10	36,4	1859

RE - round conductor, single-wire
RM - round conductor, multi-wire

*Outer diameter tolerance: +/- 5%
Cable Factory BITNER reserves the right to modify specifications without prior notification
Note: on customer's request other cross sections or number of cores can be produced