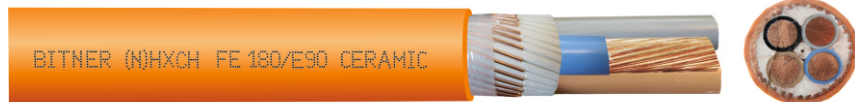


(N)HXCH FE180/E90 CERAMIC



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

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: $15 \times \varnothing$

Design:

Conductors:

bare copper conductor, solid (cl. 1) or stranded (cl. 2) according to EN 60228 and IEC 60228

Insulation:

special ceramic silicone rubber

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:

Flame propagation test for vertically-mounted bunched cables:

Test on corrosive gases emitted during burning:

Smoke density emission during burning:

Insulation resistance to long term fire exposure FE180:

Fire integrity function of cable support system E90:

Fire integrity function of cable installation (PH90):

EN 60332-1-2, IEC 60332-1-2, VDE 0482-332-1

EN 60332-3-24, IEC 60332-3-24, VDE 0482-332-3-24

EN 60754-2, IEC 60754-2, VDE 0482-754-2

EN 61034-2, IEC 61034-2, VDE 0482-1034-2

PN-IEC 60331-21, IEC 60331-21, VDE 0472-814

DIN 4102-12

EN 50200

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]
B60636	2x1,5RE/1,5	13,5	271
B60637	2x2,5RE/2,5	14,4	321
B60638	2x4RE/4	15,5	394
B60639	2x6RE/6	16,9	483
B60640	2x10RE/10	18,9	652
B60641	2x16RM/16	21,5	947
B60642	2x25RM/16	24,9	1238
B60600	3x1,5RE/1,5	14,0	297
B60601	3x2,5RE/2,5	15,0	356
B60602	3x4RE/4	16,2	443
B60603	3x6RE/6	17,6	548
B60604	3x10RE/10	19,7	753
B60605	3x16RM/16	22,6	1107
B60606	3x25RM/16	26,2	1482
B60607	3x35RM/16	28,6	1864
B60608	3x50RM/25	33,2	2582
B60324	3x70RM/35	37,1	3366
B60325	3x95RM/50	42,1	4492
B60326	3x120RM/70	46,8	5576
B60327	3x150RM/70	51,9	6760
B60643	3x185RM/95	55,7	8240
B60644	3x240RM/120	63,9	10571
B60609	4x1,5RE/1,5	14,8	341
B60610	4x2,5RE/2,5	15,9	412
B60611	4x4RE/4	17,2	517
B60612	4x6RE/6	18,8	645
B60613	4x10RE/10	21,1	894
B60614	4x16RM/16	24,3	1326

Cat. no.	n x mm ²	Outer diameter* [mm]	Approximate cable weight [kg/km]
B60615	4x25RM/16	28,6	1815
B60616	4x35RM/16	31,3	2299
B60617	4x50RM/25	36,8	3184
B60328	4x70RM/35	40,6	4164
B60329	4x95RM/50	46,7	5636
B60330	4x120RM/70	51,4	6904
B60645	4x150RM/70	57,1	8431
B60646	4x185RM/95	61,7	10339
B60647	4x240RM/120	70,5	13179
B60618	7x1,5RE/2,5	17,0	463
B60619	7x2,5RE/2,5	18,1	559
B60648	7x4RE/4	19,7	711
B60620	10x1,5RE/2,5	20,2	601
B60621	10x2,5RE/4	21,9	748
B60649	10x4RE/6	23,9	957
B60622	12x1,5RE/2,5	20,7	667
B60623	12x2,5RE/4	22,4	838
B60650	12x4RE/6	24,5	1078
B60651	14x1,5RE/2,5	21,6	742
B60652	14x2,5RE/4	23,4	936
B60653	14x4RE/6	25,6	1218
B60331	19x1,5RE/4	23,7	923
B60654	19x2,5RE/6	25,5	1185
B60655	19x4RE/10	28,6	1582
B60334	24x1,5RE/6	27,4	1155
B60335	24x2,5RE/10	30,2	1547
B60656	30x1,5RE/6	28,8	1354
B60657	30x2,5RE/10	31,8	1817

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