

Fire-resistant control and communicating cables in rubber insulation and in plastic sheath of pair twisting

KNpRkng-FRHF, KNpREkng-FRHF, KNpRPkng-FRHF, KNpREPkng-FRHF types



Design	
Current-carrying conductor	Copper, stranded
Fire-resistant barrier	Mica tape
Insulation	Ethylene propylene rubber of HF EPR type
Group of the conductors	Insulated conductors are twisted in pair, triad, quad
Filling material	Halogen-free composition
Taping	Synthetic tape
Collective screen	Of copper wires for cables of KNpREkng-FRHF, KNpREPkng-FRHF types
Intermediate sheath	Halogen-free composition for the cable of KNpREPkng-FRHF types
Armour	Of steel galvanized wires for the cables of KNpRPkng-FRHF, KNpREPkng-FRHF types
Taping	Synthetic tape
Sheath	Cross-linked oil-resistant halogen-free composition of SHF2 type

Standards IEC 60092-350, IEC 60092-376	
Materials	IEC 60228 2 nd class (conductor) IEC 60092-351 (insulation) IEC 60092-359 (sheath)
Fire-resistance (operability in the flame)	IEC 60331-21 IEC 60332-31
Flame retardant	IEC 60332-3-22 (A category) and IEC 60332-1
Absence of halogens	IEC 60754-2
Small smoke emission	IEC 61034-2
Maximum current-carrying conductor's heating temperature	+90 °C
Service life	35 years

Nominal outer diameter and weight of cables of KNpRkng-FRHF type equal to nominal outer diameter and weight of cables of KNpRkng-FRHF type, nominal outer diameter and weight of cables of KNpREkng-FRHF type equal to nominal outer diameter and weight of cables of KNpREkng-FRHF type, nominal outer diameter and weight of cables of KNpRPkng-FRHF type equal to nominal outer diameter and weight of cables of KNpRPkng-FRHF type, nominal outer diameter and weight of cables of KNpREPkng-FRHF type equal to nominal outer diameter and weight of cables of KNpREPkng-FRHF type.

Engineering parameters and reference data of the samples (selective cross-section):

Number and nominal cross-section of the conductors, mm ²	Nominal outer diameter, mm				Weight of 1 km cable, kg			
	KNpRkng-FRHF	KNpREkng-FRHF	KNpRPkng-FRHF	KNpREPkng-FRHF	KNpRkng-FRHF	KNpREkng-FRHF	KNpRPkng-FRHF	KNpREPkng-FRHF
1x2x 1,0	9,1	9,8	10,4	13,4	141	156	150	284
2x2x 1,0	13,5	14,6	15,0	18,6	234	308	309	509
3x2 x 1,0	14,5	15,4	15,8	19,6	271	342	344	563
4x2 x 1,0	15,9	17,0	17,4	21,2	318	405	406	647
5x2 x 1,0	17,7	18,6	19,0	23,0	400	487	488	761
7x2 x 1,0	19,5	20,4	20,8	25,0	484	580	581	891
8x2 x 1,0	21,2	22,2	22,6	26,8	539	654	655	991
10x2 x 1,0	25,4	26,2	26,6	31,2	723	848	849	1272
12x2 x 1,0	26,2	27,0	27,6	32,0	798	927	941	1363
14x2 x 1,0	27,8	28,6	29,0	33,8	904	1041	1041	1518
19x2 x 1,0	31,2	32,4	32,4	37,8	1159	1392	1313	1948
24x2 x 1,0	37,0	38,4	38,4	44,4	1505	1801	1708	2522
1x2x 1,5	9,7	10,4	11,2	14,2	166	180	178	321
2x2x 1,5	14,7	15,6	16,0	19,8	284	356	357	579
3x2 x 1,5	15,6	16,6	17,0	20,8	323	407	409	644
4x2 x 1,5	17,3	18,2	18,6	22,6	389	475	476	743
5x2 x 1,5	19,0	20,1	20,5	24,7	482	586	587	893
7x2 x 1,5	21,0	22,1	22,5	26,7	584	699	700	1034
8x2 x 1,5	23,0	23,8	24,2	28,6	663	775	776	1149
10x2 x 1,5	27,5	28,4	28,8	33,6	885	1021	1022	1495
12x2 x 1,5	28,4	29,3	29,7	34,5	980	1121	1121	1608
14x2 x 1,5	30,1	31,4	31,4	36,8	1111	1336	1261	1876
19x2 x 1,5	33,8	35,1	35,1	40,9	1429	1682	1597	2322
24x2 x 1,5	40,1	41,6	41,6	47,8	1851	2174	2072	2974