

# Control and communicating cables in rubber insulation, in rubber sheath with separately screened pairs

KNpERng-HF, KNpEREng-HF, KNpERPng-HF, KNpEREPng-HF types



Design	
Current-carrying conductor	Copper, stranded
Insulation	Ethylene propylene rubber of HF EPR type
Group of the conductors	Insulated conductors are twisted in pair, triad, quad
Screen of group	- Of copper wires; - Of tape foiled with aluminium
Filler	Halogen-free composition
Taping	Synthetic tape
Collective screen	Copper wires for the cables of KNpEREng-HF, KNpEREPng-HF types
Intermediate sheath	Oil-resistant halogen-free rubber of SHF2 type for the cable of KNpEREPng-HF type
Armour	Of steel galvanized wires for cables of KNpERPng-HF, KNpEREPng-HF types
Taping	Synthetic tape
Sheath	Oil-resistant halogen-free rubber of SHF2 type

Standards IEC 60092-350, IEC 60092-376	
Materials	IEC 60228 class 2 (conductor) IEC 60092-351 (Insulation) IEC 60092-359 (sheath)
Flame -retardance	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

## Cables with "LS" index are mud-resistant.

Nominal outer diameter and weight of cables of KNpERng-LS type equal to nominal outer diameter and weight of cables of KNpERng-HF type, nominal outer diameter and weight of cables of KNpEREng-LS type equal to nominal outer diameter and weight of cables of KNpEREng-HF type, nominal outer diameter and weight of cables of KNpERPng-LS type equal to nominal outer diameter and weight of cables of KNpERPng-HF type, nominal outer diameter and weight of cables of KNpEREPng-LS equal to nominal outer diameter and weight of cables of KNpEREPng-HF type.

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

Number and nominal cross-section of the conductors, mm <sup>2</sup>	Nominal outer diameter, mm				Weight of 1 km cable, kg			
	KNpERng-HF	KNpEREng-HF	KNpERPng-HF	KNpEREpn-HF	KNpERng-HF	KNpEREng-HF	KNpERPng-HF	KNpEREpn-HF
1x2x 1,0	9,0	9,7	10,3	12,4	138	170	183	284
2x2x 1,0	13,4	14,4	14,8	17,3	262	335	337	517
3x2 x 1,0	14,4	15,2	15,6	18,1	315	384	386	576
4x2 x 1,0	15,8	16,8	17,2	19,9	376	462	463	684
5x2 x 1,0	17,5	18,3	18,7	21,4	472	558	559	800
7x2 x 1,0	19,3	20,1	20,5	23,4	585	680	681	957
8x2 x 1,0	20,9	21,7	22,3	25,2	654	757	770	1069
10x2 x 1,0	25,0	25,9	26,3	29,6	866	990	991	1376
12x2 x 1,0	25,8	26,7	27,1	30,6	970	1098	1099	1511
14x2 x 1,0	27,4	28,3	28,7	32,2	1105	1241	1242	1678
19x2 x 1,0	30,8	32,0	32,0	35,9	1433	1663	1585	2183
24x2 x 1,0	36,5	37,7	37,7	42,0	1850	2123	2031	2779
1x2x 1,5	9,6	10,3	10,9	13,0	161	195	209	316
2x2x 1,5	14,5	15,4	15,8	18,3	314	386	387	580
3x2 x 1,5	15,4	16,3	16,9	19,4	370	446	456	661
4x2 x 1,5	17,1	18,0	18,4	21,1	453	537	539	775
5x2 x 1,5	18,8	19,9	20,3	23,2	562	665	666	939
7x2 x 1,5	20,8	21,6	22,2	25,1	696	798	811	1109
8x2 x 1,5	22,7	23,6	24,0	27,1	790	902	903	1240
10x2 x 1,5	27,0	28,0	28,4	31,9	1030	1178	1178	1611
12x2 x 1,5	28,1	28,9	29,3	33,0	1171	1310	1310	1773
14x2 x 1,5	29,6	31,0	31,0	34,7	1319	1556	1482	2043
19x2 x 1,5	33,4	34,7	34,7	38,8	1731	1982	1898	2565
24x2 x 1,5	39,6	41,1	41,1	45,6	2232	2552	2451	3288