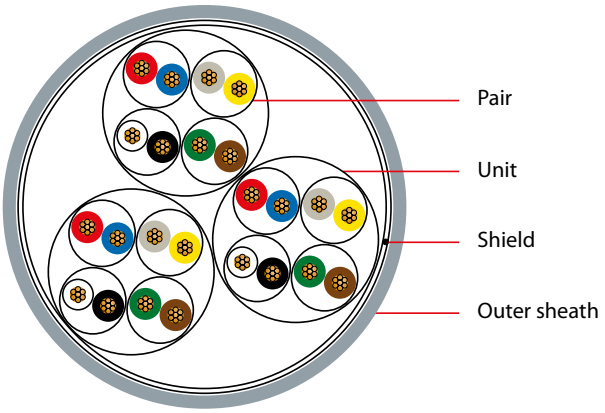
RD-Y(St)Y Bd

construction and core identification in resemblance to DIN VDE 0815



APPLICATION

As data transmission cable for transmission rates up to 10 kHz, mainly in power stations and other industrial plants.

CONSTRUCTION

Conductor: copper strand, bare, flexible
0.5 mm²: strand 7 x 0.30 mm (Ø 0.9 mm)
1.0 mm²: strand 7 x 0.43 mm (Ø 1.3 mm)
Core insulation: PVC
Core stranding: 4 pairs to unit, units in layers
Lapping: plastic foil
Shield: tinned drain wire, 7 x 0.3 mm; plastic-laminated aluminium foil
Outer sheath: PVC; colour: grey RAL 7000

ELECTRICAL CHARACTERISTICS

(Conductor) loop resistance max. 0.5 mm²	78.4 Ω/km
(Conductor) loop resistance max. 1.0 mm²	36.8 Ω/km
Insulation resistance min.	100 MΩ x km
Char. impedance (10 kHz) 0.5 mm²	130 Ω
Char. impedance (10 kHz) 1.0 mm²	100 Ω
Mutual capacitance (800 Hz) max.	100 nF/km 2 and 4 pair cable plus 20% permitted 1 pair 180nF/km
Capacitance unbalance (800 Hz) max.	200 pF/100m 20% of values, min. one value max. 400 pF
Crosstalk attenuation (10 kHz) min.	60 dB/500m
Cable attenuation(10 kHz) 0.5 mm²	2.8 dB/km
Cable attenuation(10 kHz) 1.0 mm²	1.2 dB/km
Test voltage core-core	2000 V 50 Hz 2 min
Test voltage core-screen	2000 V 50 Hz 2 min
Peak operating voltage	600 V

Dimension	Sheath thickness approx. mm	Diameter approx. mm	Cable weight approx. kg/km	Copper index kg/km
2 x 2 x 0.5	1.0	6.8	58	25
4 x 2 x 0.5	1.0	8.7	93	45
8 x 2 x 0.5	1.0	11.0	155	85
12 x 2 x 0.5	1.0	12.5	210	125
16 x 2 x 0.5	1.2	14.0	275	165
20 x 2 x 0.5	1.2	15.0	330	205
24 x 2 x 0.5	1.2	16.3	385	245
32 x 2 x 0.5	1.4	20.0	525	325
40 x 2 x 0.5	1.4	21.5	630	405
48 x 2 x 0.5	1.4	22.5	730	485
80 x 2 x 0.5	1.8	30.8	1230	805
96 x 2 x 0.5	1.8	32.0	1430	965
2 x 2 x 1.0	1.0	7.8	90	51
4 x 2 x 1.0	1.0	10.6	155	91
8 x 2 x 1.0	1.2	14.6	290	171
12 x 2 x 1.0	1.2	15.5	390	252
16 x 2 x 1.0	1.4	19.6	515	332
20 x 2 x 1.0	1.4	20.4	625	413
24 x 2 x 1.0	1.4	23.6	740	493
32 x 2 x 1.0	1.6	28.4	995	654
40 x 2 x 1.0	1.6	31.5	1240	816
48 x 2 x 1.0	1.6	31.8	1430	977
60 x 2 x 1.0	1.8	34.7	1750	1617

THERMAL & MECHANICAL PROPERTIES

Temperature range during installation	-5°C to +50°C
Temperature range stationary	-30°C to +70°C
Minimum bending radius	7.5 x diameter

Subject to changes due to technical progress and error

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