CHAROONG THAI WIRE & CABLE PUBLIC COMPANY LIMITED

CABLE TYPE : CTW-RE-2Y(ST)2YSWAY-PS
Standard : BS 5308 Part 1 Type 2
Multi pairs, PE Insulation, Individual & Collective Screen, PVC Sheath, Armour

300/500 V

APPLICATION

For transmission of analog and digital signals in instrument and control systems; use in zone 1 and zone 2 group II classified areas (IEC 60079 part 14). Not allowed for direct connection to low impedance source, e.g. the public mains electricity.

Not recommended for direct burial. For indoor and outdoor installation in dry and wet location on racks, in conduits.

CONSTRUCTION

Conductor : Plain annealed copper wire in accordance to BS 6360
Insulation : Polyethylene (PE) Type 03 in accordance to BS 6234
Colour code : BLACK / WHITE with continuous print numbered on cores
Individual Screen : Consisting of Aluminum foil in contact with Tinned-Cu drain wire 0.5 mm².
Wrapping : At least 1 layer of polyester tape
Collective screen : Consisting of Aluminum foil in contact with Tinned-Cu drain wire 0.5 mm².
Beding : Black polyvinyl chloride (PVC) Type TM 1 in accordance to BS 6746
Armour : Galvanized round Steel Wire (SWA)
Outer sheath : Black polyvinyl chloride (PVC) Type TM 1 in accordance to BS 6746

A special FR-PVC or Low Smoke HalogenFree (LSHF)

* Flame retardant sheath can be supplied in accordance with BS4066 part 3
* For LSHF only : BS 6425, BS 7622, BS4066 part 3

Flame retardant : BS 4066 part 1
Temperature range: Maximum conductor operating temperature : +65°C
Minimum ambient temperature : -40°C
after installation and only when cable is in a fixed position

Minimum bending radius : 8 x Cable-Ø

TECHNICAL DATA

Conductor size nom. 2 solid 0.5 flexible 1.0 Solid 1.5 Stranded
Conductor resistance max. Ω/km. 36.8 39.7 18.4 12.3
Insulation resistance min. MΩ-km. 5,000 5,000 5,000 5,000

Mutual capacitance at 1kHz

One pair and two pair max. nF/km. 115 115 115 115
Capacitance unbalance at 1 kHz max. pF/250m 250 250 250 250
L/R (ratio) max. μH/Ω 25 25 25 40
Test Voltage \( U_{nom} \) core : core max. V 1,000 1,000 1,000 1,000
\( U_{nom} \) core : screen max. V 1,000 1,000 1,000 1,000
Rate voltage \( U_f/U \) max. V 300/500 300/500 300/500 300/500

ABBREVIATIONS

CTW : Trade mark
RE : Instrumentation cable
2Y : PE insulation
(ST) : Aluminum foil with tinned-copper drain wire screening
SWA : Galvanized round steel wire
Y : PVC outer sheath
PS : Pair

ELECTRICAL DATA AT 20°C
### CABLE TYPE : CTW-RE-2Y(ST)2YSWAY-PS

<table>
<thead>
<tr>
<th>Product code</th>
<th>Number of pairs</th>
<th>Nominal radial thickness of insulation (mm)</th>
<th>Nominal radial thickness of bedding (mm)</th>
<th>Diameter over bedding (approx., mm)</th>
<th>Armour diameter (mm)</th>
<th>Nominal radial thickness of outer sheath (mm)</th>
<th>Overall diameter (approx., mm)</th>
<th>Approx. Cable weight (kg/km)</th>
<th>Standard packing (m/R)</th>
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