



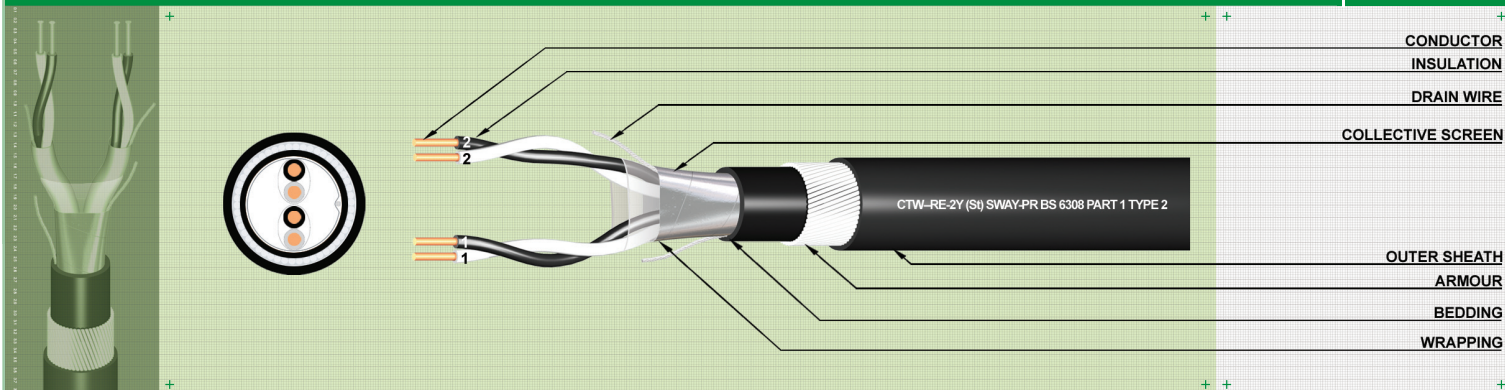
# CHAROONG THAI WIRE & CABLE PUBLIC COMPANY LIMITED

**CABLE TYPE : CTW-RE-2Y(ST)2YSWAY-PR**

Standard : BS 5308 Part 1 Type 2

: Single pair & Multi pairs , PE Insulation, Collective Screen, PVC Sheath, Armour 300/500 V

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## 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 according to BS 6360  
 Insulation : Polyethene (PE) Type 03 in according to BS 6234  
 Colour code : BLACK / WHITE with continuous print numbered on cores  
 ( Optional : According to BS 5038 Part 1 )  
 Wrapping : At least 1 layer of polyester tape  
 Collective screen : Consisting of Aluminum foil in contact with Tinned-Cu drain wire 0.5mm<sup>2</sup>.  
 Bedding : Black polyvinyl choride (PVC) Type TM 1 in according to BS 6746  
 Armour : Galvanized rond steel wire (SWA)  
 Outer sheath : Black polyvinyl choride (PVC) Type TM1 in according to BS 6746

## OPTIONAL REQUEST

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

## TECHNICAL DATA

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  
 Mimimum bending radius : 8 x Cable- $\phi$

## 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

DESCRIPTION	Character	Unit	Values			
			0.5 solid	0.5 flexible	1.0 solid	1.5 stranded
Conductor size	nom.	mm <sup>2</sup>	0.5 solid	0.5 flexible	1.0 solid	1.5 stranded
Conductor resistance	max.	$\Omega$ /km.	36.8	39.7	18.4	12.3
Insulation resistance	min.	M $\Omega$ -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
all other cables	max.	nF/km.	75	75	75	85
Capacitance unbalance at 1 kHz	max.	pF/250m	250	250	250	250
L/R (ratio)	max.	$\mu$ H/ $\Omega$	25	25	25	40
Test Voltage $U_{rms}$ core : core		V	1,000	1,000	1,000	1,000
$U_{rms}$ core : screen		V	1,000	1,000	1,000	1,000
Rate voltage $U_0/U$	max.	V	300/500	300/500	300/500	300/500



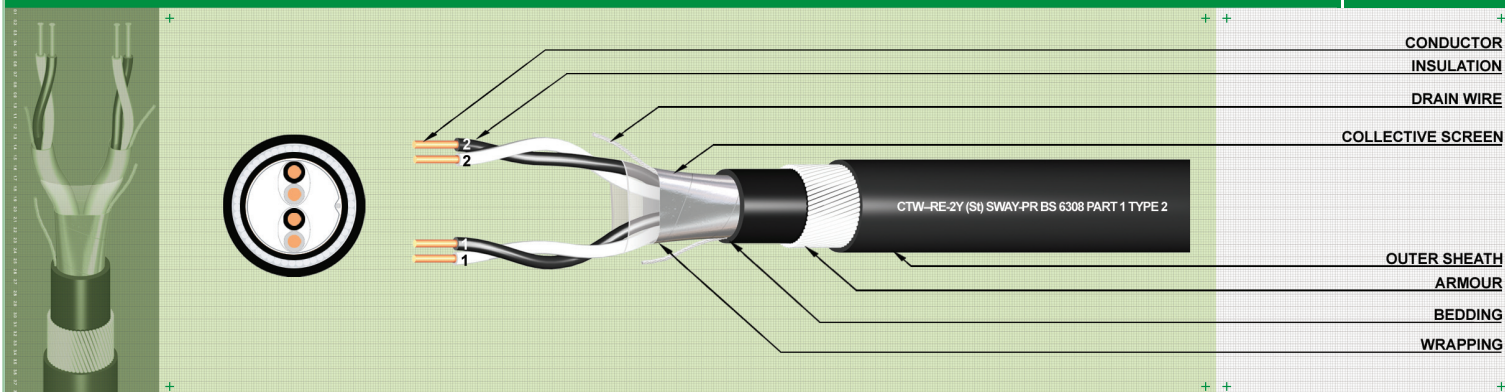
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Product code	Number of pairs	Nominal radial thickness of insulation m m	Nominal radial thickness of bedding m m	Diameter over bedding (approx.) m m	Armour wire diameter m m	Nominal radial thickness of outer sheath m m	Overall diameter (approx.) m m	Approx. Cable weight m/R	Standard packing m/R
<b>Conductor 0.5 sq.mm. (1/0.8mm.) Class 1</b>									
T42270001	1	0.5	0.8	5.5	0.9	1.3	9.9	190	1,000
T42270002	2	0.5	0.8	6.8	0.9	1.3	11.2	240	1,000
T42270005	5	0.5	1.1	10.9	0.9	1.4	15.5	400	1,000
T42270010	10	0.5	1.2	14.4	1.25	1.6	20.1	695	1,000
T42270015	15	0.5	1.2	16.5	1.25	1.6	22.2	840	1,000
T42270020	20	0.5	1.3	18.8	1.6	1.7	25.4	1,160	1,000
T42270030	30	0.5	1.3	22.3	1.6	1.8	29.1	1,460	500
T42270030	50	0.5	1.5	28.5	1.6	2.0	35.7	2,020	500
<b>Conductor 0.5 sq.mm. (16/0.2mm.) class 5</b>									
T42280001	1	0.6	0.8	6.2	0.9	1.3	10.6	200	1,000
T42280002	2	0.6	0.8	7.6	0.9	1.3	12.0	245	1,000
T42280005	5	0.6	1.1	12.4	0.9	1.5	17.2	460	1,000
T42280010	10	0.6	1.2	16.5	1.25	1.6	22.2	790	1,000
T42280015	15	0.6	1.3	19.2	1.6	1.7	25.8	1,140	1,000
T42280020	20	0.6	1.3	21.7	1.6	1.8	28.5	1,310	1,000
T42280030	30	0.6	1.5	26.4	1.6	1.9	33.4	1,720	500
T42280050	50	0.6	1.7	33.4	2.0	2.1	33.4	1,720	500
<b>Conductor 1.0 sq.mm. (1/1.3mm.) class 1</b>									
T42180001	1	0.6	0.8	6.6	0.9	1.3	11.0	220	1,000
T42180002	2	0.6	0.8	8.0	0.9	1.4	12.6	300	1,000
T42180005	5	0.6	1.2	13.5	1.25	1.5	19.0	645	1,000
T42180010	10	0.6	1.2	17.7	1.25	1.7	23.6	930	1,000
T42180015	15	0.6	1.3	20.6	1.6	1.8	27.4	1,345	1,000
T42180020	20	0.6	1.5	23.8	1.6	1.8	30.6	1,625	1,000
T42180030	30	0.6	1.5	28.4	1.6	2.0	35.6	2,096	500
T42180050	50	0.6	2.0	36.6	2.0	2.2	45.0	2,095	500
<b>Conductor 1.5 sq.mm. (7/0.53mm.) class 2</b>									
T42200001	1	0.6	0.8	7.5	0.9	1.4	12.1	270	1,000
T42200002	2	0.6	0.9	9.3	0.9	1.4	13.9	360	1,000
T42200005	5	0.6	1.2	15.0	1.25	1.6	21.3	800	1,000
T42200010	10	0.6	1.3	20.9	1.6	1.8	27.7	1,385	1,000
T42200015	15	0.6	1.5	24.6	1.6	1.9	31.6	1,750	1,000
T42200020	20	0.6	1.5	27.8	1.6	2.0	35.8	2,315	1,000
T42200030	30	0.6	1.7	33.7	2.0	2.1	41.9	3,040	500
T42200050	50	0.6	2.0	43.0	2.5	2.4	52.8	4,810	500