



**TAI SIN ELECTRIC LIMITED**  
24 Gul Crescent, Jurong Town  
Singapore 629531  
Tel: (+65) 6861 3401  
Fax: (+65) 6861 4084  
Email: sales@taisin.com.sg  
Website: www.taisin.com.sg

**TAI SIN ELECTRIC CABLES (MALAYSIA) SDN BHD**  
PTD 37433 & 37434  
Off Jalan Perindustrian Senai 3  
Kawasan Perindustrian Senai Fasa 2  
P.O. Box 73, 81400 Senai  
Johor Darul Takzim, Malaysia  
Tel: (+60) 7 599 8888  
Fax: (+60) 7 599 8898  
Email: taisin@taisin.com.my  
Website: www.taisin.com.my

**TAI SIN ELECTRIC CABLES (VN) CO., LTD.**  
20 VSIP II Street 2,  
Vietnam Singapore Industrial Park 2  
Ben Cat, Binh Duong Province, S.R. Vietnam  
Tel: (+84) 650 3635 088  
Fax: (+84) 650 3635 077  
Email: sales@taisin.com.vn  
Website: www.taisin.com.vn

APPROVED BY:



AUTHORISED DEALER:



## Tai Sin Cables & Wires



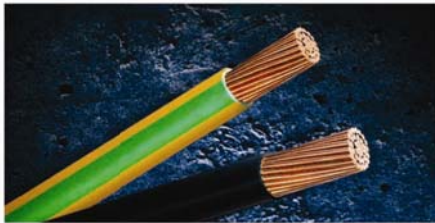
## About Tai Sin

The Company was incorporated in 1980 and is a Main Board listed company in the Singapore Exchange (SGX). Today, the Group has diversified its scope as a cable manufacturer through its acquisition of an established distribution business making it an electric solutions provider. It now provides manufacturing, distribution and technical services to support its customers in the infrastructure, industrial, commercial and residential sectors.

A renowned quality brand in Singapore for the past 30 years, Tai Sin offers a wide range of low voltage cables & wires for Power, Control, Instrumentation and Offshore & Marine applications with Low Smoke Zero Halogen (LSZH), Flame Retardant (FRT) and Fire Resistant (FR) characteristics.



## Single Core Cables & Wires



Tai Sin produces a full range of PVC single core cables from 1.5mm<sup>2</sup> to 1000mm<sup>2</sup> in both harmonised and non-harmonised colours. The conductors used are plain annealed, solid or stranded with PVC or heat resistant PVC, certified to IEC 60227 and BS 6004. These cables have a voltage rating of 450/750V.

PVC cables with materials where the halogen acid evolved is less than 15% of total mass when heated at 800°C are also available upon request.

In addition, Tai Sin's FRT (LSZH) Flame Retardant, Low Smoke Zero Halogen Cables & Wires are also available. This range of single core cables are insulated with Low Smoke Zero Halogen thermosetting insulation compounds conforming to BS 7211. Sizes ranging from 1.5mm<sup>2</sup> to 1000mm<sup>2</sup> in both harmonized and non-harmonised colours are available.

## Low Voltage Power Cables & Wires



Low Voltage PVC and XLPE armoured and non-armoured cables are manufactured to British, IEC and customised standards under strict quality control procedures. These cables have a voltage rating of 600/1000V.

PVC Insulated Power Cables are manufactured with plain annealed stranded copper. Multicores are laid together and protected with an inner sheath of PVC, armoured with steel round wires and single core cables are armoured with aluminium wires and finally protected by an outer layer of PVC sheath. Non-armoured cables are without the additional inner sheath and armoring. PVC sheathing of all cables are UV protected and are Flame Retardant.

Inner and outer PVC sheathing materials where the halogen acid evolved is less than 15% of total mass when heated at 800°C are also available upon request.

XLPE Insulated Power Cables are manufactured with plain annealed stranded copper. Multicores are laid together and protected with an inner sheath of PVC, armoured with steel round wires and single core cables are armoured with aluminium wires and finally protected by an outer layer of PVC sheath.

Range : 1C x 10mm<sup>2</sup> to 1C x 1000mm<sup>2</sup>, 2C x 1.5mm<sup>2</sup> to 4C x 500mm<sup>2</sup> (For armoured)  
Range : 1C x 1.5mm<sup>2</sup> to 1C x 1000mm<sup>2</sup>, 2C x 1.5mm<sup>2</sup> to 4C x 500mm<sup>2</sup> (For non-armoured)

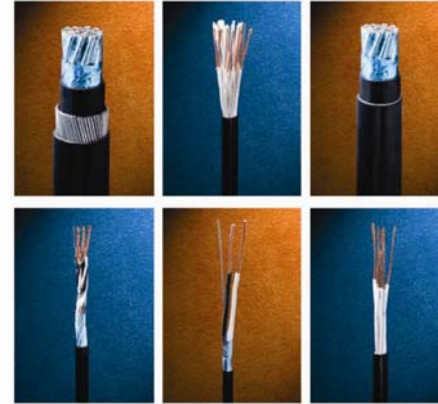
PVC Insulated Standards / Specifications : BS 6346, IEC 60502-1, IEC 60332-3 and other standards as per customer's request  
XLPE Insulated Standards / Specifications : BS 5467, IEC 60502-1, IEC 60332-3 and other standards as per customer's request

Fire safety is clearly one of the top priorities in infrastructure safety for modern buildings of any category. A fire once spread out of control, can quickly cause extensive damage to property and ultimately human lives. More often than not, it is the speed of fire spreading, the existence of corrosive halogen gases by burning chlorine containing materials and the inhalation of smoke that make safe escape from a fire difficult and dangerous. Tai Sin's FRT (LSZH) Flame Retardant, Low Smoke Zero Halogen Armoured and Non-armoured cables are available to ease such fears.

Range : 1C x 10mm<sup>2</sup> to 1C x 1000mm<sup>2</sup>, 2C x 1.5mm<sup>2</sup> to 4C x 500mm<sup>2</sup> (For armoured)  
Range : 1C x 1.5mm<sup>2</sup> to 1C x 1000mm<sup>2</sup>, 2C x 1.5mm<sup>2</sup> to 4C x 500mm<sup>2</sup> (For non-armoured)

FRT Standards / Specifications : BS 6724, IEC 60502-1, IEC 60332-3, IEC 60754, IEC 61034 and other standards as per customer's request.

## Instrumentation and Control Cables



Tai Sin has a variety of multicore and multipair Instrumentation and Control cables with oxygen-free, high grade copper conductors which are annealed solid or stranded with PVC, PE or XLPE insulation. Other options available such as PVC or LSZH sheathing with or without steel wires armoring. Additional options available include individual & overall screen, overall screen, manufactured with aluminum/PE tapes or tinned copper braid as screen.

The instrumentation range of cables are available with a voltage rating of 300/500V and are either manufactured to BS 5308 or BS EN 50288 standards. The control range of cables available have a voltage rating of 600/1000V and are manufactured to BS 5467 or IEC 60502-1.

Inner and outer PVC sheathing materials where the halogen acid evolved is less than 15% of total mass when heated at 800°C are also available upon request.

As with other ranges of cables, this range also has a variation which uses materials that are Low Smoke Zero Halogen (LSZH) and Flame Retardant.

In addition, Tai Sin has a complete range of instrumentation cables which are LSZH and has Fire Resistant (FR) characteristics.

Range : 2 cores to 61 cores; 0.75mm<sup>2</sup> to 4.0mm<sup>2</sup>  
Range : 1 pair to 50 pairs; 0.75mm<sup>2</sup> to 4.0mm<sup>2</sup>

## Fire Resistant (FR) Cables & Wires



Fire safety is one of the top priorities in today's building infrastructure safety. A fire once spread out of control, can quickly cause extensive damage to the property and ultimately to human lives. Ideally, all measures should be in place to ensure that a fire never occurs, but in the event that a fire has been ignited, every precaution should already be in place to ensure that it is contained quickly. This is where Tai Sin's Low Smoke Zero Halogen (LSZH), Flame Retardant and Fire Resistant Cables come into play.

These cables are manufactured with plain annealed solid or stranded copper strands. The conductors are protected with a fire barrier tape and are insulated with either a LSZH thermosetting compound or XLPE. The multicores are laid together and protected with an inner sheath of LSZH material, armoured with steel round wires for multicores or aluminium wires for single core and finally protected by an outer layer of LSZH material. Non-armoured cables are without the additional inner sheath and armoring. LSZH sheathing of all these cables are UV protected. This range of FR Cables are available with a voltage rating of 600/1000V and are manufactured to BS 7211 (Single Core Wiring), IEC 60502-1 (Non-Armoured) and BS 7846 (Armoured).

### Fire Performance Standards Achieved

Circuit Integrity : BS 6387 Cat C.W.Z., SS 299 Cat C.W.Z., IEC 60331

Flame Propagation : IEC 60332-3A / IEC 60332-3-22, BS EN 50266

Acid Gas Emission : IEC 60754, BS EN 50267

Smoke Emission : IEC 61034, BS EN 61034

Range : 1C x 1.5mm<sup>2</sup> to 1C x 1000mm<sup>2</sup> (Single Core Wiring)  
Range : 1C x 10mm<sup>2</sup> to 1C x 1000mm<sup>2</sup>, 2C x 1.5mm<sup>2</sup> to 4C x 500mm<sup>2</sup> (Armoured)  
Range : 1C x 1.5mm<sup>2</sup> to 1C x 1000mm<sup>2</sup>, 2C x 1.5mm<sup>2</sup> to 4C x 500mm<sup>2</sup> (Non-armoured)

## Fire Resistant Cables for Emergency Circuits



Tai Sin's FRA-XOL Cables are designed to meet the requirements as described in BS 5839-1:2002+A2:2008, clause 26.2d. This range also meets the PH120 class when tested in accordance with BS EN 50200:2006 Annex E and the 30 minutes survival time when tested in accordance with BS 8434-2:2003+A2:2009. In addition, the cable also complies with BS 6387 Cat. C.W.Z.

These cables are manufactured with plain annealed copper in either solid or stranded form. The conductors are protected with a fire barrier tape and are insulated with a Low Smoke Zero Halogen (LSZH) thermosetting compound. The cores are held together with a laminated aluminium tape screen which is bonded together with a LSZH sheath and at the same time comes into contact with a tinned copper conductor which acts as a circuit protective conductor and as a screen drain wire. These cables are manufactured to meet the requirements of BS 7629-1:2008.

Range : 2 cores to 4 cores; 1.0mm<sup>2</sup> to 4.0mm<sup>2</sup>  
Range : 7 cores; 1.0mm<sup>2</sup> to 2.5mm<sup>2</sup>  
Range : 12 cores; 1.5mm<sup>2</sup> to 2.5mm<sup>2</sup>  
Range : 19 cores; 1.5mm<sup>2</sup>