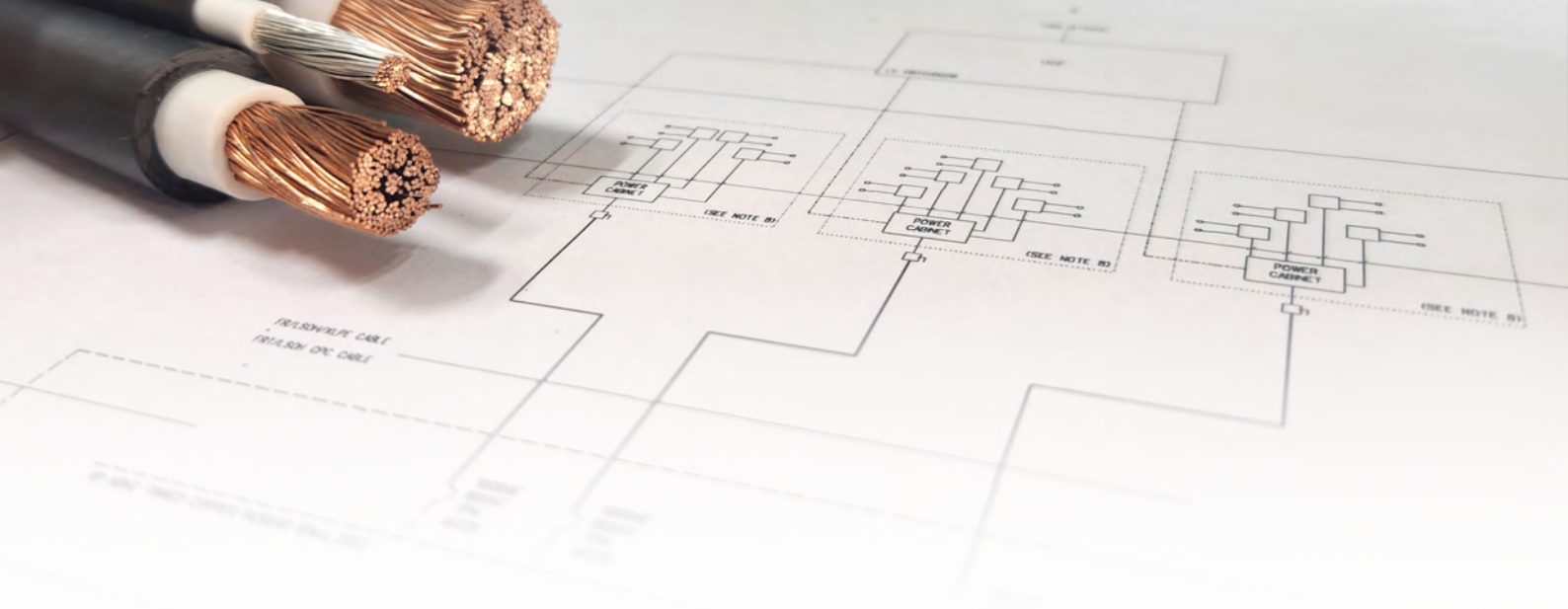


TAI SIN FLEXIBLE DC POWER CABLE



WHY USE TAI SIN FLEXIBLE DC POWER CABLE?

CONTRIBUTING TO A GREENER AND MORE SUSTAINABLE FUTURE

With transportation accounting for approximately 15% of total carbon emissions in Singapore, the development & production of smart and reliable charging solutions will enable a swift environmental transition towards more efficient electric vehicles of any range from cars to buses and to heavy vehicles.

Tai Sin's commitment to building a zero emission future with reliable and greener cables to support charging solutions for electric vehicles.

The introduction of Tai Sin Flexible DC (Direct Current) Power Cables are specially designed suitable for use internally and externally in free air, in ducts on masonry and in metal structures.

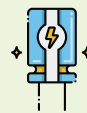
Enhanced DC power rating are ideal for use as a EV connection cable to high-power charging stations.

Halogen free flame retardant ethylene propylene rubber (EPR) insulation and low smoke zero halogen (LSZH) sheath with low emission of corrosive gas and low flame propagation for a greener benefit.

APPLICATIONS FOR TAI SIN DC POWER CABLE



For use in PV systems with nominal voltage of 1.5kV dc



For secondary distribution in DC power



Suitable for powering up charging station



For battery connection

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Tai Sin[®]

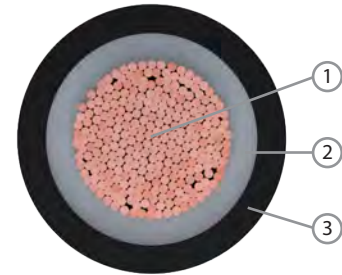
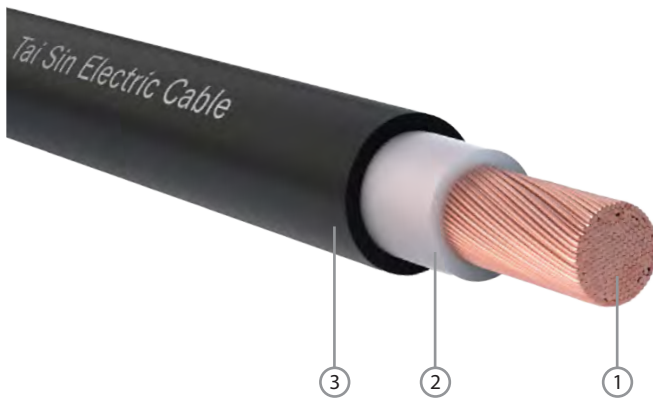
WE'RE MORE THAN CABLES

FRT-ZH-F

CU / EPR / LSZH (SINGLE CORE)

EPR Insulated, LSZH Sheathed Cable,

Maximum d.c voltage conductor to conductor 1800V and maximum d.c voltage conductor to earth 900V



Component
 1. Plain Annealed Copper Wire
 2. Ethylene Propylene Rubber (EPR)
 3. Low Smoke Zero Halogen (LSZH) Compound

CONSTRUCTION

Conductor:	Plain Annealed Flexible Copper, Class 5 Stranded Circular (Tinned copper upon request)
Insulation:	Ethylene Propylene Rubber (EPR)
Insulation Colour:	Natural or Black
Outer Sheath:	Low Smoke Zero Halogen(LSZH) Compound with Anti-Termite Characteristic and UV Resistant
Outer Sheath Colour:	Black or Light Grey / Other colour upon request

REFERENCE STANDARDS

Design Specification:	IEC60502-1
Conductor:	IEC60228, BS EN60228
Flame Retardancy:	IEC60332-1 IEC60332-3-24, BS EN IEC60332-3-24
Low Smoke Zero Halogen:	IEC61034-2, BS EN61034-2 IEC60754-1, IEC60754-2 BS EN60754-1, BS EN60754-2

ELECTRICAL CHARACTERISTICS

Operating Voltage:	AC: 600/1000V (Max 1200V) DC: 750/1500V (Max 900/1800V)
Operating Temperature:	-15°C to 90°C
Final Short Circuit Temperature:	250°C
Test Voltage:	3.5kVac / 5 minutes

INSTALLATION REFERENCE

Min. Bending Radius (mm):	6 x cable overall diameter
Max. Pulling Tension (N/mm ²):	15

Nominal Conductor Area (mm ²)	Approx Conductor Diameter (mm)	Insulation Thickness (mm)	Overall Sheath Thickness (mm)	Approx Cable Overall Diameter (mm)	Approx Cable Weight (kg/km)	Current Rating 1 or 3 Phase a.c [Air 30°C] (A)	Voltage Drop (V/A/km)	Minimum Insulation Resistance at Ambient (MΩ/km)	Maximum Conductor Resistance at 20°C (MΩ/km)
1 x 1.5	1.5	0.7	1.4	5.9	46	22	29.40	2000	13.3
1 x 2.5	2.0	0.7	1.4	6.4	58	30	17.60	2000	7.98
1 x 4	2.5	0.7	1.4	6.9	75	40	10.90	2000	4.95
1 x 6	3.5	0.7	1.4	7.9	103	51	7.29	2000	3.30
1 x 10	4.5	0.7	1.4	8.9	145	70	4.22	2000	1.91
1 x 16	5.7	0.7	1.4	10.2	210	94	2.68	2000	1.21
1 x 25	7.5	0.9	1.4	12.5	310	125	1.74	2000	0.780
1 x 35	8.9	0.9	1.4	14.1	415	155	1.24	2000	0.554
1 x 50	10.5	1.0	1.4	15.9	565	196	0.88	2000	0.386
1 x 70	12.6	1.1	1.4	18.2	771	248	0.63	2000	0.272
1 x 95	14.1	1.1	1.5	19.7	984	298	0.49	1000	0.206
1 x 120	16.0	1.2	1.5	21.8	1235	354	0.40	1000	0.161
1 x 150	18.4	1.4	1.6	24.8	1533	409	0.34	1000	0.129
1 x 185	19.8	1.6	1.6	26.6	1846	470	0.30	1000	0.106
1 x 240	22.8	1.7	1.7	30.0	2401	565	0.25	1000	0.0801
1 x 300	25.5	1.8	1.8	33.1	2962	650	0.23	1000	0.0641
1 x 400	29.3	2.0	1.9	37.5	3869	780	0.20	1000	0.0486
1 x 500	32.6	2.2	2.0	41.4	4777	903	0.19	1000	0.0384
1 x 630	36.7	2.4	2.2	46.3	6032	1052	0.18	1000	0.0287