

## IEC 60317(GB/T6109)

The Tech & Specification parameters of our company's wires are in international unit system, with the unit of millimeter (mm). If use American Wire Gauge (AWG) and British Standard Wire Gauge (SWG) , the following table is a comparison table for your reference.

The most special dimension can be customized as per the requirements of customers.

### COMPARISON OF DIFFERENT METAL CONDUCTORS'S TECH& SPECIFICATION

METAL	Copper	Aluminium Al 99.5	CCA10% Copper Clad Aluminum	CCA15% Copper Clad Aluminum	CCA20% Copper Clad Aluminum	CCAM Copper Clad Aluminum Magnesium	TINNED WIRE
Diameters available [mm] Min - Max	0.04mm -2.50mm	0.10mm -5.50mm	0.10mm -5.50mm	0.10mm -5.50mm	0.10mm -5.50mm	0.05mm-2.00mm	0.04mm -2.50mm
Density [g/cm <sup>3</sup> ] Nom	8.93	2.70	3.30	3.63	3.96	2.95-4.00	8.93
Conductivity[S/m * 10 <sup>6</sup> ]	58.5	35.85	36.46	37.37	39.64	31-36	58.5
IACS[%] Nom	100	62	62	65	69	58-65	100
Temperature-Coefficient[10 -6/K] Min - Max of electrical resistance	3800 - 4100	3800 - 4200	3700 - 4200	3700 - 4100	3700 - 4100	3700 - 4200	3800 - 4100
Elongation (1)[%] Nom	25	16	14	16	18	17	20
Tensile strength (1)[N/mm <sup>2</sup> ] Nom	260	120	140	150	160	170	270
Outer metal by volume[%] Nom	-	-	8-12	13-17	18-22	3-22%	-

<b>Outer metal by weight[%] Nom</b>	-	-	28-32	36-40	47-52	10-52	-
<b>Weldability/Solderability[--]</b>	++/++	+/--	++/++	++/++	++/++	++/++	+++/+++
<b>Properties</b>	Very high conductivity, good tensile strength, high elongation, excellent windability, good weldability and solderability	Very low density allows high weight reduction, fast heat dissipation, low conductivity	CCA combines the advantages of Aluminum and Copper. Low density allows weight reduction, elevated conductivity and tensile strength compared to Aluminum, good weldability and solderability, recommended for diameter 0.10mm and above	CCA combines the advantages of Aluminum and Copper. Lower density allows weight reduction, elevated conductivity and tensile strength compared to Aluminum, good weldability and solderability, recommended for very fine sizes down to 0.10mm	CCA combines the advantages of Aluminum and Copper. Lower density allows weight reduction, elevated conductivity and tensile strength compared to Aluminum, good weldability and solderability, recommended for very fine sizes down to 0.10mm	CCAM combines the advantages of Aluminum and Copper. Lower density allows weight reduction, elevated conductivity and tensile strength compared to CCA, good weldability and solderability, recommended for very fine sizes down to 0.05mm	Very high conductivity, good tensile strength, high elongation, excellent windability, good weldability and solderability
<b>Application</b>	General coil winding for electrical application, HF litz wire. For use in industrial, automotive, appliance, consumer electronics	Different electrical application with low weight requirement, HF litz wire. For use in industrial, automotive, appliance, consumer electronics	Loudspeaker, headphone and earphone, HDD, induction heating with the need of good termination	Loudspeaker, headphone and earphone, HDD, induction heating with the need of good termination, HF litz wire	Loudspeaker, headphone and earphone, HDD, induction heating with the need of good termination, HF litz wire	Electrical wire and cable, HF litz wire	Electrical wire and cable, HF litz wire