

SECTION - XII
APPLICATION BASED CABLES



PRODUCTS

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TUBULAR BRAIDS

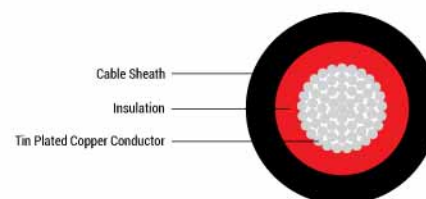
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BARE COPPER CONDUCTOR

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Application

Solar cables are intended for use in photovoltaic power supply systems and similar applications as free hanging, movable, fixed installation and buried in ground in constructional covered systems. The cables can be used indoor, outdoor, in hazard explosion areas, in industry and agriculture. They are suitable for applications in equipment with protective insulation (protecting Class 2).

Standard

EN 50618:2015.

Thermal parameters

Max. Permissible Ambient Temperature : +90°C (stationary and in motion)

Max. Permissible Operating Temperature of The Conductor :

+120°C, Interpretation according to IEC 60216 : permanent temperature.

120°C for 20,000 h (= 2.3 years), at max. 90°C permanent temperature (= 30 years).

Short - Circuit Temperature : 250°C referring to a period of 5 sec.

Damp - Heat Test : According to EN 60068 - 2 - 78. 1,000h at 90°C and 85% humidity.

Min. Permissible Ambient Temperature : -40°C (stationary and in motion)

Resistance to Cold :

Bending test at low temperature according to DIN EN 60811 - 1 - 4, Impact test similar to DIN EN 50305.

Minimum Bending Radius : Fixed Installation approx. 4 x cable Ø

Electrical Parameters

Voltage Rating : AC 0.6 / 1.0 kV

Max. PV - System Voltage : DC up to 2.0 kV possible

Max. Permissible Operating Voltage in AC Systems : 0.7 / 1.2 kV

Max. Permissible Operating Voltage in DC Systems : 0.9 / 1.8 kV

Test Voltage : AC 6.5 kV / DC 15 kV (15 min.)

Mechanical Parameters

Tensile Load : 15 N / mm² in operation. 50 N/mm² during installation

Shrinkage Test : According to EN 60811 - 1 - 3

Shore-Hardness : 85 shore A according to DIN EN 53505

Pressure Test at High Temperature : According to EN 60811 - 3 - 1

Dynamic Penetration Test : According to requirements for cables for PV systems, DKE / VDE 411.2.3

Chemical Parameters

Mineral Oil Resistance : 24h, 100°C according to DIN VDE 0473 - 811 - 2 - 1, DIN EN 60811-2-1

Acid and Alkaline Resistance : According to EN 60811-2-1

7 days, 23°C (N-Oxalic Acid, N-Sodium Hydroxide)

Ammonia Resistance : 30 days in saturated ammonia atmosphere (internal testing)

Weather Resistance : Ozone resistance according to DIN EN 50396 test Type B, HD 22.2 test Type B UV - resistance according to UL 1581 (Xenon - Test), ISO 4892 - 2 (Method A) and HD 506/A1-2.4.20

Absorption of water (gravimetric) according to DIN VDE 0473-811-1-3, DIN EN 60811 - 1 - 3.

Behavior in Case of Fire : Flame propagation.

Single cable according to DIN VDE 0482 Part 332 - 1 - 2, DIN EN 60332 - 1 - 2.

Multiple cable according to DIN VDE 0482 Part 266 - 2 - 5, DIN EN 50305 - 9.

Low smoke emission according to DIN VDE 0482 Part 268 - 2.
 DIN EN 50268-2 (light transmittance > 70%).
 Corrosivity according to DIN EN 50267 - 2 - 2.
 Toxicity according to DIN EN 50305, ITC - index < 3.

Cable Construction

Conductor : Fine Wire Tinned Copper Conductor according to BS EN 60228:2005 cl. 5.

Insulation : UV resistant, cross linkable, halogen free, flame retardant compound for core insulation.

Core Identification : Red, black or natural

Sheath : UV resistant, cross linkable, halogen free, flame retardant compound for Sheath over insulation.

Cable Colour : Red, Black, Black with red strip

Please complete the part numbers for these cables by adding the suffix (in place of 'xx') for the insulation colour required as per the list:
 02 - black, 03 - red, 13 - natural.

Cable Design Parameters

Part Number	Nominal Cross-Sectional (Sq. mm)	Insulation Thickness (mm)	Outer sheath Thickness (mm)	Approx. Cable Diameter (mm) as per EN 50618	Current carrying capacity according to method of installation			Max. Conductor Resistance at 20°C, (Ω/Km)
					Single cable free in air (A)	Single cable on a surface (A)	Two loaded cables touching, on a surface (A)	
12010101xx01	1.5	0.70	0.80	4.66	30	29	24	13.7
12010102xx01	2.5	0.70	0.80	5.09	41	39	33	8.21
12010103xx01	4.0	0.70	0.80	5.59	55	52	44	5.09
12010104xx01	6.0	0.70	0.80	6.13	70	67	57	3.39
12010105xx01	10.0	0.70	0.80	7.07	98	93	79	1.95
12010106xx01	16.0	0.70	0.90	8.32	132	125	107	1.24
12010107xx01	25.0	0.90	1.00	10.14	176	167	142	0.795
12010108xx01	35.0	0.90	1.10	11.49	218	207	176	0.565
12010109xx01	50.0	1.00	1.20	13.33	276	262	221	0.393
12010110xx01	70.0	1.10	1.20	15.19	347	330	278	0.277
12010111xx01	95.0	1.10	1.30	16.94	416	395	333	0.210
12010112xx01	120.0	1.20	1.30	18.71	488	464	390	0.164
12010113xx01	150.0	1.40	1.40	20.86	566	538	453	0.132
12010114xx01	185.0	1.60	1.60	23.24	644	612	515	0.108
12010115xx01	240.0	1.70	1.70	26.14	755	736	620	0.0817



Moulded 3 Pin Cords

We provide a wide assortment of non rewireable moulded cords. Our range offers efficient performance and durability for rugged use. These cords are tested for conformity to required standards. We can offer these cords in various sizes and specifications. These are extensively used in electronic industry, especially in TV, video games, DVD player, voltage stabiliser, heat convector, water immersions rods, instant water heaters and others electrical & electronic Home Appliances.

Moulded Two Pin Plug

We also produce a wide range of two pin plugs for various applications. These cords have a wide usage on various domestic electrical and electronic appliances and gadgets on which earthing is not required. Customised moulding and cable selection is also offered. The standard offer is done with cable twin flat sheathed 0.5 Sq mm.

Cable Construction

The power supply cords are manufactured by using ISI marked cables. The cords are manufactured with the brass pins soldered to the cable cores. Such pins are then firstly moulded with polypropylene which offers a high degree of dielectric strength, thereafter a final layer of coloured PVC matching to the cable jacket is moulded bearing the necessary marks and approvals. The cords for the Indian market are according to the IS 1293: 2005 approval marks.

Cable Design Parameters

3 - Pin Moulded Power Cords as per IS 1293: 2005

Part Number	Item	No. of Cores and Nominal Cross Sectional (Sq. mm)	Current Rating (A)	Length
120301010001	Main Power Cords	3 x 0.5	6	Available in specific length as req. by Customer/Retail packs
120301020001		3 x 0.75	6/16	
120301030001		3 x 1	6/16	
120301040001		3 x 1.5	16	

2 - Pin Flat Moulded Cords

Part Number	Item	No. of Cores and Nominal Cross Sectional (Sq. mm)	Current Rating (A)	Length
120301050001	Main Power Cords	2 x 0.5	6	Available in specific length as req. by Customer/Retail packs

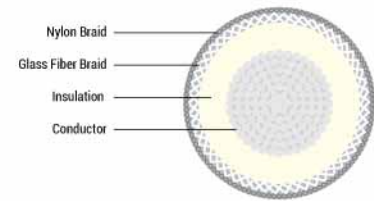
Note:

We cater customized cords in accordance to National and International Standards.

We also cater harness for various industrial automation, computer application and automobiles which are manufactured in house.

UNINYVIN CABLE

REACH | RoHS | CE



Applications

These cables are used in UPS systems and server rooms as the nylon and fiber glass braid on the cable does not allow the heat generated in the conductor, due to continuous operation, to be felt in the surrounding areas. These cables are widely used in aircraft cabling.

Cable Construction

Conductor : Annealed tinned copper to IS:10241 Part 3, uniformly bunched to form a circular shape

Insulation : Special core insulation HR-PVC 105° C

Primary Braid : Braided with glass fiber, 100% coverage

Secondary Braid : Braided with nylon fiber, 100% coverage

Lacquer : Overall construction is finally lacquered with nylon varnish

Properties

Max. Operating Voltage : 600V r.m.s.

Operating Temperature Range : -35°C to 105°C

Resistant to ester based fluids (hydraulic oil), acids, chemicals and solvents.

The nylon and glass fibers are very good heat resistant materials.

Cable Design Parameters

Part Number	Cable Size	Conductor				Radial Thickness	Nylon Braid and Lacquer		Overall Diameter of Cable		DC Conductor Resistance at 20°C (Ω/km)	Max. Current Rating (Amps.) BS G 177
		Nom. Cross Sectional Area (Sq. mm)	No. & Dia. of Wires in (mm)	Max. Conductor Diameter (mm)	Min. Conductor Diameter (mm)		Min. PVC Insulation	Max. (mm)	Min. (mm)	Max. (mm)		
120401050001	14	2.05	70/0.193	1.956	1.803	0.279	0.178	0.076	3.4	3	9.2	31
120401060001	12	3.22	110/0.191	2.438	2.286	0.279	0.178	0.076	3.8	3.5	5.85	43
120401070001	10	5.33	73/0.305	3.15	2.896	0.381	0.381	0.127	5	4.6	3.532	61
120401080001	8	8.76	120/0.305	3.242	3.937	0.381	0.381	0.127	6.3	5.9	2.154	87
120401090001	6	13.3	182/0.305	5.537	5.08	0.381	0.381	0.127	7.6	7.3	1.422	115
120401100001	4	21.5	294/0.305	6.909	6.452	0.483	0.381	0.127	9.3	8.8	0.877	160

Part Number	Cable Size	Conductor				Radial Thickness	Nylon Braid and Lacquer		Overall Diameter of Cable		DC Conductor Resistance at 200C (Ω/km)	Max. Current Rating (Amps.) BS G 177
		Nom. Cross Sectional Area (Sq. mm)	No. & Dia. of Wires in (mm)	Max. Conductor Diameter (mm)	Min. Conductor Diameter (mm)		Min. PVC Insulation	Max. (mm)	Min. (mm)	Max. (mm)		
120401110001	2	33.3	203/0.457	8.763	8.128	0.483	0.381	0.127	11.0	10.5	0.565	200
120401120001	1	40.7	248/0.457	9.754	9.119	0.559	0.381	0.127	12.2	11.7	0.463	220
120401130001	0	53.0	323/0.457	10.973	10.338	0.635	0.381	0.127	13.7	13.0	0.355	240
120401140001	00	68.3	416/0.457	12.446	11.684	0.686	0.381	0.127	15.4	14.6	0.276	270

Table I : Current Ratings for Multiple Circuits

Cable Size	Nominal Cross Sectional Area (Sq. mm)	Max. Current Rating (Amps)			
		Single Cable	3 - Bunched Cables	7 - Bunched Cables	12 - Bunched Cables
14	2.05	31	24	17	12
12	3.22	43	30	22	15
10	5.33	61	47	36	25
8	8.76	87	65	49	36
6	13.3	115	87	65	-
4	21.5	160	120	92	-
2	33.3	200	155	120	-
1	40.7	220	165	130	-
0	53	240	185	168*	-
00	68.3	270	210/240*	190**	-

* Denotes two cables only
** Denotes five cables only

Table II : Derating Factor of Uninyvin Cable for Different Ambient Temperature

Ambient temp. (°C)	40	45	50	55	60	65	70	75	80	85	90	95	100
Derating factor	1.0	0.96	0.92	0.88	0.83	0.78	0.75	0.73	0.68	0.62	0.53	0.48	0.3

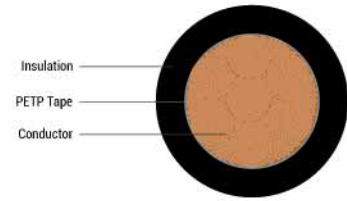
Table III : Maximum 1 Minute Current Ratings for Multiple Circuits

Cable Size	Nominal Cross Sectional Area (Sq. mm)	Max. Current Rating (Amps)			
		Single Cable	3 - Bunched Cables	7 - Bunched Cables	12 - Bunched Cables
14	2.05	50	47	43	42
12	3.22	72	67	62	60
10	5.33	110	107	104	101
8	8.76	173	165	159	153
6	13.3	250	236	230	-
4	21.5	390	378	360	-
2	33.3	545	530	520	-
1	40.7	620	600	590	-
0	53	705	690	680	-
00	68.3	820	810	800	-

Table III : Maximum 1 Minute Current Ratings for Multiple Circuits

Sr. No.	Fluid Represented	Test Fluids	Temp. of Test	Max. Change in Dia. %
1	Aviation Turbine Fuel	Kerosene	20 ± 0.5	5
2	Fuel	70% ISO Octane 30% Toluene by Vol.	20 ± 0.5	5
3	Hydraulic Fluid	80% Ethylene Glycol Mono Ethyl Ether, 20% Castor Oil by Vol.	50 ± 2	5
4	Ester Based Lubricating Oil	Ester Based Hydraulic Fluid	100 ± 2	5

Note:
Uninyvin cables as per BS G 177 are meant for air craft (cabling) flying under tropical weather conditions.



Application

For use between welding generators and hand electrodes and the workpiece .

For use in automobile industries, ship building, in transport and conveyor system, tool making machinery, welding robots, etc.

Standard

Adapted to IS:9857, IS:6380, IS:8130.

Technical Data

Voltage Rating: 450V a. c. rms.

Test Voltage : 1000V

Temperature Range : -20°C to +60°C

Minimum Bending Radius : 5 x cable diameter

Cable Construction

Super fine strands of annealed bare copper according to IS:8130, Cl. 6.

Elastomeric insulation type SE-1 conforming to the requirements of IS:6380.

Properties

The heavy duty welding cable is resistant to flame, oil, abrasions, tar and grease.

Suitable for use in open air, in dry as well as damp interiors.

The high degree of flexibility does not form knots on the cable which could lead to internal break of conductors.

Cable Design Parameters

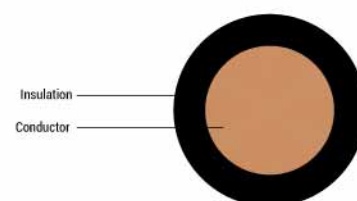
Part Number	Nominal Cross-Sectional Area (Sq. mm)	Max. Strand Diameter (mm)	Max. DC Conductor Resistance (Ω/km)	Nominal Insulation Thickness (mm)	Nominal Cable Diameter (mm)
120500100016	16	0.21	1.21	2.0	9.2
120500100025	25	0.21	0.78	2.0	10.5
120500100035	35	0.21	0.554	2.0	11.5
120500100050	50	0.31	0.386	2.2	13.5
120500100070	70	0.31	0.272	2.4	15.5
120500100095	95	0.31	0.206	2.6	17.7

Current Rating of General Service Normal Duty Elastomeric Compound Covered Cable with Copper Conductor

Part Number	Nominal Cross Sectional Area of Conductor (Sq. mm)	Current Rating at a Maximum Duty Cycle of				
		100% A	85% A	60% A	30% A	20% A
120500100016	16	94	102	121	172	210
120500100025	25	125	136	161	228	279
120500100035	35	156	169	201	285	349
120500100050	50	197	214	254	360	440
120500100070	70	248	269	320	453	555
120500100095	95	299	342	386	546	669

WELDEX-SI (Single Insulated)

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Applications

The welding cable is specially designed for the transmission of high currents from the electric welding machine to the welding tool. It is suitable for flexible use under rugged conditions, on assembly lines and conveyor systems, in machine tool and motor car manufacturing, shipbuilding and for spot welding machines.

Technical Data

Voltage Rating : 450V a.c.r.m.s.

Test Voltage : 3000V

Temperature Range : -30°C to + 70°C

Minimum Bending Radius : 5 x cable diameter

Cable Construction

Super fine strands of annealed bare copper as per EN 60228, Cl. 6.

Elastomeric PVC insulation.

*Also available with TPE insulation 105°C

Properties

The heavy duty welding cable is resistant to flame, oil, abrasions, tar and grease.

Suitable for use in open air, in dry as well as damp interiors.

The high degree of flexibility does not form knots on the cable which could lead to internal break of conductors.

Cable Design Parameters

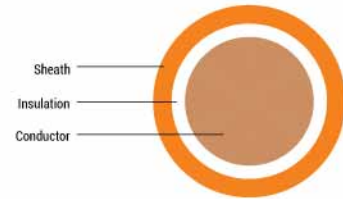
Kindly complete the part numbers for these cables by adding the suffix (in place of 'y') for the insulation material required:

0 - TPE, 1 - Elastomeric PVC.

Part Number	Nominal Cross-Sectional Area (Sq. mm)	Max. Strand Diameter (mm)	Max. DC Conductor Resistance (Ω /km)	Total Radial Thickness of Covering (mm)	Maximum Cable Diameter (mm)	Approx. Weight (kg/km)
1206y0100010	10	0.31	1.91	2.0	10.0	140
1206y0100016	16	0.31	1.21	2.0	11.5	200
1206y0100025	25	0.31	0.78	2.0	13.0	285
1206y0100035	35	0.31	0.554	2.0	14.5	375
1206y0100050	50	0.31	0.386	2.2	17.0	540
1206y0100070	70	0.31	0.272	2.4	19.0	740
1206y0100095	95	0.31	0.206	2.6	21.5	1000
1206y0100120	120	0.31	0.161	2.8	24.0	1230
1206y0100150	150	0.31	0.129	3.0	26.0	1500

WELDEX-DI (Double Insulated)

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Application

Double insulated cable, for welding machines provides higher current carrying capacity. Used to conduct secondary voltage in secondary side connection to MMA welding power sources.

Technical Data

Voltage Rating : 450V a.c.r.m.s.

Test Voltage : 3000V

Temperature Range : -30°C to +70°C

Minimum Bending Radius : 5 x cable diameter

Cable Construction

Super fine strands of annealed bare copper as per EN 60228, Cl. 6

Elastomeric PVC composite covering.

* Also available with TPE composite covering 105°C

Properties

The heavy duty welding cable is resistant to flame, oil, abrasions, tar and grease.

Suitable for use in open air, in dry as well as damp interiors.

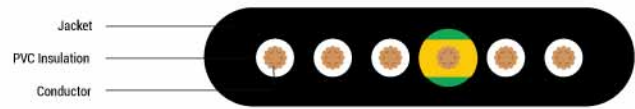
The high degree of flexibility does not form knots on the cable which could lead to internal break of conductors.

Cable Design Parameters

Kindly complete the part numbers for these cables by adding the suffix (in place of 'y') for the insulation material required:

0 - TPE, 1 - Elastomeric PVC

Part Number	Nominal Cross-Sectional Area (Sq. mm)	Max. Strand Diameter (mm)	Max. DC Conductor Resistance (Ω /km)	Total Radial Thickness of Covering (mm)	Maximum Cable Diameter (mm)	Approx. Weight (kg/km)
1207y0100010	10	0.30	1.91	3.2	10.0	180
1207y0100016	16	0.30	1.21	3.2	11.5	250
1207y0100025	25	0.30	0.78	3.2	13.0	350
1207y0100035	35	0.30	0.554	3.2	14.5	460
1207y0100050	50	0.30	0.386	3.5	17.0	650
1207y0100070	70	0.30	0.272	3.8	19.0	880
1207y0100095	95	0.30	0.206	4.2	21.5	1170
1207y0100120	120	0.30	0.161	4.5	24.0	1430
1207y0100150	150	0.30	0.129	4.8	26.0	1720



Application

These power and control flat cables can be used on festooned systems on handling equipment as overhead cranes. They are designed for indoors and outdoors for ambient temperature down to -25°C. These cables can accept a trolley traveling speed up to 120m / min.

Standard

HD 359 S2, IEC 227 Part 6, EN 50214

Technical Data

Voltage Rating :

H05VVH6-F - 300/500V

H07VVH6-F - 450/750V

Colour Coding :

Core 1: Black.

Core 2: Light-blue.

Core 3: Green-yellow.

Core 4: Brown.

Core 5: Black.

Core 6 and above: All black numbered cores with one green / yellow earth core.

Cable Construction

Flexible bare copper, Class 5, IEC 60228

PVC (polyvinyl chloride) insulation

PVC (polyvinyl chloride) outer sheath

Cable Colour : Black

*A stripping thread can be used in each group of cores.

Bending Radius : Fixed installation: 8 x cable height.

Cable Design Parameters

Part Number	Nominal Cross Sectional Area (Sq. mm)	Overall Dimensions (mm)	Approx. Weight (kg/km)
120810401105	4 x 1.5	15.0 x 5.0	150
120810411105	4 G 1.5	15.0 x 5.0	150
120810411205	4 G 2.5	18.5 x 5.7	210
120810410004	4 G 4	21.0 x 6.5	300
120810410006	4 G 6	23.0 x 7.0	385
120810410010	4 G 10	28.8 x 9.0	620
120810410016	4 G 16	36.8 x 10.8	990
120810410025	4 G 25	45.5 x 13.5	1550
120810410035	4 G 35	50.5 x 14.8	2030

Part Number	Nominal Cross Sectional Area (Sq. mm)	Overall Dimensions (mm)	Approx. Weight (kg/km)
120810410050	4 G 50	56.0 x 16.5	2650
120810410070	4 G 70	63.0 x 18.0	3650
120810410095	4 G 95	72.5 x 20.5	4550
120810511105	5 G 1.5	18.0 x 5.0	180
120810511205	5 G 2.5	22.0 x 5.7	260
120810510004	5 G 4	27.0 x 6.5	380
120810510006	5 G 6	27.0 x 7.0	480
120810510010	5 G 10	34.5 x 9	780
120810711105	7 G 1.5	26.0 x 5.0	260
120810711205	7 G 2.5	32.3 x 5.7	380
120810710004	7 G 4	40.0 x 6.8	550
120810801105	8 x 1.5	29.0 x 5.0	300
120810811105	8 G 1.5	29.0 x 5.0	300
120810811205	8 G 2.5	34.5 x 5.7	405
120811011105	10 G 1.5	35.0 x 5.0	360
120811210001	12 G 1***	33.5 x 4.5	320
120811201105	12 x 1.5	40.5 x 5	420
120811211105	12 G 1.5	40.5 x 5	420
120811211205	12 G 2.5	50.5 x 5.7	620
120811210004	12 G 4	57 x 6.8	880
120811411105	14 G 1.5	47.5 x 5	490
120811611105	16 G 1.5	53.5 x 5	560
120811810001	18 G 1***	50.5 x 4.5	470
120811811105	18 G 1.5	58.0 x 5.0	620
120812410001	24 G 1***	6.5 x 4.5	610

Note : ***H05VVH6-F Cables

Electrical Parameters

Part Number	Nominal Cross Sectional Area (Sq. mm)	Permissible Current Rating (A)**	Voltage Drop (ΔU) at $\cos \Phi = 0.8$ (V/A x km)
120810401105	4 x 1.5	20	20.2
120810411105	4 G 1.5	20	20.2
120810411205	4 G 2.5	27	12.3
120810410004	4 G 4	36	7.8
120810410006	4 G 6	48	5.3
120810410010	4 G 10	63	3.2
120810410016	4 G 16	85	2

Part Number	Nominal Cross Sectional Area (Sq. mm)	Permissible Current Rating (A)**	Voltage Drop (ΔU) at $\cos \phi = 0.8$ (V/A x km)
120810410025	4 G 25	112	1.3
120810410035	4 G 35	138	0.97
120810410050	4 G 50	168	0.74
120810410070	4 G 70	213	0.55
120810410095	4 G 95	258	0.42
120810511105	5 G 1.5	18	20.2
120810511205	5 G 2.5	25	12.3
120810510004	5 G 4	36	7.8
120810510006	5 G 6	48	5.3
120810510010	5 G 10	63	3.2
120810711105	7 G 1.5	15	20.2
120810711205	7 G 2.5	20	12.3
120810710004	7 G 4	25	7.8
120810801105	8 x 1.5	14	20.2
120810811105	8 G 1.5	14	20.2
120810811205	8 G 2.5	20	12.3
120811011105	10 G 1.5	12	20.2
120811210001	12 G 1***	8	38.2
120811201105	12 x 1.5	11	20.2
120811211105	12 G 1.5	11	20.2
120811211205	12 G 2.5	16	12.3
120811210004	12 G 4	20	7.8
120811411105	14 G 1.5	11	20.2
120811611105	16 G 1.5	10	20.2
120811810001	18 G 1***	6	38.2
120811811105	18 G 1.5	8	20.2
120812410001	24 G 1***	6	38.2

Note :

***H05VVH6-F Cables

**Ambient temperature: 30°C



Application

These are flexible braided copper & tin copper used as ground braiding tapes for batteries.

Flexible Braided Copper & Tin Copper tapes accordingly DIN 72333 Part 3 Standard

Adapted to DIN 72333 Part 3.

Cable Construction

Flexible braided copper/tin copper tapes consist of wires with a stringer wire diameter of 0.16 to 0.2 mm.

Surface :

Plain copper or Tinned.

Technical Data

Material :

Annealed electrolytic grade copper wire.

Wire Diameter - 0.16 to 0.2 mm.

Packing :

In rings or spools or wooden drums.

Cable Design Parameters

Kindly complete the part numbers by adding the suffix (in place of 'c') for the conductor type required:

0 = Plain/Bare Copper, 1 = Tinned Copper.

Part Number	Nominal Cross Sectional Area (Sq. mm)	No. of Wires	Strand Diameter (mm)	Width (mm)	Thickness (mm)
12090101000c	35	36 X 48	0.16	25	3.0
12090102000c	50	36 X 69	0.16	33	3.2
12090103000c	70	48 X 72	0.16	35	4.5
12090104000c	14	36 X 13	0.20	18	1.5
12090105000c	16	36 X 15	0.20	20	1.6
12090106000c	21	36 X 19	0.20	22	2.0
12090107000c	25	36 X 22	0.20	22	2.5
12090108000c	35	36 X 31	0.20	25	3.0
12090109000c	50	48 X 33	0.20	33	3.2
12090110000c	70	48 X 47	0.20	35	4.5

Flexible Braided Copper & Tin Copper tapes as per RR Specification

Technical Data

Material :

Annealed electrolytic grade copper wire.

Wire Diameter - 0.16 to 0.2 mm.

Packing :

In rings or spools or wooden drums.

Construction and Application

Flexible braided copper/tin copper tapes consist of wires with a stringer wire diameter of 0.12 to 0.3 mm.

Surface :

Plain copper or Tinned.

Cable Design Parameters

Kindly complete the part numbers by adding the suffix (in place of 'c') for the conductor type required:

0 = Plain/Bare Copper, 1 = Tinned Copper.

Part Number	Nominal Cross Sectional Area (Sq. mm)	No. of Wires	Strand Diameter (mm)	Width (mm)	Thickness (mm)
12070111000c	40	48 X 48	0.15	30	2.5
12070112000c	55	48 X 64	0.15	33	2.5
12070113000c	20	36 X 8	0.30	20	2.0
12070114000c	30	36 X 12	0.30	25	2.4
12070115000c	40	36 X 16	0.30	30	3.0
12070116000c	50	36 X 20	0.30	30	3.5



Application

Tubular braids are used for covering and shielding. They protect the cables and electrical conductors against interferences and to realise a safe data transfer.

Cable Construction

Surface :

Plain copper or Tinned.

Technical Data

Material :

Annealed electrolytic grade copper wire.

Wire Diameter - 0.16 to 0.3 mm.

Packing :

In rings or spools or wooden drums.

Cable Design Parameters

Kindly complete the part numbers by adding the suffix (in place of 'c') for the conductor type required:

0 = Plain/Bare Copper, 1 = Tinned Copper.

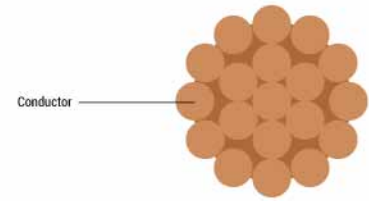
Part Number	Nominal Cross Sectional Area (Sq. mm)	No. of Wires	Strand Diameter (mm)	Width (mm)	Thickness (mm)
12100101000c	7.90	36 X 7	0.2	8.5	25
12100102000c	10.20	36 X 9	0.2	10	27
12100103000c	12.45	36 X 11	0.2	12	29
12100104000c	35.80	36 X 14	0.3	25	70
12100105000c	51.10	48 X 15	0.3	25	90

Note :

*We can also produce special designs in diameters and constructions according to customer requirement.

BARE COPPER CONDUCTOR

REACH | RoHS | CE



Application

The bare copper conductor are used as ground conductor, uninsulated hook up wires and jumpers.

Standard

IEC 60228, BS EN 60228.

Technical Data

Description : Soft drawn plain annealed copper

Packing : In wooden drums

Cable Construction

The conductor consist of annealed bare copper wire which are stranded together.

The construction of the conductor is in accordance to IEC 60228 and BS EN 60228.

Cable Design Parameters

Part Number	Nominal Cross Sectional Area (Sq. mm)	Conductor Details		Approx. Conductor Diameter (mm)	Approx Net Weight (kg/km)
		No. of Strand	Max. DC Conductor Resistance at 20°C (Ω/Km)		
121101010000	16	7	1.15	1.15	5.01
121101020000	25	7	0.727	0.727	6.32
121101030000	35	7	0.524	0.524	7.41
121101040000	50	19	0.387	0.387	8.72
121101050000	70	19	0.268	0.268	10.53
121101060000	95	19	0.193	0.193	12.34
121101070000	120	37	0.153	0.153	13.91
121101080000	150	37	0.124	0.124	15.45
121101090000	185	37	0.0991	0.0991	17.28
121101100000	240	61	0.0754	0.0754	19.84
121101110000	300	61	0.0601	0.0601	22.22
121101120000	400	91	0.047	0.047	25.15
121101130000	500	91	0.0366	0.0366	28.49
121101140000	630	91	0.0283	0.0283	32.41