



Grounding Products: Widely in Use



TCT

Lightning Protection Inc.

2019 Edition



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How We Manufacture ?

We have educated people to manufacture. We conduct our experience and our enthusiasm to our products.. (President)

TCT Protection Inc.offers range of products are in steel, stainless steel, aluminium, copper, brass, bronze, cast iron, plastic, and concrete. Coatings of the products above are galvanize, tin, copper and chrome nickel.

Steel products are manufactured from steel A283C (US) / S235 (EU). All nuts are from hot deep galvanized.M6-M10. Hot dip galvanized

Plastic products with UV stabilization.

Cooper products are manufactured from E-Cu. All nuts are from stainless steel.M6-M10.

Stainless steel products are manufactured from – Inox stainless steel DIN 1.4301 (AISI 304) All nuts are from stainless steel M6, M8, M10.

Aluminium alloy products are manufactured from – AlMgSi EN AW 6101B. Fasteners M8 and M10 including spring washer are made from stainless steel in quality A2.

TCT Protection Inc. provides for its own products certification in Electrotechnical testing facilities inside of our factory and in 3rd parties. On the base of testing protocols are issued certificates for each category of products.



TCT Protection Inc. is a Canada based international company having its manufacturing facilities with a broad range of products for lightning protection and grounding systems in accordance with the international standards, such as UL, NFC, UNE, etc.

We manufacture our products to the highest standards, and our facilities have the relevant and up to date instruments to meet our customers' technical requirements. We are rewarded as one of the most preferable and reliable companies in many international projects by virtue of our profound experience and versatile engineering solutions.

Our goal is to meet the highest quality with sufficient, reliable and affordable products on par with our customers' needs.

Some of our product groups are:

- Lightning Rods
- Special Downconductor
- Aviation Lamps
- Exothermic connection
- Mechanical Connection Clamps
- Ground rods and additives
- Grounding Connection Clamps
- Tubular Cable Lugs

TCT Protection Family

Conductors



Bare Stranded Conductors

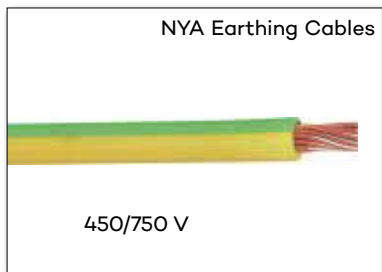
Code	Material/Coating	Cross Section
TCT.20.01	Aluminium, Copper, Galvanized Steel, Tinned Copper	35-95mm ² - 19x1.67mm ² 11-36x15-2.68mm - 2.54mm



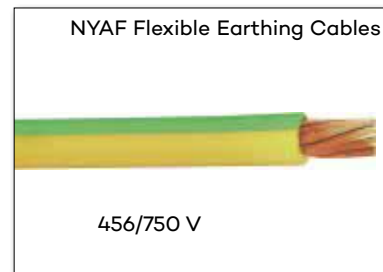
Bare Solid Round Conductors

Code	Material/Coating	Cross Section	Dia
TCT.101.01	Aluminium, Copper, Galvanized Steel, Tinned Copper	1.5mm ² - 95mm ² AWG 16-3/0	1.36mm - 12mm

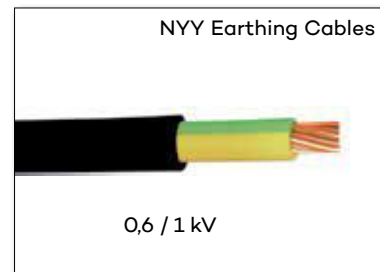
Insulated Earth Cables



Code	Cross Section
TCT.158	1.5 - 240mm ²



Code	Cross Section
TCT.159	6 - 240mm ²



Code	Cross Section
TCT.160	4 - 240mm ²



Bare Copper Strip "As Coil"

Code	Material/Coating	Cross Dimension
TCT.122	Aluminium, Copper, Galvanized Steel, Tinned Copper	5/8"-2" x 0.0508-0.064 20x2-100x10mm 136mm - t=12mm

• Please contact us for insulated strips

Earthing Electrodes



Code	Explanation	Ø in mm	Length
TCT.16	Copper Bonded Steel Galvanized Steel Stanliess Steel	16-22 3/8" -1"	1m-3m 1.2m-3m



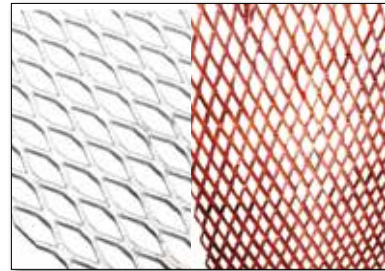
Additional Fittings

Code	Explanation	
TCT.102	Brass - Bronze Galvanized Steel Galvanized Staninless	5/8" -1/2"



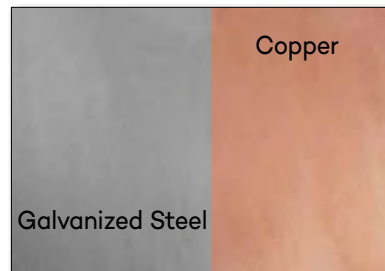
L Profil

Code	Explanation	Cross Section	Length
TCT.403 -404-405	Galvanized Steel	40x40x4 - 60x65x7 mm	1000mm - 2000 mm



Earthing Grid

Code	Material/Coating	Dimensions	Thickness
TCT.103	Copper, Galvanized Steel, Tinned Copper	1000x500 - 1000x4000mm	1 - 2 mm



Earthing Plate

Code	Material/Coating	Explanation
TCT.125	Copper, Galvanized Steel, Tinned Copper	70x70cm - t=1 mm Copper 100x50cm - t=3 mm Galvanized Steel



2-Way Connectors

Code	Material/Coating	Wira Dia.
TCT.208	Copper, Brass	8-12



4-Way Connectors

Code	Material/Coating	Wira Dia.
TCT.408	Copper, Brass	8-12



Jaw (Nail) Connectors

Code	Material/Coating	Explanation
TCT.409	Brass	16-120mm ²

Cable Tray Earthing Clamp



Code	Material/Coating	Cross Section	Bolt Length
TCT.123	Brass	1x25mm ² -1x85mm ²	M6x10 - M10x20 mm



Code	Material/Coating	Cross Section	Bolt Length
TCT.124	Brass	2x25mm ² -2x85mm ²	M6x10 - M10x20 mm



Code	Material/Coating	Cross Section
TCT.125	Brass	1x25mm ² -1x85mm ² - 2x25mm ² - 2x85mm ²



Code	Material/Coating	Cross Section
TCT.126	Brass	25mm ² - 120mm ²



Code	Material/Coating	Cross Section
TCT.126	Brass	6 - 120

Earthing Rod Connectors



Heavy Duty Type U Bolt Ground Clamp

Code	Material/Coating	Rod Dia.	Cross Section
TCT.410	Copper, Brass	ø16 - 22 mm	16-240mm ² 6AWG-500mcm



Bolt Fittings

Code	Material/Coating	Rod Dia.	Cross Section
TCT.105	Copper, Brass, Bronze	ø16 - 20 mm 2x1AWG	2x50 mm ²



Parallel Wires

Code	Material/Coating	Rod Dia.	Cross Section
TCT.109	Copper, Galvanized Steel, Stainless steel Tinned Copper	ø16 - 20 mm 2x1AWG	2x50 mm ²



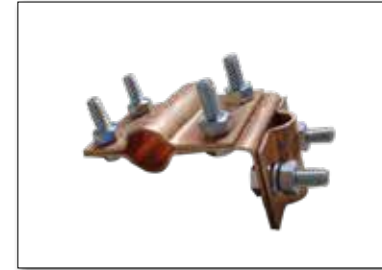
Side Type

Code	Material/Coating	Rod Dia.	Cross Section
TCT.110	Copper, Galvanized Steel, Stainless steel Tinned Copper	ø12 - 20 mm	1x16-1x120mm ² 1x6AWG - 4/0AWG



Top and Bottom

Code	Material/Coating	Rod Dia.	Cross Section
TCT.111	Copper, Galvanized Steel, Stainless steel Tinned Copper	ø12 - 20 mm	1x16-1x120mm ² 1x6AWG - 4/0AWG



Single Round "L"

Code	Material/Coating	Rod Dia.	Cross Section
TCT.116	Copper, Galvanized Steel, Stainless steel Tinned Copper	ø12 - 20 mm	1x16-1x120mm ²



Double Round "L"

Code	Material/Coating	Rod Dia.	Cross Section
TCT.116.10	Copper, Galvanized Steel, Stainless steel Tinned Copper	ø12 - 20 mm	2x16-2x120mm ²



Strip "L"

Code	Material/Coating	Rod Dia.	Size
TCT.201	Copper, Galvanized Steel, Tinned Copper	ø12 - 20 mm	25x3mm-40x3mm



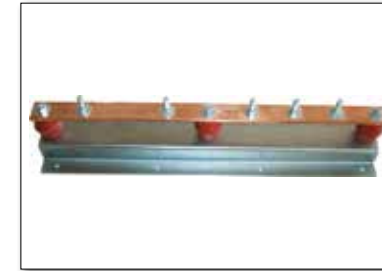
Earth Rod to Cable Clamp

Code	Material/Coating	Rod Dia.	Cross Section
TCT.113	Copper, Brass, Bronze	ø12 - 20 mm	16-95mm ²



U Bolt Ground Clamp

Code	Material/Coating	Rod Dia.	Cross Section
TCT.114	Copper	ø16 - 22 mm	1x50mm ²



Main Bar With Insulator

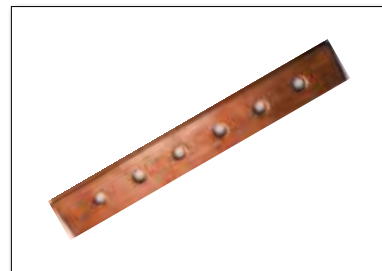
Code	Material/Coating	Dimensions	
TCT.200	Aluminium, Copper, Tinned Copper	25x3mm - 60x5mm	30cm - 50cm



Switchable Bars Single

Code	Material/Coating	Dimensions	
TCT.201	Aluminium, Copper, Tinned Copper	30x5mm - 60x5mm	40cm - 100cm

Bars



Main Bars

Code	Material/Coating	Dimensions	
TCT.115	Aluminium, Copper, Tinned Copper	25x3mm - 60x5mm	30cm - 50cm



Switchable Bars Double

Code	Material/Coating	Dimensions	
TCT.205	Aluminium, Copper, Tinned Copper	30x5mm - 60x5mm	40cm - 100cm



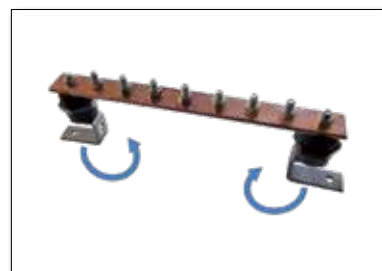
Main Bars With Base

Code	Material/Coating	Dimensions	
TCT.115	Aluminium, Copper, Tinned Copper	25x3mm - 60x5mm	30cm - 50cm



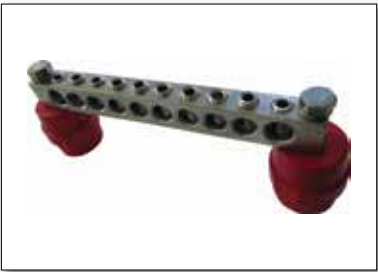
Protected Bars

Code	Material/Coating	Dimensions	
TCT.206	Single row hole bar, with insulators, covered	30x3mm - 100x10mm	300mm - 1000mm



Earthing Bars with Insulators

Code	Material/Coating	Dimensions	
TCT.200	Aluminium, Copper, Tinned Copper	25x3mm - 60x5mm	30cm - 50cm



Single Signal Bars

Code	Material/Coating	Dimensions
TCT.211	Aluminium, Copper, Tinned Copper	20x15x175mm



Double Signal Bars

Code	Material/Coating	Dimensions
TCT.212	Aluminium, Copper, Tinned Copper	20x30x175mm

Compression Straight Connector



- Annealed copper eases the crimping operation
- Heavy duty TCT-type connectors (DIN46235)
- Optimized sizes produce the most efficient electrical conductivity while providing superior mechanical resistance to vibration and pull out
- Non-tension connectors
- Tin plated for corrosion prevention

Part Number	Article Number	Conductor Size	Length L
Lug/Connector Type: Standard			
TCT6T	716710	6 mm² Stranded	25 mm
TCT10T	716711	10 mm² Stranded, #7 Stranded	30 mm
TCT16T	716712	16 mm² Stranded, #5 Stranded	35 mm
TCT25T	716713	25 mm² Stranded, #3 Stranded	40 mm
TCT35T	716714	35 mm² Stranded, #2 Stranded	45 mm
TCT50T	716715	50 mm² Stranded, 1/0 Stranded	50 mm
TCT70T	716716	70 mm² Stranded, 2/0 Stranded	55 mm
TCT95T	716717	95 mm² Stranded, 4/0 Stranded	60 mm
TCT120T	716718	120 mm² Stranded, 250 kcmil Stranded	65 mm
TCT150T	716719	150 mm² Stranded, 300 kcmil Stranded	70 mm
TCT185T	716720	185 mm² Stranded, 350 kcmil Stranded	75 mm
TCT240T	716721	240 mm² Stranded, 500 kcmil Stranded	85 mm
TCT300T	716722	300 mm² Stranded, 600 kcmil Stranded	100 mm
TCT400T	716723	400 mm² Stranded, 800 kcmil Stranded	100 mm

Compression Lug



- Tin plated for corrosion prevention
- Consistent material thickness, precise diameter and accurate cable fit; DIN46235
 - Optimized sizes to the most efficient electrical conductivity
 - Annealed copper eases the crimping operation
 - Markings on barrel for crimping

Lug/Connector Type: Heavy-Duty DIN46235			
TCT6H	716620	6 mm² Stranded	30 mm
TCT10H	716621	10 mm² Stranded, #7 Stranded	30 mm
TCT16H	716622	16 mm² Stranded, #5 Stranded	50 mm
TCT25H	716623	25 mm² Stranded, #3 Stranded	50 mm
TCT35H	716624	35 mm² Stranded, #2 Stranded	50 mm
TCT50H	716625	50 mm² Stranded, 1/0 Stranded	56 mm
TCT70H	716626	70 mm² Stranded, 2/0 Stranded	56 mm
TCT95H	716627	95 mm² Stranded, 4/0 Stranded	70 mm
TCT120H	716628	120 mm² Stranded, 250 kcmil Stranded	70 mm
TCT150H	716629	150 mm² Stranded, 300 kcmil Stranded	80 mm
TCT185H	716630	185 mm² Stranded, 350 kcmil Stranded	85 mm
TCT240H	716631	240 mm² Stranded, 500 kcmil Stranded	90 mm
TCT300H	716632	300 mm² Stranded, 600 kcmil Stranded	100 mm
TCT400H	716633	400 mm² Stranded, 800 kcmil Stranded	160 mm
TCT500H	716634	500 mm² Stranded	160 mm
TCT625H	716635	625 mm² Stranded	160 mm

Part Number	Article Number	Conductor Size	Hole Size HS	Length L	Width W
Lug/Connector Type: Standard					
TCT1012T	716651	#7 Stranded, 10 mm² Stranded	13,0 mm	42 mm	19 mm
TCT1612T	716652	#5 Stranded, 16 mm² Stranded	13,0 mm	45 mm	19 mm
TCT2512T	716653	#3 Stranded, 25 mm² Stranded	13,0 mm	48 mm	19 mm
TCT3512T	716654	#2 Stranded, 35 mm² Stranded	13,0 mm	51 mm	21 mm
TCT5012T	716655	1/0 Stranded, 50 mm² Stranded	13,0 mm	56 mm	23 mm
TCT7012T	716656	2/0 Stranded, 70 mm² Stranded	13,0 mm	59 mm	23 mm
TCT9512T	716657	4/0 Stranded, 95 mm² Stranded	13,0 mm	62 mm	26 mm
TCT9516T	716658	4/0 Stranded, 95 mm² Stranded	17,0 mm	66 mm	26 mm
TCT612T	716650	6 mm² Stranded	13,0 mm	41 mm	19 mm
TCT12012H	715121	120 mm² Stranded, 250 kcmil Stranded	13,0 mm	65 mm	28 mm

Part Number	Article Number	Conductor Size	Hole Size HS	Length L	Width W	Tool/Die Type
TCT12016T	716659	120 mm² Stranded, 250 kcmil Stranded	17,0 mm	67 mm	28 mm	M2M or M2H/ RKM2, M3H or M3B/ RKM3, MLB/RKML
TCT15012T	716660	150 mm² Stranded, 300 kcmil Stranded	13,0 mm	72 mm	31 mm	M2M or M2H/ RKM2, M3H or M3B/ RKM3, MLB/RKML
TCT15016T	716661	150 mm² Stranded, 300 kcmil Stranded	17,0 mm	72 mm	31 mm	M2M or M2H/ RKM2, M3H or M3B/ RKM3, MLB/RKML
TCT18512T	716662	185 mm² Stranded, 350 kcmil Stranded	13,0 mm	83 mm	35 mm	M2M or M2H/ RKM2, M3H or M3B/ RKM3, MLB/RKML
TCT18516T	716663	185 mm² Stranded, 350 kcmil Stranded	17,0 mm	83 mm	35 mm	M2M or M2H/ RKM2, M3H or M3B/ RKM3, MLB/RKML
TCT24012H	716544	240 mm² Stranded, 500 kcmil Stranded	13,0 mm	83 mm	39 mm	M2M or M2H/ RKM2, M3H or M3B/ RKM3, MLB/RKML
TCT24016T	716664	240 mm² Stranded, 500 kcmil Stranded	17,0 mm	93 mm	39 mm	M2M or M2H/ RKM2, M3H or M3B/ RKM3, MLB/RKML
TCT050019H	716546	300 mm² Stranded, 600 kcmil Stranded	13,0 mm	109 mm	43 mm	M2M or M2H/RKM2, M3H or M3B/RKM3
TCT30016T	716665	300 mm² Stranded, 600 kcmil Stranded	17,0 mm	101 mm	43 mm	M2M or M2H/RKM2, M3H or M3B/RKM3
TCT40016T	716666	400 mm² Stranded, 800 kcmil Stranded	17,0 mm	114 mm	49 mm	M3H or M3B/RKM3
Lug/Connector Type: Heavy-Duty DIN46235						
TCT1610H	-	#6 Stranded, 16 mm² Stranded	10,5 mm	48 mm	17 mm	M2M or M2H/ RKM2, M3H or M3B/ RKM3, MLB/RKML
TCT168H	715107	#5 Stranded, 16 mm² Stranded	8,4 mm	46 mm	13 mm	M2M or M2H/ PKM2, M3H or M3B/ PKM3, MLB/PKML
TCT258H	715108	#3 Stranded, 25 mm² Stranded	8,4 mm	48 mm	16 mm	M2M or M2H/ PKM2, M3H or M3B/ PKM3, MLB/PKML
TCT2512H	715112	#3 Stranded, 25 mm² Stranded	13,0 mm	51 mm	19 mm	M2M or M2H/ PKM2, M3H or M3B/ PKM3, MLB/PKML
TCT5010H	715113	1/0 Stranded, 50 mm² Stranded	10,5 mm	65 mm	21 mm	M2M or M2H/ PKM2, M3H or M3B/ PKM3, MLB/PKML
TCT5012H	715135	1/0 Stranded, 50 mm² Stranded	13,0 mm	65 mm	24 mm	M2M or M2H/ PKM2, M3H or M3B/ PKM3, MLB/PKML
TCT5016H	715105	1/0 Stranded, 50 mm² Stranded	17,0 mm	68 mm	28 mm	M2M or M2H/ PKM2, M3H or M3B/ PKM3, MLB/PKML

RR (Resistance Reducer)



Given the fact that only possible way to considerably improve the efficacy of the earthing system is to surround the electrodes with a ground enhancing soil.
RR is a low-resistance, non-corrosive, carbonaceous material.

It allows the physical - chemistry treatment of the soil around the electrode, and that guarantees a significant increase of its conductivity.

It is the most suitable material in rocky ground, mountain, hill like high places and sandy soil. It can be used in any climatic condition and for any kind of earthing systems or excavation. Once installed, GEM is maintenance-free, not requiring periodic charging or the presence of water to maintain its conductivity.

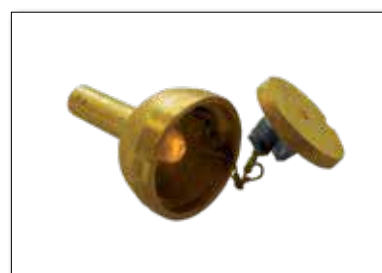
FEATURES

- Performs in all soil conditions.
- Non-corrosive.
- Easy-to-handle
- Requires only one person to install
- it does not dissolve in the soil.
- The soil resistance and impedance measurements are great.
- RR soil does not pollute groundwater.

Earthing Points



Code	Material/Coating	Dimensions
TCT.220	Aluminium, Copper, Tinned Copper	20-40mm (M12)



Code	Material/Coating	Dimensions
TCT.165	Brass, Bronze	20-40mm



Code	Material/Coating	Dimensions
TCT.165.01	Brass, Bronze	20-40mm



Code	Material/Coating	Dimensions
TCT.168	Brass, Bronze	20-40mm



Code	Material/Coating	Dimensions
TCT.169	Brass	20-40mm

Earthing Pit



Concrete Earthing Pit

Code	Weight (kg)	Dimensions
TCT.250	70	40x40xh25cm - t=5cm



Code	Weight (kg)	Dimensions
TCT.251	220	60x60xh40cm - t=10cm



Code	Weight (kg)	Dimensions
TCT.253	34	30xh40cm - t=5cm



Hot Dip Galvanized or Electro Galvanized Earthing Pit

Code	Weight (kg)	Dimensions
TCT.254	13-20	40x40x40 /50x50x50cm



Castiron Earthing Pit

Code	Weight (kg)	Dimensions
TCT.255	13	22.8x13.8h20cm t=33cm

Earthing Drums



Code	Material/Coating	Dimensions
TCT.300	Copper, Stainless	20m



Earthing Panels

Code	Material/Coating	Dimensions
TCT.301	Stainless Steel	small and large grounding board



Earthing Cable With Metalic Clip

Code	Material/Coating	Lenght
TCT.303	16mm ² -35mm ² NYAF cable	5m - 20m



www.tctprotection.com