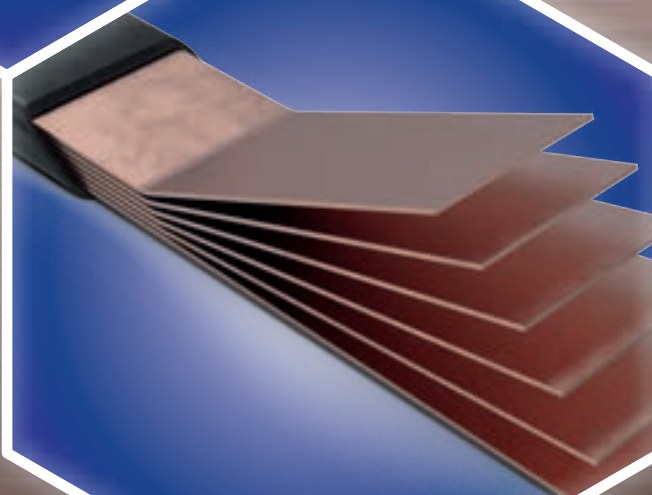
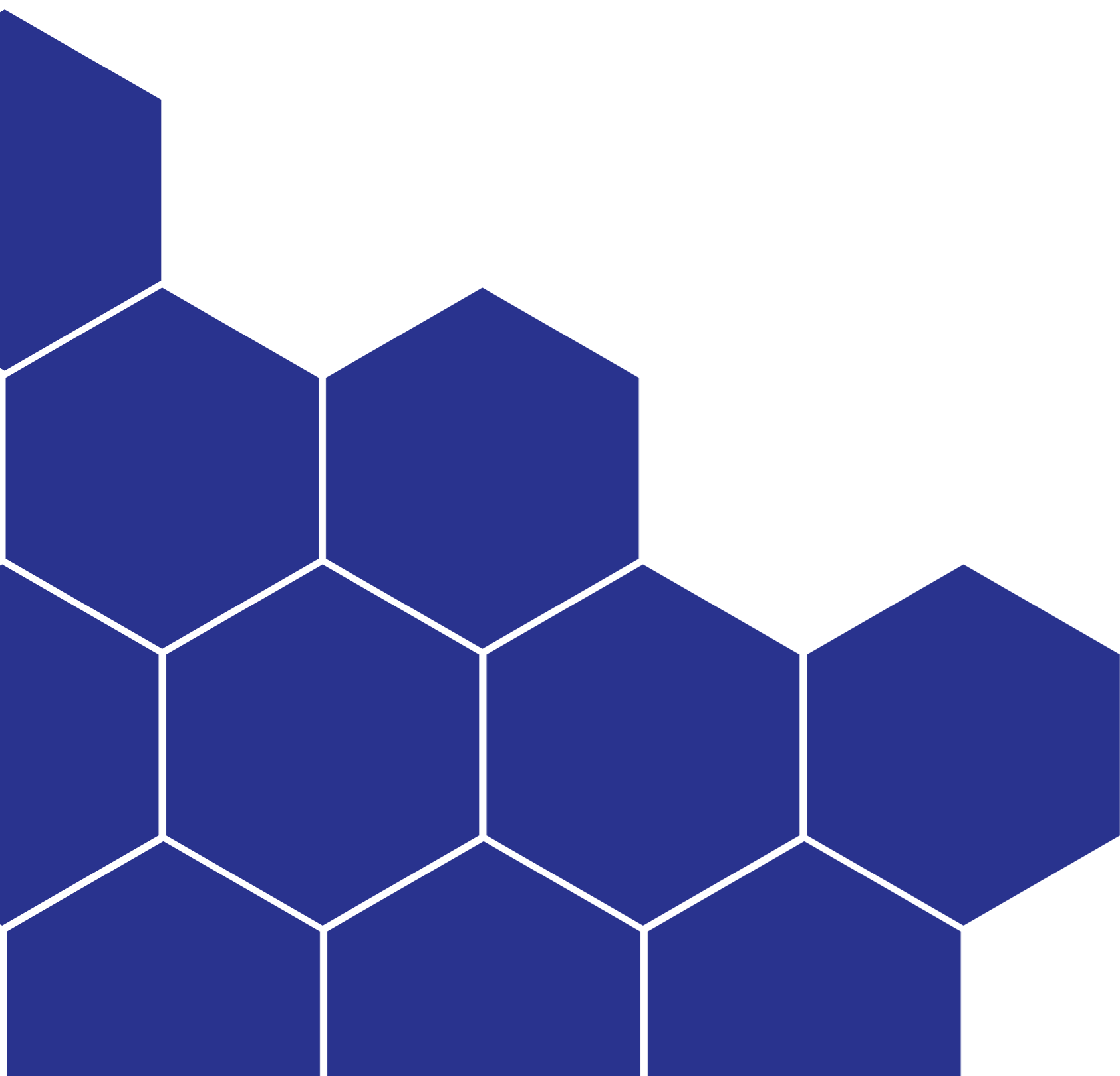


FLEXIBLE COPPER CONDUCTORS



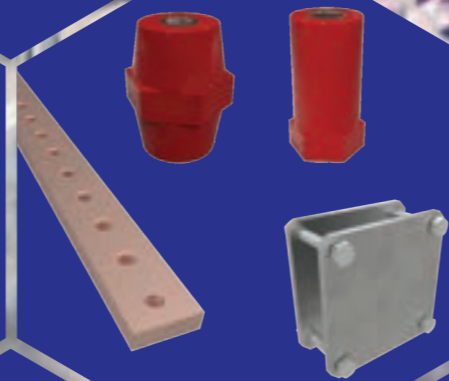
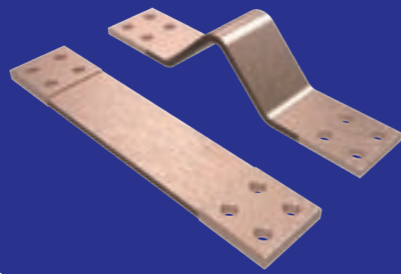


CATALOG 2022



Electric and Electronics Industry

Transformers Manufacturers
Power Factor Correction
Switchgear Manufacturers
LV Electrical Panels
MV Electrical Panels
Busduct Manufacturers
Inverter Manufacturers
Ups Manufactures
Current Rectifiers
Generating Sets



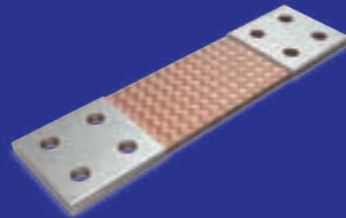
Chemical Industry

Electrolysis Plants
Electroplating

Primary Industry

Glass
Zinc
Nickel
Steel
Aluminium

Graphite
Copper
Cement
Paper
Furnace



Renewable Energies and storage

Wind Energy
Solar Energy
Hydro Power
Geothermal Energy
Energy Storage Systems
Network Stability
Grid Monitoring

Power Plants Utilities

Waste-to- energy Plants
Oil & Gas
Cogeneration Units
Biogas



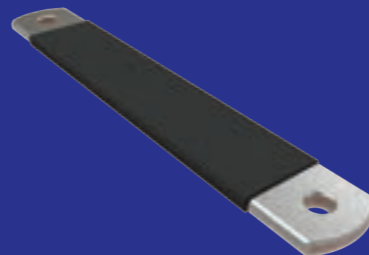
Mechanical Engineering

Welding Machines
Coating Machines
Switch Cabinets
Medical Technology
Special Machine Construction
Automation Robots



Mobility

Railway
Marine Industry
Aircraft Construction
E-Mobility
Aerospace



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36	LV – MV HEAT SHRINKABLE SLEEVE
38	PROTECTIONS IN MEDIUM VOLTAGE

Technical data

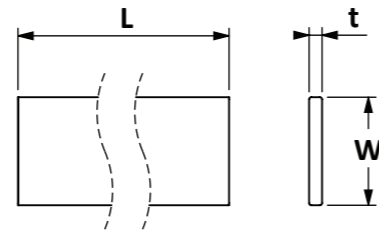
41	FLAT COPPER BRAIDS
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48	BMC SPACING COLUMNS
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COPPER BRAIDS

Flat – Round – Twisted flexible cable



Single wire Cu-ETP UNI EN 13602 - Ø 0,20 mm. (special wire on demand)
 Bare or Tinned copper
 Standard cross section from 6 mm² up to 300 mm²
 Other conductor and/or special braid materials and structure on demand
 Current loads following IEC 439



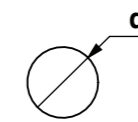
Packed in roll or reel depending on requested quantity

FLAT BRAIDS

Bare Copper	Tin-Plated Copper	Cross-Sect. mm ²	Single wire mm	W mm	t mm	Current load ΔT 50°C
BFR 6/020-10	BFT 6/020-10	6	0,2	10	1,5	80 A
BFR 10/020-10	BFT 10/020-10	10	0,2	10	2	110 A
BFR 10/020-15	BFT 10/020-15	10	0,2	15	2	120 A
BFR 16/020-15	BFT 16/020-15	16	0,2	15	2,5	150 A
BFR 25/020-20	BFT 25/020-20	25	0,2	20	3,2	210 A
BFR 35/020-20	BFT 35/020-20	35	0,2	20	3,4	250 A
BFR 50/020-28	BFT 50/020-28	50	0,2	28	3,6	330 A
BFR 75/020-28	BFT 75/020-28	75	0,2	28	5	410 A
BFR 100/020-32	BFT 100/020-32	100	0,2	32	6	500 A
BFR 120/020-35	BFT 120/020-35	120	0,2	35	7	560 A
BFR 150/020-38	BFT 150/020-38	150	0,2	38	8	650 A
BFR 200/020-32	BFT 200/020-32	200	0,2	32	10	730 A
BFR 250/020-40	BFT 250/020-40	250	0,2	40	12,5	880 A
BFR 300/020-50	BFT 300/020-50	300	0,2	50	12	1020 A

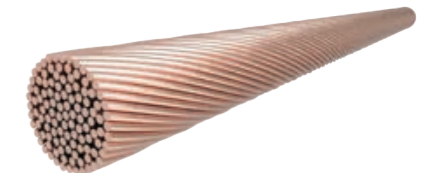
complete current load values at pag. 41

ROUND BRAIDS



Bare Copper	Tin-Plated Copper	Cross-Sect. mm ²	Single wire mm	d Ø mm	Current load ΔT 50°C
BRR 6/020-3	BRT 6/020-3	6	0,2	3,5	70 A
BRR 10/020-5	BRT 10/020-5	10	0,2	5	90 A
BRR 16/020-6	BRT 16/020-6	16	0,2	6	120 A
BRR 25/020-8	BRT 25/020-8	25	0,2	7,5	160 A
BRR 35/020-9	BRT 35/020-9	35	0,2	9,5	200 A
BRR 50/020-11	BRT 50/020-11	50	0,2	11	260 A
BRR 75/020-13	BRT 75/020-13	75	0,2	13,5	330 A
BRR 100/020-15	BRT 100/020-15	100	0,2	15,5	420 A
BRR 120/020-16	BRT 120/020-16	120	0,2	16	460 A
BRR 150/020-20	BRT 150/020-20	150	0,2	20	520 A

TWISTED FLEXIBLE CABLES



Bare Copper	Tin-Plated Copper	Cross-Sect. mm ²	Single wire mm	d Ø mm	Current load ΔT 50°C
BTR 6/020-3	BTT 6/020-3	6	0,2	3,5	70 A
BTR 10/020-5	BTT 10/020-5	10	0,2	5	90 A
BTR 16/020-6	BTT 16/020-6	16	0,2	6	120 A
BTR 25/020-8	BTT 25/020-8	25	0,2	7,5	160 A
BTR 35/020-9	BTT 35/020-9	35	0,2	9,5	200 A
BTR 50/020-11	BTT 50/020-11	50	0,2	11	260 A
BTR 75/020-13	BTT 75/020-13	75	0,2	13,5	330 A
BTR 100/020-15	BTT 100/020-15	100	0,2	15,5	420 A
BTR 120/020-16	BTT 120/020-16	120	0,2	16	460 A
BTR 150/020-20	BTT 150/020-20	150	0,2	20	520 A

for other current loads value please see technical data at pag. 41

EARTHING BRAIDS



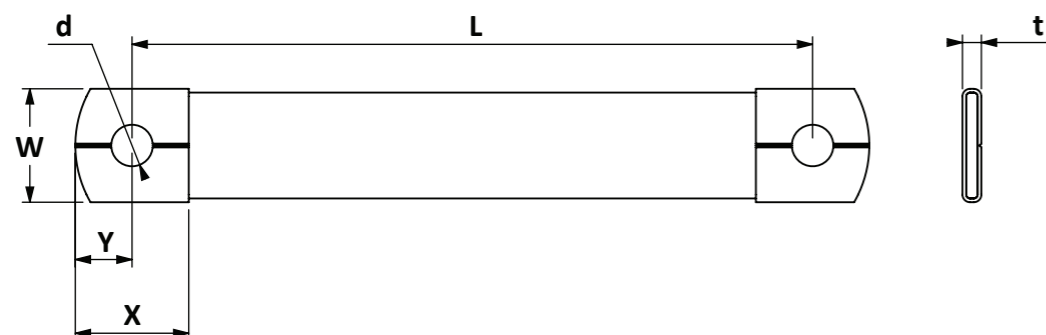
ERR

ERT

ETT

Single wire Cu-ETP UNI EN 13602 - Ø 0,20 mm (special wire on demand)
 Bare or Tinned copper braid
 Terminals in bare or tinned copper
 Standard cross section from 6 mm² up to 75 mm²
 Customized solutions on demand
 Current loads following IEC 439

Build your own earthing braid following the drawing here below and the examples in the table



Type	Cross-Sect.	Wire	L	W	X	Y	d Ø	t	Ordering Code
	mm ²	Ø mm							
ERR	16	0,20	150	17	23	13	9	2,5	ERR 16-17/150-9
ERT	25	0,20	300	23	23	13,5	9	3,2	ERT 25-23/300-9
ETT	50	0,20	550	30	30	15	11	4,5	ETT 50-30/550-11

BUILD YOUR EARTHING BRAID

EARTHING BRAIDS - standard

Code	Cross-Sect.	Single wire	L	W	X	Y	d Ø	t	Current load
	mm ²	Ø mm							

ERR

ERR 6-11/ L- 7	6	0,2	75-100-150	11	13	7	7	2	90 A
ERR 10-17/ L- 9	10	0,2	100-150-200-250-300	17	23	13	9	2	130 A
ERR 16-17/ L- 9	16	0,2	100-150-200-250-300	17	23	13	9	2,5	160 A
ERR 25-23/ L- 9	25	0,2	100-150-200-250-300	23	23	13,5	9	3,2	220 A
ERR 35-23/ L- 9	35	0,2	100-150-200-250-300	23	23	13,5	9	3,4	260 A
ERR 50-30/ L- 11	50	0,2	100-150-200-250-300	30	30	15	11	4,5	340 A
ERR 75-30/ L- 11	75	0,2	100-150-200-250-300	30	30	15	11	5	420 A

ERT

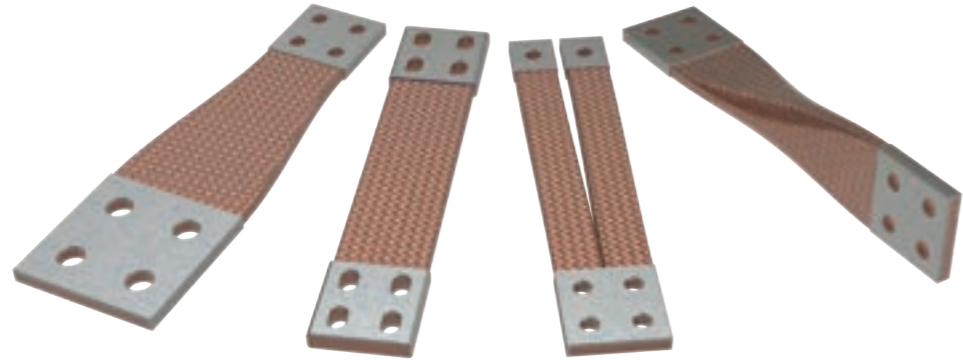
ERT 6-11/ L- 7	6	0,2	75-100-150	11	13	7	7	2	90 A
ERT 10-17/ L- 9	10	0,2	100-150-200-250-300	17	23	13	9	2	130 A
ERT 16-17/ L- 9	16	0,2	100-150-200-250-300	17	23	13	9	2,5	160 A
ERT 25-23/ L- 9	25	0,2	100-150-200-250-300	23	23	13,5	9	3,2	220 A
ERT 35-23/ L- 9	35	0,2	100-150-200-250-300	23	23	13,5	9	3,4	260 A
ERT 50-30/ L- 11	50	0,2	100-150-200-250-300	30	30	15	11	4,5	340 A
ERT 75-30/ L- 11	75	0,2	100-150-200-250-300	30	30	15	11	5	420 A

ETT

ETT 6-11/ L- 7	6	0,2	75-100-150	11	13	7	7	2	90 A
ETT 10-17/ L- 9	10	0,2	100-150-200-250-300	17	23	13	9	2	130 A
ETT 16-17/ L- 9	16	0,2	100-150-200-250-300	17	23	13	9	2,5	160 A
ETT 25-23/ L- 9	25	0,2	100-150-200-250-300	23	23	13,5	9	3,2	220 A
ETT 35-23/ L- 9	35	0,2	100-150-200-250-300	23	23	13,5	9	3,4	260 A
ETT 50-30/ L- 11	50	0,2	100-150-200-250-300	30	30	15	11	4,5	340 A
ETT 75-30/ L- 11	75	0,2	100-150-200-250-300	30	30	15	11	5	420 A

BRAIDED POWER CONDUCTORS

standard and custom made solutions



Flexible connections for power distribution:

- Transformers
- Bus duct systems
- Electrical panels
- Generators
- Unit power supply
- Rectifiers
- Inverters
- Renewable energies
- Railways applications

Main characteristics

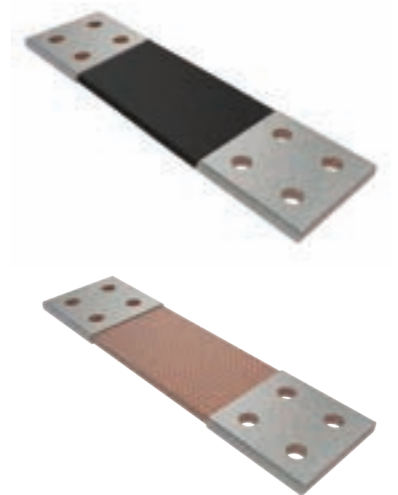
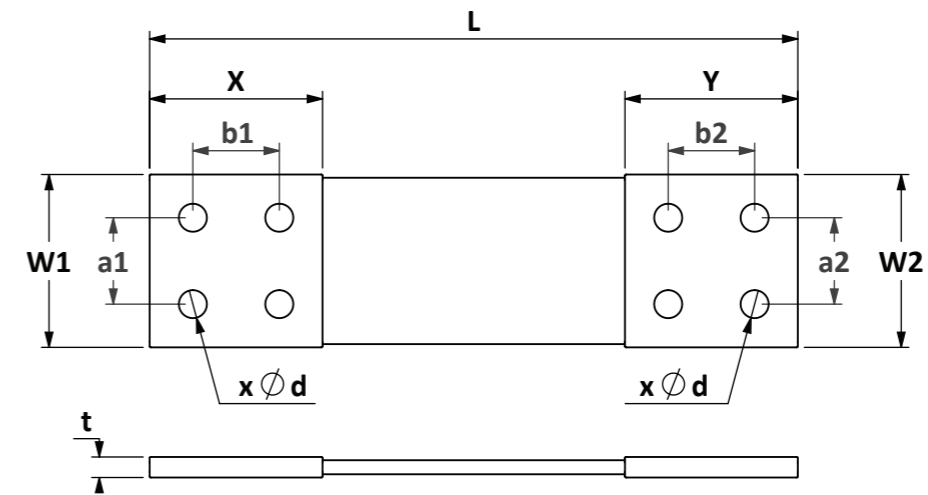
Cu-DHP UNI EN 12449
 Tin-plated tubular terminals
 Bare, silver or nickel plated terminals on demand
 Single wire Cu-ETP UNI EN 13602 - Ø 0,20 mm
 Special wire on demand
 Cross section from 10 up to 5.000 mm²
 Terminals width from 8 up to 200 mm
 Complete current load values listed in technical data
 Special braid materials and structure on demand
 Special dimensions and design on demand
 Aluminium braid on demand
 Current loads following IEC 439

Legenda

Type of conductor	Flexible conductor	Coating on terminals	Special treatment	Insulation
			HTD Hot Tin Dipped Terminals	HPE Heat shrinkable Polyolefin
F Flat braid	R Bare copper	R Bare copper		SIL Silicone sleeve
			TSH Tin Sealed Heads	GFI Glass Fiber Insulation
R Round braid	T Tin plated copper	T Tin Plating		RTI Rubber Tube Insulation
			ZSH Zinc Sprayed Heads	SGF Silicon Glass Fiber
T Twisted/Stranded cable	A Aluminium	S Silver Plating		PVC PVC tube
			WH Without Holes	SPI Squared PVC Insulation
		N Nickel Plating		TPE Squared Halogen Free Insulation
				BPS Braided Polyamide Sleeve
	A Aluminium			BPI - Braided Polyester Insulation

BRAIDED POWER CONDUCTORS

custom made



build your power connection – drawing required - examples

Type	Cross Section	wire	L	W1	a1	X	b1	W2	a2	Y	b2	Ød	t
	mm ²	dimensions in mm											
FRR	800	0,20	1000	100	50	100	50	100	50	100	50	13	13
FRT	1000	0,20	450	120	60	100	50	120	60	100	50	14	14,3
FTT	2500	0,20	810	160	80	120	60	160	80	120	60	17	24,5

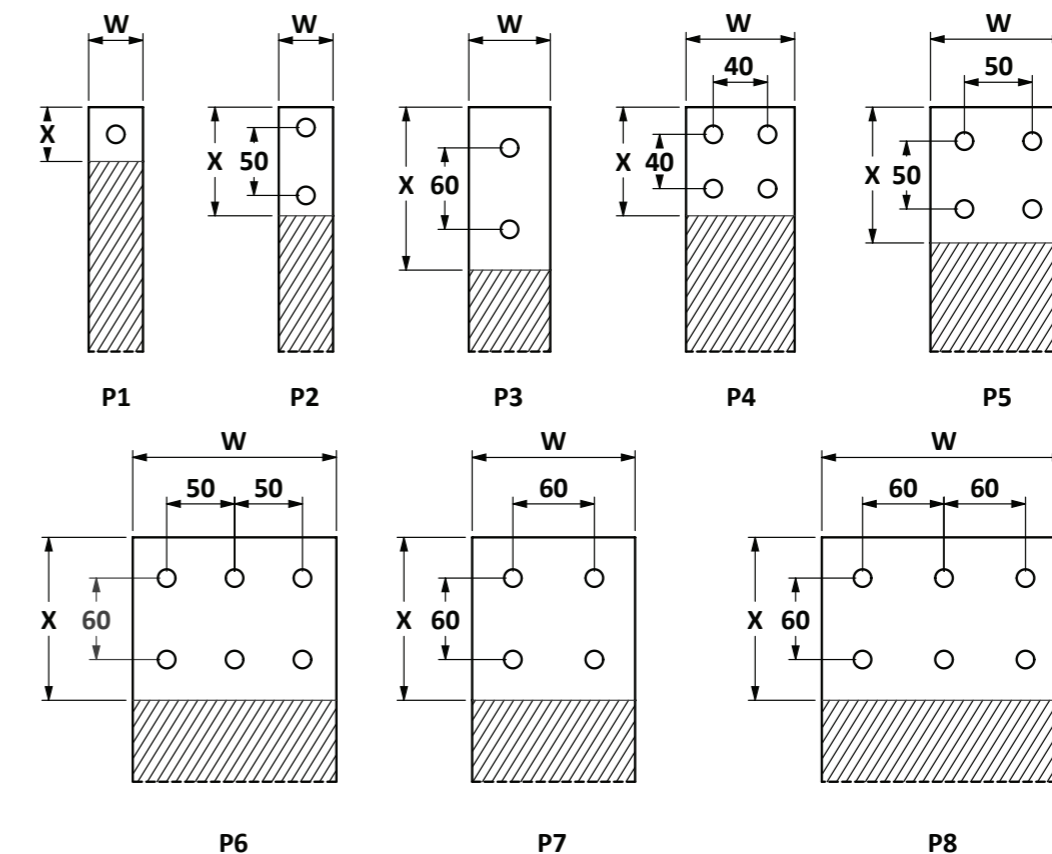
relative ordering code

FRR 800/020-1000/100

FRT 1000/020-450/120-160

FTT 2500/020-810/160

Standard Drilling Patterns



Custom-made drilling patterns or according to DIN 43673 are also available

BRAIDED POWER CONDUCTORS

standard solutions

Bare Copper	Tin-Plated Copper	Cross-Sect. mm ²	L	X	W	t	Ød	Drilling	Current load
									ΔT 50°C
			dimensions in mm						
FRT 10/020-200/10	FTT 10/020-200/10	10	200	10	10	3,5	5	P1	110 A
FRT 10/020-200/12	FTT 10/020-200/12	10	200	12	12	3,2	6	P1	110 A
FRT 16/020-200/15	FTT 16/020-200/15	16	200	15	15	3,5	7	P1	160 A
FRT 16/020-200/17	FTT 16/020-200/17	16	200	17	17	3,3	9	P1	160 A
FRT 25/020-200/20	FTT 25/020-200/20	25	200	20	20	3,7	9	P1	210 A
FRT 25/020-200/22	FTT 25/020-200/22	25	200	22	22	3,5	9	P1	220 A
FRT 25/020-200/25	FTT 25/020-200/25	25	200	25	25	3,3	11	P1	220 A
FRT 35/020-200/22	FTT 35/020-200/22	35	200	22	22	4,1	9	P1	260 A
FRT 35/020-200/25	FTT 35/020-200/25	35	200	25	25	3,8	11	P1	270 A
FRT 50/020-200/25	FTT 50/020-200/25	50	200	25	25	4,6	11	P1	320 A
FRT 50/020-200/30	FTT 50/020-200/30	50	200	30	30	4,2	11	P1	340 A
FRT 50/020-250/35	FTT 50/020-250/35	50	250	35	35	3,8	13	P1	350 A
FRT 75/020-200/30	FTT 75/020-200/30	75	200	30	30	5,2	13	P1	420 A
FRT 75/020-250/35	FTT 75/020-250/35	75	250	35	35	4,8	13	P1	440 A
FRT 100/020-200/30	FTT 100/020-200/30	100	200	30	30	6	13	P1	490 A
FRT 100/020-250/35	FTT 100/020-250/35	100	250	35	35	5,6	13	P1	510 A
FRT 100/020-250/40	FTT 100/020-250/40	100	250	40	40	5,2	13	P1	530 A
FRT 120/020-200/30	FTT 120/020-200/30	120	200	30	30	7	13	P1	540 A
FRT 120/020-250/35	FTT 120/020-250/35	120	250	35	35	6,5	13	P1	560 A
FRT 120/020-250/40	FTT 120/020-250/40	120	250	40	40	6	13	P1	580 A
FRT 150/020-200/30	FTT 150/020-200/30	150	200	30	30	8	13	P1	610 A
FRT 150/020-250/35	FTT 150/020-250/35	150	250	35	35	7,5	13	P1	630 A
FRT 150/020-250/40	FTT 150/020-250/40	150	250	40	40	6,8	13	P1	650 A
FRT 150/020-250/45	FTT 150/020-250/45	150	250	45	45	6,2	13	P1	670 A
FRT 200/020-300/40	FTT 200/020-300/40	200	300	40	40	8,3	13	P1	760 A
FRT 200/020-300/45	FTT 200/020-300/45	200	300	45	45	7,6	13	P1	780 A
FRT 200/020-300/50	FTT 200/020-300/50	200	300	50	50	7	13	P1	810 A
FRT 200/020-350/40	FTT 200/020-350/40	200	350	100	40	8,3	13	P2	760 A
FRT 200/020-350/50	FTT 200/020-350/50	200	350	100	50	7	13	P2	780 A
FRT 250/020-300/40	FTT 250/020-300/40	250	300	40	40	10	13	P1	860 A
FRT 250/020-300/45	FTT 250/020-300/45	250	300	45	45	9	13	P1	890 A
FRT 250/020-300/50	FTT 250/020-300/50	250	300	50	50	8,3	13	P1	910 A
FRT 250/020-350/40	FTT 250/020-350/40	250	350	100	40	10	13	P2	860 A
FRT 250/020-350/50	FTT 250/020-350/50	250	350	100	50	8,3	13	P2	910 A
FRT 300/020-300/45	FTT 300/020-300/45	300	300	45	45	10,6	13	P1	980 A
FRT 300/020-300/50	FTT 300/020-300/50	300	300	50	50	9,5	13	P1	1000 A
FRT 300/020-300/60	FTT 300/020-300/60	300	300	60	60	8,5	13	P1	1050 A

page 42 to page 45 for other electrical data

BRAIDED POWER CONDUCTORS

standard solutions

Bare Copper	Tin-Plated Copper	Cross-Sect. mm ²	L	X	W	t	Ød	Drilling	Current load
									ΔT 50°C
			dimensions in mm						
FRT 300/020-400/45	FTT 300/020-400/45	300	400	80	45	10,6	13	P2	980 A
FRT 300/020-400/50	FTT 300/020-400/50	300	400	100	50	9,5	13	P2	1000 A
FRT 300/020-400/60	FTT 300/020-400/60	300	400	120	60	8,5	13	P2	1050 A
FRT 300/020-400/70	FTT 300/020-400/70	300	400	120	70	8,3	13	P2	1110 A
FRT 400/020-300/50	FTT 400/020-300/50	400	300	50	50	12	13	P1	1180 A
FRT 400/020-400/40	FTT 400/020-400/40	400	400	80	40	15	13	P2	1130 A
FRT 400/020-400/50	FTT 400/020-400/50	400	400	100	50	12	13	P2	1180 A
FRT 400/020-400/60	FTT 400/020-400/60	400	400	120	60	10,5	13	P3	1230 A
FRT 400/020-400/80	FTT 400/020-400/80	400	400	80	80	9,5	13	P4	1340 A
FRT 400/020-400/100	FTT 400/020-400/100	400	400	100	100	8	13	P5	1430 A
FRT 400/020-400/120	FTT 400/020-400/120	400	400	120	120	7	13	P7	1520 A
FRT 500/020-400/50	FTT 500/020-400/50	500	400	100	50	14,5	13	P2	1330 A
FRT 500/020-400/60	FTT 500/020-400/60	500	400	120	60	12,5	13	P3	1390 A
FRT 500/020-400/80	FTT 500/020-400/80	500	400	80	80	11	13	P4	1510 A
FRT 500/020-400/90	FTT 500/020-400/90	500	400	120	90	10	13	P4	1560 A
FRT 500/020-400/100	FTT 500/020-400/100	500	400	100	100	9,2	13	P5	1610 A
FRT 500/020-450/120	FTT 500/020-450/120	500	450	120	120	8,5	13	P7	1720 A
FRT 500/020-450/140	FTT 500/020-450/140	500	450	120	140	8,5	13	P7	1800 A
FRT 500/020-450/150	FTT 500/020-450/150	500	450	120	150	7	13	P6	1840 A
FRT 500/020-450/160	FTT 500/020-450/160	500	450	120	160	9	13	P6	1890 A
FRT 500/020-500/200	FTT 500/020-500/200	500	500	120	200	9	13	P8	2040 A
FRT 600/020-400/60	FTT 600/020-400/60	600	400	100	60	16	13	P2	1550 A
FRT 600/020-400/70	FTT 600/020-400/70	600	400	120	70	14	13	P3	1600 A
FRT 600/020-400/80	FTT 600/020-400/80	600	400	80	80	12,5	13	P4	1660 A
FRT 600/020-400/90	FTT 600/020-400/90	600	400	120	90	11,5	13	P4	1720 A
FRT 600/020-400/100	FTT 600/020-400/100	600	400	100	100	10,5	13	P5	1770 A
FRT 600/020-450/120	FTT 600/020-450/120	600	450	120	120	9,5	13	P7	1880 A
FRT 600/020-450/140	FTT 600/020-450/140	600	450	120	140	9,3	13	P7	1980 A
FRT 600/020-450/150	FTT 600/020-450/150	600	450	120	150	8	13	P6	2020 A
FRT 600/020-450/160	FTT 600/020-450/160	600	450	120	160	8	13	P6	2060 A
FRT 600/020-450/180	FTT 600/020-450/180	600	450	120	180	9	13	P8	2150 A
FRT 600/020-500/200	FTT 600/020-500/200	600	500	120	200	10	13	P8	2240 A
FRT 800/020-400/80	FTT 800/020-400/80	800	400	80	80	15,5	13	P4	1940 A
FRT 800/020-400/100	FTT 800/020-400/100	800	400	100	100	13	13	P5	2060 A
FRT 800/020-450/120	FTT 800/020-450/120	800	450	120	120	11,5	13	P7	2180 A
FRT 800/020-450/140	FTT 800/020-450/140	800	450	120	140	11	13	P7	2290 A
FRT 800/020-450/150	FTT 800/020-450/150	800	450	120	150	10	13	P6	2340 A

page 42 to page 45 for other electrical data

BRAIDED POWER CONDUCTORS

standard solutions

Bare Copper	Tin-Plated Copper	Cross-Sect. mm ²	L	X	W	t	Ød	Drilling	Current load
									ΔT 50°C
			dimensions in mm						
FRT 800/020-450/160	FTT 800/020-450/160	800	450	120	160	11,2	13	P6	2400 A
FRT 800/020-450/180	FTT 800/020-450/180	800	450	120	180	10,5	13	P8	2490 A
FRT 800/020-500/200	FTT 800/020-500/200	800	500	120	200	11	13	P8	2590 A
FRT 1000/020-450/80	FTT 1000/020-450/80	1000	450	80	80	19	13	P4	2200 A
FRT 1000/020-450/100	FTT 1000/020-450/100	1000	450	100	100	15,5	13	P5	2320 A
FRT 1000/020-450/120	FTT 1000/020-450/120	1000	450	120	120	14,5	13	P7	2450 A
FRT 1000/020-500/140	FTT 1000/020-500/140	1000	500	120	140	13	13	P7	2570 A
FRT 1000/020-500/150	FTT 1000/020-500/150	1000	500	120	150	13,3	13	P6	2630 A
FRT 1000/020-500/160	FTT 1000/020-500/160	1000	500	120	160	12,8	13	P6	2690 A
FRT 1000/020-500/180	FTT 1000/020-500/180	1000	500	120	180	12,0	13	P8	2800 A
FRT 1000/020-500/200	FTT 1000/020-500/200	1000	500	120	200	12,5	13	P8	2900 A
FRT 1200/020-450/100	FTT 1200/020-450/100	1200	450	100	100	18	15	P5	2560 A
FRT 1200/020-450/120	FTT 1200/020-450/120	1200	450	120	120	16,5	15	P7	2700 A
FRT 1200/020-500/140	FTT 1200/020-500/140	1200	500	120	140	14,6	15	P7	2830 A
FRT 1200/020-500/150	FTT 1200/020-500/150	1200	500	120	150	15	15	P6	2900 A
FRT 1200/020-500/160	FTT 1200/020-500/160	1200	500	120	160	14,3	15	P6	2960 A
FRT 1200/020-500/180	FTT 1200/020-500/180	1200	500	120	180	13,5	15	P8	3070 A
FRT 1200/020-500/200	FTT 1200/020-500/200	1200	500	120	200	13,5	15	P8	3180 A
FRT 1500/020-450/100	FTT 1500/020-450/100	1500	450	120	100	22	15	P5	2900 A
FRT 1500/020-450/120	FTT 1500/020-450/120	1500	450	120	120	20	15	P7	3050 A
FRT 1500/020-500/140	FTT 1500/020-500/140	1500	500	120	140	16,2	15	P7	3180 A
FRT 1500/020-500/150	FTT 1500/020-500/150	1500	500	120	150	17,5	15	P6	3260 A
FRT 1500/020-500/160	FTT 1500/020-500/160	1500	500	120	160	16,6	15	P6	3320 A
FRT 1500/020-500/180	FTT 1500/020-500/180	1500	500	120	180	15,5	15	P8	3440 A
FRT 1500/020-500/200	FTT 1500/020-500/200	1500	500	120	200	15,5	15	P8	3570 A
FRT 1800/020-450/120	FTT 1800/020-450/120	1800	450	120	120	23	15	P7	3370 A
FRT 1800/020-500/140	FTT 1800/020-500/140	1800	500	120	140	19	15	P7	3500 A
FRT 1800/020-500/150	FTT 1800/020-500/150	1800	500	120	150	20	15	P6	3590 A
FRT 1800/020-500/160	FTT 1800/020-500/160	1800	500	120	160	19	15	P6	3660 A
FRT 1800/020-500/180	FTT 1800/020-500/180	1800	500	120	180	17,5	15	P8	3790 A
FRT 1800/020-500/200	FTT 1800/020-500/200	1800	500	120	200	17,5	15	P8	3930 A
FRT 2000/020-450/120	FTT 2000/020-450/120	2000	450	120	120	25	15	P7	3570 A
FRT 2000/020-500/140	FTT 2000/020-500/140	2000	500	120	140	21	15	P7	3710 A
FRT 2000/020-500/150	FTT 2000/020-500/150	2000	500	120	150	22	15	P6	3800 A
FRT 2000/020-500/160	FTT 2000/020-500/160	2000	500	120	160	21	15	P6	3870 A
FRT 2000/020-500/180	FTT 2000/020-500/180	2000	500	120	180	19	15	P8	4010 A
FRT 2000/020-500/200	FTT 2000/020-500/200	2000	500	120	200	18,5	15	P8	4150 A

page 42 to page 45 for other electrical data

BRAIDED POWER CONDUCTORS

standard solutions

Bare Copper	Tin-Plated Copper	Cross-Sect. mm ²	L	X	W	t	Ød	Drilling	Current load
									ΔT 50°C
			dimensions in mm						
FRT 2200/020-450/120	FTT 2200/020-450/120	2200	450	120	120	27	15	P7	3760 A
FRT 2200/020-500/140	FTT 2200/020-500/140	2200	500	120	140	24,5	15	P7	3920 A
FRT 2200/020-500/150	FTT 2200/020-500/150	2200	500	120	150	23,5	15	P6	4000 A
FRT 2200/020-500/160	FTT 2200/020-500/160	2200	500	120	160	22	15	P6	4070 A
FRT 2200/020-500/180	FTT 2200/020-500/180	2200	500	120	180	21,5	15	P8	4220 A
FRT 2200/020-500/200	FTT 2200/020-500/200	2200	500	120	200	20	15	P8	4360 A
FRT 2400/020-450/120	FTT 2400/020-450/120	2400	450	120	120	29	15	P7	3950 A
FRT 2400/020-500/140	FTT 2400/020-500/140	2400	500	120	140	26,5	15	P7	4110 A
FRT 2400/020-500/150	FTT 2400/020-500/150	2400	500	120	150	25	15	P6	4190 A
FRT 2400/020-500/160	FTT 2400/020-500/160	2400	500	120	160	24	15	P6	4260 A
FRT 2400/020-500/180	FTT 2400/020-500/180	2400	500	120	180	23	15	P8	4420 A
FRT 2400/020-500/200	FTT 2400/020-500/200	2400	500	120	200	20	15	P8	4550 A
FRT 3000/020-450/120	FTT 3000/020-450/120	3000	450	120	120	33,5	15	P7	4460 A
FRT 3000/020-500/140	FTT 3000/020-500/140	3000	500	120	140	32	15	P7	4650 A
FRT 3000/020-500/150	FTT 3000/020-500/150	3000	500	120	150	30	15	P6	4730 A
FRT 3000/020-500/160	FTT 3000/020-500/160	3000	500	120	160	28,5	15	P6	4810 A
FRT 3000/020-500/180	FTT 3000/020-500/180	3000	500	120	180	27	15	P8	4980 A
FRT 3000/020-500/200	FTT 3000/020-500/200	3000	500	120	200	24	15	P8	5130 A
FRT 3600/020-450/120	FTT 3600/020-450/120	3600	450	120	120	40	15	P7	4960 A
FRT 3600/020-500/140	FTT 3600/020-500/140	3600	500	120	140	37	15	P7	5150 A
FRT 3600/020-500/150	FTT 3600/020-500/150	3600	500	120	150	35	15	P6	5230 A
FRT 3600/020-500/160	FTT 3600/020-500/160	3600	500	120	160	33	15	P6	5320 A
FRT 3600/020-500/180	FTT 3600/020-500/180	3600	500	120	180	31	15	P8	5490 A
FRT 3600/020-500/200	FTT 3600/020-500/200	3600	500	120	200	27,5	15	P8	5650 A
FRT 4500/020-450/120	FTT 4500/020-450/120	4500	450	120	120	50	15	P7	5670 A
FRT 4500/020-500/150	FTT 4500/020-500/150	4500	500	120	150	42,5	15	P6	5940 A
FRT 4500/020-500/160	FTT 4500/020-500/160	4500	500	120	160	41	15	P6	6030 A
FRT 4500/020-500/180	FTT 4500/020-500/180	4500	500	120	180	36	15	P8	6190 A
FRT 4500/020-500/200	FTT 4500/020-500/200	4500	500	120	200	33	15	P8	6370 A
FRT 5000/020-450/120	FTT 5000/020-450/120	5000	450	120	120	55	15	P7	6040 A
FRT 5000/020-450/140	FTT 5000/020-450/140	5000	450	120	140	50	15	P7	6230 A
FRT 5000/020-450/160	FTT 5000/020-450/160	5000	450	120	160	48	15	P6	6440 A
FRT 5000/020-450/180	FTT 5000/020-450/180	5000	450	120	180	45	15	P8	6630 A
FRT 5000/020-450/200	FTT 5000/020-450/200	5000	450	120	200	36	15	P8	6750 A

page 42 to page 45 for other electrical data

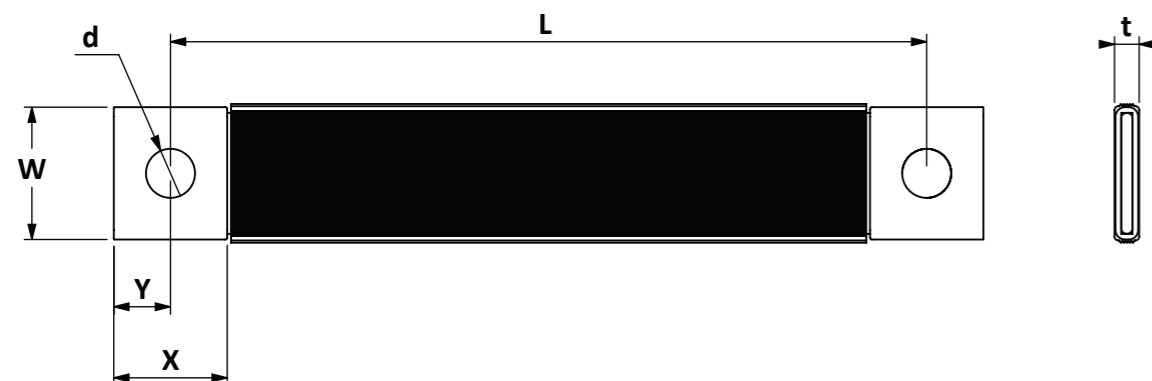
ELEXOPOWER INSULATED COPPER BRAIDS

bare/tinned copper braid- tinned terminals



Tin-plated copper tube terminals: Cu-DHP UNI EN 12449
 Single Wire: Cu-ETP UNI EN 13602 - Ø 0,20 mm
 Black PVC insulation Self extinguishing: UL 94 V0
 Operating voltage: 1000 V AC – 1500 V DC
 Operating temperature: -40/+105°C
 Dielectric strenght: 20 kV/mm
 Insulation thickness: 1,6 – 2mm

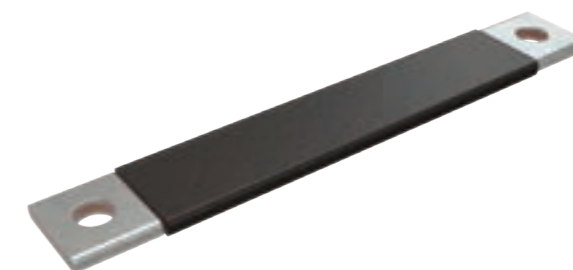
Current loads referred to rise temperature ΔT following IEC 439 norm – Ta (Amb.Temp.) 35°C



Bare Copper braid	Tinned Copper braid	Cross Section	L	W	X	Y	t	d Ø	Current load		
tinned terminals	tinned terminals	mm ²	dimensions in mm						ΔT 30°C	ΔT 50°C	ΔT 70°C
IRT 16/020-L/12	ITT 16/020-L/12	16	230-330-430-530-630 730-830-930-1030	12	14	7	3	6,5	93 A	127 A	153 A
IRT 25/020-L/12	ITT 25/020-L/12	25	230-330-430-530-630 730-830-930-1030	12	14	7	5	6,5	120 A	160 A	200 A
IRT 25/020-L/20	ITT 25/020-L/20	25	230-330-430-530-630 730-830-930-1030	20	22	10	3,7	9-11	128 A	178 A	220 A
IRT 35/020-L/20	ITT 35/020-L/20	35	230-330-430-530-630 730-830-930-1030	20	22	10	4,5	9-11	153 A	212 A	260 A
IRT 50/020-L/20	ITT 50/020-L/20	50	230-330-430-530-630 730-830-930-1030	20	22	10	5,5	11	187 A	260 A	320 A
IRT 75/020-L/20	ITT 75/020-L/20	75	230-330-430-530-630 730-830-930-1030	20	22	10	7	11	238 A	320 A	400 A
IRT 120/020-L/32	ITT 120/020-L/32	120	230-330-430-530-630 730-830-930-1030	32	32	15	7	11	340 A	460 A	565 A
IRT 240/020-L/32	ITT 240/020-L/32	240	230-330-430-530-630 730-830-930-1030	32	32	15	12	13	500 A	680 A	840 A

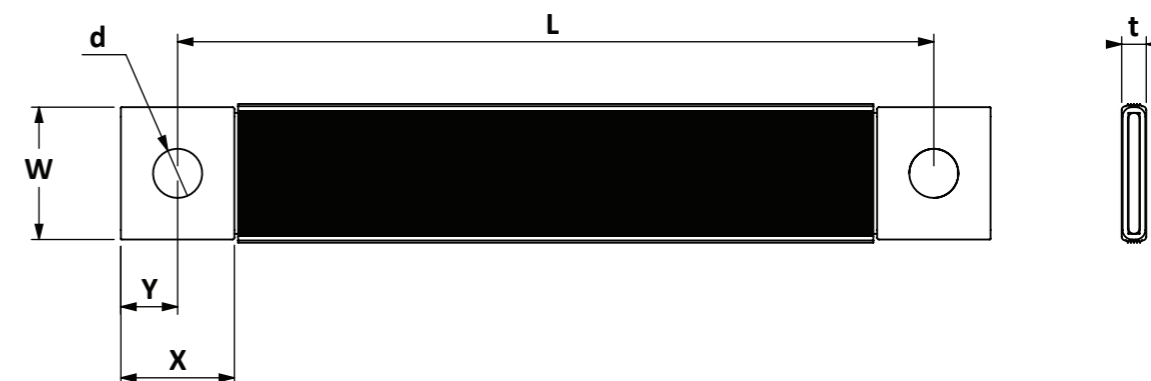
ELEXOPOWER HF INSULATED COPPER BRAIDS

bare/tinned copper braid - tinned terminals - halogen free



Tin-plated copper tube terminals: Cu-DHP UNI EN 12449
 Single wire: Cu-ETP UNI EN 13602 - Ø 0,20 mm
 TPE insulation Self extinguishing: Halogen Free
 Operating voltage: 1000 V AC – 1500 V DC
 Operating temperature: -40/+140°C
 Dielectric strenght: 20 kV/mm
 Insulation thickness: 1,2 – 1,8 mm

Current loads referred to rise temperature ΔT following IEC 439 norm – Ta (Amb.Temp.) 35°C



Bare Copper braid	Tinned Copper braid	Cross Section	L	W	X	Y	t	d Ø	Current load		
tinned terminals	tinned terminals	mm ²	dimensions in mm						ΔT 30°C	ΔT 50°C	ΔT 70°C
IRT 16/020-L/12 HF	ITT 16/020-L/12 HF	16	230-330-430-530-630 730-830-930-1030	12	14	7	3	6,5	93 A	127 A	153 A
IRT 25/020-L/12 HF	ITT 25/020-L/12 HF	25	230-330-430-530-630 730-830-930-1030	12	14	7	5	6,5	120 A	160 A	200 A
IRT 25/020-L/20 HF	ITT 25/020-L/20 HF	25	230-330-430-530-630 730-830-930-1030	20	22	10	3,7	9-11	128 A	178 A	220 A
IRT 35/020-L/20 HF	ITT 35/020-L/20 HF	35	230-330-430-530-630 730-830-930-1030	20	22	10	4,5	9-11	153 A	212 A	260 A
IRT 50/020-L/20 HF	ITT 50/020-L/20 HF	50	230-330-430-530-630 730-830-930-1030	20	22	10	5,5	11	187 A	260 A	320 A
IRT 75/020-L/20 HF	ITT 75/020-L/20 HF	75	230-330-430-530-630 730-830-930-1030	20	22	10	7	11	238 A	320 A	400 A
IRT 120/020-L/32 HF	ITT 120/020-L/32 HF	120	230-330-430-530-630 730-830-930-1030	32	32	15	7	11	340 A	460 A	565 A
IRT 240/020-L/32 HF	ITT 240/020-L/32 HF	240	230-330-430-530-630 730-830-930-1030	32	32	15	12	13	500 A	680 A	840 A

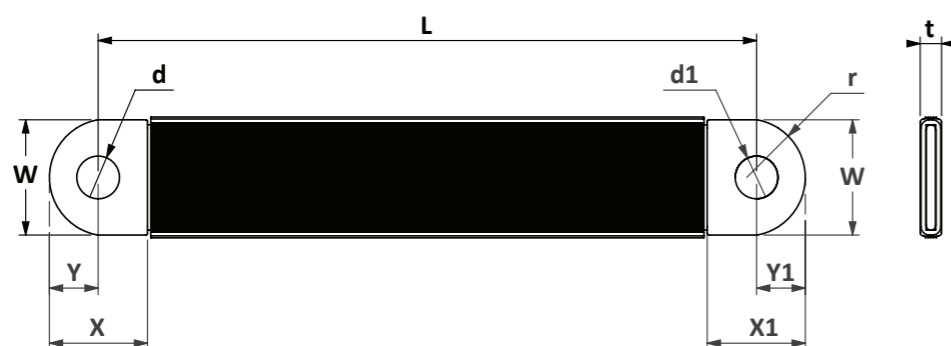
ELEXOPOWER R HF INSULATED COPPER BRAIDS

bare/tinned copper braid - tinned terminals - halogen free - rounded terminals



Tin-plated copper tube terminals: Cu-DHP UNI EN 12449
 Single wire: Cu-ETP UNI EN 13602 - Ø 0,20 mm
 TPE insulation Self extinguishing: Halogen Free
 Operating voltage: 1000 V AC – 1500 V DC
 Operating temperature: -40/+140°C
 Dielectric strenght: 20 kV/mm
 Insulation thickness: 1,2 – 1,8 mm

Current loads referred to rise temperature ΔT following IEC 439 norm – Ta (Amb.Temp.) 35°C



Bare Copper braid	Tinned Copper braid	Cross Section	L	W	X	Y	d Ø	X1	Y1	d1 Ø	t	Current load		
tinned terminals	tinned terminals	mm²	dimensions in mm									ΔT 30°C	ΔT 50°C	ΔT 70°C
IRT 16/020-L/12 R HF	ITT 16/020-L/12 R HF	16	230-330-430-530-630 730-830-930-1030	12	14	6,5	6,5	14	6,5	6,5	3	93 A	127 A	153 A
IRT 25/020-L/12 R HF	ITT 25/020-L/12 R HF	25	230-330-430-530-630 730-830-930-1030	12	14	6,5	6,5	14	6,5	6,5	5	120 A	160 A	200 A
IRT 25/020-L/20 R HF	ITT 25/020-L/20 R HF	25	230-330-430-530-630 730-830-930-1030	20	22	10	8,5	22	12	10,5	3,7	128 A	178 A	220 A
IRT 35/020-L/20 R HF	ITT 35/020-L/20 R HF	35	230-330-430-530-630 730-830-930-1030	20	22	10	8,5	22	12	10,5	4,5	153 A	212 A	260 A
IRT 50/020-L/20 R HF	ITT 50/020-L/20 R HF	50	230-330-430-530-630 730-830-930-1030	20	22	9	8,5	22	11	10,5	5,5	187 A	260 A	320 A
IRT 75/020-L/20 R HF	ITT 75/020-L/20 R HF	75	230-330-430-530-630 730-830-930-1030	20	22	9	8,5	22	11	10,5	7	238 A	320 A	400 A
IRT 120/020-L/32 R HF	ITT 120/020-L/32 R HF	120	230-330-430-530-630 730-830-930-1030	32	32	11	10,5	32	11	10,5	7	340 A	460 A	565 A
IRT 240/020-L/32 R HF	ITT 240/020-L/32 R HF	240	230-330-430-530-630 730-830-930-1030	32	32	12	10,5	32	14	12,5	12	500 A	680 A	840 A

CRIMPED LUG CONDUCTORS

Connections made by round braid or twisted cable with crimped cable lugs

Single wire: Cu-ETP UNI EN 1360 – 0,20 mm
 Copper tin-plated cable lugs: Cu-ETP UNI EN 13600

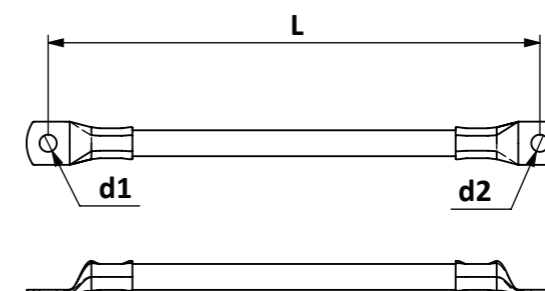
Special insulation on demand

Current loads following IEC 439



ROUND COPPER BRAID

Bare Copper	Tin-Plated Copper	Cross-Sect.	Single Wire	L	useful for screw		Current load
		mm²	Ø mm		d1	d2	
RRL 10/020-200/M6	RTL 10/020-200/M6	10	0,2	200	M6	M6	90 A
RRL 16/020-200/M8	RTL 16/020-200/M8	16	0,2	200	M8	M8	120 A
RRL 25/020-200/M8	RTL 25/020-200/M8	25	0,2	200	M8	M8	160 A
RRL 35/020-250/M10	RTL 35/020-250/M10	35	0,2	250	M10	M10	200 A
RRL 50/020-250/M10	RTL 50/020-250/M10	50	0,2	250	M10	M10	260 A
RRL 75/020-300/M12	RTL 75/020-300/M12	75	0,2	300	M12	M12	330 A
RRL 100/020-300/M12	RTL 100/020-300/M12	100	0,2	300	M12	M12	420 A
RRL 120/020-350/M12	RTL 120/020-350/M12	120	0,2	350	M12	M12	460 A
RRL 150/020-350/M12	RTL 150/020-350/M12	150	0,2	350	M12	M12	520 A

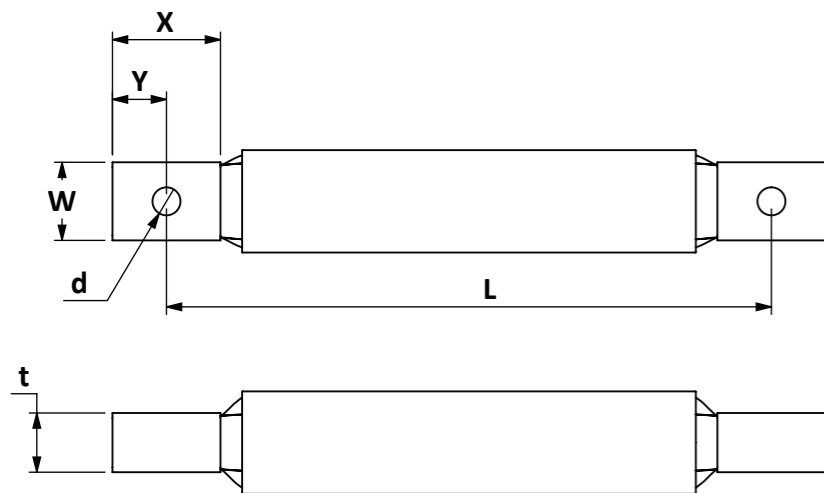


TWISTED COPPER CABLE

Bare Copper	Tin-Plated Copper	Cross-Sect.	Single Wire	L	useful for screw		Current load
		mm²	Ø mm		d1	d2	
TRL 10/020-200/M6	TTL 10/020-200/M6	10	0,2	200	M6	M6	90 A
TRL 16/020-200/M8	TTL 16/020-200/M8	16	0,2	200	M8	M8	120 A
TRL 25/020-200/M8	TTL 25/020-200/M8	25	0,2	200	M8	M8	160 A
TRL 35/020-250/M10	TTL 35/020-250/M10	35	0,2	250	M10	M10	200 A
TRL 50/020-250/M10	TTL 50/020-250/M10	50	0,2	250	M10	M10	260 A
TRL 75/020-300/M12	TTL 75/020-300/M12	75	0,2	300	M12	M12	330 A
TRL 100/020-300/M12	TTL 100/020-300/M12	100	0,2	300	M12	M12	420 A
TRL 150/020-350/M12	TTL 150/020-350/M12	150	0,2	350	M12	M12	520 A

AIR COOLED CABLES

power cables for resistance welding, heating and bus bar systems



- Single wire Cu-ETP UNI EN 13602 - Ø 0,20 mm
- Twisted bare copper cable
- Tubular tin-plated copper terminals
- Textile reinforced rubber tube insulation
- Special insulation on demand
- Water cooled on demand
- Current loads following IEC 439

custom and standard solutions

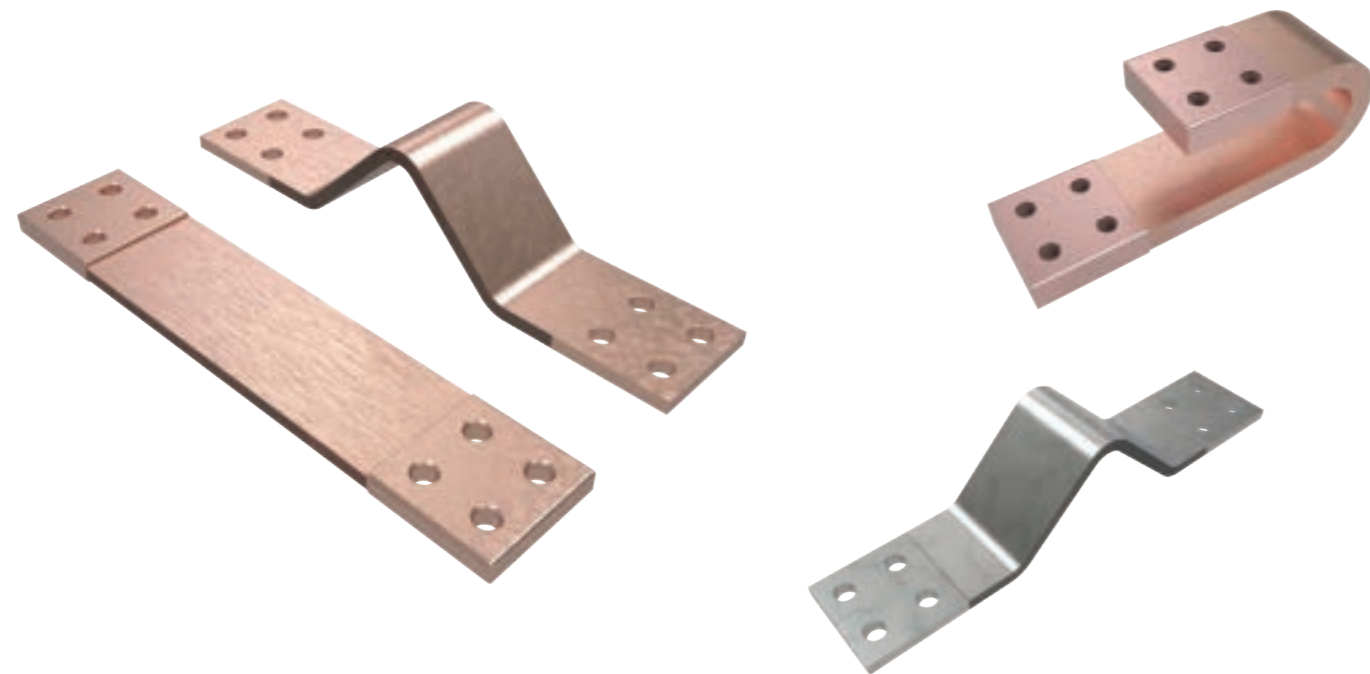
Code	Cross-Section	W	X	Y	t	Ød	Drilling	Current load
	mm ²							
ACC 150 - L	150	32	50	16	8	13	P1	520
ACC 200 - L	200	32	50	16	10	13	P1	620
ACC 300 - L	300	32	50	16	14	13	P1	780
ACC 400 - L	400	32	50	16	18	13	P1	920
ACC 500 - L	500	32	50	16	22	13	P1	1060
ACC 600 - L	600	32	50	16	26	13	P1	1200
ACC 800 - L	800	40	50	20	29	12	P1	1470

AIR COOLED CABLES

power cables for resistance welding, heating and bus bar systems

Code	Cross-Section	L	W	X	Y	t	Ød	Current load
	mm ²							
ACC 300-250	300	250	32	50	16	14	13	780
ACC 300-300	300	300	32	50	16	14	13	780
ACC 300-350	300	350	32	50	16	14	13	780
ACC 300-400	300	400	32	50	16	14	13	780
ACC 300-450	300	450	32	50	16	14	13	780
ACC 300-500	300	500	32	50	16	14	13	780
ACC 400-250	400	250	32	50	16	18	13	920
ACC 400-300	400	300	32	50	16	18	13	920
ACC 400-350	400	350	32	50	16	18	13	920
ACC 400-400	400	400	32	50	16	18	13	920
ACC 400-450	400	450	32	50	16	18	13	920
ACC 400-500	400	500	32	50	16	18	13	920
ACC 500-300	500	300	32	50	16	22	13	1060
ACC 500-350	500	350	32	50	16	22	13	1060
ACC 500-400	500	400	32	50	16	22	13	1060
ACC 500-450	500	450	32	50	16	22	13	1060
ACC 500-500	500	500	32	50	16	22	13	1060
ACC 500-600	500	600	32	50	16	22	13	1060
ACC 600-400	600	400	32	50	16	26	13	1200
ACC 600-450	600	450	32	50	16	26	13	1200
ACC 600-500	600	500	32	50	16	26	13	1200
ACC 600-550	600	550	32	50	16	26	13	1200
ACC 600-600	600	600	32	50	16	26	13	1200
ACC 600-700	600	700	32	50	16	26	13	1200
ACC 800-400	800	400	40	50	16	29	13	1470
ACC 800-450	800	450	40	50	16	29	13	1470
ACC 800-500	800	500	40	50	16	29	13	1470
ACC 800-550	800	550	40	50	16	29	13	1470
ACC 800-600	800	600	40	50	16	29	13	1470
ACC 800-700	800	700	40	50	16	29	13	1470

LAMINATED FLEXIBLE SHUNTS FOR DYNAMIC AND EXPANSION APPLICATIONS



Made by:

Cu-ETP (CW004A) EN 13599 R290 layers

For dynamic applications
with rivetted, press tinned or press welded terminals

Cu-HCP (CW021A) EN 13599 R220 layers

For expansion and compensation applications
with press welded and MIG welded terminals

Cu-ETP (CW004A) EN 13599 R220 layers

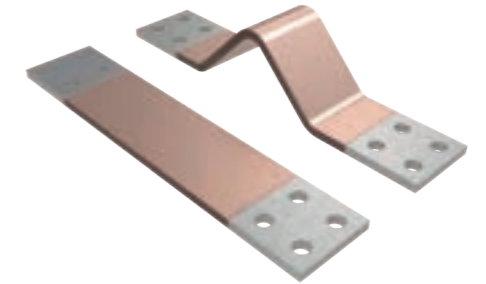
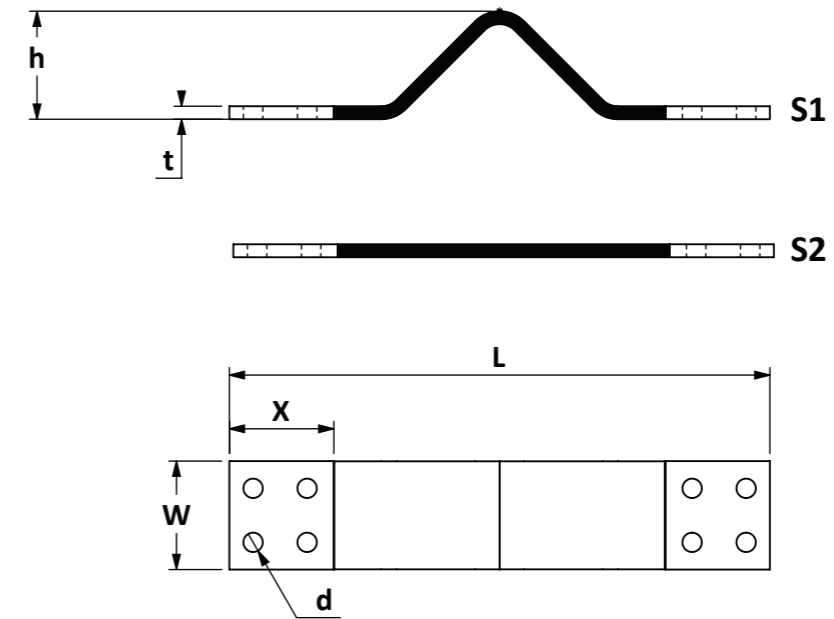
For expansion and compensation applications
with rivetted or press-tinned terminals

EN AW 1050A aluminium shunts on demand

Legenda

Type of application	Coating on layers	Coating on terminals	Insulation / Special Treatment
M Moving	R Bare Copper	R Bare Copper	HPE Heat Shrinkable Sleeve SIL Silicone Sleeve
P Expansion	T Tin Plating	T Tin Plating	GFI Glass Fiber Insulation HTD Hot Tin Dipped Terminals
S Special	S Silver Plating	S Silver Plating	W Press Welded Terminals T Press Tinned Terminals
	N Nickel Plating	N Nickel Plating	M MIG Welded Terminals
	A Aluminium		

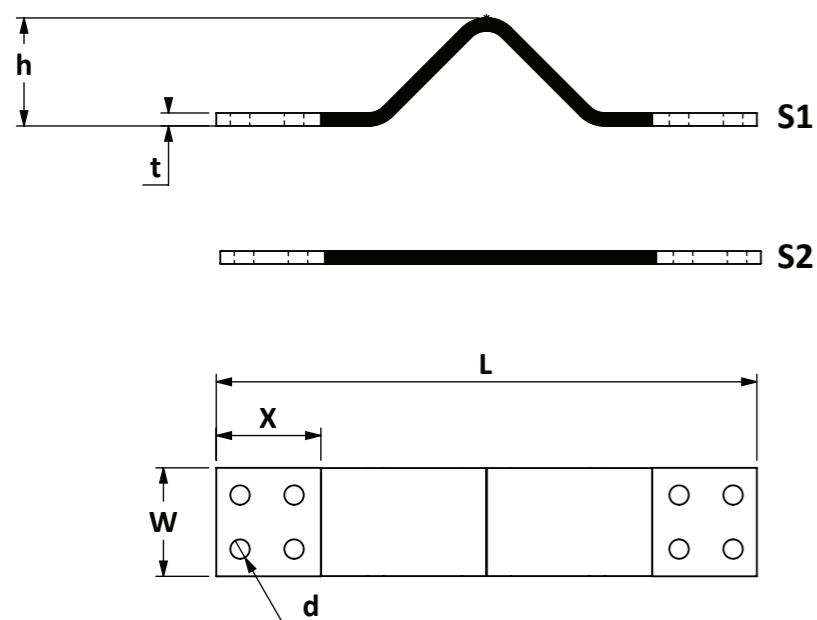
LAMINATED SHUNTS PRESS TINNED TERMINALS



Expansion and Compensation Shunts
Bare copper or tinned copper laminates - Press tinned terminals
Cu-ETP (CW004A) EN 13599 R220 strips, thickness 0,2 mm
Special dimensions and design on request
Insulation on demand
Galvanic coating on demand
Current loads following IEC 439
Standard drilling Patterns according to page 13

Bare Copper	Tin-Plated Copper	Cross Section mm ²	W	X	t	L	h (S1)	d	Drilling	Current load		
										ΔT 30°C	ΔT 50°C	ΔT 70°C
PRT 100-200 S1	PTT 100-200 S1	100	50	50	2	200	30	13	P1	400 A	550 A	680 A
PRT 150-250 S1	PTT 150-250 S1	150	50	50	3	250	40	13	P1	490 A	680 A	840 A
PRT 200-300 S1	PTT 200-300 S1	200	50	50	4	300	50	13	P1	570 A	790 A	970 A
PRT 250-300 S1	PTT 250-300 S1	250	50	50	5	300	50	13	P1	650 A	890 A	1100 A
PRT 400-400 S1	PTT 400-400 S1	400	80	80	5	400	70	13	P4	950 A	1320 A	1620 A
PRT 500-400 S1	PTT 500-400 S1	500	80	80	6,3	400	70	13	P4	1070 A	1480 A	1820 A
PRT 600-400 S1	PTT 600-400 S1	600	80	80	7,5	400	70	13	P4	1180 A	1630 A	2000 A
PRT 800-400 S1	PTT 800-400 S1	800	80	80	10	400	70	13	P4	1380 A	1900 A	2330 A
PRT 1000-450 S1	PTT 1000-450 S1	1000	100	100	10	450	70	13	P5	1660 A	2280 A	2800 A
PRT 1200-450 S1	PTT 1200-450 S1	1200	100	100	12	450	70	13	P5	1830 A	2520 A	3090 A
PRT 1500-500 S1	PTT 1500-500 S1	1500	120	120	12,5	500	70	13	P7	2170 A	2990 A	3670 A
PRT 1800-500 S1	PTT 1800-500 S1	1800	120	120	15	500	70	13	P7	2390 A	3300 A	4050 A
PRT 2000-500 S1	PTT 2000-500 S1	2000	120	120	16,7	500	70	13	P7	2530 A	3490 A	4290 A

LAMINATED SHUNTS PRESSWELDED TERMINALS



Expansion and Compensation Shunts
 Bare copper - Press welded terminals
 Cu-HCP (CW021A) EN 13599 R220 strips, thickness 0,2 mm
 Special dimensions and design on demand
 Insulation on demand
 Galvanic coating on demand
 Current loads following IEC 439
 Standard drilling Patterns according to page 13

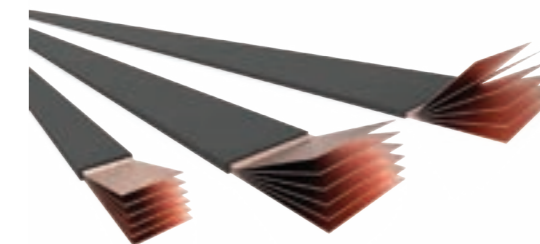
Bare Copper	Cross Section	W	X	t	L	h (S1)	d	Drilling	Current load		
	mm ²								dimensions in mm		
PRW 100-200 S1	100	50	50	2	200	30	13	P1	400 A	550 A	680 A
PRW 150-250 S1	150	50	50	3	250	40	13	P1	490 A	680 A	840 A
PRW 200-300 S1	200	50	50	4	300	50	13	P1	570 A	790 A	970 A
PRW 250-300 S1	250	50	50	5	300	50	13	P1	650 A	890 A	1100 A
PRW 400-400 S1	400	80	80	5	400	70	13	P4	950 A	1320 A	1620 A
PRW 500-400 S1	500	80	80	6,3	400	70	13	P4	1070 A	1480 A	1820 A
PRW 600-400 S1	600	80	80	7,5	400	70	13	P4	1180 A	1630 A	2000 A
PRW 800-400 S1	800	80	80	10	400	70	13	P4	1380 A	1900 A	2330 A
PRW 1000-450 S1	1000	100	100	10	450	70	13	P5	1660 A	2280 A	2800 A
PRW 1200-450 S1	1200	100	100	12	450	70	13	P5	1830 A	2520 A	3090 A
PRW 1500-500 S1	1500	120	120	12,5	500	70	13	P7	2170 A	2990 A	3670 A
PRW 1800-500 S1	1800	120	120	15	500	70	13	P7	2390 A	3300 A	4050 A
PRW 2000-500 S1	2000	120	120	16,7	500	70	13	P7	2530 A	3490 A	4290 A

INSULATED FLEXIBLE BARS

Bare copper – standard length 2 mt.

Single strip
 Self extinguishing
 Operating voltage
 Operating temperature
 Dielectric strenght
 Insulation thickness
 Halogen free / Silicon Insulation
 Special bar length
 Tin-plated Copper

Cu-ETP UNI EN 1652
 UL 94 V0 black PVC insulation
 1000 V AC – 1500 V DC
 -40/+105 °C
 20 kV/mm
 1,6 - 2 mm
 on demand
 on demand
 on demand



Referred to ambient temperature of 35°C following DIN 43671 norm

Current load is referred to: conductor temperature = > temperature rise ΔT + ambient temperature of 35°C

Using bars in parallel please apply a derating coefficient K*

Example: 40x1x5 In at ΔT 50°C = 736 A
 for n° 2 bars 40x1x5 in parallel In = 736 A x 1,72 = 1265 A
 for n° 3 bars 40x1x5 in parallel In = 736 A x 2,25 = 1656 A

Short circuit current (Icc) for Insulated flexible bars parameters :

One flexible element per phase

Initial temperature: 105 °C

Maximal operating temperature of the conductor

Final temperature: 160 °C

Temperature limit of the insulation material PVC in accordance with IEC 60724 if cross section < 300mm²

Final temperature: 140 °C

Temperature limit of the insulation material PVC in accordance with IEC 60724 if cross section > 300mm²

Icc: value of short circuit current in kA - t = 1 s (duration of short circuit in seconds)

Approval:



Bare Copper	Width	Thick.	Strips	Cross Section	Current Load			K *		Icc		
					mm	mm	n°	mm ²	ΔT 30°C		ΔT 50°C	ΔT 70°C
IFB 09-2	9	x	0,8	x	2	14,4	95 A	130 A	157 A	1,72	2,25	1,25
IFB 09-3	9	x	0,8	x	3	21,6	119 A	162 A	195 A	1,72	2,25	1,88
IFB 09-6	9	x	0,8	x	6	43,2	176 A	240 A	290 A	1,72	2,25	3,75
IFB 13-6	13	x	0,5	x	6	39	174 A	237 A	288 A	1,72	2,25	3,40
IFB 16-2	15,5	x	0,8	x	2	24,8	140 A	192 A	234 A	1,72	2,25	2,15
IFB 16-4	15,5	x	0,8	x	4	49,6	205 A	279 A	339 A	1,72	2,25	4,31
IFB 16-6	15,5	x	0,8	x	6	74,4	257 A	350 A	424 A	1,72	2,25	6,47
IFB 16-10	15,5	x	0,8	x	10	124	345 A	470 A	570 A	1,72	2,25	10,78
IFB 20-2	20	x	1	x	2	40	193 A	263 A	319 A	1,72	2,25	3,48
IFB 20-3	20	x	1	x	3	60	240 A	326 A	396 A	1,72	2,25	5,22
IFB 20-4	20	x	1	x	4	80	280 A	381 A	463 A	1,72	2,25	6,96
IFB 20-5	20	x	1	x	5	100	316 A	430 A	523 A	1,72	2,25	8,70

INSULATED FLEXIBLE BARS

Bare Copper	Width	Thick.	Strips	Cross Section	Current Load			K *		Icc		
					ΔT 30°C	ΔT 50°C	ΔT 70°C	n° 2	n° 3			
code	mm	mm	n°	mm ²	ΔT 30°C	ΔT 50°C	ΔT 70°C	n° 2	n° 3	kA		
IFB 20-6	20	x	1	x	6	120	350 A	477 A	580 A	1,72	2,25	10,43
IFB 20-8	20	x	1	x	8	160	412 A	562 A	683 A	1,72	2,25	13,91
IFB 20-10	20	x	1	x	10	200	470 A	640 A	776 A	1,72	2,25	17,40
IFB 24-2	24	x	1	x	2	48	223 A	303 A	368 A	1,72	2,25	4,17
IFB 24-3	24	x	1	x	3	72	276 A	375 A	456 A	1,72	2,25	6,26
IFB 24-4	24	x	1	x	4	96	322 A	438 A	532 A	1,72	2,25	8,35
IFB 24-5	24	x	1	x	5	120	363 A	494 A	600 A	1,72	2,25	10,43
IFB 24-6	24	x	1	x	6	144	402 A	547 A	664 A	1,72	2,25	12,52
IFB 24-8	24	x	1	x	8	192	470 A	641 A	779 A	1,72	2,25	16,7
IFB 24-10	24	x	1	x	10	240	534 A	727 A	883 A	1,72	2,25	20,87
IFB 32-2	32	x	1	x	2	64	280 A	382 A	463 A	1,72	2,25	5,57
IFB 32-3	32	x	1	x	3	96	346 A	470 A	572 A	1,72	2,25	8,35
IFB 32-4	32	x	1	x	4	128	402 A	548 A	668 A	1,72	2,25	11,13
IFB 32-5	32	x	1	x	5	160	453 A	617 A	749 A	1,72	2,25	13,91
IFB 32-6	32	x	1	x	6	192	500 A	680 A	826 A	1,72	2,25	16,7
IFB 32-8	32	x	1	x	8	256	583 A	793 A	963 A	1,72	2,25	22,26
IFB 32-10	32	x	1	x	10	320	657 A	894 A	1085 A	1,72	2,25	22,5
IFB 40-2	40	x	1	x	2	80	337 A	458 A	556 A	1,72	2,25	6,96
IFB 40-3	40	x	1	x	3	120	415 A	565 A	686 A	1,72	2,25	10,44
IFB 40-4	40	x	1	x	4	160	480 A	655 A	796 A	1,72	2,25	13,91
IFB 40-5	40	x	1	x	5	200	540 A	736 A	894 A	1,72	2,25	17,39
IFB 40-6	40	x	1	x	6	240	594 A	809 A	982 A	1,72	2,25	20,87
IFB 40-8	40	x	1	x	8	320	690 A	939 A	1140 A	1,72	2,25	22,5
IFB 40-10	40	x	1	x	10	400	774 A	1053 A	1279 A	1,65	2,12	28,12
IFB 50-3	50	x	1	x	3	150	498 A	679 A	824 A	1,72	2,25	13,04
IFB 50-4	50	x	1	x	4	200	577 A	786 A	954 A	1,72	2,25	17,39
IFB 50-5	50	x	1	x	5	250	645 A	880 A	1058 A	1,72	2,25	21,1
IFB 50-6	50	x	1	x	6	300	709 A	965 A	1170 A	1,65	2,12	21,74
IFB 50-8	50	x	1	x	8	400	818 A	1114 A	1352 A	1,65	2,12	28,12
IFB 50-10	50	x	1	x	10	500	914 A	1244 A	1510 A	1,72	2,12	35,15
IFB 63-3	63	x	1	x	3	189	604 A	823 A	998 A	1,65	2,12	16,44
IFB 63-4	63	x	1	x	4	252	698 A	960 A	1153 A	1,65	2,12	21,92
IFB 63-5	63	x	1	x	5	315	779 A	1050 A	1288 A	1,65	2,12	22,14
IFB 63-6	63	x	1	x	6	378	852 A	1159 A	1408 A	1,65	2,12	26,57
IFB 63-8	63	x	1	x	8	504	978 A	1332 A	1617 A	1,65	2,12	35,43
IFB 63-10	63	x	1	x	10	630	1088 A	1480 A	1796 A	1,65	2,12	44,29
IFB 80-3	80	x	1	x	3	240	729 A	1005 A	1220 A	1,65	2,12	20,88
IFB 80-4	80	x	1	x	4	320	850 A	1158 A	1405 A	1,65	2,12	22,5
IFB 80-5	80	x	1	x	5	400	947 A	1289 A	1565 A	1,65	2,12	28,12

INSULATED FLEXIBLE BARS

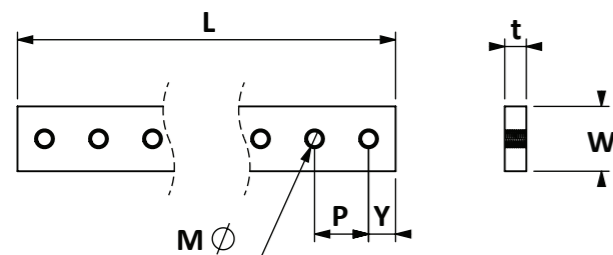
Bare Copper	Width	Thick.	Strips	Cross Section	Current Load			K *		Icc		
					ΔT 30°C	ΔT 50°C	ΔT 70°C	n° 2	n° 3			
code	mm	mm	n°	mm ²	ΔT 30°C	ΔT 50°C	ΔT 70°C	n° 2	n° 3	kA		
IFB 80-6	80	x	1	x	6	480	1032 A	1404 A	1705 A	1,65	2,12	33,74
IFB 80-8	80	x	1	x	8	640	1179 A	1504 A	1948 A	1,65	2,12	44,99
IFB 80-10	80	x	1	x	10	800	1305 A	1776 A	2156 A	1,65	2,12	56,24
IFB 100-4	100	x	1	x	4	400	1089 A	1480 A	1799 A	1,6	2,02	29,55
IFB 100-5	100	x	1	x	5	500	1135 A	1545 A	1878 A	1,6	2,02	35,15
IFB 100-6	100	x	1	x	6	600	1235 A	1680 A	2040 A	1,6	2,02	42,18
IFB 100-8	100	x	1	x	8	800	1404 A	1912 A	2320 A	1,6	2,02	56,24
IFB 100-10	100	x	1	x	10	1000	1550 A	2110 A	2562 A	1,6	2,02	70,3
IFB 100-12	100	x	1	x	12	1200	1680 A	2267 A	2776 A	1,6	2,02	84,36
IFB 120-4	120	x	1	x	4	480	1135 A	1544 A	1875 A	1,6	2,02	33,98
IFB 120-5	120	x	1	x	5	600	1358 A	1848 A	2244 A	1,6	2,02	40,42
IFB 120-6	120	x	1	x	6	720	1420 A	1932 A	2345 A	1,6	2,02	48,5
IFB 120-8	120	x	1	x	8	960	1614 A	2198 A	2668 A	1,5	1,95	64,68
IFB 120-10	120	x	1	x	10	1200	1848 A	2490 A	3053 A	1,5	1,95	80,85

PREFORMED INSULATED FLEXIBLE BARS on demand



THREADED COPPER BARS

Cu-ETP UNI EN 13601 copper busbars
 Flat copper bars – 1 mm radius edge
 Tin-plated, silver-plated and nickel-plated on demand
 Special lengths and dimensions on demand
 Current loads following IEC 439

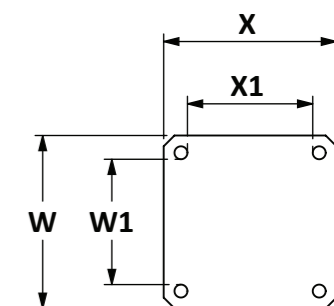
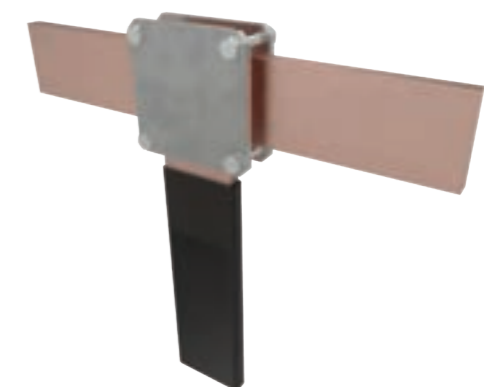


Code	Cross-Sect. mm ²	W x t	L	P	Y	threaded hole	Current load	
							ΔT 30°C	ΔT 50°C
CTB 12-2/1	24	12x2	990	18	9	M5	106	142
CTB 12-4/1	48	12x4	990	18	9	M5	160	210
CTB 12-5/1	60	12x5	990	18	9	M5	182	240
CTB 15-4/1	60	15x4	1000	20	10	M6	188	248
CTB 15-5/1	75	15x5	1000	25	12,5	M6	216	286
CTB 20-4/1	80	20x4	1000	20	10	M6	230	304
CTB 20-5/1	100	20x5	1000	25	12,5	M6	274	362
CTB 25-4/1	100	25x4	1000	20	10	M6	288	380
CTB 30-5/1	150	30x5	1000	25	12,5	M6	378	502
CTB 32-5/1	160	32x5	1000	25	12,5	M6	400	530
CTB 30-10/1	300	30x10	1000	25	12,5	M8	572	754
CTB 12-2/2	24	12x2	1998	18	9	M5	106	142
CTB 12-4/2	48	12x4	1998	18	9	M5	160	210
CTB 12-5/2	60	12x5	1998	18	9	M5	182	240
CTB 15-4/2	60	15x4	2000	20	10	M6	188	248
CTB 15-5/2	75	15x5	2000	25	12,5	M6	216	286
CTB 20-4/2	80	20x4	2000	20	10	M6	230	304
CTB 20-5/2	100	20x5	2000	25	12,5	M6	274	362
CTB 25-4/2	100	25x4	2000	20	10	M6	288	380
CTB 30-5/2	150	30x5	2000	25	12,5	M6	378	502
CTB 32-5/2	160	32x5	2000	25	12,5	M6	400	530
CTB 30-10/2	300	30x10	2000	25	12,5	M8	572	754

CABLING ACCESSORIES

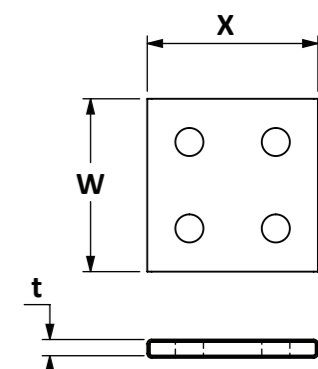
BUSBAR CLAMPS

Code	X1 - W1	X - W	Ø - M	Screws	torque
	dimensions in mm			M x length	Nm
TBC 25	25x20	45x40	6,5-M6	M6x35	8 Nm
TBC 22	20x20	40x40	6,5-M6	M6x35	8 Nm
TBC 32	32x32	52x52	6,5-M6	M6x35	8 Nm
TBC 42	40x20	60x40	6,5-M6	M6x35	8 Nm
TBC 43	40x32	60x52	6,5-M6	M6x35	8 Nm
TBC 44	40x40	60x60	6,5-M6	M6x35	8 Nm
TBC 52	50x20	75x45	8,5-M8	M8x35	20 Nm
TBC 54	50x40	75x65	8,5-M8	M8x36	20 Nm
TBC 55	50x50	75x75	8,5-M8	M8x37	20 Nm
TBC 63	63x32	88x57	8,5-M8	M8x38	20 Nm
TBC 64	63x40	88x65	8,5-M8	M8x39	20 Nm
TBC 66	63x63	88x88	8,5-M8	M8x40	20 Nm
TBC 84	80x40	115x75	10,5-M10	M10x35	40 Nm
TBC 88	80x80	115x115	10,5-M10	M10x35	40 Nm
TBC 104	100x40	135x75	10,5-M10	M10x35	40 Nm
TBC 106	100x63	135x98	10,5-M10	M10x35	40 Nm
TBC 110	100x100	135x135	10,5-M10	M10x35	40 Nm



BIMETAL PLATES Cu-AI

Code		Holes	X	W	Thickness
Drilled	Undrilled	dimensions in mm			
TDB 30	TUB 30	P1	30	30	1
TDB 40	TUB 40	P1	40	40	1
TDB 50	TUB 50	P1	50	50	1
TDB 60	TUB 60	P1	60	60	1
TDB 80	TUB 80	P4	80	80	1
TDB 100	TUB 100	P5	100	100	1
TDB 120	TUB 120	P7	120	120	1



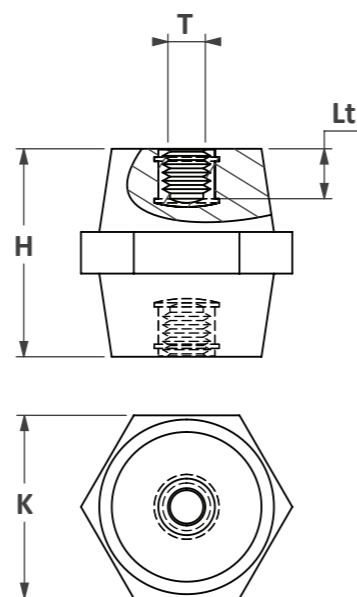
TINNED COPPER PLATE

Code		Holes	X	W	Thickness
Drilled	Undrilled	dimensions in mm			
TDP 30	TUP 30	P1	30	30	5
TDP 40	TUP 40	P1	40	40	5
TDP 50	TUP 50	P1	50	50	5
TDP 60	TUP 60	P1	60	60	5
TDP 80	TUP 80	P4	80	80	5
TDP 100	TUP 100	P5	100	100	5
TDP 120	TUP 120	P7	120	120	5

BMC SPACING INSULATORS

Code	H	K	T	Lt	Vn AC/DC	packaging
	dimensions in mm				Volt	pcs
IPM 20 M(T)-19	20	hex 19	M4-M5-M6-M8	5	800	50
IPM 25 M(T)-19	25	hex 19	M4-M5-M6-M8	8	1000	50
IPM 30 M(T)-30	30	hex 30	M6-M8-M10-M12	9	1600	50
IPM 35 M(T)-32	35	hex 32	M6-M8-M10-M12	11	2000	50
IPM 36 M(T)-41	36	hex 41	M6-M8-M10-M12	11	2000	25
IPM 40 M(T)-32	40	hex 32	M6-M8-M10-M12	11	2500	25
IPM 40 M(T)-46	40	hex 46	M6-M8-M10-M12	11	2500	25
IPM 45 M(T)-36	45	hex 36	M6-M8-M10-M12	15	2500	25
IPM 45 M(T)-41	45	oct 41	M6-M8-M10-M12	15	2500	25
IPM 45 M(T)-46	45	hex 46	M6-M8-M10-M12	15	2500	25
IPM 50 M(T)-36	50	hex 36	M6-M8-M10-M12	15	2500	25
IPM 50 M(T)-50	50	hex 50	M6-M8-M10-M12	15	2500	25
IPM 55 M(T)-55	55	hex 55	M6-M8-M10-M12	15	3000	25
IPM 60 M(T)-55	60	hex 55	M6-M8-M10-M12	15	3000	10
IPM 63 M(T)-41	63	hex 41	M6-M8-M10-M12	15	3000	10
IPM 65 M(T)-56	65	hex 56	M6-M8-M10-M12	15	3000	10
IPM 70 M(T)-65	70	hex 65	M6-M8-M10-M12-M16	15	3000	10
IPM 75 M(T)-50	75	hex 50	M8-M10-M12-M16	15	4000	5
IPM 75 M(T)-65	75	oct 65	M8-M10-M12-M16	15	4000	5
IPM 80 M(T)-65	80	hex 65	M8-M10-M12-M16	15	4000	5
IPM 100 M(T)-65	100	oct 65	M8-M10-M12-M16	15	5000	5

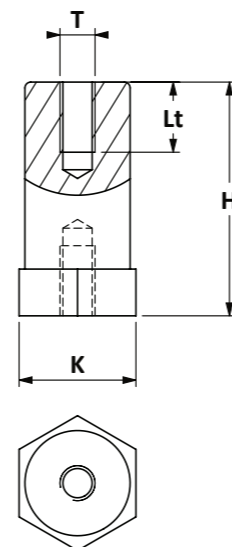
- Polyester resin** Bulk Moulding Compound
- Colour** RAL 3002
- Glass fiber content** 20% (±2%)
- Working temperature** -40° C / +110° C
- Fire resistance** UL94 Classe V0 3,2 mm
- Glow wire GWFI** IEC 60695-2-12
960 °C - 2 mm
- Arc resistance** ASTM D 495 >180 S



UL Certified version UL suffix at the end of the code

BMC SPACING COLUMNS

Code	H	K	T	Lt	Vn AC/DC	packaging
	dimensions in mm				Volt	pcs
CPM 16 M(T)-20	16	hex 20	M4-M5-M6-M8	4,5	400	100
CPM 20 M(T)-20	20	hex 20	M4-M5-M6-M8	5	800	100
CPM 25 M(T)-20	25	hex 20	M5-M6-M8	8	1000	100
CPM 30 M(T)-20	30	hex 20	M5-M6-M8	9	1600	100
CPM 35 M(T)-20	35	hex 20	M5-M6-M8	9	2000	100
CPM 40 M(T)-20	40	hex 20	M5-M6-M8	9	2000	100
CPM 45 M(T)-20	45	hex 20	M5-M6-M8	9	2000	100
CPM 50 M(T)-20	50	hex 20	M5-M6-M8	9	2500	50
CPM 55 M(T)-20	55	hex 20	M5-M6-M8	9	2500	50
CPM 60 M(T)-20	60	hex 20	M5-M6-M8	9	2500	50
CPM 65 M(T)-20	65	hex 20	M5-M6-M8	9	2500	50
CPM 70 M(T)-20	70	hex 20	M5-M6-M8	9	2500	50
CPM 30 M(T)-30	30	hex 30	M6-M8-M10-M12	9	1600	50
CPM 35 M(T)-30	35	hex 30	M6-M8-M10-M12	11	2000	50
CPM 40 M(T)-30	40	hex 30	M6-M8-M10-M12	11	2000	50
CPM 45 M(T)-30	45	hex 30	M6-M8-M10-M12	15	2000	25
CPM 50 M(T)-30	50	hex 30	M6-M8-M10-M12	15	2500	25
CPM 55 M(T)-30	55	hex 30	M6-M8-M10-M12	15	2500	25
CPM 60 M(T)-30	60	hex 30	M6-M8-M10-M12	15	2500	25
CPM 65 M(T)-30	65	hex 30	M6-M8-M10-M12	15	2500	25
CPM 70 M(T)-30	70	hex 30	M6-M8-M10-M12	15	2500	25
CPM 30 M(T)-40	30	hex 41	M6-M8-M10-M12	9	1600	25
CPM 35 M(T)-40	35	hex 41	M6-M8-M10-M12	11	2000	25
CPM 40 M(T)-40	40	hex 41	M6-M8-M10-M12	11	2000	25
CPM 45 M(T)-40	45	hex 41	M6-M8-M10-M12	15	2000	25
CPM 50 M(T)-40	50	hex 41	M6-M8-M10-M12	15	2500	25
CPM 55 M(T)-40	55	hex 41	M6-M8-M10-M12	15	2500	25
CPM 60 M(T)-40	60	hex 41	M6-M8-M10-M12	15	2500	20
CPM 65 M(T)-40	65	hex 41	M6-M8-M10-M12	15	2500	20
CPM 70 M(T)-40	70	hex 41	M6-M8-M10-M12-M16	15	2500	20



- Polyester resin** Bulk Moulding Compound
- Colour** RAL 3002
- Glass fiber content** 20% (±2%)
- Working temperature** -40° C / +110° C
- Fire resistance** UL94 Classe V0 3,2 mm
- Glow wire GWFI** IEC 60695-2-12
960 °C - 2 mm
- Arc resistance** ASTM D 495 >180 S

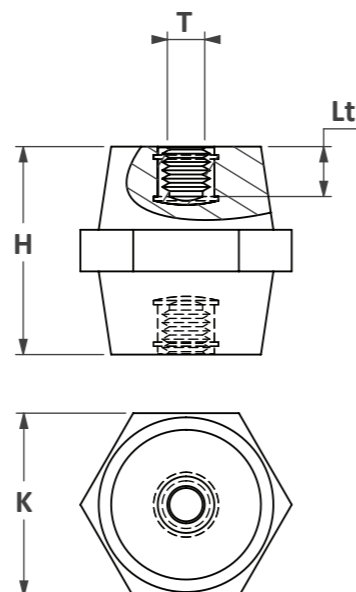
UL Certified version UL suffix at the end of the code

POLYAMIDE SPACING INSULATORS

Code	H	K	T	Lt	Vn AC/DC	packaging
	dimensions in mm				Volt	pcs
IPA 12 M(T)-8	12	hex 8	M3	3,5	400	100
IPA 15 M(T)-14	15	oct 14	M4-M5	4,5	400	100
IPA 16 M(T)-14	16	oct 14	M4-M5	4,5	400	100
IPA 20 M(T)-17	20	hex 17	M4-M5-M6	5	800	100
IPA 25 M(T)-19	25	hex 19	M4-M5-M6	8	1000	100
IPA 30 M(T)-30	30	hex 30	M6-M8-M10-M12	9	1000	50
IPA 35 M(T)-32	35	hex 32	M6-M8-M10-M12	11	1600	50
IPA 35 M(T)-41	35	hex 41	M6-M8-M10-M12	11	2000	50
IPA 40 M(T)-32	40	hex 32	M6-M8-M10-M12	11	2000	50
IPA 40 M(T)-46	40	hex 46	M6-M8-M10-M12	11	2000	25
IPA 45 M(T)-41	45	oct 41	M6-M8-M10-M12	15	2000	25
IPA 45 M(T)-46	45	hex 46	M6-M8-M10-M12	15	2000	25
IPA 50 M(T)-36	50	hex 36	M6-M8-M10-M12	15	2500	25
IPA 50 M(T)-50	50	hex 50	M6-M8-M10-M12	15	2500	25
IPA 55 M(T)-55	55	hex 55	M6-M8-M10-M12	15	2500	25
IPA 60 M(T)-54	60	oct 54	M8-M10-M12	15	2500	10
IPA 63 M(T)-41	63	hex 41	M8-M10-M12	15	2500	10
IPA 70 M(T)-65	70	hex 65	M6-M8-M10-M12-M16	15	3000	10
IPA 75 M(T)-50	75	hex 50	M8-M10-M12-M16	15	3000	10

Polyamide 6

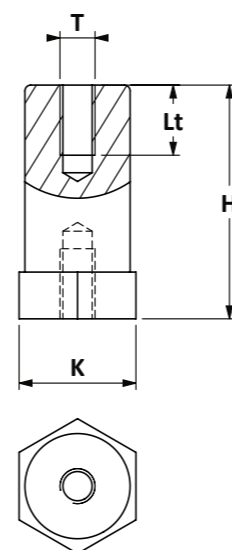
- Colour** RAL 3003
- Glass fiber content** 30% (±2%)
- Working temperature** -40° C / +120° C
- Fire resistance** UL94 Classe V0 3,2 mm
- Glow wire GWFI** IEC 60695-2-12
960 °C - 2 mm
- Arc resistance** ASTM D 495 >180 S



page 51 to page 52 for mechanical and electrical data

POLYAMIDE SPACING COLUMNS

Code	H	K	T	Lt	Vn AC/DC	packaging
	dimensions in mm				Volt	pcs
CPA 16 M(T)-20	16	hex 20	M4-M5-M6-M8	4,5	400	100
CPA 20 M(T)-20	20	hex 20	M4-M5-M6-M8	5	600	100
CPA 25 M(T)-20	25	hex 20	M5-M6-M8	8	600	100
CPA 30 M(T)-20	30	hex 20	M5-M6-M8	9	600	100
CPA 35 M(T)-20	35	hex 20	M5-M6-M8	9	600	100
CPA 40 M(T)-20	40	hex 20	M5-M6-M8	9	600	100
CPA 45 M(T)-20	45	hex 20	M5-M6-M8	9	600	100
CPA 50 M(T)-20	50	hex 20	M5-M6-M8	9	750	100
CPA 55 M(T)-20	55	hex 20	M5-M6-M8	9	750	100
CPA 60 M(T)-20	60	hex 20	M5-M6-M8	9	750	100
CPA 65 M(T)-20	65	hex 20	M5-M6-M8	9	750	100
CPA 70 M(T)-20	70	hex 20	M5-M6-M8	9	750	100
CPA 30 M(T)-30	30	hex 30	M6-M8-M10-M12	9	750	25
CPA 35 M(T)-30	35	hex 30	M6-M8-M10-M12	11	750	25
CPA 40 M(T)-30	40	hex 30	M6-M8-M10-M12	11	1000	25
CPA 45 M(T)-30	45	hex 30	M6-M8-M10-M12	15	1000	25
CPA 50 M(T)-30	50	hex 30	M6-M8-M10-M12	15	1500	25
CPA 55 M(T)-30	55	hex 30	M6-M8-M10-M12	15	1500	25
CPA 60 M(T)-30	60	hex 30	M6-M8-M10-M12	15	1500	25
CPA 65 M(T)-30	65	hex 30	M6-M8-M10-M12	15	1500	25
CPA 70 M(T)-30	70	hex 30	M6-M8-M10-M12	15	1500	25
CPA 30 M(T)-41	30	hex 41	M6-M8-M10-M12	9	750	25
CPA 35 M(T)-41	35	hex 41	M6-M8-M10-M12	11	750	25
CPA 40 M(T)-41	40	hex 41	M6-M8-M10-M12	11	1000	25
CPA 45 M(T)-41	45	hex 41	M6-M8-M10-M12	15	1000	25
CPA 50 M(T)-41	50	hex 41	M6-M8-M10-M12	15	1500	25
CPA 55 M(T)-41	55	hex 41	M6-M8-M10-M12	15	1500	25
CPA 60 M(T)-41	60	hex 41	M6-M8-M10-M12	15	1500	20
CPA 65 M(T)-41	65	hex 41	M6-M8-M10-M12	15	1500	20
CPA 70 M(T)-41	70	hex 41	M6-M8-M10-M12-M16	15	1500	20



Polyamide 6

- Colour** RAL 3003
- Fibers content** 30% (±2%)
- Fire resistance** UL94 Classe V0 3,2 mm
- Glow wire GWFI** IEC 60695-2-12
960 °C - 2 mm
- Arc resistance** ASTM D 495 >180 S

page 53 to page 55 for mechanical and electrical data

LV – MV HEAT SHRINKABLE SLEEVE



Physical

Crosslinked polyolefin

Tensile strength	12 N/mm ² (min.)	ASTM D638
Ultimate elongation	300% (min.)	ASTM D638
Water absorption	0,5 % (max.)	ASTM D570
Density	1,2 ± 0,2 gm/cm ³	ASTM D792
Hardness	45 ± 10 shore D	ASTM D2240



Thermal

Accelerate ageing (a+b)	120°C x 500 hrs	ASTM D2671
Tensile strength (a)	10 N/mm ² (min.)	ASTM D638
Ultimate elongation (b)	250% (min.)	ASTM D638
Low temperature flexibility	(- 40° C x 4 hrs) No cracking	ASTM D2671
Shock termico / Heat shock	(250°C x 30 min.) No cracking	ESI 09-11
Shrink temperature	125°C	IEC 216
Continuos temperature limit	- 55°C +125°C (GSC)	IEC 216
Continuos temperature limit	- 40°C +115°C (GMB - GHB)	IEC 216



Electrical

Dielectric strength	22 kV/mm (min.)	ASTM D149
Volume resistivity	1x10 ¹⁴ Ohm.cm (min.)	ASTM D257

Voltage	Clearance with insulation				Clearance without insulation
	Medium wall tube GMB		Heavy wall tube GHB		
	phase to phase	phase to ground	phase to phase	phase to ground	
12 kV	65 mm	75 mm	35 mm	45 mm	120 mm
17,5 kV	85 mm	105 mm	55 mm	65 mm	160 mm
24 kV	115 mm	150 mm	70 mm	100 mm	220 mm
36 kV	200 mm	285 mm	140 mm	190 mm	320 mm

LV – MV HEAT SHRINKABLE SLEEVE

Code	d min	d max	t ± 10%	Rectangular bar W+B		Round bar Ø		Pack.
	dimensions in mm			min	max	min	max	mt

LOW VOLTAGE BLACK COLOR 3,3 kVolt

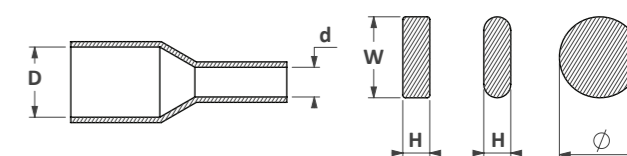
GSC 1.5/0.75	1,5	0,75	0,28	=	=	=	=	200
GSC 2.5/1.2	2,5	1,2	0,44	=	=	=	=	200
GSC 4/2	4	2	0,44	=	=	=	=	200
GSC 6/3	6	3	0,56	=	=	=	=	100
GSC 10/5	10	5	0,56	=	=	=	=	100
GSC 12.7/6.35	12,7	6,35	0,56	=	=	=	=	100
GSC 16/8	15	7,5	0,69	12	18	8	12	100
GSC 20/10	20	10	0,78	16	25	12	16	100
GSC 25/12.5	25	12,5	0,78	20	31	14	20	50
GSC 30/15	30	15	0,86	23	38	18	24	50
GSC 40/20	40	20	0,6	34	52	23	33	50
GSC 50/25	50	25	0,96	43	65	28	41	25
GSC 80/40	80	40	1,27	63	97	44	62	25
GSC 100/50	100	50	1,4	102	125	55	80	25
GCS 150/75	150	75	1,4	119	190	80	121	25

MEDIUM VOLTAGE RED BRICK COLOR 24 kVolt

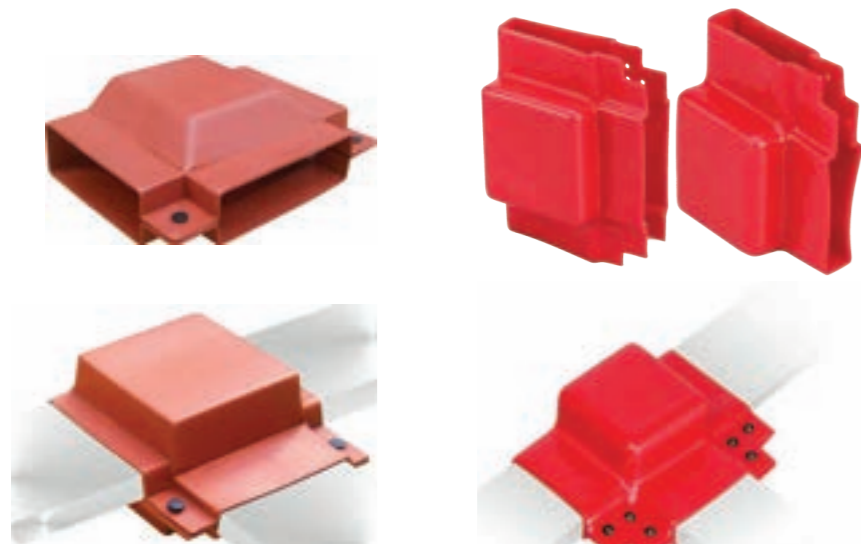
GMB 16/6	16	6	2	12	18	6,5	12	25
GMB 25/8	25	8	2,5	16	30	9	20	25
GMB 30/12	30	12	2,5	22	38	13,5	25	25
GMB 40/16	40	16	2,5	29	50	18	32	25
GMB 50/20	50	20	2,5	36	63	22	40	25
GMB 65/25	65	25	2,7	46	82	28	52	25
GMB 75/28	75	28	3	55	94	33	60	25
GMB 85/32	85	32	3	58	107	37	68	25
GMB 100/38	100	38	3	70	126	44	80	25
GMB 120/45	120	45	3	90	150	55	96	15
GMB 150/60	150	60	3	110	200	70	127	15
GMB 180/70	180	70	3	125	226	80	144	15
GMB 205/85	205	85	3	200	257	127	164	15
GMB 250/120	250	120	3	220	314	140	200	15

MEDIUM VOLTAGE RED BRICK COLOR 36 kVolt

GHB 25/8	25	8	3,7	17	28	11	20	25
GHB 30/12	30	12	4	21	33	15	25	25
GHB 40/16	40	16	4	28	45	15	32	25
GHB 50/20	50	20	4	34	54	24	40	25
GHB 65/25	65	25	4	41	62	27	43	25
GHB 75/28	75	28	4	47	69	28	47	20
GHB 85/32	85	32	4	58	100	37	68	20
GHB 100/38	100	38	4,2	69	102	44	72	20
GHB 120/45	120	45	4,2	83	125	50	85	15
GHB 150/60	150	60	4,5	102	168	65	105	15
GHB 180/70	180	70	4,5	133	196	85	125	15
GHB 205/85	205	85	4,5	200	250	127	164	15



PROTECTIONS IN MEDIUM VOLTAGE BUSBOOT in PVC or POLYOLEFIN



customized products

Main characteristics and use

It's a flexible electrical insulating boot/shroud for busbar and switchgear connections up to 36KV.

These pliable boots can be installed, removed or replaced in few minutes.

Made from special Polyvinyl Chloride (PVC) or Crosslinked Polyolefin to provide excellent electrical insulation

Higher withstand to continuous high operating temperature

Provide to reduce air clearance

Helps compact panels design

Reduce material cost in saving busbar length, sheet metal components etc.

Advantages and benefits

The most cost effective way to insulate connections in switchgear

High dielectric strength

Suitable for insulating busbar joint works application

Easy to install or remove as often as required

Complete with fasteners

Highly resistant to UV rays and ozone

Outdoor or indoor application



PROTECTIONS IN MEDIUM VOLTAGE ANGLEBOOT, OUTDOOR TERMINATION FOR CABLES, INSULATORS AND SWITCHGEARS

customized products

INSULSHED - RAIN SHED

Used to increase the surface creepage distance of the cores of outdoor termination without increasing the tail length

Used to avoid continuity during rainy season to avoid short circuiting of the electrical network

Made from high quality cross linked polyolefin material that offers exceptional non tracking behaviour

Insulation and long term service reliability for indoor and outdoor applications

Internally coated with water resistant mastic

CABLEBOOT e ANGLEBOOT

Cable protection right angle and straight made by heat shrinkable material

Made from high quality cross linked non tracking polyolefin material internally coated with water resistant red mastic

Provide insulation to the bushings in the cable termination box

Reducing clearance between phase to phase and phase to earth compared to normal air clearance

Provide protection against flashover in event of high humidity rodent menace and surge impulse

GEB Screened Separable Connector up to 24 kV - 630 A

Screened Separable Connectors and touch proof terminations

Designed to connect single and three core polymeric cables to MV Switchgear, Transformer, RMU (ring Main Unit) or other equipments using bushing "C" type

To be used up to 630A and up to 24kV

Conductors cross section from 25 up to 400 mm²

Made of a highly modified EPDM rubber and protected by a touch proof outer conductive screen connected to earth

Compact design 100% factory tested

Voltage class: 11kV, 15kV, 24kV

Provides fully screened and submersible separable connection.

Mating with C - type bushings and plugs complying with EN 50180 & EN 50181

Tested in compliance with IED 60502.4

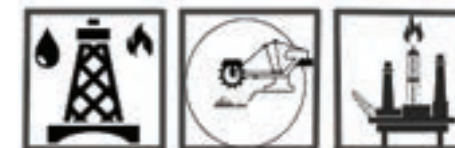
Available with Bi-Metallic lugs for use with 22kV Aluminium cables



GEB connectors can adapt most of cables used in



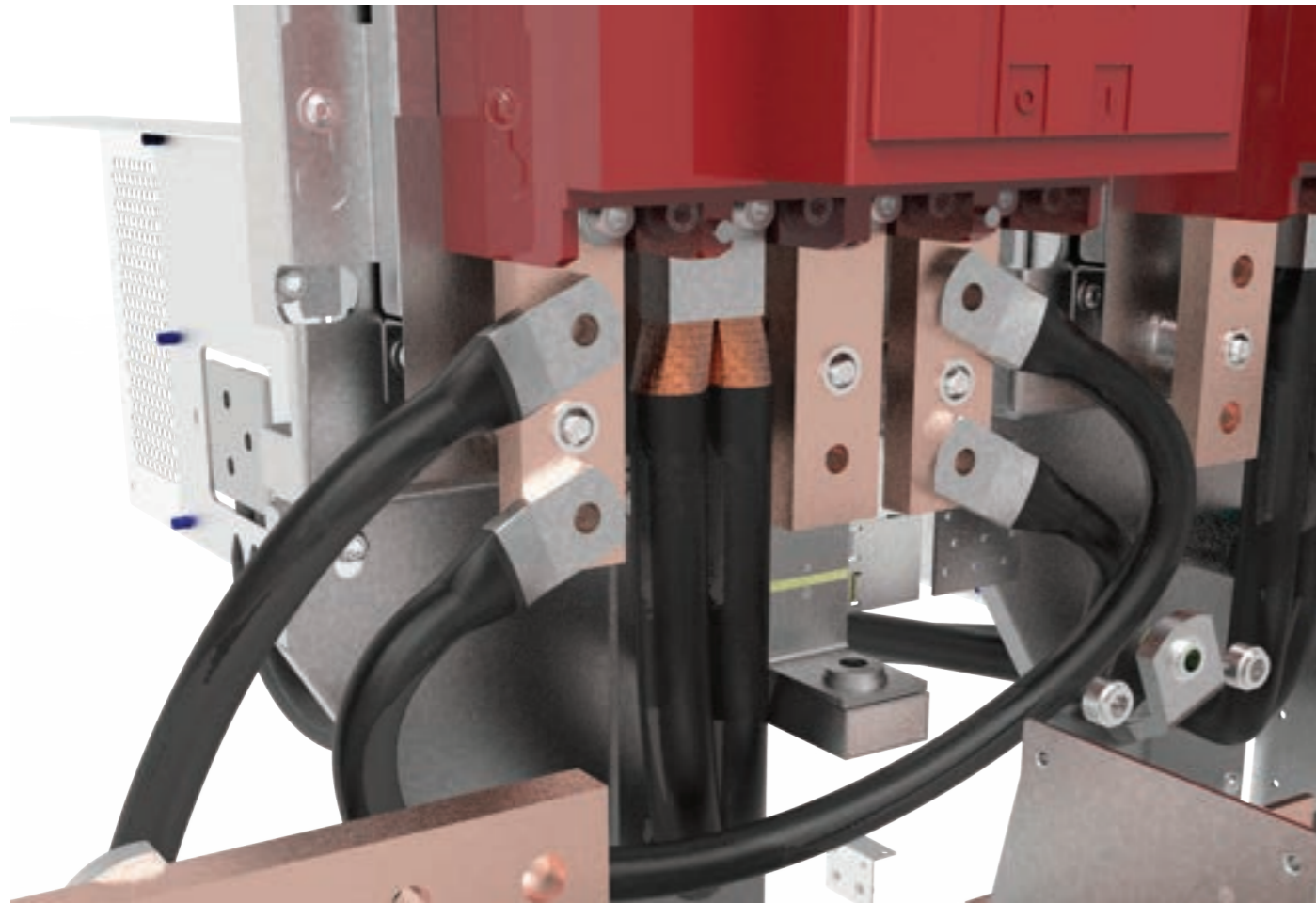
substation solar and wind rail



oil and gas mining marine offshore



FLAT COPPER BRAIDS



Cross Section mm ²	Wire Ø	dimensions in mm		In Amp - Ta 35°C current load referred to		
		W	t	ΔT 30°C	ΔT 50°C	ΔT 70°C
6	0,2	10	1,5	60 A	80 A	100 A
10	0,2	10	2	80 A	110 A	130 A
10	0,2	15	2	90 A	120 A	150 A
16	0,2	15	2,5	110 A	150 A	190 A
25	0,2	20	3,2	150 A	210 A	260 A
35	0,2	20	3,4	180 A	250 A	310 A
50	0,2	28	3,6	240 A	330 A	410 A
75	0,2	28	5	300 A	410 A	500 A
100	0,2	32	6	360 A	500 A	610 A
120	0,2	35	7	410 A	560 A	690 A
150	0,2	38	8	470 A	650 A	800 A
200	0,2	32	10	530 A	730 A	890 A
250	0,2	40	12,5	640 A	880 A	1080 A
300	0,2	50	12	740 A	1020 A	1250 A

ROUND BRAIDS and TWISTED CABLES in COPPER



Current loads for all conductors in this catalogue are referred to an Ambient Temperature – > Ta of 35°C

ΔT it's the temperature rise allowed on the conductor

Final temperature on the conductor will be -> T = Ta+ΔT

Cross Section mm ²	Wire Ø	Ø	In Amp - Ta 35°C current load referred to		
			ΔT 30°C	ΔT 50°C	ΔT 70°C
6	0,2	3,5	50 A	70 A	80 A
10	0,2	5	70 A	90 A	110 A
16	0,2	6	90 A	120 A	150 A
25	0,2	7,5	120 A	160 A	200 A
35	0,2	9,5	150 A	200 A	250 A
50	0,2	11	190 A	260 A	320 A
75	0,2	13,5	240 A	330 A	410 A
100	0,2	15,5	300 A	420 A	510 A
120	0,2	16	330 A	460 A	560 A
150	0,2	20	380 A	520 A	640 A

BRAIDED POWER CONDUCTORS

Cross-Sect. mm ²	W dimensions in mm	t dimensions in mm	Current load		
			ΔT 30°C	ΔT 50°C	ΔT 70°C
10	10	3,5	80 A	110 A	140 A
10	12	3,2	80 A	110 A	140 A
16	15	3,5	110 A	160 A	190 A
16	17	3,3	120 A	160 A	200 A
25	20	3,7	150 A	210 A	260 A
25	22	3,5	160 A	220 A	270 A
25	25	3,3	160 A	220 A	280 A
35	22	4,1	190 A	260 A	320 A
35	25	3,8	190 A	270 A	330 A
50	25	4,6	230 A	320 A	400 A
50	30	4,2	250 A	340 A	420 A
50	35	3,8	260 A	350 A	430 A
75	30	5,2	300 A	420 A	510 A
75	35	4,8	320 A	440 A	540 A
100	30	6	350 A	490 A	600 A
100	35	5,6	370 A	510 A	620 A
100	40	5,2	380 A	530 A	650 A
120	30	7	390 A	540 A	660 A
120	35	6,5	410 A	560 A	690 A
120	40	6	420 A	580 A	710 A
150	30	8	440 A	610 A	750 A
150	35	7,5	460 A	630 A	780 A
150	40	6,8	470 A	650 A	800 A
150	45	6,2	490 A	670 A	830 A
200	40	8,3	550 A	760 A	940 A
200	45	7,6	570 A	780 A	960 A
200	50	7	590 A	810 A	990 A
200	40	8,3	550 A	760 A	940 A
200	50	7	590 A	780 A	990 A
250	40	10	630 A	860 A	1060 A
250	45	9	640 A	890 A	1090 A
250	50	8,3	660 A	910 A	1120 A
250	40	10	630 A	860 A	1060 A
250	50	8,3	660 A	910 A	1120 A
300	45	10,6	710 A	980 A	1200 A
300	50	9,5	730 A	1000 A	1230 A
300	60	8,5	770 A	1050 A	1300 A
300	45	10,6	710 A	980 A	1200 A

BRAIDED POWER CONDUCTORS

Cross-Sect. mm ²	W dimensions in mm	t dimensions in mm	Current load		
			ΔT 30°C	ΔT 50°C	ΔT 70°C
300	50	9,5	730 A	1000 A	1230 A
300	60	8,5	770 A	1050 A	1300 A
300	70	8,3	800 A	1110 A	1360 A
400	50	12	850 A	1180 A	1450 A
400	40	15	820 A	1130 A	1390 A
400	50	12	850 A	1180 A	1450 A
400	60	10,5	890 A	1230 A	1510 A
400	80	9,5	970 A	1340 A	1650 A
400	100	8	1040 A	1430 A	1760 A
400	120	7	1100 A	1520 A	1870 A
500	50	14,5	970 A	1330 A	1640 A
500	60	12,5	1010 A	1390 A	1710 A
500	80	11	1090 A	1510 A	1850 A
500	90	10	1130 A	1560 A	1920 A
500	100	9,2	1170 A	1610 A	1980 A
500	120	8,5	1240 A	1720 A	2100 A
500	140	8,5	1310 A	1800 A	2210 A
500	150	7	1330 A	1840 A	2260 A
500	160	9	1370 A	1890 A	2320 A
500	200	9	1480 A	2040 A	2510 A
600	60	16	1120 A	1550 A	1900 A
600	70	14	1160 A	1600 A	1970 A
600	80	12,5	1210 A	1660 A	2040 A
600	90	11,5	1250 A	1720 A	2110 A
600	100	10,5	1290 A	1770 A	2180 A
600	120	9,5	1360 A	1880 A	2300 A
600	140	9,3	1430 A	1980 A	2430 A
600	150	8	1460 A	2020 A	2480 A
600	160	8	1500 A	2060 A	2530 A
600	180	9	1560 A	2150 A	2650 A
600	200	10	1620 A	2240 A	2750 A
800	80	15,5	1410 A	1940 A	2380 A
800	100	13	1500 A	2060 A	2530 A
800	120	11,5	1580 A	2180 A	2680 A
800	140	11	1660 A	2290 A	2810 A
800	150	10	1700 A	2340 A	2880 A
800	160	11,2	1740 A	2400 A	2950 A
800	180	10,5	1810 A	2490 A	3060 A

BRAIDED POWER CONDUCTORS

Cross-Sect.	W	t	Current load		
			mm ²	dimensions in mm	ΔT 30°C
800	200	11	1880 A	2590 A	3180 A
1000	80	19	1590 A	2200 A	2700 A
1000	100	15,5	1690 A	2320 A	2850 A
1000	120	14,5	1780 A	2450 A	3020 A
1000	140	13	1870 A	2570 A	3160 A
1000	150	13,3	1910 A	2630 A	3240 A
1000	160	12,8	1950 A	2690 A	3310 A
1000	180	12	2030 A	2800 A	3440 A
1000	200	12,5	2110 A	2900 A	3570 A
1200	100	18	1860 A	2560 A	3150 A
1200	120	16,5	1960 A	2700 A	3320 A
1200	140	14,6	2050 A	2830 A	3480 A
1200	150	15	2100 A	2900 A	3560 A
1200	160	14,3	2150 A	2960 A	3630 A
1200	180	13,5	2230 A	3070 A	3780 A
1200	200	13,5	2310 A	3180 A	3910 A
1500	100	22	2110 A	2900 A	3570 A
1500	120	20	2210 A	3050 A	3750 A
1500	140	16,2	2300 A	3180 A	3900 A
1500	150	17,5	2360 A	3260 A	4000 A
1500	160	16,6	2410 A	3320 A	4080 A
1500	180	15,5	2500 A	3440 A	4230 A
1500	200	15,5	2590 A	3570 A	4390 A
1800	120	23	2440 A	3370 A	4140 A
1800	140	19	2540 A	3500 A	4300 A
1800	150	20	2600 A	3590 A	4410 A
1800	160	19	2650 A	3660 A	4490 A
1800	180	17,5	2750 A	3790 A	4660 A
1800	200	17,5	2850 A	3930 A	4830 A
2000	120	25	2590 A	3570 A	4390 A
2000	140	21	2690 A	3710 A	4560 A
2000	150	22	2760 A	3800 A	4670 A
2000	160	21	2810 A	3870 A	4760 A
2000	180	19	2910 A	4010 A	4920 A
2000	200	18,5	3010 A	4150 A	5100 A
2200	120	27	2730 A	3760 A	4620 A
2200	140	24,5	2840 A	3920 A	4820 A
2200	150	23,5	2900 A	4000 A	4910 A

BRAIDED POWER CONDUCTORS

Cross-Sect.	W	t	Current load		
			mm ²	dimensions in mm	ΔT 30°C
2200	160	22	2950 A	4070 A	5000 A
2200	180	21,5	3060 A	4220 A	5190 A
2200	200	20	3170 A	4360 A	5360 A
2400	120	29	2870 A	3950 A	4850 A
2400	140	26,5	2980 A	4110 A	5050 A
2400	150	25	3040 A	4190 A	5150 A
2400	160	24	3100 A	4260 A	5240 A
2400	180	23	3210 A	4420 A	5430 A
2400	200	20	3310 A	4550 A	5600 A
3000	120	33,5	3240 A	4460 A	5480 A
3000	140	32	3380 A	4650 A	5720 A
3000	150	30	3430 A	4730 A	5810 A
3000	160	28,5	3490 A	4810 A	5910 A
3000	180	27	3610 A	4980 A	6120 A
3000	200	24	3720 A	5130 A	6300 A
3600	120	40	3600 A	4960 A	6100 A
3600	140	37	3740 A	5150 A	6330 A
3600	150	35	3800 A	5230 A	6430 A
3600	160	33	3860 A	5320 A	6530 A
3600	180	31	3990 A	5490 A	6750 A
3600	200	27,5	4100 A	5650 A	6940 A
4500	120	50	4120 A	5670 A	6970 A
4500	150	42,5	4310 A	5940 A	7300 A
4500	160	41	4380 A	6030 A	7410 A
4500	180	36	4500 A	6190 A	7610 A
4500	200	33	4620 A	6370 A	7830 A
5000	120	55	4390 A	6040 A	7430 A
5000	140	50	4520 A	6230 A	7660 A
5000	160	48	4670 A	6440 A	7910 A
5000	180	45	4810 A	6630 A	8150 A
5000	200	36	4990 A	6750 A	8290 A

BMC SPACING INSULATORS

Code	mechanical characteristics				electrical characteristics		
	Trax	Comp	Flex	Torx	Vnn at 50Hz (kVolt)	Sci (kVolt)	Vn AC/DC (Volt)
IPM 20 M4-19	300	1500	150	3	5	15	800
IPM 20 M5-19	300	1500	150	6	5	15	800
IPM 20 M6-19	300	1500	150	10,3	5	15	800
IPM 20 M8-19	300	1500	150	10,3	5	15	800
IPM 25 M4-19	400	2300	220	3	8	25	1000
IPM 25 M5-19	400	2300	220	6	8	25	1000
IPM 25 M6-19	400	2300	220	10,3	8	25	1000
IPM 25 M8-19	400	2300	220	10,3	8	25	1000
IPM 30 M6-30	900	4900	450	10,3	10	30	1600
IPM 30 M8-30	900	4900	450	25,5	10	30	1600
IPM 30 M10-30	900	4900	450	50	10	30	1600
IPM 30 M12-30	900	4900	450	87,2	10	30	1600
IPM 35 M6-32	1100	7000	500	10,3	10	40	2000
IPM 35 M8-32	1100	7000	500	25,5	10	40	2000
IPM 35 M10-32	1100	7000	500	50	10	40	2000
IPM 35 M12-32	1100	7000	500	87,2	10	40	2000
IPM 36 M6-41	1400	8300	650	10,3	12	40	2000
IPM 36 M8-41	1400	8300	650	25,5	12	40	2000
IPM 36 M10-41	1400	8300	650	50	12	40	2000
IPM 36 M12-41	1400	8300	650	87,2	12	40	2000
IPM 40 M6-32	1100	7000	500	10,3	12	40	2500
IPM 40 M8-32	1100	7000	500	25,5	12	40	2500
IPM 40 M10-32	1100	7000	500	50	12	40	2500
IPM 40 M12-32	1100	7000	500	87,2	12	40	2500
IPM 40 M6-46	1300	8300	700	10,3	12	40	2500
IPM 40 M8-46	1300	8300	700	25,5	12	40	2500
IPM 40 M10-46	1300	8300	700	50	12	40	2500
IPM 40 M12-46	1300	8300	700	87,2	12	40	2500
IPM 45 M6-36	1300	8000	650	10,3	15	40	2500
IPM 45 M8-36	1300	8000	650	25,5	15	40	2500
IPM 45 M10-36	1300	8000	650	50	15	40	2500
IPM 45 M12-36	1300	8000	650	87,2	15	40	2500
IPM 45 M6-41	1400	8500	740	10,3	15	40	2500
IPM 45 M8-41	1400	8500	740	25,5	15	40	2500
IPM 45 M10-41	1400	8500	740	50	15	40	2500
IPM 45 M12-41	1400	8500	740	87,2	15	40	2500
IPM 45 M6-46	1500	9000	750	10,3	15	40	2500
IPM 45 M8-46	1500	9000	750	25,5	15	40	2500
IPM 45 M10-46	1500	9000	750	50	15	40	2500
IPM 45 M12-46	1500	9000	750	87,2	15	40	2500
IPM 50 M6-36	1300	8000	650	10,3	20	50	2500
IPM 50 M8-36	1300	8000	650	25,5	20	50	2500

BMC SPACING INSULATORS

Code	mechanical characteristics				electrical characteristics		
	Trax	Comp	Flex	Torx	Vnn at 50Hz (kVolt)	Sci (kVolt)	Vn AC/DC (Volt)
IPM 50 M10-36	1300	8000	650	50	20	50	2500
IPM 50 M12-36	1300	8000	650	87,2	20	50	2500
IPM 50 M6-50	1500	9500	750	10,3	20	50	2500
IPM 50 M8-50	1500	9500	750	25,5	20	50	2500
IPM 50 M10-50	1500	9500	750	50	20	50	2500
IPM 50 M12-50	1500	9500	750	87,2	20	50	2500
IPM 55 M6-55	1500	9500	780	10,3	20	50	3000
IPM 55 M8-55	1600	9800	780	25,5	20	50	3000
IPM 55 M10-55	1600	9800	780	50	20	50	3000
IPM 55 M12-55	1600	9800	780	87,2	20	50	3000
IPM 60 M6-55	2000	12500	800	10,3	20	50	3000
IPM 60 M8-55	2000	12500	800	25,5	20	50	3000
IPM 60 M10-55	2000	12500	800	50	20	50	3000
IPM 60 M12-55	2000	12500	800	87,2	20	50	3000
IPM 63 M6-41	1600	9000	700	10,3	20	50	3000
IPM 63 M 8-41	1600	9000	700	25,5	20	50	3000
IPM 63 M10-41	1600	9000	700	50	20	50	3000
IPM 63 M12-41	1600	9000	700	87,2	20	50	3000
IPM 65 M6-56	2000	13000	800	10,3	20	50	3000
IPM 65 M8-56	2000	13000	800	25,5	25	50	3000
IPM 65 M10-56	2000	13000	800	50	25	50	3000
IPM 65 M12-56	2000	13000	800	87,2	25	50	3000
IPM 70 M6-65	3000	15000	1200	10,3	25	50	3000
IPM 70 M8-65	3000	15000	1200	25,5	25	50	3000
IPM 70 M10-65	3000	15000	1200	50	25	50	3000
IPM 70 M12-65	3000	15000	1200	87,2	25	50	3000
IPM 70 M16-65	3000	15000	1200	210,8	25	50	3000
IPM 75 M8-50	1800	9500	730	25,5	25	50	4000
IPM 75 M10-50	1800	9500	730	50	25	50	4000
IPM 75 M12-50	1800	9500	730	87,2	25	50	4000
IPM 75 M16-50	1800	9500	730	210,8	25	50	4000
IPM 75 M8-65	3000	15000	1200	25,5	25	50	4000
IPM 75 M10-65	3000	15000	1200	50	25	50	4000
IPM 75 M12-65	3000	15000	1200	87,2	25	50	4000
IPM 75 M16-65	3000	15000	1200	210,8	25	50	4000
IPM 80 M8-65	3500	16000	1300	25,5	30	50	4000
IPM 80 M10-65	3500	16000	1300	50	30	50	4000
IPM 80 M12-65	3500	16000	1300	87,2	30	50	4000
IPM 80 M16-65	3500	16000	1300	210,8	30	50	4000
IPM 100 M8-65	4000	16500	1300	25,5	30	50	5000
IPM 100 M10-65	4000	16500	1300	50	30	50	5000
IPM 100 M12-65	4000	16500	1300	87,2	30	50	5000
IPM 100 M16-65	4000	16500	1300	210,8	30	50	5000

BMC SPACING COLUMNS

Code	mechanical characteristics				electrical characteristics		
	Trax	Comp	Flex	Torx	Vnn at 50Hz (kVolt)	Sci (kVolt)	Vn AC/DC (Volt)
CPM 16 M4-20	250	2000	170	3	3	10	400
CPM 16 M5-20	250	2000	170	3,5	3	10	400
CPM 16 M6-20	250	2000	170	4	3	10	400
CPM 16 M8-20	250	2000	170	4	3	10	400
CPM 20 M4-20	300	2200	200	3	3,5	12	800
CPM 20 M5-20	300	2200	200	3,5	3,5	12	800
CPM 20 M6-20	300	2200	200	4	3,5	12	800
CPM 20 M8-20	300	2200	200	4	3,5	12	800
CPM 25 M5-20	350	2500	200	6	5	15	1000
CPM 25 M6-20	350	2500	200	10,3	5	15	1000
CPM 25 M8-20	350	2500	200	25,5	5	15	1000
CPM 30 M5-20	400	2500	200	6	10	20	1600
CPM 30 M6-20	400	2500	200	10,3	10	20	1600
CPM 30 M8-20	400	2500	200	25,5	10	20	1600
CPM 35 M5-20	400	2500	200	6	10	20	2000
CPM 35 M6-20	400	2500	200	10,3	10	20	2000
CPM 35 M8-20	400	2500	200	25,5	10	20	2000
CPM 40 M5-20	400	2500	200	6	10	20	2000
CPM 40 M6-20	400	2500	200	10,3	10	20	2000
CPM 40 M8-20	400	2500	200	25,5	10	20	2000
CPM 45 M5-20	400	2500	200	6	10	20	2000
CPM 45 M6-20	400	2500	200	10,3	10	20	2000
CPM 45 M8-20	400	2500	200	25,5	10	20	2000
CPM 50 M5-20	400	2500	200	6	10	30	2500
CPM 50 M6-20	400	2500	200	10,3	10	30	2500
CPM 50 M8-20	400	2500	200	25,5	10	30	2500
CPM 55 M5-20	400	2500	150	6	10	30	2500
CPM 55 M6-20	400	2500	150	10,3	10	30	2500
CPM 55 M8-20	400	2500	150	25,5	10	30	2500
CPM 60 M5-20	400	2500	150	6	10	30	2500
CPM 60 M6-20	400	2500	150	10,3	10	30	2500
CPM 60 M8-20	400	2500	150	25,5	10	30	2500
CPM 65 M5-20	400	2500	150	6	10	30	2500
CPM 65 M6-20	400	2500	150	10,3	10	30	2500
CPM 65 M8-20	400	2500	150	25,5	10	30	2500
CPM 70 M5-20	400	2500	150	6	10	30	2500
CPM 70 M6-20	400	2500	150	10,3	10	30	2500
CPM 70 M8-20	400	2500	150	25,5	10	30	2500
CPM 30 M6-30	700	3900	450	10,3	8	25	1600
CPM 30 M8-30	700	3900	450	25,5	8	25	1600

BMC SPACING COLUMNS

Code	mechanical characteristics				electrical characteristics		
	Trax	Comp	Flex	Torx	Vnn at 50Hz (kVolt)	Sci (kVolt)	Vn AC/DC (Volt)
CPM 30 M10-30	700	3900	450	50	8	25	1600
CPM 30 M12-30	700	3900	450	60	8	25	1600
CPM 35 M6-30	700	3900	450	10,3	8	25	2000
CPM 35 M8-30	700	3900	450	25,5	8	25	2000
CPM 35 M10-30	700	3900	450	50	8	25	2000
CPM 35 M12-30	700	3900	450	60	8	25	2000
CPM 40 M6-30	700	3900	350	10,3	10	30	2000
CPM 40 M8-30	700	3900	350	25,5	10	30	2000
CPM 40 M10-30	700	3900	350	50	10	30	2000
CPM 40 M12-30	700	3900	350	60	10	30	2000
CPM 45 M6-30	700	3900	350	10,3	10	30	2000
CPM 45 M8-30	700	3900	350	25,5	10	30	2000
CPM 45 M10-30	700	3900	350	50	10	30	2000
CPM 45 M12-30	700	3900	350	60	10	30	2000
CPM 50 M6-30	700	3900	250	10,3	15	50	2500
CPM 50 M8-30	700	3900	250	25,5	15	50	2500
CPM 50 M10-30	700	3900	250	50	15	50	2500
CPM 50 M12-30	700	3500	250	60	15	50	2500
CPM 55 M6-30	700	3500	250	10,3	15	50	2500
CPM 55 M8-30	700	3500	250	25,5	15	50	2500
CPM 55 M10-30	700	3500	250	50	15	50	2500
CPM 55 M12-30	700	3500	250	60	15	50	2500
CPM 60 M6-30	700	3500	200	10,3	15	50	2500
CPM 60 M8-30	700	3500	200	25,5	15	50	2500
CPM 60 M10-30	700	3500	200	50	15	50	2500
CPM 60 M12-30	700	3500	200	60	15	50	2500
CPM 65 M6-30	700	3500	200	10,3	15	50	2500
CPM 65 M8-30	700	3500	200	25,5	15	50	2500
CPM 65 M10-30	700	3500	200	50	15	50	2500
CPM 65 M12-30	700	3500	200	60	15	50	2500
CPM 70 M6-30	700	3500	170	10,3	15	50	2500
CPM 70 M8-30	700	3500	170	25,5	15	50	2500
CPM 70 M10-30	700	3500	170	50	15	50	2500
CPM 70 M12-30	700	3500	170	60	15	50	2500
CPM 30 M6-40	1000	4500	700	10,3	8	25	1600
CPM 30 M8-40	1000	4500	700	25,5	8	25	1600
CPM 30 M10-40	1000	4500	700	50	8	25	1600
CPM 30 M12-40	1000	4500	700	60	8	25	1600
CPM 35 M6-40	1000	4500	700	10,3	8	25	2000
CPM 35 M8-40	1000	4500	700	25,5	8	25	2000

BMC SPACING COLUMNS

Code	mechanical characteristics				electrical characteristics		
	Trax	Comp	Flex	Torx	Vnn at 50Hz (kVolt)	Sci (kVolt)	Vn AC/DC (Volt)
CPM 35 M10-40	1000	4500	700	50	8	25	2000
CPM 35 M12-40	1000	4500	700	60	8	25	2000
CPM 40 M6-40	1000	4500	500	10,3	10	30	2000
CPM 40 M8-40	1000	4500	500	25,5	10	30	2000
CPM 40 M10-40	1000	4500	500	50	10	30	2000
CPM 40 M12-40	1000	4500	500	60	10	30	2000
CPM 45 M6-40	1000	4500	500	10,3	10	30	2000
CPM 45 M8-40	1000	4500	500	25,5	10	30	2000
CPM 45 M10-40	1000	4500	500	50	10	30	2000
CPM 45 M12-40	1000	4500	500	60	10	30	2000
CPM 50 M6-40	900	4000	450	10,3	15	40	2500
CPM 50 M8-40	900	4000	450	25,5	15	40	2500
CPM 50 M10-40	900	4000	450	50	15	40	2500
CPM 50 M12-40	900	4000	450	60	15	40	2500
CPM 55 M6-40	900	4000	450	10,3	15	40	2500
CPM 55 M8-40	900	4000	450	25,5	15	40	2500
CPM 55 M10-40	900	4000	450	50	15	40	2500
CPM 55 M12-40	900	4000	450	80	15	40	2500
CPM 60 M6-40	900	4000	350	10,3	15	40	2500
CPM 60 M8-40	900	4000	350	25,5	15	40	2500
CPM 60 M10-40	900	4000	350	50	15	40	2500
CPM 60 M12-40	900	4000	350	80	15	40	2500
CPM 65 M6-40	900	4000	350	10,3	15	40	2500
CPM 65 M8-40	900	4000	350	25,5	15	40	2500
CPM 65 M10-40	900	4000	350	50	15	40	2500
CPM 65 M12-40	900	4000	350	80	15	40	2500
CPM 70 M6-40	900	4000	300	10,3	15	40	2500
CPM 70 M8-40	900	4000	300	25,5	15	40	2500
CPM 70 M10-40	900	4000	300	50	15	40	2500
CPM 70 M12-40	900	4000	300	80	15	40	2500
CPM 70 M16-40	900	4000	300	150	15	40	2500

Mechanical characteristics

- Flex** bending strength
- Torx** torsional strength
- Comp** compression strength
- Trax** tensile strength

Values in daN -> 1 daN = 1Kg

Electrical Characteristics

- Vn** nominal voltage AC-DC (Volt)
- Sci** internal discharge voltage kVolt -AC
- Tnn** nominal voltage at 50Hz for 1 minute kV

POLYAMIDE SPACING INSULATORS

Code	mechanical characteristics				electrical characteristics		
	Trax	Comp	Flex	Torx	Vnn at 50Hz (kVolt)	Sci (kVolt)	Vn AC/DC (Volt)
IPA 12 M3-8	100	100	20	0,6	3	8	400
IPA 15 M4-14	300	500	60	3	3	8	400
IPA 15 M5-14	300	500	60	4	3	8	400
IPA 16 M4-14	300	500	60	4	3	8	400
IPA 16 M5-14	300	500	60	3	3	8	400
IPA 20 M4-17	350	600	80	3	5	15	800
IPA 20 M5-17	350	600	80	4	5	15	800
IPA 20 M6-17	350	600	80	8	5	15	800
IPA 25 M4-19	400	2300	220	3	8	25	1000
IPA 25 M5-19	400	2300	220	4	8	25	1000
IPA 25 M6-19	400	2300	220	8	8	25	1000
IPA 25 M8-19	400	2300	220	8	8	25	1000
IPA 30 M6-30	900	4900	450	10,3	10	30	1600
IPA 30 M8-30	900	4900	450	25,5	10	30	1600
IPA 30 M10-30	900	4900	450	50	10	30	1600
IPA 30 M12-30	900	4900	450	87,2	10	30	1600
IPA 35 M6-32	1100	7000	500	10,3	10	40	2000
IPA 35 M8-32	1100	7000	500	25,5	10	40	2000
IPA 35 M10-32	1100	7000	500	50	10	40	2000
IPA 35 M12-32	1100	7000	500	87,2	10	40	2000
IPA 35 M6-41	1400	8300	650	10,3	12	40	2000
IPA 35 M8-41	1400	8300	650	25,5	12	40	2000
IPA 35 M10-41	1400	8300	650	50	12	40	2000
IPA 35 M12-41	1400	8300	650	87,2	12	40	2000
IPA 40 M6-32	1100	7000	500	10,3	12	40	2000
IPA 40 M8-32	1100	7000	500	25,5	12	40	2000
IPA 40 M10-32	1100	7000	500	50	12	40	2000
IPA 40 M12-32	1100	7000	500	87,2	12	40	2000
IPA 40 M6-46	1300	8300	700	10,3	12	40	2000
IPA 40 M8-46	1300	8300	700	25,5	12	40	2000
IPA 40 M10-46	1300	8300	700	50	12	40	2000
IPA 40 M12-46	1300	8300	700	87,2	12	40	2000
IPA 45 M6-41	1400	8500	740	10,3	15	40	2000
IPA 45 M8-41	1400	8500	740	25,5	15	40	2000
IPA 45 M10-41	1400	8500	740	50	15	40	2000
IPA 45 M12-41	1400	8500	740	87,2	15	40	2000
IPA 45 M6-46	1500	9000	780	10,3	15	40	2000
IPA 45 M8-46	1500	9000	780	25,5	15	40	2000
IPA 45 M10-46	1500	9000	780	50	15	40	2000
IPA 45 M12-46	1500	9000	780	87,2	15	40	2000
IPA 50 M6-36	1300	8000	650	10,3	20	50	2500

POLYAMIDE SPACING INSULATORS

Code	mechanical characteristics				electrical characteristics		
	Trax	Comp	Flex	Torx	Vnn at 50Hz (kVolt)	Sci (kVolt)	Vn AC/DC (Volt)
IPA 45 M6-50	1500	10000	800	10,3	15	40	2000
IPA 45 M8-50	1500	10000	800	25,5	15	40	2000
IPA 45 M10-50	1500	10000	800	50	15	40	2000
IPA 45 M12-50	1500	10000	800	87,2	15	40	2000
IPA 50 M8-36	1300	8000	650	25,5	20	50	2500
IPA 50 M10-36	1300	8000	650	50	20	50	2500
IPA 50 M12-36	1300	8000	650	87,2	20	50	2500
IPA 50 M6-50	1500	9000	750	10,3	20	50	2500
IPA 50 M8-50	1500	9000	750	25,5	20	50	2500
IPA 50 M10-50	1500	9000	750	50	20	50	2500
IPA 50 M12-50	1500	9000	750	87,2	20	50	2500
IPA 55 M6-55	1600	9800	780	10,3	20	50	2500
IPA 55 M8-55	1600	9800	780	25,5	20	50	2500
IPA 55 M10-55	1600	9800	780	50	20	50	2500
IPA 55 M12-55	1600	9800	780	87,2	20	50	2500
IPA 60 M8-54	2000	12500	800	25,5	20	50	2500
IPA 60 M10-54	2000	12500	800	50	20	50	2500
IPA 60 M12-54	2000	12500	800	87,2	20	50	2500
IPA 63 M8-41	1600	9000	700	25,5	20	50	2500
IPA 63 M10-41	1600	9000	700	50	20	50	2500
IPA 63 M12-41	1600	9000	700	87,2	20	50	2500
IPA 70 M6-65	1600	9000	700	25,5	25	50	3000
IPA 70 M8-65	1600	9000	700	25,5	25	50	3000
IPA 70 M10-65	1600	9000	700	25,5	25	50	3000
IPA 70 M12-65	1600	9000	700	25,5	25	50	3000
IPA 70 M16-65							3000
IPA 75 M8-50	1600	9000	700	25,5	25	50	3000
IPA 75 M10-50	1800	9500	730	50	25	50	3000
IPA 75 M12-50	1800	9500	730	87,2	25	50	3000
IPA 75 M16-50	1800	9500	730	210,8	25	50	3000
IPA 100 M8-65	4000	16500	1300	25,5	30	50	5000
IPA 100 M10-65	4000	16500	1300	50	30	50	5000
IPA 100 M12-65	4000	16500	1300	87,2	30	50	5000
IPA 100 M16-65	4000	16500	1300	210,8	30	50	5000

Mechanical characteristics

- Flex** bending strength
- Torx** torsional strength
- Comp** compression strength
- Trax** tensile strength

Values in daN -> 1 daN = 1Kg

Electrical Characteristics

- Vn** nominal voltage AC-DC (Volt)
- Sci** internal discharge voltage kVolt -AC
- Tnn** nominal voltage at 50Hz for 1 minute kV

POLYAMIDE SPACING COLUMNS

Code	mechanical characteristics				electrical characteristics		
	Trax	Comp	Flex	Torx	Vnn at 50Hz (kVolt)	Sci (kVolt)	Vn AC/DC (Volt)
CPA 16 M4-20	300	2500	200	3	3	10	400
CPA 16 M5-20	300	2500	200	3,5	3	10	400
CPA 16 M6-20	300	2500	200	4	3	10	400
CPA 16 M8-20	300	2500	200	4	3	10	400
CPA 20 M4-20	300	2500	180	3	3,5	12	600
CPA 20 M5-20	300	2500	180	3,5	3,5	12	600
CPA 20 M6-20	300	2500	180	4	3,5	12	600
CPA 20 M8-20	300	2500	180	4	3,5	12	600
CPA 25 M5-20	300	2500	180	6	5	15	600
CPA 25 M6-20	300	2500	180	10,3	5	15	600
CPA 25 M8-20	300	2500	180	25,5	5	15	600
CPA 30 M5-20	350	2500	150	6	10	20	600
CPA 30 M6-20	350	2500	150	10,3	10	20	600
CPA 30 M8-20	350	2500	150	25,5	10	20	600
CPA 35 M5-20	350	2500	150	6	10	20	600
CPA 35 M6-20	350	2500	150	10,3	10	20	600
CPA 35 M8-20	350	2500	150	25,5	10	20	600
CPA 40 M5-20	350	2500	150	6	10	20	600
CPA 40 M6-20	350	2500	150	10,3	10	20	600
CPA 40 M8-20	350	2500	150	25,5	10	20	600
CPA 45 M5-20	350	2500	150	6	10	20	600
CPA 45 M6-20	350	2500	150	10,3	10	20	600
CPA 45 M8-20	350	2500	150	25,5	10	20	600
CPA 50 M5-20	350	2500	100	6	10	30	750
CPA 50 M6-20	350	2500	100	10,3	10	30	750
CPA 50 M8-20	350	2500	100	25,5	10	30	750
CPA 55 M5-20	350	2500	100	6	10	30	750
CPA 55 M6-20	350	2500	100	10,3	10	30	750
CPA 55 M8-20	350	2500	100	25,5	10	30	750
CPA 60 M5-20	350	2500	100	6	10	30	750
CPA 60 M6-20	350	2500	100	10,3	10	30	750
CPA 60 M8-20	350	2500	100	25,5	10	30	750
CPA 65 M5-20	350	2500	100	6	10	30	750
CPA 65 M6-20	350	2500	100	10,3	10	30	750
CPA 65 M8-20	350	2500	100	25,5	10	30	750
CPA 70 M5-20	350	2500	100	6	10	30	750
CPA 70 M6-20	350	2500	100	10,3	10	30	750
CPA 70 M8-20	350	2500	100	25,5	10	30	750
CPA 30 M6-30	900	4500	450	10,3	8	25	750

POLYAMIDE SPACING COLUMNS

Code	mechanical characteristics				electrical characteristics		
	Trax	Comp	Flex	Torx	Vnn at 50Hz (kVolt)	Sci (kVolt)	Vn AC/DC (Volt)
CPA 30 M8-30	900	4500	450	25,5	8	25	750
CPA 30 M10-30	900	4500	450	50	8	25	750
CPA 30 M12-30	900	4500	450	87,2	8	25	750
CPA 35 M6-30	900	4500	450	10,3	8	25	750
CPA 35 M8-30	900	4500	450	25,5	8	25	750
CPA 35 M10-30	900	4500	450	50	8	25	750
CPA 35 M12-30	900	4500	450	87,2	8	25	750
CPA 40 M6-30	900	4500	450	10,3	10	30	1000
CPA 40 M8-30	900	4500	450	25,5	10	30	1000
CPA 40 M10-30	900	4500	450	50	10	30	1000
CPA 40 M12-30	900	4500	450	87,2	10	30	1000
CPA 45 M6-30	900	4500	300	10,3	10	30	1000
CPA 45 M8-30	900	4500	300	25,5	10	30	1000
CPA 45 M10-30	900	4500	300	50	10	30	1000
CPA 45 M12-30	900	4500	300	87,2	10	30	1000
CPA 50 M6-30	900	4500	200	10,3	15	50	1500
CPA 50 M8-30	900	4500	200	25,5	15	50	1500
CPA 50 M10-30	900	4500	200	50	15	50	1500
CPA 50 M12-30	900	4500	200	87,2	15	50	1500
CPA 55 M6-30	900	4500	200	10,3	15	50	1500
CPA 55 M8-30	900	4500	200	25,5	15	50	1500
CPA 55 M10-30	900	4500	200	50	15	50	1500
CPA 55 M12-30	900	4500	200	87,2	15	50	1500
CPA 60 M6-30	900	4500	150	10,3	15	50	1500
CPA 60 M8-30	900	4500	150	25,5	15	50	1500
CPA 60 M10-30	900	4500	150	50	15	50	1500
CPA 60 M12-30	900	4500	150	87,2	15	50	1500
CPA 65 M6-30	900	4500	150	10,3	15	50	1500
CPA 65 M8-30	900	4500	150	25,5	15	50	1500
CPA 65 M10-30	900	4500	150	50	15	50	1500
CPA 65 M12-30	900	4500	150	87,2	15	50	1500
CPA 70 M6-30	900	4500	150	10,3	15	50	1500
CPA 70 M8-30	900	4500	150	25,5	15	50	1500
CPA 70 M10-30	900	4500	150	50	15	50	1500
CPA 70 M12-30	900	4500	150	87,2	15	50	1500
CPA 30 M6-41	1200	6500	700	10,3	8	25	750
CPA 30 M8-41	1200	6500	700	25,5	8	25	750
CPA 30 M10-41	1200	6500	700	50	8	25	750
CPA 30 M12-41	1200	6500	700	87,2	8	25	750

POLYAMIDE SPACING COLUMNS

Code	mechanical characteristics				electrical characteristics		
	Trax	Comp	Flex	Torx	Vnn at 50Hz (kVolt)	Sci (kVolt)	Vn AC/DC (Volt)
CPA 35 M6-41	1200	6500	700	10,3	8	25	750
CPA 35 M8-41	1200	6500	700	25,5	8	25	750
CPA 35 M10-41	1200	6500	700	50	8	25	750
CPA 35 M12-41	1200	6500	700	87,2	8	25	750
CPA 40 M6-41	1200	6500	600	10,3	10	30	1000
CPA 40 M8-41	1200	6500	600	25,5	10	30	1000
CPA 40 M10-41	1200	6500	600	50	10	30	1000
CPA 40 M12-41	1200	6500	600	87,2	10	30	1000
CPA 45 M6-41	1200	6500	600	10,3	10	30	1000
CPA 45 M8-41	1200	6500	600	25,5	10	30	1000
CPA 45 M10-41	1200	6500	600	50	10	30	1000
CPA 45 M12-41	1200	6500	600	87,2	10	30	1000
CPA 50 M6-41	1200	6500	500	10,3	15	40	1500
CPA 50 M8-41	1200	6500	500	25,5	15	40	1500
CPA 50 M10-41	1200	6500	500	50	15	40	1500
CPA 50 M12-41	1200	6500	500	87,2	15	40	1500
CPA 55 M6-41	1200	6500	500	10,3	15	40	1500
CPA 55 M8-41	1200	6500	500	25,5	15	40	1500
CPA 55 M10-41	1200	6500	500	50	15	40	1500
CPA 55 M12-41	1200	6500	500	87,2	15	40	1500
CPA 60 M6-41	1200	6500	500	10,3	15	40	1500
CPA 60 M8-41	1200	6500	500	25,5	15	40	1500
CPA 60 M10-41	1200	6500	500	50	15	40	1500
CPA 60 M12-41	1200	6500	500	87,2	15	40	1500
CPA 65 M6-41	1200	6500	300	10,3	15	40	1500
CPA 65 M8-41	1200	6500	300	25,5	15	40	1500
CPA 65 M10-41	1200	6500	300	50	15	40	1500
CPA 65 M12-41	1200	6500	300	87,2	15	40	1500
CPA 70 M6-41	1200	6500	300	10,3	15	40	1500
CPA 70 M8-41	1200	6500	300	25,5	15	40	1500
CPA 70 M10-41	1200	6500	300	50	15	40	1500
CPA 70 M12-41	1200	6500	300	87,2	15	40	1500
CPA 70 M16-41	1200	6500	300	210,8	15	40	1500

Mechanical characteristics

- Flex** bending strength
- Torx** torsional strength
- Comp** compression strength
- Trax** tensile strength

Values in daN -> 1 daN = 1Kg

Electrical Characteristics

- Vn** nominal voltage AC-DC (Volt)
- Sci** internal discharge voltage kVolt -AC
- Tnn** nominal voltage at 50Hz for 1 minute kV



“Quality is not an act.
It is a habit.”

Aristotle



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