

MAIN APPLICATION

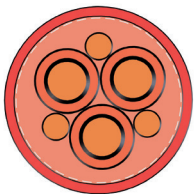
Flexible H.V. reeling power cables for use on connecting movable parts of machine tools and any material handling equipment (i.e. Stacker/reclaimer, ship to shore crane, container crane, excavators, also suitable for festoon system). Perfectly suitable for any energy supply on cable reels systems associated from high to extreme mechanical stresses, frequent bending/torsional operation and fast movement with strong acceleration.

CONSTRUCTION

Conductor:	Tinned copper conductor, flexible cl.5 IEC 60228 Specially designed for mobile application
Insulation:	Micro filtered HEPR rubber compound better than 3GI3 New specially developed compound with improved electrical and mechanical characteristics
Cores identification:	Main cores: natural colour with black semiconductive layer Splitted earth cores: identified by position and covered with special black semiconductive compound
Field control:	- Conductor screen: semiconductive layer - Insulation screen: semiconductive layer of special compound Applied with insulation
Identification:	Printed numbers on semiconductor layer
Laying-up:	Short lay length for better flexibility and mechanical characteristics ≤ 8 times the laying-up cores diameter, three cores design with protective earth cores split in 3 interstitial areas
Separation (if any):	Tape(s)
Inner sheath:	Polychloroprene rubber based compound Special developed with improved mechanical characteristics
Antitwisting protection:	Textile braid of synthetic yarns Firmly bonded between inner and outer sheath
Outer sheath:	Red polychloroprene rubber compound UV resistant, oil and chemical resistant better then 5GM3 compound
Marking:	U.T.V. CAVI manufactured BY PALAZZO - PANZERFLEX-ELX rated voltage $nc \times$ cross section year of manufacturing

PARAMETERS

ELECTRICAL	Rated voltage	$U_0/U = 3,6/6$ kV to 12/20 kV*
	Maximum permissible operating voltage in AC systems	$U_m = 7,2$ kV to 24 kV
	AC test voltage over 5 minutes	11 kV to 29 kV according to VDE 0250 part 813 According to DIN VDE 0298 part 4
	Current Carrying Capacity	According to DIN VDE 0298 part 4
EMC	Simmetrical design + narrow production tolerances	Very low interference
THERMAL	Fully flexible operation	- 30 °C
	Fixed installation	- 40 °C
	Maximum permissible operating temperature of the conductor	90 °C
	Short-circuit temperature of the conductor	250 °C
MECHANICAL	Tensile load	Up to 20 N/mm ²
	Minimum bending radii	According to DIN VDE 0298 part 3
	Reeling operation	No restriction. Consult the manufacturer if speed exceeds 180 m/min
	Festoon systems	Up to 120 m/min
CHEMICAL	Resistance to oil	According to VDE / IEC standard
	Weather resistance	Unrestricted use outdoor and indoor, UV resistant, moisture resistant.



PANZERFLEX-ELX
3,6 ÷ 12/20 kV
(N)TSCGEWÖU
- H.V.

reeling cable
6 to 20 kV

TABLE 1 - PANZERFLEX-ELX 3.6 ÷ 12/20 kV - (N)TSCGEWÖU

MEDIUM VOLTAGE REELING AND FESTOONING

N. OF CORES AND NOMINAL SECTION N·MM ² +N·MM ² /3	MAIN CONDUCTOR		PROTECTIVE EARTH COND. NOM. DIAM. MM	OVERALL DIAMETER		NET WEIGHT APPROX. KG/KM	MAXIMUM PERMISSIBLE TENSILE FORCE N	LAID STRAIGHT A	CURRENT CARRYING CAPACITY AT 30 °C*			SHORT CIRCUIT CURRENT 80 ° TO 200 °C kA·1 SEC.
	D.C. RESIST. AT 20 °C OHM/KM	NOM. DIAM. MM		MIN.	MAX.				SPIRAL OR 1 LAYER A	2 LAYER A	3 LAYER A	
3,6/6 kV												
3x25+3x25/3	0,795	6,6	4,0	38,5	41,5	2460	1500	131	105	80	64	3,2
3x35+3x25/3	0,565	8,0	4,0	41,2	44,2	2970	2100	162	130	99	79	4,5
3x50+3x25/3	0,393	9,3	4,0	44,0	47,0	3500	3000	202	162	123	99	6,4
3x70+3x35/3	0,277	11,2	4,9	48,1	51,1	4460	4200	250	200	153	123	9,0
3x96+3x50/3	0,210	13,0	5,4	52,7	56,7	5560	5700	301	241	184	147	12,2
3x120+3x70/3	0,164	15,0	6,6	57,0	61,0	6930	7200	352	282	215	172	15,4
3x150+3x70/3	0,132	16,9	6,6	62,7	66,7	8190	9000	404	323	246	198	19,2
3x185+3x95/3	0,108	18,3	8,0	66,8	70,8	9750	11100	461	369	281	226	23,7
3x240+3x120/3	0,0817	20,5	9,3	73,9	77,9	12450	14400	540	432	329	265	30,7
6/10 kV												
3x25+3x25/3	0,795	6,6	4,0	39,4	42,4	2530	1500	131	105	80	64	3,2
3x35+3x25/3	0,565	8,0	4,0	42,0	45,0	3050	2100	162	130	99	79	4,5
3x50+3x25/3	0,393	9,3	4,0	44,8	47,8	3590	3000	202	162	123	99	6,4
3x70+3x35/3	0,277	11,2	4,9	48,4	52,4	4550	4200	250	200	153	123	9,0
3x95+3x50/3	0,210	13,0	5,4	53,5	57,5	5670	5700	301	241	184	147	12,2
3x120+3x70/3	0,164	15,0	6,6	57,8	61,8	7040	7200	352	282	215	172	15,4
3x150+3x70/3	0,132	16,9	6,6	63,5	67,5	8310	9000	404	323	246	198	19,2
3x185+3x95/3	0,108	18,3	8,0	67,4	71,4	9820	11100	461	369	281	226	23,7
3x240+3x120/3	0,0817	20,5	9,3	74,8	78,8	12600	14400	540	432	329	265	30,7
8,7/15 kV												
3x25+3x25/3	0,795	6,6	4,0	42,8	45,8	2840	1500	139	111	85	68	3,2
3x35+3x25/3	0,565	8,0	4,0	45,5	48,5	3380	2100	172	138	105	84	4,5
3x50+3x25/3	0,393	9,3	4,0	48,3	51,3	3940	3000	215	172	131	105	6,4
3x70+3x35/3	0,277	11,2	4,9	53,1	57,1	5080	4200	265	212	162	130	9,0
3x95+3x50/3	0,210	13,0	5,4	57,0	61,0	6100	5700	319	255	195	156	12,2
3x120+3x70/3	0,164	15,0	6,6	62,9	66,9	7730	7200	371	297	226	182	15,4
3x150+3x70/3	0,132	16,9	6,6	67,0	71,0	8800	9000	428	342	261	210	19,2
3x185+3x95/3	0,108	18,3	8,0	70,0	74,0	10230	11100	488	390	298	239	23,7
3x240+3x120/3	0,0817	20,5	9,3	77,4	81,4	13020	14400	574	459	350	281	30,7
12/20 kV												
3x25+3x25/3	0,795	6,6	4,0	48,0	51,0	3360	1500	139	111	85	68	3,2
3x35+3x25/3	0,565	8,0	4,0	51,4	55,4	4070	2100	172	138	105	84	4,5
3x50+3x25/3	0,393	9,3	4,0	54,2	58,2	4660	3000	215	172	131	105	6,4
3x70+3x35/3	0,277	11,2	4,9	58,3	62,3	5730	4200	265	212	162	130	9,0
3x95+3x50/3	0,210	13,0	5,4	63,7	67,7	7020	5700	319	255	195	156	12,2
3x120+3x70/3	0,164	15,0	6,6	68,0	72,0	8470	7200	371	297	226	182	15,4
3x150+3x70/3	0,132	16,9	6,6	73,9	77,9	9890	9000	428	342	261	210	19,2
3x185+3x95/3	0,108	18,3	8,0	77,0	81,0	11370	11100	488	390	298	239	23,7
3x240+3x120/3	0,0817	20,5	9,3	82,6	86,6	13890	14400	574	459	350	281	34,3

*18/30 kV available on request