HELUCHAIN® MULTISPEED® 522-C-TPE UL/CSA

for extreme mechanical stress, oil resistant, EMC-preferred type

TECHNICAL DATA

TPE drag chain cable acc. to UL-Std. 758 (AWM) Style 21387, CSA-Std. C22.2 No. 210 - AWM I/II A/B, in alignment with DIN VDE 0285-525-2-51 / DIN EN 50525-2-51

Temperature range	flexible -40°C to +90°C fixed -40°C to +90°C
Nominal voltage	AC U_0/U 600/1000 V UL (AWM) AC 1000 V
Test voltage core/core	3000 V
Test voltage core/screen	3000 V
Coupling resistance	at 30 MHz, approx. 250 Ohm/km
Minimum bending radius	flexible 5x Outer-Ø fixed 3x Outer-Ø

CABLE STRUCTURE

- Copper wire bare, extra finely stranded acc. to DIN VDE 0295 Class 6 / IEC 60228 Class 6
- Core insulation: PP
- Core identification acc. to DIN VDE 0293-334, black cores with consecutive labeling in white digits
- Protective conductor: starting with 3 cores,
  G = with protective conductor GN-YE,
  x = without protective conductor
- Stranding:
  2 - 5 core(s): cores stranded into one layer with an optimally matched short lay length
  7 - 42 core(s): cores stranded into bundles/pairs with optimally matched, short lay lengths; bundles/pairs stranded together around a tensile core
- Ripcord
- Inner sheath: TPE, extruded filler
- Screen: braided screen of tinned copper wires, approx. coverage 85%
- Outer sheath: TPE
- Sheath colour: black (RAL 9004)
- Length marking: in metres

PROPERTIES

- resistant to: oil, UV radiation, ozone
- low adhesion
- longer service life due to low frictional resistance of the PP-insulated cores
- for outdoor use
- suitable for use in drag chains
- Drag chain parameters
  Acceleration (max.): 50 m/s²
  Velocity (max.), gliding: 5 m/s
  Traverse path (max.): 450 m
- highly restistant to alternate bending strength
- the materials used during manufacturing are cadmium-free, contain no silicone and are free from substances harmful to the wetting properties of lacquers

TESTS

- flame-retardant acc. to DIN VDE 0482-332-1-2 / DIN EN 60332-1-2 / IEC 60332-1-2, UL-VW-1, CSA FT1
- oil-resistant acc. to DIN VDE 0473-811-404 / DIN EN 60811-404 / IEC 60811-404

APPLICATION

This UL/CSA approved cable is used when extreme demands are placed on the cable. Designed for export-oriented mechanical engineers, specifically in the USA and Canada. Gearing to the needs of the industry, materials and stranding techniques permit continuous use as highly flexible drag chain cables with long travelling distance capabilities at high or low speeds. For installation in dry and damp rooms, as well as outdoors. With free movement, without tensile stress and without forced motion control capabilities, these highly flexible TPE drag chain cables are suitable for frequent lifting and bending stress in machine and tool construction. EMC= Electromagnetic Compatibility; in order to optimise EMC properties, we recommend a double-sided and all-round large contact area of the copper braiding.

NOTES

- the conductor is metrically (mm²) constructed, AWG numbers are approximated, and are for reference only
- for use in energy supply systems:
  1) the assembly instructions must be observed
  2) for special applications, we recommend contacting us and using our data entry form for energy supply systems

Part no.	No. cores x cross-sec. mm²	AWG, approx.	Outer Ø mm, approx.	Cu factor per km	Weight kg/km, approx.
11001898	2 x 0.5	21	7.2	28.5	71.0
11001899	3 G 0.5	21	7.4	33.1	77.0
11001900	4 G 0.5	21	7.8	40.8	88.0
11001901	5 G 0.5	21	8.3	48.0	101.0
11001902	7 G 0.5	21	10.8	73.6	157.0
11001903	12 G 0.5	21	12.4	103.4	212.0
11001904	16 G 0.5	21	13.5	128.0	254.0
11001905	18 G 0.5	21	14.5	138.0	280.0
11001906	20 G 0.5	21	14.8	149.0	297.0
11001907	25 G 0.5	21	16.4	182.6	361.0
11001908	36 G 0.5	21	19.9	250.4	513.0
11001909	42 G 0.5	21	22.0	309.5	626.0
11001910	2 x 0.75	19	7.6	36.2	83.0
11001911	3 G 0.75	19	7.9	43.4	91.0
11001912	4 G 0.75	19	8.3	52.8	104.0
11001913	5 G 0.75	19	8.9	62.7	121.0
11001914	7 G 0.75	19	11.6	90.8	183.0
11001915	12 G 0.75	19	13.3	137.8	257.0
11001916	16 G 0.75	19	14.8	172.4	317.0
11001917	18 G 0.75	19	16.1	187.2	352.0
11001918	20 G 0.75	19	16.5	206.8	379.0
11001919	25 G 0.75	19	18.1	248.8	457.0

Continued on next page

12.07.2024 / We reserve the right to make technical changes; the imprint in the image is purely exemplary

HELUCHAIN® MULTISPEED® 522-C-TPE UL/CSA

for extreme mechanical stress, oil resistant, EMC-preferred type

Part no.	No. cores x cross-sec. mm²	AWG, approx.	Outer Ø mm, approx.	Cu factor per km	Weight kg/km, approx.
11001920	36 G 0.75	19	22.4	366.7	678.0
11001921	42 G 0.75	19	24.4	425.1	804.0
11001922	2 x 1	18	8.0	41.2	92.0
11001923	3 G 1	18	8.3	53.5	105.0
11001924	4 G 1	18	8.8	62.8	120.0
11001925	5 G 1	18	9.7	81.9	149.0
11001926	7 G 1	18	12.6	113.5	221.0
11001927	12 G 1	18	14.6	167.0	310.0
11001928	16 G 1	18	16.4	217.0	391.0
11001929	18 G 1	18	17.6	236.3	430.0
11001930	20 G 1	18	18.0	260.0	464.0
11001931	25 G 1	18	20.0	314.9	574.0
11001932	36 G 1	18	24.8	472.3	857.0
11001933	42 G 1	18	27.3	541.0	1017.0
11001934	2 x 1.5	16	8.6	53.4	110.0
11001935	3 G 1.5	16	9.0	68.1	127.0
11001936	4 G 1.5	16	9.9	92.0	161.0
11001937	5 G 1.5	16	10.6	111.5	187.0
11001938	7 G 1.5	16	13.9	152.9	277.0
11001939	12 G 1.5	16	16.5	235.6	407.0
11001940	16 G 1.5	16	18.6	299.7	518.0
11001941	18 G 1.5	16	20.0	337.0	577.0
11001942	20 G 1.5	16	20.4	366.7	623.0
11001943	25 G 1.5	16	23.1	483.1	809.0
11001944	36 G 1.5	16	28.5	656.9	1165.0
11001945	42 G 1.5	16	31.3	758.4	1359.0
11001946	2 x 2.5	14	9.9	82.4	154.0
11001947	3 G 2.5	14	10.4	106.8	179.0
11001948	4 G 2.5	14	11.1	135.9	215.0
11001949	5 G 2.5	14	12.0	165.5	254.0
11001950	7 G 2.5	14	16.6	230.4	397.0
11001951	12 G 2.5	14	19.7	363.7	597.0
11001952	16 G 2.5	14	22.5	491.7	795.0
11001953	18 G 2.5	14	24.2	554.9	889.0
11001954	20 G 2.5	14	24.6	602.2	952.0
11001955	25 G 2.5	14	27.6	737.8	1177.0
11001956	3 G 4	12	11.7	155.8	242.0
11001957	4 G 4	12	12.8	199.6	301.0
11001958	5 G 4	12	13.8	243.9	356.0
11001959	3 G 6	10	13.2	224.0	326.0
11001960	4 G 6	10	14.5	282.0	404.0
11001961	5 G 6	10	16.1	345.6	485.0

12.07.2024 / We reserve the right to make technical changes; the imprint in the image is purely exemplary