CASRAD XE 150LA

-65°C to +150°C, 600V



Construction
Conductor: Tinned Copper · Compact concentric stranded
Insulation: Extruded primary layer · XL-ETFE
Jacket: Dual-layer extruded contrast outer wall · XL-ETFE

Thermal Characteristics
Operating Temperature: -65°C to +150°C
Thermal Shock & Cold-Bend Endurance: Maintains flexibility and mechanical integrity across -65°C to +150°C thermal cycling without cracking or shrink-back.
Cross-Link Verification & Shrinkage: 300 ± 3°C for 1 h cross-link verification · Max. 3.18 mm in 305 mm (0.125 in. in 12 in.) shrinkage at 230 ± 3°C for 1 h

Electrical Characteristics
Operating Voltage: 600V
Test Voltage: 2500V / 1 min
In-Line Spark & Impulse Test: 3.0 kV AC (rms) spark test · 8.0 kV (peak) impulse dielectric test

Application
Aerospace & UAV Lightweight Harnesses: For high-density airframe, avionics, and unmanned aerial vehicle wiring where minimum O.D. and gram-level mass savings are critical.
Motorsport & Robotics Chassis Wiring: For high-reliability engine-bay, ECU, and actuator wiring assemblies exposed to heat, vibration, fuels, and lubricants.

General Characteristics
Radiation Cross-Linked Non-Melting Polymer: Electron-beam cross-linked polymer network eliminates cold-flow creep and resists soldering iron melt-back during dense harness termination.
Dual-Wall Scrape & Cut-Through Toughness: Dual-layer extruded construction with contrasting inner core colour provides immediate visual wear indication while maximizing scrape-abrasion endurance.
Fuel, Oil & Solvent Resistance: Engineered to resist aviation fuels, hydraulic fluids, motorsport lubricants, coolants, and industrial cleaning solvents.

Standards & Approvals
SAE AS22759 Material & AS4373 Test Reference: Light-airframe 0.20 mm (8-mil) baseline dual-wall radiation cross-linked modified ETFE construction aligned with SAE AS22759 polymer chemistry and AS4373 test methods (non-QPL).
ASTM B33: Tinned copper conductor standard.

Fire Performance
Fire Retardant: IEC 60332-1-2
Fire Performance: SAE AS4373 60° Flame Test

RoHS COMPLIANT REACH COMPLIANT

CASMO Part No.	Conductor				Cable		Max. DCR @20°C (Ω/km)	Max. Cable Weight (kg/km)
	Conductor Size (AWG)	No. Of Strands	Nom. Strand Dia. (mm)	Max. Conductor Dia. (mm)	Nom. O.D. (mm)	O.D. Tolerance ± (mm)		
5200526/19-TS-XX	26	19	0.102	0.49	0.88	0.04	135.5	2.26
5200524/19-TS-XX	24	19	0.127	0.61	1.00	0.04	86.0	3.17
5200522/19-TS-XX	22	19	0.160	0.76	1.16	0.04	53.1	4.55
5200520/19-TS-XX	20	19	0.203	0.98	1.37	0.04	32.4	6.80
5200518/19-TS-XX	18	19	0.254	1.21	1.61	0.05	20.4	10.27
5200516/19-TS-XX	16	19	0.287	1.37	1.80	0.05	15.8	12.95
5200514/19-TS-XX	14	19	0.361	1.71	2.18	0.06	10.0	19.84
5200512/37-TS-XX	12	37	0.320	2.20	2.66	0.07	6.63	30.21
5200510/37-TS-XX	10	37	0.404	2.77	3.28	0.10	4.13	47.81
520058/133-TS-XX	8	133	0.287	4.29	4.98	0.18	2.30	89.14
520056/133-TS-XX	6	133	0.361	5.38	6.15	0.23	1.46	140.9

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	Conductor Size (AWG)	No. Of Strands	Nom. Strand Dia. (mm)	Max. Conductor Dia. (mm)	Nom. O.D. (mm)	O.D. Tolerance ± (mm)		
520054/133-TS-XX	4	133	0.455	6.81	7.90	0.28	0.919	229.2
520052/665-TS-XX	2	665	0.254	8.64	9.73	0.33	0.600	357.2
520051/817-TS-XX	1	817	0.254	9.65	10.77	0.36	0.499	433.1
520051_0/1045-TS-XX	1/0	1045	0.254	10.80	11.84	0.43	0.381	544.7
520052_0/1330-TS-XX	2/0	1330	0.254	12.07	13.34	0.51	0.299	715.8

Table Notes

* "-TS-" = tinned copper conductor.

† Part No. code: XX = colour code — BK Black, WH White, RD Red, GN Green, BN Brown, BL Blue, OR Orange, YW Yellow, VT Violet, GY Grey, PK Pink, TN Tan, CL Clear.

1. Manufactured to CASRAD™ commercial, motorsport, UAV, and industrial specifications (non-QPL). Max. DCR at 20°C and Max. Cable Weight are upper specification limits.

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