CASRAD XP 150MC

-65°C to +150°C, 600V



Construction
Conductor: Tinned Copper · Compact concentric stranded
Core Insulation: Extruded · XL-Polyalkene
Cabling: Twisted · Concentric twisted lay for tight flexibility and EMI balance
Core Identification: Colour-coded cores per NEMA chart (2C: Black / White; 3C: Black / White / Green; 4C: Black / White / Green / Red)
Shield: Braid · Tinned copper braid (≥85% coverage)
Jacket: Extruded overall jacket · XL-PVDF

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.

Electrical Characteristics
Operating Voltage: 600V
Test Voltage: 2500V / 1 min

Application
Motorsport & UAV Sensor / CAN-Bus Harnesses: For EMI-shielded ECU, telemetry, actuator, and differential data runs in space- and weight-constrained race vehicles and unmanned aircraft.
Aerospace & Robotics Interconnects: For shielded avionics sub-assemblies, gimbal control wiring, and ruggedized mobile equipment exposed to vibration and fluids.

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: Co-extruded dual-wall construction combines high dielectric strength with a tough fluoropolymer outer jacket for superior cut-through resistance.
Fuel, Oil & Solvent Resistance: Engineered to resist aviation fuels, hydraulic fluids, motorsport lubricants, coolants, and industrial cleaning solvents.
360° EMI Braid Screening: Round-wire copper braid shield (≥85% optical coverage) provides low-impedance EMI/RFI protection for sensitive sensor, CAN, and avionics signals.

Standards & Approvals
NEMA WC 27500 (Reference): Shielded multiconductor architecture aligned with NEMA WC 27500 (ML XL-Polyalkene / PVDF component wires, non-QPL).
SAE AS81044/12 Core Reference: Inner component wires follow CASRAD XP 150L / AS81044/12 dimensional envelope.

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

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casmocable
CABLES FOR EXTREMES

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CASMO Part No.	Total Cores	Conductor			Nom. Ins. Thickness (mm)	Braid Coverage (%)	Cable			Max. DCR @20°C (Ω/km)	Max. Cable Weight (kg/km)
		Conductor Size (AWG)	No. Of Strands	Nom. Strand Dia. (mm)			Nom. Jkt. Thickness (mm)	Nom. O.D. (mm)	Max. Overall O.D. (mm)		
532012C26-TS-WH	2	26	19	0.102	0.18	85	0.20	2.59	2.72	135.5	12.1
532013C26-TS-WH	3	26	19	0.102	0.18	85	0.20	2.82	2.95	135.5	16.5
532014C26-TS-WH	4	26	19	0.102	0.18	85	0.20	3.12	3.38	135.5	19.0
532012C24-TS-WH	2	24	19	0.127	0.20	85	0.20	3.00	3.12	86.0	16.8
532013C24-TS-WH	3	24	19	0.127	0.20	85	0.20	3.15	3.30	86.0	21.4
532014C24-TS-WH	4	24	19	0.127	0.20	85	0.20	3.58	3.81	86.0	24.3
532012C22-TS-WH	2	22	19	0.160	0.21	85	0.20	3.35	3.48	53.1	21.6
532013C22-TS-WH	3	22	19	0.160	0.21	85	0.20	3.56	3.68	53.1	28.0
532014C22-TS-WH	4	22	19	0.160	0.21	85	0.20	4.06	4.32	53.1	32.3
532012C20-TS-WH	2	20	19	0.203	0.21	85	0.20	3.76	3.89	32.4	28.0
532013C20-TS-WH	3	20	19	0.203	0.21	85	0.20	3.99	4.14	32.4	37.2
532014C20-TS-WH	4	20	19	0.203	0.21	85	0.20	4.60	4.90	32.4	43.5
532012C18-TS-WH	2	18	19	0.254	0.21	85	0.23	4.32	4.45	20.4	38.2
532013C18-TS-WH	3	18	19	0.254	0.21	85	0.23	4.57	4.70	20.4	51.2
532014C18-TS-WH	4	18	19	0.254	0.21	85	0.23	5.36	5.69	20.4	60.9
532012C16-TS-WH	2	16	19	0.287	0.23	85	0.23	4.67	4.80	15.8	44.9
532013C16-TS-WH	3	16	19	0.287	0.23	85	0.23	4.98	5.21	15.8	64.0

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		Conductor Size (AWG)	No. Of Strands	Nom. Strand Dia. (mm)			Nom. Jkt. Thickness (mm)	Nom. O.D. (mm)	Max. Overall O.D. (mm)		
532014C16-TS-WH	4	16	19	0.287	0.23	85	0.23	5.87	6.22	15.8	73.8

Table Notes

* "-TS-" = tinned copper conductor.

† "-WH" = White outer jacket (standard); "-BK" Black and other jacket colours available on request.

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

COLOR CODE CHART					
Cond. #	Color	Cond. #	Color	Cond. #	Color
1	Black	3	Green		
2	White	4	Red		

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