UL 2517

-20°C to +105°C, 300V



Construction
Conductor: Tinned Copper · Stranded ASTM B33
Core Insulation: Extruded · PVC
Cabling: Laid Up · Concentric lay
Core Identification: Color-coded per NEMA standard 30-conductor chart
Shield: Foil Braid · Aluminum/Mylar Foil (100%) + Tinned Copper Braid (≥85%)
Drain Wire: Stranded Tinned Copper Drain Wire
Jacket: Extruded (Matte Black) · Oil-Resistant PVC

Thermal Characteristics
Operating Temperature: -20°C to +105°C

Electrical Characteristics
Operating Voltage: 300V

Application
CNC Machine Tools, Servo Encoders & Robotics: Servo motor encoder feedback, CNC machine tool control wiring, and automated factory control harnesses.

General Characteristics
Oil Resistance: Resistant to oil exposure, helping maintain the integrity of the cable covering in oily environments.
EMC Braid & Foil Screening: High-coverage metallic shielding protects sensitive control and encoder circuits from electromagnetic interference.
Flexibility: Flexible construction facilitates routing, bending and installation where space is limited.

Standards & Approvals
UL 758: UL 758 Appliance Wiring Material, Style 2517 (300 V, 105°C, Oil Resistant).
CSA C22.2 No. 210: cUL AWM I/II A/B 105°C 300V FT1.

Fire Performance
Fire Retardant: VW-1 / FT1

UL 2517 — Foil + Braid Shielded Multi-Conductor (+AB)

CASMO Part No.	Total Cores	Conductor			Nom. Ins. Thickness (mm)	Nom. Jkt. Thickness (mm)	Braid Coverage (%)	Nom. O.D. (mm)	Max. DCR @20°C (Ω/km)	Nom. Cable Weight (kg/km)
		Conductor Size (AWG)	No. Of Strands	Nom. Strand Dia. (mm)						
2517-24/7-3C-AB-TS-BK	3	24	7	0.203	0.28	0.85	85	4.78	94.2	38
2517-24/7-4C-AB-TS-BK	4	24	7	0.203	0.28	0.85	85	5.08	94.2	45
2517-24/7-6C-AB-TS-BK	6	24	7	0.203	0.28	0.85	85	5.76	94.2	61
2517-24/7-8C-AB-TS-BK	8	24	7	0.203	0.28	0.85	85	6.11	94.2	74
2517-24/7-12C-AB-TS-BK	12	24	7	0.203	0.28	0.85	85	7.12	94.2	104
2517-22/7-3C-AB-TS-BK	3	22	7	0.254	0.28	0.85	85	5.10	59.4	48
2517-22/7-4C-AB-TS-BK	4	22	7	0.254	0.28	0.85	85	5.44	59.4	58
2517-22/7-6C-AB-TS-BK	6	22	7	0.254	0.28	0.85	85	6.21	59.4	81
2517-22/7-8C-AB-TS-BK	8	22	7	0.254	0.28	0.85	85	6.61	59.4	99
2517-22/7-12C-AB-TS-BK	12	22	7	0.254	0.28	0.85	85	7.74	59.4	142
2517-20/7-2C-AB-TS-BK	2	20	7	0.32	0.30	0.90	85	5.47	36.7	54
2517-20/7-3C-AB-TS-BK	3	20	7	0.32	0.30	0.90	85	5.72	36.7	66

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CASMO Part No.	Total Cores	Conductor			Nom. Ins. Thickness (mm)	Nom. Jkt. Thickness (mm)	Braid Coverage (%)	Nom. O.D. (mm)	Max. DCR @20°C (Ω/km)	Nom. Cable Weight (kg/km)
		Conductor Size (AWG)	No. Of Strands	Nom. Strand Dia. (mm)						
2517-20/7-4C-AB-TS-BK	4	20	7	0.32	0.30	0.90	85	6.13	36.7	82
2517-20/7-6C-AB-TS-BK	6	20	7	0.32	0.30	0.90	85	7.03	36.7	115
2517-20/7-8C-AB-TS-BK	8	20	7	0.32	0.30	0.90	85	7.50	36.7	142
2517-20/7-12C-AB-TS-BK	12	20	7	0.32	0.30	0.90	85	8.84	36.7	206
2517-18/16-2C-AB-TS-BK	2	18	16	0.254	0.33	1.00	85	6.25	23.9	73
2517-18/16-3C-AB-TS-BK	3	18	16	0.254	0.33	1.00	85	6.55	23.9	91
2517-18/16-4C-AB-TS-BK	4	18	16	0.254	0.33	1.00	85	7.03	23.9	112
2517-18/16-6C-AB-TS-BK	6	18	16	0.254	0.33	1.00	85	8.10	23.9	159
2517-18/16-8C-AB-TS-BK	8	18	16	0.254	0.33	1.00	85	8.66	23.9	198
2517-18/16-12C-AB-TS-BK	12	18	16	0.254	0.33	1.00	85	10.25	23.9	288
2517-16/26-2C-AB-TS-BK	2	16	26	0.254	0.36	1.10	85	7.19	15.0	104
2517-16/26-3C-AB-TS-BK	3	16	26	0.254	0.36	1.10	85	7.55	15.0	132
2517-16/26-4C-AB-TS-BK	4	16	26	0.254	0.36	1.10	85	8.12	15.0	165
2517-16/26-6C-AB-TS-BK	6	16	26	0.254	0.36	1.10	85	9.41	15.0	236

Table Notes

* "-AB-TS-BK" = Dual Aluminum/Mylar foil + tinned copper braid shield, tinned copper conductor, oil-resistant Black PVC jacket.

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CABLES FOR EXTREMES

UL 2517

-20°C to +105°C, 300V



UL 2517 — Foil + Braid Shielded Twisted Pair (TP +AB)

Construction

Conductor: Tinned Copper · Stranded ASTM B33
Core Insulation: Extruded · PVC
Cabling: Twisted · Twisted pairs cabled together
Core Identification: Color-coded twisted pairs per NEMA chart
Shield: Foil Braid · Aluminum/Mylar Foil (100%) + Tinned Copper Braid (≥85%)
Drain Wire: Stranded Tinned Copper Drain Wire
Jacket: Extruded (Matte Black) · Oil-Resistant PVC

CASMO Part No.	Core Configuration	Conductor			Nom. Ins. Thickness (mm)	Nom. Jkt. Thickness (mm)	Braid Coverage (%)	Nom. O.D. (mm)	Max. DCR @20°C (Ω/km)	Nom. Cable Weight (kg/km)
		Conductor Size (AWG)	No. Of Strands	Nom. Strand Dia. (mm)						
2517-24/7-2P-AB-TS-BK	2 × 2	24	7	0.203	0.28	0.85	85	5.88	94.2	55
2517-24/7-3P-AB-TS-BK	3 × 2	24	7	0.203	0.28	0.85	85	6.17	94.2	67
2517-24/7-4P-AB-TS-BK	4 × 2	24	7	0.203	0.28	0.85	85	6.64	94.2	82
2517-24/7-6P-AB-TS-BK	6 × 2	24	7	0.203	0.28	0.85	85	7.69	94.2	115
2517-24/7-8P-AB-TS-BK	8 × 2	24	7	0.203	0.28	0.85	85	8.23	94.2	140
2517-22/7-2P-AB-TS-BK	2 × 2	22	7	0.254	0.28	0.85	85	6.34	59.4	71
2517-22/7-3P-AB-TS-BK	3 × 2	22	7	0.254	0.28	0.85	85	6.67	59.4	88
2517-22/7-4P-AB-TS-BK	4 × 2	22	7	0.254	0.28	0.85	85	7.20	59.4	109
2517-22/7-6P-AB-TS-BK	6 × 2	22	7	0.254	0.28	0.85	85	8.39	59.4	155
2517-20/7-2P-AB-TS-BK	2 × 2	20	7	0.32	0.30	0.90	85	7.19	36.7	99

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CABLES FOR EXTREMES

UL 2517

-20°C to +105°C, 300V



UL 2517 — Foil + Braid Shielded Twisted Pair (TP +AB)

CASMO Part No.	Core Configuration	Conductor			Nom. Ins. Thickness (mm)	Nom. Jkt. Thickness (mm)	Braid Coverage (%)	Nom. O.D. (mm)	Max. DCR @20°C (Ω/km)	Nom. Cable Weight (kg/km)
		Conductor Size (AWG)	No. Of Strands	Nom. Strand Dia. (mm)						
2517-20/7-3P-AB-TS-BK	3 × 2	20	7	0.32	0.30	0.90	85	7.57	36.7	125
2517-20/7-4P-AB-TS-BK	4 × 2	20	7	0.32	0.30	0.90	85	8.20	36.7	156

Table Notes

* "-XP-AB-TS-BK" = X twisted pairs with overall Aluminum/Mylar foil + tinned copper braid shield for differential encoder signals.

COLOR CODE CHART					
Cond. #	Color	Cond. #	Color	Cond. #	Color
1	Black	11	Light Blue/Black Stripe	21	Orange/Green Stripe
2	White	12	Black/White Stripe	22	Black
3	Green	13	Red/White Stripe	23	White
4	Red	14	Green/White Stripe	24	Green
5	Orange	15	Light Blue/White Stripe	25	Red
6	Light Blue	16	Black/Red Stripe	26	Orange
7	White/Black Stripe	17	White/Red Stripe	27	Light Blue
8	Red/Black Stripe	18	Orange/Red Stripe	28	White/Black Stripe
9	Green/Black Stripe	19	Light Blue/Red Stripe	29	Red/Black Stripe
10	Orange/Black Stripe	20	Red/Green Stripe	30	Green/Black Stripe

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