



MIL-DTL-3432 Military Arctic Rubber Cables

MIL-DTL-3432 / M3432

Military Flexible Rubber Power Cable

MIL-DTL-3432J · 300 V & 600 V · -55 °C arctic cold-flex · Tinned Cu · Classes C, CO, L ·



MIL-DTL-3432J

300 V / 600 V

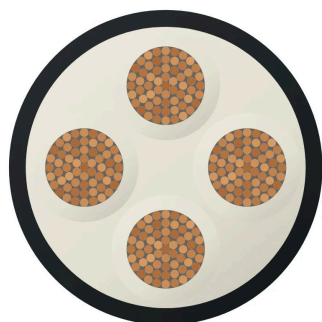
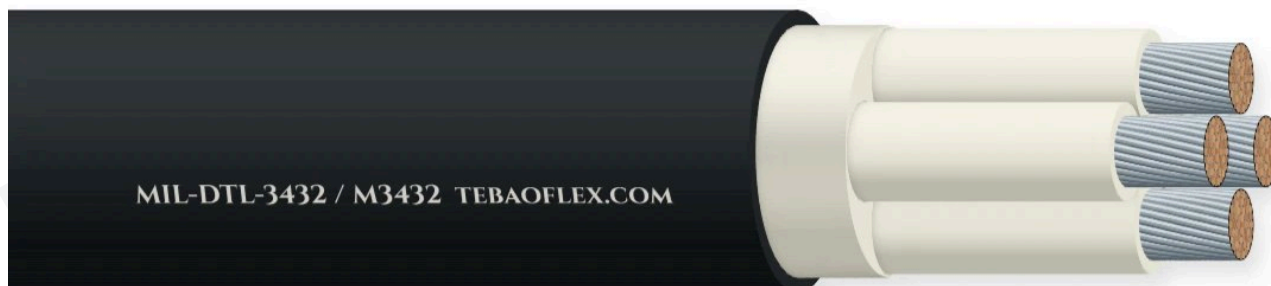
-55 °C Arctic Military

Application

MIL-DTL-3432 (M3432, formerly MIL-C-3432) is the US military detail specification for 300 V and 600 V heavy-duty low-temperature flexible rubber power and multi-core control cables. Engineered with tinned copper conductors, arctic-grade thermoset rubber

Typical uses: Tactical Mobile Power Generation, Aerospace Ground Support (AGE), Radar & Field Communications, Defense Vehicle & Trailer Harnesses, Arctic & Extreme-Cold Operations

Construction



Cross-section, not to scale

1	Tinned flexible copper conductor	MIL-DTL-3432J
2	Paper/polyester separator tape	MIL-DTL-3432J
3	Arctic thermoset rubber insulation	MIL-DTL-3432J
4	Reinforcing textile cord braid (Duty H)	MIL-DTL-3432J
5	Arctic oil-resistant outer jacket	MIL-DTL-3432J

Technical data

Typical values

Rated voltage	300 V or 600 V AC/DC	Dielectric withstand test	1.5 kV (300 V) / 2.5 kV (600 V) rms
Insulation resistance at +20 °C	≥ 500 MΩ·km	Conductor coating	Tin-coated copper (ASTM B33)
Optional EMI shielding	85 % tinned copper braid (shielded types)	Operating frequency	50 / 60 / 400 Hz & DC
Low-temperature cold bend	-55 °C (-65 °C arctic class)	Max. conductor operating temp.	+75 °C (standard) / +105 °C (heat)
Max. short-circuit temperature	+200 °C / +250 °C	Field deployment ambient	-55 °C to +75 °C
Heat ageing test	7 days at +100 °C air oven	Thermal shock stability	-55 °C to +75 °C rapid cycle
Min. bend radius (fixed)	5 × overall diameter (D)	Min. bend radius (field flexing)	8 × overall diameter (D)
Duty classifications	H (Heavy), M (Medium), L (Light)	Jacket tensile strength	≥ 12.4 MPa (Class CO/C)
Jacket elongation at break	≥ 300 % unaged	Crush & vehicle roll-over	Reinforced Duty H double jacket
Hydrocarbon & fuel resistance	Resistant to oil, diesel & JP-8 splash	Flame retardance	MIL-DTL-3432 flame test & FT2
Ozone & desert UV exposure	Ozone-resistant per MIL-DTL-3432	Water & mud immersion	All-weather tactical field jacket
Fungus resistance	Non-nutrient elastomer compounds	Corrosion protection	Tinned copper prevents strand oxidation
Standards	MIL-DTL-3432J (supersedes MIL-C-3432)		

Sizes

12 standard constructions

Tick the sizes you need and send this page to info@tebaoflex.com or WhatsApp +86 185 9591 3361.

Order designation	M3432 Class & Configuration	Phase size mm ²	Outer Ø ≈ mm	Copper kg/km	Weight ≈ kg/km	Min. bend R fixed mm
Class CO / C Heavy Duty (H) — 600 V military mobile power feeders 8 sizes						
☐ M3432 CO600H 3×14 AWG (2.08 mm ²)	3×14 AWG (600 V H)	2.08	14.5	60	245	72
☐ M3432 CO600H 4×14 AWG (2.08 mm ²)	4×14 AWG (600 V H)	2.08	15.8	80	295	79
☐ M3432 CO600H 4×12 AWG (3.31 mm ²)	4×12 AWG (600 V H)	3.31	17.5	127	390	88
☐ M3432 CO600H 4×10 AWG (5.26 mm ²)	4×10 AWG (600 V H)	5.26	19.6	202	525	98
☐ M3432 CO600H 4×8 AWG (8.37 mm ²)	4×8 AWG (600 V H)	8.37	24.4	321	815	122
☐ M3432 CO600H 4×6 AWG (13.3 mm ²)	4×6 AWG (600 V H)	13.3	27.8	511	1,140	139
☐ M3432 CO600H 4×4 AWG (21.2 mm ²)	4×4 AWG (600 V H)	21.2	32.0	814	1,610	160
☐ M3432 CO600H 4×2 AWG (33.6 mm ²)	4×2 AWG (600 V H)	33.6	36.8	1,290	2,310	184
Class L / CO Control — 300 V & 600 V multi-core tactical control & telemetry 4 sizes						
☐ M3432 CO600M 7×16 AWG (1.31 mm ²)	7×16 AWG (Control)	1.31	15.4	88	285	77
☐ M3432 CO600M 12×16 AWG (1.31 mm ²)	12×16 AWG (Control)	1.31	19.8	151	465	99
☐ M3432 CO600M 19×16 AWG (1.31 mm ²)	19×16 AWG (Control)	1.31	23.2	239	660	116
☐ M3432 CO600M 24×16 AWG (1.31 mm ²)	24×16 AWG (Control)	1.31	26.5	302	845	132

– Outer diameters and weights are nominal factory values subject to ±5 % manufacturing tolerance per MIL-DTL-3432J (MIL-C-3432).

Electrical & ampacity data

12 sizes

Configuration	Max. DC R @ 20 °C Ω/km	Current rating in air (A)	Current rating installed (A)	Mutual C pF/m≈	AC test V _{rms}
3×14 AWG (600 V H)	9.758	23	20	81	2,500
4×14 AWG (600 V H)	9.758	23	20	81	2,500
4×12 AWG (600 V H)	6.130	31	26	83	2,500
4×10 AWG (600 V H)	3.864	42	36	86	2,500
4×8 AWG (600 V H)	2.429	56	48	90	2,500
4×6 AWG (600 V H)	1.527	74	63	97	2,500
4×4 AWG (600 V H)	0.958	99	84	109	2,500
4×2 AWG (600 V H)	0.605	132	112	127	2,500
7×16 AWG (Control)	15.272	18	15	80	2,500
12×16 AWG (Control)	15.272	18	15	80	2,500
19×16 AWG (Control)	15.272	18	15	80	2,500
24×16 AWG (Control)	15.272	18	15	80	2,500

– Current ratings apply at +25/+30 °C ambient in free air; apply standard derating factors for elevated ambient or drum coiling.

Standards and approvals

✓ MIL-DTL-3432J / MIL-C-3432

✓ ASTM B33 / B172

✓ RoHS / CE

Certifications



Management systems: ISO 9001, ISO 14001, ISO 45001

Request a quotation

Send the size, length and destination. An application engineer replies within 2 business hours.

WhatsApp / phone

+86 185 9591 3361

Email

info@tebaoflex.com

Web

tebaoflex.com/cables/mil-dtl-3432-heavy-duty-low-temperature-military-flexible-rubber-power-control-cable



Typical values for this cable type, based on MIL-DTL-3432J (MIL-C-3432). Values for your order are confirmed in the quotation. Subject to change without notice.
Jiangsu Tebaoflex Special Cable Co., Ltd., Taicang, Jiangsu, China.