AS22759/186

Wire specification: SAE AS22759/186

Normal weight, Smooth Surface, High performance hook-up wires.

Silver coated copper conductor.

Composite insulation 200°C

General purpose high-performance hook-up wires.
Designed for aerospace and other applications requiring excellent thermal stability.
Developped at the request of NAVAIR and USAF.

Cable characteristics

-65 +200°C

Excellent

FAR25

Environmental

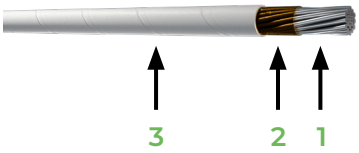
- Operating temperature: -65°C to 200°C (ambient temperature + current heating)
- Resistant to Aircraft fluids (oils, hydrocarbons, kerosene...), Chemical agents
- Wet and Dry Arc Tracking resistant
- Hydrolysis resistant
- Abrasion resistant

Electrical

Maximum operating voltage: 600Vrms**

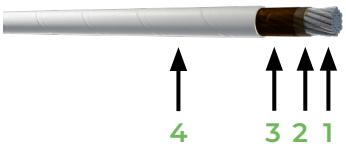
Cable design

AWG 26 to AWG 10



1. Conductor: Silver coated copper (Type SCC)
2. FP/Polyimide/FP tape
3. PTFE tape, UV laser markable

AWG 8 to AWG 000



1. Conductor: Silver coated copper (Type SCC)
2. Skived PTFE tape
3. FP/Polyimide/FP tape
4. PTFE tape, UV laser markable

Identification

- Standard version are based on PTFE tape that can be marked by UV laser
- Symbol code in NEMA WC 27500: DJ

Marking

M22759/186-yy F1868 REV x
1 2 3 4

e.g.M22759/186-24 F1868 REV C

1. Reference
2. Gauge
3. Manufacturer's identification
4. Revision of specification

Specifications

Conductors
AS29606
Wires Specifications
AS22759/186

Technical Specification
AS22759

Dimensional

Part number	AWG	Conductor construction	Conductor diameter		Linear resistance max. at 20°C	Outer diameter		Weight max.
			min.	max.		min.	max.	
		nb x AWG *nb x mm*	inch *mm*	inch *mm*	Ω/1000ft *Ω/km*	inch *mm*	inch *mm*	Lbs/1000ft *kg/km*
M22759/186-26-*	26	19 x 38 *19 x 0.102*	0.0175 *0.44*	0.0194 *0.49*	38.4 *126*	0.033 *0.84*	0.037 *0.94*	1.55 *2.31*
M22759/186-24-*	24	19 x 36 *19 x 0.127*	0.0225 *0.57*	0.0244 *0.62*	24.3 *79.7*	0.038 *0.97*	0.042 *1.07*	2.20 *3.27*
M22759/186-22-*	22	19 x 34 *19 x 0.16*	0.0285 *0.72*	0.0304 *0.77*	15.1 *49.5*	0.043 *1.09*	0.047 *1.19*	3.10 *4.61*
M22759/186-20-*	20	19 x 32 *19 x 0.203*	0.0365 *0.93*	0.0384 *0.98*	9.19 *30.15*	0.051 *1.30*	0.055 *1.40*	4.70 *6.99*
M22759/186-18-*	18	19 x 30 *19 x 0.254*	0.0455 *1.16*	0.0484 *1.23*	5.79 *19*	0.061 *1.55*	0.065 *1.65*	6.90 *10.27*
M22759/186-16-*	16	19 x 29 *19 x 0.287*	0.0515 *1.31*	0.0554 *1.41*	4.52 *14.8*	0.068 *1.73*	0.073 *1.85*	8.80 *13.1*
M22759/186-14-*	14	19 x 27 *19 x 0.361*	0.0645 *1.64*	0.0684 *1.74*	2.88 *9.45*	0.081 *2.06*	0.086 *2.18*	13.4 *19.94*
M22759/186-12-*	12	37 x 28 *37 x 0.32*	0.0835 *2.12*	0.0874 *2.22*	1.90 *6.23*	0.100 *2.54*	0.105 *2.67*	20.4 *30.36*
M22759/186-10-*	10	37 x 26 *37 x 0.404*	0.106 *2.69*	0.110 *2.79*	1.19 *3.90*	0.122 *3.10*	0.127 *3.23*	31.6 *47.03*
M22759/186-8-*	8	133 x 29 *133 x 0.287*	0.158 *4.01*	0.166 *4.22*	0.658 *2.16*	0.180 *4.57*	0.188 *4.78*	59.7 *88.84*
M22759/186-6-*	6	133 x 27 *133 x 0.361*	0.198 *5.03*	0.208 *5.28*	0.418 *1.37*	0.219 *5.56*	0.229 *5.82*	91.9 *136.7*
M22759/186-4-*	4	133 x 25 *133 x 0.455*	0.250 *6.35*	0.263 *6.68*	0.264 *0.87*	0.276 *7.01*	0.288 *7.32*	149 *221.7*
M22759/186-2-*	2	665 x 30 *665 x 0.254*	0.320 *8.13*	0.340 *8.64*	0.170 *0.56*	0.344 *8.74*	0.364 *9.25*	233 *346.7*
M22759/186-1-*	1	817 x 30 *817 x 0.254*	0.360 *9.14*	0.380 *9.65*	0.139 *0.46*	0.388 *9.86*	0.408 *10.36*	283 *421.7*

Dimensional

Part number	AWG	Conductor construction	Conductor diameter		Linear resistance max. at 20°C	Outer diameter		Weight max.
			min.	max.		min.	max.	
		nb x AWG *nb x mm*	inch *mm*	inch *mm*	Ω/1000ft *Ω/km*	inch *mm*	inch *mm*	Lbs/1000ft *kg/km*
M22759/186-01-*	0	1045 x 30 *1045 x 0.254*	0.395 *10.03*	0.425 *10.80*	0.108 *0.35*	0.420 *10.67*	0.450 *11.43*	363 *540.2*
M22759/186-02-*	00	1330 x 30 *1330 x 0.254*	0.440 *11.18*	0.475 *12.07*	0.085 *0.28*	0.475 *12.07*	0.505 *12.83*	457 *680.1*
M22759/186-03-*	000	1665 x 30 *1665 x 0.254*	0.500 *12.70*	0.540 *13.72*	0.068 *0.22*	0.530 *13.46*	0.560 *14.22*	568 *845.3*
M22759/186-04-*	0000	2109 x 30 *2109 x 0.254*	0.565 *14.35*	0.605 *15.37*	0.054 *0.18*	0.590 *14.99*	0.630 *16.00*	720 *1071.5*

*Replace the asterisks in the part number by color code designators (in accordance with MIL-STD-681)

**Operating Voltage: 600Vrms at sea level. This insulation system has been used in Aerospace applications using 115 Volts (Phase to Neutral), 400 Hertz AC and 28 Volts DC. Verification of the suitability of this product for use in other Electrical system configuration is the responsibility of the user.

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