

AS22759/180

Wire specification: SAE AS22759/180

Light weight, Smooth Surface, High performance hook-up wires

Tin coated copper conductor

Composite insulation 150°C



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



Cable characteristics



-65 +150°C



Excellent



FAR25

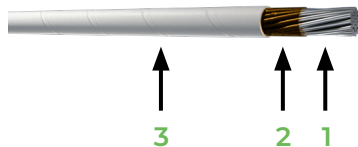
Environmental

- Operating temperature: -65°C to 150°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



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

Identification

- Standard version are based on PTFE tape that can be marked by UV laser
- Symbol code in NEMA WC 27500: DB
- This slash sheet is primarily intended for crimp termination.

For solderability applications, it is recommended to use the silver coated copper version of this specification (AS22759/191)

Marking

M22759/180-yy F1868 REV x
1 2 3 4

e.g. M22759/180-24 F1868 REV C

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

Specifications

Conductors

AS29606

Wires Specifications

AS22759/180

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
M22759/180-26-*	26	19 x 38 19 x 0.102	0.0175 0.44	0.0204 0.52	41.3 135.5	0.030 0.76	0.034 0.86	1.45 2.16
M22759/180-24-*	24	19 x 36 19 x 0.127	0.0225 0.57	0.0244 0.62	26.2 85.95	0.034 0.86	0.038 0.97	2.00 2.98
M22759/180-22-*	22	19 x 34 19 x 0.16	0.0285 0.72	0.0314 0.80	16.2 53.15	0.040 1.02	0.043 1.09	2.95 4.39
M22759/180-20-*	20	19 x 32 19 x 0.203	0.0365 0.93	0.0394 1.00	9.88 32.4	0.048 1.22	0.051 1.30	4.45 6.62
M22759/180-18-*	18	19 x 30 19 x 0.254	0.0455 1.16	0.0494 1.25	6.23 20.44	0.056 1.42	0.060 1.52	6.65 9.90
M22759/180-16-*	16	19 x 29 19 x 0.287	0.0515 1.31	0.0554 1.41	4.81 15.78	0.063 1.60	0.067 1.70	8.35 12.43
M22759/180-14-*	14	19 x 27 19 x 0.361	0.0645 1.64	0.0694 1.76	3.06 10.04	0.076 1.93	0.080 2.03	12.80 19.05
M22759/180-12-*	12	37 x 28 37 x 0.32	0.0835 2.12	0.0894 2.27	2.02 6.62	0.096 2.44	0.100 2.54	20.03 30.21
M22759/180-10-*	10	37 x 26 37 x 0.404	0.106 2.69	0.112 2.84	1.26 4.13	0.119 3.02	0.123 3.12	31.4 46.73

*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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