

AS22759/182

Wire specification: SAE AS22759/182

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

Nickel coated high strength or ultra high strength copper alloy conductor

Composite insulation 260°C



General purpose high-performance hook-up wires.

Designed for aerospace and other applications requiring excellent thermal stability.

Developed at the request of NAVAIR and USAF.



Cable characteristics



-65 +260°C



Excellent



FAR25

Environmental

- Operating temperature: -65°C to 260°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: Nickel coated high strength copper alloy (AWG 24 to 20 Type NCA) or ultra high strength copper alloy (AWG 26 Type NCU)
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: DE

Marking

M22759/182-yy F1868 REV x
1 2 3 4

e.g. M22759/182-24 F1868 REV C

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

Specifications

Conductors

AS29606

Wires Specifications

AS22759/182

Technical Specification

AS22759

Dimensional

Part number	AWG	Conductor construction	Conductor diameter		Linear resistance max. at 20°C	Outer diameter		Weight max.	Tensile breaking strength min.
			min.	max.		min.	max.		
		nb x AWG nb x mm	inch mm	inch mm	$\Omega/1000\text{ft}$ Ω/km	inch mm	inch mm	Lbs/1000ft kg/km	Lbs N
M22759/182-26-*	26	19 x 38 19 x 0.102	0.0175 0.44	0.0204 0.52	58.4 191.60	0.030 0.76	0.034 0.86	1.45 2.16	21.5 95.7
M22759/182-24-*	24	19 x 36 19 x 0.127	0.0225 0.57	0.0254 0.65	30.1 98.75	0.034 0.86	0.038 0.97	2.00 2.98	22.4 99.7
M22759/182-22-*	22	19 x 34 19 x 0.16	0.0285 0.72	0.0314 0.80	18.6 61.02	0.040 1.02	0.043 1.09	2.95 4.39	35.8 159.3
M22759/182-20-*	20	19 x 32 19 x 0.203	0.0365 0.93	0.0404 1.03	11.4 37.40	0.048 1.22	0.051 1.30	4.45 6.62	58.1 258.5

*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.



Prysmian câbles et systèmes France

Head Office

23 avenue Aristide Briand - BP 801 - PARON - 89108 SENS Cedex / France
Tel : +33 (0)4 72 46 73 99 - infocables.fr@prysmian.com

Draka Fileca SAS

D 1001 - 60730 Sainte-Geneviève / France
fileca-office@prysmian.com



www.prysmian.com



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