

**28.5 V DC & 270 V DC Aircraft Ground Power (GPU) Cables**

GP 28V DC SF

28 V DC Symmetrical Aircraft Ground-Power Cable

ISO 6858 / SAE AS5756 28.5 V DC symmetrical 4×35 to 4×70 mm² (or 2×95 mm²) + pilot GPU

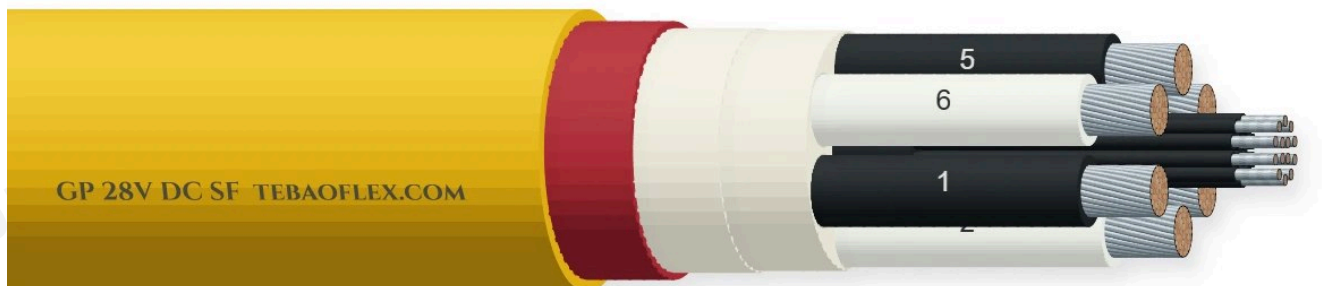
**ISO 6858 / SAE AS5756****Symmetrical 4-Quad Split DC****Low Inductance · Class 6 PUR**

Application

GP 28V DC SF Symmetrical Aircraft Ground-Power Cable splits the 28.5 V DC positive and negative poles into a balanced quad of four diametrically opposed Class 6 extra-flexible copper cores (4×35, 4×50, or 4×70 mm² — equivalent to 2×70, 2×100, or 2×140 mm²)

Typical uses: Motorized 28.5 V DC GPU reel units, Passenger boarding bridge (PBB) booms, Regional jet, helicopter & turboprop gates, Military hangar & flight-line power pits

Construction



Cross-section, not to scale

1	Class 6 extra-flexible copper quad +	IEC 60228 Class 6 / ISO 6858
2	90 °C EPR / TPE-E core insulation	SAE AS5756
3	Inner elastomeric bedding	ISO 6858
4	Anti-torsion reinforcing braid	
5	High-visibility PUR / PCP apron sheath	SAE AS5756 / EN 50363-10-2

Technical data

Typical values

Nominal aircraft bus voltage	28.5 V DC (cable insulation rated 0.6/1 kV)	Effective pole cross-section	70 mm ² (4×35) · 100 mm ² (4×50) · 140 mm ²
Effective DC pole resistance @ 20 °C	0.277 Ω/km (4×35) · 0.193 Ω/km (4×50) ·	Routine dielectric test voltage	3,000 V AC for 5 minutes
Max. conductor operating temp.	+90 °C continuous · +250 °C short-circuit	Apron operating temp. range	-40 °C to +90 °C (dynamic reeling to -35 °C)
Cold flexibility	Remains supple on arctic aprons at -40 °C	Min. bending radius	4 × D static · 5 × D dynamic reeling
Reeling & torsional stability	Anti-torsion braid for motorized drum & stability	Aviation fluid resistance	Jet-A1 / JP-8 fuel, Skydrol LD-4, hydraulic
Abrasion & tear resistance	Heavy-duty ether-based PUR per EN 50363-10-2	Standards	ISO 6858 · SAE AS5756 · IEC 60228 Class 6

Sizes

6 standard constructions

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

Order designation	Cores × Size	Main cross-section	Outer Ø ≈ mm	Copper kg/km	Weight ≈ kg/km	Min. bend R fixed mm
Standard GP 28V DC SF configurations 6 sizes						
☐ GP 28V DC SF 4×35 + 2×1.5 mm ² (= 2×70 mm ²)	4×35 + 2×1.5 mm ²	70.0 mm ² (2×35)	31.2	1,380	2,040	156
☐ GP 28V DC SF 4×50 + 1×4 mm ² (= 2×100 mm ²)	4×50 + 1×4.0 mm ²	100.0 mm ² (2×50)	35.8	1,960	2,780	179
☐ GP 28V DC SF 4×50 + 4×1.5 mm ² (= 2×100 mm ²)	4×50 + 4×1.5 mm ²	100.0 mm ² (2×50)	36.2	1,980	2,820	181
☐ GP 28V DC SF 4×70 + 1×6 mm ² (= 2×140 mm ²)	4×70 + 1×6.0 mm ²	140.0 mm ² (2×70)	41.5	2,750	3,760	208
☐ GP 28V DC SF 2×95 + 1×4 mm ² Symmetrical	2×95 + 1×4.0 mm ²	95.0 mm ²	36.4	1,860	2,610	182
☐ GP 28V DC SF 2×120 + 2×2.5 mm ² Symmetrical	2×120 + 2×2.5 mm ²	120.0 mm ²	39.8	2,350	3,210	199

- Outer diameters and weights are nominal factory values subject to ±5 % manufacturing tolerance per ISO 6858 / SAE AS5756 (28.5 V DC Symmetrical Split-Phase GPU).

Electrical & ampacity

6 sizes

Configuration	Max. DC R @ 20 °C Ω/km	Iz free air A	Iz tray / duct A	Isc (1 s) kA	Voltage drop mV/A/m	Dielectric test V
4×35 + 2×1.5 mm ²	0.28	340	305	10.01	0.55	3,000
4×50 + 1×4.0 mm ²	0.19	430	385	14.30	0.39	3,000
4×50 + 4×1.5 mm ²	0.19	430	385	14.30	0.39	3,000
4×70 + 1×6.0 mm ²	0.14	535	480	20.02	0.27	3,000
2×95 + 1×4.0 mm ²	0.21	395	355	13.59	0.41	3,000
2×120 + 2×2.5 mm ²	0.16	460	415	17.16	0.32	3,000

- Conductor DC resistance at +20 °C per IEC 60228 and reference current ratings at 30 °C ambient per ISO 6858 / SAE AS5756 (28.5 V DC Symmetrical Split-Phase GPU).

Standards and approvals

- ✓ ISO 6858 / SAE AS5756
- ✓ IEC 60228 Class 6
- ✓ CE / RoHS

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/28-v-dc-symmetrical-aircraft-ground-power-cable



Typical values for this cable type, based on ISO 6858 / SAE AS5756 (28.5 V DC Symmetrical Split-Phase GPU). Values for your order are confirmed in the quotation. Subject to change without notice. Jiangsu Tebaoflex Special Cable Co., Ltd., Taicang, Jiangsu, China.