

OPTIMIZED
FOR USE WITH

turboflex
THE ULTRA FLEXIBLE RUGGED POWER CABLE

**POWER
LOAD™**

Advanced power
connectors for higher
voltage, higher altitude,
and higher frequency
applications



The aircraft industry's most advanced power distribution interconnect

Electrical power generation technology in aircraft has evolved to meet modern requirements for higher power and lighter weight systems. Growing electrical power needs on commercial aircraft—particularly for backup generator applications—have caused major changes in power system architectures to accommodate peak-load stress factors in electrical wire interconnect (EWIS) cabling.

- **PowerLoad™**, the high-vibration, high-temperature interconnect optimized for higher-voltage, higher-altitude, and higher-frequency
- **TurboFlex®**, the Glenair signature high-flexibility power cable solution jacketed with rugged Duraelectric insulation. Available wire cores include rope-lay (standard) for maximum flexibility, and M22759 wire (TurboFlex M) with the flight heritage of a mil-spec core and slightly larger bend radius.
- **Crown Ring crimp, bus bar, and lug style contacts**, optimized for high current carrying, high temperature performance.

THE POWERLOAD ECOSYSTEM: CONNECTORS, CONTACTS, CABLES, ACCESSORIES, AND ASSEMBLIES

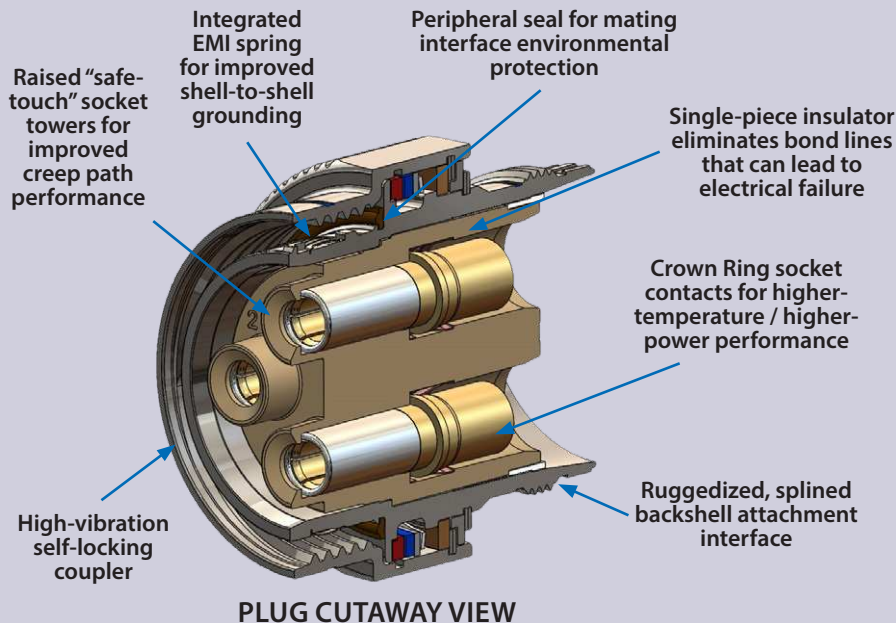
- **For applications up to 2000 VAC / 1500 Hz and higher, and from 150 – 800 Amps.**
- **230°C maximum operating temperature connectors** (stainless steel bodies and shells)
- **TurboFlex® rope lay power cables** optimized for PowerLoad™ connectors, from 8 AWG to 4/0
- **Ultra-flexible configurations** with ruggedized Duraelectric or FEP jacketing: single-wall hookup wire or dual-wall jacketed interconnect cabling
- **High-temperature Crown Ring contact technology**
- **Heavy-duty accessory interface**

HIGH-POWER PowerLoad™ Aircraft Connectors and Cables



For backup generators and other high power demand applications

POWERLOAD™: KEY CONNECTOR AND CONTACT DESIGN FEATURES



GLENAIR SIGNATURE CROWN RING CONTACTS



- Crimp, bus bar, and lug wire termination
- Precision-machined high conductivity copper alloy
- Up to 60% lower contact resistance than equivalent AS39029 contacts
- Higher operating temperature resistance compared to other specialized high-power contacts
- Gold-plated for enhanced high-vibration durability

TURBOFLEX® ULTRA FLEXIBLE / RUGGED POWER CABLES WITH DURALECTRIC OR FEP JACKETING

TurboFlex high-flexibility power cabling has been optimized for use with PowerLoad connectors. TurboFlex is supplied with either industry-standard FEP or Glenair signature Duralectric jacketing material, which is optimized for fluid immersion, caustic chemical exposure, temperature extremes, and UV radiation. Both materials are available in a broad range of colors, including safety orange.



Available with cable gauge selections from 8 AWG to 4/0, to provide suitable margins for DWV, frequency derating, and peak-load performance.

Abrasion Resistance	Good
Wear Resistance	Good
Flame Resistance	Excellent
Sunlight Resistance	Excellent
Flex Resistance	Excellent

TURBOFLEX® WITH DURALECTRIC™ JACKETING: ENVIRONMENTAL PERFORMANCE

Temperature rating: -60°C to 200°C

Halogen free per IEC 60614-1

Accelerated weathering and simulated solar radiation at ground level per IEC 60068-2-5; 56 Days exposure, suitable for greater than 50 years of service in direct sunlight

Flame resistant per IEC 60614-1

Flame resistant per UL 1685, section 12 (FT4/IEEE120), vertical-tray fire-propagation and smoke release test

Flame resistant per FAR 25.853 (A) amendment 25-116, appendix F part I (A) (1) (i), 60 second vertical burn test

Limiting oxygen index of 45 per ISO 4589-2:1999

Low smoke per NES 711, smoke density of 11.75

Smoke density class F1 per NF F 16-101 IAW DIN EN 60695-2-11:2011

Low smoke toxicity per NES 713, tested value of 1.9

Fungus rating of 0 per MIL-STD-810g method 508.5, Does not support fungal growth

ASTM D624, die B tear strength, 150 pounds per inch minimum on jacket material

Low outgassing per ASTM e595 after post curing, TML .06%, CVCM .006%, WVR .02%

Resistant to fluids per MIL-STD-810F, method 504

JP-8 per MIL-DTL-83133 (NATO type 34)

MIL-H-5606 hydraulic fluid

MIL-PRF-23699 lubricating oil

MIL-C-85570 cleaner

TT-I-735 Isopropyl alcohol

AMS 1432 potassium acetate deicing/anti-icing fluid

MIL-C-87252 coolant

Amerex AFF fire extinguishing foam