

MISSION-CRITICAL
INTERCONNECT
SOLUTIONS



GLENAIR ITALIA (BLQ)

Mission-Critical Interconnect Solutions

Aerospace-Grade, MIL-Grade, Hi-Rel Industrial



GLENAIR ITALIA (BLQ): MISSION-CRITICAL INTERCONNECT SOLUTIONS

The premier manufacturer and supplier of mission-critical military, aerospace and harsh-industrial-grade interconnect technologies for the European marketplace. Strategically located in Bologna, Italia, the 21.000+ sq. meter facility offers interconnect engineering, warehousing, injection molding, machining, plating, and electrical and fiber optic harness assembly.

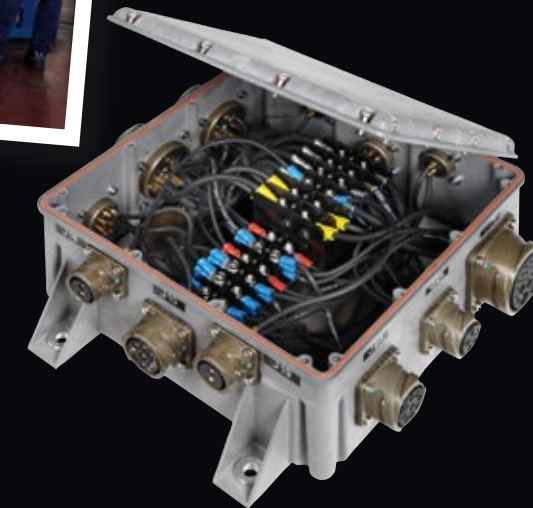
Total vertical integration includes in-house contact fabrication



In-house rubber and thermoplastic injection molding (far left) plus a massive CNC machining center (left) provides Glenair Italia with all the resources required to fabricate interconnect technologies from scratch without dependence on outside suppliers



In-house test lab with capabilities for both high voltage as well as high speed signal product qualification. Credentials include ISO 17025 and others



Glenair Italia hosts the most modern and comprehensive interconnect plating facility in Europe. RoHS-Compliant and MIL application substitutes for CAD are a specialty





Ultra high-performance
military-aerospace
grade interconnect
technologies



From air and ground missile launch interconnects to pure air gas assemblies and high-voltage, high-altitude connectors, Glenair BLQ's Aerospace group is positioned to address some of the most difficult and mission-critical interconnect challenges in the manned and unmanned aerospace industry.

UNIQUE CAPABILITIES

- High-voltage electric power distribution connectors for aircraft and space propulsion applications
- Flight line and ground support interconnect technologies
- Cockpit and aircraft headlight interconnects
- Surface-to-air and air-to-air missile launch umbilicals
- High-voltage partial discharge testing

No ITAR restrictions, 100% designed and
manufactured for EU mil/aero applications



WEAPONS STORES, UMBILICALS, AND MISSILE-LAUNCH INTERFACE CONNECTORS



MIL-DTL-1760 type

New innovative designs

Discrete connectors and harnesses

IN-HOUSE HERMETIC CONNECTOR DESIGN AND MANUFACTURE



Rectangular configurations

Bulkhead feed-thrus

Circular MS type

Custom configurations

**PURE AIR HIGH PRESSURE COOLING
GAS TUBE ASSEMBLIES**



Complete systems and ancillaries for IR guided weapons and weapons ejection applications

**SPACE-GRADE
INTERCONNECTS**



VG 95328 (M26482 type) connectors with outgassing processing

SUPERNINE PWM



Pulse Width Modulation 3kV connectors



From military land vehicles to
subsea/navy applications—including
signal, power, and fiber optic
technologies.



Special application capabilities include fiber optics and high-frequency RF

CORE CAPABILITIES

- VG-qualified solutions including VG95234 and VG95328
- MIL-DTL-26482 Series I type and derivatives
- MIL-DTL-5015 type reverse-bayonet
- Motor start vehicle and generator connectors
- Subsea / navy fiber optic and high-voltage assemblies
- SuperSeal™ RJ45 and USB field connectors
- Radar and comms shelter assemblies

SUPERSEAL™ FIELD RJ45 AND USB SOLUTIONS



MIL-DTL-5015 type reverse-bayonet RJ45

MIL-DTL-5015 type reverse-bayonet USB

Wide range of wire terminations

MIL-DTL-26482 SERIES I TYPE AND DERIVATIVES



Stainless steel configurations

Marine bronze solutions

GLASS-SEALED
Hermetic
CONNECTORS

Special EMI filter and hermetic designs

ARCTIC-GRIP RUBBER OVERMOLDED SOLUTIONS



Fully tooled and available for the wide range of Glenair BLQ M-Grade connector solutions

VG96929 SINGLE-POLE POWER

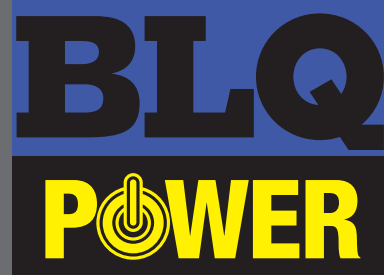


VG-qualified and Glenair BLQ signature solutions

INTEGRATED / WIRED JUNCTION BOXES



High-speed Ethernet and other custom solutions



Ultra high-performance /
industrial-strength power
and signal connectors



Fully-qualified Appendix B facility manufacturing
nuclear and oil/gas industry solutions including
inside containment connectors, subsea high-
voltage transmission connectors, and turnkey
cable assemblies



OCTOBYTE SERIES RUGGEDIZED ETHERNET CONNECTOR

**MIL-DTL-5015 AND 26482
"SUPER" DERIVATIVES**



Tested for compliance according to
EN50173-1 standards for CAT5E and CAT7



Example: military ground vehicle RF
communication solution



Ethernet Cat7A contacts Ethernet Cat5 contacts Coax contacts Ethernet MVB - WBT contacts

VG QUALIFIED AND GLENAIR SIGNATURE
High-performance industrial strength
power and signal connectors



**SUPER ITS™ HIGH-PERFORMANCE
REVERSE BAYONET**



Higher temperature and ampacity rating with
rigid insert and mechanical contact retention

ITS-Ex HAZARDOUS ZONE CONNECTORS



IECEx / ATEX qualified explosive zone 5015 type reverse-bayonet connectors for
Group IIC, Temperature Classes T6 and T5, Zones 1 and 2

NUCLEAR INDUSTRY



Series NGITS reverse-bayonet
power and signal connectors for Class 1E
harsh nuclear applications

SUBSEA



Special Stainless Steel / Bronze coupling
nut series for mixed power, signal, and
fiber optic subsea applications

FIREWALL



Series ITK high-temperature stainless steel
connectors with high-temperature
ceramic inserts for firewall applications

SPECIAL-PURPOSE POWER AND SIGNAL CONNECTORS



ITS-RG RadGrip
rubberized coupling nut
series

15kV high-voltage
dry-mate underwater
connector

Single-pole high-current /
medium voltage
connectors



Rail and mass transit interconnect solutions optimized for life-of-system reliability and performance

POWER CONNECTORS
For original equipment applications as well as MRO/upgrade programs
IRIS certified for rail applications



CIRCULAR INDUSTRIAL/RAIL POWER AND SIGNAL CONNECTORS: 5015 TYPE DERIVATIVES



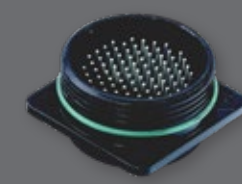
Series ITS Reverse-Bayonet



Series ITH Rigid Insert



Series IT Threaded Coupling



Series ITZ Trapezoidal Coupling



Series FR-ITS Fire-Resistant



Seacrow Marine Bronze



Multi-Pin High Voltage with Integrated Switch



Series 500 Single-Pole High Voltage



Series IGE Single-Pole Low Voltage



Winged ITS 901 Series

HIGH-SPEED / RUGGEDIZED CONNECTORS FOR INDUSTRIAL AND RAIL APPLICATIONS



SuperSeal™ with RJ45 Ethernet



Series CX High-Speed Coaxial



Octobyte™ Ethernet Contact



Series IFO High-Speed Fiber Optic

HIGH-VOLTAGE SINGLE AND MULTIPOLE POWER CONNECTORS AND ULTRA-FLEXIBLE CABLING



Glenair high-power flex-mount connector with TurboFlex™ cable, locking/lever coupling, and flexible standoff



Series IRT rectangular multipole high-voltage traction motor connectors



UJ Series power joint connector system



Innovative tool-free locking and latching mechanisms

SPECIALTY RAIL CAR, TRACKSIDE, AND INFRASTRUCTURE CONNECTOR SOLUTIONS



Micro-switch connectors



“one cable - two contacts” series

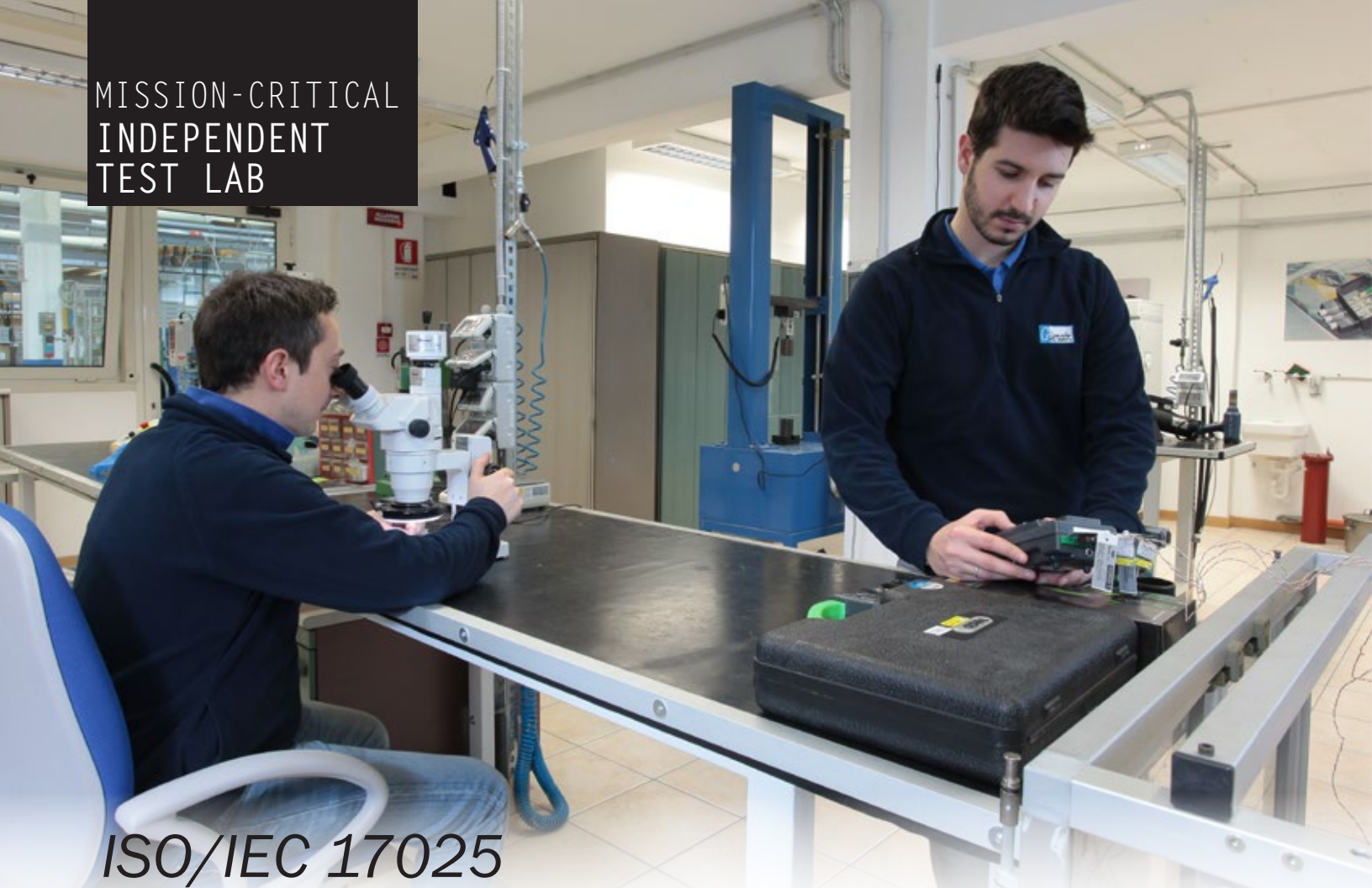


ERTMS European rail connectors



“Stinger” system connectors

MISSION-CRITICAL
INDEPENDENT
TEST LAB



ISO/IEC 17025

Environmental Test Laboratory

Fast and reliable IEC qualified assessment laboratory for electronic components (IECQ)

Environmental testing, consisting of the complete range of mechanical, electrical and environmental stress factors that affect electronic equipment, cabling, and systems is now available from Glenair's IEC/IECQ certified testing laboratories. Test engineers and technicians follow qualified processes, and report generation protocols to deliver timely and professional environmental testing services. As an interconnect component manufacturer and wire and cable assembly supplier, Glenair is well-versed in all aspects of qualification testing including corrosion resistance, solvent resistance, electromagnetic compatibility, dielectric withstanding voltage, current rating and so on. Our test laboratories are equipped with current-generation equipment, and are maintained in accordance with industry best practices and certification agency requirements. Perhaps most importantly, Glenair environmental test services are offered with accelerated lead times—from initial quoting to final test report delivery. Please contact the factory for more information

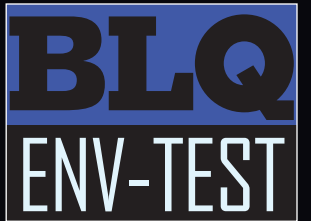


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- Mechanical / dynamic testing for fiber optic systems, electrical components, wiring harnesses
- Broad spectrum of electrical testing (resistance, current rating, EMC shielding and more)
- Heat, cold, and thermal shock testing
- Corrosion and solvent resistance testing
- Fast turnaround on quotes and testing services
- Decades of experience



Mechanical / Dynamic Testing IEC QUALITY ASSESSMENT SYSTEM FOR ELECTRONIC COMPONENTS (IECQ)



MECHANICAL / DYNAMIC TESTING

ELECTRICAL AND ELECTRONIC COMPONENTS/DEVICES TESTED
Electrical/Fibre optic connectors
Electro/Mechanical Devices
Wiring Harnesses
Switches
Aerospace Components & Equipment
Automotive Components & Equipment
Railway Components

VIBRATION-SINUSOIDAL (Ambient temperature)	
MECHANICAL/DYNAMIC TESTS	STANDARD
Freq. Range: 5 to 2000 Hz	BS EN/IEC 60068-2-6
Peak thrust: 8,90kN	EIA-364-28
Max pk/pk displacement: 50mm	

VIBRATION/RANDOM (Ambient temperature)	
MECHANICAL/DYNAMIC TESTS	STANDARD
Freq. Range: 5 to 2000 Hz	BS EN / IEC 60068-2-64
Peak thrust: 5,76 kN	EN 61373
Max pk/pk displacement: 50mm	EIA-364-28

SHOCK (Half sine, Sawtooth, and Trapezoidal waveforms)	
MECHANICAL/DYNAMIC TESTS	SPECIFICATION APPLICABLE
Peak thrust : 17,36kN	BS EN / IEC 60068-2-27
	EIA-364-27
	EN 61373

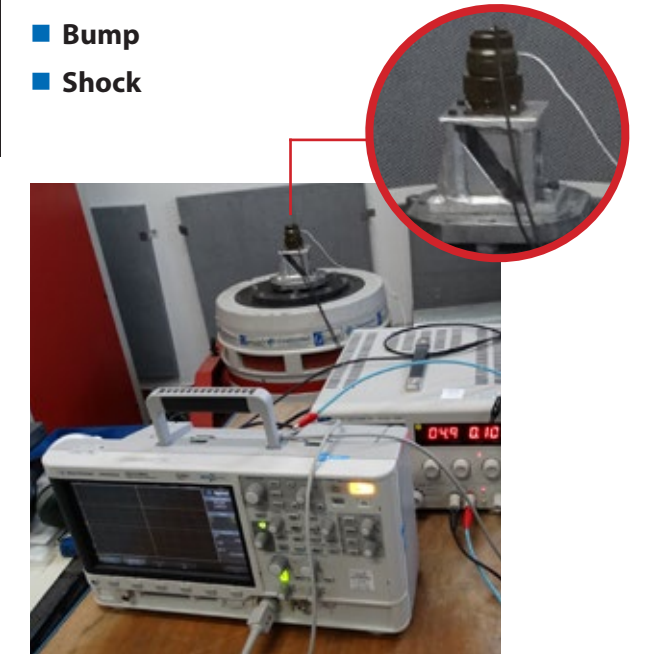
BUMP (Half sine)	
MECHANICAL/DYNAMIC TESTS	STANDARD
Severity: 20/40 gn	BS EN / IEC 60068-2-29:1993

DISCONTINUITY (During vibrations)	
MECHANICAL/DYNAMIC TESTS	STANDARD
1µs Electrical discontinuity	EIA-364-28

Controlled vibration and shock testing ensures electrical and electronic components can withstand specified forms of dynamic stress encountered during operation and shipping.

Available Tests:

- Vibration sine
- Vibration random
- Bump
- Shock



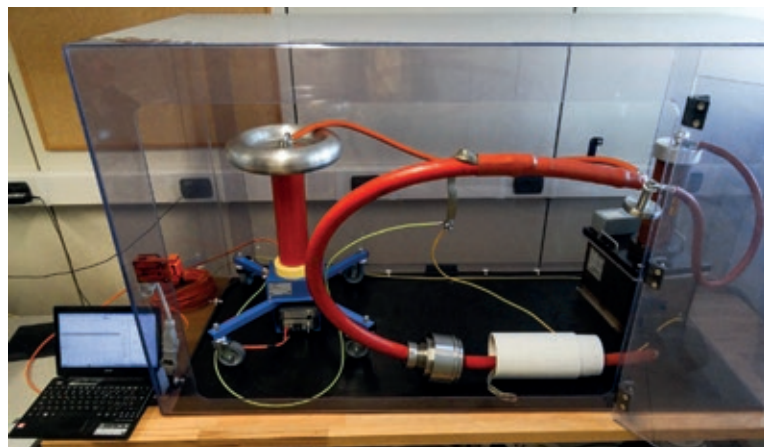
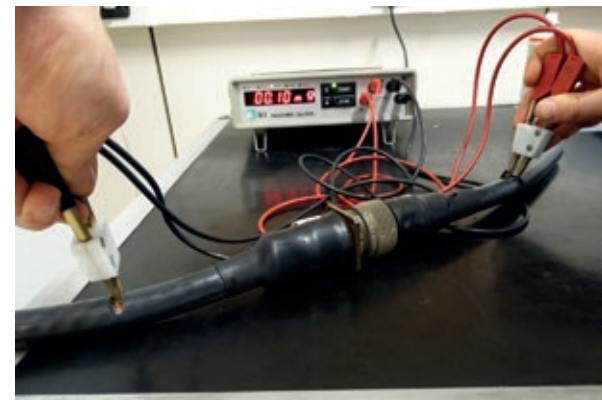
ELECTRICAL / EMC TESTING

ELECTRICAL	
EMC	SPECIFICATION APPLICABLE
Shielding effectiveness	BS EN / IEC 62153-4-7
Tiaxial Method	
9 kHz - 2,6 GHz	
CONTACT RESISTANCE	SPECIFICATION APPLICABLE
DC Voltage	BS EN / IEC 60512-2-1 BS EN / IEC 60512-2-2 EIA-364-06
20 mΩ - 200 kΩ	
1 μΩ	
INSULATION RESISTANCE	SPECIFICATION APPLICABLE
DC Voltage	BS EN / IEC 60512-3-1 EIA-364-21
1 - 1500 V	
100 Ω - 2000 TΩ	
DIELECTRIC WITHSTANDING VOLTAGE	SPECIFICATION APPLICABLE
AC Voltage 50 Hz : 0 - 50 kV	BS EN / IEC 60512-3-1 EIA-364-21
TEMPERATURE RISE AND CURRENT DE-RATING	SPECIFICATION APPLICABLE
DC Current : 0 - 2000 Ampere	BS EN / IEC 60512-5-1 BS EN / IEC 60512-5-2 EIA-364-70
PARTIAL DISCHARGE	SPECIFICATION APPLICABLE
Test voltage: 0 - 50KVAC Max I. Leak: 60mA	IEC 60270:2000 BS EN 60270:2001
Test voltage: 0 - 10KVAC Max I. Leak: 300mA	
PD event time resolution: < 2 ns	
PD resolution: 0,01 pC	
Minimum PD level: 3 pC	
PD level accuracy: ± 2 % of calibrated PD value	
Center frequency 0 Hz ±32 MHz	
Frequency domain bandwidth: 9 kHz, 40 kHz, 100 kHz, 160 kHz,300kHz, 650kHz, 1MHz, 1.5MHz	

Electrical / EMC Testing services cover the complete range of performance requirements for interconnect cabling and electronic components. Glenair brings years of EMC design engineering experience into the testing process, ensuring equipment under test is always correctly fixtured and prepared for the most accurate results.

Available Tests:

- Contact resistance
- Dielectric withstanding voltage (DWV)
- Current rating
- Insulation resistance
- EMC shielding
- Partial discharge



TEMPERATURE / HUMIDITY TESTING

CLIMATIC (High Humidity - Constant)	
DAMP HEAT STEADY STATE	SPECIFICATION APPLICABLE
Temp. Range : +10°C to +90°C	BS EN / IEC 60068-2-3 EIA-364-31
Humidity Range : 10 to 98%rh	
Chamber Size: 690mmx600mmx610mm 500mmx610mmx500mm	
DAMP HEAT-CYCLIC	SPECIFICATION APPLICABLE
Temp. Range : +10°C to +90°C	BS EN / IEC 60068-2-30 EIA-364-59
Humidity Range : 10 to 98%rh	
Chamber Size : 650mmx500mmx600mm 800mmx600mmx500mm	
DAMP DRY COLD	SPECIFICATION APPLICABLE
Min Temp : -75°C	BS EN / IEC 60068-2-1 EIA-364-59
Max chamber size : 800mmx600mmx500mm	

CLIMATIC (High Temperature-Constant)	
TEMPERATURE-DRY HEAT	SPECIFICATION APPLICABLE
Maximum Temp : +300°C	BS EN / IEC 60068-2-2 EIA-364-17
Chamber Size : 500mmx600mmx600mm	
THERMAL SHOCK	SPECIFICATION APPLICABLE
Temp. Range : -60°C to +300°C	BS EN / IEC 60068-2-14
Manual (two chambers method)	
Gradual in air	
CHANGE OF TEMPERATURE	SPECIFICATION APPLICABLE
Maximum Temp : +180°C	BS EN / IEC 60068-2-14
Minimum Temp : -75°C	
Maximum rate of change : -75°C to +180°C: 5°C/Min +180°C to -75°C: 2,5°C/Min	

Temperature and Humidity Testing is performed using industry-standard and IEC accepted practices of temperature cycling and humidity exposure. New and high-quality testing equipment ensures accurate results.

Available Tests:

- Dry heat
- Dry cold
- Damp heat steady state
- Damp heat cyclic
- Thermal shock



SALT SPRAY / CORROSION TESTS

CORROSION	
SALT/SO2 SPRAY (FOG)	SPECIFICATION APPLICABLE
Max chamber size : 500 Lt	BS EN / IEC 60068-2-11 EIA-364-26



MISSION-CRITICAL INTERCONNECT SOLUTIONS

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