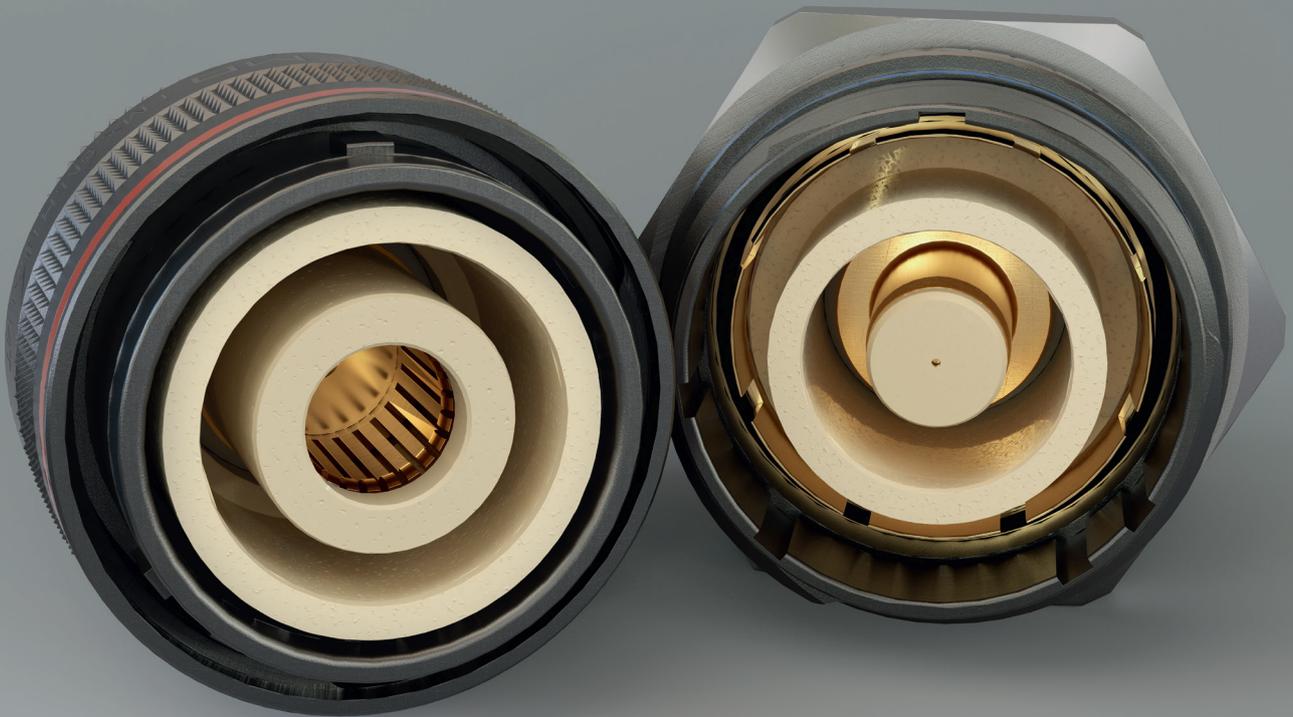


M SERIES HIGH POWER



Up to 430A maximum rated current
Ultra compact, light and watertight
Unipole & Multipole configurations



State-of-the-art High Power Interconnect Solution

Rapidly improving battery technologies, capacities and cost as well as increasing tendency towards autonomous/driverless vehicles have created a clear trend towards increased power requirements for connectors in the automotive, transportation, defense, aerospace, robotics and motorsport industries.

The new LEMO M series ratchet coupling High Power connectors were developed to satisfy the most stringent connection requirements for High Power distribution of electronic devices and electric drive vehicles - essentially any system with electrical motors, batteries and inverters where high torque may be required for short or longer period.

This new LEMO M series High Power portfolio constitutes one of the most comprehensive, compact, light, rugged, safe and completely waterproof reliable interconnect solution set available on the market for high power requirements.

HARSH
ENVIRONMENTS
YOUR RUGGED SOLUTIONS



Product safety notice & disclaimers:

Please read and follow all instructions specified on <https://www.lemo.com/en/about-lemo/product-safety-notice-and-disclaimers>

Leading-edge High Power connectors based on LEMO's proven harsh environment M series

LEMO's new High Power connectors have been specifically designed using its field proven, robust, light & compact M series bodies. Those very high performing connector shells have then been combined with newly developed insulators and state-of-the-art efficient gold-plated high power contacts.



New state-of-the-art High Power contacts

LEMO leveraged its integrated design and manufacturing core capabilities to develop new gold plated copper crimp contacts.

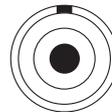
The unique proprietary contact design maximizes the contact surface to carry the highest current while minimizing heat build-up.

- Low contact resistance limiting joule heating
- High reliability
- Increased surge protection
- Protective cap meets user safety requirements
- Low mating forces
- High mating cycle durability (3000+)

Diameter	Wire section	
	∅ (mm)	mm ² / AWG
4	10	8
5	16	6
6	25	4
8	35/50	2/1

Insert configurations

Accommodating conductors from 10 mm² (8 AWG) to 50 mm² (1 AWG), the LEMO's High Power connectors come in various unipole & multipole configurations for single and three-phases requirements.



Key features

As a result, these new configurations ensure high quality and reliable high power interconnect solutions for harsh environments where mission critical solutions are needed, with the following key features:

- Various sizes & configurations providing maximum rated current ranging from 140A to 430A
- 360° screening for full EMC shielding
- Wide temperature range -55°C to 200°C
- Broad range of lightweight aluminium shell models
- Compact design for space savings
- Ratchet-coupling mechanism
- High shock and vibration resistance
- Oil and fuel resistant
- Sealed to IP68 mated; IP68 unmated as options
- Blind mating / keying / colour coding
- Reverse gender configuration option
- Scoop proof & IP2X finger protection
- Alternative housing material: Brass for 1000 hours salt fog resistance
- Anthracite Aluminium for low reflections
- Tested to MIL Standards (MIL-STD-810F)
- Threaded option for MIL-DTL-38999M backshell

Main Benefits

Quick, blind and safe mating:
3/4 turn to seat with visual aid
and matching colour code rings

Higher rated current through smaller
footprint enabling ultra compact &
lighter integrations for high power requirements

Full user safety thanks to
touch proof protection on
high power contacts



3000+ mating cycles
guaranteed providing longer
service life & optimized cost
of ownership

Reliable and proven performance in harsh environments
with a broad temperature range

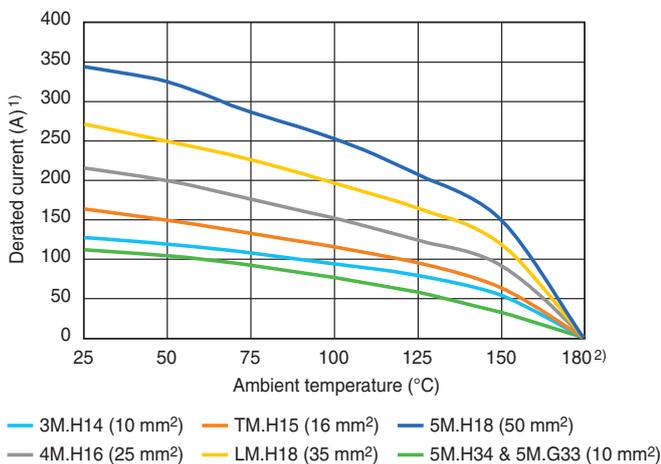
Broad range of models, sizes and configurations,
including IP68 mated and unmated, for a wide array
of demanding applications

Proven high performing solutions

For any given conductor cross section between 10 mm² and 50 mm², LEMO's High Power connectors, thanks to their unique design, carry higher rated/derated currents through smaller connector sizes than equivalent solutions on the market.

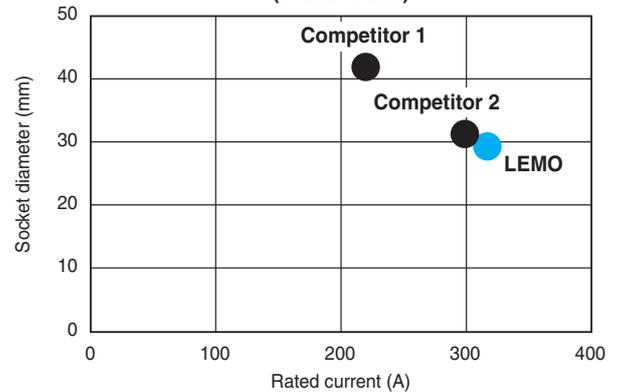
This allows for higher density and lower spacing integration on any device and reduces weight.

M series High Power Derating curves



Note: ¹) derated current = max rated current x 0.8 (safety factor).
²) maximum cable temperature specification.

Rated current vs. connector size comparison
(35mm² cable)



Applications



Aerospace



Automotive



Defense



Industrial &
Robotics



Unmanned
vehicles

About LEMO

LEMO is the acknowledged leader in the design and manufacture of reliable high quality interconnect solutions. LEMO's Push-Pull and ratchet-coupling connectors are found in a variety of challenging application environments including medical, industrial & machines, automotive, test & measurement, defense, audio-video and telecommunications.

LEMO has been designing precision connectors for more than 75 years. Offering over 90,000 combinations of product that continue to grow through custom specific designs, LEMO and its affiliated sister companies REDEL, NORTHWIRE and COELVER currently serve more than 150,000 customers in over 80 countries around the world.



Cable assembly

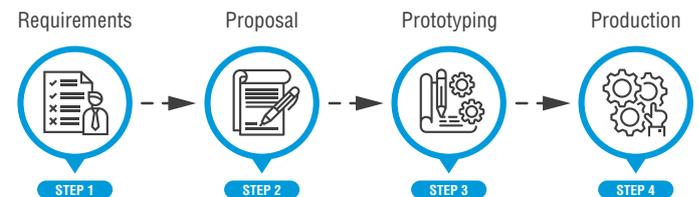
LEMO is renowned for the quality of the connector solutions and this is matched by the cable assemblies supplied. Commitment to quality is supported by 100% testing of all assemblies. Capabilities include potting and overmold to support rapid prototype and development through to high volume series production. LEMO subsidiaries are equipped with modern equipment, much of it custom built specifically for customer needs. These include cut and strip machinery, robotic assembly and automatic test equipment to ensure maximum reliability and confidence in LEMO cable assemblies.

Custom solutions

Contacts, connectors and integrated cable assembly solutions meet the most demanding technical market requirements. LEMO's connector solutions and value-added services are characterized by their exclusive focus on meeting the customer's needs.

- Precise implementation of application-specific requirements regarding design, functionality, cost and exclusivity
- Custom connector solutions derived from standard products
- One-to-one local expertise
- Quick prototyping and production turn around

Custom interconnect solutions based on your requirements



Discover the wide range of configurations in our catalog

