# Amphenol<sup>®</sup> Application Note



## Amphe-GTR

### BACKGROUND

Modern servers capable of millions of transactions per day consume significant amounts of power. That power needs to be transmitted to the server in a safe and reliable manner. The interconnects used in today's modern servers need to be as safe and reliable as the servers themselves while conducting the amperage levels necessary to manage those transactions.

#### PROBLEM

The interconnects typically used for these applications will need to be sufficiently rugged to sustain repetitive mating cycles as well as the abrasion produced by their position on the computer room floor. The aesthetic appearance of the typical military derivative connector does not appeal to the modern design of the server. Metal connectors are too heavy and require too much mating force for technicians to deal with. What the installer is looking for is a quick mating, reliable connector that meets today's RoHS requirements and is simple to terminate in the field with a minimum of tools. These connectors must be able to accommodate up to 120A per circuit and be UL/CSA approved. Typical multi-conductor power cables used in these applications are rigid, heavy and require a strain relief as well as IP67 environmental sealing.

### AIO SOLUTION

The Amphe-Power<sup>™</sup> connector series solves the above problems with our Amphe-GT-R. This connector series is molded from a strong but lightweight high performance composite material. The GT-R is listed to the UL/CUL 2238 Standard, Control number 19VP and meets all the specifications for high power process control and server applications. The incorporation of RADSOK<sup>®</sup> socket technology allows an increased current rating of up to 120A per circuit. Compression (setscrew) termination to 4/6AWG or 8/10AWG conductors allow for easy field replacement of pins and sockets. Standard PG threads provide the IP67. environmental rating. Closed entries on the socket side provide the "Finger Touch" protection necessary on high amperage circuits.