



MPE
Quality, Reliability, Performance

Company Bulletin

for EMC, EMP, HEMP & TEMPEST Protection

Issue 19



16A TEMPEST power line filter manufactured by MPE for the Royal Navy



Astute Class submarine



The new Royal Navy Type 26 frigate

Launch of new TEMPEST filters for navies

In response to recent market trends and direct enquiries, MPE has now developed a range of TEMPEST protection filters specifically for installation within naval applications. This follows on from the “floating earth”, ultra-low-leakage power line filter range developed by MPE during 2017, as reported in Company Bulletin Issue 12.

The new range of ground-breaking filters comprises high-performance two-, three- and four-wire variants with low line-to-earth current leakage. The filters support system and equipment compliance with the overarching requirements of NATO TEMPEST SDIP-27 and SDIP-29 Standards and provide high levels of attenuation across the full frequency spectrum. They meet the line capacitance limitations of DEF-STAN 59-411 and MIL-STD-461 and are designed to be compatible with a ship’s integral DC leakage detection systems.

The new filters have been developed for any naval application where TEMPEST protection is a requirement, typically briefing rooms, radio rooms, electronic warfare hubs, and navigation or command-and-control locations.

Indeed, MPE has many years of accumulated expertise and experience in manufacturing low-leakage filters, for use in applications such as secure communications systems, computer installations, portable screened enclosures and mobile tactical shelters.

The new range of TEMPEST protection filters includes models from 16A through to 125A, providing high levels of attenuation from 100kHz right up to 10GHz – and with exceptionally low line-to-chassis leakage properties from 16.6mA down to 3.6mA.

Mechanically these filters utilise stainless steel enclosures for enhanced corrosion resistance in marine environments, and are finished with high-quality epoxy paint. They have a very high resistance to shock and vibration, and are designed to have an extremely long service life.

Incorporating the same field-proven, ultra-high-reliability components as have been used for decades in MPE’s other power line filter ranges, these ultra-low-leakage filters have already been designed into the highest profile marine platforms such as the Royal Navy’s Astute Class submarines and their new Type 26 frigate as pictured here.

You can download your personal copy of the comprehensive, six-page datasheet on MPE’s new TEMPEST power line filters for marine applications from [here](#).