



MPE bolsters HEMP protection range

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UK-based fuze and filter specialist MPE Ltd has developed a new series of 1,200A-rated filters designed to protect critical infrastructure from the threat of high-altitude electromagnetic pulse (HEMP), which is being taken increasingly seriously by military and government operators.

A statement from MPE noted that it believes the filters are the first to fully comply with the "10A residual let-through current requirement of MIL-STD-188-125 Parts 1 and 2", which the filters were specifically designed to meet.

One of the novelties of the new filters is their thermal management, which overcomes a long-standing weakness of high-power HEMP protection using a self-healing, metallised plastic film capacitor material and a single 1,200A circuit "with no current-sharing elements". This sidesteps issues related to the traditional route of paralleling of filters rated at a lower power to increase protection. The filters also feature solder-free capacitors to obviate the potential for damage in intensified heat.

HEMP is periodically cited as a threat posed by 'rogue' states or terrorist organisations with access to nuclear weapons and the means to launch them to high altitude. Although a study by the UK House of Commons Defence Committee (HCDC) in early 2012 considered that kind of attack distinctly unlikely, it did urge the UK government to take action to protect against the possibility (and also that posed by natural EMP events), and give particular attention to ensuring the robustness and resilience of the country's strategic deterrence.

A spokesman from MPE told *IHS Jane's* that "a large suite of MPE HEMP filters has recently been installed within a UK MoD [Ministry of Defence] installation. This series of filters comprised many current ratings up to and including a number of the new MPE 1200A HEMP solutions. The MPE filters were installed as part of an upgrade programme to the existing HEMP shield, to ensure that the installation is fully compliant to MIL-STD-188-125. The entire suite of MPE HEMP filters is now commissioned and has been working under full operational loads for a number of weeks."



MPE's new 1,200A HEMP filter. (MPE)

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