



All-terrain vehicle fitted with MPA-540 ACU

## Key Features

- Ruggedized design for military applications
- Used with military vehicles which travel across rough terrain
- Compact design, constructed from corrosion resistant stainless steel
- Externally mounted
- Designed to operate in extreme conditions
- Designed to meet stringent RFI/EMC requirements
- Can be integrated with NBC filtration systems
- Quiet operation
- In service with military forces throughout the world
- Easy, low maintenance design
- Available in various power supply options
- Painted to customer's specific requirements



## Air-conditioning and Cooling Systems

### MPA-540 Externally Mounted

Designed specifically to be mounted externally on military shelters transported by 'high mobility' vehicles the MPA-540 is a 'ruggedised' air conditioning unit currently in-service with the UK MoD and other forces around the world. Providing a constant flow of filtered 'fresh-air' into the shelter it can be closed-off if required when the shelter is unmanned, whereupon air is conditioned/cooled and recirculated.

Monitoring and display of internal shelter temperature, mode status and fault alarms, is by a separate control unit which also allows the ACU to be operated in 'AUTO' mode via an electronic thermostat or 'Heat' or 'Cooling' modes can be selected manually.

The control unit can be mounted within a 19" rack system, or as customer requirements. It is designed and tested to operate in demanding ambient temperature conditions, as defined in DEF STAN 00-35 climatic categories A1 to C0.

Constructed from stainless steel with all air-flow apertures fitted with 'honeycomb' EMC filters and all panels fitted with EMC gaskets, it complies fully with the stringent EMC specifications of DEF-STAN 59-411, Land Class 'A'.

The bulkheads between internal and external areas within the unit are sealed 'air-tight' in-order that the unit can be operated in conjunction with Nuclear Biological and Chemical (NBC) filtration units. The refrigeration circuit is 'hermetically' sealed for 'leak free' reliability.

Various paint finishes are available including Infrared reflective (IRR) Matt paint and Chemical Agent Resistant Coating (CARC) Standard 80-208. Available in both 400Vac 3 Phase or 230Vac single phase, it is NATO codified and fully supportable with spare parts.

### About CMCA

CMCA Ltd specialises in the design and manufacturer of precision military air-conditioning and power generation technology, proven in the most extreme environments on earth.

Facts and Figures

**Overall Dimensions (nominal):**

Width: 605mm  
 Height: 1050mm  
 Length: 635mm

**Weight:** 180kg

**Power Supply:** 230Vac  
 1 phase, 50Hz  
 400Vac  
 3 phase, 50Hz

**Cooling Capacity (nominal):** 5.4kW @+55°C  
 6.5kW @+35°C

**Heating Capacity (nominal):** 3.0kW

**Evaporator Airflow (nominal):** 1,500m<sup>3</sup>/hr

**Operating Conditions:** -20°C to +55°C

**Refrigerant Type:** R134a

**RFI/EMC Capabilities:** Designed to meet Def Stan 59-411

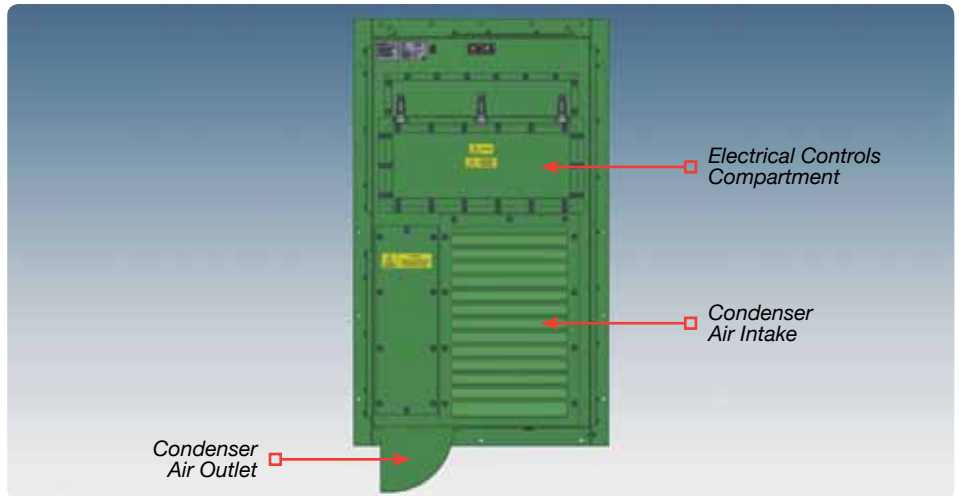
**NBC:** Designed for integration/use with CMCA's range of NBC filtration systems

Further Information

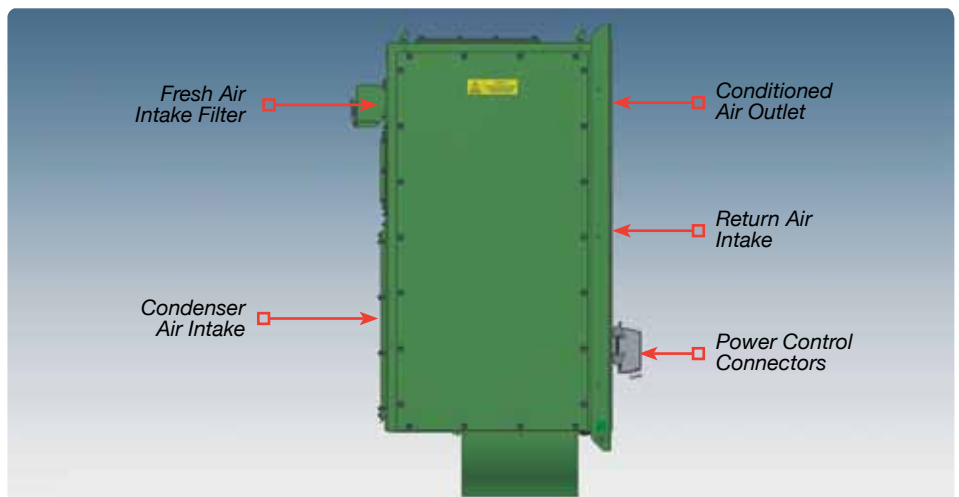
For a full technical specification on this or any other CMCA product please contact:

MPA-540

Front Elevation



Side Elevation



Plan View

