

# marstair

A Division of **TEV** Ltd

# marine/bespoke split applications



## MARINE/BESPOKE EVAPORATORS, CONDENSERS AND SPLIT AIR CONDITIONING SYSTEMS

SUITABLE FOR A MULTITUDE OF APPLICATIONS  
SUCH AS COASTAL, EXTREME HIGH AND LOW  
AMBIENTS, HARSH DUSTY ENVIRONMENTS  
AND SMALL & LARGE VESSELS.



## BESPOKE OPTIONS

- A wide range of internal unit options
- A wide range of optional extras
- A wide range of case and heat exchanger material options
- 3 phase no neutral electrical option
- High IP rating fans and electrical enclosures
- BMS Alarm
- Optional fitted isolator
- Wide fin pitch heat exchanger
- Coil Guard
- Hot gas bypass capacity regulation valve
- Compressor Crankcase Heater
- External ambients up to 55°C
- High wind support brackets



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## PRODUCT VERSATILITY

All Condensing units are supplied with the following as standard:-

- Fan Speed Control
- Suction and Liquid Service Valves
- HP and LP Auto Switches
- Low Ambient Start Timer
- Three Minute Delay Timer
- Random Start Timer



### OUTDOOR UNITS

#### MCU+ and MHPUL(E)

A large range of cool only and heat pump condensing units, excellent for mix-matching with bespoke evaporators (2.5 to 20kW). Available for use with a wide range of refrigerants.

#### DCU+ and DHPUL(E)

Ducted condensing and heat pump units for where external installations are not an option.



### OUR INDOOR UNITS COME IN 4 VERSIONS

#### WALL MOUNTED UNITS

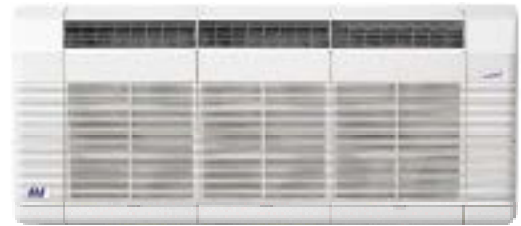
##### WM UNITS

These are for high level wall mounting and have high level front discharge. Total cooling range 5.4 to 9.7kW



##### IMPACT UNITS

The Impact unit provides cooling duties from 2.1kW to 5.4kW and has an option of forward or upward discharge



#### DXD CONCEALED DUCTED UNITS

A concealed ducted evaporator designed for horizontal ceiling void applications. Cooling duties from 3.5 to 10.4kW. Highly competitive & exceptionally flexible.



#### CEILING CASSETTES

Available in CC600 & CC875 sizes. The CC600 unit is designed to fit standard 600x600mm ceiling grid. Total cooling range: CC600 2.1 to 6.3kW & CC875 7.1 to 13.9kW.



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## ELECTRICAL OPTIONS

A VARIETY OF ELECTRICAL OPTIONS TO SUIT STANDARD AND UNUSUAL APPLICATIONS

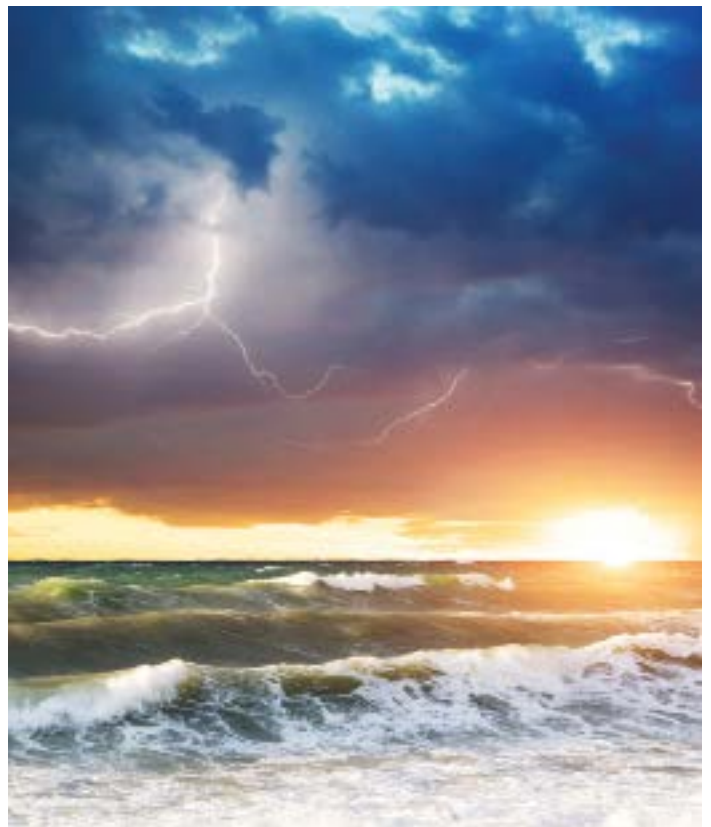
- Supply Options  
The three phase no neutral electrical option is available for applications with a local 3 phase generator. The small single phase requirement (Maximum 5A @ 240V) for the fans and controls are generated through transforming 400V between phases down to 230V using a specially designed transformer within the condensing unit.
  - 1 Phase
  - 3 Phase with Neutral
  - 3 Phase no Neutral
  - 50 or 60Hz
- High IP rating fans and electrical enclosures are available for higher fluid and dust ingress protection
  - Moisture & dust ingress protection IP44 or IP65
  - Fan Motor IP44 or IP65
- For integration into modern building management systems
  - BMS Run
  - BMS Alarm
- A convenient option for saving time on site or where space is not available for external isolation
  - Fitted Isolator



## ABNORMAL CONDITIONS

A WIDE RANGE OF OPTIONS TO SUIT THE EXTREME ENDS OF THE AMBIENT TEMPERATURE SCALE

- External Ambient  
Systems, condensing units and evaporators available for use with R134A for exceptionally high external ambient conditions
  - 40°C Maximum
  - 55°C Maximum (R134A Only)
- Coil Guards - For heat exchanger protection against direct impacts
- Hot Gas Bypass Capacity Regulation Valve - for a more precise capacity control especially when cooling at exceptionally low external ambients
- Compressor Crankcase Heater - for compressor protection at exceptionally low ambients
- Wide Fin Pitch to Reduce Blocking - for environments where the heat exchanger is expected to block up rapidly, such as cement works
- High Wind Support Brackets



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## CORROSION PROTECTION

A WIDE RANGE OF CASE AND HEAT EXCHANGER MATERIAL OPTIONS FOR CORROSIVE MARINE ENVIRONMENTS.

Coastal, Extreme High and Low Ambients, Harsh Dusty Environments and Large & Small Vessels.

- Case Material Options
  - Plastosol Coating
  - Stainless Steel
- Heat Exchanger Options
  - Copper Tube Aluminium Fins
  - Corrosion Protective Coating
  - Copper Tube & Fins



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