

marstair marine/bespoke selection sheet



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

marstair marine/bespoke full system selection sheet

QUANTITY									
RATED EXTERNAL AMBIENT (HEATING)		°C	RATED INTERNAL AMBIENT (HEATING)		°C				
REQUIRED TOTAL HEATING DUTY		kW	MAXIMUM AVAILABLE SIZE IS 20kW R407C & 12kW R134A COOLING AT NEMA CONDITIONS						
RATED EXTERNAL AMBIENT (COOLING)		°C	RATED INTERNAL AMBIENT (COOLING)		°C				
REQUIRED TOTAL COOLING DUTY		kW	MAXIMUM AVAILABLE SYSTEM SIZE IS 20kW R407C & 12kW R134A COOLING AT NEMA CONDITIONS		REQUIRED SENSIBLE COOLING DUTY		kW		
SYSTEM TYPE	COOL ONLY	<input type="checkbox"/>	HEATPUMP (R407C ONLY)	<input type="checkbox"/>	COOL & ELECTRIC HEAT	<input type="checkbox"/>	MINIMUM -10°C FOR HEATPUMP -20°C FOR CONDENSING UNIT		
BMS RUN	YES	<input type="checkbox"/>	NO	<input type="checkbox"/>	BMS ALARM	YES	<input type="checkbox"/>	NO	<input type="checkbox"/>

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

All Evaporator units are supplied with De-Ice Thermostats

CONDENSING UNIT

CASE MATERIAL	PLASTOSOL COATING <input type="checkbox"/>		STAINLESS STEEL <input type="checkbox"/>							
HEAT EXCHANGER	COPPER TUBE ALUMINIUM FINNS <input type="checkbox"/>		CORROSION PROTECTIVE COATING <input type="checkbox"/>		COPPER TUBE AND FINNS <input type="checkbox"/>					
WIDE FIN PITCH TO REDUCE BLOCKING	YES	<input type="checkbox"/>	NO	<input type="checkbox"/>	COIL GUARDS	YES	<input type="checkbox"/>	NO	<input type="checkbox"/>	
ELECTRICS	1 PHASE	<input type="checkbox"/>	3 PHASE WITH NEUTRAL	<input type="checkbox"/>	3 PHASE NO NEUTRAL	<input type="checkbox"/>	50HZ	<input type="checkbox"/>	60HZ	<input type="checkbox"/>
ELECTRICAL ENCLOSURE	IP44	<input type="checkbox"/>	IP65	<input type="checkbox"/>	FAN MOTOR	IP44	<input type="checkbox"/>	IP65	<input type="checkbox"/>	
HOT GAS BYPASS REULATION VALVE (COOLING ONLY)	YES	<input type="checkbox"/>	NO	<input type="checkbox"/>						
COMPRESSOR CRANKCASE HEATER	YES	<input type="checkbox"/>	NO	<input type="checkbox"/>	FITTED TO RECIPRICATING COMPRESSOR UNITS AS STANDARD					
EXTERNAL AMBIENT	40°C MAXIMUM <input type="checkbox"/>		55°C MAXIMUM (R134A ONLY) <input type="checkbox"/>							
HIGH WIND SUPPORT BRACKETS	YES	<input type="checkbox"/>	NO	<input type="checkbox"/>	DRIER (COOLING ONLY)	YES	<input type="checkbox"/>	NO	<input type="checkbox"/>	
SIGHT GLASS	YES	<input type="checkbox"/>	NO	<input type="checkbox"/>	ISOLATOR FITTED	YES	<input type="checkbox"/>	NO	<input type="checkbox"/>	

INDOOR UNIT

HEAT EXCHANGER	COPPER TUBE ALUMINIUM FINNS <input type="checkbox"/>		CORROSION PROTECTIVE COATING <input type="checkbox"/>		COPPER TUBE AND FINNS <input type="checkbox"/>			
INTERNAL UNIT TYPE	CASSETTE	<input type="checkbox"/>	WALL MOUNTED	<input type="checkbox"/>	DUCTED CEILING VOID <input type="checkbox"/>			
LIFT PUMP	YES	<input type="checkbox"/>	NO	<input type="checkbox"/>	CASSETTE AND WALL MOUNTED FITTED WITH A LIFT PUMP AS STANDARD			
ELECTRICAL ENCLOSURE	STANDARD <input type="checkbox"/>		IP55 <input type="checkbox"/>		OPTIONAL ON DUCTED CEILING VOID UNITS ONLY			
FAN MOTOR	STANDARD <input type="checkbox"/>		IP55 <input type="checkbox"/>		OPTIONAL ON DUCTED CEILING VOID UNITS ONLY			

marstair marine/bespoke condensing selection sheet

QUANTITY					
RATED EXTERNAL AMBIENT FOR COOLING	°C				
RATED EVAPORATING TEMPERATURE FOR COOLING	°C				
REQUIRED TOTAL COOLING DUTY	kW		MAXIMUM AVAILABLE SIZE IS 20kW R407C & 12kW R134A COOLING AT NEMA CONDITIONS		
RATED EXTERNAL AMBIENT FOR HEATING	°C				
RATED CONDENSING TEMPERATURE FOR HEATING	°C				
REQUIRED TOTAL HEATING DUTY	kW		MAXIMUM AVAILABLE SIZE IS 20kW R407C & 12kW R134A COOLING AT NEMA CONDITIONS		
SYSTEM TYPE	COOL ONLY <input type="checkbox"/>	HEATPUMP <input type="checkbox"/>	MINIMUM -10°C FOR HEATPUMP -20°C FOR CONDENSING UNIT		
REFRIGERANT TYPE	R407C <input type="checkbox"/>	R404A <input type="checkbox"/>	R134A <input type="checkbox"/>	R407A <input type="checkbox"/>	R407F <input type="checkbox"/>
CASE MATERIAL	PLASTOSOL COATING <input type="checkbox"/>		STAINLESS STEEL <input type="checkbox"/>		
HEAT EXCHANGER	COPPER TUBE ALUMINIUM FINS <input type="checkbox"/>		CORROSION PROTECTIVE COATING <input type="checkbox"/>		COPPER TUBE AND FINS <input type="checkbox"/>
WIDE FIN PITCH TO REDUCE BLOCKING	YES <input type="checkbox"/>	NO <input type="checkbox"/>	COIL GUARDS	YES <input type="checkbox"/>	NO <input type="checkbox"/>
ELECTRICS	1 PHASE <input type="checkbox"/>	3 PHASE WITH NEUTRAL <input type="checkbox"/>	3 PHASE NO NEUTRAL <input type="checkbox"/>	50HZ <input type="checkbox"/>	60HZ <input type="checkbox"/>
ELECTRICAL ENCLOSURE	IP44 <input type="checkbox"/>	IP65 <input type="checkbox"/>			
FAN MOTOR	IP44 <input type="checkbox"/>	IP65 <input type="checkbox"/>			
HOT GAS BYPASS REULATION VALVE (COOLING ONLY)	YES <input type="checkbox"/>	NO <input type="checkbox"/>			
COMPRESSOR CRANKCASE HEATER	YES <input type="checkbox"/>	NO <input type="checkbox"/>	FITTED TO RECIPRICATING COMPRESSOR UNITS AS STANDARD		
EXTERNAL AMBIENT	40°C MAXIMUM <input type="checkbox"/>		55°C MAXIMUM (R134A ONLY) <input type="checkbox"/>		
HIGH WIND SUPPORT BRACKETS	YES <input type="checkbox"/>	NO <input type="checkbox"/>			
DRIER (COOLING ONLY)	YES <input type="checkbox"/>	NO <input type="checkbox"/>			
SIGHT GLASS	YES <input type="checkbox"/>	NO <input type="checkbox"/>			
ISOLATOR FITTED	YES <input type="checkbox"/>	NO <input type="checkbox"/>			
BMS RUN	YES <input type="checkbox"/>	NO <input type="checkbox"/>			
BMS ALARM	YES <input type="checkbox"/>	NO <input type="checkbox"/>			



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

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

marstair marine/bespoke evaporating selection sheet

QUANTITY						
RATED INTERNAL AMBIENT	°C	MINIMUM 10°C				
RATED EVAPORATING TEMPERATURE	°C	MINIMUM -2.5°C				
REQUIRED TOTAL DUTY	kW SEE INDIVIDUAL EVAPORATOR BROCHURES FOR AVAILABLE DUTIES					
REQUIRED SENSIBLE DUTY	kW					
SYSTEM TYPE	COOL ONLY <input type="checkbox"/>	COOL ONLY & ELECTRIC HEAT <input type="checkbox"/>				
ELECTRICS	50HZ <input type="checkbox"/>	60HZ <input type="checkbox"/>				
REFRIGERANT TYPE	R407C <input type="checkbox"/>	R404A <input type="checkbox"/>	R134A <input type="checkbox"/>	R407A <input type="checkbox"/>	R407F <input type="checkbox"/>	R410A <input type="checkbox"/>
HEAT EXCHANGER	COPPER TUBE ALUMINIUM FINNS <input type="checkbox"/>		CORROSION PROTECTIVE COATING <input type="checkbox"/>		COPPER TUBE AND FINNS <input type="checkbox"/>	
INTERNAL UNIT TYPE	CASSETTE <input type="checkbox"/>	WALL MOUNTED <input type="checkbox"/>	DUCTED CEILING VOID <input type="checkbox"/>			
LIFT PUMP	YES <input type="checkbox"/>	NO <input type="checkbox"/>	CASSETTE AND WALL MOUNTED FITTED WITH A LIFT PUMP AS STANDARD			
ELECTRICAL ENCLOSURE	STANDARD <input type="checkbox"/>		IP55 <input type="checkbox"/>	OPTIONAL ON DUCTED CEILING VOID UNITS ONLY		
FAN MOTOR	STANDARD <input type="checkbox"/>		IP55 <input type="checkbox"/>	OPTIONAL ON DUCTED CEILING VOID UNITS ONLY		
BMS RUN	YES <input type="checkbox"/>	NO <input type="checkbox"/>				
BMS ALARM	YES <input type="checkbox"/>	NO <input type="checkbox"/>				

• All Evaporator units are supplied with De-Ice Thermostats



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Process/Material Cooling • Close Control • Refrigeration