

SPECIFICATION

Air Cooled Refrigerated Chiller with Free Cooling & Emergency Water



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Spec. No : RR1050TK1
Part Number : 903050-01

Reg. No. 03168499 VAT Reg. No. GB 673 9672 82

Design Criteria	Duty Fluid Type Fluid On Fluid Off Fluid Flow Max Ambient Refrigerant Supply Control	43 - 17.5 kW Ambient Temperature Dependant Water (100%) (To Process) 30 °C 22 °C 26 LPM @ 4.1 Bar (max external head pressure) 35 °C R513A 3.9Kg 400V / 3Ph / 50Hz + Neutral + Earth 24V / 1Ph / 50Hz
Compressor 13.0 FLA		Fully-hermetic model ZR81KCE-TFD with 70 watt crankcase heater
Condenser		Copper Tubes Aluminium Fins with Hydrophobic coating Galvanised Steel Case
Fans 2 x 2 FLA		2 x Axial Type, EC Motor - 1.0 kW Total air flow 4.3 m ³ /sec 400V, 3 Ph, 50 Hz
Tank		Non ferrous construction. Fully Insulated on all sides and base. Removable lid for inspection/maintenance. Nominal capacity 100 litres
Free Cooling Coil		Copper tubes Aluminium fins Hydrophobic coating Galvanised steel case Fluid: Water 25-30% Coolflow IGE (ethylene Based) Fluid Flow: 20 LPM @ 3 Bar Internal sealed closed circuit
Emergency Water Cooling		Emergency back up water supply feed is connected via a manually operated single handle 2 x 3 way valve located at the rear of the chiller unit. When operated the process heat load is supplied via the emergency cooling supply and then returned to drain.

Pumps	Chiller pump Stainless steel end suction 0.75kW motor Free Cooling pump Stainless steel end suction 0.37kW motor.
Heat Exchanger (Evaporator) Refrigeration Controls / Components	Brazed Plate type Liquid Line Drier Refrigerant Charging points Electronic Thermostatic Expansion Valve Sight Glass HP / LP Cartridge Pressure Switches HP / LP Pressure Transducers
Water Controls Chiller	Flow Switch Y Strainer Low Water Level Pressure Gauge Flow Meter
Water Controls Free cooler	Flow Switch Pressure Gauge
Water Controls Emergency Water	Linked 3 way valves with common handle located at rear of unit for easy access. Valve will produce No Flow Alarm once valve is switched to Emergency Cooling.
Electrical Details Total FLA 18 Amps	Control panel location <ul style="list-style-type: none"> • On the main frame work - with remote control station including. • IP55 protection. Controls and indication <p>The system will be provided with the following front panel controls:-</p> <ul style="list-style-type: none"> • Lockable (off) electrical supply isolator. • Microprocessor temperature controller c/w ethernet comms connection. <p>The following indications will be provided by the above:-</p> <ul style="list-style-type: none"> • Faults: Low level Alarm, All Motor overload Alarms, Low Flow, High & Low Fluid Temperature Alarms, Refrigerant High and Low Pressure Alarms, • Unit Running Status. • Temperature readings. • Process Flow measurement. • Alarm log history.

<p>Enclosure</p>	<p>Enclosed frame design</p> <ul style="list-style-type: none"> • Extruded aluminium framework. • Inset stainless steel panels. • Stainless steel screws.. • Fitted with castors. <p>Connections</p> <ul style="list-style-type: none"> • Flow & Return 28mm Copper • Overflow & Drain ½" BSPM • Emergency Water inlet 15mm Copper • Emergency Water drain 28mm Copper <p>Dimensions</p> <ul style="list-style-type: none"> • 1740mm long x 890mm wide x 1385mm high <p>Weight 300Kg Shipping, 500Kg Operating</p>
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<p>Estimated Noise Level</p>	<p>67dB(A) at 1 meter = Fan + 3 dB(A) as 2 fans 60 dB(A) at 1 meter = Compressor Therefore total estimated unit Sound Pressure Level = 68 dB(A) at 1 meter (total estimated unit Sound Pressure Level = 63 dB(A) at 3 meters)</p>
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