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Design Data Sheet for Chiller		
Chiller Capacity: 1000 Watt		Chiller Model : XC003XOC
Enquiry Number: E-mail		Date: 11-02-2022
Sl.no	Item	Description
Application		
1	Application	Machine Tools
2	Application Details	Machine Tools
3	Heat Load	1 KW
4	Required Entry Media Temperature to Process	30-35° C
5	Required Flow Rate	8 lpm
6	Required Pressure	2.5 bar
7	Cooling Media Details	Hyd Oil VG32,46 & 68
8	Any Impurities in Media	Clean Oil
9	Rated Operating Ambient Temp.	35° C
10	Maximum Operating Ambient temp.	45° C
11	Minimum Operating Ambient temp.	10° C
12	Indoor / Outdoor Installation	Indoor
13	Air Flow Direction, Top / Side	Side throw
14	Ambient Air Quality	Normal

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Chiller specification		
1	Cooling Capacity	1 kW / 0.3 TR / 900 kcal/hr
2	No. of Compressor Circuits	1
3	Refrigerant	R134a
4	Outlet Cooling media Temperature from Chiller	30-35° C
5	Process Flow rate & Pressure of cooling Media delivered from chiller	7 lpm & 2.5 bar
6	No. of Process Pumps	1
6 (A)	Internal Pumps	NA
7	Type of Compressor	Reciprocating
8	Type of Controller	Microprocessor
9	Type of Condenser / MOC	Air cooled condensor / Copper tubes with Aluminium Fins
10	Type of Expansion Device	Capillery
11	Type of Evaporator / MOC	Brazed Plate Heat exchanger / SS 316 plates
12	Reservoir Volume / MOC	NA
13	Type of Pump / MOC	Gear / CI casing
14	MOC of other Wetted Parts	SS 304 / Synthetic elastomer, metal braiding, MS clamping
15	MOC of Chiller Frame	CRCA
16	Type of Surface Coating	Powder coated
17	Color	RAL 7035 White
18	Castor Wheels / Hard mount	Wheels
19	Power Supply	1 PH, 230 V, 50 Hz
20	Power Consumption	1 kW
21	Current	
22	Hydraulic End Connection Size & Type	1/2"
23	No. of Skids	1
24	Skid (s) Description	Package
25	Dimensions of Skid (s)	
26	Weight per Skid	
27	Submission for Approval / Reference	Dimensional dwg, electrical ckt drawing / layout dwg.
27.A	Customer Approval Required	
28	Noise	90dBa

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Note		
1	Chiller performance rating ambient temperature	35 deg C
2	Chiller performance rating media temperature	35 deg C
3	Add recommeded percentage of glycol to water for media temperatures ...	NA
4	Chiller performance tolerance	+/- 5 % for full load and + / - 12% for part load

Scope of Supply

Chiller Capacity: 1 kW		Chiller Model : XC003X0C	
Enquiry Number:		Date: 11-02-2022	
Sl.no	Item	Description	
Refrigeration*			
1	Compressor	Type	Reciprocating
		Sealing	Hermetic
		Refrigerant	R134a
		Unloading percentage	0% / 100%
		Motor insulation type	F class insulation
2	Condenser	Type	Air cooled
		Tubes	Copper internally grooved
		Fins	Aluminium, sine wave
3	Exhaust fan	Type	Axial flow
		MOC	CRCA powder coated wings
		Insulation class for motor	F
		Electrical protection	IP 44
4	Evaporator	Type	Brazed plate Heat exchanger
		MOC	SS 316
		Test pressure	40 bar
5	Expansion Device	Type	Capillary
6	Refrigeration Line Components		
7	Additional components		

Hydraulic**			
1	Pump	Type	Gear
		MOC	Cast iron
		Mechanical Seal	NA
		Motor	F class insulation, IP 55 protection
2	Reservoir	Volume	NA
		MOC	NA
		Insulation	NA
		Accessories	NA
3	Piping	MOC	SS 304
		Flexible hose	Synthetic elastomer, metal braiding, MS clamping
4	Pressure guage		NA
5	Additional components		

Electrical***			
1	Controller	Type	Microcontroller
		Display	LED
		Accuracy	+/- 1 deg C, with 2 NTC probes
		Electrical protection	IP 41
2	Switch Gears	MPCB, Contactor, MCB, Main switch complyting to IEC standards	
3	Transformer	Control transformer with multi tapping consisting of Primary input of 420V, 400V and 380V and Secondary output of 240V, 220V, 200V respectively	
4	Accessories	Other electrical accessories include SPP, indicators, grommets, Cables, wires, Cable glands, terminal blocks, MCB channel, lugs etc.	
5	Cabinet	Powder coated electrical cabinet with industrial lock. IP 54 protected for outdoor application / IP 41 protected for indoor application	

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Enclosure		
1	MOC	CRCA
2	Surface Coating	7 tank degreasing process, Powder coating
3	Color	RAL 7035
Safety Interlocks		
1	HP trip	High pressure trip to the compressor from the pressure switch, safeguarding the system from conditions like blocked condensor, High ambient temperature or overcgarged system
2	LP trip	Low pressure trip to the compressor from the pressure switch, safeguarding the system from conditions like Gas leakage, system blockage, Evaporator freezing or undercharged system
3	WLL trip	NA
4	SPP trip	NA
5	OLR trip	Overload relay trip to all the electrical components, securing system from over load current.
6	AFT trip	Anti freeze trip to the compressor, preventing the evaporator from freezing and securing the system from the conditions of pump failure
7	Additional interlocks	

Note:

* All Refrigeration Components are from the reputed sources like Danfoss, Emerson, Embarco or equivalent Brands.
* All Pumps incorporated in the chiller are from reputed the sources like Grundfos, CRI, CNP or equivalent Brands.
* Xexagon reserves rights for selection of component brands .