

Design Data Sheet for Chiller

Chiller Capacity: 10 TR		Chiller Model : XC010Y0C
Enquiry Email: info@xexagon.co.in		Date: 03-01-2022
Sl.no	Item	Description
Application		
1	Application	Extrusion Machine
2	Application Details	Extrusion Machine
3	Heat Load	35.37 KW
4	Required Entry Media Temperature to Process	30-35° C
5	Required Flow Rate	200 lpm
6	Required Pressure	3 bar
7	Cooling Media Details	Mineral Water
8	Any Impurities in Media	Water
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	Top throw
14	Ambient Air Quality	Normal

Chiller specification		
1	Cooling Capacity	35.37 KW / 10 TR / 30000 kcal/hr
2	No. of Compressor Circuits	1
3	Refrigerant	R407C Or R22
4	Outlet Cooling media Temperature from Chiller	30-35° C
5	Process Flow rate & Pressure of cooling Media delivered from chiller	200 lpm & 3 bar
6	No. of Process Pumps	1
6 (A)	Internal Pumps	NA
7	Type of Compressor	Scroll
8	Type of Controller	Microprocessor
9	Type of Condenser / MOC	Air cooled condenser / Copper tubes with Aluminum Fins
10	Type of Expansion Device	Thermostatic Expansion Valve
11	Type of Evaporator / MOC	Brazed Plate Heat exchanger / SS 316 plates
12	Reservoir Volume / MOC	NA
13	Type of Pump / MOC	CI casing (CRI / LUBY / GRUNDFOSS MAKE)
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	Colour	RAL 7037 & RAL 7035
18	Castor Wheels / Hard mount	Hard Mount
19	Power Supply	3 PH, 415 V, 50 Hz
20	Power Consumption	14.1 kW
21	Current	25.8 Amp
22	Hydraulic End Connection Size & Type	1-1/4" BSP
23	No. of Skids	1
24	Skid (s) Description	Package
25	Dimensions of Skid (s)	As Per Standard
26	Weight per Skid	600 Kgs
27	Submission for Approval / Reference	Dimensional dwg, electrical ckt drawing / layout dwg.
27.A	Customer Approval Required	
28	Noise	90dBa

Note		
1	Chiller performance rating ambient temperature	35 deg C
2	Chiller performance rating media temperature	35 deg C
3	Add recommended 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: 35.37 kW		Chiller Model : XC010Y0C		
Enquiry Number:		Date: 03-01-2022		
Sl.no	Item	Description		
Refrigeration*				
1	Compressor	Type	Scroll	
		Sealing	Hermetic	
		Refrigerant	R407c or R22	
		Unloading percentage	0% / 100%	
		Motor insulation type	F class insulation	
2	Condenser	Type	Air cooled	
		Tubes	Copper internally grooved	
		Fins	Aluminum, 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	Thermostatic Expansion Valve	
6	Refrigeration Line Components		Standard components like filter drier, hand shut off valves, HP/LP switches, etc	
7	Additional components			

Hydraulic**			
1	Pump	Type	Centrifugal
		MOC	SS 304 impeller and casing, Cast Iron inlet and outlet chambers
		Mechanical Seal	EPDM
		Motor	F class insulation, IP 55 protection
2	Reservoir	Volume	NA
		MOC	S.S 304
		Insulation	Nitrile Rubber
		Accessories	Level Indicator, Level Switch, Temp. Sensor
3	Piping	MOC	SS 304
		Flexible hose	Synthetic elastomer, metal braiding, MS clamping
4	Pressure guage		Analog Type, Glycerin Filled
5	Additional components		

Electrical***			
1	Controller	Type	Microprocessor
		Display	LED
		Accuracy	+/- 1 deg C, with 4 NTC probes
		Electrical protection	IP 54
2	Switch Gears	MPCB, Contactor, MCB, Main switch complying 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	

Enclosure		
1	MOC	CRCA
2	Surface Coating	7 tank degreasing process, Powder coating
3	Color	RAL 7037 & RAL 7035
Safety Interlocks		
1	HP trip	High pressure trip to the compressor from the pressure switch, safeguarding the system from conditions like blocked condenser, High ambient temperature or overcharged 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	
<u>Note:</u>		
* 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.		

Thanking You,
 For, **XEXAGON**
 Mob: +91-8866773323
 Office: 209, 2nd Floor, Global Business Park,
 S.P Ring Road, Odhav,
 Ahmedabad, Gujarat, India.