



Air Cooled Scroll Chiller



Cooling capacity 15 ~ 110 kw

Feature :

- High cooling capacity, low power consumption**
- Low starting torque**
- Silent and low vibration**
- High efficiency , durable and easy maintenance**
- Intelligent electronics protector for motor compressor**

Low power consumption and Easy maintenance

thermo Q presents the line of Air cooled packaged Scroll Water Chiller .

Range from 4 to 34 TR Capacity.

Economical, easy installation and operation in a complete packaged design. Ideal for modern cooling applications in industrial process plant .

All units are compact , completely factory assembled , shape and modular system to be installed as outdoor and weather proof . its can reach on site easy to handling on transportation .

The unit is pressure tested , evacuated and fully charge with Refrigerant 22

Main Components

◆ Durable Scroll Compressor

With Copeland Scroll Compressor , End Users can improve the reliability of their refrigeration system and reduce their running costs :

- ◆ Annual running cost reduction with increased compressor seasonal efficiency
Smaller compressors that are easier to service and replace
- ◆ No risk of capacity shortfall at high ambient conditions Stable operation and less compressor Cycling



Improved reliability: less installed compressors, better oil return No need to use a mechanical subcooler between the medium and low temperature circuits and over sizing the medium temperature rack is no longer necessary .

◆ Low Noise Condenser with Axial Fan



The highly efficient and compact Cross finned coil type are designed with corrugated surface aluminum fins and extended surface in inner tube.

Outdoor fan with best quality fan made convenience with low noise level , saving energy and high ambient resistance temperature use until 60 °C .

Axial type with external rotor motor , IP 54 motor protector and Class F insulation (DIN EN 60 034-1)

The fan motor totally encloses weather proof type .

◆ High efficiency Evaporator

Dry expansion Shell and Tube type Evaporator, compact and height efficiency heat transfer.

All evaporator equipped with Anti freeze to protect the cooling tube from being damage due to chilled water freeze up and chilled water temperature sensor to reduce precision chilled water temperature .

A drain plug is provided in the evaporator inlet pipe to extract chilled water .

Manufacture standard TEMA , ASTM .



Protection and safety control equip.

Dual pressure switch , Freezing protection thermostat , Oil pressure safety switch , Thermostat control

Easy maintenance and safe

Unit full equipped witch operation indicator , hi / low pressure indicator ; temperature indicator .

Liquid receiver and stop valve an attached on the liquid line for refrigerant pump down. Sight glass , filter drier and a moisture indicator .

Optional features :

- Ozone friendly refrigerant use
- Brine Chiller with chilled water temp min 40 oC
- Heat recovery from refrigerant to reduce hot water

SPECIFICATION DATA

MODEL	CA Series	5 ASC	8 ASC	10 ASC	15 ASC	20 ASC	30 ASC.2	40 ASC.2	
COOLING CAPACITY *	(KW)	15.33	21.5	28.5	42.0	55.6	84.0	111.2	
TOTAL POWER CONSUME	(KW)	4.92	6.72	9.24	12.68	117.33	25.36	34.66	
COMPRESSOR	Type	Full Hermetic - SCROLL							
	HP	5	7.5	10	15	20	2 X 15	2 X 20	
	Vol/Ph/Hz	380/3/50							
	Power Consume (KW)	4.16	5.94	7.68	11.12	14.99	11.12 X 2	14.99 X 2	
	Qty./Unit	1						2	
CONDENSER	C O I L	Type	Corrugated Fin						
		Material	Aluminium Fin & Inner Groove Copper Tube						
		Fin Pitch (FPI)	13						
	F A N	Type	Propeller Fan ; Vertical Discharge ; Direct Drive						
		Q'ty /Dia (mm)	1 / 500	1 / 500	2 / 500	2 / 500	3 / 500	4 / 500	6 / 500
		V/Ph/Hz	380 / 3 / 50						
		Power consume (KW)	0.78	0.78	1.56	1.56	2.34	3.12	4.68
REFRIGERANT	Type	R - 22							
EVAPORATOR	Type	Dry Exspanction Shell & Tube							
No. of Circuit		1					2		
Chilled Water Flow Rate – Min / Max (Lt /min)		45 ~ 64	62 ~ 88	81 ~ 114	120 ~ 168	158 ~ 221	240 ~ 336	316 ~ 445	
Chilled Water Temp.In/Out (°C)		12 / 7							
Water Connection In/Out (Inch)		DN 32	DN 38	DN 38	DN 50	DN 50	DN 75	DN 75	
* Cooling Capacity Based Ambient 35 °C, 55% R.H. Refrigerant R - 22, CW. In 12 0C, Out 7 °C									

IMMERSE COIL EVAPORATOR

MODEL	CA Series	5 ASC	8 ASC	10 ASC	15 ASC	20 ASC	30 ASC.2	40 ASC.2
EVAPORATOR	Type	Immerse Coil						
	Tank Volume (Ltr)	120	180	200	360	480	700	900
	Material	SUS 304 Plate - Hermaflex Insullation - SUS 304 Jacket Cover						

DIMENTION			
MODEL	L	W	H
CA 5 ASC	1.550	820	1.500
CA 8 ASC	1.550	820	1.500
CA 10 ASC	1.550	820	1.500
CA 15 ASC	2.800	820	1.500
CA 20 ASC	2.800	820	1.600
CA 30 ASC.2	2.800	1.700	1.600
CA 40 ASC.2	2.800	1.700	1.600



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