

# Air Cooled Scroll Chiller

**ISO**  
**9001:2015**



## **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

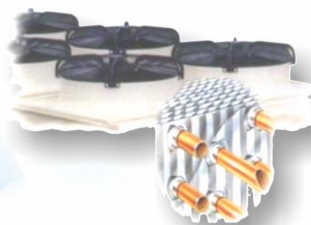
Smaller compressors that are easier to service and replace

- ❑ 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 :

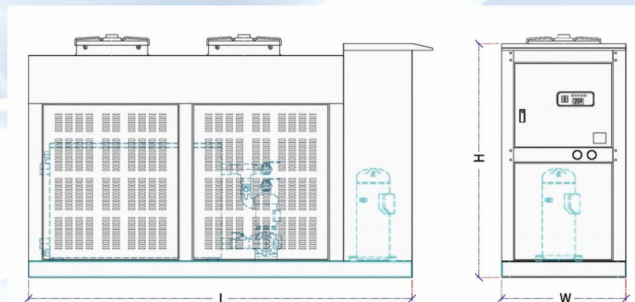
- Ozone friendly refrigerant use
- Brine Chiller with chilled water temp min 40 °C
- Heat recovery from refrigerant to reduce hot water

### AIR COOLED SCROLL CHILLER

#### SPECIFICATION DATA

MODEL CA SERIES		5 A.Scr	8 A.Scr	10 A.Scr	15 A.Scr	20 A2.Scr2	30 A2.Scr2	40 A4.Scr4	60 A4.Scr4
COOLING CAPACITY	[ KW ]	11.75	19.6	25.7	37.4	51.4	74.8	102.8	149.6
	[TR]	3.34	5.6	7.3	10.6	14.6	21.2	29.2	42.4
POWER INPUT	[ KW ]	3.8	6	7.7	11.8	15.4	23.6	30.8	47.2
Current Ampere	[Amp]	8.2	14.48	17.12	27.1	34.24	54.2	68.48	108.4
Power Source		380 V / 3 Ph / 50 Hz							
Refrigerant		R 407C							
COMPRESSOR	Type	FULL HERMATIC SCROLL							
	Model	ZR-61	ZR-94	ZR-125	ZR-190	ZR-125.2	ZR-190.2	ZR-125.4	ZR.125.4
	Qty	1	1	1	1	2	2	4	4
	Cap. Control [ % ]	0 -100	0 -100	0 -100	0 -100	0 -50 - 100	0 -50 -100	0-25-50-75 -100	0-25-50-75 -100
CONDENSER	Type	PLATE FIN COIL							
	Model	CG.60	CG.100	CG.120	CG.200	CG.120.2	CG.200.2	CG.120.4	CG200.4
	Fan Dia-No	500X1	500X2	500X2	500X2	500X4	500X4	500X8	500X8
	Material	COOPER TUBE – ALUMINIUM FIN							
Shell and Tube EVAPORATOR	Type	SHELL AND TUBE							
	Model	DX 5	DX 8	DX 10	DX 15	DX 20.2	DX 30.2	DX 40.4	DX 60.4
	Material	COOPER TUBE – CS SHELL							
	Press. Drop [Bar]	0.2	0.22	0.2	0.25	0.22	0.26	0.28	0.23
Chilled Water Flow - min	[ ltr/min]	34	56	73	110	146	210	300	430
Chiller Water Connection		DN 25	DN 32	DN 40	DN 40	DN 50	DN 50	DN 60	DN 75
No. Of Circuit		1	1	1	1	2	2	4	4
Immerse EVAPORATOR	Type	IMMERSE COIL							
	Model	C5	C8	C10	C15	C2.20	C2.40	C4.40	C4.60
	Tank Volume [Ltr]	100	120	200	300	400	600	900	1200
	Circ. Pump [Ltr/min]	43	70	90	140	180	260	375	540
	Tot. Head [m]	30	30	30	30	30	30	30	30
	Tank Material	SUS 304							
Chiller Water Temp. – IN/OUT	[°C]	12 °C / 7 °C							

Model	Dimention			
	L	W	H	H Immerse
5 AScr	1.800	907	1.400	1.500
8 AScr	2.200	907	1.400	1.500
10 AScr	2.350	907	1.400	1.600
15 AScr	2.800	907	1.400	1.600
20 AScr2	2.200	1.816	1.450	1.600
30 A2.scr2	2.950	1.816	1.450	1.650
40 A4.scr4	3.150	1.816	1.450	1.650
60 A4.scr4	3.150	1.816	1.500	1.650





Fabrikator :

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