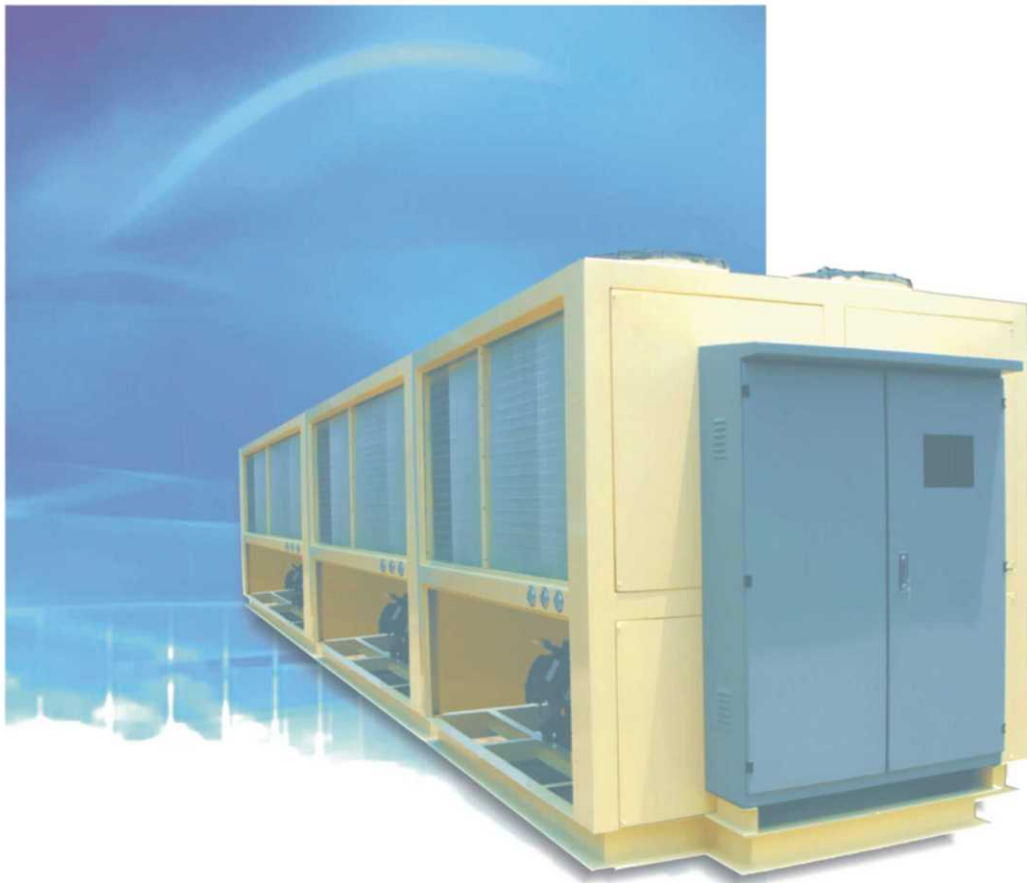


Air Cooled Reciprocating Chiller

Capacity : 26 ~ 590 kw



Feature :

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

Low power consumption and Easy maintenance

thermo Q presents the complete line of Air cooled packaged type reciprocating Water Chiller . Ranging from 3.5 RT to 168 RT Capacity.

Economical , easy installation and operation in a complete packaged design. Ideal for modern cooling applications in hi rise building , commercial and office building , shopping mall , hotel , and industrial 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 and includes an initial oil charge .

Main Components

▪ Durable Reciprocating Compressor

New generation reciprocating semi hermetic compressor from **Copeland - USA** . the word's largest manufacture of semi hermetic compressor . Compact, low noise , high efficiency , durable and easy maintenance . Capable of operating with HCFC Refrigerant . Each Compressor complete with **Intelligent electronic** for protection Fully motor protection against by thermal motor temperature control , motor overload , phase failure, low / hi voltage and phase sequence control , low oil pressure protection



▪ 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 , to protects hight discharge pressure caused by incorrect installation and low refrigerant suction pressure by refrigerant leak .

Freezing protection thermostat , protects against chilled water freezing due to no flow or other causes during chilled water pipe installation .

Oil pressure safety switch , protects compressor against loss of oil pressure .

Sight glass , a moisture indicating sight glass is installed in the liquid line. Easy to read color indicator shows moisture content directly on the spot . This provides mean for easy checking of the system refrigerant charge and condition .

Filter drier , Refrigerant circuits are kept free from harmful moisture , sludge , acids and oil contaminating particles . A filter drier witch a large effective are allowing for very low pressure drop is provided on each mode.

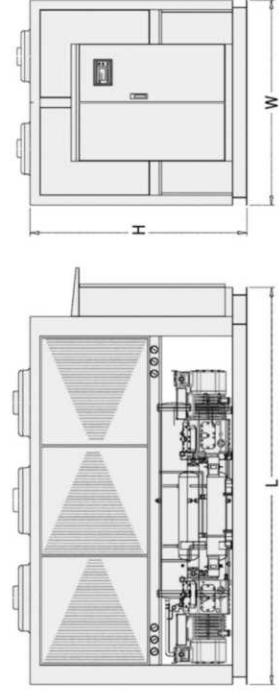
Thermostat control , Automatically maintains the leaving chilled water temperature at desired level.

AIR COOLED RECIPROCATING CHILLER

SPESIFICATION DATA

Model	CA Series	20 AS	30 AS	40 AS	50 AS	60 AS	80 A2S2	100 A2S2	120 A2S2	120 A3S3	150 A3S3	180 A3S3
Cooling Capacity [KW]		41.0	58.1	90.7	108.5	130.5	181.4	217.0	261.0	273.1	325.5	391.5
	[TR]	11.65	16.51	25.77	30.83	37.08	51.55	61.66	74.17	77.6	92.5	111.25
Power Input [KW]		14.16	23.45	33.06	40.86	52.26	72.12	82.92	102.76	104.52	122.58	153.78
Current Ampere [Amp]		25.3	41.92	59.1	73.01	93.41	128.92	148.21	183.68	186.83	219.1	274.87
Power Source		380 V / 3 Ph / 50 Hz										
Refrigerant		R 407 C										
Type		SEMI HERMATIC RECIPROCATING (Piston)										
Model		4SAH 200E	4SJH 300E	6SJH 400E	6SKH 500E	SJ 6000	6SJH 400E	6SKH 500E	SJ 6000	6SJH 400E	6SKH 500E	SJ 6000
Qty		1	1	1	1	1	2	2	2	3	3	3
Capacity Control [%]		ON/OFF	ON/OFF	ON/OFF	ON/OFF	ON/OFF	50-100	50-100	50-100	33-66-100	33-66-100	33-66-100
Type		PLATE FIN COIL										
Model		GA 250	GA 350	GA 40.2	GA 50.2	GA 60.2	GA 80.2	GA 100.2	GA 120.2	GA 120.3	GA 150.3	GA 180.3
Fan Dia - No		500 x 3	500 x 3	500 x 6	500 x 8	500 x 8	600 x 8	600 x 8	600 x 8	600 x 12	600 x 12	600 x 12
Material		Cooper Tube ; Aluminium Fin										
Type		SHELL AND TUBE										
Model		DX 20	DX 30	DX 40	DX 50	DX 60	DX 40 X 2	DX 50 X 2	DX 60 X 2	DX 40 X 3	DX 50 X 3	DX 60 X 3
Press. Drop. [Bar]		0.25	0.26	0.29	0.3	0.31	0.29	0.34	0.3	0.33	0.32	0.34
Material		Cu Tube , Carbn Steel Shell										
Chilled Water Flow - min. [Ltr/min]		130	185	285	340	410	570	680	815	855	1,050	1,225
Chilled Water Connection		DN 50	DN 50	DN 65	DN 80	DN 80	DN 80	DN 100	DN 100	DN 100	DN 100	DN 125
No of Circuit		1	1	1	1	1	2	2	2	3	3	3
Chilled Water Temp. - IN/OUT [°C]		12.0 / 7.0										

Model	Dimension			Model	Dimension		
	L	W	H		L	W	H
20 AS	2430	920	1400	80 A2S2	1800	1600	1600
30 AS	3430	920	1400	100 A2S2	1800	1600	1600
40 AS	2550	1800	1400	120 A2S2	1800	1800	1800
50 AS	3100	1800	1400	120 A3S3	1800	1800	1800
60 AS	3600	1800	1400	150 A3S3	1800	2100	2100
60 A2S2	4200	1800	1400	180 A3S3	1800	2100	2100



thermo

Optional features :

- ◆ **Ozone friendly refrigerant use**
- ◆ **Epoxy coating fins or marine type copper fins**
- ◆ **Heat recovery from refrigerant hot gas to reduce hot water**
- ◆ **Brine chiller type with brine temperature from 2 ° C to - 40 ° C**

Refrigerant Waste Heat Recovery :

The Heat Recovery Unit captures waste heat discharged from the refrigerant cycle in an Water Chiller or Air Conditioning system, and transfers that heat into a Hot water tank, thereby creating low cost hot water for Hotel , Laundry , Feed water Boiler or Industrial use. Not only does the Heat Recovery Unit substantially reduce the amount of energy required to provide domestic hot water, but it also improves the cooling efficiency of the Chiller or Air Conditioner it is operating.

Heat recovery from refrigerant hot gas to water .
Temperature of water can be reach until 70 ° C



Fabrikator :

PT. METALINDO PRIMA ENGINEERING
Heat Transfer Equipment Engineering

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