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International

Cooled by :

MAMI



Water-Cooled Modular Chiller



Compact & Small Design

- Reduce the space required for installation.
- Reduce the cost of transportation.



Safety Protection

- Refrigerant System
- Electrical System
- Water System

Flexibility & Energy Saving

- Various of combination, up to 8 units
- Allow future expansion.

Easy Operation & Maintenance

- Wired LCD Controller

Product Range

Model	Cooling Capacity		Efficiency (kW/ton)
	RT	kW	
FWMC 20 MCC4	19.8	69.8	0.79
FWMC 30 MCC4	34.4	120.9	0.79
FWMC 40 MCC4	42.1	148.0	0.79
FWMC 50 MCC4	51.8	182.2	0.81
FWMC 60 MCC4	66.6	234.4	0.80

Refrigerant R410A, 50/**60Hz** Available

- 2 Circuits
- 2 Compressors
- Independent : 1 Circuit, 1 Compressor
- Shell & Tube Heat Exchanger



Key Selling Points



Ozone Friendly R410A Refrigerant

- Compact Design
- High Efficiency



Control Box

- LCD Wired Controller
- PCB

Danfoss Scroll Compressor

Shell & Tube

- Evaporator

Safety Features

- HP/LP Switch
- HP/LP Pressure Gauge
- Filter Drier
- Sight Glass
- Compressor Crankcase Heater

Shell & Tube

- Condenser

Refrigerant Circuit

- 2 Independent Circuits

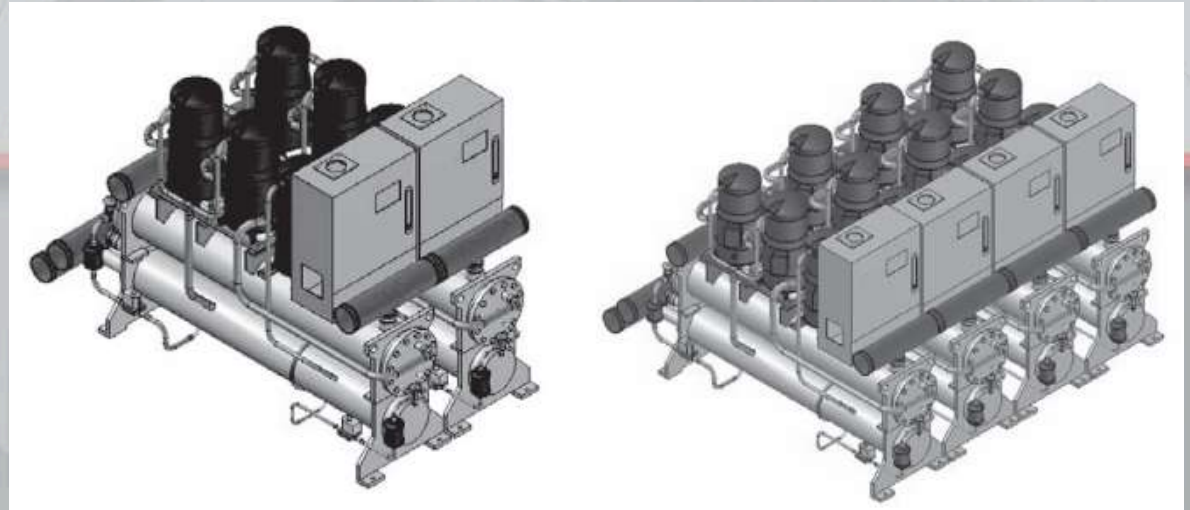


Key Selling Points

Flexibility



Single Module



Multiple Modules

Up to 8 Modules

Capability for system expansion:

- Additional modular unit can be added to the system

Partial Load:

- Multiple Compressors allows partial loading
- Standby / Backup unit not required

Calculation of usage



Comparison of Air & Water system

Air-Cooled Split ducted (30 TR)

Electricity costs at 100% Load, 24hrs operation/day	Chiller, kW/Ton=1.22
	$28.4 \times 1.22 \times 24 \times 30 \times \text{RM}0.365$
	=RM 9,105 per month

Based on 24hours per day

Water-Cooled Modular Chiller (30 TR)

Electricity costs at 100% Load, 24hrs operation/day	Chiller, kW/Ton=1.1
	$26 \times 0.79 \times 24 \times 30 \times \text{RM}0.365$
	=RM 5,397.91 per month

Based on 24hours per day

System Comparison

Initial Cost

- **Water Cooled Modular Chiller RM 5,397.91 x 12 months**
RM 64,774.94
- **Air Cooled Modular Chiller RM 9,105.50 x 12 months**
RM 109,265.93

A large, multi-pointed starburst graphic with a light red-to-white gradient fill and a black outline, containing the text "Cost Savings: RM 44k ++ !".

Cost Savings: RM 44k ++ !

System Comparison

Operating Temperature

- Water Cooled Modular Chiller maintain 29 C Close to set-point
- Air Cooled Modular Chiller higher than set-point 3-4 C depend on weather and dry bulb. Compressor always full load higher Amps.

Operating Difference for saving consumption 10 year operation
= RM 44,000.00 x 10 years =RM 440,000.00

A large, multi-pointed starburst graphic with a light pink fill and a black outline, centered at the bottom of the slide.

**Cost Savings: RM 440,000
10 years**

1. Fast Payback and quick ROI

- Low RM/RT

2. Flexibility

- 5 basic models
- Combination of different models for required capacity
- Easy stocking and Spare Parts
- Provision for future expansion

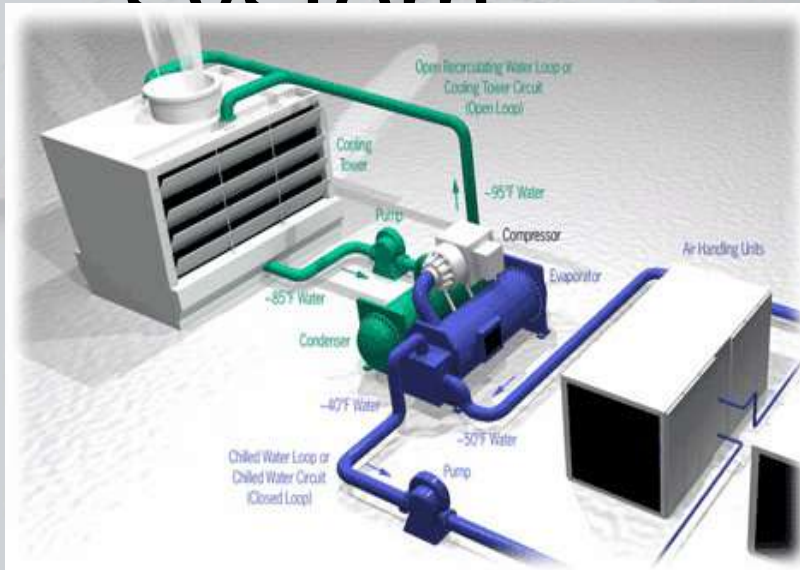
3. Easy Operation

- Better Part Load Operation
- Standby / backup unit not required

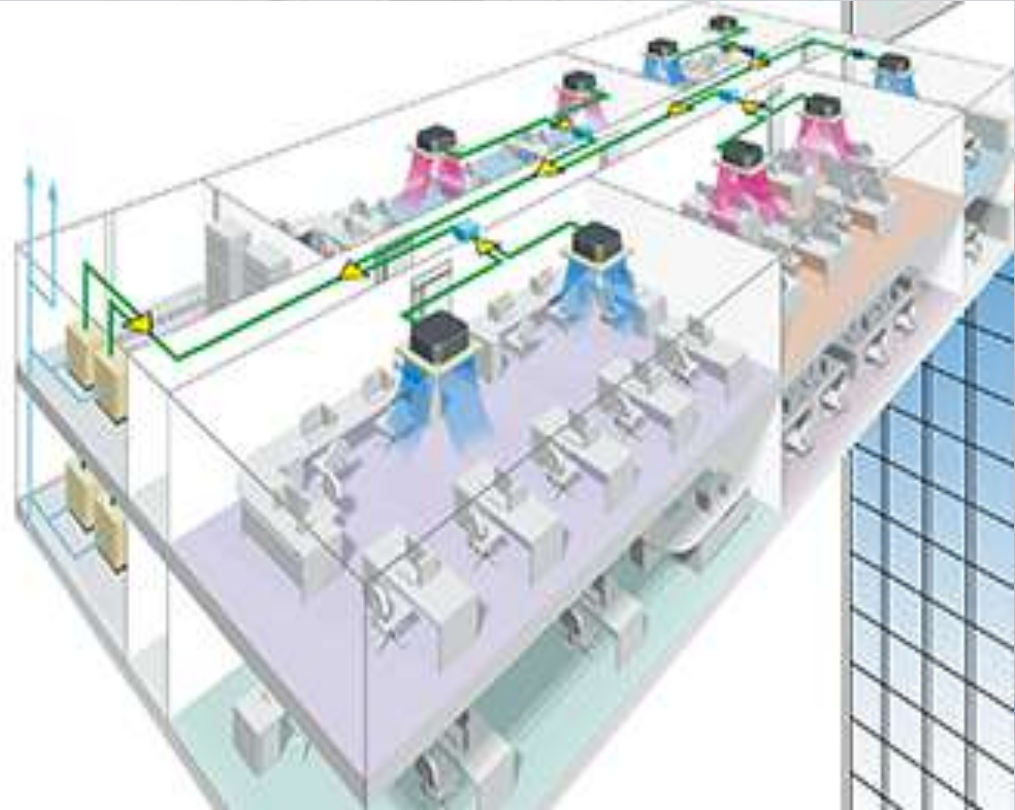
4. Easy Maintenance

- Service / Maintenance can be done in stages
- Minimum disruption for normal operation

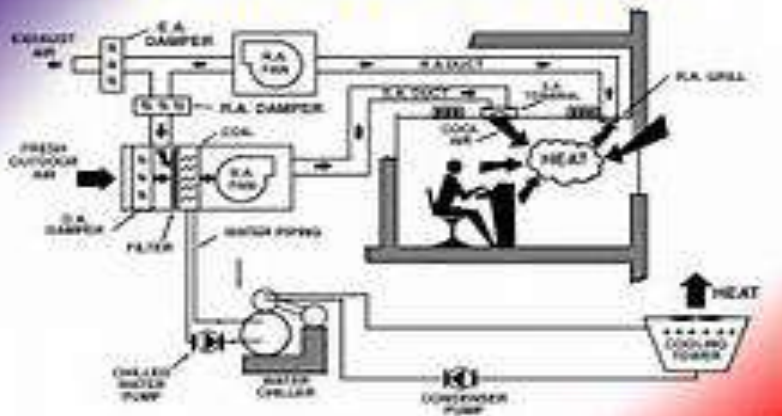
Sample of water cooled system

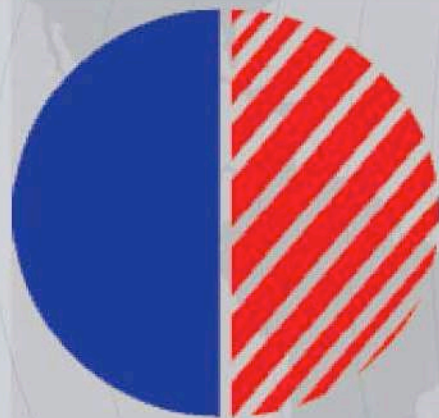


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TYPICAL ALL-AIR SYSTEM





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