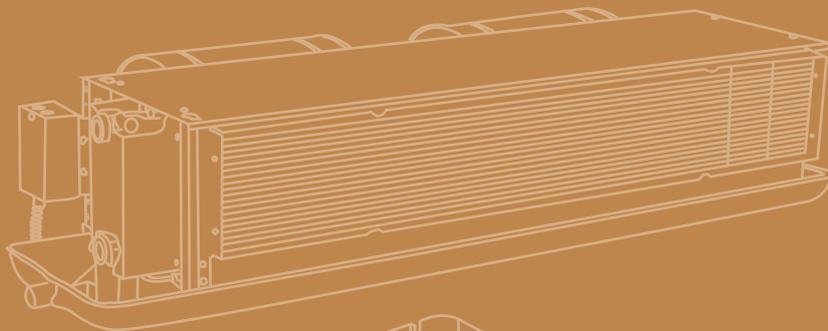




Digital Variable Water Volume System



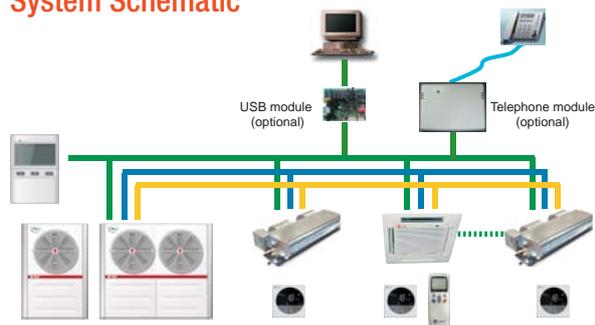
What's VVW system?

Digital Variable Water Volume System

As a leading global provider of indoor comfort systems, Trane takes pride to introduce VVW -Digital Variable Water Volume System to you. Seamlessly incorporated with D-Koolman digital air-cooled scroll chiller, HFCF concealed type fan coil unit, FWC chilled water cassette unit, LCD network thermostat and home central controller, the system provides supreme comfort solution for both residential and light commercial applications.

The system features intelligent control with options of telephone module and USB module, which enable owners to command the system at fingertips. Trane advanced Home Central Management (HCM) Software allows you to easily view and change operating data on PC. Engineered to the most flexibility, maximum 99 points inclusive of D-Koolman and HFCF/FWC fan coils can be linked in one system.

System Schematic



Home Central Management Software

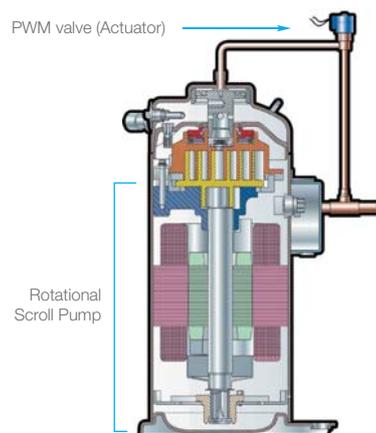


Note: Home Central Management (HCM) Software is optional. USB module must be selected if software is required.

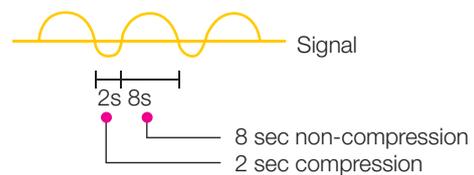
A System with Unmatched Digital Scroll Technology

Copeland digital scroll is innovatively employed in the D-Koolman air-cooled scroll chiller and it brings significant benefits to the systems such as:

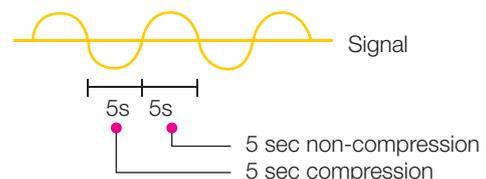
- Running cost savings due to high seasonal energy efficiency
- Precise room temperature control and humidity improvement with wide capacity range
- Free of oil return issue under all operations
- No electromagnetic interference



Example: 20% Capacity



Example: 50% Capacity



The power consumption in the unloaded state is about 10% of full load power.

Features and Benefits

HFCF Concealed type Fan Coil Unit



- Compact height in 230mm
- Wavy blue fins for higher efficiency and corrosion proof
- Well-insulated one-piece molded drain pan
- Drain spigot avoids coil freezing in winter.
- Changeable coil hands at jobsite
- Low noise operation

D-Koolman Digital Air Cooled Water Chiller



- Stylish appearance
- Durability structure and serviceability.
- System capacity from 10%-100%
- Enhanced heat exchange efficiency
- New design fan motor contributes higher airflow and low noise
- Built-in two-speed water pump
- Multiple protection devices.
- Capacity expansion for retrofit of VVW system without additional controller

FWC Cassette fan coil unit



- Even air distribution with four way air supply
- Multiple control methods: wired, wireless and net control
- Condensate drain pump
- Low noise operation

Home Central Controller



- User-friendly interface with diversify functions
- Individual zone or multiple zone control
- Large LCD for attractive sights and easy operations
- Optional USB module and/or telephone module allows remote system control

LCD Thermostat



- Patented elegant design.
- User-friendly interface with universal icons and diversified functions
- Unique circular display interface with cool color background light
- Communicatable with Trane's Home Central Control System (HCCS)



D-Koolman Digital Air Cooled Water Chiller and Heat Pump

Model	CGDR	100	120	150	175	200
Cooling capacity	kW	24.5	29.0	35.0	42.0	49.0
Heating capacity	kW	28.5	32.0	38.5	45.5	53.5
Power supply		380V/50Hz/3P				
Compressor	Type	Hermetic scroll (Digital+Fixed speed)				
	Quantity	2	2	3	3	3
	Power input (Cooling/heating) (kW)	8.2/8.6	9.8/9.7	11.3/11.2	13.8/13.5	16.3/16.1
	Running current (Cooling/heating) (A)	14.6/15.4	17.4/17.4	22.0/21.9	26.9/26.3	31.8/31.3
Condenser fan (Axial type)	Outer diameter (mm)	760				
	Quantity	1	1	2	2	2
	Power input (kW)	0.6	0.6	1.2	1.2	1.2
	Fan RPM	550	550	550	550	550
Water pump	Air flow (CMH)	9000	9000	17000	17000	17000
	Type	Horizontal multi stage centrifugal pump				
	Power input (kW)	0.72	0.74	1.1	1.2	1.8
Evaporator	Discharge head (mH2O)	18	16	19	16	20
	Type	Stainless steel plate type				
Expansion tank (incl. water valve)	Water flow (Cooling/Heating) (L/min)	70/81	83/91	100/110	120/130	140/153
	Volume (L)	5	5	8	8	8
Protections		Over heat, over current, phase reversal, high/low pressure				
Refrigerant	Type	R22				
	Charge (kg)	4.3+4.3	4.6+4.6	4.3+8.4	4.6+8.6	4.8+8.8
Physical dimensions	H (mm)	1900				
	W (mm)	1290				
	D (mm)	600				
Water connection size (FPT)		1 - 1/4"				
Net weight (kg)		405	415	493	500	505

Notes:

- Cooling capacity is based on an outdoor ambient temperature 35°C, entering/leaving chilled water 12/7°C.
- Heating capacity is based on an outdoor ambient temperature DB/WB 7/6°C, entering/leaving hot water 40/45°C.
- Above performance data with outdoor unit at full load operation.

HFCF Fan Coil Unit

Model	Air flow	Cooling cap.	Heating cap.	Power input	Water flow	WPD	Dimensions (mm)	Net weight
HFCF	CFM	kW	kW	W	L/min	kPa	L/W/H	kg
02	200	2.16	2.06	23	6.48	10	648/487/230	13
03	300	3.52	3.16	29	10.32	33	883/487/230	18
04	400	4.25	3.95	43	12.54	19	983/487/230	19
05	500	5.22	5.52	67	15.36	27	1103/487/230	21
06	600	6.18	5.69	77	17.94	38	1153/487/230	22
08	800	7.56	7.45	117	22.08	22	1433/487/230	30
10	1000	9.47	9.48	142	27.54	28	1683/487/230	33
12	1200	11.08	11.04	173	32.34	38	1853/487/230	38
14	1400	12.81	12.55	195	37.50	49	1983/487/230	40

Notes:

- Please refer to HFCF catalogue for operating conditions and actual performance.
- Unit is specified in 3 rows, normal duty fan motor and without return air plenum box.
- Above performance data at high fan speed under 12 Pascal of external static pressure.
- Please contact Trane sales office for further assistance/technical details.

FWC Cassette fan coil unit

		FWC04	FWC06	FWC08	FWC10	FWC12
Power supply	V/Ph/Hz	220/1/50				
Air flow	CFM	500	735	824	1000	1141
E.S.P.	Pa	0				
Cooling cap.	kW	4.7	7.5	8.8	9.6	10.3
Heating cap.	kW	7.1	11.5	13.3	14.4	15.4
Power input	W	66	95	135	160	190
Water flow	L/min	14.40	21.54	25.26	27.48	29.58
WPD	kPa	30	38	36	37	38
Noise level	High	42.5	44	44.5	47.5	49.5
	Med.	39	40	42.5	44.5	44.5
	Low	31	35.5	39.5	39.5	42.5
Body dimension	HxWxD	850x850x263			850x850x298	
Panel dimension	HxWxD				950x950x80	
Diffuser dimension	Quantity	4				
	Dimension (LxW)	400x65				
Net weight (Body+panel)	kg	26+6			32+6	
Filter	Material	Nylon				
	Dimension (LxW)	530x505				
Chilled water connectiton (FPT)	Inch	3/4"				
Drainage connection	mm	Ø32				
Condensate pump head	mm	1200				
Control options	/	Wireless/Wired/Wired+wireless				

Notes:

- Please refer to FWC catalogue for operating conditions and actual performance'
- Please contact Trane sales office for further assistance/technical details.

Literature Order Number

CG-SLB016-EN

Date

May 2008

Supersedes

New

For more information, contact your local Trane office or e-mail us at comfort@trane.com

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