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HFCD

*Chilled Water Fan Coil Units
Concealed Type 1,400 - 2,000 CFM
HFCD Series 50 Hz*

TRANE
TECHNOLOGIES

BBAIR
GROUP



Model Nomenclature

<u>H</u> 1	<u>F</u> 2	<u>C</u> 3	<u>D</u> 4	<u>1</u> 5	<u>4</u> 6	<u>C</u> 7	<u>0</u> 8	<u>0</u> 9	<u>1</u> 10	<u>A</u> 11	<u>A</u> 12
Digit 1 - Position H = Horizontal	Digit 2 - Unit Type F = Fan Coil	Digit 3 - Casing C = Concealed	Digit 4 - Development Sequence D = Development Sequence	Digit 5,6 - Size / Nominal Airflow 14 = 1,400 CFM 16 = 1,600 CFM 18 = 1,800 CFM 20 = 2,000 CFM		Digit 7 - Coil Row, Connection Side C = 3 Row Cooling, Right Hand D = 3 Row Cooling, Left Hand E = 4 Row Cooling, Right Hand F = 4 Row Cooling, Left Hand	Digit 8 - Electric Heater 0 = No Electric Heater	Digit 9 - Future Use 0 = Option	Digit 10 - Voltage / Phase / Hertz 1 = 220 / 1 / 50 2 = 220 / 1 / 60	Digit 11 - Plenum / Filter O = Without Return Plenum A = With Return Plenum	Digit 12 - Design Sequence C = Design Sequence

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General Data HFCD 50 Hz

Product Specification

UNIT MODELS		HFCD14	HFCD16	HFCD18	HFCD20
POWER CONNECTION		V/ph/Hz	220-240/1/50	220-240/1/50	220-240/1/50
SYSTEM DATA					
Nominal Airflow	cfm	1,400	1,600	1,800	2,000
Cooling Capacity	Btu/hr	42,000	48,000	54,000	60,000
Water Outlet Connection Size	in	3/4	3/4	3/4	3/4
Water Inlet Connection Size	in	3/4	3/4	3/4	3/4
Water Connection Type		Brazed	Brazed	Brazed	Brazed
COIL					
Fin Type		Corrugate	Corrugate	Corrugate	Corrugate
Fins per inch*					
3-row coil		14	14	14	14
4-row coil		16	16	16	16
Drain Connection Size	in	1/2	1/2	1/2	1/2
FAN					
Fan Type		Centrifugal	Centrifugal	Centrifugal	Centrifugal
Qty		2	2	2	2
Drive Type		Direct	Direct	Direct	Direct
STANDARD FAN MOTOR					
Qty		1	1	1	1
Motor Output Power	W	399	399	450	450
No. of Speed		4	4	4	4
V/ph/Hz		220-240/1/50	220-240/1/50	220-240/1/50	220-240/1/50
RLA	A	3.11	3.11	3.94	3.94
RETURN AIR PLENUM					
Standard for unit		Yes	Yes	Yes	Yes
Filter		Yes	Yes	Yes	Yes
DIMENSION (HxWxD)					
Packing (Shipping)	mm	490x1,168x782	490x1,168x782	490x1,317x782	490x1,317x782
Unit (Net)	mm	408x1,098x759	408x1,098x759	408x1,251x759	408x1,251x759
WEIGHT					
Unit (Net) 3-Row Coil	kg	49	49	56	56
Unit (Net) 4-Row Coil	kg	52	52	60	60

* Note: 1. 3-row coil is standard coil
2. 4-row coil is optional coil
3. Product design and specification are subject to change without notice.

Performance Data - Cooling Capacities

Ceiling Models HFCD14-20

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TC = Total Capacity, MBH
SC = Sensible Capacity, MBH
GPM = Water Flow Rate, gpm
PD = Water Pressure Drop, Ft of Water

Cooling Capacity for 3-Row Coil

EWT (°F)	Unit Size	Nominal Airflow CFM	WTR (°F)	Entering Air Temp - EDB/EWB (°F)											
				72/61				80/67				84/71			
				TC	SC	GPM	PD	TC	SC	GPM	PD	TC	SC	GPM	PD
40	14	1,400	8	39.10	29.80	9.73	11.29	58.91	38.40	14.67	23.03	73.73	42.29	18.36	34.09
			10	34.79	27.92	6.93	6.22	54.43	36.50	10.84	13.53	69.23	40.42	13.79	20.58
			12	30.02	25.90	4.98	3.49	49.65	34.54	8.24	8.36	64.53	38.52	10.71	13.18
			15	20.34	20.07	2.70	1.20	41.80	31.44	5.55	4.18	56.43	35.38	7.50	7.03
	16	1,600	8	42.56	32.85	10.59	13.08	64.08	42.22	15.95	26.67	80.26	46.40	19.98	39.53
			10	38.02	30.88	7.57	7.26	59.08	40.12	11.77	15.60	75.21	44.34	14.98	23.77
			12	33.09	28.82	5.49	4.14	53.99	38.05	8.96	9.66	69.98	42.24	11.62	15.17
			15	24.12	23.02	3.20	1.62	45.78	34.82	6.08	4.89	61.30	38.92	8.14	8.11
	18	1,800	8	49.92	37.95	12.43	20.16	74.66	48.69	18.59	40.69	93.16	53.47	23.19	59.94
			10	45.29	35.92	9.02	11.49	69.37	46.44	13.82	24.10	87.83	51.27	17.49	36.40
			12	40.36	33.81	6.70	6.82	63.97	44.22	10.62	15.16	82.28	49.02	13.66	23.50
			15	31.99	30.35	4.25	3.07	55.71	40.92	7.40	8.03	73.36	45.54	9.74	12.95
	20	2,000	8	53.26	40.90	13.26	22.56	79.68	52.38	19.84	45.57	99.47	57.46	24.76	67.24
			10	48.36	38.78	9.63	12.87	73.91	49.95	14.72	26.92	93.64	55.07	18.65	40.71
			12	43.26	36.61	7.18	7.69	68.10	47.59	11.31	16.90	87.59	52.67	14.54	26.20
			15	34.78	33.11	4.62	3.55	59.47	44.16	7.90	8.99	77.97	48.93	10.36	14.39
43	14	1,400	8	32.36	26.89	8.06	8.03	51.31	35.23	12.78	17.90	66.06	39.13	16.45	27.81
			10	28.31	25.20	5.64	4.31	46.85	33.42	9.34	10.31	61.38	37.28	12.23	16.49
			12	23.79	23.36	3.95	2.32	42.21	31.60	7.01	6.23	56.41	35.36	9.37	10.31
			15	15.01	14.81	2.00	0.71	34.52	28.69	4.59	2.97	48.19	32.34	6.40	5.29
	16	1,600	8	35.30	29.74	8.79	9.34	55.72	38.75	13.88	20.65	71.80	42.97	17.88	32.17
			10	31.08	27.98	6.19	5.06	50.86	36.80	10.13	11.89	66.57	40.92	13.26	18.99
			12	26.49	26.13	4.40	2.78	45.96	34.89	7.63	7.22	61.09	38.83	10.14	11.84
			15	16.44	16.21	2.18	0.82	38.04	31.91	5.05	3.51	52.42	35.67	6.97	6.12
	18	1,800	8	41.56	34.31	10.35	14.48	65.16	44.68	16.23	31.69	83.54	49.53	20.80	48.98
			10	37.27	32.52	7.43	8.09	59.86	42.56	11.93	18.43	78.00	47.34	15.54	29.26
			12	32.69	30.64	5.43	4.68	54.79	40.56	9.10	11.45	72.19	45.09	11.99	18.50
			15	24.57	23.75	3.27	2.01	46.80	37.50	6.22	5.87	63.21	41.76	8.40	9.89
	20	2,000	8	44.36	37.06	11.05	16.22	69.44	48.13	17.29	35.42	89.10	53.25	22.19	54.83
			10	39.90	35.20	7.95	9.11	63.74	45.85	12.70	20.56	83.06	50.89	16.55	32.64
			12	35.21	33.29	5.85	5.32	58.36	43.75	9.69	12.77	76.74	48.48	12.74	20.58
			15	27.06	25.74	3.60	2.28	50.10	40.60	6.66	6.60	67.23	44.96	8.93	11.00
45	14	1,400	8	28.14	25.12	7.01	6.26	46.18	33.14	11.50	14.79	60.74	37.03	15.13	23.85
			10	24.39	23.61	4.87	3.30	42.03	31.47	8.41	8.43	55.93	35.18	11.15	13.92
			12	19.98	19.72	3.32	1.70	37.38	29.76	6.21	5.01	50.86	33.30	8.45	8.55
			15	13.27	13.09	1.76	0.57	29.94	27.02	3.98	2.30	42.73	30.40	5.68	4.26
	16	1,600	8	30.78	27.86	7.67	7.31	50.14	36.51	12.49	17.06	65.95	40.67	16.43	27.53
			10	26.90	26.28	5.36	3.91	48.07	34.74	9.61	9.73	60.58	38.64	12.07	16.00
			12	22.58	21.51	3.75	2.10	40.80	32.95	6.78	5.83	55.11	36.63	9.15	9.83
			15	14.00	13.82	1.86	0.62	33.21	30.15	4.41	2.75	46.59	33.61	6.19	4.95
	18	1,800	8	36.33	32.13	9.05	11.38	58.68	42.09	14.62	26.22	76.90	46.91	19.15	42.05
			10	32.37	30.51	6.45	6.29	54.10	40.13	10.82	15.15	71.19	44.72	14.19	24.76
			12	28.10	26.85	4.67	3.58	48.84	38.28	8.11	9.31	65.26	42.52	10.84	15.41
			15	19.62	19.35	2.61	1.30	41.18	35.43	5.47	4.67	56.55	39.37	7.52	8.09
	20	2,000	8	38.85	34.76	9.77	12.78	62.53	45.37	15.57	29.28	81.94	50.45	20.41	47.01
			10	34.76	33.11	6.93	7.12	60.04	43.29	12.01	16.89	75.73	48.09	15.09	27.58
			12	30.39	29.03	5.05	4.09	52.09	41.34	8.65	10.41	69.35	45.74	11.52	17.12
			15	22.19	21.90	2.95	1.61	44.21	38.43	5.88	5.28	60.19	42.47	8.00	9.02
50	14	1,400	8	19.60	18.67	4.89	3.28	34.06	28.53	8.49	8.55	46.79	31.84	11.66	14.86
			10	16.45	16.22	3.28	1.64	30.40	27.19	6.06	4.74	42.20	30.21	8.42	8.38
			12	10.96	10.82	1.82	0.59	26.59	25.82	4.42	2.73	37.48	28.59	6.23	4.95
			15	8.92	8.80	1.19	0.28	20.00	19.66	2.66	1.13	29.93	26.08	3.98	2.26
	16	1,600	8	21.67	20.61	5.40	3.91	37.06	31.56	9.24	9.90	50.68	35.05	12.63	17.08
			10	18.41	18.16	3.67	2.00	33.25	30.17	6.63	5.54	45.70	33.31	9.12	9.62
			12	11.65	11.49	1.94	0.66	29.32	28.78	4.88	3.23	40.78	31.63	6.78	5.72
			15	9.36	9.24	1.25	0.31	22.72	21.54	3.02	1.41	33.05	29.08	4.40	2.68
	18	1,800	8	25.55	24.35	6.37	6.07	43.46	36.27	10.83	15.25	59.42	40.39	14.81	26.34
			10	22.47	22.17	4.48	3.28	39.45	34.80	7.87	8.71	53.96	38.47	10.76	15.01
			12	18.02	17.77	3.00	1.63	35.41	33.34	5.89	5.24	48.79	36.68	8.11	9.13
			15	10.78	10.64	1.43	0.46	28.88	27.52	3.84	2.49	40.88	34.04	5.44	4.53
	20	2,000	8	27.54	26.21	6.87	6.91	46.35	39.21	11.56	17.06	63.20	43.53	15.75	29.31
			10	24.32	24.00	4.85	3.77	42.16	37.69	8.41	9.77	57.35	41.47	11.44	16.68
			12	19.86	19.60	3.30	1.93	37.99	36.20	6.32	5.92	51.91	39.62	8.63	10.17
			15	11.17	11.02	1.49	0.49	31.34	29.84	4.17	2.86	43.78	36.91	5.83	5.10

Note : Product design and specification are subject to change without notice.

Cooling Capacity for 4-Row Coil

EWT (°F)	Unit Size	Nominal Airflow CFM	WTR (°F)	Entering Air Temp - EDB/EWB (°F)											
				72/61				80/67				84/71			
				TC	SC	GPM	PD	TC	SC	GPM	PD	TC	SC	GPM	PD
40	14	1,400	8	49.36	37.61	12.29	20.93	72.19	48.08	17.97	40.66	89.16	52.86	22.20	58.87
			10	45.94	35.45	9.15	12.45	68.51	45.83	13.65	24.98	85.55	50.80	17.04	36.85
			12	42.27	33.69	7.02	7.81	64.57	43.96	10.72	16.31	81.66	48.97	13.55	24.57
			15	36.13	30.85	4.80	4.02	58.54	41.23	7.78	9.26	75.19	46.07	9.99	14.32
	16	1,600	8	54.14	41.33	13.48	24.59	79.30	52.93	19.74	47.92	98.03	58.33	24.41	69.53
			10	50.29	39.46	10.02	14.58	75.08	50.92	14.95	29.32	93.87	56.37	18.70	43.34
			12	46.32	37.57	7.69	9.16	70.63	48.83	11.72	19.07	89.41	54.30	14.84	28.79
			15	39.80	34.55	5.29	4.75	63.95	45.81	8.49	10.80	82.07	51.02	10.90	16.68
	18	1,800	8	61.87	46.77	15.40	23.48	90.59	59.92	22.55	45.72	112.00	66.05	27.87	66.31
			10	57.50	44.67	11.45	13.93	85.82	57.65	17.09	28.00	107.30	63.84	21.36	41.37
			12	52.93	42.50	8.79	8.75	80.76	55.31	13.41	18.23	102.20	61.54	16.97	27.51
			15	45.34	39.00	6.02	4.51	73.15	51.87	9.72	10.33	93.89	57.83	12.47	15.95
	20	2,000	8	66.92	50.73	16.66	26.91	98.11	64.93	24.42	52.57	121.40	71.50	30.21	76.38
			10	62.09	48.43	12.37	15.92	92.75	62.43	18.47	32.07	116.10	69.05	23.12	47.48
			12	57.19	46.13	9.49	10.00	87.15	59.87	14.47	20.81	110.40	66.49	18.33	31.47
			15	49.23	42.53	6.54	5.20	78.82	56.16	10.47	11.76	101.10	62.45	13.43	18.15
43	14	1,400	8	41.51	33.34	10.34	15.29	63.81	43.61	15.89	32.38	80.75	49.02	20.11	48.94
			10	38.18	31.79	7.61	8.93	59.97	41.86	11.95	19.58	76.91	46.83	15.32	30.25
			12	34.62	30.17	5.75	5.46	56.11	40.15	9.32	12.64	72.72	44.98	12.08	19.84
			15	28.77	27.59	3.82	2.68	50.01	37.50	6.65	6.97	66.00	42.12	8.77	11.29
	16	1,600	8	45.48	37.17	11.32	17.93	69.97	48.52	17.42	38.05	88.66	53.97	22.08	57.64
			10	41.82	35.47	8.33	10.46	65.62	46.56	13.07	22.91	84.24	51.98	16.78	35.46
			12	38.03	33.75	6.32	6.43	61.29	44.63	10.18	14.73	79.47	49.89	13.20	23.17
			15	31.90	31.02	4.24	3.20	54.66	41.77	7.26	8.13	71.92	46.70	9.56	13.11
	18	1,800	8	51.98	42.05	12.94	17.13	79.96	54.94	19.91	36.33	101.30	61.11	25.23	55.01
			10	47.81	40.13	9.53	9.99	75.03	52.71	14.95	21.89	96.30	58.88	19.19	33.88
			12	43.41	38.14	7.21	6.13	70.11	50.54	11.64	14.09	90.89	56.52	15.09	22.16
			15	36.21	34.98	4.81	3.02	62.51	47.28	8.31	7.77	82.31	52.91	10.94	12.55
	20	2,000	8	56.18	45.68	13.99	19.60	86.46	59.54	21.53	41.65	109.60	66.16	27.30	63.20
			10	51.64	43.62	10.29	11.42	80.99	57.11	16.14	25.02	104.00	63.69	20.73	38.78
			12	47.02	41.53	7.81	7.04	75.57	54.75	12.55	16.05	97.99	61.11	16.27	25.26
			15	39.54	38.28	5.25	3.52	67.38	51.30	8.95	8.86	88.54	57.20	11.76	14.25
45	14	1,400	8	36.35	30.96	9.06	12.05	58.00	40.98	14.45	27.20	74.90	45.93	18.66	42.58
			10	33.19	29.53	6.62	6.95	54.25	39.33	10.81	16.32	70.87	44.19	14.12	26.03
			12	29.84	28.06	4.96	4.20	50.43	37.69	8.38	10.41	66.45	42.30	11.04	16.84
			15	24.29	24.14	3.23	1.99	44.39	35.15	5.90	5.63	57.48	38.64	7.16	7.86
	16	1,600	8	39.83	34.56	9.92	14.12	63.54	45.62	15.83	31.91	82.14	51.06	20.46	50.05
			10	36.43	33.02	7.26	8.17	59.31	43.76	11.82	19.06	77.52	49.06	15.45	30.45
			12	32.89	31.46	5.46	4.96	55.06	41.94	9.15	12.13	72.55	46.96	12.05	19.62
			15	27.10	27.06	3.60	2.40	48.58	39.25	6.46	6.58	65.13	43.94	8.66	10.95
	18	1,800	8	45.53	39.10	11.34	13.49	72.63	51.64	18.09	30.48	93.87	57.81	23.38	47.79
			10	41.62	37.34	8.29	7.79	67.82	49.55	13.52	18.23	88.64	55.56	17.67	29.10
			12	37.50	35.53	6.23	4.72	62.99	47.48	10.46	11.61	82.99	53.20	13.79	18.77
			15	30.65	30.37	4.07	2.25	55.53	44.39	7.38	6.28	74.55	49.76	9.91	10.49
	20	2,000	8	49.22	42.51	12.26	15.45	78.48	56.01	19.55	34.90	101.50	62.60	25.28	54.81
			10	45.04	40.67	8.98	8.94	73.16	53.73	14.58	20.80	95.65	60.13	19.06	33.23
			12	40.72	38.78	6.77	5.45	67.86	51.49	11.27	13.21	89.40	57.55	14.85	21.37
			15	33.64	33.33	4.47	2.64	59.94	48.26	7.97	7.17	80.13	53.84	10.65	11.89

Note : Product design and specification are subject to change without notice.

Product Specifications and Options

GENERAL

HFCD: Concealed Ceiling Models-with Return Plenum

The unit shall be factory installed return air plenum that encloses the fan section of the HFCD unit. No field fabrication is required. Filter should be accessible from return air grille. The return air arrangement is adaptable between bottom or rear return of the plenum. Unit sizes offer a wide capacity range in 1,400-2,000 cfm.

CASING

Casings are constructed of zinc coated, heavy gauge, galvanized steel. Interior surface of unit panels are acoustically and thermally insulated with Polyethylene foam. Units are furnished as standard with a 1 inch duct collar to facilitate connection of the supply air duct.

WATER COIL

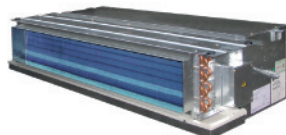
Coils are of 3 rows or 4 rows design with highly efficient aluminum fins. Aluminum fins are mechanically bonded to seamless copper tubes. All coils are specifically designed and circuited for water use. All coils are tested at 380 psi.

FAN

Fans are double width, double inlet multiblade centrifugal type. All fans are statically and dynamically balanced.

DRAIN PAN

Improves accuracy of temperature control, and ready-to-install connection on coil is also provided by Trane factory for easier installation, time saving and money.



MOTOR

Single-phase motors are suitable for 220/1/50. All motors have 10 percent voltage utilization range and wired to unit terminal box. Motors are designed for long life.

ROOM THERMOSTAT (OPTION)

Room thermostat has the following features:

- Power - On/Off
- Fan Speeds - Low, Medium, High.
- Temperature adjustment between 16-30 °C.

MOTORIZED VALVE (OPTION)

The valve is driven by synchronous motor with spring to keep the room temperature within the setting range.



TRANE

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เทรน (ประเทศไทย)

เลขที่ 1126/2 ชั้น 30-31 อาคารวานิช 2 ถ.เพชรบุรีตัดใหม่ แขวงมักกะสัน เขตราชเทวี กรุงเทพฯ 10400

☎ 0-2761-1111

