



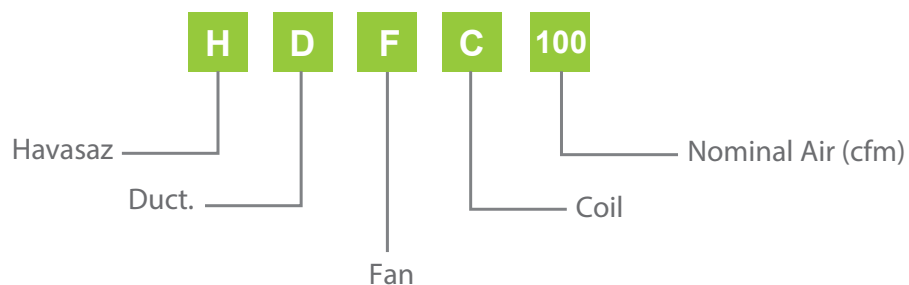
DUCT FAN COIL





HAVASAZ Contents

FEATURES / BENEFITS.....	4
LOW – COST INSTALLATION.....	4
DEPENDABLE PERFORMANCE.....	4
UNIT SELECTION.....	18
SOLUTION:.....	19
HAVASAZ DUCTED FANCOIL.....	20



Ducted fan coil units offer design and equipment location flexibility.

Choice of 4 models, each available in 8 sizes

For - 2 – pipe 4 –pipe and electric heat systems with optional factory furnished controls.

Up to 0.4 in.w.g duct static with some models

Features / Benefits

The HDFC series ducted fan coil units delivers quiet. Dependable air conditioning in a wide range of capacities Units providing air flow 800 TO 2000 CFM are designed to economically fill multiroom application requirements in apartments , motels , and office building .

These easy – to – install units are available in horizontal models for cabinet or furred – in applications. Casings and frame are fabricated from tough , heavy gage galvanized steel models ADFA , FC and FE feature a galvanized finish as – installed options(including coil, motors, filters, drain pans and electric strip heaters) can custom – tailor your units to the exact conditions of your applications.

Low – Cost Installation

Each unit is designed to occupy a minimum space. This feature along with convenient wiring and piping connections means the ADF reduces costs on renovations or new constructions sites Grommeted mounting holes or slots on top of the unit speed hanging Quiet.

Dependable performance

All ADF series unit are built to operate unobtrusively, with quiet motors and low fan speed.

Plastophom 20 mm. thick, absorbs operating sound in fully insulated casings. Efficient operation ADF quality reduces service and maintenance expenses. Condensate drain pan is stainless steel so corrosion is omitted and long, trouble – free life is assured.

MODEL	NOMINAL AIR FLOW (C.F.M)	COOLING					HEATING
		ENTERING WATER (°F)	WATER FLOW (GPM)	WATER PRESSURE DROP (FT.W.G)	TOTAL (BTU/HR)	SENSIBLE (BTU/HR)	CAPACITY (BTU/HR)
HDFC-08	800	45	6.0	2.4	26100	20100	68100
HDFC-10	1000	45	7.0	3.7	33000	25000	84250
HDFC-12	1200	45	8.0	5.4	39400	30300	101600
HDFC-14	1400	45	10.0	9.2	48600	36100	120100
HDFC-16	1600	45	12.0	14.3	57600	41900	138500
HDFC-18	1800	45	13.0	18.3	64800	47200	154700
HDFC-20	2000	45	14.0	22.5	71500	52300	170100

Cooling: entering air db/wb(80/67°F)

Heating: entering water 180°F
entering air 70°F

Cfm @. External Static Pressure - 220V Motor

Low Static (0~0.25 IN.WG E.S.P)



MODEL	UNIT SIZE	CFM@EXTERNAL STATIC PRESSURE			
		0.00	0.10	0.20	0.25
DE	HDFC-08	833	780	733	704
	HDFC-10	981	856	822	766
	HDFC-12	1233	1150	1074	1023
	HDFC-14	1462	1388	1305	1220
	HDFC-16	1584	1480	1374	1318
	HDFC-18	1768	1657	1491	1418
	HDFC-20	2019	1921	1827	1775

Values based on 4-Row Dry Coil

For each additional row of dry coil, add 0.05 IN.WG SP

Wet coil CFM is %92 of dry CFM.

Medium and low speed air delivery is %70 and %50 receptivity, of high speed air delivery.

High Static (0.2~0.5 IN.WG E.S.P)

MODEL	UNIT SIZE	CFM@EXTERNAL STATIC PRESSURE				
		0.20	0.25	0.30	0.40	0.50
DE DEV DCP	HDFC-08	837	797	760	673	560
	HDFC-10	953	909	852	719	853
	HDFC-12	1322	1265	1200	1075	927
	HDFC-14	153	1471	1405	1270	1111
	HDFC-16	1676	1613	1549	1404	1191
	HDFC-18	1773	1713	1648	1496	1315
	HDFC-20	1913	1845	1766	1626	1440

MODEL	UNIT SIZE	CFM@EXTERNAL STATIC PRESSURE				
		0.20	0.25	0.30	0.40	0.50
DC	HDFC-08	920	887	847	767	683
	HDFC-10	1074	1026	976	859	729
	HDFC-12	1406	1363	1318	1202	1058
	HDFC-14	1774	1708	1649	1498	1305
	HDFC-16	1867	1789	1745	1587	1393
	HDFC-18	2005	1940	1878	1730	1539
	HDFC-20	2130	2074	2030	1889	1698

Values based on 4-Row Dry Coil

For each additional row of dry coil, add 0.05 IN.W.G SP

Wet coil CFM is %92 of dry CFM.

Medium and low speed air delivery is %70 and %50 receptivity, of high speed air delivery.

CAPACITY CORRECTION FACTORS

UNIT SIZE	HDFC-08		HDFC-10		HDFC-12		HDFC-14		HDFC-16		HDFC-18		HDFC-20	
CFM	CT	CS	CT	CS	CT	CS	CT	CS	CT	CS	CT	CS	CT	CS
200	---	---	---	---	---	---	---	---	---	---	---	---	---	---
225	---	---	---	---	---	---	---	---	---	---	---	---	---	---
250	---	---	---	---	---	---	---	---	---	---	---	---	---	---
275	0.47	0.42	---	---	---	---	---	---	---	---	---	---	---	---
300	0.51	0.45	0.43	0.38	---	---	---	---	---	---	---	---	---	---
350	0.57	0.50	0.48	0.46	---	---	---	---	---	---	---	---	---	---
400	0.62	0.57	0.53	0.47	0.46	0.41	---	---	---	---	---	---	---	---
450	0.67	0.69	0.58	0.52	0.51	0.45	---	---	---	---	---	---	---	---
500	0.72	0.73	0.62	0.57	0.55	0.47	---	---	---	---	---	---	---	---
550	0.77	0.74	0.66	0.62	0.58	0.53	0.57	0.47	---	---	---	---	---	---
600	0.82	0.80	0.70	0.67	0.62	0.57	0.58	0.53	---	---	---	---	---	---
700	0.92	0.91	0.78	0.76	0.69	0.65	0.62	0.57	0.57	0.50	---	---	---	---
800	1.00	1.00	0.86	0.85	0.76	0.73	0.68	0.64	0.62	0.57	0.57	0.51	---	---
900	1.08	1.08	0.94	0.93	0.82	0.80	0.74	0.71	0.67	0.63	0.62	0.57	0.58	0.52
1000	1.16	1.18	1.00	1.00	0.89	0.87	0.82	0.80	0.72	0.69	0.68	0.65	0.62	0.57
1200	---	---	1.13	1.14	1.00	1.00	0.90	0.89	0.82	0.80	0.76	0.72	0.70	0.67
1400	---	---	---	---	1.11	1.12	1.00	1.00	0.92	0.91	0.84	0.82	0.78	0.76
1600	---	---	---	---	1.18	1.22	1.10	1.11	1.00	1.00	0.93	0.92	0.86+	0.85
1800	---	---	---	---	---	---	---	---	1.08	1.08	1.00	1.00	0.94	0.93
2000	---	---	---	---	---	---	---	---	1.16	1.18	1.07	1.07	1.00	1.00
2200	---	---	---	---	---	---	---	---	---	---	---	---	1.07	1.07
2400	---	---	---	---	---	---	---	---	---	---	---	---	1.13	1.14

Water Temperature Rise head constant

Actual cooling BTUH=base BTUH(@ nominal CFM)*Capacity Correction Factor (ct for total and Cs for sensible)

Actual hot water heating BTUH= Base on Adjusted BTUH (@ nominal CFM)*capacity Correction Factors.

ALTITUDE CORRECTION ELEVATION (ft)

ELEVATION FT	1000	2000	3000	4000	5000	6000
TOTLA HEAT	0.99	0.98	0.97	0.96	0.94	0.93
SENSIBLE HEAT	0.96	0.93	0.90	0.86	0.83	0.80

COOLING CAPACITIES- FOUR ROW COIL

40F Entering Water Temperature

UNIT SIZE	GPM	PD	72/61		74/61		74/63		76/63		76/65		78/65		80/67		82/67		82/69		84/69		84/71		86/71	
			TH	SH	TH	SH	TH	SH	TH	SH	TH	SH	TH	SH	TH	SH	TH	SH	TH	SH	TH	SH	TH	SH	TH	SH
HDFC-08	4	1.2	20.3	17.1	20.5	18.4	22.2	18.0	22.4	19.3	25.1	18.8	24.9	20.1	16.0	14.6	16.6	15.8	18.3	15.6	18.2	16.5	20.1	16.9	20.6	17.6
	5	1.8	21.1	17.8	21.3	19.3	24.1	18.8	23.3	20.2	27.3	19.7	26.4	21.1	17.8	15.4	17.8	16.4	19.5	16.5	20.3	17.5	22.5	18.1	22.1	18.7
	6	2.5	23.3	18.5	22.6	19.8	26.1	19.4	25.7	20.7	29.0	20.4	28.9	21.8	18.6	16.2	19.2	17.2	21.5	17.0	21.1	18.4	24.5	18.3	24.3	19.3
	8	4.1	25.7	19.3	25.5	20.7	28.7	20.3	28.6	21.8	31.8	21.3	31.8	22.8	21.1	16.9	21.0	18.1	24.0	17.8	24.0	19.1	27.0	18.7	27.1	20.0
HDFC-10	5	2.1	26.1	21.6	26.3	23.2	28.1	22.6	27.9	24.4	31.9	23.7	31.0	25.6	20.6	18.7	21.2	19.9	23.5	19.7	23.7	21.3	25.0	21.0	25.4	22.1
	6	2.8	27.7	22.4	28.1	24.1	30.3	23.5	29.3	25.2	34.2	24.6	33.2	26.4	22.4	19.3	22.3	20.5	24.5	20.7	25.6	21.9	28.2	21.7	27.4	23.4
	8	4.7	30.4	23.5	30.0	25.2	34.0	24.7	33.8	26.5	37.7	25.9	37.6	27.7	24.5	20.5	25.2	22.6	28.3	21.6	28.1	23.3	31.8	22.7	31.8	24.4
	10	6.9	32.5	24.2	24	26.0	36.3	25.5	36.2	27.3	40.1	26.7	40.2	28.6	26.6	21.4	26.5	22.8	30.3	22.3	30.4	24.0	34.0	23.3	34.2	25.0
HDFC-12	6	3.3	32.3	26.3	32.1	28.5	35.3	27.8	35.0	29.8	39.9	29.1	38.2	31.1	25.7	22.8	26.1	24.1	28.0	24.7	29.3	25.8	31.3	25.6	31.9	27.0
	7	4.4	33.8	27.2	34.5	29.3	37.2	28.6	36.9	30.6	41.9	29.9	40.8	32.1	27.4	23.4	27.7	25.6	30.1	25.1	31.3	26.6	34.7	26.4	33.6	28.2
	8	5.5	35.1	27.8	35.8	29.8	39.4	29.2	38.9	31.4	43.8	30.6	43.5	32.8	28.7	24.3	29.0	25.9	32.3	25.5	31.5	27.6	36.6	26.8	36.3	28.8
	10	8.1	38.0	28.7	37.7	30.9	42.5	30.2	42.4	32.4	47.1	31.7	47.1	33.9	30.8	25.0	30.7	27.0	35.4	26.4	35.1	28.4	39.8	27.7	39.9	29.8
HDFC-14	7	5	37.1	31.4	38.5	33.7	41.9	32.7	42.1	35.2	47.7	34.4	46.3	36.9	31.0	27.0	31.1	28.7	33.9	28.9	35.1	30.5	37.8	30.4	38.4	32.3
	8	6.3	38.9	32.0	40.9	34.5	44.1	33.7	43.8	36.2	49.3	35.1	48.4	37.8	32.4	27.5	33.0	30.1	35.6	29.5	37.1	31.2	40.8	30.9	39.9	33.2
	10	9.3	43.1	33.2	42.3	35.7	48.3	34.9	47.9	37.4	53.5	36.6	53.3	39.1	34.7	29.1	35.3	30.7	39.9	30.5	39.3	32.8	45.0	32.0	44.9	34.4
	12	12.8	45.6	34.0	45.3	36.6	50.9	35.8	50.9	38.4	56.4	37.5	56.4	40.1	37.3	30.7	37.7	32.1	42.4	32.2	42.5	33.6	47.7	33.7	47.8	35.2
HDFC-16	8	7.1	42.8	36.0	44.9	38.9	49.2	38.0	50.3	40.6	55.5	39.7	53.7	42.5	36.1	31.2	36.2	33.1	37.8	33.6	41.0	35.3	44.2	35.0	44.5	37.6
	10	10.5	47.5	37.5	47.8	40.4	53.4	39.4	52.6	42.3	59.4	41.3	58.9	44.2	37.4	32.8	39.0	35.1	43.9	36.4	42.6	37.3	49.7	37.2	49.6	38.8
	12	14.4	50.9	38.5	50.1	41.3	56.9	40.5	56.4	43.2	63.1	42.4	62.9	45.4	41.3	33.6	42.7	36.4	47.2	36.9	46.9	38.1	53.2	38.1	53.2	39.8
	14	18.9	53.2	39.3	42.7	42.1	59.4	41.3	59.4	44.3	65.7	43.4	65.8	46.3	43.5	34.2	44.2	37.0	49.5	37.0	49.6	38.8	55.6	38.8	55.9	40.5
HDFC-18	9	9.7	49.0	40.9	51.5	44.2	56.2	43.1	55.5	46.1	63.3	45.1	61.2	48.2	41.3	35.4	42.1	38.1	43.3	38.0	47.0	40.0	50.6	39.7	49.9	42.9
	11	13.8	53.8	42.4	53.6	45.4	60.4	44.5	59.6	47.8	67.2	46.6	66.7	50.0	42.2	37.0	44.7	39.3	49.6	39.0	47.9	41.9	56.3	41.8	55.7	43.9
	13	18.5	57.3	43.4	46.4	46.5	64.0	45.6	63.8	48.9	71.1	47.8	70.9	51.2	46.4	37.9	46.6	40.5	53.2	39.9	52.8	43.0	59.9	42.7	59.6	44.7
	16	16.6	60.7	44.5	60.5	47.9	67.8	46.9	67.8	50.2	75.0	49.2	75.2	52.5	49.8	38.8	49.5	41.9	56.7	41.8	56.7	43.9	63.6	43.8	63.9	46.0
HDFC-20	10	12.6	54.6	45.5	55.7	49.2	62.6	47.9	60.9	51.6	70.5	50.2	68.8	53.8	46.2	39.3	46.9	41.6	49.0	42.0	52.5	44.5	56.6	43.9	54.9	47.7
	12	17.4	59.4	46.8	59.3	50.4	67.0	49.4	66.0	53.0	74.4	51.7	73.8	55.4	47.8	41.0	48.6	43.6	55.0	43.2	53.1	46.5	62.3	46.3	61.7	48.7
	14	22.7	63.3	48.0	62.4	51.7	70.8	50.5	70.4	54.2	78.4	52.7	78.3	56.6	50.9	42.8	51.1	44.7	58.6	44.1	58.1	47.5	66.0	47.2	66.0	49.6
	18	35.4	67.8	49.6	67.7	53.3	75.6	52.2	75.7	55.9	83.7	54.7	83.9	58.5	55.6	43.1	55.2	46.4	63.2	46.3	63.4	48.8	70.8	48.5	71.3	51.0

NOTES:

1. Total heat(TH) and Sensible Heat (SH) are expressed in MBH.
2. Pressure Drop (PD) is Give in Feets Of Water.
3. Water Temperature Rise = Total MBH/(0.5*GPM).
- 4 . Temperatures Are in F

45F Entering Water Temperture

UNIT SIZE	GPM	PD	72/61		74/61		74/63		76/63		76/65		78/65		80/67		82/67		82/69		84/69		84/71		86/71	
			TH	SH	TH	SH	TH	SH	TH	SH	TH	SH	TH	SH	TH	SH	TH	SH	TH	SH	TH	SH	TH	SH	TH	SH
HDFC-08	4	1.1	16.4	14.9	17.1	15.5	17.7	15.7	18.4	16.9	20.3	16.5	20.5	17.8	22.7	18.7	23.0	19.9	25.1	19.5	25.0	20.9	28.0	20.4	27.6	21.6
	5	1.8	17.2	15.4	17.5	16.6	19.9	16.3	20.0	17.7	21.2	17.2	21.5	18.0	23.5	19.4	24.2	20.9	26.6	20.4	25.9	21.8	30.4	21.3	29.4	22.7
	6	2.4	18.7	15.9	18.9	17.3	20.4	16.9	21.3	18.3	23.5	17.8	22.9	19.2	26.1	20.1	25.4	21.5	29.3	21.1	28.9	22.5	32.5	22.0	32.3	23.4
HDFC-10	8	4	19.7	16.5	20.4	18.0	22.9	17.6	22.6	19.0	26.1	18.6	26.0	20.1	29.2	21.0	29.0	22.5	32.5	22.1	32.5	23.5	35.9	23.0	36.0	24.4
	5	1.9	20.7	18.6	21.0	19.4	22.9	19.8	23.7	21.4	26.1	20.8	25.8	22.5	29.1	23.5	29.4	25.2	31.4	24.7	32.3	26.3	35.8	25.8	35.6	27.3
	6	2.8	21.6	19.3	22.4	21.0	25.0	20.4	24.7	22.2	27.9	21.6	27.3	23.3	3.6	24.4	31.7	26.1	35.5	25.5	35.5	27.3	38.1	26.6	37.8	28.4
HDFC-12	8	4.6	22.8	20.1	23.1	21.9	26.9	21.4	26.0	23.1	30.7	22.6	30.5	24.4	34.4	25.6	34.0	27.4	38.4	26.8	38.2	28.6	42.4	27.9	42.3	29.7
	10	6.8	25.2	20.8	25.0	22.5	29.1	22.1	28.7	23.7	32.9	23.4	32.9	25.1	37.0	26.4	36.9	28.2	41.1	27.6	41.2	29.4	45.4	28.8	45.5	30.7
	6	3.1	25.6	22.7	26.1	24.1	28.5	24.1	29.3	26.1	32.4	25.4	32.2	27.4	36.1	28.7	35.9	30.9	38.9	30.1	39.2	32.1	44.0	31.3	44.2	33.2
HDFC-14	7	4.3	26.6	23.4	27.5	25.4	29.9	24.8	30.2	26.9	33.8	26.1	33.7	28.3	37.3	29.5	36.8	31.7	41.1	30.9	40.9	33.1	46.7	32.3	46.2	34.4
	8	5	28.1	23.9	28.7	26.1	31.7	25.4	32.2	27.4	35.3	26.8	35.3	28.9	39.4	30.3	38.1	32.4	44.0	31.6	43.5	33.8	48.8	33.0	48.6	35.2
	10	8	29.1	24.7	30.3	26.9	33.8	26.2	33.0	28.2	38.3	27.6	38.1	29.7	43.1	31.3	42.8	33.5	48.0	32.8	47.9	34.9	53.1	34.2	53.0	36.4
HDFC-16	7	4.7	30.6	26.9	30.9	28.9	34.2	28.4	35.0	31.0	36.8	30.1	38.7	32.5	43.3	33.9	43.1	36.5	46.9	35.7	46.2	37.9	52.9	37.1	50.9	39.5
	8	6.2	31.5	27.5	32.6	30.0	36.3	29.1	36.0	31.6	39.0	30.9	41.1	33.8	46.2	34.9	46.1	37.3	49.1	36.5	48.5	39.0	55.3	38.0	54.6	40.5
	10	9.2	32.9	28.4	33.9	31.0	37.9	30.1	36.1	32.8	43.5	32.0	42.8	34.5	48.6	36.1	47.8	38.7	54.3	37.8	53.8	40.3	60.0	39.4	59.7	41.9
HDFC-18	12	12.6	34.9	29.1	36.3	31.6	40.7	30.9	40.2	33.5	46.2	32.8	46.0	35.3	51.8	37.1	51.5	39.6	57.7	38.8	57.6	41.3	63.7	40.4	63.8	43.0
	8	7	35.5	31.0	35.7	33.4	40.1	32.9	40.8	35.6	44.0	34.7	45.3	37.5	48.3	39.6	49.6	42.1	54.7	41.2	56.2	43.7	61.2	42.7	59.6	45.6
	10	10.4	38.2	32.2	38.9	35.0	41.5	34.2	41.7	36.9	47.8	36.1	47.2	38.8	52.2	40.9	51.3	43.6	59.8	42.7	59.4	45.5	66.3	44.5	65.8	47.4
HDFC-20	12	14.3	39.4	32.9	40.0	35.9	45.1	35.1	44.7	37.8	51.4	37.1	51.0	40.0	57.6	41.9	56.9	44.8	64.2	43.8	63.9	46.8	71.0	45.7	70.8	48.7
	14	18.7	41.1	33.7	42.5	36.6	47.5	35.8	46.8	38.5	53.9	37.8	53.8	40.8	60.5	42.8	60.3	45.7	67.3	44.7	67.3	47.7	74.4	46.7	74.4	49.7
	9	9.6	39.3	35.4	40.6	38.7	45.8	37.3	46.5	40.4	49.6	39.5	51.6	42.5	55.4	44.9	55.7	47.7	62.5	46.7	62.2	49.5	70.5	48.6	68.4	51.9
HDFC-22	11	13.6	42.3	36.4	42.1	39.6	47.9	38.6	47.5	41.7	54.1	40.8	53.2	43.8	60.3	46.1	59.3	49.4	67.7	48.2	66.5	51.5	75.0	50.2	74.1	53.3
	13	18.3	44.0	37.1	45.5	40.4	50.8	39.5	49.9	42.6	57.9	41.7	57.1	45.0	64.8	47.2	64.0	50.5	72.3	49.4	71.9	52.7	79.9	51.5	79.7	54.8
	16	26.3	47.1	38.2	46.9	41.4	54.4	40.5	53.8	43.8	61.7	42.9	61.5	46.2	69.2	48.5	69.0	51.8	77.0	50.7	77.1	54.1	85.0	52.9	85.1	56.3
HDFC-24	10	12.5	44.2	39.4	46.3	42.8	51.3	41.5	50.7	45.4	57.2	43.9	57.7	47.2	61.0	49.7	62.8	53.1	69.7	52.0	70.8	57.1	78.4	54.1	76.4	57.8
	12	17.2	48.1	40.4	48.0	43.7	53.9	42.8	53.1	46.4	59.9	45.2	59.2	48.8	66.5	51.1	65.3	54.6	75.1	53.4	74.7	58.3	83.2	55.7	82.4	59.4
	14	22.5	49.6	41.2	50.3	44.9	56.0	43.7	55.8	47.1	63.9	46.2	63.1	49.9	71.5	52.3	70.5	56.0	79.7	54.6	79.3	60.2	88.1	57.0	87.9	60.7
	18	34.9	52.7	42.5	52.1	46.1	60.7	45.1	60.4	48.8	68.9	47.7	68.9	51.4	77.3	53.9	77.1	57.7	85.9	56.4	86.0	60.4	94.8	58.9	95.0	62.6

NOTES:

1. Total heat(TH) and Sensible Heat (SH) are expressed in MBH.
2. Pressure Drop (PD) is Give in Feets Of Water.
3. Water Temperature Rise = Total MBH/(0.5*GPM).
- 4 . Temperatures Are in F

50F Entering Water Temperture

UNIT SIZE	GPM	PD	72/61		74/61		74/63		76/63		76/65		78/65		80/67		82/67		82/69		84/69		84/71		86/71	
			TH	SH	TH	SH	TH	SH	TH	SH	TH	SH	TH	SH	TH	SH	TH	SH	TH	SH	TH	SH	TH	SH	TH	SH
HDFC-08	4	1.2	12.9	12.4	13.6	12.6	15.0	13.8	15.7	14.6	15.6	14.1	16.2	14.9	18.0	16.2	19.3	17.2	20.1	17.1	20.5	18.4	22.2	17.9	22.6	19.2
	5	1.7	14.0	12.9	14.2	13.5	15.6	14.5	16.2	15.2	17.0	14.7	17.4	16.1	19.6	16.9	20.0	18.3	22.2	17.8	22.3	19.2	23.8	18.9	24.9	20.1
	6	2.4	14.5	13.4	14.6	14.3	16.7	14.7	17.3	15.8	18.2	15.1	18.4	16.5	21.1	17.4	21.2	18.8	23.2	18.6	24.0	19.8	26.4	19.5	25.8	20.9
	8	4	15.3	13.9	15.4	15.2	17.2	14.8	17.4	16.2	19.7	15.8	19.8	17.3	22.7	18.3	22.9	19.7	26.2	18.6	25.9	20.7	29.7	20.3	29.5	22.1
HDFC-10	5	2	16.9	15.6	17.2	16.4	17.9	16.6	18.1	17.4	20.1	17.7	20.9	19.7	23.2	20.5	23.6	22.1	25.7	19.3	26.3	23.2	28.6	22.5	28.9	24.2
	6	2.8	17.8	16.2	17.8	17.3	18.6	17.3	19.1	18.1	21.4	18.4	22.6	20.1	24.7	21.1	25.2	22.9	27.9	21.5	28.1	24.0	29.7	23.5	30.3	25.0
	8	4.6	18.7	17.1	18.8	17.9	20.3	18.0	20.9	19.9	22.7	19.3	23.8	21.0	26.1	22.3	27.6	24.0	30.5	22.2	29.7	25.2	34.8	24.7	34.3	26.4
	10	6.8	19.4	17.5	19.8	19.2	20.7	18.6	21.1	20.3	24.2	19.9	24.3	21.6	29.1	23.0	29.4	24.8	33.2	23.5	32.9	26.0	37.7	25.5	37.6	27.3
HDFC-12	6	3.3	21.3	19.1	21.0	20.6	23.5	20.1	24.0	22.6	24.9	21.7	25.0	23.4	28.7	25.0	29.1	27.0	31.9	24.2	32.6	28.3	35.6	27.4	35.8	29.5
	7	4.3	21.6	19.6	21.6	21.5	24.1	20.7	24.4	23.2	26.2	22.2	26.9	24.4	30.2	25.7	31.0	27.8	34.1	26.2	34.4	29.0	36.6	28.7	37.3	30.3
	8	5.4	22.2	20.1	22.3	22.1	24.9	21.3	24.9	23.7	27.6	22.7	28.0	24.9	31.9	26.3	32.3	28.3	35.5	27.0	36.1	29.7	39.7	29.3	39.7	31.4
	10	7.9	23.2	20.8	23.6	22.8	25.9	21.9	26.1	24.0	28.8	23.6	29.9	25.6	33.2	27.2	34.5	29.3	38.6	27.9	38.9	30.9	43.7	30.2	43.4	32.4
HDFC-14	7	4.9	24.9	22.6	25.0	24.8	25.5	23.7	25.3	24.2	29.9	25.6	30.5	28.3	34.3	29.5	34.8	31.9	37.9	28.8	39.0	33.4	42.8	32.5	42.6	34.9
	8	6.2	25.7	23.1	25.9	25.4	27.2	24.7	27.4	26.0	31.0	26.3	31.9	28.7	35.5	30.2	36.7	32.7	40.6	31.0	40.3	34.2	44.4	33.7	45.7	35.7
	10	9.1	27.2	25.1	27.3	26.3	28.9	25.4	29.3	27.7	32.9	27.3	33.8	29.5	37.5	31.5	38.8	33.7	43.1	31.8	41.3	35.6	48.9	35.7	48.1	37.3
	12	12.5	27.9	26.0	28.4	26.9	30.6	26.0	31.0	28.7	34.9	27.8	35.8	30.3	40.2	32.2	41.4	34.7	46.5	33.2	46.9	36.6	52.7	37.4	52.4	38.3
HDFC-16	8	7	29.2	26.2	29.3	28.7	31.1	27.8	32.1	28.9	34.6	29.6	35.3	32.4	39.9	34.0	40.8	36.9	44.5	34.0	45.4	38.5	49.9	39.4	49.9	40.4
	10	10.3	31.0	27.2	31.1	29.8	32.4	28.7	33.2	30.7	37.5	30.7	38.0	33.4	43.2	35.4	43.8	38.1	46.4	35.9	48.1	40.0	53.6	40.4	52.1	42.3
	12	14.1	31.8	28.9	32.3	30.5	33.9	29.4	34.1	31.1	38.2	31.5	39.0	34.4	44.1	36.6	46.2	39.2	51.3	37.5	50.9	41.2	58.3	41.2	57.7	43.4
	14	18.5	32.9	30.1	33.2	31.1	34.9	30.2	36.2	33.1	40.9	32.1	41.3	35.1	47.4	37.3	47.5	40.9	54.4	38.5	53.9	42.2	61.6	43.6	61.3	44.2
HDFC-18	9	9.5	33.3	29.7	33.7	32.6	34.5	31.5	35.4	33.1	39.5	33.4	40.4	36.7	45.6	38.6	46.5	41.8	50.8	39.3	51.8	43.7	56.4	44.4	57.3	45.8
	11	13.5	34.3	30.5	34.4	33.6	36.8	32.5	37.2	35.2	42.4	34.6	43.1	37.8	48.8	39.8	49.5	43.0	54.4	40.5	55.6	45.2	60.4	45.5	59.6	47.7
	13	18.1	35.7	32.1	36.6	34.4	38.3	33.2	39.1	36.6	43.8	35.5	44.8	38.6	49.4	41.2	51.8	44.0	57.7	42.2	56.1	46.7	65.6	46.7	64.6	48.8
	16	26	37.1	33.9	38.0	35.2	38.6	34.2	39.7	37.1	47.1	36.6	48.4	39.8	54.3	42.2	54.7	45.3	62.3	43.4	61.9	47.8	70.5	47.9	70.0	49.9
HDFC-20	10	12.4	37.8	33.0	37.9	36.2	38.2	34.7	38.9	37.2	44.1	37.2	45.2	40.8	50.9	42.9	51.9	46.5	56.8	44.5	57.9	48.6	61.2	48.5	64.1	50.9
	12	17	38.8	35.7	39.6	37.3	40.8	36.0	41.3	39.1	47.1	38.4	47.8	41.9	54.3	44.3	55.0	47.8	58.3	45.1	61.5	49.9	66.9	49.7	64.9	52.8
	14	22.3	40.1	36.9	41.8	38.1	42.1	38.7	43.7	40.6	48.3	39.5	49.7	42.9	56.1	45.4	57.4	48.9	63.6	47.0	64.7	51.7	72.3	50.4	71.1	53.8
	18	33.6	41.0	38.1	42.6	39.2	43.4	39.9	46.1	41.6	52.4	41.5	51.1	44.1	60.8	46.9	61.6	50.6	69.7	48.0	69.3	53.2	78.8	52.0	78.6	55.7

NOTES:

1. Total heat(TH) and Sensible Heat (SH) are expressed in MBH.
2. Pressure Drop (PD) is Give in Feets Of Water.
3. Water Temperature Rise = Total MBH/(0.5*GPM).
- 4 . Temperatures Are in F

COOLING CAPACITIES- SIX ROW COIL

40F Entering Water Temperature

UNIT SIZE	GPM	PD	72/61		74/61		74/63		76/63		76/65		78/65		80/67		82/67		82/69		84/69		84/71		86/71	
			TH	SH	TH	SH	TH	SH	TH	SH	TH	SH	TH	SH	TH	SH	TH	SH	TH	SH	TH	SH	TH	SH	TH	SH
HDFC-08	4	6	24.0	18.9	23.5	20.5	27.1	19.8	26.2	21.4	30.4	20.7	29.6	22.2	33.3	23.1	32.8	24.6	36.9	23.9	36.4	25.5	40.8	24.8	40.1	26.3
	8	2.3	28.8	21.3	28.2	22.8	32.5	22.5	32.0	24.0	36.4	23.6	35.6	25.2	40.0	26.3	39.5	27.8	44.2	27.4	43.0	29.0	48.6	28.5	48.2	30.1
	12	4.6	31.6	22.4	31.5	23.9	35.5	23.6	35.3	25.2	39.3	24.9	39.2	26.5	43.4	27.0	43.3	29.3	47.7	28.9	47.6	30.5	52.4	30.2	52.2	31.7
	16	7.6	33.1	22.9	33.0	24.6	36.0	24.3	36.9	25.9	41.0	25.6	41.1	27.2	45.4	28.5	45.3	30.1	49.9	29.7	49.7	31.2	54.7	31.1	54.6	32.6
HDFC-10	6	1.5	32.4	24.7	32.0	26.7	41.1	26.0	36.0	27.8	40.4	27.3	39.4	29.0	44.2	30.4	44.4	32.2	48.8	31.5	48.3	33.5	54.1	32.8	53.3	34.7
	10	3.8	36.5	26.8	36.0	28.7	44.1	28.3	40.6	30.2	45.9	29.7	45.4	31.6	50.5	33.1	49.8	35.0	55.8	34.5	55.2	36.4	61.3	35.8	60.8	37.8
	14	6.9	39.3	27.9	39.1	30.2	45.0	29.4	43.9	31.4	50.0	31.0	28.9	32.9	54.0	34.5	53.9	36.5	59.4	36.0	59.2	38.0	65.1	37.5	64.8	39.5
	16	8.7	40.2	28.2	40.1	30.5	42.7	29.8	45.0	31.8	47.5	31.4	50.0	33.4	55.2	34.9	55.2	36.9	60.7	36.5	60.6	38.5	63.0	38.0	66.4	40.0
HDFC-12	6	1.7	37.9	29.2	37.4	31.6	48.4	30.6	42.0	32.9	54.1	32.3	47.1	34.3	52.6	35.7	51.8	38.0	57.0	37.2	57.5	39.4	63.3	38.7	63.2	44.8
	10	4.4	42.8	31.8	41.6	33.9	52.1	33.5	47.6	35.8	57.9	35.2	53.4	37.5	59.5	39.2	58.7	41.5	65.7	40.8	65.0	43.2	72.3	42.4	71.6	46.9
	14	7.9	46.5	33.2	46.2	35.5	53.4	35.0	51.9	37.4	59.4	36.8	57.8	39.2	63.8	41.0	63.7	43.4	70.1	42.8	70.0	45.2	77.1	44.5	76.7	47.7
	16	10	47.7	33.6	47.6	36.0	52.0	35.5	53.3	37.9	58.0	37.8	59.4	39.8	65.5	41.6	65.4	44.0	72.0	43.4	71.9	45.8	79.0	45.3	78.9	49.7
HDFC-14	8	3.4	45.8	35.2	46.5	38.2	57.7	37.1	52.3	39.8	64.5	38.8	57.7	41.7	64.1	43.5	62.9	46.0	71.0	45.2	69.6	47.7	77.8	46.8	77.3	49.7
	12	6.9	51.0	37.6	50.3	40.3	61.5	39.7	56.8	42.4	68.4	41.7	63.5	44.4	70.9	46.4	70.1	49.2	78.3	48.4	77.6	51.1	86.1	50.3	85.4	53.1
	16	11.4	54.9	38.9	54.6	41.7	62.8	41.1	61.4	43.9	69.4	43.2	68.2	46.1	75.4	48.2	75.2	51.0	82.9	50.2	82.7	53.0	90.7	52.3	90.6	55.1
	18	14	56.2	39.4	55.9	42.2	63.0	41.6	52.7	44.4	65.8	43.8	69.8	46.5	77.0	48.8	76.9	51.6	85.0	51.0	84.8	53.7	92.9	53.1	92.8	55.8
HDFC-16	8	3.7	52.5	39.8	51.9	43.1	58.2	41.9	58.5	45.0	72.5	44.0	65.4	46.8	71.9	49.1	71.9	51.8	78.9	50.8	79.6	53.7	87.5	52.9	86.5	56.0
	12	7.7	57.5	42.5	56.5	45.6	64.6	44.9	63.4	47.7	77.0	47.1	71.2	50.0	79.7	52.4	78.8	55.6	88.1	54.6	87.2	57.8	96.7	56.7	95.9	60.0
	16	12.7	61.8	44.2	61.2	47.3	69.3	46.6	69.0	49.8	78.8	49.0	76.1	52.2	84.8	54.6	84.5	57.8	93.1	56.9	93.0	60.1	102.4	59.2	10.6	62.5
	18	15.6	63.4	44.7	62.9	47.9	71.0	47.2	70.8	50.4	76.5	49.7	78.7	52.9	87.1	55.3	86.8	58.5	95.1	57.7	95.4	60.9	104.8	60.1	104.6	63.3
HDFC-18	10	6.2	60.3	45.6	60.8	49.5	68.4	48.4	68.3	51.7	83.2	50.8	75.8	54.4	84.0	56.6	82.5	59.9	93.1	58.9	92.1	62.4	102.4	61.1	101.4	64.7
	14	1.1	65.9	48.4	64.9	53.5	74.3	51.1	73.4	54.6	87.5	55.4	82.2	57.2	91.3	59.7	90.4	63.3	100.8	62.8	99.9	66.8	110.8	64.7	110.0	68.3
	18	17.2	70.3	50.0	69.7	54.6	78.8	52.7	78.3	56.3	90.9	46.7	87.2	59.1	96.5	61.7	96.2	65.3	105.9	64.4	105.7	69.5	115.9	67.0	115.9	64.7
	22	24.4	73.1	51.0	72.8	54.4	81.8	53.9	81.7	57.5	83.2	55.6	90.8	60.3	100.3	63.1	100.3	66.7	110.6	65.9	110.3	72.1	121.0	68.0	121.0	70.6
HDFC-20	10	6.5	66.8	50.3	66.1	57.0	74.4	53.1	74.3	56.7	90.4	56.4	83.3	59.2	91.5	62.1	91.5	69.4	101.1	64.5	101.0	74.6	111.1	66.8	110.0	72.3
	14	12	71.7	53.1	70.5	58.8	80.9	55.9	79.8	59.9	95.2	58.7	89.4	62.7	99.3	65.4	98.3	71.7	109.7	68.1	108.7	76.4	120.5	70.7	119.5	74.7
	18	18.6	76.3	54.9	75.5	60.1	85.6	57.9	85.1	61.9	99.4	60.9	94.8	64.8	104.7	67.8	104.3	73.4	115.4	70.2	114.8	76.8	126.7	73.4	125.8	77.5
	22	26.4	79.8	56.1	79.4	60.4	89.4	59.2	89.2	63.2	99.7	62.3	99.2	66.3	109.5	69.4	109.3	74.0	120.7	72.5	120.1	77.0	131.8	75.4	131.7	79.5

NOTES:

1. Total heat(TH) and Sensible Heat (SH) are expressed in MBH.
2. Pressure Drop (PD) is Give in Feets Of Water.
3. Water Temperature Rise = Total MBH/(0.5*GPM).
- 4 . Temperatures Are in F

45F Entering Water Temperature

UNIT SIZE	GPM	PD	72/61		74/61		74/63		76/63		76/65		78/65		80/67		82/67		82/69		84/69		84/71		86/71	
			TH	SH	TH	SH	TH	SH	TH	SH	TH	SH	TH	SH	TH	SH	TH	SH	TH	SH	TH	SH	TH	SH	TH	SH
HDFC-08	4	0.6	18.0	16.3	19.2	17.4	21.0	17.3	20.8	18.8	24.3	18.2	23.6	19.7	26.9	20.6	26.6	22.2	30.6	21.5	30.1	23.1	34.4	22.3	33.7	23.9
	8	2.3	21.5	18.1	22.0	19.8	25.5	19.4	24.7	20.8	29.4	20.5	28.7	22.1	32.9	23.2	32.3	24.8	37.0	24.4	36.5	26.0	41.4	25.5	40.9	27.0
	12	4.6	24.7	19.1	24.2	20.5	28.5	20.4	28.3	21.9	32.4	21.6	32.2	23.2	36.3	24.4	36.2	26.0	40.5	25.6	40.5	27.2	45.0	26.9	44.8	28.4
	16	7.6	25.9	19.5	25.7	21.0	29.8	20.8	29.7	22.4	33.9	22.2	33.9	23.8	38.1	25.1	38.1	26.7	42.6	26.4	42.6	28.0	47.4	27.6	47.3	29.2
HDFC-10	6	1.5	24.9	21.4	26.4	23.8	28.8	22.6	38.5	24.5	32.8	23.7	32.3	25.7	36.8	26.9	36.4	29.0	40.8	28.3	40.7	30.0	45.3	29.3	45.0	31.4
	10	3.8	27.6	22.8	28.2	25.0	32.5	24.4	31.7	26.3	37.1	25.8	36.7	27.8	41.5	29.2	41.0	31.1	46.8	28.3	46.1	32.6	52.2	32.0	51.6	34.0
	14	6.9	30.7	23.8	30.3	25.7	35.3	25.2	35.2	27.3	40.3	26.0	40.2	28.9	45.3	30.4	45.1	32.4	50.5	30.6	50.4	33.9	56.1	33.4	55.9	35.4
	16	8.7	31.5	24.1	31.3	26.0	36.3	25.7	36.0	27.5	41.3	27.2	41.2	29.2	46.4	30.8	46.3	32.8	51.9	31.9	51.7	34.3	57.6	33.9	57.5	35.9
HDFC-12	6	1.7	28.9	25.3	29.8	27.7	33.2	26.6	33.0	28.9	38.4	28.0	37.4	30.3	42.9	31.8	42.3	34.2	48.3	33.1	47.6	35.5	54.0	34.4	53.2	36.8
	10	4.4	32.2	27.1	29.8	29.7	37.6	28.8	36.9	31.1	43.6	30.6	42.7	32.9	48.7	34.6	47.8	36.9	54.9	36.3	54.1	38.6	61.4	37.9	60.6	40.3
	14	7.9	35.9	28.2	32.2	30.4	41.8	30.2	41.3	32.5	47.5	32.0	47.3	34.4	53.3	36.2	53.1	38.5	59.6	37.9	59.4	40.3	66.0	39.7	65.8	42.1
	16	10	37.2	28.7	34.8	30.8	42.8	30.4	42.7	32.9	48.9	32.4	48.7	34.8	54.9	36.7	54.7	39.1	61.3	38.5	61.2	40.9	68.1	40.3	67.9	42.7
HDFC-14	8	3.4	36.0	30.5	36.5	33.3	41.7	32.2	41.6	35.2	46.8	34.1	47.2	36.8	53.4	38.4	52.8	41.3	58.6	40.2	58.2	42.8	65.9	42.0	64.6	44.6
	12	6.9	38.4	31.9	36.7	35.0	45.0	34.1	44.0	36.7	52.1	36.2	51.2	38.9	58.3	41.0	57.3	43.7	65.6	43.0	64.7	45.7	73.2	44.9	72.4	47.7
	16	11.4	42.2	33.0	38.9	35.7	49.3	35.4	48.8	38.1	56.2	37.5	55.8	40.3	63.1	42.5	62.7	45.2	70.4	44.6	70.2	47.4	78.0	46.6	77.9	49.4
	18	14	43.8	33.6	41.2	36.1	50.6	36.4	50.3	38.6	57.5	38.0	57.4	40.8	64.6	43.0	64.4	45.8	72.3	45.1	72.0	47.9	80.1	47.3	80.0	50.1
HDFC-16	8	3.7	40.2	34.4	41.1	37.6	46.5	38.7	45.9	39.4	53.1	38.2	52.6	41.5	59.5	43.3	58.9	46.6	67.0	45.2	66.2	48.4	74.8	47.0	73.6	50.0
	12	7.7	44.9	36.4	45.8	39.7	50.9	40.1	54.3	41.8	58.5	41.0	57.4	44.1	65.4	46.3	64.2	49.4	73.1	48.3	72.6	51.7	82.2	50.7	81.3	53.9
	16	12.7	47.5	37.6	47.3	40.6	55.3	40.6	56.3	43.2	63.0	42.6	62.5	45.7	70.7	48.1	70.0	51.3	79.0	50.5	78.6	53.7	87.5	52.8	87.3	56.0
	18	15.6	49.0	37.9	48.6	41.0	56.9	41.9	53.7	43.8	64.8	43.1	64.5	46.3	72.7	48.8	72.4	51.9	81.3	51.2	80.2	54.5	90.1	53.6	89.9	56.8
HDFC-18	10	6.2	47.1	39.6	47.6	43.4	54.7	43.8	56.9	45.5	62.6	44.1	61.8	47.8	70.0	50.0	69.2	53.6	77.7	52.6	77.9	55.8	85.9	54.5	86.0	58.5
	14	1.1	49.9	41.3	49.9	45.2	58.0	45.4	61.7	47.4	66.5	46.4	66.0	50.2	75.1	52.8	73.9	56.2	84.4	55.3	83.4	58.8	94.2	57.8	93.2	61.3
	18	17.2	54.1	42.6	52.2	45.7	62.9	46.3	62.0	48.7	71.8	47.2	71.2	51.7	80.5	54.4	79.8	58.0	89.9	57.1	89.5	60.7	99.7	59.8	99.4	63.4
	22	24.4	57.1	43.4	55.8	46.7	65.9	45.9	62.5	50.0	75.0	49.2	74.6	52.8	84.1	55.6	83.8	59.2	94.0	58.4	93.5	62.0	104.2	61.1	104.0	64.7
HDFC-20	10	6.5	51.2	43.4	52.4	47.5	59.2	48.3	59.0	50.0	67.8	48.3	66.8	52.3	75.5	54.6	74.9	58.7	84.8	56.8	83.8	60.9	94.0	60.0	94.1	63.3
	14	12	55.6	45.2	57.1	49.6	63.4	49.9	63.7	52.0	72.8	51.1	71.5	55.0	81.5	57.8	79.6	62.5	91.7	60.6	90.5	64.5	102.4	63.3	101.2	67.2
	18	18.6	58.0	46.6	59.6	50.6	68.1	51.0	66.2	53.5	77.7	52.9	76.8	56.8	87.1	59.8	86.0	63.7	97.4	62.7	96.5	66.7	108.0	65.5	107.4	69.5
	22	26.4	62.0	47.8	60.4	51.6	71.4	51.2	71.0	54.9	81.7	54.1	81.2	58.0	91.6	61.2	91.2	65.2	102.3	64.2	102.1	68.2	113.4	67.1	113.2	71.2

NOTES:

1. Total heat(TH) and Sensible Heat (SH) are expressed in MBH.
2. Pressure Drop (PD) is Give in Feets Of Water.
3. Water Temperature Rise = Total MBH/(0.5*GPM).
- 4 . Temperatures Are in F

50F Entering Water Temperature

UNIT SIZE	GPM	PD	72/61		74/61		74/63		76/63		76/65		78/65		80/67		82/67		82/69		84/69		84/71		86/71	
			TH	SH	TH	SH	TH	SH	TH	SH	TH	SH	TH	SH	TH	SH	TH	SH	TH	SH	TH	SH	TH	SH	TH	SH
HDFC-08	4	0.6	15.4	14.0	15.7	14.6	17.0	14.8	17.3	16.2	18.7	15.7	19.1	17.0	20.4	18.1	21.3	19.7	23.9	19.0	23.4	20.6	27.4	19.9	26.9	21.5
	8	2.3	16.7	15.3	17.0	16.1	19.6	16.5	19.9	18.0	21.8	17.5	23.0	19.1	24.8	20.1	25.9	21.7	29.2	20.3	28.7	22.7	33.6	22.5	33.0	24.0
	12	4.6	18.0	16.0	17.8	16.7	20.7	17.0	20.6	18.4	24.9	18.3	24.4	19.8	28.8	21.2	28.3	22.6	33.0	22.4	32.8	24.0	37.4	23.6	37.3	25.2
	16	7.6	18.2	16.1	17.9	16.9	22.2	17.5	21.8	19.1	26.3	18.8	26.4	20.3	30.3	22.6	30.2	23.2	34.7	22.9	34.6	24.5	39.3	24.1	39.2	25.8
HDFC-10	6	1.5	17.1	15.4	17.3	16.2	21.3	19.2	21.4	19.9	24.6	20.5	24.9	22.4	28.3	23.6	28.8	25.7	32.8	24.8	32.5	26.9	37.3	25.9	37.0	28.0
	10	3.8	20.0	18.4	20.2	18.8	24.7	20.8	25.2	22.7	27.8	22.0	28.7	23.9	31.8	25.2	33.2	27.2	37.2	26.8	36.5	28.6	42.3	28.2	41.8	30.2
	14	6.9	22.4	19.8	22.6	20.9	25.8	21.1	26.4	22.9	30.8	22.7	30.5	24.8	35.8	26.4	35.4	28.3	41.1	27.9	40.7	29.7	46.5	29.4	46.4	31.4
	16	8.7	24.1	20.3	23.7	21.0	26.7	22.4	27.8	23.3	31.8	23.0	31.5	25.0	36.9	26.7	36.6	28.6	42.2	28.2	42.1	30.2	47.8	29.8	47.7	31.8
HDFC-12	6	1.7	20.0	18.9	20.3	19.6	24.9	22.7	25.3	24.1	28.6	24.2	29.1	26.4	32.8	27.9	337.0	30.4	37.8	29.3	37.3	31.6	43.7	30.7	42.4	32.9
	10	4.4	23.0	20.6	23.1	21.1	29.2	24.5	29.5	27.0	32.1	26.0	34.2	28.5	37.0	30.0	39.5	32.6	43.4	31.8	42.1	34.0	49.8	33.4	48.8	35.8
	14	7.9	25.8	22.4	26.1	23.1	30.8	25.1	32.0	27.9	36.1	27.0	35.3	29.4	41.8	31.3	40.8	33.5	48.0	33.2	47.7	35.6	54.7	34.9	54.5	37.3
	16	10	27.0	23.8	26.8	25.2	32.4	26.6	33.0	28.2	37.5	27.5	37.0	29.9	43.4	31.8	42.9	34.1	49.8	33.6	49.5	36.0	56.5	35.5	56.3	37.8
HDFC-14	8	3.4	25.6	23.1	26.1	24.8	31.1	27.5	32.3	30.1	35.7	29.2	36.4	32.0	41.1	33.6	42.3	36.7	47.6	35.4	47.1	38.3	54.4	37.0	53.7	39.9
	12	6.9	29.3	27.0	29.7	28.6	35.0	29.0	35.5	31.8	39.6	30.8	41.0	33.7	44.2	35.4	45.3	38.4	52.0	37.6	51.3	40.0	59.5	39.6	58.5	42.3
	16	11.4	31.3	27.8	31.4	28.7	36.3	30.5	36.0	32.8	42.7	31.8	41.6	34.4	49.5	36.8	48.4	39.5	57.0	38.9	56.4	41.7	64.6	41.0	64.1	43.2
	18	14	31.9	27.9	31.5	29.0	36.8	31.8	37.8	33.1	44.2	32.3	43.3	34.8	51.1	37.2	50.2	40.7	58.7	39.9	58.3	42.0	66.4	41.5	66.2	44.3
HDFC-16	8	3.7	26.9	24.5	27.3	26.0	34.4	30.9	35.3	32.7	39.7	32.9	40.3	36.0	45.8	38.0	46.7	41.3	53.0	42.5	52.3	42.0	60.4	41.7	59.7	44.9
	12	7.7	30.6	28.1	30.9	31.0	38.0	32.8	38.7	34.2	44.9	34.9	45.8	38.1	51.7	40.2	51.9	43.6	58.2	44.1	57.9	43.2	66.7	44.7	65.5	47.8
	16	12.7	34.2	29.9	34.5	33.6	38.0	33.6	40.3	36.1	47.6	36.1	47.3	39.1	54.9	41.7	54.7	44.6	63.6	44.7	62.9	45.5	72.2	46.5	71.7	49.6
	18	15.6	36.1	31.8	36.9	36.5	39.4	34.9	43.4	37.5	49.5	36.6	48.2	39.7	57.1	42.3	56.9	45.3	65.8	46.0	65.1	47.0	74.6	47.1	74.2	50.3
HDFC-18	10	6.2	38.5	33.2	37.9	38.1	41.7	35.7	42.7	38.1	46.9	38.0	47.9	41.6	54.3	43.9	55.5	47.6	62.5	48.3	61.7	49.6	71.4	48.1	70.3	51.7
	14	1.1	39.7	34.7	40.5	39.1	40.9	37.2	46.1	39.2	49.5	39.5	51.8	43.4	58.0	45.9	59.0	49.5	66.9	49.9	66.2	51.7	76.6	50.9	75.3	54.4
	18	17.2	41.0	35.6	42.1	39.7	42.9	38.9	48.0	40.9	54.1	40.7	53.9	44.2	62.6	47.1	61.6	50.4	72.5	50.9	71.4	53.4	82.3	52.5	81.6	56.1
	22	24.4	41.6	36.2	43.2	39.9	44.9	39.3	49.0	42.2	57.5	41.7	56.5	45.2	66.5	48.1	65.6	51.4	76.5	50.3	75.9	54.5	86.5	53.7	86.2	57.3
HDFC-20	10	6.5	42.2	36.2	41.5	41.9	47.7	40.1	46.9	43.3	50.6	41.5	51.9	45.8	58.4	47.9	59.8	52.1	67.4	54.8	66.8	54.4	76.5	52.5	75.6	56.5
	14	12	43.1	38.7	44.5	42.0	48.6	41.0	49.7	45.2	55.7	43.5	57.0	47.7	64.1	50.2	65.9	54.4	72.5	56.0	72.8	56.6	83.1	55.8	81.7	61.6
	18	18.6	44.7	39.2	46.4	43.0	51.0	41.8	52.8	46.4	58.2	44.9	60.3	48.8	67.1	51.8	69.6	55.6	78.0	56.5	77.0	58.4	88.8	57.7	87.7	63.0
	22	26.4	45.4	40.9	47.7	43.8	52.5	42.5	54.9	47.1	62.4	45.8	62.6	49.5	72.1	52.9	70.3	56.6	82.5	57.0	82.2	59.9	94.1	59.0	93.6	63.5

NOTES:

1. Total heat(TH) and Sensible Heat (SH) are expressed in MBH.
2. Pressure Drop (PD) is Give in Feets Of Water.
3. Water Temperature Rise = Total MBH/(0.5*GPM).
- 4 . Temperatures Are in F

HOT WATERS HEATING CAPACITIES (1,2 AND 4 ROW COIL)

UNIT SIZE	GPM	PD	ONE ROW			GPM	PD	TWO ROW			GPM	PD	FOUR ROW		
			EWT F					EWT F					EWT F		
			120	150	180			120	150	180			120	150	180
HDFC-08	2.0	2.5	11.3	18.4	25.5	2.0	0.8	17.2	28.1	39.7	4.0	0.9	28.9	46.3	64.1
	3.0	5.2	12.0	19.5	27.0	4.0	2.7	19.8	323.0	44.8	5.0	1.4	29.5	47.9	66.6
	4.0	8.5	12.4	20.1	27.8	6.0	5.6	20.9	33.8	46.9	6.0	1.9	30.2	49.1	68.1
	5.0	12.6	12.7	20.5	28.4	8.0	9.2	21.5	34.7	48.1	8.0	3.1	31.2	50.5	70.0
HDFC-10	2.0	3.1	13.5	22.0	30.5	2.0	1.0	20.3	33.3	46.8	5.0	1.6	35.7	58.0	80.7
	3.0	6.2	14.5	23.5	32.6	4.0	3.3	23.9	38.9	54.0	6.0	2.2	36.7	59.7	82.9
	4.0	10.2	15.1	24.4	33.8	6.0	6.6	25.4	41.2	57.1	8.0	3.6	38.1	61.8	85.6
	5.0	15.2	15.5	24.9	34.6	8.0	10.9	26.2	42.4	58.8	10.0	5.4	39.0	63.1	86.7
HDFC-12	2.0	3.7	15.8	25.7	35.6	4.0	3.9	28.1	45.7	63.5	6.0	2.6	43.3	70.4	97.7
	3.0	7.5	17.1	27.9	38.5	6.0	7.9	30.1	48.8	67.9	7.0	3.4	44.4	72.0	99.9
	4.0	12.4	17.9	28.9	40.0	8.0	13.1	31.2	50.4	96.5	8.0	4.3	45.2	73.3	101.6
	5.0	18.4	18.4	29.7	41.1	10.0	19.3	31.8	51.4	71.2	10.0	6.3	46.4	75.1	103.6
HDFC-14	2.0	4.4	17.9	31.8	41.1	4.0	4.6	32.1	52.2	72.6	7.0	3.9	51.0	82.8	114.9
	3.0	88.0	19.6	33.3	44.1	6.0	9.2	34.6	56.1	77.8	8.0	5.0	52.2	84.4	117.0
	4.0	14.6	20.6	34.3	46.1	8.0	15.2	36.0	58.2	80.6	10.0	7.3	53.6	86.7	120.1
	5.0	21.6	21.2	34.5	47.4	10.0	22.5	36.9	59.6	82.4	12.0	10.0	54.6	88.3	121.4
HDFC-16	2.0	5.0	20.0	32.4	45.6	4.0	5.2	35.9	58.4	81.1	8.0	5.6	58.8	95.2	132.0
	3.0	10.2	22.0	35.7	49.5	6.0	10.6	39.0	63.2	87.7	10.0	8.2	60.6	98.1	136.0
	4.0	16.8	23.2	37.6	52.0	8.0	17.4	40.7	65.9	91.2	12.0	11.3	61.9	100.1	138.5
	5.0	24.8	24.0	38.8	53.6	10.0	25.7	41.8	67.5	93.4	14.0	14.8	62.9	101.5	149.2
HDFC-18	2.0	5.7	21.9	35.5	49.9	4.0	5.9	39.6	64.2	89.3	9.0	7.7	66.5	107.7	153.1
	3.0	11.5	24.3	39.4	54.7	6.0	11.9	43.3	70.1	97.2	11.0	10.9	70.0	110.6	155.8
	4.0	16.4	25.8	41.7	57.7	8.0	19.6	45.3	73.3	101.5	13.0	14.5	71.1	112.7	157.2
	5.0	28.0	26.7	43.1	59.6	10.0	29.0	46.6	75.3	104.2	16.0	20.9	73.9	119.5	165.7
HDFC-20	2.0	6.3	23.5	38.1	53.6	4.0	6.4	42.8	69.4	96.6	10.0	10.0	75.8	122.5	170.0
	3.0	12.6	26.4	42.7	59.2	6.0	13.0	47.1	76.3	105.8	12.0	13.7	77.1	124.6	171.6
	4.0	20.7	28.0	45.3	62.8	8.0	21.4	49.5	80.1	110.9	14.0	17.9	79.0	127.5	174.6
	5.0	30.6	29.1	47.1	65.1	10.0	31.6	51.1	81.0	114.1	18.0	27.8	79.4	128.0	184.0

NOTES:

1. Heating capacities expressed in MBH and are based on nominal CFM and 70°F e.a.t.
2. For Entering Water Air temperature not tabulated apply the Hot Water Capacities Correction Factor below to the capacity at 180 to obtain the adjusted heating capacity.
3. Pressure Drop (PD) is given in feet of Water and based 120 EWT.

HOT WATER CAPACITY FACTOR

ENT AIR DB °F	ENTERING WATER TEMPRETURE °F										
	100	110	120	130	140	150	160	170	180	190	200
50	0.46	0.55	0.64	0.73	0.82	0.91	1.00	1.09	1.18	1.27	1.36
55	0.41	0.50	0.59	0.68	0.77	0.86	0.96	1.05	1.14	1.23	1.32
60	0.36	0.46	0.55	0.64	0.73	0.82	0.91	1.00	1.09	1.18	1.27
65	0.32	0.41	0.50	0.59	0.68	0.77	0.86	0.96	1.05	1.14	1.23
70	0.27	0.36	0.46	0.55	0.64	0.73	0.82	0.91	1.00	1.09	1.18
75	0.23	0.32	0.41	0.50	0.59	0.68	0.77	0.86	0.96	1.05	1.14
80	0.18	0.27	0.36	0.46	0.55	0.64	0.73	0.82	0.91	1.00	1.09

NOTES:

1. Adjusted heating BTU = Base heating BTUH(@ NOMINAL CFM, 180 EWT, 70 eat)*Hot Water Capacity.





UNIT SELECTION

1. Select a tentative unit size and row of cooling coil based on Cooling Capacities at CFM at the design entering air temperature, from pages 5 through 14. Select heating coils from the Hot Water Heating at nominal CFM, page 15.

NOTE:

The selection Yielding the fewest rows of coil, even though may necessitate an increase in unit size, is usually the most economical.

2. For a give unit size the size and capacity is dependent on the air flow. Therefore, the actual CFM for cooling and heating must be determined from the CFM VS. EXTERNAL STATIC PRESSURE TABLE, PAGE 6&7 The heating CFM will usually be greater than the cooling CFM since during cooling, the coil will usually be wet. Wet coil conditions occur when the sensible heat/ratio is 0.91 or less. Electric heating is not debated.

3. From the capacity Correction Factors Table, page 8, determine the total and sensible factors(Ct and Cs) for the actual cooling CFM, and the sensible factor for the actual heating CFM. If the unit is to operate at altitude, multiply the Capacity Correction Factors by the appropriate Altitude Correction Factors, page 8.

4. To obtain the actual cooling capacities, multiply the cooling capacities at nominal CFM, page 5 through 14 (step1), by the appropriate

Capacity Correction Factors (step3).

Actual MBH = nominal MBH (page 9 -14)* capacity Factor (page 8)*Altitude Factor (page 8)

NOTE: All ducted models accept a maximum of 6 rows of coil.

5. Hot Water Heating Capacities at nominal CFM, page 15 are based on 180 EWT and 70 EAT and must be adjusted in accordance with the Capacities Correction Factor (Step 3) and The Hot Water Heating Capacity Correction Factor(EWT and EAT), page 15.

Actual MBH = Nominal MBH (page 15)*Cs Capacity Factor (page 16) * SH Altitude Factor (page 8)

6. Cooling and heating Water Pressure Drops are given in the nominal Capacity Tables, page 9 through 15.

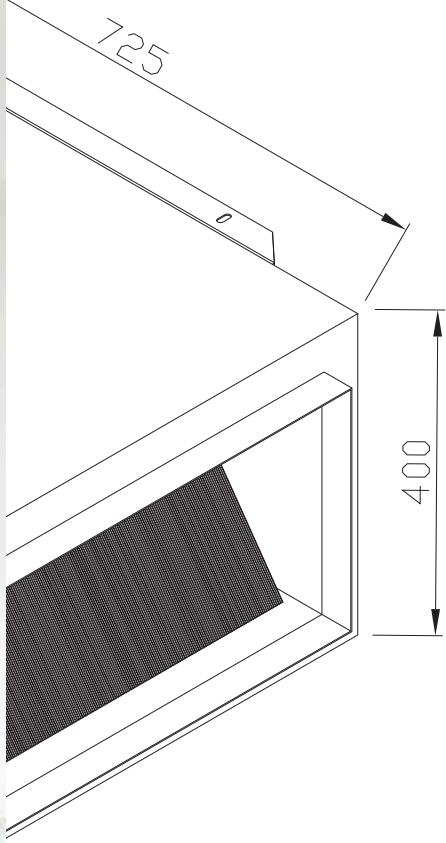
EXAMPLE:

Wb Room heating load: 78200 BTUH. Entering Water temperature: 45 cooling, 180 heating.

Water flow rate: 10 GPM cooling, 2 GPM heating
Maximum water pressure drop: 16 FT. cooling External static pressure drop 0.3 IN.W.G
Altitude: 4000 ft.

SOLUTION:

1. Tentatively selection a DE 16 with a 4Row coil from the nominal Cooling Capacity Tables, page 7, respectively. The nominal heating capacity is 132 MBH at 180 EWT and 70 EAT (page 5).
2. From page 7, the actual dry coil or heating air flow at 0.3 IN.W.G is 1549 CFM .since the SH/TH ratio is 0.94, the coil is wet. Therefore, the actual cooling air flow is $1549 \text{ CFM} \times 0.92 = 1425 \text{ CFM}$.
3. From page 8, the Capacity Correction Factor are 0.98 for hot water heating 0.93 for total cooling, and 0.92 for sensible cooling .From page 8, the total cooling and sensible cooling/heating Altitude Correction Factor are 0.96 and 0.86, respectively.
4. Multiply the Cooling Capacities (at nominal CFM and the design entering air temperature (76DB/65WB) determined in step 1) by the Capacity Correction and Altitude Correction Factors determined in step 3.
Actual sensible cooling capacity = $36.1 \text{ MBH} \times 0.92 \times 0.86 = 28562 \text{ BTUH}$.
Actual total cooling capacity = $47.8 \text{ MBH} \times 0.93 \times 0.96 = 42676 \text{ BTUH}$
5. From the Hot Water Heating Capacities Tables, page 15, the heating capacity at nominal CFM, 180 EWT, and 70 EAT, is 132 MBH. The Hot Water Capacity Correction Factor, page 8 is 0.95 (180 EWT, 76 EAT).
Actual hot water heating capacity = $132 \text{ MBH} \times 0.98 \times 0.95 \times 0.86 = 105687 \text{ BTUH}$.
6. From the capacity tables ,page 10 and 15 , the cooling pressure drop for 10 GPM is 10.4 Ft. and the hot water pressure drop for 2 GPM is 5 Ft.



MODEL	A	B	C	FAN NO.	MOTOR		OPER. WT. KG
					NO.	WATT	
HDFC-08	520	720	670	1	1	180	75
HDFC-10	620	820	770	1	1	180	82
HDFC-12	750	950	900	2	1*	250	102
HDFC-14	870	1070	1010	2	1*	250	115
HDFC-16	1000	1200	1140	2	1*	250	121
HDFC-18	1130	1330	1270	2	2	180	134
HDFC-20	1230	1430	1370	2	2	180	153

may be used