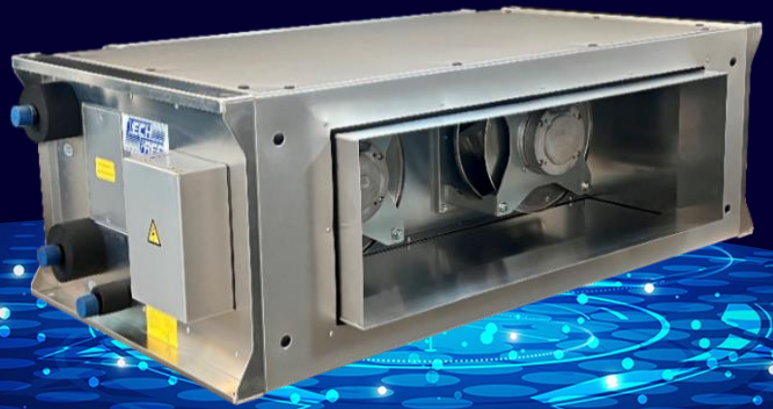
HI CAPACITY FAN COIL UNIT

Better Insulation

Higher Static Pressure

Excellent Performance



TFFC series

Product Overview

Wide Range of Operation available

Airflow range
2160m³/h～4320m³/h

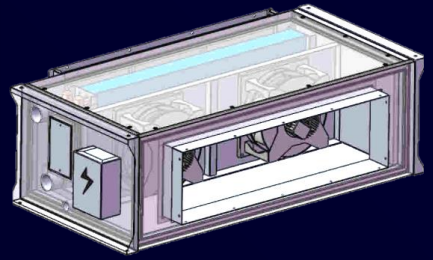
Capacity range
3.06kW～61.13kW

TFFC series units are designed as ceiling-mounted with large air volume and high static pressure which can be used for central air conditioning terminal unit. **4 Rows** coil configuration not only gives cooling, heating, but also **fresh air pretreat**, which keeps better indoor air quality.
It is suitable for medium and small commercial office buildings, malls, hotels, industrial applications, with limited headroom, longer duct run and other systems that require the centralized air treatment.

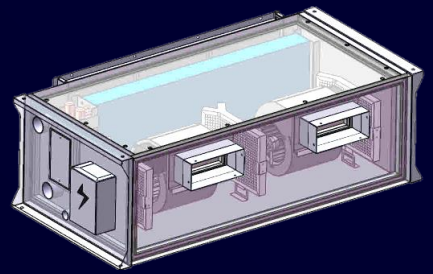
Nomenclature

TF FC 135–P

- P: High static pressure
  D: Low static pressure
- Normal Air Volume(×10 CFM)
- FAN COIL
- “TECH FREE”



High static pressure type



Low static pressure type

UNIQUE FEATURES

Compact Design

The overall structure of the unit is compact and strong, slim size with only **450mm** in height fits compact ceiling, effectively saving the space. The unit is equipped with removable access door at the bottom, which is convenient for maintenance.

Superior Quality

30mm(PU) double –skin insulated panel gives good thermal breaking structure to prevent condensation on the casing. **Anodized aluminum** panel not only reduce weight but also provide better anti corrosion properties. Optional inner acoustic panel materials effectively reduce the air borne noise.

Energy-saving & Quiet Operation

The fan adopts a simple quick release design, equipped with anti vibration gasket, greatly **reduce fan vibration and noise induced.**
For places which are noise sensitive, optional acoustic panel are available.

Smooth Condensate Drain

The coil has excellent heat exchange performance. The **hydrophilic coating** extends the service life of the coil and facilitate the flow of condensate water. The condensate drain pan made of stainless steel material and properly insulated. The **sloping drain pan** gives a smooth drain way to condensate to drain out quickly.

Easy Maintenance

The unit is equipped with inspection doors on both the side and bottom, **facilitating maintenance** and upkeep of the unit and its components.

Innovative Components and Design

Energy-saving EC Fan(Plug / Centrifugal)

The product comes with RS485 output interface for Modbus protocol, which has the advantage of variable speed, higher static, better energy saving, excellent efficiency, long working life, minimum vibration and quiet operation.

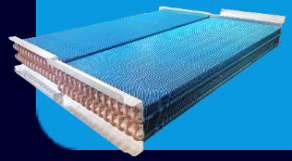
Double Skin Insulated Panel

Frameless double skin casing structure, with 30mm high density PU insulation. Highly enhanced unit structure and its thermal properties. Anodized Al Panel gives light weight and excellent anti corrosion performance. Powder Coated GI panel as option.

Fan Acoustic Panel(Optional Item)

Greatly reduce air borne and vibration induced noise.

Suitable for low noise requirement applications.



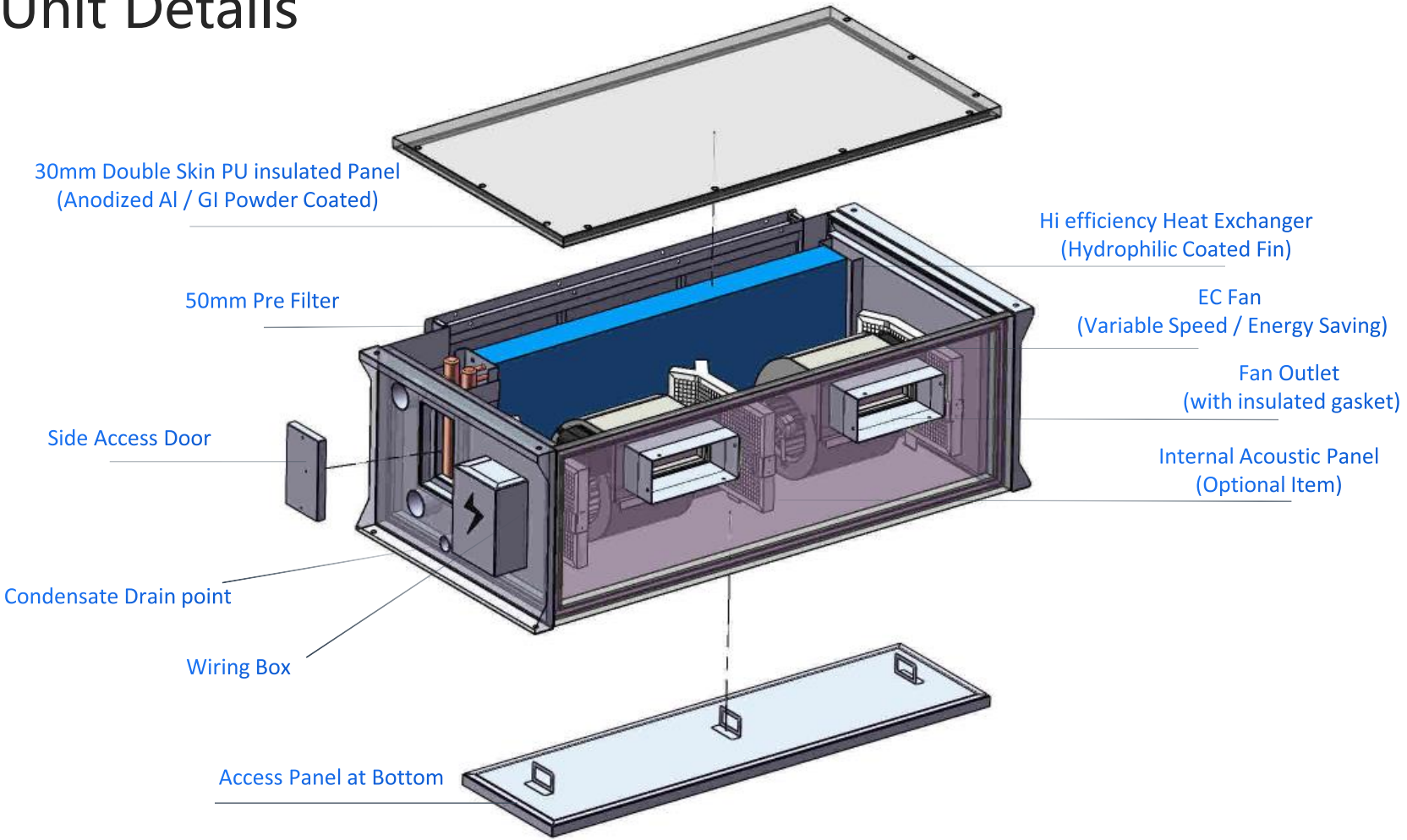
High Efficiency Heat Exchanger (Hydrophilic Coated Fin)

Seamless copper tube tightly bonded into hydrophilic coated Al fin, 4 rows design which gives outstanding heat exchange efficiency. Insulated SS Sloping drain pan facilitate the flow of excess condensate.

Intelligent Control (Optional Item)

Match with variable speed control of EC fan and compatible to modulating valve control, achieving precise and stable control of room condition.

Unit Details



Performance Parameters

Model	TFFC-135P	TFFC-210P	TFFC-270P	TFFC-135D	TFFC-210D	TFFC-270D
Unit Type	High static pressure type			Low static pressure type		
Nominal Air Flow(l/s)	600	900	1200	600	900	1200
Fan Type	Backward curved centrifugal plug			Forward curved centrifugal double inlet double width		
NO. of Fan Scolls	1	2	2	1	2	2
Motor Technology	EC			EC		
Power Source	230V/1P/50Hz			230V/1P/50Hz		
NO. of Motors	1	2	2	1	2	2
Motor Rating(W)	360	360*2	360*2	375	375*2	375*2
Full Load Amps(A)	2.3	4.6	4.6	3.2	6.4	6.4
Cooling Medium	Chilled water			Chilled water		
Working Pressure	1600kPa (Remark: 2500kPa available subject to request)					
Connection Sizes Cooling Coil(mm)	DN25(1"NPT female)	DN25(1"NPT female)	DN32(1"NPT female)	DN25(1"NPT female)	DN25(1"NPT female)	DN32(1"NPT female)
Optional Air Filter Type	G2 Washable/AL			G2 Washable/AL		
NO. of optional Air Filters	2	2	3	2	2	3
Optional Air Filter Size(mm)	343*371*25	508*371*25	452*371*25	343*371*25	508*371*25	452*371*25
Uint Size(mm)(W)*(H)*(L)	955*440*680	1295*440*680	1635*440*680	955*440*680	1295*440*680	1635*440*680
Panel Type	PU double skin(AL)			PU double skin(AL)		
Shipping Weight(kg)	45	60	70	55	70	80
Unit sound pressure level(dB(A))	59	60	62	57	58	60

Performance Parameters

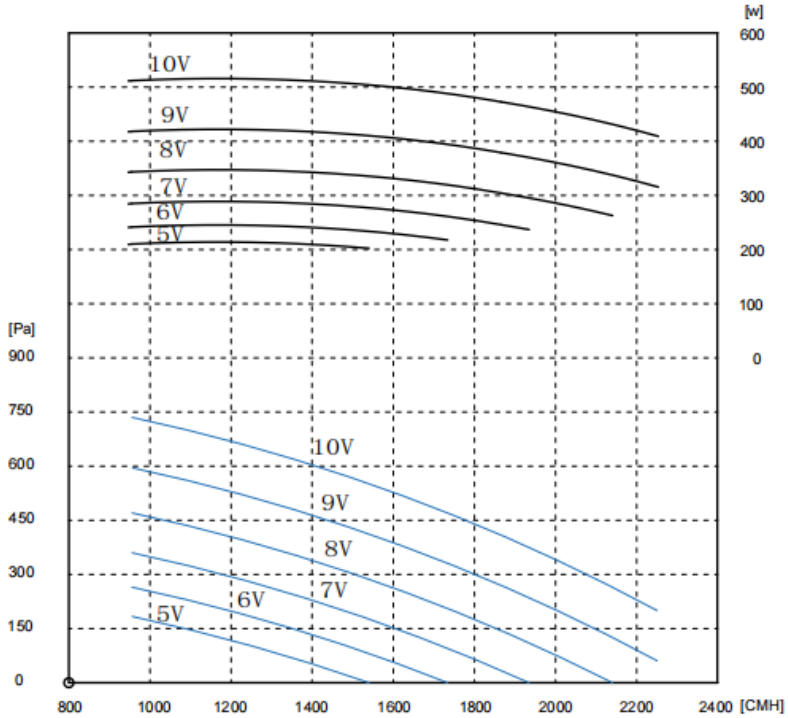
TFFC-135 Performance Table

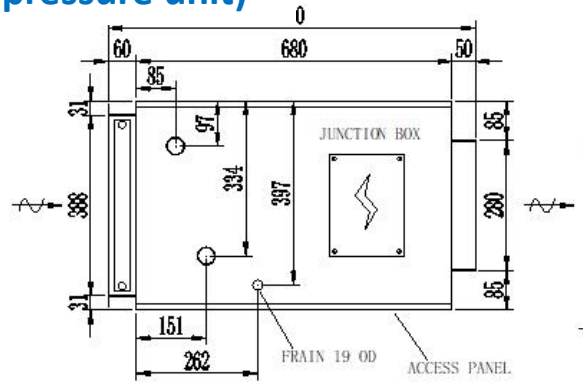
TFFC-135			High Air flow			Medium Air flow			LOW Air flow		
4 row chilled water coil			600L/S（2160cmh）			450L/S (1620cmh)			300L/S (1080cmh)		
Air onDB/WB	△T ℃	Cooling kW	Entering water temp（℃）			Entering water temp（℃）			Entering water temp（℃）		
			6	7	8	6	7	8	6	7	8
23/17	4	total	9.96	8.79	7.68	8.26	7.31	6.39	6.20	5.50	4.71
		sensible	7.68	7.15	6.62	6.19	5.76	5.34	4.50	4.18	3.83
		P.D./kPa	14.71	11.79	9.30	10.66	8.60	6.81	6.55	5.32	4.09
	5	total	8.84	7.77	6.79	7.38	6.39	5.38	5.19	4.30	3.30
		sensible	7.16	6.65	6.15	5.78	5.33	4.83	4.03	3.63	3.12
		P.D./kPa	8.14	6.51	5.16	6.00	4.69	3.50	3.34	2.44	1.59
	6	total	7.68	6.46	5.30	5.89	4.63	3.75	3.79	3.41	3.06
		sensible	6.58	5.94	5.20	5.07	4.39	3.75	3.37	3.17	2.96
		P.D./kPa	4.71	3.51	2.52	3.03	2.04	1.45	1.49	1.26	1.06
27/19	4	total	13.19	11.96	10.77	10.89	9.91	8.93	8.12	7.42	6.71
		sensible	10.01	9.47	8.94	8.05	7.62	7.19	5.82	5.51	5.20
		P.D./kPa	23.98	20.12	16.67	17.19	14.51	12.08	10.37	8.83	7.41
	5	total	11.98	10.83	9.74	9.95	9.02	8.11	7.49	6.80	6.03
		sensible	9.47	8.95	8.44	7.63	7.21	6.81	5.54	5.23	4.89
		P.D./kPa	13.73	11.48	9.52	9.99	8.39	6.97	6.17	5.21	4.24
	6	total	10.89	9.84	8.85	9.09	8.21	7.26	6.52	5.71	4.90
		sensible	8.96	8.47	7.98	7.24	6.84	6.39	5.10	4.74	4.37
		P.D./kPa	8.50	7.11	5.92	6.26	5.25	4.25	3.60	2.88	2.23

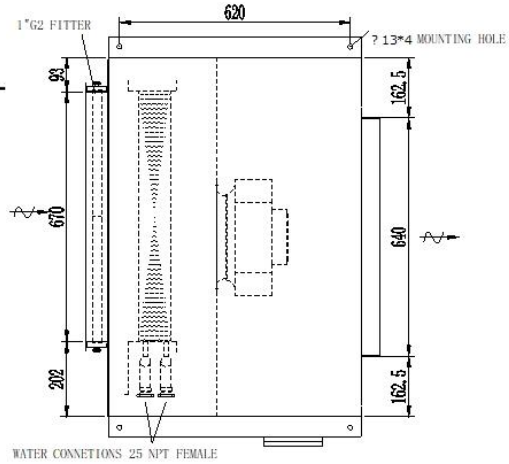
TFFC-135			High Air flow			Medium Air flow			LOW Air flow		
4 row chilled water coil			600L/S（2160cmh）			450L/S (1620cmh)			300L/S (1080cmh)		
Air onDB/WB	△T ℃	Cooling kW	Entering water temp（℃）			Entering water temp（℃）			Entering water temp（℃）		
			6	7	8	6	7	8	6	7	8
31/21	4	total	16.67	15.40	14.13	13.73	12.71	11.70	10.17	9.47	8.74
		sensible	12.34	11.80	11.26	9.90	9.47	9.03	7.13	6.82	6.51
		P.D./kPa	36.25	31.37	26.85	25.77	22.43	19.29	15.28	13.44	11.66
	5	total	15.37	14.16	12.97	12.73	11.75	10.78	9.53	8.82	8.11
		sensible	11.78	11.26	10.74	9.47	9.05	8.63	6.85	6.54	6.24
		P.D./kPa	21.19	18.27	15.61	15.28	13.23	11.35	9.29	8.10	7.00
	6	total	14.17	13.03	11.94	11.79	10.86	9.94	8.89	8.21	7.46
		sensible	11.25	10.75	10.25	9.06	8.66	8.26	6.57	6.28	5.96
		P.D./kPa	13.38	11.52	9.85	9.76	8.43	7.23	6.05	5.26	4.46
35/28	4	total	29.73	28.51	27.27	24.49	23.52	22.51	18.18	17.48	16.76
		sensible	13.30	12.84	12.38	10.86	10.48	10.10	8.01	7.72	7.44
		P.D./kPa	98.41	90.96	83.62	69.31	64.21	59.18	40.54	39.80	36.84
	5	total	28.26	27.04	25.79	23.37	22.39	21.37	17.44	16.73	16.00
		sensible	12.75	12.30	11.86	10.42	10.05	9.68	7.70	7.42	7.14
		P.D./kPa	60.11	55.33	50.63	42.70	39.40	38.22	26.80	24.85	22.92
	6	total	26.82	25.59	24.32	22.25	21.26	20.24	16.69	15.97	15.24
		sensible	12.22	11.79	11.35	10.00	9.64	9.27	7.41	7.13	6.86
		P.D./kPa	39.45	38.20	34.80	29.91	27.51	25.15	18.03	16.66	15.30

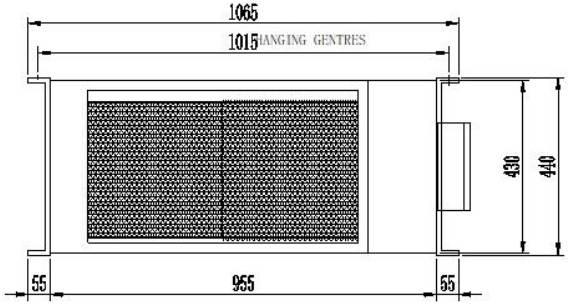
Performance Parameters

TFFC-135 Fan curve & dimension(High static pressure unit)



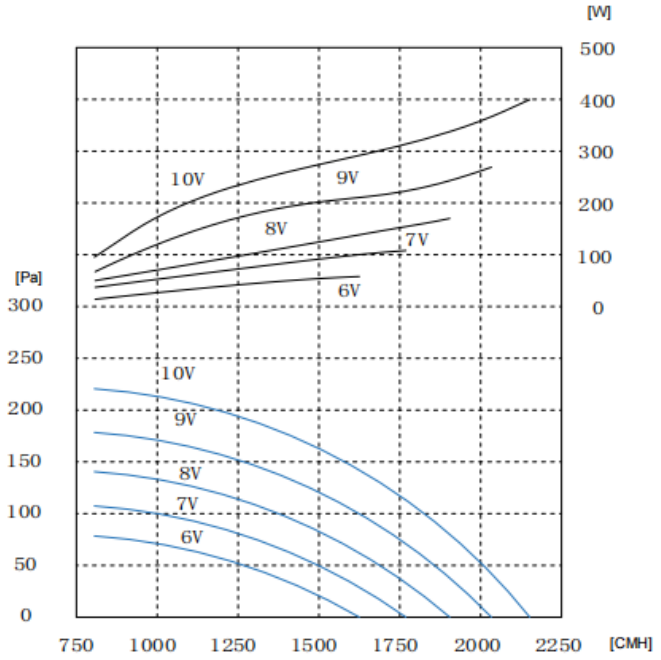


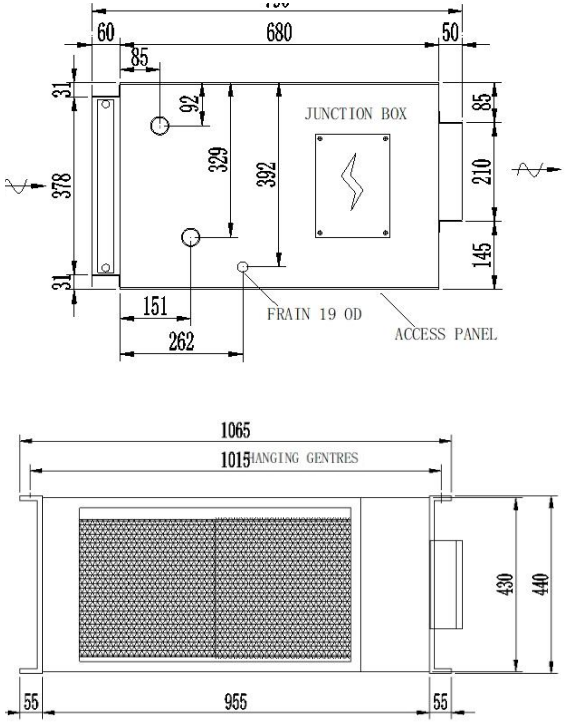


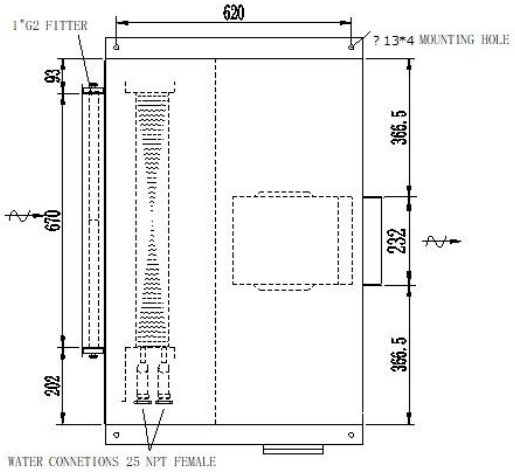


Performance Parameters

TFFC-135 Fan curve & dimension(Low static pressure unit)







Performance Parameters

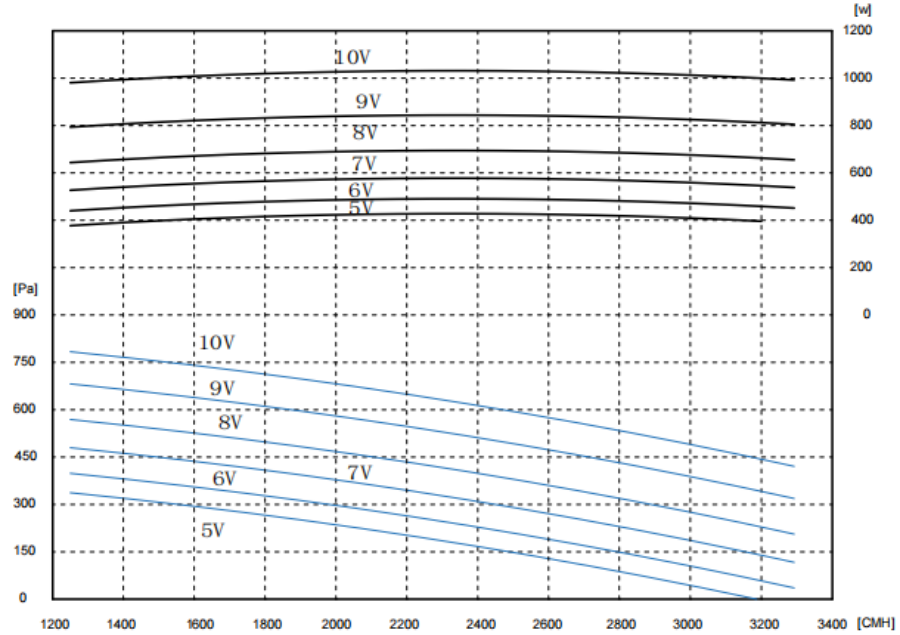
TFFC-210 Performance Table

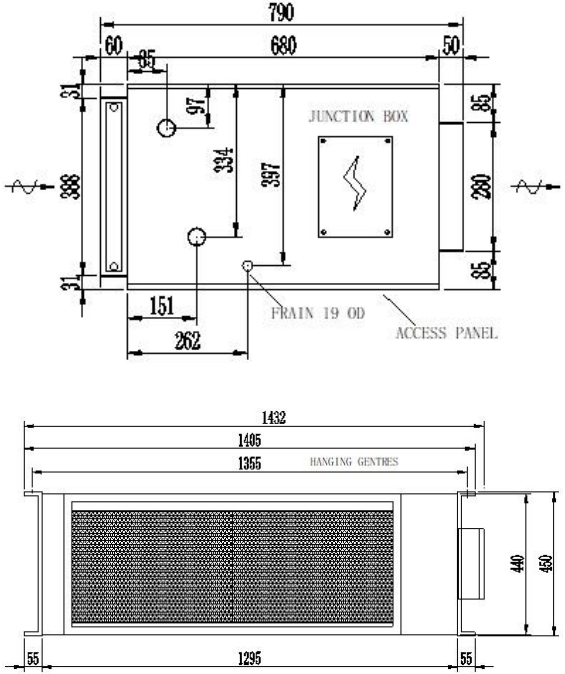
TFFC-210			High Air flow			Medium Air flow			LOW Air flow		
4 row chilled water coil			900L/S (3240cmh)			650L/S (2340cmh)			400L/S (1440cmh)		
Air onDB/WB	△T ℃	Cooling kW	Entering water temp			Entering water temp			Entering water temp		
			6	7	8	6	7	8	6	7	8
23/17	4	total	14.76	13.02	11.37	11.94	10.56	9.24	8.34	7.21	6.03
		sensible	11.43	10.64	9.86	8.96	8.34	7.73	6.04	5.54	5.01
		P.D./kPa	13.72	11.08	8.81	9.66	7.86	6.29	5.38	4.25	3.20
	5	total	13.06	11.49	9.93	10.54	8.89	7.24	5.35	4.83	4.34
		sensible	10.64	9.89	9.08	8.31	7.55	6.71	4.67	4.41	4.14
		P.D./kPa	7.73	6.24	4.91	5.46	4.15	2.99	1.90	1.62	1.38
	6	total	10.93	8.82	5.95	6.22	5.65	5.13	4.96	4.47	5.13
		sensible	9.58	8.40	5.95	6.06	5.62	5.13	4.47	4.20	5.13
		P.D./kPa	4.31	3.06	1.68	1.80	1.56	1.35	1.29	1.11	1.35
27/19	4	total	19.57	17.74	15.97	15.76	14.34	12.93	11.05	10.09	9.14
		sensible	14.92	14.12	13.32	11.65	11.03	10.41	7.87	7.45	7.04
		P.D./kPa	19.60	18.65	15.53	15.35	13.03	10.92	8.50	7.30	6.19
	5	total	17.74	16.04	14.43	14.39	13.03	11.72	10.02	8.92	7.79
		sensible	14.10	13.33	12.57	11.04	10.44	9.85	7.42	6.93	6.44
		P.D./kPa	12.83	10.80	9.02	9.07	7.68	6.43	5.05	4.18	3.36
	6	total	16.10	14.55	13.10	13.12	11.61	10.12	7.73	6.08	10.12
		sensible	13.33	12.60	11.87	10.46	9.78	9.06	6.40	5.61	9.06
		P.D./kPa	8.07	6.80	5.71	5.79	4.74	3.79	2.52	1.74	3.79

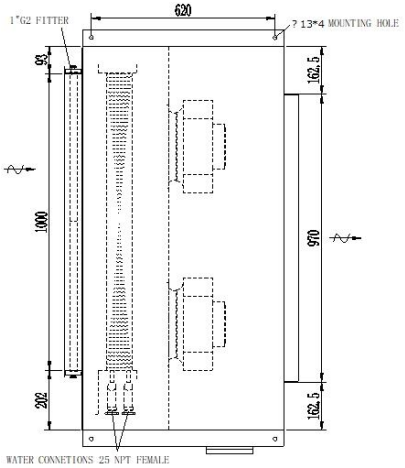
TFFC-210			High Air flow			Medium Air flow			LOW Air flow		
4 row chilled water coil			900L/S (3240cmh)			650L/S (2340cmh)			400L/S (1440cmh)		
Air onDB/WB	△T ℃	Cooling kW	Entering water temp			Entering water temp			Entering water temp		
			6	7	8	6	7	8	6	7	8
31/21	4	total	24.76	22.87	20.99	19.88	18.41	16.94	13.83	12.88	11.90
		sensible	18.40	17.60	16.80	14.34	13.71	13.09	9.65	9.23	8.81
		P.D./kPa	29.49	25.56	21.91	20.17	17.59	17.19	12.33	10.92	9.53
	5	total	22.79	20.99	19.23	18.42	17.00	15.59	12.97	12.01	11.05
		sensible	17.55	16.77	16.01	13.71	13.10	12.50	9.27	8.86	8.45
		P.D./kPa	17.33	16.97	14.57	13.69	11.92	10.28	7.66	6.74	5.87
	6	total	20.99	19.30	17.68	17.05	15.69	14.38	11.91	10.82	14.38
		sensible	16.75	16.01	15.27	13.11	12.53	11.96	8.81	8.35	11.96
		P.D./kPa	12.52	10.84	9.32	8.87	7.71	6.66	4.96	4.25	6.66
35/28	4	total	44.28	42.46	40.60	35.55	34.13	32.68	24.75	23.81	22.84
		sensible	19.82	19.15	18.47	15.76	15.21	14.66	10.89	10.50	10.11
		P.D./kPa	79.03	73.06	67.19	53.39	49.50	48.27	29.81	27.77	25.75
	5	total	42.04	40.22	38.34	33.89	32.46	31.00	23.75	22.80	21.81
		sensible	18.99	18.33	17.67	15.12	14.58	14.04	10.48	10.10	9.71
		P.D./kPa	51.19	47.17	43.21	35.01	32.37	29.76	18.85	17.51	18.33
	6	total	39.83	38.00	36.10	32.24	30.80	29.32	22.74	21.77	29.32
		sensible	18.19	17.55	16.90	14.49	13.96	13.43	10.07	9.70	13.43
		P.D./kPa	33.80	31.00	28.26	23.36	21.51	19.68	14.52	13.47	19.68

Performance Parameters

TFFC-210 Fan curve & dimension(High static pressure unit)

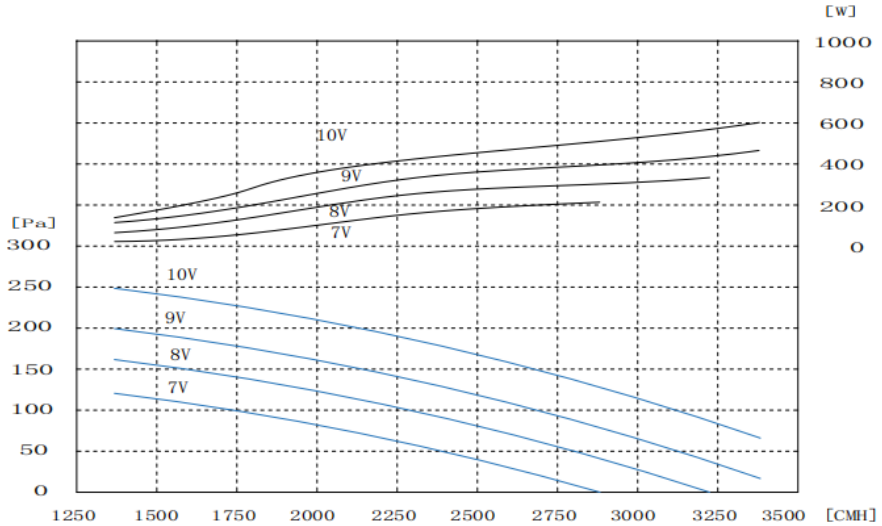


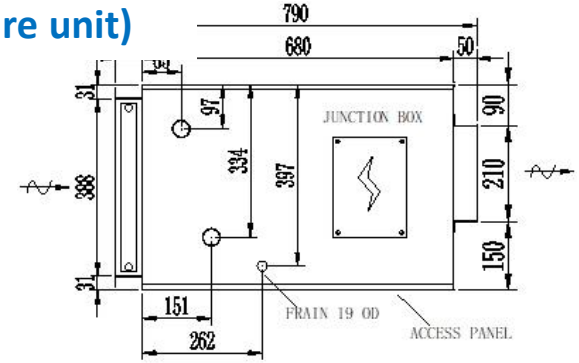


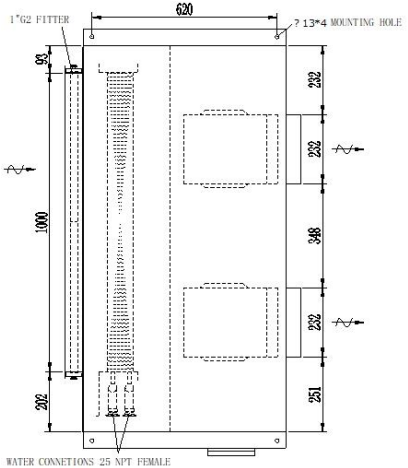


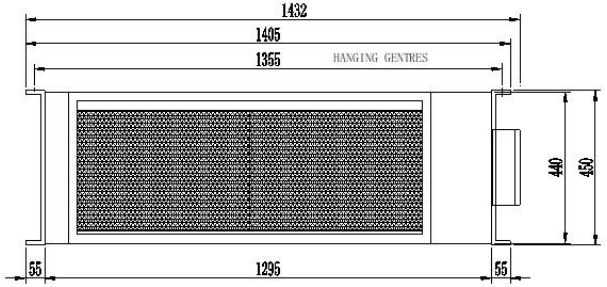
Performance Parameters

TFFC-210 Fan curve & dimension(Low static pressure unit)









Performance Parameters

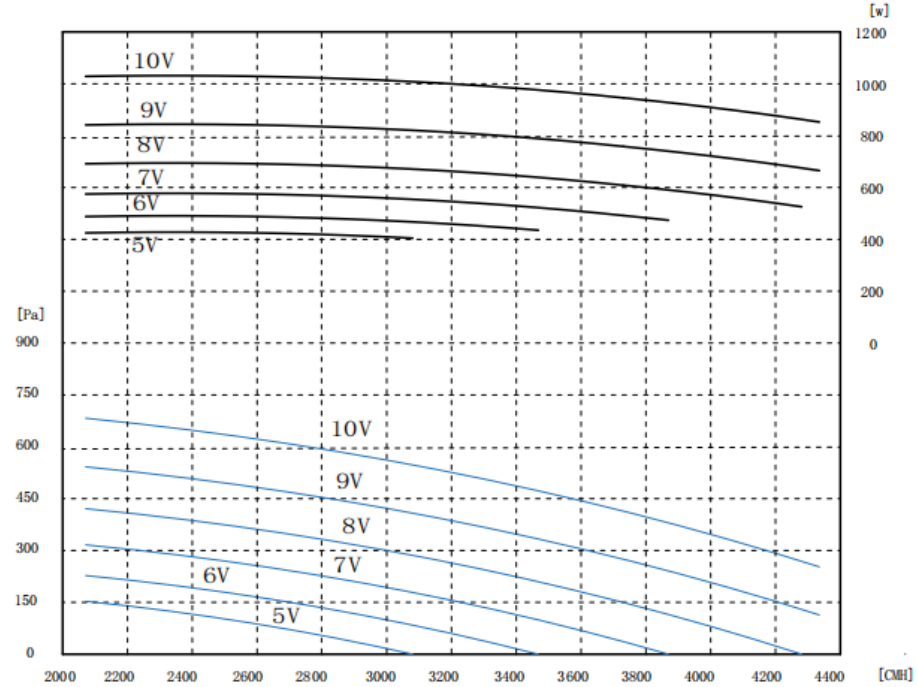
TFFC-270 Performance Table

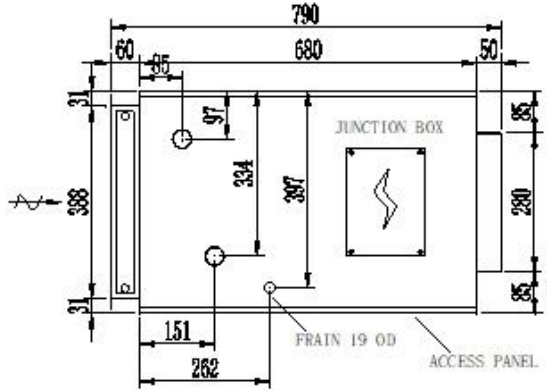
TFFC-270			High Air flow			Medium Air flow			LOW Air flow		
4 row chilled water coil			1200L/S (4320cmh)			900L/S (3240cmh)			600L/S (2160cmh)		
Air onDB/WB	△T ℃	Cooling kW	Entering water temp			Entering water temp			Entering water temp		
			6	7	8	6	7	8	6	7	8
23/17	4	total	21.10	18.66	16.31	17.44	15.47	13.55	13.02	11.60	10.19
		sensible	15.90	14.79	13.70	12.80	11.91	11.04	9.27	8.63	8.00
		P.D./kPa	26.93	21.65	18.98	21.50	17.45	13.88	13.13	10.78	8.66
	5	total	18.95	16.68	14.56	15.76	13.89	12.13	11.88	10.47	8.86
		sensible	14.90	13.84	12.81	12.02	11.17	10.35	8.75	8.11	7.38
		P.D./kPa	16.90	13.56	10.75	12.40	10.00	7.95	7.77	6.29	4.78
	6	total	17.00	14.93	13.05	14.19	12.42	10.39	10.00	7.95	5.71
		sensible	13.96	12.95	11.95	11.29	10.46	9.43	7.89	6.93	5.63
		P.D./kPa	10.35	8.31	6.63	7.70	6.16	4.59	4.36	3.02	1.80
27/19	4	total	27.67	25.14	22.65	22.78	20.76	18.74	16.89	15.47	14.02
		sensible	20.60	19.49	18.39	16.54	15.65	14.76	11.92	11.29	10.66
		P.D./kPa	43.17	36.32	30.13	30.78	26.05	21.72	20.36	17.47	14.73
	5	total	25.39	22.99	20.67	21.02	19.07	17.17	15.74	14.33	12.93
		sensible	19.57	18.50	17.45	15.75	14.89	14.04	11.41	10.79	10.17
		P.D./kPa	25.15	21.06	19.39	20.18	17.02	14.18	12.39	10.55	8.86
	6	total	23.29	21.04	18.92	19.37	17.52	15.74	14.61	13.24	11.83
		sensible	18.61	17.58	16.56	15.01	14.18	13.37	10.90	10.30	9.68
		P.D./kPa	17.56	14.72	12.25	12.89	10.84	9.04	8.08	6.85	5.68

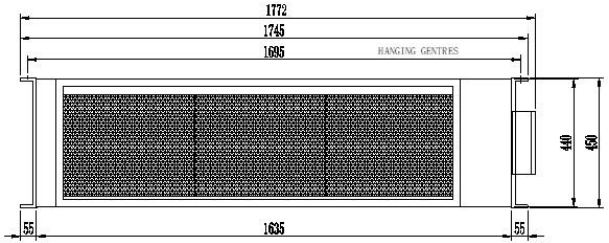
TFFC-270			High Air flow			Medium Air flow			LOW Air flow		
4 row chilled water coil			1200L/S (4320cmh)			900L/S (3240cmh)			600L/S (2160cmh)		
Air onDB/WB	△T ℃	Cooling kW	Entering water temp			Entering water temp			Entering water temp		
			6	7	8	6	7	8	6	7	8
31/21	4	total	34.71	32.15	29.55	28.44	26.47	24.38	20.99	19.61	18.14
		sensible	25.26	24.18	23.07	20.22	19.37	18.49	14.54	13.94	13.31
		P.D./kPa	61.46	55.91	47.95	45.33	39.79	34.30	23.97	23.64	20.57
	5	total	32.33	29.81	27.33	26.69	24.67	22.65	19.88	18.44	16.98
		sensible	24.24	23.16	22.09	19.46	18.60	17.74	14.05	13.43	12.81
		P.D./kPa	38.31	33.09	28.29	27.46	23.84	20.47	18.37	16.10	13.96
	6	total	30.06	27.66	25.33	24.93	22.97	21.05	18.70	17.28	15.87
		sensible	23.24	22.20	21.17	18.70	17.86	17.03	13.54	12.93	12.33
		P.D./kPa	24.53	21.13	20.07	19.74	17.11	14.70	12.17	10.63	9.18
35/28	4	total	61.13	58.69	56.18	50.26	48.31	46.30	37.20	35.80	34.36
		sensible	27.23	26.30	25.37	22.23	21.46	20.68	16.37	15.79	15.20
		P.D./kPa	165.05	152.76	140.66	116.08	107.67	99.37	70.28	65.42	60.61
	5	total	58.52	56.07	53.54	48.27	46.30	44.27	35.90	34.48	33.03
		sensible	26.24	25.33	24.41	21.44	20.68	19.92	15.82	15.25	14.68
		P.D./kPa	102.31	97.81	89.73	75.20	69.56	63.99	46.58	43.26	39.97
	6	total	55.93	53.45	50.90	46.28	44.29	42.23	34.57	33.14	31.67
		sensible	25.28	24.38	23.48	20.67	19.93	19.17	15.29	14.72	14.16
		P.D./kPa	70.70	64.96	59.33	52.89	48.77	44.70	31.71	29.35	27.02

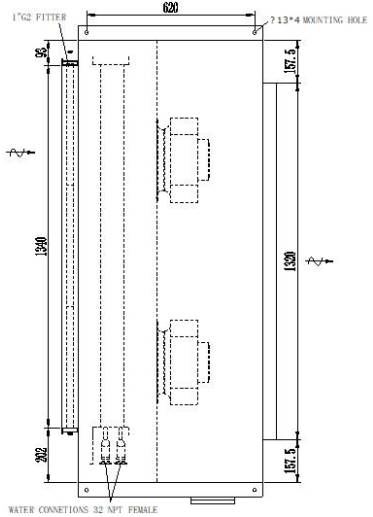
Performance Parameters

TFFC-270 Fan curve & dimension(High static pressure unit)



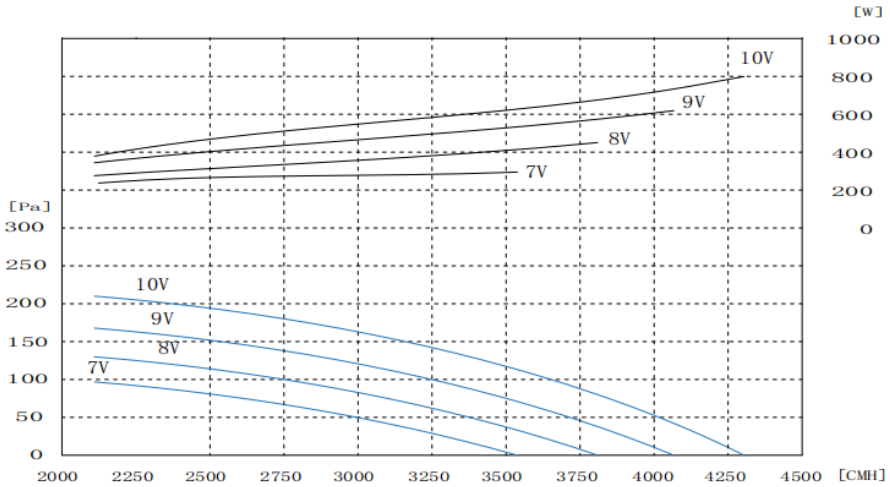


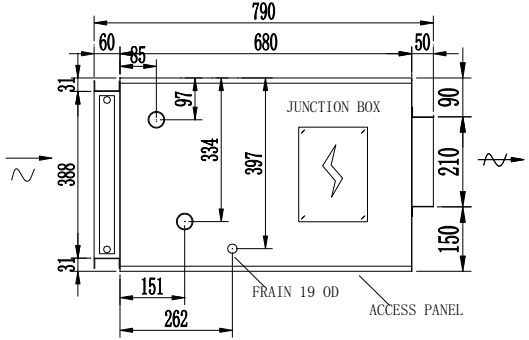


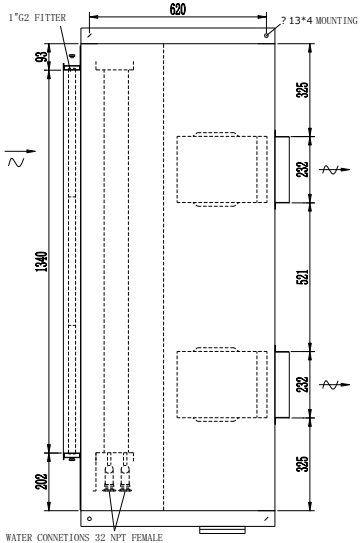


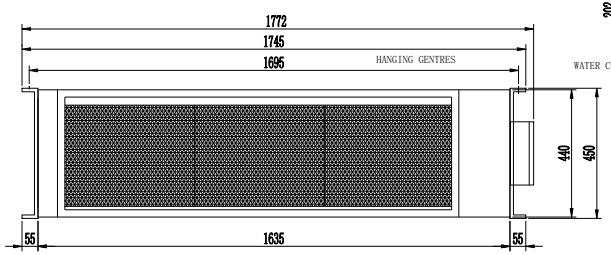
Performance Parameters

TFFC-270 Fan curve & dimension(Low static pressure unit)









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