LK-FCTB
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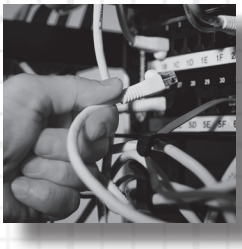

Direct Drive Fluid Coolers

Technical Guide

Models PFG & RF6

LARKIN

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Overview

Our engineers have carefully selected and matched components to provide excellent performance, long service life, and a wide range of performance selections. Specifically engineered for outdoor installations, the PFG and RF6 fluid coolers are constructed of aluminum and heavy gauge galvanized steel to resist corrosion in all climates.

Fluid coolers are available in a wide range of sizes. Each model is available with several circuit options to ensure the exact fluid cooler for your requirements. Our fluid coolers are designed to reduce the cost of time required for installation. Each unit is completely assembled and tested at the factory. All motor leads are wired to a junction box providing a single point for field wiring.

Direct-Drive Design Features

The Floating Tube™ Coil Design Dramatically Reduces Tube Sheet Leaks

- Cabinets are heavy-duty construction and designed for outdoor applications; tube sheets and all structural members are fabricated from galvanized steel
- Cabinet panels are fabricated from heavy-gauge aluminum for an attractive appearance and corrosion protection
- Coils are fabricated with corrugated aluminum fins with staggered copper tubes for optimum heat transfer; all units are pressure-tested, dehydrated and pressurized prior to shipment
- Alternate coil constructions are available — copper fins, Pro-Kote™ fins and coated coils
- RF6 models incorporate the Floating Tube™ coil design that reduces the possibility of tube sheet leaks
- PFG models available in either horizontal or vertical air flow; RF6 models available in vertical air flow only
- Fully baffled fan sections provide structural strength and prevent fan wind-milling in the off cycle
- Energy efficient fan motors with direct-drive fans available at 1140 RPM; fan motors have thermal overload protection and permanently lubricated ball bearings
- PFG models are available in 208-230 V single-phase, 208-230/460 dual-voltage, three-phase or 575 V three-phase motors; RF6 models are available in 208-230/460 dual voltage, three-phase or 575 V three-phase motors
- Statically and dynamically balanced fan blades are aluminum and riveted to painted steel spider and hubs
- Fan guards are PVC coated steel for optimum corrosion protection
- All fan motor leads are wired to a weatherproof electrical enclosure for single-point field wiring
- Fan cycling controls are available that cycle all fans in response to RF6 only; PFG fan cycling is ambient air
- All controls are factory mounted and wired; control circuit voltage is 230 V standard, 24 and 115 V controls are also available
- A wide selection of circuit options maximizes performance at minimal cost
- Sizes available from 10 GPM through 500 GPM
- Units are UL listed for US and Canada

Selection Procedure

Selection Formulas

Design Capacity = GPM x (Entering Fluid Temperature - Leaving Fluid Temperature) x Fluid Constant, Table 1

Average Fluid Temperature = (Entering Fluid Temperature + Leaving Fluid Temperature)/2

Initial Temperature Difference, I TD = Entering Fluid Temperature - Entering Air Temperature

Base Capacity = Design Capacity/(1,000 x ITD x Capacity Correction, Table 2 x Altitude Correction Factor, Table 3)

Pressure Drop, Fluid = Pressure Drop, Catalog x Correction Factor, Table 4

Given Conditions	
Direct Drive	120˚F Leaving Fluid Temperature
50 GPM	100˚ F Entering Air Temperature
20% Ethylene glycol solution	20 feet maximum fluid pressure drop
130˚ F Entering Fluid Temperature	1,000 feet altitude

Solution

1. Calculate design capacity. From Table 1, select the fluid constant for 20% of 484.

   Design Capacity = 50 x (130-120) x 484
   Design Capacity = 242,000 BTUH

2. Calculate average fluid temperature

   = (130 +120)/2

   = 125˚ F

3. Calculate the initial temperature difference, ITD

   ITD = 130 - 100

   ITD = 30˚ F

4. Calculate Base capacity. From Table 2, for a 20% solution and an average fluid temperature of 125˚ F, interpolate to obtain a correction factor of 1.035. From Table 3, obtain an attitude correction factor at 1000 feet of 0.98.

   Base Capacity = 242,000/(1,000 x 30 x 1.035 x 0.98)

   Base Capacity = 7.95 MBH / ˚TD

Correction Factors

5. Select the model and circuiting required. From the capacity tables, locate the GPM you desire and read down until you find a base capacity equal to or greater than your calculated base capacity. Read horizontally to the left to obtain the model and circuiting (Feeds) for your application.

   The selection is a PFG 16, with 32 feeds, with a base capacity of 8.34 MBH/1˚ T.D. and a fluid loss of 15.1 feet of water.

6. Calculate the pressure drop of the fluid. From Table 4, using 20% glycol solution and a 125˚ F average fluid temperature, interpolate to get a correction factor of 0.86.

   Actual Fluid Loss = 15.1 x 0.86

   Actual Fluid Loss = 13.0 feet of water

Table 1. Fluid Constraints

Percent Glycol	Fluid Constant
0	500
10	493
20	484
30	470
40	453
50	435

Table 2. Capacity Correction Factor

Percent Glycol	Average Fluid Temperature ˚F				
	50	70	90	110	130
0	0.97	1.01	1.03	1.05	1.07
10	0.96	1.00	1.02	1.04	1.06
20	0.94	0.98	1.00	1.02	1.04
30	0.92	0.96	0.98	1.00	1.02
40	0.90	0.94	0.96	0.98	1.00
50	0.87	0.91	0.94	0.96	0.98

Note: For average fluid temperature less than 50˚F or greater than 130˚F, consult the factory

Table 3. Altitude Correction Factor

Altitude (Feet)	Correction Factor
0	1.00
1,000	0.98
2,000	0.95
3,000	0.93
4,000	0.90
5,000	0.88
6,000	0.85
7,000	0.83

Table 4. Correction Factor for Fluid Loss

Percent Ethylene Glycol	Average Fluid Temperature ˚F				
	50	70	90	110	130
0	0.88	0.82	0.78	0.75	0.71
10	0.97	0.90	0.86	0.82	0.78
20	1.05	0.98	0.94	0.89	0.85
30	1.15	1.07	1.02	0.98	0.93
40	1.24	1.15	1.10	1.05	1.00
50	1.33	1.23	1.18	1.12	1.07

Capacity Ratings

Table 5. Capacity Ratings MBH / °TD, 40% Ethylene Glycol at 130°F Average Fluid Temperature

Model	Feeds	GPM															
		10		15		20		25		30		40		50		60	
		MBH	PD*	MBH	PD*	MBH	PD*	MBH	PD*	MBH	PD*	MBH	PD*	MBH	PD*	MBH	PD*
PFG 5	8	2.36	14.0	2.71	28.7												
	12	2.23	4.7	2.58	9.7	2.80	16.1	2.95	24.0								
	16			2.47	4.5	2.70	7.5	2.85	11.2	2.97	15.5						
PFG 8	12	3.07	7.4	3.67	15.1	4.04	25.2										
	16			3.55	7.0	3.92	11.6	4.17	17.3	4.35	23.8						
	21					3.79	5.6	4.05	8.4	4.24	11.5	4.49	19.2	4.66	28.5		
	32									4.02	3.8	4.30	6.4	4.49	9.4	4.62	13.0
PFG 10	12	3.46	7.5	4.32	15.5	4.88	25.7										
	16			4.16	7.1	4.73	11.9	5.13	17.6	5.42	24.3						
	24					4.46	4.0	4.86	6.0	5.17	8.3	5.60	13.8	5.89	20.4	6.10	28.2
PFG 12	12	3.62	7.5	4.62	15.5	5.30	25.7										
	16			4.45	7.1	5.12	11.9	5.61	17.6	5.99	24.3						
	24					4.81	4.0	5.30	6.0	5.68	8.3	6.23	13.8	6.60	20.4	6.88	28.2
PFG 14	12	3.92	9.4	5.12	19.3												
	16			4.96	8.9	5.78	14.7	6.39	21.9								
	24					5.49	5.0	6.08	7.4	6.53	10.2	7.19	16.9	7.64	25.2		
PFG 16	12	4.17	12.4	5.57	25.4												
	21					7.27	9.2	8.44	13.7	9.43	18.9						
	32							6.57	4.4	7.09	6.1	7.84	10.2	8.34	15.1	8.70	20.9
PFG 21	16			5.93	12.3	7.22	20.5										
	24					6.93	6.8	7.90	10.2	8.68	14.0	9.83	23.3				
	48											8.97	3.7	9.78	5.5	10.41	7.5
PFG 23	24					6.99	6.8	7.98	10.2	8.78	14.0	9.96	23.3				
	48											9.25	3.7	10.14	5.5	10.82	7.5
PFG 26	21					7.65	12.9	8.81	19.1	9.73	26.3						
	32							8.44	6.1	9.33	8.4	10.66	14.0	11.58	20.8	12.25	28.7
	64													10.63	3.3	11.33	4.5

** PD is glycol fluid loss in feet of water at 130˚F fluid temperature*

Table 6. Capacity Ratings MBH / ˚TD, 40% Ethylene Glycol at 130˚F Average Fluid Temperature

Model	Feeds	GPM																			
		70		80		90		100		110		120		130		140		150		160	
		MBH	PD*	MBH	PD*	MBH	PD*	MBH	PD*	MBH	PD*	MBH	PD*	MBH	PD*	MBH	PD*	MBH	PD*	MBH	PD*
PFG 21	48	10.89	9.9	11.29	12.6	11.61	15.5	11.88	18.6	12.12	22.1	12.31	25.7								
PFG 23	48	11.36	9.9	11.80	12.6	12.16	15.5	12.46	18.6	12.72	22.1	12.94	25.7								
PFG 26	64	11.88	6.0	12.33	7.5	12.69	9.3	12.98	11.2	13.24	13.3	13.46	15.5	13.64	17.8	13.81	20.3	13.95	23.0	14.08	25.7

** PD is glycol fluid loss in feet of water at 130˚F fluid temperature*

Table 7. Model PFG Connection Sizes, based on the number of feeds

Feeds	Inlet/Outlet
8	1-1/8" ODS
12	1-3/8" ODS
16	1-3/8" ODS
21	1-5/8" ODS

Feeds	Inlet/Outlet
24	2-1/8" ODS
32	2-1/8" ODS
48	2-5/8" ODS
64	2-5/8" ODS

Specifications and Dimensions

Diagram 1. Model PFG Dimensions, 5 through 26 Tons with Vertical Air Flow

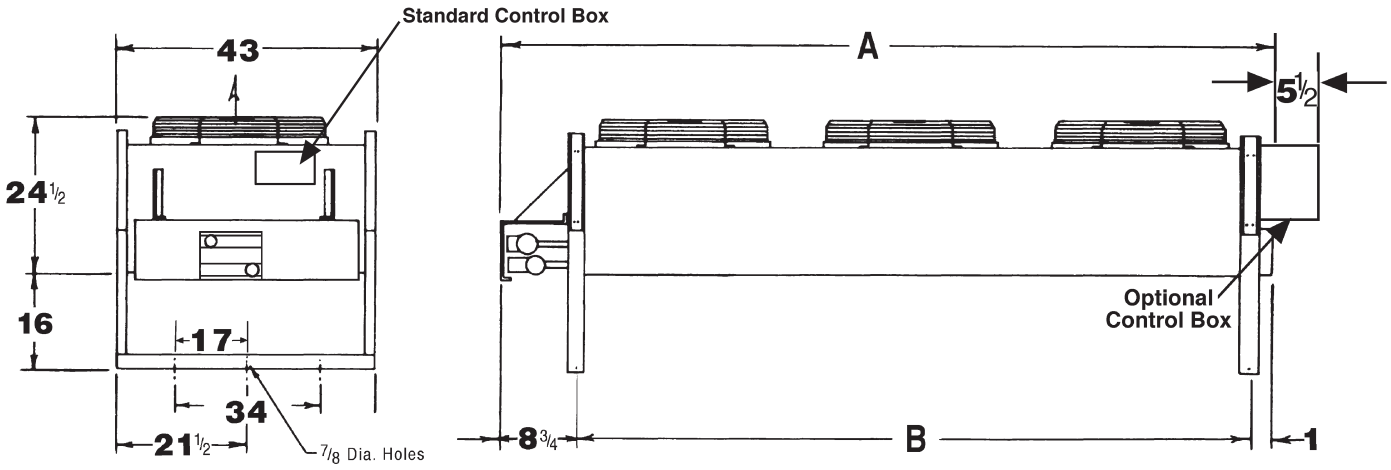


Diagram 2. Model PFG Dimensions, 5 through 26 Tons with Horizontal Air Flow

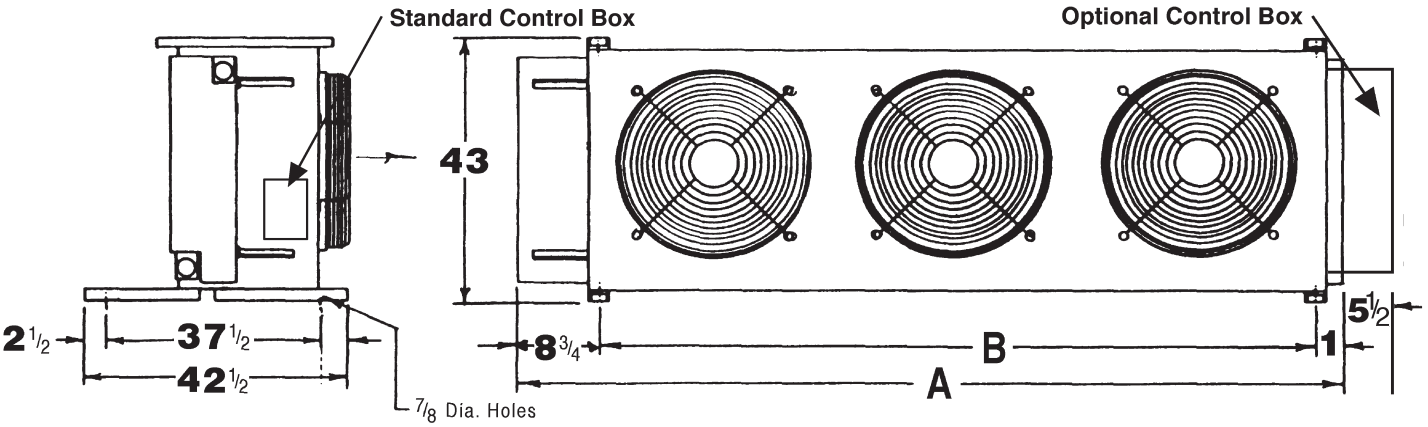


Table 8. Model PFG Specifications

Model	Dimensions (in.)		CFM	Fan		Motor Data				Approx. Net Wt. (Lbs.)
	A	B		No.	Dia.	HP[1]	FLA[1]	HP[2]	FLA[2]	
PFG 5	39-3/4	30	5,050	1	24	1/3	3.4	1/3	2.6/1.3	205
PFG 8	49-3/4	40	6,450	1	26	1/2	3.9	1/3	2.6/1.3	260
PFG 10	69-3/4	60	10,100	2	24	1/3	6.8	1/3	5.2/2.6	330
PFG 12	69-3/4	60	12,400	2	26	1/2	7.8	1/3	5.2/2.6	348
PFG 14	89-3/4	80	13,700	2	26	1/2	7.8	1/3	5.2/2.6	420
PFG 16	89-3/4	80	12,900	2	26	1/2	7.8	1/3	5.2/2.6	436
PFG 21	129-3/4	120	20,500	3	26	1/2	11.7	1/3	7.8/3.9	565
PFG 23	129-3/4	120	19,900	3	26	1/2	11.7	1/3	7.8/3.9	580
PFG 26	129-3/4	120	19,400	3	26	1/2	11.7	1/3	7.8/3.9	610

[1] Motor voltage 208-230/1/60; 1075 RPM
[2] Motor voltage 208-230-460/3/60; 1140 RPM

Capacity Ratings

Table 9. Capacity Ratings MBH / ˚TD, 40% Ethylene Glycol at 130˚F Average Fluid Temperature

Model	Feeds	Fan Config.	GPM																	
			20		30		40		50		60		70		80		90		100	
			MBH	PD*	MBH	PD*	MBH	PD*	MBH	PD*	MBH	PD*	MBH	PD*	MBH	PD*	MBH	PD*	MBH	PD*
RF6 0339	14 28	1 x 2	6.4	3.2	8.04	6.5	9.18 8.08	10.8 1.5	10.01 8.9	16.1 2.3	10.64 9.55	22.2 3.1	10.07	4.1	10.51	5.2	10.87	6.4	11.18	7.8
RF6 0399	14 21 42	1 x 2	7.01	4.8	8.85 8.39	9.9 3.2	10.1 9.60	16.5 5.3	10.99 10.49	24.4 7.9	11.17 10.06	10.8 1.5	11.7 10.62	14.2 2.0	12.13 11.08	18.0 2.6	12.48 11.47	22.2 3.1	11.8	3.8
RF6 0447	14 21 42	1 x 2	7.42	4.8	9.56 9.02	9.9 3.2	11.04 10.45	16.5 5.3	12.1 11.51	24.4 7.9	12.32 10.99	10.8 1.5	12.95 11.64	14.2 2.0	13.47 12.19	18.0 2.6	13.89 12.65	22.2 3.1	13.05	3.8
RF6 0525	18 28 56	1 x 2			10.2	6.6	11.88 11.2	11.0 3.2	13.08 12.38	16.3 4.7	13.98 13.29	22.5 6.5	14.66 13.99	29.5 8.6	14.55 13.16	10.8 1.5	15.01 13.67	13.4 1.9	15.39 14.1	16.1 2.3
RF6 0597	14 21 42	1 x 3	8.19	7.0	10.99 10.54	14.3 4.6	13.04 12.52	23.8 7.7	14.02	11.4	15.19 13.83	15.8 2.3	16.13 14.76	20.7 3.0	16.90 15.54	26.2 3.7	16.19	4.6	16.76	5.6
RF6 0669	14 21 42	1 x 3			11.62 11.15	14.3 4.6	14.03 13.43	23.8 7.7	15.21	11.4	16.61 14.99	15.8 2.3	17.74 16.09	20.7 3.0	18.66 17.01	26.2 3.7	17.79	4.6	18.46	5.6
RF6 0678	18 28 56	2 x 2			11.24	6.6	13.63 12.8	11.0 3.2	15.54 14.6	16.3 4.7	17.08 16.08	22.5 6.5	18.35 17.31	29.5 8.6	18.35 16.17	10.8 1.5	19.24 17.04	13.4 1.9	20.01 17.81	16.1 2.3
RF6 0741	18 28 56	1 x 3			11.92	9.5	14.49 13.85	15.9 4.6	16.45 15.73	23.5 6.9	17.22	9.5	18.41	12.4	19.37 17.69	15.8 2.3	20.18 18.51	19.4 2.8	20.85 19.22	23.4 3.3

** PD is glycol fluid loss in feet of water at 130˚F fluid temperature*

Capacity Ratings

Table 10. Capacity Ratings MBH / ˚TD, 40% Ethylene Glycol at 130˚F Average Fluid Temperature

Model	Feeds	Fan Con-fig.	GPM																	
			20		30		40		50		60		70		80		90		100	
			MBH	PD*	MBH	PD*	MBH	PD*	MBH	PD*	MBH	PD*	MBH	PD*	MBH	PD*	MBH	PD*	MBH	PD*
RF6 0798	28 42	2 x 2					14.03	4.8	16.06	7.2	17.70 16.78	9.9 3.2	19.06 18.10	13.0 4.2	20.19 19.21	16.5 5.3	21.15 20.16	20.3 6.5	21.97 20.99	24.4 7.9
RF6 0797	14 21 42	1 x 4	8.71	9.2	12.20 11.86	18.4 6.1	14.50	10.1	16.62	15.0	18.32 16.85	20.7 3.0	19.71 18.18	27.1 3.9	19.30	4.9	20.27	6.1	21.10	7.3
RF6 0894	28 42	2 x 2					14.84	4.8	17.18	7.2	19.12 18.05	9.9 3.2	20.73 19.60	13.0 4.2	22.09 20.92	16.5 5.3	23.24 22.05	20.3 6.5	24.22 23.03	24.4 7.9
RF6 0893	21 42	1 x 4			12.34	6.1	15.34	10.1	17.80	15.0	19.81 18.12	20.7 3.0	21.47 19.68	27.2 3.9	21.01	4.9	22.15	6.1	23.14	7.4
RF6 0990	36 56	2 x 2							17.77	4.8	19.84	6.6	21.55	8.7	22.99 21.71	11.0 3.2	24.21 22.90	13.5 3.9	25.25 23.94	16.3 4.7
RF6 0989	18 28 56	1 x 4			12.88	12.5	16.23 15.71	20.7 6.1	18.31	9.0	20.44	12.4	22.21	16.3	23.68 21.80	20.7 3.0	24.91 23.00	25.5 3.7	24.04	4.4
RF6 1050	36 56	2 x 2							18.21	4.8	20.41	6.6	22.24	8.7	23.78 22.41	11.0 3.2	25.08 23.68	13.5 3.9	26.19 24.78	16.3 4.7
RF6 1049	18 28 56	1 x 4			13.04	12.5	16.53 16.01	20.7 6.1	18.76	9.0	21.04	12.4	22.93	16.3	24.50 22.50	20.7 3.0	25.82 23.78	25.5 3.7	24.88	4.4
RF6 1131	21 42	1 x 5			12.97	7.5	16.52	12.5	19.56	18.5	22.14 20.53	25.6 3.7	22.54	4.9	24.28	6.1	25.80	7.6	27.13	9.1
RF6 1205	18 28 56	1 x 5			13.20	15.4	16.90 16.51	25.6 7.5	19.53	11.1	22.08	15.4	24.23	20.2	26.06 24.27	25.6 3.7	25.76	4.5	27.06	5.5
RF6 1196	28 42	2 x 3					16.38	7.0	19.38	10.4	21.97 21.09	14.3 4.6	24.18 23.21	18.8 6.1	26.08 25.04	23.8 7.7	27.73 26.64	29.4 9.5	28.05	11.4
RF6 1280	28 42	2 x 3					16.69	7.0	19.89	10.4	22.67 21.76	14.3 4.6	25.07 24.04	18.8 6.1	27.16 26.03	23.8 7.7	28.97 27.78	29.4 9.5	29.32	11.4
RF6 1340	28 42	2 x 3					16.93	7.0	20.29	10.4	23.23 22.30	14.3 4.6	25.81 24.73	18.8 6.1	28.05 26.86	23.8 7.7	30.01 28.74	29.4 9.5	30.41	11.4
RF6 1331	18 28 56	1 x 5			13.40	15.4	17.39 17.03	2.56 7.5	20.38	11.1	23.27	15.4	25.75	20.2	27.87 25.84	25.6 3.7	27.55	4.5	29.04	5.5
RF6 1447	28 56	1 x 6					17.22	8.9	20.70	13.3	23.74	18.3	26.38	24.1	26.92	4.4	28.78	5.4	30.43	6.5
RF6 1484	36 56	2 x 3							20.73	6.9	23.84	9.5	26.58	12.5	28.97 27.70	15.9 4.6	31.07 29.70	19.5 5.7	32.91 31.46	23.5 6.9
RF6 1597	28 56	1 x 6					17.59	8.9	21.37	13.3	24.76	18.3	27.76	24.1	28.48	4.4	30.61	5.4	32.50	6.5

** PD is glycol fluid loss in feet of water at 130˚F fluid temperature*

Capacity Ratings

Table 11. Capacity Ratings MBH / ˚TD, 40% Ethylene Glycol at 130˚F Average Fluid Temperature

Model	Feeds	Fan Con-fig.	GPM																	
			20		30		40		50		60		70		80		90		100	
			MBH	PD*	MBH	PD*	MBH	PD*	MBH	PD*	MBH	PD*	MBH	PD*	MBH	PD*	MBH	PD*	MBH	PD*
RF6 1594	28 42	2 x 4					17.42	9.2	21.10	13.6	24.41 23.71	18.7 6.1	27.35 26.51	24.6 8.0	29.01	10.1	31.24	12.4	33.23	15.0
RF6 1788	28 42	2 x 4					17.74	9.2	21.70	13.6	25.35 24.67	18.7 6.1	28.68 27.83	24.6 8.0	30.68	10.1	33.26	12.4	35.60	15.0
RF6 1980	36 56	2 x 4							21.96	9.0	25.77	12.5	29.27	16.4	32.45 31.41	20.7 6.1	35.34 34.14	25.6 7.5	37.94 36.61	30.8 9.0
RF6 2100	36 56	2 x 4							22.13	9.0	26.06	12.5	29.71	16.4	33.07 32.02	20.7 6.1	36.12 34.90	25.6 7.5	37.52	9.0
RF6 2262	42	2 x 5									25.94	7.5	29.62	9.9	33.03	12.5	36.20	15.4	39.11	18.5
RF6 2410	36 56	2 x 5							22.33	11.2	26.41	15.4	30.24	20.2	33.81 33.03	25.6 7.5	36.17	9.2	39.06	11.1
RF6 2522	36 56	2 x 5							22.45	11.2	26.64	15.4	30.62	20.2	34.62 33.61	25.6 7.5	36.92	9.2	40.00	11.1
RF6 2662	56	2 x 5													34.06	7.5	37.53	9.2	40.76	11.1
RF6 2892	56	2 x 6													34.44	8.9	38.03	11.0	41.39	13.3
RF6 3026	56	2 x 6													34.86	8.9	38.61	11.0	42.15	13.3
RF6 3194	56	2 x 6													35.17	8.9	39.05	11.0	42.74	13.3

** PD is glycol fluid loss in feet of water at 130˚F fluid temperature*

Capacity Ratings

Table 12. Capacity Ratings MBH / ˚TD, 40% Ethylene Glycol at 130˚F Average Fluid Temperature

Model	Feeds	Fan Config.	GPM																	
			120		140		160		180		200		220		240		260		280	
			MBH	PD*	MBH	PD*	MBH	PD*	MBH	PD*	MBH	PD*	MBH	PD*	MBH	PD*	MBH	PD*	MBH	PD*
RF6 0339	28	1 x 2	11.69	10.7																
RF6 0399	42	1 x 2	12.33	5.2	12.74	6.9	13.07	8.7	13.34	10.7										
RF6 0447	42	1 x 2	13.68	5.2	14.17	6.9	14.57	8.7	14.89	10.7										
RF6 0525	28 56	1 x 2	15.98 14.79	22.2 3.1	15.32	4.1	15.74	5.2	16.07	6.4	16.35	7.8	16.59	9.2	16.79	10.7				
RF6 0597	42	1 x 3	17.67	7.7	18.39	10.1	18.96	12.8	19.40	15.7										
RF6 0669	42	1 x 3	19.56	7.7	20.42	10.1	21.10	12.8	21.66	15.7										
RF6 0741	56	1 x 3	20.36	4.6	21.24	6.1	21.95	7.7	22.52	9.5	22.99	11.4	23.39	13.5	23.74	15.7				
RF6 0678	28 56	2 x 2	21.27 19.10	22.2 3.1	20.15	4.1	21.01	5.2	21.74	6.4	22.37	7.8	22.91	9.2	23.38	10.7				
RF6 0798	42 84	2 x 2	22.34 20.12	10.8 1.5	23.40 21.24	14.2 2.0	24.26 22.16	18.0 2.6	24.96 22.93	22.2 3.1	23.59	3.8	24.16	4.5	24.66	5.2	25.10	6.0	25.49	6.9
RF6 0797	42	1 x 4	22.45	10.1	23.53	13.3	24.39	16.9	25.09	20.8										
RF6 0894	42 84	2 x 2	24.65 21.98	10.8 1.5	25.93 23.30	14.2 2.0	26.95 24.40	18.0 2.6	27.80 25.32	22.2 3.1	26.11	3.8	26.79	4.5	27.39	5.2	27.91	6.0	28.37	6.9
RF6 0893	42	1 x 4	24.77	10.1	26.05	13.3	27.08	16.9	27.93	20.8										
RF6 0990	36 56 112	2 x 2	26.92 25.63	22.5 6.5	28.21 26.96	29.5 8.6	28.03 25.43	10.8 1.5	28.90 26.38	13.4 1.9	29.62 27.20	16.1 2.3	30.23 27.90	19.1 2.7	30.75 28.51	22.2 3.1	29.04	3.6	29.51	4.1
RF6 0989	56	1 x 4	25.75	6.1	27.08	8.0	28.15	10.1	29.02	12.5	29.75	15.0	30.36	17.8	30.89	20.8				
RF6 1050	36 56 112	2 x 2	27.98 26.59	22.5 6.5	29.34 28.00	29.5 8.6	29.13 26.34	10.8 1.5	30.05 27.36	13.4 1.9	30.81 28.22	16.1 2.3	31.45 28.96	19.1 2.7	32.00 29.60	22.2 3.1	30.17	3.6	30.67	4.1
RF6 1049	56	1 x 4	26.70	6.1	28.12	8.0	29.25	10.1	30.17	12.5	30.94	15.0	31.58	17.8	32.13	20.8				

** PD is glycol fluid loss in feet of water at 130˚F fluid temperature*

Capacity Ratings

Table 13. Capacity Ratings MBH / ˚TD, 40% Ethylene Glycol at 130˚F Average Fluid Temperature

Model	Feeds	Fan Con-fig.	GPM																	
			120		140		160		180		200		220		240		260		280	
			MBH	PD*	MBH	PD*	MBH	PD*	MBH	PD*	MBH	PD*	MBH	PD*	MBH	PD*	MBH	PD*	MBH	PD*
RF6 1131	42	1 x 5	29.34	12.6	31.09	16.5	32.52	20.9	33.69	25.8										
RF6 1205	56	1 x 5	29.21	7.6	30.92	9.9	32.30	12.6	33.44	15.5	34.39	18.7	35.20	22.1	35.89	25.8				
RF6 1196	42 84	2 x 3	30.40 27.66	15.8 2.3	32.27 29.52	20.7 3.0	33.81 31.08	26.2 3.7	32.39	4.6	33.52	5.6	34.50	6.6	35.36	7.7	36.12	8.8	36.79	10.1
RF6 1280	42 84	2 x 3	31.91 28.91	15.8 2.3	33.98 30.94	20.7 3.0	35.67 32.65	26.2 3.7	34.09	4.6	35.34	5.6	36.42	6.6	37.36	7.7	38.19	8.8	38.94	10.1
RF6 1331	56	1 x 5	31.52	7.6	33.49	9.9	35.06	12.6	36.36	15.5	37.43	18.7	38.34	22.1	39.12	25.8				
RF6 1340	42 84	2 x 3	33.21 29.98	15.8 2.3	35.47 32.17	20.7 3.0	37.31 34.02	26.2 3.7	35.58	4.6	36.93	5.6	38.10	6.6	39.12	7.7	40.03	8.8	40.83	10.1
RF6 1447	56	1 x 6	33.19	9.0	35.40	11.9	37.20	15.0	38.69	18.5	39.95	22.3	41.02	26.4						
RF6 1484	56 112	2 x 3	34.43	9.5	36.81	12.4	38.75 35.39	15.8 2.3	40.35 37.03	19.4 2.8	41.70 38.43	23.4 3.3	42.84 39.65	27.7 4.0	40.72	4.6	41.65	5.3	42.48	6.1
RF6 1597	56	1 x 6	35.68	9.0	38.23	11.9	40.31	15.0	42.02	18.5	43.45	22.3	44.66	26.4						
RF6 1594	42 84	2 x 4	36.64 33.71	20.7 3.0	39.42 36.37	27.1 3.9	38.62	4.9	40.54	6.1	42.20	7.3	43.64	8.7	44.92	10.1	46.05	11.7	47.06	13.3
RF6 1788	42 84	2 x 4	39.62 36.24	20.7 3.0	42.95 39.36	27.1 3.9	42.02	4.9	44.30	6.1	46.28	7.3	48.01	8.7	49.54	10.1	50.89	11.7	52.10	13.3
RF6 1980	56 112	2 x 4	40.89	12.4	44.42	16.3	47.35 43.59	20.7 3.0	49.82 46.00	25.5 3.7	48.08	4.4	49.90	5.2	51.50	6.1	52.91	7.0	54.16	8.0
RF6 2100	56 112	2 x 4	42.08	12.4	45.85	16.3	49.00 44.99	20.7 3.0	51.64 47.55	25.5 3.7	49.77	4.4	51.70	5.2	53.40	6.1	54.90	7.0	56.24	8.0
RF6 2262	42 84	2 x 5	44.27 41.05	25.6 3.7	45.08	4.9	48.56	6.1	51.59	7.6	54.25	9.1	56.59	10.8	58.66	12.6	60.51	14.5	62.17	16.5
RF6 2410	56 112	2 x 5	44.16	15.4	48.47	20.2	52.13 48.54	25.6 3.7	51.52	4.5	54.13	5.5	56.42	6.5	58.44	7.6	60.25	8.7	61.86	9.9
RF6 2522	56 112	2 x 5	45.46	15.4	50.11	20.2	54.07 50.23	25.6 3.7	53.44	4.5	56.25	5.5	58.72	6.5	60.91	7.6	62.85	8.7	64.59	9.9
RF6 2662	56 112	2 x 5	46.55	15.4	51.50	20.2	55.74 51.69	25.6 3.7	55.11	4.5	58.10	5.5	60.74	6.5	63.07	7.6	65.14	8.7	66.99	9.9
RF6 2892	56 112	2 x 6	47.47	18.3	52.75	24.1	53.83	4.4	57.57	5.4	60.86	6.5	63.78	7.8	66.37	9.0	68.70	10.4	70.79	11.9
RF6 3026	56 112	2 x 6	48.61	18.3	54.26	24.1	55.52	4.4	59.53	5.4	63.08	6.5	66.23	7.8	69.04	9.0	71.56	10.4	73.82	11.9
RF6 3194	56 112	2 x 6	49.52	18.3	55.52	24.1	56.95	4.4	61.21	5.4	64.99	6.5	68.36	7.8	71.36	9.0	74.04	10.4	76.46	11.9

** PD is glycol fluid loss in feet of water at 130˚F fluid temperature*

Capacity Ratings

Table 14. Capacity Ratings MBH / ˚TD, 40% Ethylene Glycol at 130˚F Average Fluid Temperature

Model	Feeds	Fan Config.	GPM									
			300		350		400		450		500	
			MBH	PD*	MBH	PD*	MBH	PD*	MBH	PD*	MBH	PD*
RF60798	84	2 x 2	25.83	7.8	26.56	10.2						
RF60894	84	2 x 2	28.78	7.8	29.65	10.2						
RF60990	112	2 x 2	29.94	4.7	30.82	6.1	31.50	7.8	32.06	9.6	32.53	11.5
RF61050	112	2 x 2	31.11	4.7	32.03	6.1	32.75	7.8	33.33	9.6	33.80	11.5
RF61196	84	2 x 3	37.40	11.4	38.66	15.0						
RF61280	84	2 x 3	39.60	11.4	40.99	15.0						
RF61340	84	2 x 3	41.55	11.4	43.06	15.0						
RF61484	112	2 x 3	43.22	6.9	44.77	9.0	45.98	11.4	46.97	14.0	47.77	16.9
RF61594	84	2 x 4	47.96	15.0	49.87	19.8						
RF61788	84	2 x 4	53.18	15.0	55.46	19.8						
RF61980	112	2 x 4	55.29	9.0	57.63	11.9	59.50	15.0	61.00	18.5	62.24	22.3
RF62100	112	2 x 4	57.43	9.0	59.92	11.9	61.87	15.0	63.45	18.5	64.74	22.3
RF62262	84	2 x 5	63.67	18.7	66.82	24.5						
RF62410	112	2 x 5	63.30	11.2	66.36	14.8	68.80	18.7	70.78	23.0	72.42	27.7
RF62522	112	2 x 5	66.15	11.2	69.43	14.8	72.04	18.7	74.16	23.0	75.91	27.7
RF62662	112	2 x 5	68.65	11.2	72.14	14.8	74.90	18.7	77.12	23.0	78.96	27.7
RF62892	112	2 x 6	72.69	13.4	76.69	17.6	79.90	22.3	82.52	27.5	84.70	33.1
RF63026	112	2 x 6	75.87	13.4	80.18	17.6	83.63	22.3	86.45	27.5	88.78	33.1
RF63194	112	2 x 6	78.64	13.4	83.24	17.6	86.90	22.3	89.87	27.5	92.33	33.1

** PD is glycol fluid loss in feet of water at 130˚F fluid temperature*

Table 15. Model RF6 Connection Sizes, based on number of feeds

Single Row of Fans	
Feeds	Inlet/Outlet
14	2-1/8" ODS
18	2-1/8" ODS
21	2-5/8" ODS
28	2-5/8" ODS
42	3-1/8" ODS
56	3-5/8" ODS

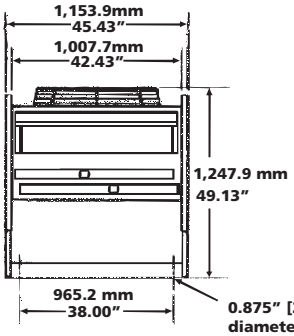
Double Row of Fans	
Feeds	Inlet/Outlet
18	2 @ 2-1/8" ODS
28	2 @ 2-1/8" ODS
36	2 @ 2-1/8" ODS
42	2 @ 2-5/8" ODS
56	2 @ 2-5/8" ODS
84	2 @ 3-1/8" ODS
112	2 @ 3-5/8" ODS

Dimensions

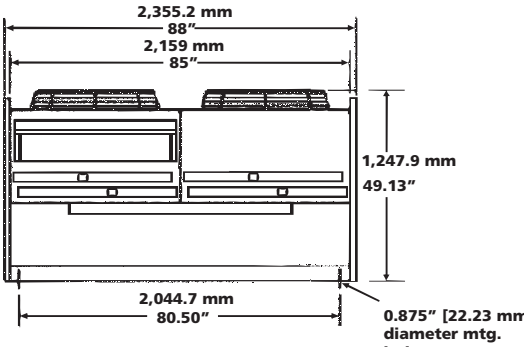
Diagram 3. Model RF6 Dimensions

End Views

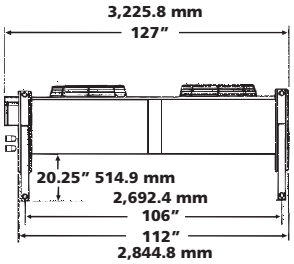
Single Row



Double Row



Side Views



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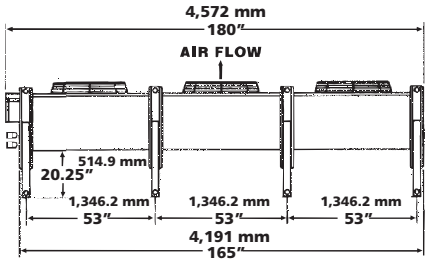

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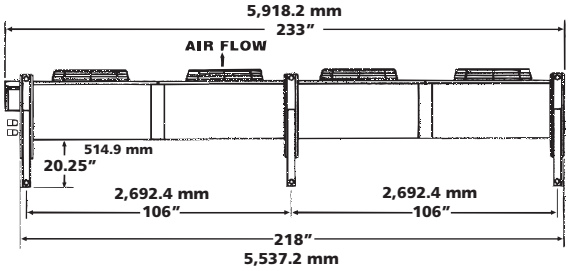

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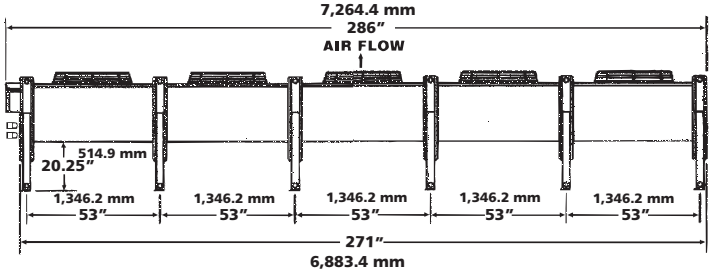

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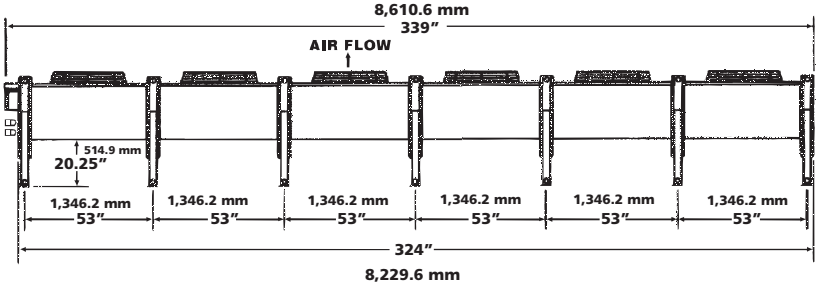

1 x 6
2 x 6

Specifications

Table 16. Model RF6 Specifications

Model	Fan Data[1]		CFM	FLA[2]			Operating Charge (Gal.)	Approx. Net Wt. (lbs.)[†]
	Fan Config.	No. of Fans		208-230/3/60	575/3/60	460/3/60		
Single Row of Fans								
RF60339	1 x 2	2	19,780	14.0	5.6	7.0	6.6	720
RF60399	1 x 2	2	19,800	14.0	5.6	7.0	9.0	760
RF60447	1 x 2	2	19,110	14.0	5.6	7.0	9.0	780
RF60525	1 x 2	2	18,340	14.0	5.6	7.0	11.6	860
RF60597	1 x 3	3	29,700	21.0	8.4	10.5	12.8	1,170
RF60669	1 x 3	3	28,660	21.0	8.4	10.5	12.8	1,190
RF60741	1 x 3	3	28,070	21.0	8.4	10.5	16.4	1,220
RF60797	1 x 4	4	38,600	28.0	11.2	14.0	16.4	1,550
RF60893	1 x 4	4	37,250	28.0	11.2	14.0	16.4	1,590
RF60989	1 x 4	4	38,020	28.0	11.2	14.0	21.3	1,620
RF61049	1 x 4	4	35,710	28.0	11.2	14.0	21.3	1,730
RF61131	1 x 5	5	46,610	35.0	14.0	17.5	20.0	1,960
RF61205	1 x 5	5	46,200	35.0	14.0	17.5	26.1	1,960
RF61331	1 x 5	5	44,580	35.0	14.0	17.5	26.1	2,200
RF61447	1 x 6	6	55,400	42.0	16.8	21.0	31.0	2,350
RF61597	1 x 6	6	53,460	42.0	16.8	21.0	31.0	2,580
Double Row of Fans								
RF60678	2 x 2	4	39,570	28.0	11.2	14.0	13.3	1,560
RF60798	2 x 2	4	39,600	28.0	11.2	14.0	18.2	1,600
RF60894	2 x 2	4	38,210	28.0	11.2	14.0	18.2	1,650
RF60990	2 x 2	4	37,530	28.0	11.2	14.0	23.1	1,670
RF61050	2 x 2	4	36,770	28.0	11.2	14.0	23.1	1,780
RF61196	2 x 3	6	59,400	42.0	16.8	21.0	25.4	2,350
RF61280	2 x 3	6	58,510	42.0	16.8	21.0	25.4	2,400
RF61340	2 x 3	6	57,320	42.0	16.8	21.0	25.4	2,500
RF61484	2 x 3	6	56,240	42.0	16.8	21.0	32.8	2,560
RF61594	2 x 4	8	77,200	56.0	22.4	28.0	32.7	3,080
RF61788	2 x 4	8	74,500	56.0	22.4	28.0	32.7	3,140
RF61980	2 x 4	8	72,790	56.0	22.4	28.0	42.5	3,190
RF62100	2 x 4	8	71,310	56.0	22.4	28.0	42.5	3,450
RF62262	2 x 5	10	93,120	70.0	28.0	35.0	40.0	3,920
RF62410	2 x 5	10	92,400	70.0	28.0	35.0	52.1	3,930
RF62522	2 x 5	10	91,010	70.0	28.0	35.0	52.1	4,070
RF62662	2 x 5	10	89,170	70.0	28.0	35.0	52.1	4,300
RF62892	2 x 6	12	110,900	84.0	33.6	42.0	62.0	4,620
RF63026	2 x 6	12	109,240	84.0	33.6	42.0	62.0	4,800
RF63194	2 x 6	12	107,020	84.0	33.6	42.0	62.0	5,130

Notes:
[1]All fan blades are 30" diameter
[2]All motors are 1-1/2 HP, 208-230/460/3/60, 1140 RPM
[†] Does not include operating charge

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