

# **Fluid Coolers**

## **Selection Guide**





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## REMOTE OUTDOOR TYPE – MODEL DAFC

Unit cabinets are constructed of heavy duty aluminum, thoroughly reinforced with riveted gussets. Fan outlets provide additional strength to fan panel and assure even air flow for quiet operation. Mounting legs are constructed of heavy duty galvanized steel and are shipped with the unit for field installation.

The condenser coil is constructed of plate type die formed, aluminum fins bonded to copper tubes and employ full height, self-spacing collars which completely cover the tube surface. The coil is pressure and leak tested at 425 PSIG air under warm water, evacuated, dehydrated, and sealed with caps on connections.

Propeller type fans, carefully matched to the coil, cover a large percentage of the coil face area providing a uniform air distribution. The direct drive fans have heavy duty gauge aluminum blades securely riveted to zinc plated, chromate treated center hubs. All fans are statically and dynamically balanced before shipment and operate at low tip speeds for minimum vibration and low sound levels.

The fan motors are heavy duty PSC or three phase motors with permanently lubricated ball bearings. All motors are thermally protected against burn-out and may be started by a single contactor. Protective slingers shield the motors from weather damage.

All motors are factory wired with leads terminating in a weather protected junction box located on the outside of the unit casing. Fan motors are 3/4 horsepower, 1075 RPM. The fan guards are constructed of heavy gauge, close meshed steel wire powder coated for corrosion resistance.

All Data Aire DAFC type fluid coolers are E.T.L. listed.

# DAFC Fluid Cooler Selection Chart

All selections based on 40% Glycol

Model	THR GPM		Ambient Temperature								
			95			100			105 <sup>1</sup>		
			Fluid Cooler	MBH	PD (FT)	Fluid Cooler	MBH	PD (FT)	Fluid Cooler	MBH	PD (FT)
<b>Mini Ceiling</b>											
DAM* 01	15	3.5	DAFC 06	31	0.2	DAFC 06	25	0.2	DAFC 06	19	0.2
DAM* 1.5	23	5.3	DAFC 06	38	0.5	DAFC 06	30	0.5	DAFC 06	23	0.5
DAM* 02	30	7.0	DAFC 06	49	1.1	DAFC 06	39	1.1	DAFC 09	36	1.6
DAM* 2.5	36	8.8	DAFC 06	57	1.6	DAFC 06	45	1.6	DAFC 09	42	2.5
<b>Mini Plus</b>											
DAP* 2.5	39	8.8	DAFC 06	57	1.6	DAFC 06	45	1.6	DAFC 09	42	2.5
DAP* 03	49	10.5	DAFC 06	63	2.2	DAFC 06	50	2.2	DAFC 09**	46	3.4
DAP* 04	72	14.0	DAFC 06	72	3.7	DAFC 09**	71	5.7	DAFC 28**	68	0.3
DAP* 05	88	17.5	DAFC 07	89	7.1	DAFC 15**	87	1.1	DAFC 30	94	1.8
<b>Large Ceiling Units - Single Compressor</b>											
DAL* 06	104	21	DAFC 11	104	3.0	DAFC 17**	102	0.9	DAFC 30	108	2.5
DAL* 08	136	28	DAFC 15	139	2.5	DAFC 21	147	3.3	DAFC 37	137	2.3
DAL* 10	181	35	DAFC 21	207	5.0	DAFC 28	182	1.9	DAFC 50	183	2.9
DAL* 13	230	46	DAFC 21	233	8.2	DAFC 30	232	10.1	DAFC 50**	220	4.7
<b>Large Ceiling Units - Dual Compressors</b>											
DAL* 06	103	21	DAFC 11	104	3.0	DAFC 17**	102	0.9	DAFC 30	108	2.5
DAL* 08	138	28	DAFC 15	139	2.5	DAFC 21	147	3.3	DAFC 37**	137	2.3
DAL* 10	174	35	DAFC 21	207	5.0	DAFC 24	175	2.8	DAFC 44	179	4.1
DAL* 13	224	46	DAFC 21	233	8.2	DAFC 30	232	10.1	DAFC 50**	220	4.7
<b>Data Temp</b>											
DT*D/U 02	36	7.0	DAFC 06	49	1.1	DAFC 06	39	1.1	DAFC 09	36	1.6
DT*D/U 03	49	10.5	DAFC 06	63	2.2	DAFC 06	50	2.2	DAFC 09**	46	3.4
DT*D/U 04	72	14.0	DAFC 06	72	3.7	DAFC 09**	71	5.7	DAFC 28**	68	0.3
DT*D/U 05	88	17.5	DAFC 07	89	7.1	DAFC 15**	87	1.1	DAFC 30	94	1.8
<b>Modular Data Temp</b>											
DT*D/U 08	136	28	DAFC 15	139	2.5	DAFC 21	147	3.3	DAFC 37	137	2.3
DT*D/U 10	172	35	DAFC 21	207	5.0	DAFC 24	175	2.8	DAFC 44	179	4.1
DT*D/U 13	224	46	DAFC 21	233	8.2	DAFC 30	232	10.1	DAFC 50**	220	4.7
<b>Data Aire Series</b>											
DA*D/U 06	100	21	DAFC 11	104	3.0	DAFC 17	102	0.9	DAFC 30	108	2.5
DA*D/U 08	146	28	DAFC 17	148	1.4	DAFC 21	147	3.3	DAFC 44	152	2.8
DA*D/U 10	162	35	DAFC 17	163	2.1	DAFC 21	166	5.0	DAFC 40	164	2.4
DA*D/U 13	224	46	DAFC 21	233	8.2	DAFC 30	232	10.1	DAFC 50**	220	4.7
DA*D/U 16	245	56	DAFC 24	269	6.5	DAFC 30	247	14.4	DAFC 50	245	6.7
DA*D/U 20	310	70	DAFC 37	360	12.1	DAFC 40**	304	8.4	DAFC 75	317	3.5
DA*D/U 26	387	91	DAFC 40	404	13.4	DAFC 50	393	16.0	DAFC 88	422	6.6
DA*D/U 30	482	105	DAFC 50	509	20.7	DAFC 61	483	12.8	DAFC 100**	475	6.0
<b>gForce GT</b>											
GT*D/U007	36	7.0	DAFC 06	49	1.1	DAFC 06	39	1.1	DAFC 09	36	1.6
GT*D/U011	49	10.5	DAFC 06	63	2.2	DAFC 06	50	2.2	DAFC 09**	46	3.4
GT*D/U014	72	14.0	DAFC 06	72	3.7	DAFC 09**	71	5.7	DAFC 28**	68	0.3
GT*D/U018	88	17.5	DAFC 07	89	7.1	DAFC 15**	87	1.1	DAFC 30	94	1.8
<b>gForce</b>											
GF*D/U021	100	21	DAFC 11	104	3.0	DAFC 17	102	0.9	DAFC 30	108	2.5
GF*D/U028	146	28	DAFC 17	148	1.4	DAFC 21	147	3.3	DAFC 44	152	2.8
GF*D/U035	162	35	DAFC 17	163	2.1	DAFC 21	166	5.0	DAFC 40	164	2.4
GF*D/U046	224	46	DAFC 21	233	8.2	DAFC 30	232	10.1	DAFC 50**	220	4.7
GF*D/U056	245	56	DAFC 24	269	6.5	DAFC 30	247	14.4	DAFC 50	245	6.7
GF*D/U070	310	70	DAFC 37	360	12.1	DAFC 40**	304	8.4	DAFC 75	317	3.5
GF*D/U091	387	91	DAFC 40	404	13.4	DAFC 50	393	16.0	DAFC 88	422	6.6
GF*D/U106	482	105	DAFC 50	509	20.7	DAFC 61	483	12.8	DAFC 100**	475	6.0

\* Insert: W - Water Cooled or G - Glycol

\*\* The capacity of the selected fluid cooler is less than the total heat rejection (THR) specified for the given unit. The result will be slightly higher water temperatures which can cause a small decrease in unit capacity.

1 Fluid coolers are not recommended for higher ambient temperature

## **LOW DECIBEL REMOTE OUTDOOR TYPE – MODEL DAFC-LD**

Unit cabinets are constructed of heavy duty gauge aluminum, thoroughly reinforced with riveted gussets. The interior panels are insulated for sound attenuation. Fan outlets provide additional strength to fan panel and assure even air flow for quiet operation. Mounting legs are constructed of heavy duty galvanized steel and are shipped with the unit for field installation.

The condenser coil is constructed of plate type die formed, aluminum fins mechanically bonded to copper tubes and employ full height, self-spacing collars which completely cover the tube surface. The coil is pressure and leak tested at 425 PSIG air under warm water, evacuated, dehydrated, and sealed with caps on connections.

Propeller type fans, carefully matched to the coil, cover a large percentage of the coil face area providing a uniform air distribution. The direct drive fans have heavy duty gauge aluminum blades securely riveted to zinc plated, chromate treated center hubs. All fans are statically and dynamically balanced before shipment and operate at low tip speeds for minimum vibration and low sound levels.

The fan motors are heavy duty PSC or three phase motors with permanently lubricated ball bearings. All motors are thermally protected against burn-out and may be started by a single contactor. Protective slingers shield the motors from weather damage. All motors are factory wired with leads terminating in a weather protected junction box located on the outside of the unit casing. Fan motors are 1/2 horsepower, 850 RPM. The fan guards are constructed of heavy gauge, close meshed steel wire powder coated for corrosion resistance.

All Data Aire DAFC-LD type fluid coolers are E.T.L. listed.

## DAFC-LD Low Decibel Fluid Cooler Selection Chart

All selections based on 40% glycol

Model	THR GPM		Ambient Temperature								
			95			100			105 <sup>1</sup>		
			Fluid Cooler	MBH	PD (FT)	Fluid Cooler	MBH	PD (FT)	Fluid Cooler	MBH	PD (FT)
<b>Mini Ceiling</b>											
DAM* 01	15	3.5	DAFC 06	30	0.2	DAFC 06	24	0.2	DAFC 06	18	0.2
DAM* 1.5	23	5.3	DAFC 06	36	0.5	DAFC 06	29	0.5	DAFC 07	26	0.6
DAM* 02	30	7.0	DAFC 06	49	1.1	DAFC 06	37	1.1	DAFC 09	34	1.6
DAM* 2.5	36	8.8	DAFC 06	57	1.6	DAFC 06	42	1.6	DAFC 17	40	0.2
<b>Mini Plus</b>											
DAP* 2.5	39	8.8	DAFC 06	57	1.6	DAFC 06	42	1.6	DAFC 17	40	0.2
DAP* 03	49	10.5	DAFC 06	63	2.2	DAFC 07	52	2.8	DAFC 24	52	0.3
DAP* 04	69	14.0	DAFC 06	72	3.7	DAFC 21	74	0.6	DAFC 28**	66	0.3
DAP* 05	83	17.5	DAFC 07	89	7.1	DAFC 21	102	1.4	DAFC 30	90	1.8
<b>Large Ceiling Units - Single or Dual Compressor</b>											
DAL* 06	104	21.0	DAFC 11	104	3.0	DAFC 21	116	2.0	DAFC 37	105	1.4
DAL* 08	136	28.0	DAFC 21	170	3.3	DAFC 28	146	1.3	DAFC 44	144	2.8
DAL* 10	188	35.0	DAFC 21	188	5.0	DAFC 37	195	3.5	DAFC 50	172	2.9
DAL* 13	225	45.0	DAFC 28	230	3.1	DAFC 40	229	3.9	DAFC 88	244	1.9
<b>Data Temp</b>											
DT*D/U 02	33	7.0	DAFC 06	49	1.1	DAFC 06	37	1.1	DAFC 09	34	1.6
DT*D/U 03	49	10.5	DAFC 06	63	2.2	DAFC 07	52	2.8	DAFC 24	52	0.3
DT*D/U 04	69	14.0	DAFC 06	72	3.7	DAFC 21	74	0.6	DAFC 28**	66	0.3
DT*D/U 05	83	17.5	DAFC 07	89	7.1	DAFC 21	102	1.4	DAFC 30	90	1.8
<b>Modular Data Temp</b>											
DT*D/U 08	135	28.0	DAFC 21	170	2.3	DAFC 28	146	1.3	DAFC 44	144	2.8
DT*D/U 10	172	35.0	DAFC 21	188	5.0	DAFC 30	185	6.2	DAFC 50**	172	2.9
DT*D/U 13	226	46.0	DAFC 28	230	3.1	DAFC 40	229	3.9	DAFC 88	244	1.9
<b>Data Aire Series</b>											
DA*D/U 06	100	21.0	DAFC 11	104	3.0	DAFC 21	116	2.0	DAFC 30	103	2.5
DA*D/U 08	143	28.0	DAFC 21	170	3.3	DAFC 28	146	1.3	DAFC 44	144	2.8
DA*D/U 10	161	35.0	DAFC 21	188	5.0	DAFC 30	185	6.2	DAFC 50	172	2.9
DA*D/U 13	224	45.0	DAFC 28	230	3.1	DAFC 40	229	3.9	DAFC 88	244	1.9
DA*D/U 16	247	56.0	DAFC 30	277	14.4	DAFC 44	283	9.6	DAFC 75	258	2.3
DA*D/U 20	326	70.0	DAFC 40	331	8.4	DAFC 57	331	1.9	DAFC 88	336	4.1
DA*D/U 26	395	91.0	DAFC 44	405	23.1	DAFC 61	417	9.9	DAFC 100	402	4.6
DA*D/U 30	484	105.0	DAFC 61	543	12.8	DAFC 80	484	5.0	N/A	N/A	N/A
<b>gForce GT</b>											
GT*D/U007	33	7.0	DAFC 06	49	1.1	DAFC 06	37	1.1	DAFC 09	34	1.6
GT*D/U011	49	10.5	DAFC 06	63	2.2	DAFC 07	52	2.8	DAFC 24	52	0.3
GT*D/U014	69	14.0	DAFC 06	72	3.7	DAFC 21	74	0.6	DAFC 28**	66	0.3
GT*D/U018	83	17.5	DAFC 07	89	7.1	DAFC 21	102	1.4	DAFC 30	90	1.8
<b>gForce</b>											
GF*D/U021	100	21.0	DAFC 11	104	3.0	DAFC 21	116	2.0	DAFC 30	103	2.5
GF*D/U028	143	28.0	DAFC 21	170	3.3	DAFC 28	146	1.3	DAFC 44	144	2.8
GF*D/U035	161	35.0	DAFC 21	188	5.0	DAFC 30	185	6.2	DAFC 50	172	2.9
GF*D/U046	224	45.0	DAFC 28	230	3.1	DAFC 40	229	3.9	DAFC 88	244	1.9
GF*D/U056	247	56.0	DAFC 30	277	14.4	DAFC 44	283	9.6	DAFC 75	258	2.3
GF*D/U070	326	70.0	DAFC 40	331	8.4	DAFC 57	331	1.9	DAFC 88	336	4.1
GF*D/U091	395	91.0	DAFC 44	405	23.1	DAFC 61	417	9.9	DAFC 100	402	4.6
GF*D/U106	484	105.0	DAFC 61	543	12.8	DAFC 80	484	5.0	N/A	N/A	N/A

\* Insert: W - Water or G - Glycol

\*\* The capacity of the selected fluid cooler is less than the total heat rejection (THR) specified for the given unit. The result will be slightly higher water temperatures which can cause a small decrease in unit capacity.

<sup>1</sup> Fluid coolers are not recommended for higher ambient temperatures.

## **INDOOR FLUID COOLERS – MODEL DAFC-PB**

Cabinets are constructed from 14 gage welded tubular steel and are coated with a heavy corrosion inhibiting finish for long life. The unit has complete front and side access by means of high quality furniture grade steel panels with heavy duty hinges. The panels are lined with 1 inch thick, 1.5 pound density insulation. Each door is provided with sure close latches. Cabinets are painted to match or contrast with other equipment in the space.

The blower is a belt driven centrifugal type, double width, double inlet and is statically and dynamically balanced as a complete assembly to a maximum vibration level of two mills in any plane. The blower wheel is supported on a heavy steel shaft with self-aligning ball bearings with minimum life span of 100,000 hours. The blower is driven by a motor mounted on an adjustable slide base. The drive motor is 1750 RPM. The drive package is belt driven with dual belts and a variable pitch sheave sized for 200% of the fan motor horsepower. A factory mounted and wired disconnect is optional.

The coil is constructed with copper tubes and aluminum fins. The coil sits in stainless steel drain pan. All piping terminates inside the unit cabinet. Standard piping is through the bottom of the unit. Options are available for either top piping or side piping with short right hand side door.

Circulating pump(s) may be ordered factory installed as an option.

Air intake is horizontal. Standard discharge is horizontal with top air discharge available as an option. An optional integral filter rack with 4" thick, 30% efficient filters (based on ASHRAE Std. 52.2 MERV 8) is available for the air intake.

All Data Aire DAFC-PB type fluid coolers are E.T.L. listed.



## DAFC-PB Indoor Fluid Cooler Selection Chart

95° Ambient

Model	THR	GPM	Fluid Cooler	MBH	PD
<b><u>Data Temp</u></b>					
DT*D/U-02	36	7.0	DAFC-06-PB	49	1.1
DT*D/U-03	49	10.5	DAFC-06-PB	63	2.2
DT*D/U-04	72	12.0	DAFC-07-PB	81	4.7
DT*D/U-05	88	17.5	DAFC-07-PB	89	7.1
<b><u>Modular Data</u></b>					
DT*D/U-08	136	28.0	DAFC-15-PB	139	2.5
DT*D/U-10	172	35.0	No Selection		
DT*D/U-13	224	46.0	No Selection		
<b><u>Data Aire Series</u></b>					
DA*D/U-06	100	21.0	DAFC-11-PB	104	3.0
DA*D/U-08	146	28.0	DAFC-17-PB	148	1.4
DA*D/U-10	162	35.0	DAFC-17-PB	163	2.1
DA*D/U-13	224	46.0	No Selection		
DA*D/U-16	245	56.0	No Selection		
DA*D/U-20	310	70.0	No Selection		
DA*D/U-26	387	91.0	No Selection		
DA*D/U-30	482	105.0	No Selection		

\* Insert W - Water, G-Glycol

All selections are based on the following conditions:  
40% glycol, 125° condensing temperature and 115° fluid temperature

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### DAFC-PB Indoor Fluid Cooler Electrical Data

Model	Motor HP	208-230/3/60*	460/3/60*
DAFC-06-PB	3	9/11/20	4.4/5.5/15
DAFC-07-PB	3	9/11/20	4.4/5.5/15
DAFC-09-PB	3	9/11/20	4.5/5.5/15
DAFC-11-PB	7.5	23/28/50	11/14/20
DAFC-15-PB	7.5	23/28/50	11/14/20
DAFC-17-PB	7.5	23/28/50	11/14/20
DAFC-21-PB	3	27/24/60	13/17/25
DAFC-21-PB	3	27/24/60	13/17/25
DAFC-28-PB	3	27/24/60	13/17/25

\* FLA/MCA/MOP (FLA -Full load amps, MCA-Minimum circuit amps wire sizing amps, MOP-Maximum over-current protection device amp.)

## DAFC Fluid Cooler Capacity Breakdown

Based on 40% Glycol

GPM	DAFC 06 MBH/PD	DAFC 07 MBH/PD	DAFC 09 MBH/PD	DAFC 11 MBH/PD	DAFC 15 MBH/PD	DAFC 17 MBH/PD	DAFC 21 MBH/PD
5	36.9/0.4	41.7/0.5					
10	61.0/2.0	69.2/2.6	72.0/3.1				
15	73.9/4.2	83.7/5.4	90.6/6.5				
20	82.0/7.1	92.4/9.0	99.5/10.9	101.6/2.7			
25	86.2/10.6	97.0/13.4		112.8/4.1			172.6/2.7
30				121.5/5.7	143.6/2.9		191.2/3.8
35				126.7/7.5	152.8/3.8		206.8/5.0
40				132.1/9.5	160.1/4.8	171.7/2.7	220.4/6.4
45				136.7/11.8	166.0/6.0	178.7/3.4	231.5/7.9
50				140.6/14.2	168.9/7.2	184.5/4.1	237.5/9.5
55					173.0/8.6	189.4/4.8	244.7/11.3
60					176.5/10.1	193.4/5.7	250.9/13.2
65					179.5/11.6	196.7/6.5	
70					182.2/13.3	198.0/7.5	
75						200.5/8.5	
80						202.8/9.5	
85						204.9/10.6	
100						206.7/11.8	
GPM	DAFC 24 MBH/PD	DAFC 28 MBH/PD	DAFC 30 MBH/PD	DAFC 37 MBH/PD	DAFC 40 MBH/PD	DAFC 44 MBH/PD	DAFC 50 MBH/PD
30			229.7/4.7	229.7/4.7			
35	219.2/2.8		251.5/6.2	251.5/6.2		298.4/4.1	305.6/2.9
40	233.9/3.9	244.2/2.5	270.7/7.9	285.1/4.4	295.8/3.1	325.9/5.3	336.1/3.6
45	246.4/4.4	257.6/3.1	286.7/9.7	303.0/5.5	315.3/3.8	349.8/6.5	362.5/4.5
50	257.4/5.3	268.9/3.7	296.5/11.7	318.9/6.6	331.4/4.6	370.5/7.9	385.4/5.5
55	267.0/6.3	278.7/4.4	307.3/13.9	332.9/7.8	345.7/5.4	388.6/9.3	405.3/6.5
60	275.1/7.4	287.3/5.1		344.9/9.2	358.5/6.3	404.6/10.9	422.8/7.6
65	281.2/8.6	294.9/5.9		354.3/10.6	369.8/7.3	418.8/12.6	438.0/8.7
70	284.3/9.8	301.6/6.8		359.7/12.1	379.7/8.4	429.0/14.4	451.5/10.0
75	289.0/11.1	307.1/7.7		367.0/13.7	388.1/9.5		463.5/11.3
80	293.2/12.4	311.3/8.6			394.7/10.4		474.3/12.7
85	297.0/13.9	313.1/9.6			398.0/11.9		481.5/14.2
90		316.5/10.7			400.3/13.2		

\*\* Continued on next page \*\*

**DAFC Fluid Cooler Capacity Breakdown - Continued**  
Based on 40% Glycol

<b>GPM</b>	<b>DAFC 57 MBH/PD</b>	<b>DAFC 61 MBH/PD</b>	<b>DAFC 75 MBH/PD</b>	<b>DAFC 80 MBH/PD</b>	<b>DAFC 88 MBH/PD</b>	<b>DAFC 100 MBH/PD</b>
45		379.7/2.8				
50		408.8/3.4				
55		435.2/4.0				
60		459.4/4.7	480.0/2.6			
65		482.0/5.4	505.5/3.0			
70		503.1/6.2	528.9/3.5		596.8/4.1	
75		522.9/7.0	550.3/3.9		625.4/4.7	642.8/3.3
80	488.3/2.5	541.4/7.9	570.1/4.4	591.6/3.1	651.8/5.3	672.2/3.6
85	502.4/2.8	558.3/8.8	588.6/4.9	611.6/3.4	676.6/5.9	699.4/4.1
90	515.2/3.1	573.4/9.7	606.0/5.5	629.9/3.8	699.6/6.5	725.0/4.5
95	527.0/3.4	586.2/10.7	622.4/6.0	647.0/4.2	721.0/7.2	748.6/5.0
100	537.8/3.7	593.0/11.7	637.8/6.6	662.8/4.6	741.0/7.9	770.8/5.5
110	557.4/4.4	614.5/13.9	665.8/7.8	691.5/5.4	777.2/9.3	810.6/6.5
120	574.6/5.1		689.8/9.2	717.0/6.3	809.2/10.9	845.6/7.6
130	589.9/5.9		708.5/10.6	739.6/7.3	837.6/12.6	876.0/8.7
140	603.1/6.8		719.5/12.1	759.4/8.4	858.0/14.4	903.0/10.0
150	614.2/7.7		734.0/13.7	776.2/9.5		927.0/11.3
160	622.7/8.6			789.4/10.7		948.6/12.7
170	626.2/9.6			796.1/11.9		963.0/14.2
180	633.0/10.7			806.7/13.2		
190	639.1/11.7			816.2/14.5		
200	644.6/12.9					

## **EC FAN REMOTE OUTDOOR TYPE – MODEL GHFC**

Unit cabinets are constructed of heavy duty aluminum, thoroughly reinforced with riveted gussets. Fan outlets provide additional strength to fan panel and assure even air flow for quiet operation. Mounting legs are constructed of heavy duty galvanized steel and are shipped with the unit for field installation.

The condenser coil is constructed of plate type die formed, aluminum fins bonded to copper tubes and employ full height, self-spacing collars which completely cover the tube surface. The coil is pressure and leak tested at 425 PSIG air under warm water, evacuated, dehydrated, and sealed with caps on connections.

Axial type electronically commutated (EC) fans, carefully matched to the coil, cover a large percentage of the coil face area providing a uniform air distribution. The direct drive fans have plastic blades securely fastened to the EC motor rotor. All fans are statically and dynamically balanced before shipment and operate at low tip speeds for minimum vibration and low sound levels.

The fan motors are energy efficient electronically commutated external rotor three phase motors with maintenance free permanently lubricated ball bearings and integrated electronics. All motors are soft start, integrated current limiting and variable speed.

All motors are factory wired with leads terminating in a weather protected junction box located on the outside of the unit casing. Fan motors operate at 1075 RPM. The fan guards are constructed of heavy gauge, close meshed steel wire powder coated for corrosion resistance.

All Data Aire GHFC type fluid coolers are E.T.L. listed.

# GHFC Fluid Cooler Selection Chart

All selections based on 40% Glycol

Model	THR GPM		Ambient Temperature								
			95			100			105 <sup>1</sup>		
			Fluid Cooler	MBH	PD (FT)	Fluid Cooler	MBH	PD (FT)	Fluid Cooler	MBH	PD (FT)
<b>Mini Ceiling</b>											
DAM* 01	15	3.5	GHFC 021	31	0.2	GHFC 021	25	0.2	GHFC 021	19	0.2
DAM* 1.5	23	5.3	GHFC 021	38	0.5	GHFC 021	30	0.5	GHFC 021	23	0.5
DAM* 02	30	7.0	GHFC 021	49	1.1	GHFC 021	39	1.1	GHFC 032	36	1.6
DAM* 2.5	36	8.8	GHFC 021	57	1.6	GHFC 021	45	1.6	GHFC 032	42	2.5
<b>Mini Plus</b>											
DAP* 2.5	39	8.8	GHFC 021	57	1.6	GHFC 021	45	1.6	GHFC 032	42	2.5
DAP* 03	49	10.5	GHFC 021	63	2.2	GHFC 021	50	2.2	GHFC 032	46	3.4
DAP* 04	72	14.0	GHFC 021	72	3.7	GHFC 032	71	5.7	GHFC 099	68	0.3
DAP* 05	88	17.5	GHFC 025	89	7.1	GHFC 053	87	1.1	GHFC 106	94	1.8
<b>Large Ceiling Units - Single Compressor</b>											
DAL* 06	104	21	GHFC 039	104	3.0	GHFC 060	102	0.9	GHFC 106	108	2.5
DAL* 08	136	28	GHFC 053	139	2.5	GHFC 074	147	3.3	GHFC 130	137	2.3
DAL* 10	181	35	GHFC 074	207	5.0	GHFC 084	182	1.9	GHFC 176	183	2.9
DAL* 13	230	46	GHFC 074	233	8.2	GHFC 106	232	10.1	GHFC 176	220	4.7
<b>Large Ceiling Units - Dual Compressors</b>											
DAL* 06	103	21	GHFC 039	104	3.0	GHFC 060	102	0.9	GHFC 106	108	2.5
DAL* 08	138	28	GHFC 053	139	2.5	GHFC 074	147	3.3	GHFC 130	137	2.3
DAL* 10	174	35	GHFC 074	207	5.0	GHFC 084	175	2.8	GHFC 155	179	4.1
DAL* 13	224	46	GHFC 074	233	8.2	GHFC 106	232	10.1	GHFC 176	220	4.7
<b>Data Temp</b>											
DT*D/U 02	36	7.0	GHFC 021	49	1.1	GHFC 021	39	1.1	GHFC 032	36	1.6
DT*D/U 03	49	10.5	GHFC 021	63	2.2	GHFC 021	50	2.2	GHFC 032	46	3.4
DT*D/U 04	72	14.0	GHFC 021	72	3.7	GHFC 032	71	5.7	GHFC 099	68	0.3
DT*D/U 05	88	17.5	GHFC 025	89	7.1	GHFC 053	87	1.1	GHFC 106	94	1.8
<b>Modular Data Temp</b>											
DT*D/U 08	136	28	GHFC 053	139	2.5	GHFC 074	147	3.3	GHFC 130	137	2.3
DT*D/U 10	172	35	GHFC 074	207	5.0	GHFC 084	175	2.8	GHFC 155	179	4.1
DT*D/U 13	224	46	GHFC 074	233	8.2	GHFC 106	232	10.1	GHFC 176	220	4.7
<b>Data Aire Series</b>											
DA*D/U 06	100	21	GHFC 039	104	3.0	GHFC 060	102	0.9	GHFC 106	108	2.5
DA*D/U 08	146	28	GHFC 060	148	1.4	GHFC 074	147	3.3	GHFC 155	152	2.8
DA*D/U 10	162	35	GHFC 060	163	2.1	GHFC 074	166	5.0	GHFC 141	164	2.4
DA*D/U 13	224	46	GHFC 074	233	8.2	GHFC 106	232	10.1	GHFC 176	220	4.7
DA*D/U 16	245	56	GHFC 084	269	6.5	GHFC 106	247	14.4	GHFC 176	245	6.7
DA*D/U 20	310	70	GHFC 130	360	12.1	GHFC 141	304	8.4	GHFC 264	317	3.5
DA*D/U 26	387	91	GHFC 141	404	13.4	GHFC 176	393	16.0	GHFC 310	422	6.6
DA*D/U 30	482	105	GHFC 176	509	20.7	GHFC 215	483	12.8	GHFC 352	475	6.0
<b>gForce GT</b>											
GT*D/U007	36	7.0	GHFC 021	49	1.1	GHFC 021	39	1.1	GHFC 032	36	1.6
GT*D/U011	49	10.5	GHFC 021	63	2.2	GHFC 021	50	2.2	GHFC 032	46	3.4
GT*D/U014	72	14.0	GHFC 021	72	3.7	GHFC 032	71	5.7	GHFC 099	68	0.3
GT*D/U018	88	17.5	GHFC 025	89	7.1	GHFC 053	87	1.1	GHFC 106	94	1.8
<b>gForce</b>											
GF*D/U021	100	21	GHFC 039	104	3.0	GHFC 060	102	0.9	GHFC 106	108	2.5
GF*D/U028	146	28	GHFC 060	148	1.4	GHFC 074	147	3.3	GHFC 155	152	2.8
GF*D/U035	162	35	GHFC 060	163	2.1	GHFC 074	166	5.0	GHFC 141	164	2.4
GF*D/U046	224	46	GHFC 074	233	8.2	GHFC 106	232	10.1	GHFC 176	220	4.7
GF*D/U056	245	56	GHFC 084	269	6.5	GHFC 106	247	14.4	GHFC 176	245	6.7
GF*D/U070	310	70	GHFC 130	360	12.1	GHFC 141	304	8.4	GHFC 264	317	3.5
GF*D/U091	387	91	GHFC 141	404	13.4	GHFC 176	393	16.0	GHFC 310	422	6.6
GF*D/U106	482	105	GHFC 176	509	20.7	GHFC 215	483	12.8	GHFC 352	475	6.0

\* Insert: W - Water Cooled or G - Glycol

\*\* The capacity of the selected fluid cooler is less than the total heat rejection (THR) specified for the given unit. The result will be slightly higher water temperatures which can cause a small decrease in unit capacity.

1 Fluid coolers are not recommended for higher ambient temperature

## GHFC Fluid Cooler Capacity Breakdown

Based on 40% Glycol

GPM	GHFC 021 MBH/PD	GHFC 025 MBH/PD	GHFC 032 MBH/PD	GHFC 039 MBH/PD	GHFC 053 MBH/PD	GHFC 060 MBH/PD	GHFC 074 MBH/PD
5	36.9/.04	41.7/.05					
10	61.0/2.0	69.2/2.6	72.0/3.1				
15	73.9/4.2	83.7/5.4	90.6/6.5				
20	82.0/7.1	92.4/9.0	99.5/10.9	101.6/2.7			
25	86.2/10.6	97.0/13.4		112.8/4.1			172.6/2.7
30				121.5/5.7	143.6/2.9		191.2/3.8
35				126.7/7.5	152.8/3.8		206.8/5.0
40				132.1/9.5	160.1/4.8	171.7/2.7	220.4/6.4
45				136.7/11.8	166.0/6.0	178.7/3.4	231.5/7.9
50				140.6/14.2	168.9/7.2	184.5/4.1	237.5/9.5
55					173.0/8.6	189.4/4.8	244.7/11.3
60					176.5/10.1	193.4/5.7	250.9/13.2
65					179.5/11.6	196.7/6.5	
70					182.2/13.3	198.0/7.5	
75						200.5/8.5	
80						202.8/9.5	
85						204.9/10.6	
100						206.7/11.8	

GPM	GHFC 084 MBH/PD	GHFC 099 MBH/PD	GHFC 106 MBH/PD	GHFC 130 MBH/PD	GHFC 141 MBH/PD	GHFC 155 MBH/PD	GHFC 176 MBH/PD
30			229.7/4.7	229.7/4.7			
35	219.2/2.8		251.5/6.2	251.5/6.2		298.4/4.1	305.6/2.9
40	233.9/3.9	244.2/2.5	270.7/7.9	285.1/4.4	295.8/3.1	325.9/5.3	336.1/3.6
45	246.4/4.4	257.6/3.1	286.7/9.7	303.0/5.5	315.3/3.8	349.8/6.5	362.5/4.5
50	257.4/5.3	268.9/3.7	296.5/11.7	318.9/6.6	331.4/4.6	370.5/7.9	385.4/5.5
55	267.0/6.3	278.7/4.4	307.3/13.9	332.9/7.8	345.7/5.4	388.6/9.3	405.3/6.5
60	275.1/7.4	287.3/5.1		344.9/9.2	358.5/6.3	404.6/10.9	422.8/7.6
65	281.2/8.6	294.9/5.9		354.3/10.6	369.8/7.3	418.8/12.6	438.0/8.7
70	284.3/9.8	301.6/6.8		359.7/12.1	379.7/8.4	429.0/14.4	451.5/10.0
75	289.0/11.1	307.1/7.7		367.0/13.7	388.1/9.5		463.5/11.3
80	293.2/12.4	311.3/8.6			394.7/10.4		474.3/12.7
85	297.0/13.9	313.1/9.6			398.0/11.9		481.5/14.2
90		316.5/10.7			400.3/13.2		

**GHFC Fluid Cooler Capacity Breakdown - Continued**  
Based on 40% Glycol

<b>GPM</b>	<b>GHFC 201 MBH/PD</b>	<b>GHFC 215 MBH/PD</b>	<b>GHFC 264 MBH/PD</b>	<b>GHFC 281 MBH/PD</b>	<b>GHFC 310 MBH/PD</b>	<b>GHFC 352 MBH/PD</b>
45		379.7/2.8				
50		408.8/3.4				
55		435.2/4.0				
60		459.4/4.7	480.0/2.6			
65		482.0/5.4	505.5/3.0			
70		503.1/6.2	528.9/3.5		596.8/4.1	
75		522.9/7.0	550.3/3.9		625.4/4.7	642.8/3.3
80	488.3/2.5	541.4/7.9	570.1/4.4	591.6/3.1	651.8/5.3	672.2/3.6
85	502.4/2.8	558.3/8.8	588.6/4.9	611.6/3.4	676.6/5.9	699.4/4.1
90	515.2/3.1	573.4/9.7	606.0/5.5	629.9/3.8	699.6/6.5	725.0/4.5
95	527.0/3.4	586.2/10.7	622.4/6.0	647.0/4.2	721.0/7.2	748.6/5.0
100	537.8/3.7	593.0/11.7	637.8/6.6	662.8/4.6	741.0/7.9	770.8/5.5
110	557.4/4.4	614.5/13.9	665.8/7.8	691.5/5.4	777.2/9.3	810.6/6.5
120	574.6/5.1		689.8/9.2	717.0/6.3	809.2/10.9	845.6/7.6
130	589.9/5.9		708.5/10.6	739.6/7.3	837.6/12.6	876.0/8.7
140	603.1/6.8		719.5/12.1	759.4/8.4	858.0/14.4	903.0/10.0
150	614.2/7.7		734.0/13.7	776.2/9.5		927.0/11.3
160	622.7/8.6			789.4/10.7		948.6/12.7
170	626.2/9.6			796.1/11.9		963.0/14.2
180	633.0/10.7			806.7/13.2		
190	639.1/11.7			816.2/14.5		
200	644.6/12.9					

### GHFC Fluid Cooler Electrical Data

Model	208-230/3/60 FLA/MCA/MOP	460/3/60 FLA/MCA/MOP
GHFC 021	3.3/4.1/15	1.7/2.1/15
GHFC 025	3.3/4.1/15	1.7/2.1/15
GHFC 032	3.3/4.1/15	1.7/2.1/15
GHFC 039	6.6/7.4/15	3.4/3.8/15
GHFC 053	6.6/7.4/15	3.4/3.8/15
GHFC 060	6.6/7.4/15	3.4/3.8/15
GHFC 074	9.9/11/15	5.1/5.5/15
GHFC 084	9.9/11/15	5.1/5.5/15
GHFC 099	9.9/11/15	5.1/5.5/15
GHFC 106	13/14/15	6.8/7.2/15
GHFC 130	13/14/15	6.8/7.2/15
GHFC 141	13/14/15	6.8/7.2/15
GHFC 155	17/17/20	8.5/8.9/15
GHFC 176	17/17/20	8.5/8.9/15
GHFC 201	20/21/25	10/11/15
GHFC 215	26/27/30	14/14/15
GHFC 264	26/27/30	14/14/15
GHFC 281	26/27/30	14/14/15
GHFC 310	33/34/45	17/17/20
GHFC 352	33/34/45	17/17/20











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