

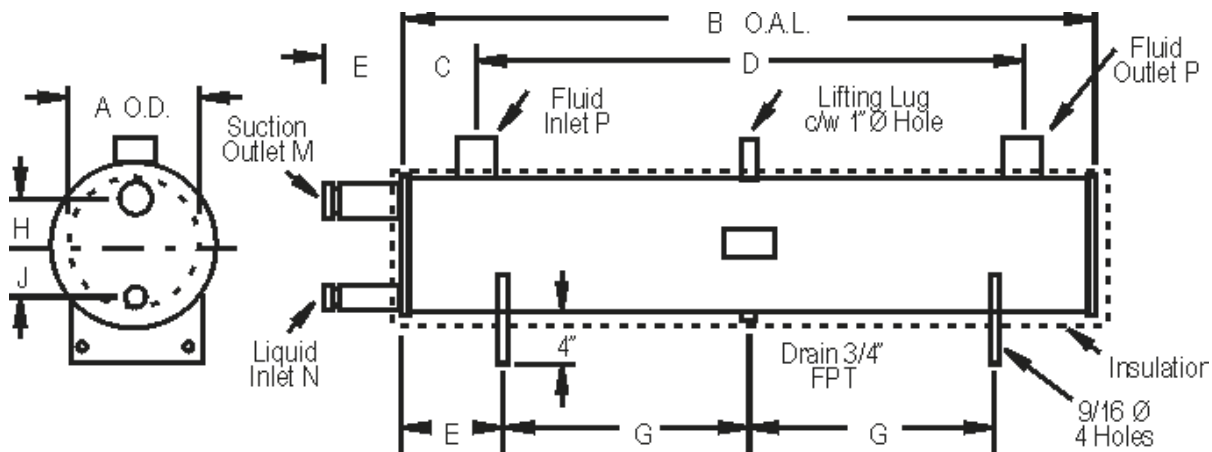
CHILLERS

Direct Expansion



Features:

- **Special Microfin Tubes** for high transfer capability and more compact chiller sizes
- Available as standard in single or dual circuit
- **5-300 normal tons** refrigeration
- **Working Pressure** – 225 PSI Tube Side
150 PSI Shell Side
- **Removable heads** for servicing on all units 35 TR or larger
- **Insulation**, mounting legs and lifting bracket included
- **Flange connections** and heat tape available
- **Duralon gasket material** to ensure virtually leak free operation and eliminate circuit to circuit leaks
- **Certified** by the National Board of Boiler and Pressure Vessel Inspectors. All vessels are designed and manufactured in accordance with Section VIII of the ASME Code and are available with U or UM code symbol stamp.



Single Circuits

Catalog Number	Nom. Tons	Dimensions in Inches											Suct. Outlet M	Liq. Inlet N	Fluid In/Out P**	Ship Wt. Lbs.
		A	B	C	D	E	F	G	H	J	Q					
EM005-05060-1	5	5 9/16	61 7/8	3 5/8	51 5/8	5 3/4	8 1/2	22 1/2	1 3/4	2 1/4	5	1 1/8	5/8	1	225	
EM010-06054-1	10	6 5/8	56	3 3/4	45 5/8	5 3/4	7 3/4	20 1/4	2 1/4	2 3/4	5 7/8	1 5/8	7/8	1	240	
EM015-06072-1	15	6 5/8	74	4 1/2	65	5 3/4	10	27	2 1/4	2 3/4	5 7/8	1 5/8	7/8	1 1/2	265	
EM020-08060-1	20	8 5/8	62 7/8	4 1/2	53 7/8	5 1/2	9	22 1/2	2 7/8	3 5/8	7 3/4	2 1/8	1 1/8	1 1/2	380	
EM025-08072-1	25	8 5/8	74 7/8	4 3/4	65 1/2	5 1/2	10 1/2	27	2 7/8	3 5/8	7 3/4	2 1/8	1 1/8	2	405	
EM030-08072-1	30	8 5/8	74 7/8	4 3/4	65 1/2	5 1/2	10 1/2	27	2 7/8	3 5/8	7 3/4	2 1/8	1 1/8	2	415	

**Up to 2" I.P.S., F.P.T.; 2 1/2" to 3" I.P.S., M.P.T.; 3 1/2" to 8" I.P.S., Pipe Stubs

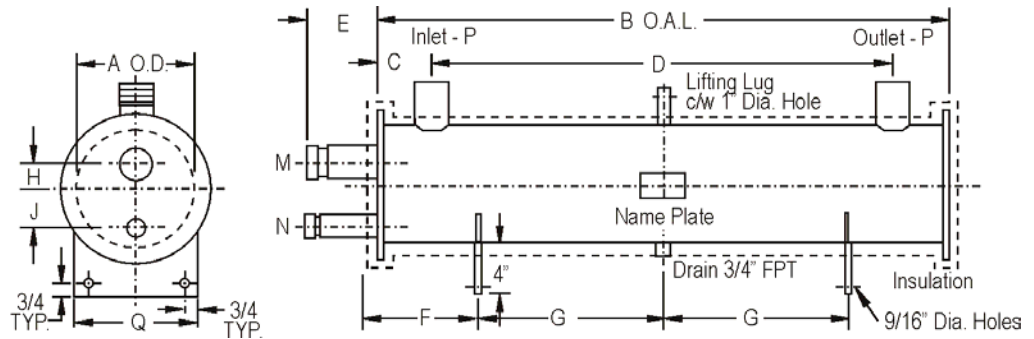


CHILLERS

Direct Expansion

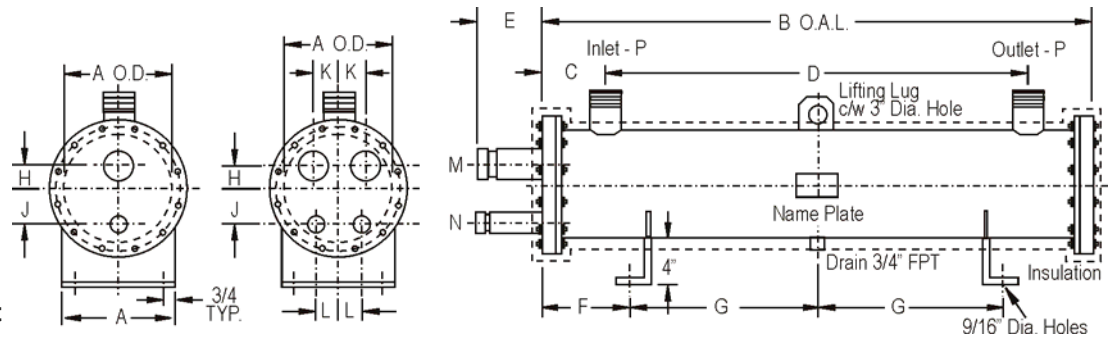


Single Circuit



Catalog Number	Dimensions in Inches										Suct. Outlet	Liq. Inlet	Fluid In/Out	Ship Wt. Lbs.
	A	B	C	D	E	F	G	H	J	Q	M*	N*	P**	
EM005-05060-1	5 9/16	61 7/8	3 5/8	51 5/8	5 3/4	8 1/2	22 1/2	1 3/4	2 1/4	5	1 1/8	5/8	1	225
EM010-06054-1	6 5/8	56	3 3/4	45 5/8	5 3/4	7 3/4	20 1/4	2 1/4	2 3/4	5 7/8	1 5/8	7/8	1	240
EM015-06072-1	6 5/8	74	4 1/2	65	5 3/4	10	27	2 1/4	2 3/4	5 7/8	1 5/8	7/8	1 1/2	265
EM020-08060-1	8 5/8	62 7/8	4 1/2	53 7/8	5 1/2	9	22 1/2	2 7/8	3 5/8	7 3/4	2 1/8	1 1/8	1 1/2	380
EM025-08072-1	8 5/8	74 7/8	4 3/4	65 1/2	5 1/2	10 1/2	27	2 7/8	3 5/8	7 3/4	2 1/8	1 1/8	2	405
EM030-08072-1	8 5/8	74 7/8	4 3/4	65 1/2	5 1/2	10 1/2	27	2 7/8	3 5/8	7 3/4	2 1/8	1 1/8	2	415

Single and Dual Circuit



Catalog Number	Dimensions in Inches											Suct. Outlet	Liq. Inlet	Fluid In/Out	Ship Wt Lbs	No. of Circ
	A	B	C	D	E	F	G	H	J	K	L	M*	N*	P**		
EM010-06054-2	6 5/8	56 1/2	3 5/8	49 1/8	5 1/2	8	20 1/4	1 7/8	2 1/4	1 1/4	1	1 1/8	5/8	1	310	2
EM015-06072-2	6 5/8	74 1/2	3 7/8	66 5/8	5 1/2	10 1/4	27	1 7/8	2 1/4	1 1/4	1	1 3/8	7/8	1 1/4	345	
EM020-08060-2	8 5/8	63	4 1/2	54	5 1/2	9	22 1/2	2 3/8	3 1/4	1 3/4	1 1/8	1 5/8	7/8	1 1/2	485	
EM025-08072-2	8 5/8	75	4 3/4	65 3/8	5 1/2	10 1/2	27	2 3/8	3 1/4	1 3/4	1 1/8	1 5/8	7/8	2	510	
EM030-08072-2	8 5/8	75	4 3/4	65 1/2	5 1/2	10 1/2	27	2 3/8	3 1/4	1 3/4	1 1/8	1 5/8	7/8	2	520	
EM035-10054-2	10 3/4	58	5 1/4	47 1/2	5 1/4	8 3/4	20 1/4	2 7/8	3 3/4	2 1/4	1 1/2	2 1/8	1 1/8	2 1/2	730	1 Or 2
EM050-10072-2	10 3/4	76	5 1/2	64 3/4	5 1/4	11	27	2 7/8	3 3/4	2 1/4	1 1/2	2 1/8	1 1/8	2 1/2	810	
EM060-10096-2	10 3/4	100	6 3/4	86 3/8	5 1/4	14	36	2 7/8	3 3/4	2 1/4	1 1/2	2 1/8	1 1/8	3	925	
EM075-12072-2	12 3/4	76 1/2	8	60 3/8	5 1/4	11 1/4	27	3 1/4	4 7/8	2 5/8	1 3/4	2 5/8	1 3/8	3	1075	
EM090-12096-2	12 3/4	100 1/2	9 1/2	81 3/8	5 1/4	14 1/4	36	3 1/4	4 7/8	2 5/8	1 3/4	2 5/8	1 3/8	4	1230	
EM100-12108-2	12 3/4	112 1/2	10 1/2	91 3/8	5 1/4	15 3/4	40 1/2	3 1/4	4 7/8	2 5/8	1 3/4	2 5/8	1 3/8	4	1310	
EM125-14108-2	14	113	10 3/4	90 7/8	4 3/4	16	40 1/2	3 5/8	4 7/8	2 3/4	2 1/4	3 1/8	1 5/8	4	1670	
EM150-16096-2	16	101 1/2	10 1/8	81 1/4	4 3/4	14 3/4	36	4	6	3 1/2	2	3 1/8	1 5/8	5	1995	
EM185-16108-2	16	113 1/2	12 1/8	89 1/4	4 3/4	16 1/4	40 1/2	4	6	3 1/2	2	3 5/8	2 1/8	5	2136	
EM225-16108-2	18	113 1/2	13 3/4	86	4 3/4	16 1/4	40 1/2	3	6	4 3/8	3	3 5/8	2 1/8	6	2600	
EM300-20108-2	20	114	31	88	4 1/4	16 1/2	40 1/2	3 1/2	6	4 1/2	3 1/4	4 1/8	2 1/8	8	3145	

* Connection sizes shown are for 2 circuit. For single circuit sizes contact Sales Office

** Up to 2" I.P.S., F.P.T.; 2 1/2" to 3" I.P.S., M.P.T.; 3 1/2" to 8" I.P.S., Pipe Stubs



Capacity, GPM and Pressure Drop Data for 8°F Range R22

Approach °F	Cat. No.	Nom Tons	7			8			9			10			11			12			Max No. Circuits
			MBH	GPM	PSI	MBH	GPM	PSI	MBH	GPM	PSI	MBH	GPM	PSI	MBH	GPM	PSI	MBH	GPM	PSI	
	EM005	5	30	7.5	0.7	45	11.2	1.2	60	14.9	2.1	72	17.9	3.0	85	21.2	4.2	99	24.7	5.6	Single
	EM010	10	-	-	-	70	17.4	1.9	90	22.4	3.0	124	30.9	5.5	148	36.9	7.7	170	42.9	10.1	
	EM015	15	125	31.1	4.4	158	39.4	7.0	187	46.6	9.6	220	54.8	13.2	-	-	-	-	-	-	
	EM020	20	160	39.8	3.3	208	51.8	5.4	252	62.8	7.7	293	73.0	10.3	336	83.8	13.4	380	94.8	16.9	
	EM025	25	203	50.5	5.8	244	60.8	8.3	290	72.2	11.5	332	82.7	14.9	-	-	-	-	-	-	
	EM030	30	245	61.0	6.2	294	73.2	8.8	350	87.2	12.2	398	99.2	15.7	-	-	-	-	-	-	
	EM010	10	-	-	-	70	17.4	1.9	90	22.4	3.1	121	30.2	5.4	140	34.9	7.1	155	38.7	8.6	Dual
	EM015	15	115	28.6	3.7	141	35.1	5.5	167	41.6	7.6	194	48.3	10.1	222	55.3	13.1	252	62.8	16.7	
	EM020	20	152	37.8	3.0	198	49.3	4.9	245	61.0	7.3	286	71.3	9.8	327	81.5	12.7	370	92.3	16.0	
	EM025	25	203	50.5	5.8	244	60.8	8.3	290	72.2	11.5	332	82.7	14.9	-	-	-	-	-	-	
	EM030	30	237	59.0	5.8	287	71.5	8.4	340	84.7	11.5	390	97.2	15.0	-	-	-	-	-	-	
	EM035	35	230	57.3	3.2	310	77.2	5.6	385	95.9	8.4	445	110.9	11.1	505	125.9	14.0	-	-	-	Single or Dual
	EM050	50	425	105.8	5.9	510	127.0	8.3	600	146.5	11.4	680	169.5	14.4	-	-	-	-	-	-	
	EM060	60	428	106.6	4.3	550	137.0	6.9	680	169.4	10.4	799	199.1	14.2	-	-	-	-	-	-	
	EM075	75	584	145.4	4.9	730	181.8	7.4	865	215.5	10.2	1004	250.2	13.6	-	-	-	-	-	-	
	EM090	90	650	161.8	4.1	830	206.7	6.6	1030	256.6	10.0	1200	299.0	13.4	-	-	-	-	-	-	
	EM100	100	778	193.7	4.4	994	247.6	7.1	1180	294.0	9.9	1370	341.4	13.2	-	-	-	-	-	-	
	EM125	125	943	234.8	5.7	1188	295.9	8.8	1428	355.8	12.5	1634	407.2	16.2	-	-	-	-	-	-	
	EM150	150	1084	269.9	4.7	1393	346.9	7.6	1720	428.5	11.4	2000	498.4	15.2	-	-	-	-	-	-	
	EM185	185	1417	352.8	7.0	1768	440.3	10.7	2090	520.7	14.7	-	-	-	-	-	-	-	-	-	
	EM225	225	1680	418.3	4.4	2130	530.5	6.9	2552	635.8	9.8	2966	739.2	13.0	3393	845.8	16.9	-	-	-	
	EM300	300	2284	568.7	6.7	2871	715.0	10.4	3401	847.3	14.4	-	-	-	-	-	-	-	-	-	

Catalog units presented above are designed for the listed ratings. Higher capacities may be possible with different baffle spacing's. Contact Factory.

SELECTION PROCEDURE

The capacity data table above is based on R12 with water range at 8°F and approach at 7-12°F.

Sizing—To select the direct expansion chiller you must know:

- Capacity at maximum load in thousands of BTU/HR (MBH) [Capacity BTU/HR = GPM X RANGE X 500]
- Water cooling range °F: inlet water temperature **minus** outlet water temperature.
- Approach temperature °F: outlet water temperature **minus** refrigerant evaporating temperature.

The final selection may depend on the water side pressure drop (psi), at the full GPM flow rate, being within acceptable limits. See example below.

Nominal Ratings in tons refrigeration (Nom Tons) are based on:
 54°F entering water minus 44°F leaving water (10° range)
 35°F evaporating temperature (9° approach)
 100°F entering liquid refrigerant with 7°F suction superheat
 0.00005 fouling factor

Limitations

Minimum evaporating temperature32°F

 Maximum water entering temperature75°F

The listed water chillers are designed for the ranges and approach temperatures in the tables. Consult factory for selections at different conditions.

DUTY

Required Capacity: 5.85 T.R. x 12000 = 70.2 MBH
 Entering water temperature: 52°F
 Leaving water temperature: 44°F
 Refrigerant evaporating temperature: 34°F
 Single Circuit

SELECTION

Range: (52-44) = 8°F
 Approach: (44-34) = 10°F
 From above table, select EM010; maximum capacity 72 MBH, requiring 17.9 GPM water with 3.0 PSI pressure drop: Model EM005-05060-1.



Capacity, GPM and Pressure Drop Data for 10°F Range R22

Approach °F	Cat. No.	Nom Tons	7			8			9			10			11			12			Max No. Circuits
			MBH	GPM	PSI	MBH	GPM	PSI	MBH	GPM	PSI	MBH	GPM	PSI	MBH	GPM	PSI	MBH	GPM	PSI	
EM005	5	28	5.6	0.3	43	8.6	0.7	60	12.0	1.4	72	14.4	2.0	85	17.0	2.7	99	19.8	3.6	Single	
EM010	10	50	10.0	0.7	73	14.5	1.3	106	21.1	2.7	130	25.9	3.9	155	30.9	5.5	175	34.9	7.0		
EM015	15	130	25.9	3.1	165	32.9	4.9	196	39.1	6.9	228	45.5	9.2	261	52.1	11.9	290	57.9	14.6		
EM020	20	171	34.1	2.4	216	43.0	3.8	259	51.6	5.3	299	59.6	7.0	341	68.0	9.0	385	76.8	11.3		
EM025	25	212	42.2	4.1	253	50.4	5.8	300	59.8	8.0	340	67.8	10.1	386	77.0	12.9	435	86.8	16.2		
EM030	30	255	50.8	4.4	304	60.6	6.1	360	71.8	8.4	407	81.2	10.6	467	93.2	13.8	-	-	-		
EM010	10	50	10.0	0.7	73	14.5	1.3	103	20.5	2.6	120	23.9	3.5	139	27.7	4.6	158	31.5	5.8	Dual	
EM015	15	118	23.5	2.5	146	29.1	3.8	173	34.5	5.3	198	39.5	6.8	226	45.1	8.8	254	50.7	11.0		
EM020	20	162	32.3	2.2	206	41.1	3.4	252	50.2	5.0	292	58.2	6.7	333	66.4	8.6	375	74.8	10.7		
EM025	25	212	42.2	4.1	253	50.4	5.8	300	59.8	8.0	340	67.8	10.1	386	77.0	12.9	435	86.8	16.2		
EM030	30	247	49.2	4.1	295	58.8	5.7	348	69.4	7.9	395	78.8	10.0	453	90.4	13.0	507	101.2	16.2		
EM035	35	241	48.0	2.3	324	64.6	4.0	403	80.3	6.0	460	91.7	7.7	520	103.7	9.7	585	116.7	12.1	Single or Dual	
EM050	50	440	87.7	4.1	530	105.6	5.8	620	123.6	7.9	700	139.6	9.9	790	157.6	12.5	888	177.2	15.6		
EM060	60	459	91.5	3.2	582	116.0	5.0	721	143.7	7.6	830	165.5	9.9	943	188.1	12.7	1062	211.9	16.0		
EM075	75	620	123.5	3.5	757	150.9	5.2	905	180.4	7.3	1036	206.6	9.4	1187	236.8	12.2	1346	268.6	15.5		
EM090	90	700	139.5	3.1	880	175.4	4.8	1080	215.3	7.1	1240	247.3	9.3	1405	280.3	11.8	1590	317.3	15.0		
EM100	100	827	164.8	3.2	1032	205.7	5.0	1230	245.2	7.0	1410	281.2	9.0	1600	319.2	11.5	1796	358.4	14.4		
EM125	125	1006	200.4	4.2	1242	247.5	6.2	1480	295.9	8.8	1686	336.2	11.2	1913	381.6	14.3	-	-	-		
EM150	150	1175	234.1	3.6	1484	295.8	5.6	1800	358.9	8.1	2070	412.8	10.6	2360	470.8	13.6	-	-	-		
EM185	185	1516	302.1	5.2	1853	369.3	7.6	2204	439.4	10.6	2503	499.2	13.5	-	-	-	-	-	-		
EM225	225	1786	355.8	3.2	2229	444.3	4.9	2670	532.3	6.9	3046	607.5	8.9	3467	691.6	11.4	3900	778.2	14.3		
EM300	300	2439	486.0	5.0	3003	598.5	7.4	2530	703.8	10.1	4069	811.5	13.2	4618	921.2	16.8	-	-	-		

Catalog units presented above are designed for the listed ratings. Higher capacities may be possible with different baffle spacing's. Contact Factory.

SELECTION PROCEDURE

The capacity data table above is based on R12 with water range at 8°F and approach at 7-12°F.

Sizing—To select the direct expansion chiller you must know:

- Capacity at maximum load in thousands of BTU/HR (MBH) [Capacity BTU/HR = GPM X RANGE X 500]
- Water cooling range °F: inlet water temperature **minus** outlet water temperature.
- Approach temperature °F: outlet water temperature **minus** refrigerant evaporating temperature.

The final selection may depend on the water side pressure drop (psi), at the full GPM flow rate, being within acceptable limits. See example below.

Nominal Ratings in tons refrigeration (Nom Tons) are based on:
 54°F entering water minus 44°F leaving water (10° range)
 35°F evaporating temperature (9° approach)
 100°F entering liquid refrigerant with 7°F suction superheat
 0.00005 fouling factor

Limitations

Minimum evaporating temperature32°F

 Maximum water entering temperature75°F

The listed water chillers are designed for the ranges and approach temperatures in the tables. Consult factory for selections at different conditions.

DUTY

750 GPM water
 Entering water temperature: 54°F
 Leaving water temperature: 44°F
 Refrigerant evaporating temperature: 32°F
 Dual Circuit

SELECTION

Range: (54-44) = 10°F Approach (44-32) = 12°F
 Capacity 750 GPM x 10° x 500 = 3750 MBH
 From above table, select EM225; maximum capacity 3900 MBH, requiring 778.2 GPM water with 14.3 PSI pressure drop: Model EM225-18108-2.



Capacity, GPM and Pressure Drop Data for 12°F Range R22

Approach °F	Cat. No.	Nom Tons	7			8			9			10			11			12			Max No. Circuits
			MBH	GPM	PSI	MBH	GPM	PSI	MBH	GPM	PSI	MBH	GPM	PSI	MBH	GPM	PSI	MBH	GPM	PSI	
EM005	5	30	5.0	0.3	45	7.5	0.6	60	10.0	1.0	72	12.0	1.4	85	14.1	1.9	99	16.1	2.5	Single	
EM010	10	55	9.1	0.5	75	12.5	1.0	110	18.3	2.0	133	22.1	2.9	160	26.6	4.1	178	29.6	5.1		
EM015	15	136	22.6	2.4	168	27.9	3.6	200	33.2	5.0	232	38.6	6.7	264	43.9	8.6	294	48.9	10.5		
EM020	20	180	29.9	1.9	225	37.4	2.9	265	44.0	3.9	306	50.9	5.2	348	57.9	6.6	391	65.0	8.2		
EM025	25	218	36.2	3.1	260	43.2	4.3	307	51.0	5.9	346	57.5	7.4	392	65.2	9.4	439	73.0	11.6		
EM030	30	265	44.0	3.3	314	52.2	4.6	368	61.2	6.2	415	69.0	7.8	472	78.5	10.0	525	87.3	12.2		
EM010	10	55	9.1	0.6	75	12.5	1.0	105	17.4	1.9	123	20.4	2.6	143	23.8	3.4	161	26.8	4.3	Dual	
EM015	15	123	20.4	1.9	149	24.8	2.8	176	29.2	3.8	200	33.2	4.9	228	37.9	6.3	256	42.6	7.9		
EM020	20	171	28.4	1.7	215	35.7	2.6	259	43.0	3.7	298	49.5	4.9	339	56.4	6.3	381	63.4	7.8		
EM025	25	218	36.2	3.1	260	43.2	4.3	307	51.0	5.9	346	57.5	7.4	392	65.2	9.4	439	73.0	11.6		
EM030	30	257	42.7	3.1	305	50.7	4.3	356	59.2	5.8	403	67.0	7.3	458	76.2	9.4	513	85.3	11.6		
EM035	35	252	41.9	1.7	337	56.0	3.0	420	69.8	4.6	475	79.0	5.8	535	89.0	7.2	600	99.8	9.0	Single or Dual	
EM050	50	457	75.9	3.1	542	90.0	4.3	632	105.0	5.8	714	118.7	7.3	808	134.4	9.2	900	149.7	11.3		
EM060	60	493	81.9	2.6	616	102.3	3.9	739	122.8	5.6	853	141.8	7.4	970	161.3	9.4	1090	181.3	11.8		
EM075	75	654	108.6	2.8	786	130.6	3.9	930	154.6	5.4	1065	177.0	7.0	1214	201.9	9.0	1376	228.9	11.4		
EM090	90	740	122.9	2.4	924	153.5	3.7	1120	186.1	5.4	1280	212.8	7.0	1443	240.0	8.8	1620	269.5	10.9		
EM100	100	876	145.5	2.5	1074	178.4	3.8	1270	211.1	5.2	1450	241.0	6.7	1640	272.7	8.5	1835	305.2	10.6		
EM125	125	1067	177.2	3.3	1296	215.3	4.8	1520	252.6	6.5	1737	288.8	8.4	1965	326.8	10.6	2200	365.9	13.2		
EM150	150	1258	208.9	2.9	1565	260.0	4.4	1870	310.8	6.1	2143	356.3	8.0	2432	404.4	10.1	2726	453.4	12.6		
EM185	185	1615	268.2	4.1	1940	322.3	5.9	2296	381.6	8.1	2586	429.9	10.2	2922	485.9	12.8	3260	542.3	15.8		
EM225	225	1890	313.9	2.5	2320	385.4	3.7	2760	458.7	5.2	3133	520.8	6.6	3552	590.7	8.4	3980	662.0	10.5		
EM300	300	2594	430.8	3.9	3138	521.3	5.7	3664	608.9	7.6	4202	698.5	9.9	4750	789.9	12.5	5310	883.3	15.5		

Catalog units presented above are designed for the listed ratings. Higher capacities may be possible with different baffle spacing's. Contact Factory.

SELECTION PROCEDURE

The capacity data table above is based on R12 with water range at 8°F and approach at 7-12°F.

Sizing—To select the direct expansion chiller you must know:

- Capacity at maximum load in thousands of BTU/HR (MBH) [Capacity BTU/HR = GPM X RANGE X 500]
- Water cooling range °F: inlet water temperature **minus** outlet water temperature.
- Approach temperature °F: outlet water temperature **minus** refrigerant evaporating temperature.

The final selection may depend on the water side pressure drop (psi), at the full GPM flow rate, being within acceptable limits. See example below.

Nominal Ratings in tons refrigeration (Nom Tons) are based on:
 54°F entering water minus 44°F leaving water (10° range)
 35°F evaporating temperature (9° approach)
 100°F entering liquid refrigerant with 7°F suction superheat
 0.00005 fouling factor

Limitations

Minimum evaporating temperature 32°F

 Maximum water entering temperature 75°F

The listed water chillers are designed for the ranges and approach temperatures in the tables. Consult factory for selections at different conditions.

DUTY

2 circuits each 8.2 T.R.
 Entering water temperature: 55°F
 Leaving water temperature: 43°F
 Refrigerant evaporating temperature: 33°F

SELECTION

Range: (55-43) = 12°F Approach (43-33) = 10°F
 Capacity 8.2 x 2 x 12000 = 196.8 MBH
 From above table, select EM015 (dual); maximum capacity 200 MBH, requiring 33.2 GPM water with 4.9 PSI pressure drop: Model EM015-06072-2.



Capacity, GPM and Pressure Drop Data for 15°F Range R22

Approach °F	Cat. No.	Nom Tons	7			8			9			10			11			12			Max No. Circuits
			MBH	GPM	PSI	MBH	GPM	PSI	MBH	GPM	PSI	MBH	GPM	PSI	MBH	GPM	PSI	MBH	GPM	PSI	
EM005	5	31	4.1	0.2	46	6.1	0.4	60	8.0	0.6	72	9.6	0.9	85	11.3	1.2	97	12.9	1.6	Single	
EM010	10	58	7.7	0.4	80	10.6	0.7	113	15.0	1.4	136	18.1	2.0	163	21.7	2.8	180	24.0	3.4		
EM015	15	144	19.1	1.7	171	22.7	2.4	202	26.9	3.3	234	31.1	4.4	267	35.5	5.7	300	39.9	7.1		
EM020	20	194	25.8	1.4	238	31.6	2.1	277	36.8	2.8	317	42.2	3.6	359	47.8	4.6	403	53.7	5.7		
EM025	25	230	30.6	2.2	270	35.9	3.0	315	41.9	4.0	356	47.4	5.1	403	53.6	6.5	448	59.6	7.9		
EM030	30	276	36.7	2.3	326	43.3	3.2	378	50.3	4.2	429	57.1	5.4	485	64.5	6.8	538	71.6	8.3		
EM010	10	58	7.7	0.4	80	10.6	0.7	107	14.2	1.3	126	16.8	1.7	146	19.4	2.3	163	21.7	2.9	Dual	
EM015	15	128	17.0	1.3	153	20.3	1.9	178	23.7	2.5	203	27.0	3.3	230	30.6	4.2	258	34.3	5.2		
EM020	20	185	24.6	1.3	229	30.5	1.9	270	35.9	2.6	309	41.1	3.4	350	46.6	4.3	392	52.2	5.4		
EM025	25	230	30.6	2.2	270	35.9	3.0	315	41.9	4.0	356	47.4	5.1	403	53.6	6.5	448	59.6	7.9		
EM030	30	270	35.9	2.2	317	42.2	3.0	367	48.8	4.0	417	55.5	5.1	472	62.8	6.5	529	70.4	8.0		
EM035	35	280	37.2	1.4	360	47.9	3.2	435	57.9	3.2	490	65.2	4.0	550	73.2	5.0	614	81.7	6.1	Single or Dual	
EM050	50	483	64.2	2.2	567	75.4	3.1	652	86.7	4.0	741	98.6	5.1	837	111.4	6.4	932	124.1	7.9		
EM060	60	541	71.9	2.0	665	88.4	3.0	782	104.0	4.0	896	119.2	5.3	1013	134.8	6.7	1133	150.8	8.3		
EM075	75	705	93.7	2.1	832	110.6	2.9	968	128.8	3.8	1110	147.7	4.9	1263	168.1	6.3	1426	189.8	8.0		
EM090	90	810	107.7	1.9	998	132.7	2.8	1164	154.8	3.8	1332	177.2	4.9	1503	200.0	6.2	1676	223.1	7.6		
EM100	100	960	127.2	2.0	1140	151.6	2.7	1325	176.2	3.7	1513	201.3	4.7	1703	226.7	5.9	1896	252.4	7.3		
EM125	125	1160	154.2	2.5	1378	183.2	3.5	1597	212.4	4.6	1820	242.2	5.9	2049	272.7	7.5	2282	303.8	9.2		
EM150	150	1385	184.1	2.3	1695	225.4	3.3	1973	262.4	4.4	2258	300.4	5.7	2546	338.8	7.2	2840	378.1	8.9		
EM185	185	1752	232.9	2.1	2068	275.0	4.3	2390	317.9	5.7	2717	361.5	7.3	3053	406.3	9.1	3394	451.8	11.1		
EM225	225	2047	272.1	1.9	2459	327.0	2.7	2860	380.4	3.6	3270	435.1	4.7	3689	491.0	5.9	4115	547.8	7.3		
EM300	300	2823	375.3	3.0	3342	444.4	4.2	3869	514.6	5.5	4407	586.4	7.1	4956	659.6	8.8	5518	734.6	10.8		

Catalog units presented above are designed for the listed ratings. Higher capacities may be possible with different baffle spacing's. Contact Factory.

SELECTION PROCEDURE

The capacity data table above is based on R12 with water range at 8°F and approach at 7-12°F.

Sizing—To select the direct expansion chiller you must know:

- Capacity at maximum load in thousands of BTU/HR (MBH)
[Capacity BTU/HR = GPM X RANGE X 500]
- Water cooling range °F: inlet water temperature **minus** outlet water temperature.
- Approach temperature °F: outlet water temperature **minus** refrigerant evaporating temperature.

The final selection may depend on the water side pressure drop (psi), at the full GPM flow rate, being within acceptable limits. See example below.

Nominal Ratings in tons refrigeration (Nom Tons) are based on:
54°F entering water minus 44°F leaving water (10° range)
35°F evaporating temperature (9° approach)
100°F entering liquid refrigerant with 7°F suction superheat
0.00005 fouling factor

Limitations

Minimum evaporating temperature 32°F
Maximum water entering temperature 75°F

The listed water chillers are designed for the ranges and approach temperatures in the tables. Consult factory for selections at different conditions.

DUTY

64 GPM water
Entering water temperature: 55°F
Leaving water temperature: 40°F
Refrigerant evaporating temperature: 33°F
Single Circuit

SELECTION

Range: (55-43) = 15°F Approach (43-33) = 7°F
Capacity 64 GPM x 15° x 500 = 480 MBH
From above table, select EM050; maximum capacity 483 MBH, requiring 64.2 GPM water with 2.2 PSI pressure drop: Model EM050-10072-1.

