

SPECIFICATIONS AP.EDMDE Chiller Specifications (Typical)



AP.EDMDE500 AP.EDMDE550 AP.EDMDE600 AP.EDMDE650 AP.EDMDE700 AP.EDMDE750 AP.EDMDE800 AP.EDMDE850 AP.EDMDE900 AP.EDMDE950 AP.EDMDE1000 AP.EDMDE1100 AP.EDMDE1200 AP.EDMDE1300 AP.EDMDE1400 AP.EDMDE1500 AP.EDMDE1600 AP.EDMDE1700 AP.EDMDE1800 AP.EDMDE1900 AP.EDMDE2000 AP.EDMDE2100 AP.EDMDE2200 AP.EDMDE2300 AP.EDMDE2400 AP.EDMDE2500

MODEL AP.EDMDE		500	550	600	650	700	750	800	850	900	950	1000	1100	1200
UNIT PERFORMANCE														
Nominal Cooling Capacity	TR	500	550	600	650	700	750	800	850	900	950	1000	1100	1200
	kW	1759	1934	2110	2286	2462	2638	2814	2989	3165	3341	3517	3693	4220
Nominal Power Input	kW	267	288.5	315.5	335.3	367.3	394.3	420.6	442.0	467.5	498.8	519.5	579.00	628.80
	kW/TR	0.534	0.524	0.526	0.516	0.525	0.526	0.526	0.520	0.519	0.523	0.519	0.526	0.524
Energy Efficiency	COP	6.59	6.71	6.69	6.82	6.70	6.69	6.69	6.76	6.78	6.72	6.77	6.69	6.71
	kW/TR	0.49	0.50	0.49	0.48	0.49	0.49	0.49	0.49	0.49	0.49	0.49	0.51	0.50
IPLV	COP	7.18	7.03	7.18	7.33	7.18	7.18	7.18	7.18	7.18	7.18	7.18	6.90	7.03

EVAPORATOR														
Flow Rate	Usgpm	1195.7	1315.3	1434.9	1554.5	1674.0	1793.6	1913.2	2032.8	2152.3	2271.9	2391.5	2630.6	2869.8
	L/S	75.33	82.86	90.40	97.93	105.46	113.00	120.53	128.07	135.59	143.13	150.66	165.73	180.80
Pressure Drop	ft.wg	19.0	22.4	15.8	16.1	18.4	16.1	16.4	22.9	22.9	25.2	26.8	25.7	25.8
	kPa	56.8	66.9	47.2	48.1	55.0	48.1	49.0	68.4	68.4	75.3	80.1	76.8	77.1
Water Connection	Victaulic (inch)	8	8	8	8	8	10	10	10	10	10	12	12	12
	Flange	DN200	DN200	DN200	DN200	DN200	DN250	DN250	DN250	DN250	DN250	DN300	DN300	DN300
Number of Passes		2	2	2	2	2	2	2	2	2	2	2	2	2

CONDENSER														
Flow Rate	Usgpm	1491.8	1641.0	1790.2	1939.4	2088.6	2237.7	2386.9	2536.1	2685.3	2834.5	2983.6	3282.0	3580.4
	L/S	94.12	103.5	112.9	122.4	131.8	141.2	150.6	160.0	169.4	178.8	188.2	207.06	225.89
Pressure Drop	ft.wg	24.5	23.9	20.2	20.2	23.0	20.2	20.3	25.6	28.3	31.1	25.7	30.4	30.0
	kPa	73.2	71.4	60.4	60.4	68.7	60.4	60.7	76.5	84.6	93.0	76.8	90.9	89.67
Water Connection	Victaulic (inch)	10	10	10	10	10	10	10	10	10	10	12	12	12
	Flange	DN250	DN250	DN250	DN250	DN250	DN250	DN250	DN250	DN250	DN250	DN300	DN300	DN300
Number of Passes		2	2	2	2	2	2	2	2	2	2	2	2	2

GENERAL														
Length (L)	inch	174.1	174.1	174.1	174.1	174.1	174.7	174.7	195.2	195.2	195.2	199.4	199.4	199.4
	mm	4420	4420	4420	4420	4420	4440	4440	4960	4960	4960	5070	5070	5070
Width (W)	inch	78.5	78.5	78.5	78.5	78.5	82.5	82.5	82.5	82.5	82.5	95.5	95.5	95.5
	mm	1990	1990	1990	1990	1990	2100	2100	2100	2100	2100	2430	2430	2430
Height (H)	inch	100.0	100.0	100.0	100.0	100.0	102.0	102.0	102.0	102.0	102.0	115.4	116.9	116.9
	mm	2540	2540	2540	2540	2540	2590	2590	2590	2590	2590	2930	2970	2970
Shipping Weight	lbs	19985	20205	21197	21528	21528	22851	23182	24291	24548	24553	29355	32534	33830
	kg	9065	9165	9615	9765	9765	10365	10515	11018	11135	11137	13315	14757	15345
Operating Weight	lbs	23539	23847	25380	25955	25955	27886	28431	30075	30450	30455	36427	39919	41692
	kg	10677	10817	11512	11773	11773	12649	12896	13642	13812	13814	16523	18107	18911
R134a Charge (Approx.)	lbs	1451	1451	1605	1706	1706	1874	1942	2205	2253	2253	2646	2789	2959
	kg	658	658	728	774	774	850	881	1000	1022	1022	1200	1265	1342

MODEL AP.EDMDE		1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	2500
UNIT PERFORMANCE														
Nominal Cooling Capacity	TR	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	2500
	kW	4572	4924	5276	5627	5979	6331	6682	7034	7386	7737	8089	8441	8793
Nominal Power Input	kW	672.3	728.3	771.6	823.9	875.6	919.4	972.1	1027.9	1051.8	1101.9	1138.0	1195.3	1244.4
	kW/TR	0.517	0.520	0.514	0.51	0.51	0.51	0.51	0.51	0.50	0.50	0.49	0.50	0.50
Energy Efficiency	COP	6.80	6.76	6.84	6.90	6.90	6.90	6.90	6.90	7.03	7.03	7.18	7.03	7.03
	kW/TR	0.49	0.50	0.49	0.46	0.46	0.46	0.46	0.46	0.45	0.45	0.44	0.45	0.44
IPLV	COP	7.18	7.03	7.18	7.65	7.65	7.65	7.65	7.65	7.82	7.82	7.99	7.82	7.99

EVAPORATOR														
Flow Rate	Usgpm	3108.9	3348.1	3587.2	3826.4	4065.5	4304.7	4543.8	4783.0	5022.1	5261.3	5500.4	5739.5	5978.7
	L/S	195.86	210.93	225.99	241.41	256.49	271.58	286.67	301.76	316.85	331.94	347.02	362.11	377.20
Pressure Drop	ft.wg	23.5	26.8	26.3	24.7	22.1	24.4	22.3	24.3	20.7	19.5	21.0	19.8	21.3
	kPa	70.2	80.1	78.6	73.8	66.1	72.9	66.7	72.6	61.9	58.3	62.8	59.2	63.7
Water Connection	Victaulic (inch)	14	14	14	16	16	16	16	16	18	18	18	18	18
	Flange	DN350	DN350	DN350	DN400	DN400	DN400	DN400	DN400	DN450	DN450	DN450	DN450	DN450
Number of Passes		2	2	2	2	2	2	2	2	2	2	2	2	2

CONDENSER														
Flow Rate	Usgpm	3878.7	4143.1	4439.0	4773.8	5072.2	5370.6	5668.9	5967.3	6214.6	6510.5	6806.4	7102.4	7398.3
	L/S	244.71	261.39	280.06	301.18	320.01	338.83	357.65	376.48	392.08	410.75	429.42	448.09	466.76
Pressure Drop	ft.wg	27.9	27.2	30.7	29.0	32.2	28.7	31.5	29.8	27.4	29.8	27.2	29.3	26.9
	kPa	83.4	81.3	91.8	86.7	96.2	85.8	94.2	89.1	81.9	89.1	81.3	87.6	80.4
Water Connection	Victaulic (inch)	14	14	14	16	16	16	16	16	20	20	20	20	20
	Flange	DN350	DN350	DN350	DN400	DN400	DN400	DN400	DN400	DN500	DN500	DN500	DN500	DN500
Number of Passes		2	2	2	2	2	2	2	2	2	2	2	2	2

GENERAL														
Length (L)	inch	201.9	201.9	201.9	209.06	209.06	209.06	209.06	209.06	217.72	217.72	217.72	217.72	217.72
	mm	5130	5130	5130	5310	5310	5310	5310	5310	5530	5530	5530	5530	5530
Width (W)	inch	110.2	110.2	110.2	122.05	122.05	122.05	122.05	122.05	144.09	144.09	144.09	144.09	144.09
	mm	2800	2800	2800	3100	3100	3100	3100	3100	3660	3660	3660	3660	3660
Height (H)	inch	119.0	119.0	119.0	125.39	125.39	125.39	125.39	125.39	137.60	137.60	137.60	137.60	137.60
	mm	3010	3010	3010	3185	3185	3185	3185	3185	3495	3495	3495	3495	3495
Shipping Weight	lbs	38797	39238	39727	48378	48923	49712	50283	51019	59926	60543	61458	62098	62891
	kg	17598	17798	18020	21944	22191	22549	22808	23142	27182	27462	27877	28167	28527
Operating Weight	lbs	48387	49011	49842	60045	61088	62322	63383	64461	75674	76767	78141	79256	80522
	kg	21948	22231	22608	27236	27709	28269	28750	29239	34325	34821	35444	35950	36524
R134a Charge (Approx.)	lbs	3287	3287	3474	3915	4125	4222	4427	4502	5229	5428	5527	5728	5831
	kg	1491	1491	1576	1776	1871	1915	2008	2042	2372	2462	2507	2598	2645

- Notes:
- The units are rated in accordance with AHRI Standard 550/590. The above data are rated with following conditions: Chilled Water Inlet/Outlet Temperature 54/44°F [12.2/6.7°C]; Cooling Water Inlet/Outlet Temperature 85/94.3°F [29.4/34.6°C]; Evaporator fouling factor 0.0001hr.ft².°F/Btu [0.000018 m².°C/W]; Condenser fouling factor 0.00025 hr.ft².°F/Btu [0.0000144 m².°C/W]; 2-pass evaporator and condenser.
 - The Sample Specification above is for reference only. With variety of main components combination, the same cooling capacity can have many different models. Contact local American Pro office to choose the appropriate chiller for the User's practical requirements.
 - Dimensions lengths, width, height in mm are rounded to closest zero.

SPECIFICATIONS

TECHNICAL DATA



Aluminum Fin/Copper Tube Condenser (Standard) - 50Hz

Model AP.BD YID		200U	220U	250U	280U	310U	330U	360U	390U
Cooling Capacity	TR	187.4	219.0	251.5	275.7	307.4	329.9	362.3	384.5
	kW	659	770	885	970	1081	1160	1274	1352
Power Input	kW	210.4	232.6	270.0	310.2	337.7	366.1	385.1	401.9
Energy efficiency	kW/TR	1.123	1.062	1.074	1.125	1.099	1.110	1.063	1.045
COP	kW _e /kW _i	3.132	3.312	3.276	3.125	3.202	3.169	3.309	3.365
Compressor									
Model		HE1716	HE1718	HE1815	HE1817	HE1817 HE2015	HE2015	HE2015 HE2017	HE2017
Qty.		2	2	2	2	1/1	2	1/1	2
RPM		2950	2950	2950	2950	2950	2950	2950	2950
Oil Charge	Litres	34	38	46	52	54	56	56	56
Min. % Unit Capacity Reduction		12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5
No. Of Refrigerant Circuit		2	2	2	2	2	2	2	2
Evaporator									
Model		2FR(T)	EBR(T)	JCR(T)	JCR(T)	JCR(T)	Q1R(T)	S2R(T)	S3R(T)
Quantity		1	1	1	1	1	1	1	1
Water Connector	inches	6	6	8	8	8	8	8	8
	mm	152.4	152.4	203.2	203.2	203.2	203.2	203.2	203.2
Nominal Water Flow	Usgpm	449.7	525.7	603.7	661.6	737.7	791.7	869.6	922.9
	l/s	28.4	33.2	38.1	41.7	46.5	49.9	54.9	58.2
Nominal Water Pressure Drop	ft.wg	22.0	20.8	21.1	24.9	30.2	30.4	21.6	22.1
	kPa	65.8	62.2	63.0	74.3	90.4	90.8	64.5	65.9
Min. Water Flow	Usgpm	188	211	252	252	252	280	375	393
	l/s	11.8	13.3	15.9	15.9	15.9	17.6	23.7	24.8
Max. Water Flow	Usgpm	625	702	840	840	840	932	1250	1312
	l/s	39.4	44.3	53.0	53.0	53.0	58.8	78.9	82.8
Min. Water Pressure Drop	ft.wg	4.6	4.0	4.4	4.4	4.4	4.7	4.7	4.8
	kPa	13.6	12.0	13.1	13.1	13.1	14.0	14.2	14.2
Max. Water Pressure Drop	ft.wg	39.9	35.0	38.2	38.2	38.2	40.8	41.5	41.5
	kPa	119.1	104.7	114.3	114.3	114.3	121.9	124.0	124.1
Condenser									
Total Air Flow	CFM	108,192	135,240	162,288	162,288	175,812	189,336	202,860	216,384
	CMH	183,818	229,773	275,727	275,727	298,705	321,682	344,659	367,636
Total Face Area	sq.ft	181.1	226.4	271.7	271.7	294.3	317.0	339.6	362.2
	sq.m	16.83	21.03	25.24	25.24	27.34	29.45	31.55	33.65
No. of Fans		8	10	12	12	13	14	15	16
Fan Dia	mm	900							
Fan Motor HP		3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
General									
Unit Length	inches	197 1/4	287 13/16	287 13/16	287 13/16	333	378 3/8	378 3/8	378 3/8
	mm	5010	7310	7310	7310	8460	9610	9610	9610
Unit Width	inches	89	89	89	89	89	89	89	89
	mm	2260	2260	2260	2260	2260	2260	2260	2260
Unit Height	inches	96	96	96	96	96	96	96	96
	mm	2440	2440	2440	2440	2440	2440	2440	2440
Shipping Weight	lbs	10592	12951	14971	15324	16576	17856	18948	19583
	kg	4804	5874	6791	6951	7519	8100	8595	8883
Operating Weight	lbs	10893	13297	15386	15739	16992	18321	19554	20213
	kg	4941	6031	6979	7139	7707	8310	8870	9168
Operating Charge R134a	lbs	463	507	573	639	705	750	816	882
	kg	210	230	260	290	320	340	370	400

Notes: 1. Nominal capacity is based on evaporator in/out fluid temperature at 54/44°F, ambient temperature 95°F, evaporator fouling factor 0.0001ft².h.°F/Btu.
2. To consult nearest American Pro sales office for computer selections other than above operating conditions

SPECIFICATIONS

TECHNICAL DATA



Aluminum Fin/Copper Tube Condenser (Standard) - 60Hz

Model AP.6BDYI-D		100S	130T	130U	150T	150U	170T	180U	200T	200U
Cooling Capacity	TR	100.5	126.5	132.6	146.3	155.3	166.3	178.1	192.7	200.5
	kW	353	445	466	514	546	585	626	678	705
Power Input	kW	116.8	141.8	147.6	170.3	176.4	184.1	201.4	223.9	233.0
Energy efficiency	kW/TR	1.162	1.121	1.113	1.164	1.135	1.107	1.131	1.162	1.162
COP	kW _e /kW _i	3.027	3.137	3.160	3.021	3.098	3.177	3.110	3.027	3.026
Compressor										
Model		HE1713	HE1718	HE1317	HE1815	HE1513	HE1817	HE1514	HE2015	HE1713
QTY.		1	1	2	1	2	1	2	1	2
RPM		3550	3550	3550	3550	3550	3550	3550	3550	3550
Oil Charge	Litres	16	19	32	23	32	26	32	28	32
Min. % Unit Capacity Reduction		25	25	12.5	25	12.5	25	12.5	25	12.5
No. Of Refrigerant Circuit		1	1	2	1	2	1	2	1	2
Evaporator										
Model		Q2R	1DR	1DR(T)	1DR	1DR(T)	2ER	2FR(T)	2FR	2FR(T)
Quantity		1	1	1	1	1	1	1	1	1
Water Connector	inches	3	5	5	5	5	6	6	6	6
	mm	76.2	127	127	127	127	152.4	152.4	152.4	152.4
Nominal Water Flow	Usgpm	241.2	303.6	318.2	351.1	372.8	399.0	427.3	462.4	481.1
	l/s	15.2	19.2	20.1	22.2	23.5	25.2	27.0	29.2	30.4
Nominal Water Pressure Drop	ft.wg	28.5	18.3	21.6	23.8	28.7	22.1	20.1	22.5	24.9
	kPa	85.2	54.8	64.5	71.2	85.8	66.0	60.1	67.3	74.4
Min. Water Flow	Usgpm	83	138	138	138	138	163	188	188	188
	l/s	5.2	8.7	8.7	8.7	8.7	10.3	11.8	11.8	11.8
Max. Water Flow	Usgpm	277	461	461	461	461	543	625	625	625
	l/s	17.5	29.1	29.1	29.1	29.1	34.3	39.4	39.4	39.4
Min. Water Pressure Drop	ft.wg	4.2	4.5	4.8	4.5	4.8	4.4	4.6	4.4	4.6
	kPa	12.5	13.3	14.4	13.5	14.4	13.2	13.6	13.3	13.6
Max. Water Pressure Drop	ft.wg	36.5	38.9	42.1	38.9	42.1	38.5	39.9	38.7	39.9
	kPa	109.0	116.3	125.8	116.3	125.8	115.1	119.1	115.8	119.1
Condenser										
Total Air Flow	CFM	51,387	77,081	102,774	77,081	102,774	102,774	102,774	102,774	102,774
	CMH	87,307	130,960	174,613	130,960	174,613	174,613	174,613	174,613	174,613
Total Face Area	sq.ft	94.1	141.2	188.2	141.2	188.2	188.2	188.2	188.2	188.2
	sq.m	8.74	13.11	17.49	13.11	17.49	17.49	17.49	17.49	17.49
No. of Fans		4	6	8	6	8	8	8	8	8
Fan Dia	mm	900	900	900	900	900	900	900	900	900
Fan Motor HP		3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
General										
Unit Length	inches	125 5/8	170 7/8	197 1/4	170 7/8	197 1/4	197 1/4	197 1/4	197 1/4	197 1/4
	mm	3190	4340	5010	4340	5010	5010	5010	5010	5010
Unit Width	inches	89	89	89	89	89	89	89	89	89
	mm	2260	2260	2260	2260	2260	2260	2260	2260	2260
Unit Height	inches	96	96	96	96	96	96	96	96	96
	mm	2440	2440	2440	2440	2440	2440	2440	2440	2440
Shipping Weight	lbs	6303	7731	9387	8339	9695	9373	10103	9783	10570
	kg	2859	3507	4258	3782	4398	4252	4583	4437	4795
Operating Weight	lbs	6492	7957	9613	8565	9921	9645	10374	10054	10842
	kg	2945	3609	4360	3885	4500	4375	4706	4560	4918
Operating Charge R134a	lbs	243	309	309	353	353	397	419	463	463
	kg	110	140	140	160	160	180	190	210	210

Notes: 1. Nominal capacity is based on evaporator in/out fluid temperature at 54/44°F, ambient temperature 95°F, evaporator fouling factor 0.0001ft².h.°F/Btu.
 2. To consult nearest American Pro sales office for computer selections other than above operating conditions

SPECIFICATIONS

TECHNICAL DATA



Aluminum Fin/Copper Tube Condenser (Standard) - 60Hz

Model AP.6BDYI-D		220U	250U	280U	300U	330U	360U	390U	420U	440U
Cooling Capacity	TR	222.7	253.0	276.3	300.4	330.1	364.4	387.8	418.3	439.4
	kW	783	890	972	1057	1161	1282	1364	1471	1545
Power Input	kW	253.4	283.2	311.7	340.2	368.1	409.0	448.9	466.3	483.8
Energy efficiency	kW/TR	1.138	1.119	1.128	1.132	1.115	1.122	1.158	1.115	1.101
COP	kW _e /kW _i	3.090	3.142	3.117	3.106	3.154	3.134	3.038	3.155	3.194
Compressor										
Model		HE1716	HE1718	HE1718 HE1815	HE1815	HE1817	HE1817 HE2015	HE2015	HE2015 HE2017	HE2017
QTY.		2	2	2	2	1/1	2	2	1/1	2
RPM		3550	3550	3550	3550	3550	3550	3550	3550	3550
Oil Charge	Litres	34	38	42	46	52	54	56	56	56
Min. % Unit Capacity Reduction		12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5
No. Of Refrigerant Circuit		2	2	2	2	2	2	2	2	2
Evaporator										
Model		EBR(T)	JCR(T)	JCR(T)	JCR(T)	Q1R(T)	S2R(T)	S3R(T)	S3R(T)	S3R(T)
Quantity		1	1	1	1	1	1	1	1	1
Water Connector	inches	6	8	8	8	8	8	8	8	8
	mm	152.4	203.2	203.2	203.2	203.2	203.2	203.2	203.2	203.2
Nominal Water Flow	Usgpm	534.4	607.3	663.1	721.0	792.2	874.7	930.6	1004.0	1054.5
	l/s	33.7	38.3	41.8	45.5	50.0	55.2	58.7	63.3	66.5
Nominal Water Pressure Drop	ft.wg	21.4	21.3	25.0	29.0	30.4	21.8	22.4	25.7	28.0
	kPa	64.1	63.7	74.6	86.8	90.9	65.2	66.9	76.7	83.8
Min. Water Flow	Usgpm	211	252	252	252	280	375	393	393	393
	l/s	13.3	15.9	15.9	15.9	17.6	23.7	24.8	24.8	24.8
Max. Water Flow	Usgpm	702	840	840	840	932	1250	1312	1312	1312
	l/s	44.3	53.0	53.0	53.0	58.8	78.9	82.8	82.8	82.8
Min. Water Pressure Drop	ft.wg	4.0	4.4	4.4	4.4	4.7	4.7	4.8	4.8	4.8
	kPa	12.0	13.1	13.1	13.1	14.0	14.2	14.2	14.2	14.2
Max. Water Pressure Drop	ft.wg	35.0	38.2	38.2	38.2	40.8	41.5	41.5	41.5	41.5
	kPa	104.7	114.3	114.3	114.3	121.9	124.0	124.1	124.1	124.1
Condenser										
Total Air Flow	CFM	128,468	154,161	154,161	154,161	205,548	205,548	205,548	231,242	256,935
	CMH	218,266	261,920	261,920	261,920	349,226	349,226	349,226	392,879	436,533
Total Face Area	sq.ft	235.3	282.3	282.3	282.3	376.4	376.4	376.4	423.5	470.6
	sq.m	21.86	26.23	26.23	26.23	34.97	34.97	34.97	39.34	43.72
No. of Fans		10	12	12	12	16	16	16	18	20
Fan Dia	mm	900	900	900	900	900	900	900	900	900
Fan Motor HP		3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
General										
Unit Length	inches	287 13/16	287 13/16	287 13/16	287 13/16	378 3/8	378 3/8	378 3/8	423 5/8	468 7/8
	mm	7310	7310	7310	7310	9610	9610	9610	10760	11910
Unit Width	inches	89	89	89	89	89	89	89	89	89
	mm	2260	2260	2260	2260	2260	2260	2260	2260	2260
Unit Height	inches	96	96	96	96	96	96	96	96	96
	mm	2440	2440	2440	2440	2440	2440	2440	2440	2440
Shipping Weight	lbs	12561	14001	14608	15171	17667	18653	19182	20594	21795
	kg	5697	6351	6626	6882	8014	8461	8701	9341	9886
Operating Weight	lbs	12907	14416	15024	15587	18132	19259	19811	21223	22425
	kg	5855	6539	6815	7070	8224	8736	8986	9627	10172
Operating Charge R134a	lbs	507	573	639	683	750	816	882	948	992
	kg	230	260	290	310	340	370	400	430	450

Notes: 1. Nominal capacity is based on evaporator in/out fluid temperature at 54/44°F, ambient temperature 95°F, evaporator fouling factor 0.0001ft².h.°F/Btu.
 2. To consult nearest American Pro sales office for computer selections other than above operating conditions