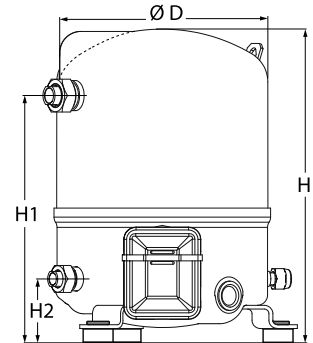


General Characteristics

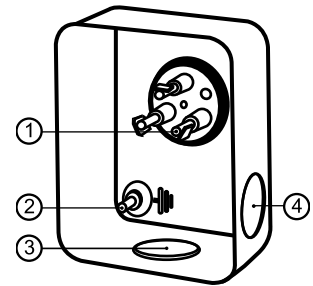
Model number (on compressor nameplate)		MTZ40JH1AVE
Code number for Singlepack*		MTZ40-1VI
Code number for Industrial pack**		MTZ40-1VM
Drawing number		8501020e
Suction and discharge connections		Rotolock
Suction connection		1-1/4" Rotolock
Discharge connection		1" Rotolock
Suction connection with supplied sleeve		5/8" ODF
Discharge connection with supplied sleeve		1/2" ODF
Oil sight glass		Threaded
Oil equalization connection		3/8" flare SAE
Oil drain connection		None
LP gauge port		Schrader
IPR valve		None
Cylinders		1
Swept volume		4.14 in ³ /rev
Displacement @ Nominal speed		503 cfh @ 3500 rpm
Net weight		57 lbs
Oil charge		32 oz, POE - 175PZ
Maximum system test pressure Low Side / High side		363 psi / 435 psi
Maximum differential test pressure		435 psi
Maximum number of starts per hour		12
Refrigerant charge limit		6 lbs
Approved refrigerants		R404A,R134a,R407A/C/F,R448A,R449A,R452A,R513A

Dimensions



D=8.8 inch, H=14 inch,
H1=10.4 inch, H2=2.7 inch, H3=- inch

Terminal box



IP55 (with cable gland)
1: Spade connectors 1/4"
2: Earth M4-12
3: Knock-out Ø 21 mm (0.83")
4: Hole Ø 21 mm (0.83")

Electrical Characteristics

Nominal voltage	208-230V/1/60Hz
Voltage range	187-253 V
Winding resistance (main / start) at 25°C	0.54 Ω / 1.87 Ω
Run capacitors A + C	35 uF + 20 uF
Start capacitor B	100 uF
Start relay	RVA-6AMKL
Maximum Continuous Current (MCC)	34 A
Locked Rotor Amps (LRA)	99 A
Motor protection	Internal overload protector

Recommended Installation torques

Oil sight glass	37 ft.lbs
Power connections / Earth connection	1 ft.lbs / 1 ft.lbs
Mounting bolts	11 ft.lbs

Parts shipped with compressor

Mounting kit with grommets, bolts, nuts, sleeves and washers
Suction & Discharge solder sleeves, rotolock nuts and gaskets (shipped with rotolock version only)
Initial oil charge
Installation instructions

Approvals : CE certified, UL certified (file SA6873), -

*Singlepack: Compressor in cardboard box

**Industrial pack: 12 Unboxed compressors on pallet (order per multiples of 12)

Rotolock accessories, suction side

Code no.

Solder sleeve, P09 (1-1/4" Rotolock, 5/8" ODF)	8153011
Rotolock valve, V09 (1-1/4" Rotolock, 5/8" ODF)	8168033
Gasket, 1-1/4"	8156131

Rotolock accessories, discharge side

Code no.

Solder sleeve, P06 (1" Rotolock, 1/2" ODF)	8153007
Rotolock valve, V06 (1" Rotolock, 1/2" ODF)	8168031
Gasket, 1"	8156130

Rotolock accessories, sets

Code no.

Valve set, V09 (1-1/4"~5/8"), V06 (1"~1/2")	7703005
Gasket set, 1", 1-1/4", 1-3/4", OSG gaskets black & white	8156009

Oil / lubricants

Code no.

POE lubricant, 175PZ, 1 liter can	120Z0638
POE lubricant, 175PZ, 2.5 liter can	120Z0639

Crankcase heaters

Code no.

PTC heater 27W, CE mark, UL	120Z0459
Belt type crankcase heater, 54 W, 230 V, CE mark, UL	7773106

Miscellaneous accessories

Code no.

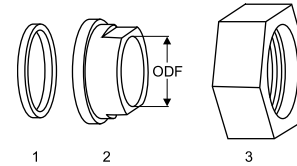
PSC starting kit, 35 µF, 20 µF	7701153
CSR starting kit, 35 µF, 20 µF, 98 µF	7701156
CSR starting kit, prewired box, 35 µF, 20 µF, 98 µF	7701150
Acoustic hood for 1 cylinder compressor	120Z0575
Oil equalisation nut	8153127

Spare parts

Code no.

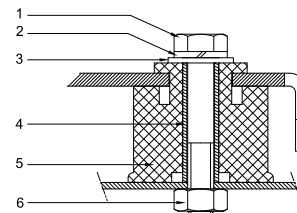
Mounting kit for 1 and 2 cylinder compressor, including 3 grommets, 3 bolts	8156001
Oil sight glass with gaskets (black & white)	8156019
Gasket for oil sight glass (black chloroprene)	8156145
Service kit for terminal box 80 x 96 mm, including 1 cover, 1 clamp	8156134

Gaskets, sleeves and nuts



- 1: Gasket
- 2: Solder sleeve
- 3: Rotolock nut

Mounting kit



- 1: Bolt (3x)
- 2: Lock washer (3x)
- 3: Flat washer (3x)
- 4: Sleeve (3x)
- 5: Grommet (3x)
- 6: Nut (3x)

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Performance data at 60 Hz, ARI rating conditions

R134a

Cond. temp. in °F (tc)	Evaporating temperature in °F (to)							
	-10	0	10	20	30	40	50	60

Cooling capacity in Btu/h

100	6 881	9 632	13 079	17 372	22 662	29 098	36 828	45 999	51 172
110	6 051	8 662	11 915	15 963	20 957	27 046	34 378	43 104	48 035
120	5 237	7 699	10 752	14 548	19 238	24 973	31 902	40 174	44 861
130	-	-	9 597	13 133	17 512	22 886	29 405	37 219	41 658
140	-	-	-	11 727	15 788	20 795	26 898	34 248	38 438
150	-	-	-	-	-	18 707	24 390	31 272	35 211
160	-	-	-	-	-	-	21 892	28 305	31 993
165	-	-	-	-	-	-	20 652	26 831	30 393

Power input in W

100	1 430	1 607	1 783	1 951	2 103	2 233	2 333	2 396	2 412
110	1 504	1 694	1 888	2 079	2 259	2 421	2 558	2 664	2 702
120	1 558	1 765	1 979	2 196	2 407	2 605	2 783	2 934	2 997
130	-	-	2 055	2 300	2 545	2 782	3 004	3 204	3 294
140	-	-	-	2 389	2 671	2 950	3 220	3 472	3 590
150	-	-	-	-	-	3 107	3 427	3 735	3 882
160	-	-	-	-	-	-	3 623	3 990	4 168
165	-	-	-	-	-	-	3 717	4 113	4 308

Current consumption in A

100	10.25	10.78	11.32	11.83	12.32	12.77	13.15	13.46	13.58
110	10.34	10.93	11.55	12.17	12.79	13.38	13.94	14.44	14.66
120	10.42	11.08	11.79	12.54	13.30	14.06	14.80	15.51	15.85
130	-	-	12.06	12.93	13.85	14.79	15.73	16.67	17.13
140	-	-	-	13.36	14.45	15.58	16.74	17.92	18.51
150	-	-	-	-	-	16.43	17.82	19.26	19.98
160	-	-	-	-	-	-	18.98	20.68	21.55
165	-	-	-	-	-	-	19.59	21.43	22.37

Mass flow in lbs/h

100	105	145	192	248	316	397	493	605	667
110	98	137	184	240	308	388	483	594	657
120	90	129	175	231	298	378	472	583	644
130	-	-	166	221	288	367	460	570	631
140	-	-	-	211	276	355	448	556	617
150	-	-	-	-	-	342	434	541	602
160	-	-	-	-	-	-	419	525	585
165	-	-	-	-	-	-	411	517	576

Energy Efficiency Ratio (E.E.R.)

100	4.81	5.99	7.33	8.90	10.77	13.03	15.78	19.20	21.22
110	4.02	5.11	6.31	7.68	9.28	11.17	13.44	16.18	17.77
120	3.36	4.36	5.43	6.63	7.99	9.59	11.46	13.69	14.97
130	-	-	4.67	5.71	6.88	8.23	9.79	11.62	12.65
140	-	-	-	4.91	5.91	7.05	8.35	9.86	10.71
150	-	-	-	-	-	6.02	7.12	8.37	9.07
160	-	-	-	-	-	-	6.04	7.09	7.68
165	-	-	-	-	-	-	5.56	6.52	7.06

Nominal performance at to = 45 °F, tc = 130 °F

Cooling capacity	25 993	Btu/h	Current consumption	15.26	A
Power input	2 895	W	Mass flow	412	lbs/h
E.E.R.	8.98				

Pressure switch settings

Maximum HP switch setting	293	psi(g)
Minimum LP switch setting	1	psi(g)
LP pump down setting	6	psi(g)

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T₀ : Evaporating temperature at dew point
T_C : Condensing temperature at dew point
Rating conditions : Superheat = 20 °F , Subcooling = 15 °F
Tolerance according EN12900

Sound power data

Sound power level	0	dB(A)
With accoustic hood	0	dB(A)

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Performance data at 60 Hz, ARI rating conditions
R404A

Cond. temp. in °F (tc)	Evaporating temperature in °F (to)								
	-20	-10	0	10	20	30	40	45	50

Cooling capacity in Btu/h

90	9 348	13 570	18 803	25 192	32 877	42 003	52 712	58 705	65 146
100	7 993	11 881	16 682	22 541	29 600	38 002	47 889	53 434	59 404
110	6 693	10 231	14 587	19 902	26 319	33 982	43 033	48 123	53 614
120	5 444	8 619	12 513	17 269	23 031	29 940	38 140	42 768	47 773
130	-	7 039	10 457	14 641	19 732	25 873	33 207	37 366	41 877
140	-	5 489	8 417	12 013	16 419	21 777	28 232	31 914	35 924

Power input in W

90	2 009	2 346	2 674	2 995	3 310	3 620	3 928	4 081	4 234
100	2 017	2 386	2 746	3 099	3 445	3 787	4 125	4 294	4 462
110	2 021	2 430	2 828	3 219	3 603	3 983	4 359	4 546	4 733
120	2 005	2 459	2 902	3 338	3 767	4 190	4 610	4 820	5 029
130	-	2 456	2 951	3 438	3 918	4 392	4 863	5 097	5 332
140	-	2 404	2 957	3 501	4 039	4 571	5 098	5 361	5 624

Current consumption in A

90	12.90	13.75	14.81	15.97	17.16	18.28	19.24	19.64	19.97
100	13.10	14.09	15.30	16.64	18.01	19.34	20.53	21.04	21.49
110	13.10	14.24	15.61	17.13	18.70	20.25	21.67	22.31	22.89
120	12.94	14.24	15.79	17.50	19.29	21.06	22.73	23.50	24.21
130	-	14.16	15.90	17.82	19.83	21.84	23.77	24.67	25.52
140	-	14.07	16.01	18.15	20.39	22.65	24.85	25.89	26.88

Mass flow in lbs/h

90	194	273	368	478	608	757	929	1 024	1 125
100	180	259	353	462	589	736	905	999	1 098
110	166	244	337	444	569	714	880	972	1 070
120	150	228	320	426	549	691	854	944	1 040
130	-	212	301	406	527	666	826	914	1 009
140	-	194	282	385	503	640	797	883	976

Energy Efficiency Ratio (E.E.R.)

90	4.65	5.78	7.03	8.41	9.93	11.60	13.42	14.38	15.39
100	3.96	4.98	6.07	7.27	8.59	10.04	11.61	12.44	13.31
110	3.31	4.21	5.16	6.18	7.30	8.53	9.87	10.59	11.33
120	2.71	3.51	4.31	5.17	6.11	7.15	8.27	8.87	9.50
130	-	2.87	3.54	4.26	5.04	5.89	6.83	7.33	7.85
140	-	2.28	2.85	3.43	4.07	4.76	5.54	5.95	6.39

Nominal performance at to = 20 °F, tc = 120 °F

Cooling capacity	23 031	Btu/h	Current consumption	19.29	A
Power input	3 767	W	Mass flow	549	lbs/h
E.E.R.	6.11				

Pressure switch settings

Maximum HP switch setting	402	psi(g)
Minimum LP switch setting	15	psi(g)
LP pump down setting	19	psi(g)

T 0 : Evaporating temperature at dew point

T C : Condensing temperature at dew point

Rating conditions : Superheat = 20 °F , Subcooling = 0 °F

Tolerance according EN12900

Sound power data

Sound power level	72	dB(A)
With acoustic hood	67	dB(A)

Performance data at 60 Hz, ARI rating conditions
R407A

Cond. temp. in °F (tc)	Evaporating temperature in °F (to)								
	-20	-10	0	10	20	30	40	45	50

Cooling capacity in Btu/h

90	7 647	11 634	16 455	22 246	29 146	37 293	46 822	52 149	57 872
100	6 546	10 363	14 927	20 377	26 850	34 484	43 416	48 411	53 782
110	5 403	9 030	13 318	18 406	24 431	31 532	39 845	44 499	49 508
120	-	7 666	11 657	16 363	21 920	28 467	36 142	40 445	45 081
130	-	-	9 976	14 279	19 348	25 321	32 337	36 278	40 532
140	-	-	-	12 186	16 746	22 125	28 461	32 030	35 891

Power input in W

90	1 635	2 017	2 368	2 688	2 976	3 229	3 445	3 539	3 624
100	1 621	2 043	2 436	2 797	3 126	3 420	3 678	3 793	3 898
110	1 602	2 071	2 510	2 917	3 292	3 633	3 937	4 075	4 204
120	-	2 101	2 592	3 051	3 477	3 869	4 225	4 389	4 543
130	-	-	2 683	3 199	3 682	4 130	4 543	4 735	4 918
140	-	-	-	3 363	3 908	4 418	4 893	5 116	5 330

Current consumption in A

90	12.26	13.19	14.12	15.02	15.85	16.62	17.28	17.57	17.83
100	12.20	13.27	14.35	15.42	16.45	17.42	18.32	18.73	19.11
110	12.15	13.36	14.59	15.83	17.05	18.23	19.35	19.88	20.39
120	-	13.49	14.87	16.28	17.69	19.08	20.43	21.09	21.72
130	-	-	15.24	16.83	18.43	20.03	21.61	22.38	23.14
140	-	-	-	17.51	19.30	21.11	22.92	23.81	24.70

Mass flow in lbs/h

90	119	178	246	325	417	524	647	715	788
100	108	168	236	315	407	513	634	701	772
110	96	156	225	303	394	498	617	683	753
120	-	142	211	289	378	481	597	662	730
130	-	-	195	273	360	461	575	637	704
140	-	-	-	254	340	438	549	610	676

Energy Efficiency Ratio (E.E.R.)

90	4.68	5.77	6.95	8.27	9.79	11.55	13.59	14.73	15.97
100	4.04	5.07	6.13	7.29	8.59	10.08	11.81	12.76	13.80
110	3.37	4.36	5.31	6.31	7.42	8.68	10.12	10.92	11.78
120	-	3.65	4.50	5.36	6.30	7.36	8.55	9.22	9.92
130	-	-	3.72	4.46	5.25	6.13	7.12	7.66	8.24
140	-	-	-	3.62	4.28	5.01	5.82	6.26	6.73

Nominal performance at to = 20 °F, tc = 120 °F

Cooling capacity	21 920	Btu/h	Current consumption	17.69	A
Power input	3 477	W	Mass flow	378	lbs/h
E.E.R.	6.30				

Pressure switch settings

Maximum HP switch setting	374	psi(g)
Minimum LP switch setting	13	psi(g)
LP pump down setting	17	psi(g)

T 0 : Evaporating temperature at dew point

T C : Condensing temperature at dew point

Rating conditions : Superheat = 20 °F , Subcooling = 0 °F

Tolerance according EN12900

Sound power data

Sound power level	72	dB(A)
With acoustic hood	67	dB(A)

Performance data at 60 Hz, ARI rating conditions
R407C

Cond. temp. in °F (tc)	Evaporating temperature in °F (to)								
	10	20	25	30	35	40	45	50	55

Cooling capacity in Btu/h

100	20 085	27 217	31 294	35 742	40 585	45 846	51 547	57 712	64 364
110	18 182	24 900	28 728	32 899	37 437	42 364	47 704	53 481	59 716
120	-	22 584	26 162	30 055	34 287	38 881	43 860	49 246	55 063
130	-	20 280	23 608	27 223	31 148	35 408	40 024	45 020	50 419
140	-	-	21 076	24 412	28 031	31 955	36 209	40 814	45 793
150	-	-	-	-	24 947	28 536	32 425	36 638	41 199

Power input in W

100	2 527	2 887	3 063	3 234	3 397	3 552	3 695	3 825	3 940
110	2 622	3 017	3 216	3 412	3 605	3 791	3 969	4 138	4 294
120	-	3 142	3 359	3 578	3 796	4 011	4 222	4 425	4 620
130	-	3 269	3 502	3 741	3 981	4 222	4 461	4 696	4 926
140	-	-	3 654	3 908	4 168	4 431	4 695	4 960	5 221
150	-	-	-	-	4 365	4 647	4 935	5 224	5 515

Current consumption in A

100	14.52	15.77	16.41	17.05	17.67	18.26	18.81	19.32	19.75
110	14.89	16.27	17.00	17.73	18.45	19.16	19.84	20.48	21.06
120	-	16.77	17.58	18.41	19.25	20.08	20.89	21.67	22.40
130	-	17.22	18.13	19.07	20.03	20.99	21.94	22.86	23.76
140	-	-	18.63	19.69	20.77	21.86	22.95	24.04	25.10
150	-	-	-	-	21.44	22.67	23.92	25.17	26.41

Mass flow in lbs/h

100	264	352	401	454	511	573	640	711	787
110	252	338	387	439	496	556	621	691	766
120	-	324	372	424	479	538	602	671	744
130	-	309	356	407	461	519	582	649	720
140	-	-	340	389	443	500	561	626	696
150	-	-	-	-	423	479	539	603	671

Energy Efficiency Ratio (E.E.R.)

100	7.95	9.43	10.22	11.05	11.95	12.91	13.95	15.09	16.34
110	6.93	8.25	8.93	9.64	10.39	11.18	12.02	12.93	13.91
120	-	7.19	7.79	8.40	9.03	9.69	10.39	11.13	11.92
130	-	6.20	6.74	7.28	7.82	8.39	8.97	9.59	10.24
140	-	-	5.77	6.25	6.73	7.21	7.71	8.23	8.77
150	-	-	-	-	5.72	6.14	6.57	7.01	7.47

Nominal performance at to = 45 °F, tc = 130 °F

Cooling capacity	40 024	Btu/h	Current consumption	21.94	A
Power input	4 461	W	Mass flow	582	lbs/h
E.E.R.	8.97				

Pressure switch settings

Maximum HP switch setting	426	psi(g)
Minimum LP switch setting	20	psi(g)
LP pump down setting	25	psi(g)

T 0 : Evaporating temperature at dew point

T C : Condensing temperature at dew point

Rating conditions : Superheat = 20 °F , Subcooling = 15 °F

Tolerance according EN12900

Sound power data

Sound power level	77	dB(A)
With acoustic hood	72	dB(A)

Performance data at 60 Hz, ARI rating conditions
R407F

Cond. temp. in °F (tc)	Evaporating temperature in °F (to)								
	-20	-10	0	10	20	30	40	45	50

Cooling capacity in Btu/h

90	-	12 496	17 818	24 267	31 994	41 153	51 895	57 907	64 372
100	-	10 879	15 758	21 632	28 654	36 977	46 751	52 231	58 130
110	-	9 487	14 013	19 403	25 808	33 383	42 280	47 272	52 651
120	-	-	12 508	17 502	23 381	30 298	38 406	42 954	47 857
130	-	-	-	15 856	21 298	27 647	35 055	39 204	43 676
140	-	-	-	-	-	-	-	-	-

Power input in W

90	-	2 144	2 505	2 840	3 133	3 368	3 532	3 582	3 608
100	-	2 175	2 571	2 950	3 298	3 599	3 838	3 929	4 000
110	-	2 227	2 653	3 073	3 471	3 833	4 143	4 273	4 385
120	-	-	2 770	3 225	3 669	4 087	4 463	4 630	4 781
130	-	-	-	3 424	3 909	4 378	4 815	5 017	5 206
140	-	-	-	-	-	-	-	-	-

Current consumption in A

90	-	13.09	14.16	15.21	16.18	16.99	17.60	17.81	17.93
100	-	13.41	14.59	15.77	16.91	17.94	18.79	19.13	19.41
110	-	13.59	14.88	16.23	17.57	18.83	19.96	20.45	20.88
120	-	-	15.17	16.70	18.26	19.79	21.21	21.87	22.47
130	-	-	-	17.31	19.12	20.93	22.68	23.51	24.30
140	-	-	-	-	-	-	-	-	-

Mass flow in lbs/h

90	-	169	236	316	410	520	647	717	792
100	-	155	220	297	387	491	612	679	750
110	-	143	207	282	369	469	584	648	717
120	-	-	197	271	355	452	563	625	691
130	-	-	-	263	346	441	549	609	672
140	-	-	-	-	-	-	-	-	-

Energy Efficiency Ratio (E.E.R.)

90	-	5.83	7.11	8.54	10.21	12.22	14.69	16.17	17.84
100	-	5.00	6.13	7.33	8.69	10.27	12.18	13.29	14.53
110	-	4.26	5.28	6.31	7.43	8.71	10.21	11.06	12.01
120	-	-	4.52	5.43	6.37	7.41	8.61	9.28	10.01
130	-	-	-	4.63	5.45	6.31	7.28	7.81	8.39
140	-	-	-	-	-	-	-	-	-

Nominal performance at to = 20 °F, tc = 120 °F

Cooling capacity	23 381	Btu/h	Current consumption	18.26	A
Power input	3 669	W	Mass flow	355	lbs/h
E.E.R.	6.37				

Pressure switch settings

Maximum HP switch setting	348	psi(g)
Minimum LP switch setting	15	psi(g)
LP pump down setting	18	psi(g)

T 0 : Evaporating temperature at dew point

T C : Condensing temperature at dew point

Rating conditions : Superheat = 20 °F , Subcooling = 0 °F

Tolerance according EN12900

Sound power data

Sound power level	72	dB(A)
With acoustic hood	67	dB(A)

Performance data at 60 Hz, ARI rating conditions
R448A

Cond. temp. in °F (tc)	Evaporating temperature in °F (to)								
	-20	-10	0	10	20	30	40	45	50

Cooling capacity in Btu/h

50	12 188	16 883	22 815	30 123	-	-	-	-	-
60	11 337	15 855	21 522	28 478	36 862	-	-	-	-
70	10 430	14 761	20 154	26 749	34 685	44 101	-	-	-
80	9 478	13 613	18 723	24 947	32 425	41 296	51 699	-	-
100	7 487	11 202	15 717	21 172	27 707	35 460	44 570	49 678	55 177
120	-	8 717	12 600	17 248	22 801	29 398	37 180	41 557	46 283
140	-	-	-	-	17 803	23 207	29 621	33 251	37 185

Power input in W

50	1 666	1 857	2 030	2 187	-	-	-	-	-
60	1 717	1 933	2 129	2 309	2 476	-	-	-	-
70	1 769	2 012	2 235	2 441	2 634	2 818	-	-	-
80	1 817	2 091	2 345	2 580	2 802	3 013	3 217	-	-
100	1 884	2 231	2 555	2 859	3 148	3 425	3 693	3 825	3 956
120	-	2 316	2 724	3 111	3 480	3 836	4 182	4 352	4 521
140	-	-	-	-	3 762	4 211	4 647	4 862	5 076

Current consumption in A

50	7.00	7.99	8.82	9.49	-	-	-	-	-
60	7.53	8.61	9.53	10.31	10.96	-	-	-	-
70	7.95	9.13	10.16	11.07	11.85	12.52	-	-	-
80	8.28	9.56	10.71	11.75	12.69	13.52	14.27	-	-
100	8.64	10.16	11.60	12.95	14.22	15.42	16.56	17.11	17.65
120	-	10.46	12.22	13.92	15.57	17.19	18.77	19.55	20.33
140	-	-	-	-	16.80	18.87	20.94	21.98	23.02

Mass flow in lbs/h

50	150	204	270	350	-	-	-	-	-
60	146	201	267	347	441	-	-	-	-
70	141	196	262	341	435	544	-	-	-
80	135	190	256	335	427	534	659	-	-
100	120	175	240	317	406	510	630	696	767
120	-	156	220	294	380	480	594	658	725
140	-	-	-	-	350	444	553	613	677

Energy Efficiency Ratio (E.E.R.)

50	7.32	9.09	11.24	13.77	-	-	-	-	-
60	6.60	8.20	10.11	12.34	14.89	-	-	-	-
70	5.90	7.34	9.02	10.96	13.17	15.65	-	-	-
80	5.22	6.51	7.99	9.67	11.57	13.71	16.07	-	-
100	3.97	5.02	6.15	7.40	8.80	10.35	12.07	12.99	13.95
120	-	3.76	4.63	5.54	6.55	7.66	8.89	9.55	10.24
140	-	-	-	-	4.73	5.51	6.37	6.84	7.33

Nominal performance at to = 20 °F, tc = 120 °F

Cooling capacity	22 801	Btu/h	Current consumption	15.57	A
Power input	3 480	W	Mass flow	380	lbs/h
E.E.R.	6.55				

Pressure switch settings

Maximum HP switch setting	402	psi(g)
Minimum LP switch setting	15	psi(g)
LP pump down setting	19	psi(g)

T 0 : Evaporating temperature at dew point

T C : Condensing temperature at dew point

Rating conditions : Superheat = 20 °F , Subcooling = 0 °F

Tolerance according EN12900

Sound power data

Sound power level	73	dB(A)
With acoustic hood	68	dB(A)

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Performance data at 60 Hz, ARI rating conditions
R449A

Cond. temp. in °F (tc)	Evaporating temperature in °F (to)								
	-20	-10	0	10	20	30	40	45	50

Cooling capacity in Btu/h

50	12 189	16 884	22 816	30 125	-	-	-	-	-
60	11 338	15 856	21 524	28 480	36 865	-	-	-	-
70	10 430	14 762	20 156	26 751	34 687	44 104	-	-	-
80	9 479	13 614	18 724	24 949	32 428	41 299	51 702	-	-
100	7 488	11 203	15 719	21 175	27 709	35 463	44 574	49 682	55 182
120	-	8 718	12 602	17 250	22 804	29 402	37 183	41 562	46 288
140	-	-	-	-	17 806	23 211	29 625	33 255	37 189

Power input in W

50	1 666	1 857	2 030	2 187	-	-	-	-	-
60	1 717	1 933	2 129	2 309	2 476	-	-	-	-
70	1 769	2 012	2 235	2 441	2 634	2 818	-	-	-
80	1 817	2 091	2 345	2 580	2 802	3 013	3 217	-	-
100	1 884	2 231	2 555	2 859	3 148	3 425	3 693	3 825	3 956
120	-	2 316	2 724	3 111	3 480	3 836	4 182	4 352	4 521
140	-	-	-	-	3 762	4 211	4 647	4 862	5 076

Current consumption in A

50	6.98	7.98	8.81	9.48	-	-	-	-	-
60	7.52	8.60	9.53	10.31	10.96	-	-	-	-
70	7.95	9.12	10.16	11.07	11.85	12.52	-	-	-
80	8.28	9.56	10.71	11.76	12.69	13.53	14.27	-	-
100	8.64	10.17	11.60	12.95	14.22	15.42	16.56	17.11	17.65
120	-	10.46	12.22	13.92	15.57	17.19	18.77	19.55	20.33
140	-	-	-	-	16.80	18.87	20.94	21.98	23.02

Mass flow in lbs/h

50	151	206	274	355	-	-	-	-	-
60	148	204	271	352	448	-	-	-	-
70	144	199	267	347	442	554	-	-	-
80	138	194	261	341	434	544	671	-	-
100	122	179	245	323	414	520	642	710	782
120	-	160	225	301	389	490	607	671	740
140	-	-	-	-	358	455	566	627	692

Energy Efficiency Ratio (E.E.R.)

50	7.32	9.09	11.24	13.78	-	-	-	-	-
60	6.60	8.20	10.11	12.34	14.89	-	-	-	-
70	5.90	7.34	9.02	10.96	13.17	15.65	-	-	-
80	5.22	6.51	7.99	9.67	11.57	13.71	16.07	-	-
100	3.97	5.02	6.15	7.41	8.80	10.35	12.07	12.99	13.95
120	-	3.76	4.63	5.55	6.55	7.66	8.89	9.55	10.24
140	-	-	-	-	4.73	5.51	6.37	6.84	7.33

Nominal performance at to = 20 °F, tc = 120 °F

Cooling capacity	22 804	Btu/h	Current consumption	15.57	A
Power input	3 480	W	Mass flow	389	lbs/h
E.E.R.	6.55				

Pressure switch settings

Maximum HP switch setting	402	psi(g)
Minimum LP switch setting	15	psi(g)
LP pump down setting	19	psi(g)

T 0 : Evaporating temperature at dew point

T C : Condensing temperature at dew point

Rating conditions : Superheat = 20 °F , Subcooling = 0 °F

Tolerance according EN12900

Sound power data

Sound power level	74	dB(A)
With acoustic hood	69	dB(A)

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Performance data at 60 Hz, ARI rating conditions
R452A

Cond. temp. in °F (tc)	Evaporating temperature in °F (to)								
	-20	-10	0	10	20	30	40	45	50

Cooling capacity in Btu/h

50	13 609	18 548	24 837	32 621	-	-	-	-	-
60	12 392	17 093	23 041	30 380	39 257	-	-	-	-
70	11 210	15 666	21 265	28 152	36 473	46 373	-	-	-
80	10 058	14 261	19 502	25 929	33 686	42 918	53 771	-	-
100	7 810	11 481	15 984	21 465	28 070	35 944	45 232	50 452	56 080
120	5 584	8 691	12 423	16 926	22 346	28 829	36 520	40 865	45 565
140	-	-	-	12 251	16 454	21 514	27 576	31 028	34 786

Power input in W

50	1 675	1 814	1 917	1 986	-	-	-	-	-
60	1 819	2 009	2 166	2 293	2 392	-	-	-	-
70	1 923	2 161	2 369	2 551	2 707	2 842	-	-	-
80	1 993	2 276	2 532	2 765	2 977	3 169	3 345	-	-
100	2 056	2 419	2 762	3 088	3 400	3 699	3 988	4 130	4 270
120	2 054	2 484	2 902	3 309	3 709	4 102	4 492	4 687	4 881
140	-	-	-	3 475	3 949	4 425	4 904	5 145	5 388

Current consumption in A

50	13.56	14.58	15.38	15.99	-	-	-	-	-
60	11.78	12.91	13.85	14.60	15.20	-	-	-	-
70	10.58	11.83	12.91	13.82	14.59	15.24	-	-	-
80	9.85	11.23	12.45	13.53	14.49	15.34	16.11	-	-
100	9.32	10.97	12.51	13.94	15.29	16.57	17.81	18.41	19.01
120	9.27	11.23	13.11	14.93	16.69	18.43	20.16	21.03	21.90
140	-	-	-	15.55	17.77	20.00	22.25	23.39	24.55

Mass flow in lbs/h

50	211	284	373	481	-	-	-	-	-
60	205	278	367	473	599	-	-	-	-
70	198	271	359	464	587	731	-	-	-
80	190	263	350	454	575	716	879	-	-
100	171	244	329	429	546	681	836	922	1 014
120	148	220	303	400	511	640	788	869	956
140	-	-	-	366	472	594	733	810	892

Energy Efficiency Ratio (E.E.R.)

50	8.12	10.23	12.96	16.42	-	-	-	-	-
60	6.81	8.51	10.64	13.25	16.41	-	-	-	-
70	5.83	7.25	8.98	11.04	13.47	16.32	-	-	-
80	5.05	6.27	7.70	9.38	11.32	13.54	16.08	-	-
100	3.80	4.75	5.79	6.95	8.26	9.72	11.34	12.22	13.13
120	2.72	3.50	4.28	5.11	6.03	7.03	8.13	8.72	9.33
140	-	-	-	3.53	4.17	4.86	5.62	6.03	6.46

Nominal performance at to = 20 °F, tc = 120 °F

Cooling capacity	22 346	Btu/h	Current consumption	16.69	A
Power input	3 709	W	Mass flow	511	lbs/h
E.E.R.	6.03				

Pressure switch settings

Maximum HP switch setting	402	psi(g)
Minimum LP switch setting	15	psi(g)
LP pump down setting	19	psi(g)

T 0 : Evaporating temperature at dew point

T C : Condensing temperature at dew point

Rating conditions : Superheat = 20 °F , Subcooling = 0 °F

Tolerance according EN12900

Sound power data

Sound power level	74	dB(A)
With acoustic hood	69	dB(A)

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Performance data at 60 Hz, ARI rating conditions
R513A

Cond. temp. in °F (tc)	Evaporating temperature in °F (to)								
	-20	-10	0	10	20	30	40	45	50

Cooling capacity in Btu/h

50	-	9 595	13 227	17 827	23 506	30 379	-	-	-
60	-	8 779	12 282	16 701	22 150	28 742	36 588	-	-
70	-	7 954	11 314	15 540	20 744	27 041	34 541	38 778	-
80	-	7 129	10 332	14 350	19 296	25 283	32 424	36 462	40 831
100	-	5 508	8 355	11 916	16 304	21 631	28 010	31 630	35 555
120	-	3 976	6 412	9 460	13 233	17 845	23 407	26 581	30 034
140	-	-	-	-	10 145	13 985	18 676	21 375	24 329

Power input in W

50	-	1 311	1 447	1 575	1 698	1 823	-	-	-
60	-	1 340	1 491	1 631	1 766	1 900	2 039	-	-
70	-	1 365	1 532	1 687	1 835	1 981	2 130	2 207	-
80	-	1 384	1 571	1 743	1 907	2 066	2 227	2 309	2 394
100	-	1 407	1 638	1 852	2 053	2 247	2 439	2 535	2 633
120	-	1 406	1 690	1 954	2 202	2 440	2 671	2 787	2 903
140	-	-	-	-	2 351	2 641	2 922	3 061	3 199

Current consumption in A

50	-	7.24	7.87	8.46	9.02	9.57	-	-	-
60	-	7.13	7.78	8.38	8.95	9.50	10.05	-	-
70	-	7.11	7.80	8.43	9.02	9.59	10.16	10.45	-
80	-	7.14	7.89	8.57	9.21	9.82	10.43	10.73	11.04
100	-	7.24	8.17	9.02	9.82	10.57	11.31	11.67	12.04
120	-	7.17	8.36	9.47	10.50	11.48	12.44	12.91	13.38
140	-	-	-	-	11.01	12.31	13.56	14.18	14.79

Mass flow in lbs/h

50	-	138	187	246	316	399	-	-	-
60	-	133	182	241	312	394	491	-	-
70	-	127	176	236	306	389	485	539	-
80	-	120	170	229	300	382	478	532	589
100	-	106	155	214	284	366	461	514	571
120	-	89	138	196	265	346	440	492	548
140	-	-	-	-	242	322	414	465	520

Energy Efficiency Ratio (E.E.R.)

50	-	7.32	9.14	11.32	13.84	16.66	-	-	-
60	-	6.55	8.24	10.24	12.54	15.13	17.95	-	-
70	-	5.83	7.38	9.21	11.30	13.65	16.22	17.57	-
80	-	5.15	6.58	8.23	10.12	12.24	14.56	15.79	17.06
100	-	3.91	5.10	6.44	7.94	9.63	11.49	12.48	13.50
120	-	2.83	3.79	4.84	6.01	7.31	8.76	9.54	10.35
140	-	-	-	-	4.31	5.30	6.39	6.98	7.61

Nominal performance at to = 20 °F, tc = 120 °F

Cooling capacity	13 233	Btu/h	Current consumption	10.50	A
Power input	2 202	W	Mass flow	265	lbs/h
E.E.R.	6.01				

Pressure switch settings

Maximum HP switch setting	402	psi(g)
Minimum LP switch setting	15	psi(g)
LP pump down setting	19	psi(g)

T 0 : Evaporating temperature at dew point

T C : Condensing temperature at dew point

Rating conditions : Superheat = 20 °F , Subcooling = 0 °F

Tolerance according EN12900

Sound power data

Sound power level		dB(A)
With acoustic hood		dB(A)

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