



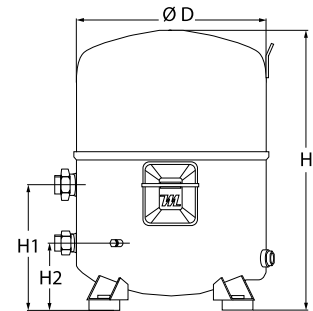
Datasheets

Maneurop[®] Reciprocating compressors MT / MTZ / MPZ / NTZ

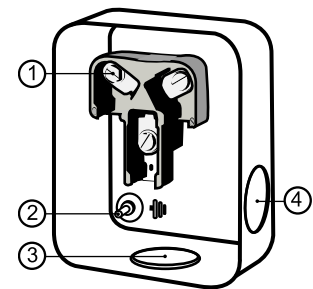


General Characteristics

Model number (on compressor nameplate)		MTZ160HW4VE
Code number for Singlepack*		MTZ160-4VI
Code number for Industrial pack**		MTZ160-4VM
Drawing number		8504011e
Suction and discharge connections		Rotolock
Suction connection		1-3/4 " Rotolock
Discharge connection		1-1/4 " Rotolock
Suction connection with supplied sleeve		1-1/8 " ODF
Discharge connection with supplied sleeve		3/4 " ODF
Oil sight glass		Threaded
Oil equalization connection		3/8" flare SAE
Oil drain connection		None
LP gauge port		Schrader
IPR valve		435 psi / 115 psi
Cylinders		4
Swept volume		16.57 in ³ /rev
Displacement @ Nominal speed		1669 cfh @ 2900 rpm - 2014 cfh @ 3500 rpm
Net weight		152 lbs
Oil charge		132 oz, POE - 160PZ
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		22 lbs
Approved refrigerants		R404A, R507A, R134a, R407C

Dimensions


D=13.9 inch, H=21.3 inch,
H1=9.2 inch, H2=4.9 inch

Terminal box


IP54 (with cable gland)

- 1: Screw connectors 10-32 UNF x 9.5
- 2: Earth M4-12
- 3: Knock-out Ø 29 mm (1.14")
- 4: Knock-out Ø 25.5 mm (1.00")

Electrical Characteristics

Nominal voltage	380-400V/3/50Hz - 460V/3/60Hz
Voltage range	340-440 V @ 50Hz - 414-506 V @ 60Hz
Winding resistance (between phases) +/- 7% at 77°F	1.1 Ω
Maximum Continuous Current (MCC)	36 A
Locked Rotor Amps (LRA)	140 A
Motor protection	Internal overload protector

Recommended Installation torques

Oil sight glass	37 ft.lbs
Power connections / Earth connection	2 ft.lbs / 1 ft.lbs
Mounting bolts	37 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: 6 Unboxed compressors on pallet (order per multiples of 6)

Rotolock accessories, suction side
Code no.

Solder sleeve, P02 (1-3/4" Rotolock, 1-1/8" ODF)	8153004
Angle adapter, C02 (1-3/4" Rotolock, 1-1/8" ODF)	8168005
Rotolock valve, V02 (1-3/4" Rotolock, 1-1/8" ODF)	8168028
Gasket, 1-3/4"	8156132

Rotolock accessories, discharge side
Code no.

Solder sleeve, P04 (1-1/4" Rotolock, 3/4" ODF)	8153008
Angle adapter, C04 (1-1/4" Rotolock, 3/4" ODF)	8168006
Rotolock valve, V04 (1-1/4" Rotolock, 3/4" ODF)	8168029
Gasket, 1-1/4"	8156131

Rotolock accessories, sets
Code no.

Angle adapter set, C02 (1-3/4"~1-1/8"), C04 (1-1/4"~3/4")	7703014
Valve set, V02 (1-3/4"~1-1/8"), V04 (1-1/4"~3/4")	7703009
Gasket set, 1", 1-1/4", 1-3/4", OSG gaskets black & white	8156009

Oil / lubricants
Code no.

POE lubricant, 160PZ, 1 liter can	7754019
POE lubricant, 160PZ, 2 liter can	7754020

Crankcase heaters
Code no.

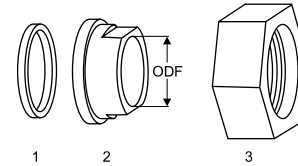
PTC heater 27W	120Z0459
Belt type crankcase heater, 75 W, 230 V, CE mark, UL	7773108
Belt type crankcase heater, 75 W, 400 V, CE mark, UL	7773118
Belt type crankcase heater, 75 W, 460 V, CE mark, UL	120Z0464

Miscellaneous accessories
Code no.

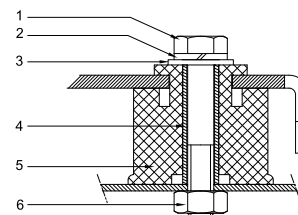
Electronic soft start kit, MCI 25 C	7705007
Soft start kit with statoric resistors, prewired box, SCRO3	7705001
Acoustic hood for 4 cylinder compressor	7755003
Oil equalisation nut	8153127

Spare parts
Code no.

Mounting kit for 4 cylinder compressor & MS, including 4 grommets, 4 bolts	8156007
Oil sight glass with gaskets (black & white)	8156019
Gasket for oil sight glass (black chloroprene)	8156145
Service kit for terminal box 96 x 115 mm, including 1 cover, 1 clamp, 1 T block connector 52 x 57 mm, 1 cable gland	8156135
T block connector 2.1" x 2.3"	8173230

Gaskets, sleeves and nuts


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

Mounting kit


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

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

Cooling capacity in Btu/h

100	83 841	109 566	124 237	140 224	157 611	176 482	196 919	219 008	242 830
110	76 454	100 729	114 544	129 588	145 946	163 700	182 935	203 733	226 177
120	-	91 771	104 715	118 801	134 114	150 736	168 752	188 244	209 296
130	-	82 742	94 799	107 912	122 164	137 639	154 420	172 590	192 234
140	-	-	84 846	96 970	110 146	124 458	139 989	156 822	175 042
150	-	-	-	-	98 109	111 243	125 508	140 989	157 770

Power input in W

100	10 155	11 291	11 821	12 319	12 779	13 198	13 569	13 889	14 152
110	10 562	11 866	12 488	13 084	13 649	14 177	14 664	15 105	15 496
120	-	12 376	13 091	13 784	14 453	15 091	15 693	16 256	16 773
130	-	12 821	13 628	14 419	15 192	15 939	16 657	17 340	17 984
140	-	-	14 099	14 989	15 864	16 721	17 554	18 358	19 129
150	-	-	-	-	16 471	17 437	18 385	19 310	20 207

Current consumption in A

100	14.79	16.02	16.60	17.17	17.73	18.28	18.84	19.41	19.99
110	15.31	16.74	17.42	18.09	18.74	19.39	20.04	20.70	21.37
120	-	17.40	18.20	18.98	19.75	20.51	21.27	22.03	22.80
130	-	17.97	18.90	19.81	20.71	21.59	22.48	23.36	24.26
140	-	-	19.49	20.55	21.59	22.62	23.64	24.67	25.70
150	-	-	-	-	22.36	23.55	24.73	25.91	27.09

Mass flow in lbs/h

100	1 103	1 416	1 592	1 782	1 986	2 207	2 443	2 697	2 969
110	1 059	1 369	1 543	1 730	1 932	2 150	2 383	2 633	2 901
120	-	1 317	1 489	1 674	1 873	2 087	2 317	2 563	2 827
130	-	1 261	1 431	1 613	1 809	2 019	2 245	2 487	2 747
140	-	-	1 367	1 547	1 739	1 946	2 168	2 406	2 661
150	-	-	-	-	1 665	1 868	2 086	2 319	2 569

Energy Efficiency Ratio (E.E.R.)

100	8.26	9.70	10.51	11.38	12.33	13.37	14.51	15.77	17.16
110	7.24	8.49	9.17	9.90	10.69	11.55	12.48	13.49	14.60
120	-	7.42	8.00	8.62	9.28	9.99	10.75	11.58	12.48
130	-	6.45	6.96	7.48	8.04	8.64	9.27	9.95	10.69
140	-	-	6.02	6.47	6.94	7.44	7.97	8.54	9.15
150	-	-	-	-	5.96	6.38	6.83	7.30	7.81

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

Cooling capacity	154 420	Btu/h	Current consumption	22.48	A
Power input	16 657	W	Mass flow	2 245	lbs/h
E.E.R.	9.27				

Pressure switch settings

Maximum HP switch setting	426	psi(g)
Minimum LP switch setting	3	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 = 15 °F

All performance data +/- 5%

Sound power data

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

Performance data at 60 Hz, ARI rating conditions

R134a

Cond. temp. in °F (tc)	Evaporating temperature in °F (to)							
	10	20	30	40	45	50	55	60

Cooling capacity in Btu/h

100	56 195	74 343	95 788	120 879	134 901	149 964	166 114	183 393	201 844
110	51 025	68 428	88 965	112 987	126 413	140 841	156 314	172 877	190 571
120	45 611	62 162	81 686	104 533	117 311	131 051	145 795	161 588	178 474
130	39 987	55 581	73 987	95 553	107 631	120 629	134 592	149 563	165 586
140	-	48 720	65 902	86 083	97 407	109 611	122 740	136 836	151 944
150	-	-	-	76 157	86 675	98 033	110 274	123 443	137 583
160	-	-	-	-	-	85 928	97 230	109 419	122 538

Power input in W

100	6 814	7 672	8 466	9 163	9 464	9 728	9 951	10 129	10 256
110	6 974	7 911	8 802	9 613	9 978	10 310	10 605	10 859	11 067
120	7 068	8 096	9 096	10 032	10 466	10 872	11 245	11 581	11 876
130	7 089	8 219	9 338	10 412	10 921	11 406	11 862	12 286	12 673
140	-	8 272	9 522	10 744	11 333	11 903	12 449	12 966	13 451
150	-	-	-	11 019	11 695	12 356	12 996	13 613	14 201
160	-	-	-	-	-	12 756	13 497	14 218	14 916

Current consumption in A

100	10.90	11.83	12.70	13.49	13.84	14.16	14.44	14.68	14.88
110	11.06	12.09	13.08	14.00	14.43	14.83	15.20	15.54	15.83
120	11.16	12.29	13.41	14.49	15.01	15.50	15.96	16.40	16.80
130	11.18	12.43	13.70	14.95	15.55	16.14	16.71	17.25	17.77
140	-	12.51	13.93	15.36	16.07	16.76	17.44	18.09	18.72
150	-	-	-	15.73	16.54	17.34	18.13	18.91	19.67
160	-	-	-	-	-	17.88	18.79	19.70	20.59

Mass flow in lbs/h

100	819	1 059	1 335	1 649	1 822	2 006	2 201	2 408	2 626
110	782	1 025	1 302	1 618	1 791	1 975	2 170	2 377	2 596
120	740	984	1 262	1 578	1 751	1 935	2 130	2 336	2 554
130	689	934	1 212	1 528	1 701	1 884	2 078	2 283	2 500
140	-	874	1 152	1 466	1 638	1 820	2 013	2 216	2 432
150	-	-	-	1 392	1 562	1 743	1 934	2 136	2 349
160	-	-	-	-	-	1 650	1 839	2 039	2 250

Energy Efficiency Ratio (E.E.R.)

100	8.25	9.69	11.31	13.19	14.25	15.41	16.69	18.11	19.68
110	7.32	8.65	10.11	11.75	12.67	13.66	14.74	15.92	17.22
120	6.45	7.68	8.98	10.42	11.21	12.05	12.97	13.95	15.03
130	5.64	6.76	7.92	9.18	9.86	10.58	11.35	12.17	13.07
140	-	5.89	6.92	8.01	8.59	9.21	9.86	10.55	11.30
150	-	-	-	6.91	7.41	7.93	8.49	9.07	9.69
160	-	-	-	-	-	6.74	7.20	7.70	8.22

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

Cooling capacity	107 631	Btu/h	Current consumption	15.55	A
Power input	10 921	W	Mass flow	1 701	lbs/h
E.E.R.	9.86				

Pressure switch settings

Maximum HP switch setting	328	psi(g)
Minimum LP switch setting	3	psi(g)
LP pump down setting	7	psi(g)

T 0 : Evaporating temperature at dew point

T C : Condensing temperature at dew point

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

All performance data +/- 5%

Sound power data

Sound power level	0	dB(A)
With acoustic 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

Cooling capacity in Btu/h

90	42 901	57 760	75 928	97 901	124 174	155 243	191 604	211 923	233 751
100	37 023	50 750	67 499	87 765	112 043	140 830	174 620	193 546	213 909
110	31 283	43 814	59 079	77 573	99 793	126 232	157 387	174 888	193 754
120	25 679	36 950	50 667	67 325	87 421	111 449	139 905	155 949	173 285
130	-	30 156	42 261	57 019	74 927	96 479	122 172	136 725	152 500
140	-	23 433	33 861	46 654	62 309	81 322	104 186	117 218	131 399

Power input in W

90	8 599	9 726	10 830	11 891	12 891	13 811	14 630	14 997	15 331
100	8 675	9 929	11 182	12 413	13 603	14 734	15 786	16 277	16 741
110	8 669	10 047	11 443	12 838	14 214	15 552	16 831	17 443	18 034
120	8 599	10 094	11 629	13 184	14 740	16 279	17 781	18 513	19 227
130	-	10 087	11 755	13 465	15 197	16 932	18 652	19 500	20 336
140	-	10 041	11 838	13 697	15 600	17 527	19 459	20 420	21 376

Current consumption in A

90	12.92	14.21	15.44	16.66	17.92	19.27	20.77	21.59	22.46
100	13.01	14.50	15.91	17.30	18.73	20.24	21.88	22.77	23.71
110	12.99	14.69	16.30	17.88	19.49	21.17	22.97	23.94	24.95
120	12.84	14.76	16.59	18.38	20.18	22.05	24.03	25.08	26.17
130	-	14.71	16.77	18.78	20.79	22.86	25.02	26.16	27.35
140	-	14.51	16.82	19.06	21.30	23.57	25.95	27.18	28.46

Mass flow in lbs/h

90	888	1 163	1 485	1 860	2 296	2 799	3 376	3 695	4 035
100	834	1 107	1 427	1 799	2 230	2 728	3 300	3 616	3 953
110	775	1 046	1 363	1 732	2 159	2 653	3 219	3 532	3 866
120	710	980	1 294	1 659	2 083	2 571	3 133	3 442	3 773
130	-	906	1 218	1 580	2 000	2 484	3 040	3 347	3 674
140	-	827	1 135	1 494	1 910	2 389	2 940	3 244	3 568

Energy Efficiency Ratio (E.E.R.)

90	4.99	5.94	7.01	8.23	9.63	11.24	13.10	14.13	15.25
100	4.27	5.11	6.04	7.07	8.24	9.56	11.06	11.89	12.78
110	3.61	4.36	5.16	6.04	7.02	8.12	9.35	10.03	10.74
120	2.99	3.66	4.36	5.11	5.93	6.85	7.87	8.42	9.01
130	-	2.99	3.60	4.23	4.93	5.70	6.55	7.01	7.50
140	-	2.33	2.86	3.41	3.99	4.64	5.35	5.74	6.15

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

Cooling capacity	87 421	Btu/h	Current consumption	20.18	A
Power input	14 740	W	Mass flow	2 083	lbs/h
E.E.R.	5.93				

Pressure switch settings

Maximum HP switch setting	402	psi(g)
Minimum LP switch setting	3	psi(g)
LP pump down setting	13	psi(g)

T 0 : Evaporating temperature at dew point

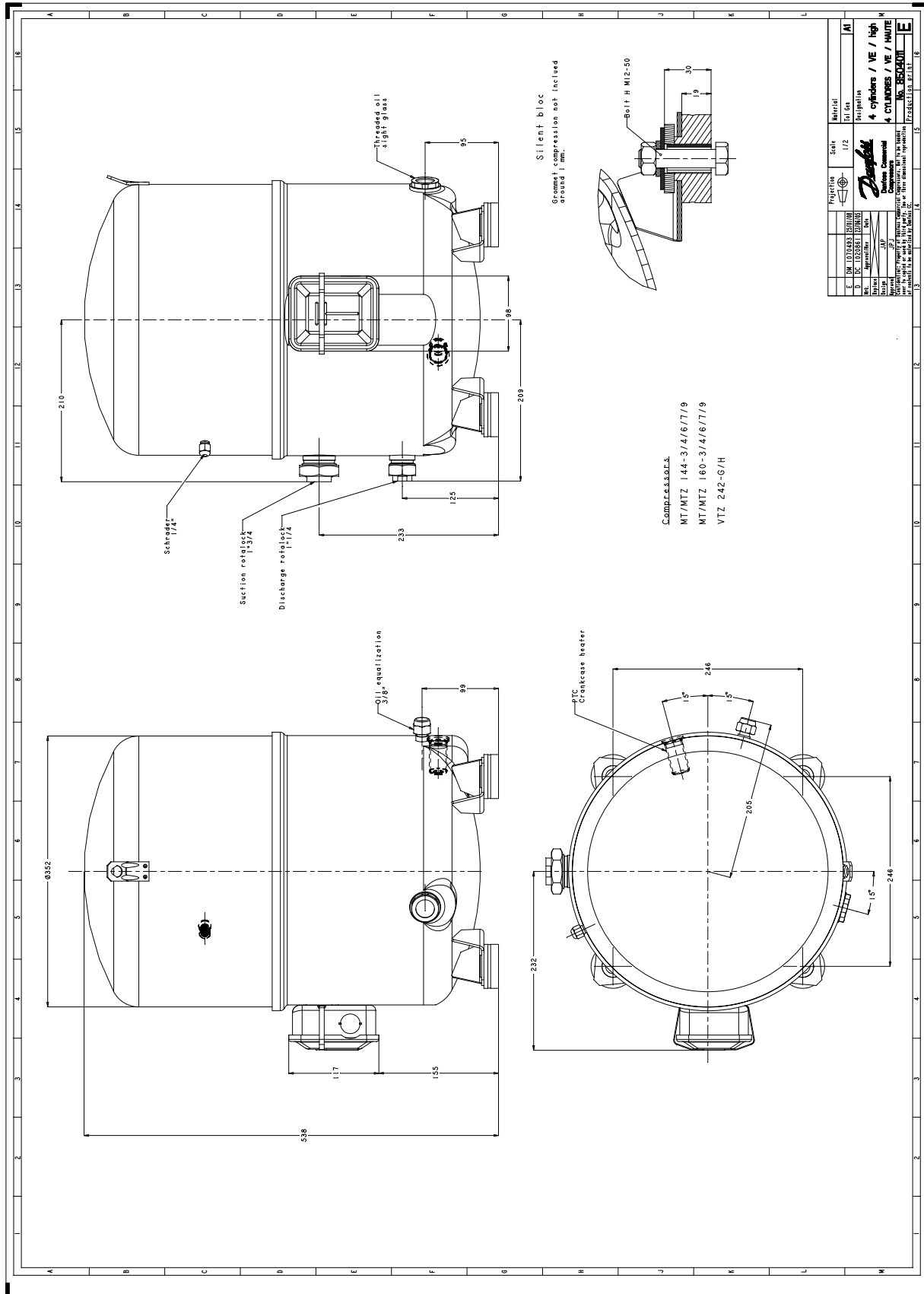
T C : Condensing temperature at dew point

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

All performance data +/- 5%

Sound power data

Sound power level	86	dB(A)
With acoustic hood	80	dB(A)

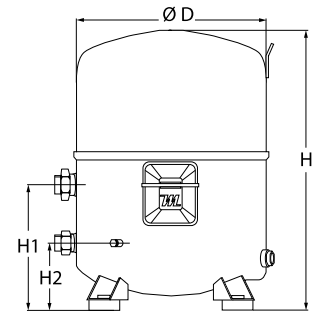


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General Characteristics

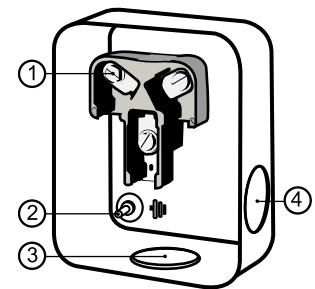
Model number (on compressor nameplate)		MTZ160HW4
Code number for Industrial pack**		MTZ160-4M
Drawing number		8504014e
Suction and discharge connections		Rotolock
Suction connection		1-3/4 " Rotolock
Discharge connection		1-1/4 " Rotolock
Suction connection with supplied sleeve		1-1/8 " ODF
Discharge connection with supplied sleeve		3/4 " ODF
Oil sight glass		Brazed
Oil equalization connection		None
Oil drain connection		None
LP gauge port		Schrader
IPR valve		435 psi / 115 psi
Cylinders		4
Swept volume		16.57 in3/rev
Displacement @ Nominal speed		1669 cfh @ 2900 rpm - 2014 cfh @ 3500 rpm
Net weight		152 lbs
Oil charge		132 oz, POE - 160PZ
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		22 lbs
Approved refrigerants		R404A, R507A, R134a, R407C

Dimensions



D=13.9 inch, H=21.3 inch,
H1=9.2 inch, H2=4.9 inch

Terminal box



IP54 (with cable gland)

- 1: Screw connectors 10-32 UNF x 9.5
- 2: Earth M4-12
- 3: Knock-out Ø 29 mm (1.14")
- 4: Knock-out Ø 25.5 mm (1.00")

Electrical Characteristics

Nominal voltage	380-400V/3/50Hz - 460V/3/60Hz
Voltage range	340-440 V @ 50Hz - 414-506 V @ 60Hz
Winding resistance (between phases) +/- 7% at 77°F	1.1 Ω
Maximum Continuous Current (MCC)	36 A
Locked Rotor Amps (LRA)	140 A
Motor protection	Internal overload protector

Recommended Installation torques

Oil sight glass	0 ft.lbs
Power connections / Earth connection	2 ft.lbs / 1 ft.lbs
Mounting bolts	37 ft.lbs

Parts shipped with compressor

Mounting kit with grommets, bolts, nuts, sleeves and washers
Initial oil charge
Installation instructions

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

*Singlepack: Compressor in cardboard box

**Industrial pack: 6 Unboxed compressors on pallet (order per multiples of 6)

Rotolock accessories, suction side
Code no.

Solder sleeve, P02 (1-3/4" Rotolock, 1-1/8" ODF)	8153004
Angle adapter, C02 (1-3/4" Rotolock, 1-1/8" ODF)	8168005
Rotolock valve, V02 (1-3/4" Rotolock, 1-1/8" ODF)	8168028
Gasket, 1-3/4"	8156132

Rotolock accessories, discharge side
Code no.

Solder sleeve, P04 (1-1/4" Rotolock, 3/4" ODF)	8153008
Angle adapter, C04 (1-1/4" Rotolock, 3/4" ODF)	8168006
Rotolock valve, V04 (1-1/4" Rotolock, 3/4" ODF)	8168029
Gasket, 1-1/4"	8156131

Rotolock accessories, sets
Code no.

Angle adapter set, C02 (1-3/4"~1-1/8"), C04 (1-1/4"~3/4")	7703014
Valve set, V02 (1-3/4"~1-1/8"), V04 (1-1/4"~3/4")	7703009
Gasket set, 1", 1-1/4", 1-3/4", OSG gaskets black & white	8156009

Oil / lubricants
Code no.

POE lubricant, 160PZ, 1 liter can	7754019
POE lubricant, 160PZ, 2 liter can	7754020

Crankcase heaters
Code no.

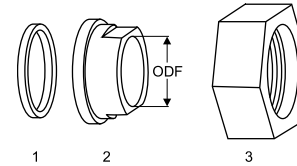
PTC heater 27W	120Z0459
Belt type crankcase heater, 75 W, 230 V, CE mark, UL	7773108
Belt type crankcase heater, 75 W, 400 V, CE mark, UL	7773118
Belt type crankcase heater, 75 W, 460 V, CE mark, UL	120Z0464

Miscellaneous accessories
Code no.

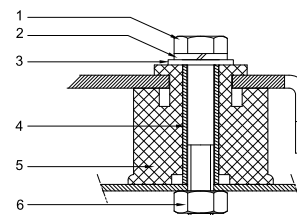
Electronic soft start kit, MCI 25 C	7705007
Soft start kit with statoric resistors, prewired box, SCRO3	7705001
Acoustic hood for 4 cylinder compressor	7755003

Spare parts
Code no.

Mounting kit for 4 cylinder compressor & MS, including 4 grommets, 4 bolts	8156007
Service kit for terminal box 96 x 115 mm, including 1 cover, 1 clamp, 1 T block connector 52 x 57 mm, 1 cable gland	8156135
T block connector 2.1" x 2.3"	8173230

Gaskets, sleeves and nuts


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

Mounting kit


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

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

Cooling capacity in Btu/h

100	83 841	109 566	124 237	140 224	157 611	176 482	196 919	219 008	242 830
110	76 454	100 729	114 544	129 588	145 946	163 700	182 935	203 733	226 177
120	-	91 771	104 715	118 801	134 114	150 736	168 752	188 244	209 296
130	-	82 742	94 799	107 912	122 164	137 639	154 420	172 590	192 234
140	-	-	84 846	96 970	110 146	124 458	139 989	156 822	175 042
150	-	-	-	-	98 109	111 243	125 508	140 989	157 770

Power input in W

100	10 155	11 291	11 821	12 319	12 779	13 198	13 569	13 889	14 152
110	10 562	11 866	12 488	13 084	13 649	14 177	14 664	15 105	15 496
120	-	12 376	13 091	13 784	14 453	15 091	15 693	16 256	16 773
130	-	12 821	13 628	14 419	15 192	15 939	16 657	17 340	17 984
140	-	-	14 099	14 989	15 864	16 721	17 554	18 358	19 129
150	-	-	-	-	16 471	17 437	18 385	19 310	20 207

Current consumption in A

100	14.79	16.02	16.60	17.17	17.73	18.28	18.84	19.41	19.99
110	15.31	16.74	17.42	18.09	18.74	19.39	20.04	20.70	21.37
120	-	17.40	18.20	18.98	19.75	20.51	21.27	22.03	22.80
130	-	17.97	18.90	19.81	20.71	21.59	22.48	23.36	24.26
140	-	-	19.49	20.55	21.59	22.62	23.64	24.67	25.70
150	-	-	-	-	22.36	23.55	24.73	25.91	27.09

Mass flow in lbs/h

100	1 103	1 416	1 592	1 782	1 986	2 207	2 443	2 697	2 969
110	1 059	1 369	1 543	1 730	1 932	2 150	2 383	2 633	2 901
120	-	1 317	1 489	1 674	1 873	2 087	2 317	2 563	2 827
130	-	1 261	1 431	1 613	1 809	2 019	2 245	2 487	2 747
140	-	-	1 367	1 547	1 739	1 946	2 168	2 406	2 661
150	-	-	-	-	1 665	1 868	2 086	2 319	2 569

Energy Efficiency Ratio (E.E.R.)

100	8.26	9.70	10.51	11.38	12.33	13.37	14.51	15.77	17.16
110	7.24	8.49	9.17	9.90	10.69	11.55	12.48	13.49	14.60
120	-	7.42	8.00	8.62	9.28	9.99	10.75	11.58	12.48
130	-	6.45	6.96	7.48	8.04	8.64	9.27	9.95	10.69
140	-	-	6.02	6.47	6.94	7.44	7.97	8.54	9.15
150	-	-	-	-	5.96	6.38	6.83	7.30	7.81

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

Cooling capacity	154 420	Btu/h	Current consumption	22.48	A
Power input	16 657	W	Mass flow	2 245	lbs/h
E.E.R.	9.27				

Pressure switch settings

Maximum HP switch setting	426	psi(g)
Minimum LP switch setting	3	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 = 15 °F

All performance data +/- 5%

Sound power data

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

Performance data at 60 Hz, ARI rating conditions

R134a

Cond. temp. in °F (tc)	Evaporating temperature in °F (to)							
	10	20	30	40	45	50	55	60

Cooling capacity in Btu/h

100	56 195	74 343	95 788	120 879	134 901	149 964	166 114	183 393	201 844
110	51 025	68 428	88 965	112 987	126 413	140 841	156 314	172 877	190 571
120	45 611	62 162	81 686	104 533	117 311	131 051	145 795	161 588	178 474
130	39 987	55 581	73 987	95 553	107 631	120 629	134 592	149 563	165 586
140	-	48 720	65 902	86 083	97 407	109 611	122 740	136 836	151 944
150	-	-	-	76 157	86 675	98 033	110 274	123 443	137 583
160	-	-	-	-	-	85 928	97 230	109 419	122 538

Power input in W

100	6 814	7 672	8 466	9 163	9 464	9 728	9 951	10 129	10 256
110	6 974	7 911	8 802	9 613	9 978	10 310	10 605	10 859	11 067
120	7 068	8 096	9 096	10 032	10 466	10 872	11 245	11 581	11 876
130	7 089	8 219	9 338	10 412	10 921	11 406	11 862	12 286	12 673
140	-	8 272	9 522	10 744	11 333	11 903	12 449	12 966	13 451
150	-	-	-	11 019	11 695	12 356	12 996	13 613	14 201
160	-	-	-	-	-	12 756	13 497	14 218	14 916

Current consumption in A

100	10.90	11.83	12.70	13.49	13.84	14.16	14.44	14.68	14.88
110	11.06	12.09	13.08	14.00	14.43	14.83	15.20	15.54	15.83
120	11.16	12.29	13.41	14.49	15.01	15.50	15.96	16.40	16.80
130	11.18	12.43	13.70	14.95	15.55	16.14	16.71	17.25	17.77
140	-	12.51	13.93	15.36	16.07	16.76	17.44	18.09	18.72
150	-	-	-	15.73	16.54	17.34	18.13	18.91	19.67
160	-	-	-	-	-	17.88	18.79	19.70	20.59

Mass flow in lbs/h

100	819	1 059	1 335	1 649	1 822	2 006	2 201	2 408	2 626
110	782	1 025	1 302	1 618	1 791	1 975	2 170	2 377	2 596
120	740	984	1 262	1 578	1 751	1 935	2 130	2 336	2 554
130	689	934	1 212	1 528	1 701	1 884	2 078	2 283	2 500
140	-	874	1 152	1 466	1 638	1 820	2 013	2 216	2 432
150	-	-	-	1 392	1 562	1 743	1 934	2 136	2 349
160	-	-	-	-	-	1 650	1 839	2 039	2 250

Energy Efficiency Ratio (E.E.R.)

100	8.25	9.69	11.31	13.19	14.25	15.41	16.69	18.11	19.68
110	7.32	8.65	10.11	11.75	12.67	13.66	14.74	15.92	17.22
120	6.45	7.68	8.98	10.42	11.21	12.05	12.97	13.95	15.03
130	5.64	6.76	7.92	9.18	9.86	10.58	11.35	12.17	13.07
140	-	5.89	6.92	8.01	8.59	9.21	9.86	10.55	11.30
150	-	-	-	6.91	7.41	7.93	8.49	9.07	9.69
160	-	-	-	-	-	6.74	7.20	7.70	8.22

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

Cooling capacity	107 631	Btu/h	Current consumption	15.55	A
Power input	10 921	W	Mass flow	1 701	lbs/h
E.E.R.	9.86				

Pressure switch settings

Maximum HP switch setting	328	psi(g)
Minimum LP switch setting	3	psi(g)
LP pump down setting	7	psi(g)

T 0 : Evaporating temperature at dew point

T C : Condensing temperature at dew point

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

All performance data +/- 5%

Sound power data

Sound power level	0	dB(A)
With acoustic 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

Cooling capacity in Btu/h

90	42 901	57 760	75 928	97 901	124 174	155 243	191 604	211 923	233 751
100	37 023	50 750	67 499	87 765	112 043	140 830	174 620	193 546	213 909
110	31 283	43 814	59 079	77 573	99 793	126 232	157 387	174 888	193 754
120	25 679	36 950	50 667	67 325	87 421	111 449	139 905	155 949	173 285
130	-	30 156	42 261	57 019	74 927	96 479	122 172	136 725	152 500
140	-	23 433	33 861	46 654	62 309	81 322	104 186	117 218	131 399

Power input in W

90	8 599	9 726	10 830	11 891	12 891	13 811	14 630	14 997	15 331
100	8 675	9 929	11 182	12 413	13 603	14 734	15 786	16 277	16 741
110	8 669	10 047	11 443	12 838	14 214	15 552	16 831	17 443	18 034
120	8 599	10 094	11 629	13 184	14 740	16 279	17 781	18 513	19 227
130	-	10 087	11 755	13 465	15 197	16 932	18 652	19 500	20 336
140	-	10 041	11 838	13 697	15 600	17 527	19 459	20 420	21 376

Current consumption in A

90	12.92	14.21	15.44	16.66	17.92	19.27	20.77	21.59	22.46
100	13.01	14.50	15.91	17.30	18.73	20.24	21.88	22.77	23.71
110	12.99	14.69	16.30	17.88	19.49	21.17	22.97	23.94	24.95
120	12.84	14.76	16.59	18.38	20.18	22.05	24.03	25.08	26.17
130	-	14.71	16.77	18.78	20.79	22.86	25.02	26.16	27.35
140	-	14.51	16.82	19.06	21.30	23.57	25.95	27.18	28.46

Mass flow in lbs/h

90	888	1 163	1 485	1 860	2 296	2 799	3 376	3 695	4 035
100	834	1 107	1 427	1 799	2 230	2 728	3 300	3 616	3 953
110	775	1 046	1 363	1 732	2 159	2 653	3 219	3 532	3 866
120	710	980	1 294	1 659	2 083	2 571	3 133	3 442	3 773
130	-	906	1 218	1 580	2 000	2 484	3 040	3 347	3 674
140	-	827	1 135	1 494	1 910	2 389	2 940	3 244	3 568

Energy Efficiency Ratio (E.E.R.)

90	4.99	5.94	7.01	8.23	9.63	11.24	13.10	14.13	15.25
100	4.27	5.11	6.04	7.07	8.24	9.56	11.06	11.89	12.78
110	3.61	4.36	5.16	6.04	7.02	8.12	9.35	10.03	10.74
120	2.99	3.66	4.36	5.11	5.93	6.85	7.87	8.42	9.01
130	-	2.99	3.60	4.23	4.93	5.70	6.55	7.01	7.50
140	-	2.33	2.86	3.41	3.99	4.64	5.35	5.74	6.15

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

Cooling capacity	87 421	Btu/h	Current consumption	20.18	A
Power input	14 740	W	Mass flow	2 083	lbs/h
E.E.R.	5.93				

Pressure switch settings

Maximum HP switch setting	402	psi(g)
Minimum LP switch setting	3	psi(g)
LP pump down setting	13	psi(g)

T 0 : Evaporating temperature at dew point

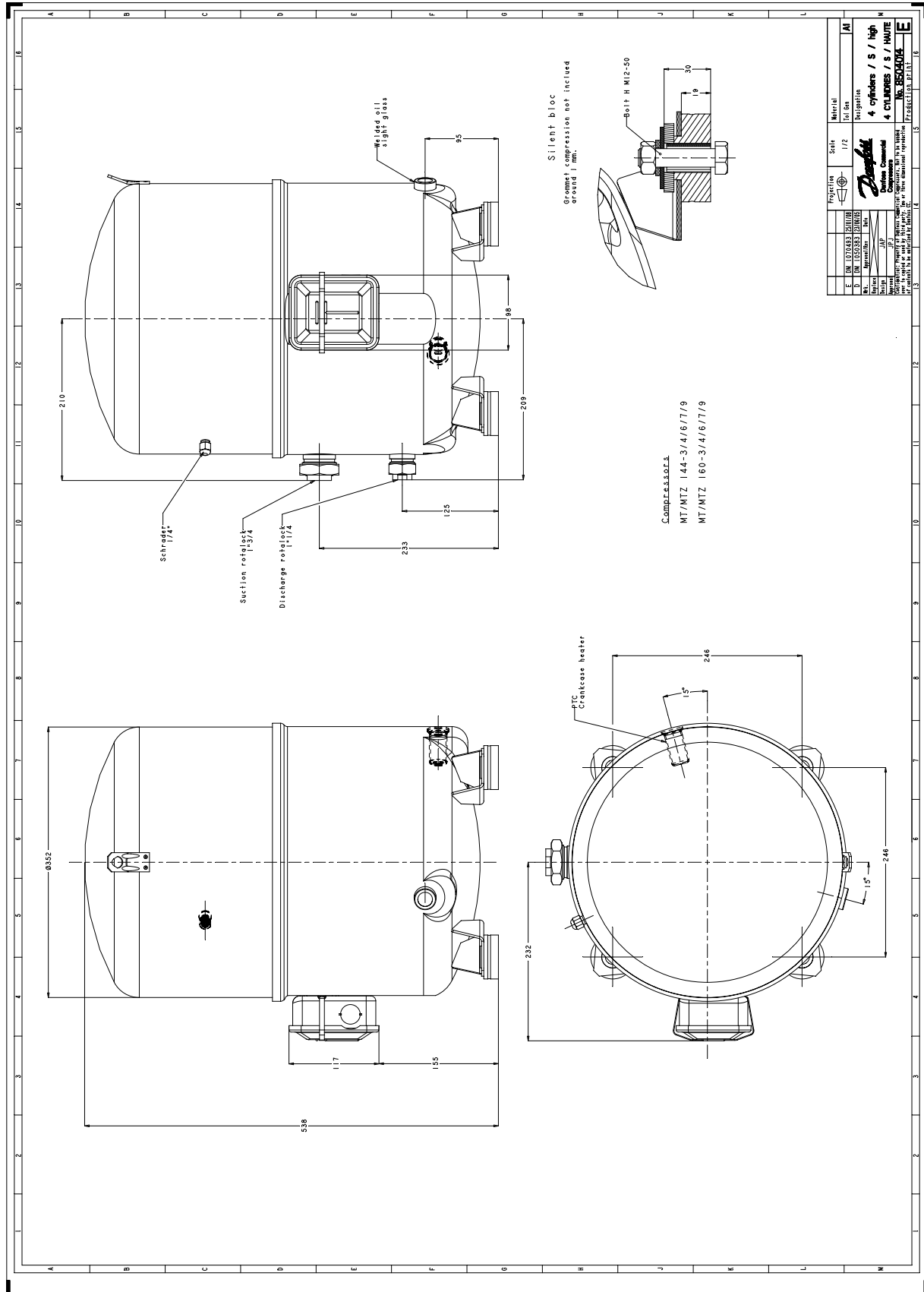
T C : Condensing temperature at dew point

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

All performance data +/- 5%

Sound power data

Sound power level	86	dB(A)
With acoustic hood	80	dB(A)



Item	Part Number	Material	Notes
E	DM 1074433	St 60	St 60
F	DM 1074433	St 60	St 60
G	DM 1074433	St 60	St 60
H	DM 1074433	St 60	St 60
I	DM 1074433	St 60	St 60
J	DM 1074433	St 60	St 60
K	DM 1074433	St 60	St 60
L	DM 1074433	St 60	St 60
M	DM 1074433	St 60	St 60
N	DM 1074433	St 60	St 60
O	DM 1074433	St 60	St 60
P	DM 1074433	St 60	St 60
Q	DM 1074433	St 60	St 60
R	DM 1074433	St 60	St 60
S	DM 1074433	St 60	St 60
T	DM 1074433	St 60	St 60
U	DM 1074433	St 60	St 60
V	DM 1074433	St 60	St 60
W	DM 1074433	St 60	St 60
X	DM 1074433	St 60	St 60
Y	DM 1074433	St 60	St 60
Z	DM 1074433	St 60	St 60
AA	DM 1074433	St 60	St 60
AB	DM 1074433	St 60	St 60
AC	DM 1074433	St 60	St 60
AD	DM 1074433	St 60	St 60
AE	DM 1074433	St 60	St 60
AF	DM 1074433	St 60	St 60
AG	DM 1074433	St 60	St 60
AH	DM 1074433	St 60	St 60
AI	DM 1074433	St 60	St 60
AJ	DM 1074433	St 60	St 60
AK	DM 1074433	St 60	St 60
AL	DM 1074433	St 60	St 60
AM	DM 1074433	St 60	St 60
AN	DM 1074433	St 60	St 60
AO	DM 1074433	St 60	St 60
AP	DM 1074433	St 60	St 60
AQ	DM 1074433	St 60	St 60
AR	DM 1074433	St 60	St 60
AS	DM 1074433	St 60	St 60
AT	DM 1074433	St 60	St 60
AU	DM 1074433	St 60	St 60
AV	DM 1074433	St 60	St 60
AW	DM 1074433	St 60	St 60
AX	DM 1074433	St 60	St 60
AY	DM 1074433	St 60	St 60
AZ	DM 1074433	St 60	St 60
BA	DM 1074433	St 60	St 60
BB	DM 1074433	St 60	St 60
BC	DM 1074433	St 60	St 60
BD	DM 1074433	St 60	St 60
BE	DM 1074433	St 60	St 60
BF	DM 1074433	St 60	St 60
BG	DM 1074433	St 60	St 60
BH	DM 1074433	St 60	St 60
BI	DM 1074433	St 60	St 60
BJ	DM 1074433	St 60	St 60
BK	DM 1074433	St 60	St 60
BL	DM 1074433	St 60	St 60
BM	DM 1074433	St 60	St 60
BN	DM 1074433	St 60	St 60
BO	DM 1074433	St 60	St 60
BP	DM 1074433	St 60	St 60
BQ	DM 1074433	St 60	St 60
BR	DM 1074433	St 60	St 60
BS	DM 1074433	St 60	St 60
BT	DM 1074433	St 60	St 60
BU	DM 1074433	St 60	St 60
BV	DM 1074433	St 60	St 60
BW	DM 1074433	St 60	St 60
BX	DM 1074433	St 60	St 60
BY	DM 1074433	St 60	St 60
BZ	DM 1074433	St 60	St 60
CA	DM 1074433	St 60	St 60
CB	DM 1074433	St 60	St 60
CC	DM 1074433	St 60	St 60
CD	DM 1074433	St 60	St 60
CE	DM 1074433	St 60	St 60
CF	DM 1074433	St 60	St 60
CG	DM 1074433	St 60	St 60
CH	DM 1074433	St 60	St 60
CI	DM 1074433	St 60	St 60
CJ	DM 1074433	St 60	St 60
CK	DM 1074433	St 60	St 60
CL	DM 1074433	St 60	St 60
CM	DM 1074433	St 60	St 60
CN	DM 1074433	St 60	St 60
CO	DM 1074433	St 60	St 60
CP	DM 1074433	St 60	St 60
CQ	DM 1074433	St 60	St 60
CR	DM 1074433	St 60	St 60
CS	DM 1074433	St 60	St 60
CT	DM 1074433	St 60	St 60
CU	DM 1074433	St 60	St 60
CV	DM 1074433	St 60	St 60
CW	DM 1074433	St 60	St 60
CX	DM 1074433	St 60	St 60
CY	DM 1074433	St 60	St 60
CZ	DM 1074433	St 60	St 60
DA	DM 1074433	St 60	St 60
DB	DM 1074433	St 60	St 60
DC	DM 1074433	St 60	St 60
DD	DM 1074433	St 60	St 60
DE	DM 1074433	St 60	St 60
DF	DM 1074433	St 60	St 60
DG	DM 1074433	St 60	St 60
DH	DM 1074433	St 60	St 60
DI	DM 1074433	St 60	St 60
DJ	DM 1074433	St 60	St 60
DK	DM 1074433	St 60	St 60
DL	DM 1074433	St 60	St 60
DM	DM 1074433	St 60	St 60
DN	DM 1074433	St 60	St 60
DO	DM 1074433	St 60	St 60
DP	DM 1074433	St 60	St 60
DQ	DM 1074433	St 60	St 60
DR	DM 1074433	St 60	St 60
DS	DM 1074433	St 60	St 60
DT	DM 1074433	St 60	St 60
DU	DM 1074433	St 60	St 60
DV	DM 1074433	St 60	St 60
DW	DM 1074433	St 60	St 60
DX	DM 1074433	St 60	St 60
DY	DM 1074433	St 60	St 60
DZ	DM 1074433	St 60	St 60
EA	DM 1074433	St 60	St 60
EB	DM 1074433	St 60	St 60
EC	DM 1074433	St 60	St 60
ED	DM 1074433	St 60	St 60
EE	DM 1074433	St 60	St 60
EF	DM 1074433	St 60	St 60
EG	DM 1074433	St 60	St 60
EH	DM 1074433	St 60	St 60
EI	DM 1074433	St 60	St 60
EJ	DM 1074433	St 60	St 60
EK	DM 1074433	St 60	St 60
EL	DM 1074433	St 60	St 60
EM	DM 1074433	St 60	St 60
EN	DM 1074433	St 60	St 60
EO	DM 1074433	St 60	St 60
EP	DM 1074433	St 60	St 60
EQ	DM 1074433	St 60	St 60
ER	DM 1074433	St 60	St 60
ES	DM 1074433	St 60	St 60
ET	DM 1074433	St 60	St 60
EU	DM 1074433	St 60	St 60
EV	DM 1074433	St 60	St 60
EW	DM 1074433	St 60	St 60
EX	DM 1074433	St 60	St 60
EY	DM 1074433	St 60	St 60
EZ	DM 1074433	St 60	St 60
FA	DM 1074433	St 60	St 60
FB	DM 1074433	St 60	St 60
FC	DM 1074433	St 60	St 60
FD	DM 1074433	St 60	St 60
FE	DM 1074433	St 60	St 60
FF	DM 1074433	St 60	St 60
FG	DM 1074433	St 60	St 60
FH	DM 1074433	St 60	St 60
FI	DM 1074433	St 60	St 60
FJ	DM 1074433	St 60	St 60
FK	DM 1074433	St 60	St 60
FL	DM 1074433	St 60	St 60
FM	DM 1074433	St 60	St 60
FN	DM 1074433	St 60	St 60
FO	DM 1074433	St 60	St 60
FP	DM 1074433	St 60	St 60
FQ	DM 1074433	St 60	St 60
FR	DM 1074433	St 60	St 60
FS	DM 1074433	St 60	St 60
FT	DM 1074433	St 60	St 60
FU	DM 1074433	St 60	St 60
FV	DM 1074433	St 60	St 60
FW	DM 1074433	St 60	St 60
FX	DM 1074433	St 60	St 60
FY	DM 1074433	St 60	St 60
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GB	DM 1074433	St 60	St 60
GC	DM 1074433	St 60	St 60
GD	DM 1074433	St 60	St 60
GE	DM 1074433	St 60	St 60
GF	DM 1074433	St 60	St 60
GG	DM 1074433	St 60	St 60
GH	DM 1074433	St 60	St 60
GI	DM 1074433	St 60	St 60
GJ	DM 1074433	St 60	St 60
GK	DM 1074433	St 60	St 60
GL	DM 1074433	St 60	St 60
GM	DM 1074433	St 60	St 60
GN	DM 1074433	St 60	St 60
GO	DM 1074433	St 60	St 60
GP	DM 1074433	St 60	St 60
GQ	DM 1074433	St 60	St 60
GR	DM 1074433	St 60	St 60
GS	DM 1074433	St 60	St 60
GT	DM 1074433	St 60	St 60
GU	DM 1074433	St 60	St 60
GV	DM 1074433	St 60	St 60
GW	DM 1074433	St 60	St 60
GX	DM 1074433	St 60	St 60
GY	DM 1074433	St 60	St 60
GZ	DM 1074433	St 60	St 60
HA	DM 1074433	St 60	St 60
HB	DM 1074433	St 60	St 60
HC	DM 1074433	St 60	St 60
HD	DM 1074433	St 60	St 60
HE	DM 1074433	St 60	St 60
HF	DM 1074433	St 60	St 60
HG	DM 1074433	St 60	St 60
HH	DM 1074433	St 60	St 60
HI	DM 1074433	St 60	St 60
HJ	DM 1074433	St 60	St 60
HK	DM 1074433	St 60	St 60
HL	DM 1074433	St 60	St 60
HM	DM 1074433	St 60	St 60
HN	DM 1074433	St 60	St 60
HO	DM 1074433	St 60	St 60
HP	DM 1074433	St 60	St 60
HQ	DM 1074433	St 60	St 60
HR	DM 1074433	St 60	St 60
HS	DM 1074433	St 60	St 60
HT	DM 1074433	St 60	St 60
HU	DM 1074433	St 60	St 60
HV	DM 1074433	St 60	St 60
HW	DM 1074433	St 60	St 60
HX	DM 1074433	St 60	St 60
HY	DM 1074433	St 60	St 60
HZ	DM 1074433	St 60	St 60
IA	DM 1074433	St 60	St 60
IB	DM 1074433	St 60	St 60
IC	DM 1074433	St 60	St 60
ID	DM 1074433	St 60	St 60
IE	DM 1074433	St 60	St 60
IF	DM 1074433	St 60	St 60
IG	DM 1074433	St 60	St 60
IH	DM 1074433	St 60	St 60
II	DM 1074433	St 60	St 60
IJ	DM 1074433	St 60	St 60
IK	DM 107		