ENGINEERING
TOMORROW

Application Guide

Maneurop®
Reciprocating compressors
MT and MTZ

50 – 60 Hz

www.danfoss.com

Introduction

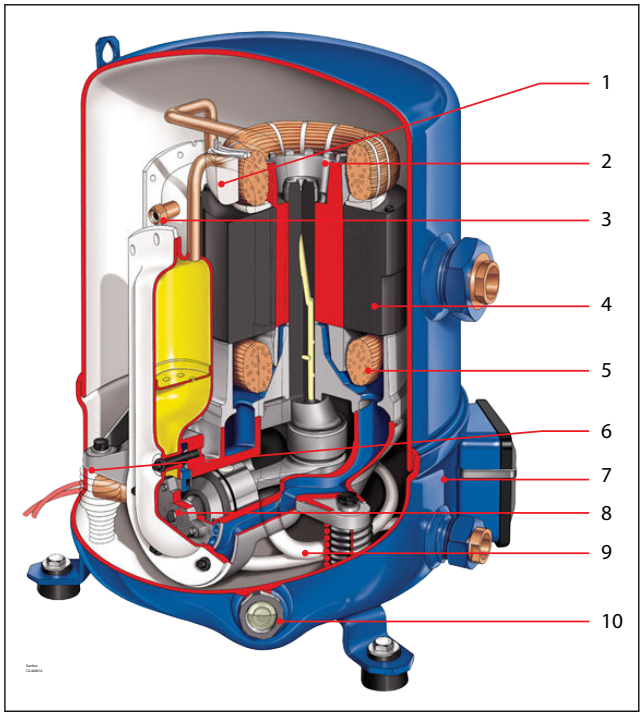
Product description

The Danfoss MT and MTZ series compressors are hermetic reciprocating compressors designed for medium and high evaporating temperature applications. These compressor ranges are compatible with a wide variety of refrigerants, including new low-GWP substances, depending on their compatibility with the oil used. The MT series is charged with mineral oil, while the MTZ series uses polyester oil.

The MT and MTZ series reciprocating compressors benefit from internal motor protection, high-torque motors, a large internal volume, and a gas flow design that, together with an internal pressure relief valve, ensures the highest efficiency and outstanding reliability over a long lifespan. The unique circular valve design, high-efficiency motors, and excellent lubrication provide the highest COP for hermetic reciprocating compressors across a wide operating range.

All compressors are available in the VE version, which includes a rotolock connection for suction and discharge, an oil equalization port, and an oil sight glass.

Cut Away MT and MTZ

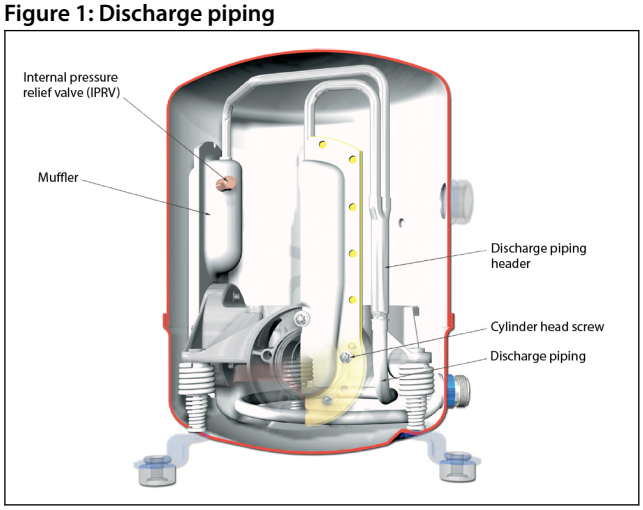


1	Internal motor protector
2	High level suction inlet
3	Internal pressure relief valve
4	100% gas cooled motor
5	Epoxy coated motor winding
6	PTC crankcase heater
7	Larger shell volume
8	Impact resistant valve
9	Discharge line sump heater
10	Oil sight glass

Features and benefits

Reliability due to shell size and gas flow

Figure 1: Discharge piping

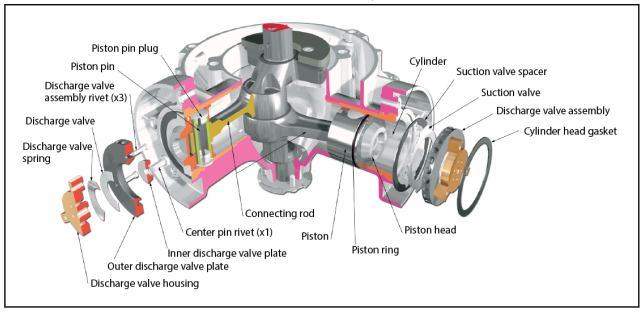


The MT and MTZ compressors feature a large internal free volume that protects against the risk of liquid hammering when liquid refrigerant enters the compressor. These compressors are fully gas-cooled, meaning that all suction gas passes through the electrical motor, ensuring complete motor cooling in all applications. This design eliminates the need for additional compressor cooling and allows the compressors to be insulated with acoustic jackets to achieve lower sound levels without the risk of overheating.

Compressed gas is directed straight to the gas muffler for pulsation and noise reduction, and then through a tube to the discharge port. Before exiting the compressor through the discharge pipe, the gas heats the oil accumulated in the bottom shell.

The unique circular valve design

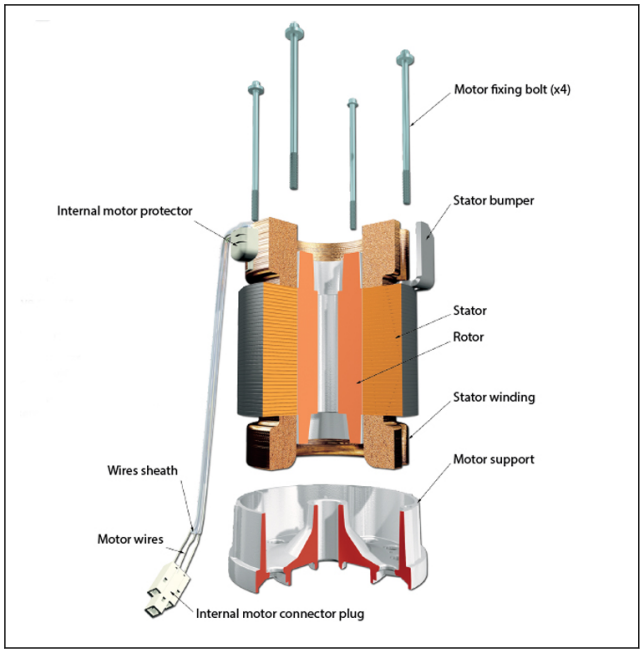
Figure 2: Compression sets assembly



The unique circular valve design benefits the compressor by improving volumetric efficiency through better gas management, reducing internal suction gas pressure losses, limiting heat transfer, reducing top cylinder dead volume, and reducing flow losses in the circular valve system.

Electrical Motor and Internal Overload Protection

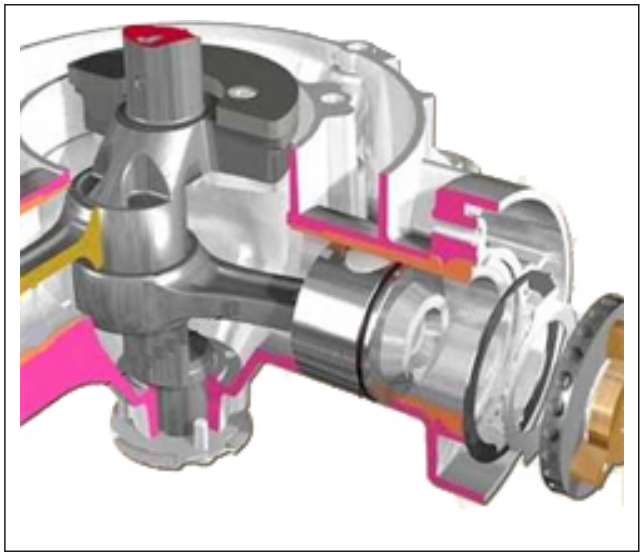
Figure 3: Motor



The MT and MTZ compressors are available in seven different motor voltage ranges and support both single-phase and three-phase power supplies at 50 and 60 Hz. The motors are designed to cover all application areas, providing high torque with high efficiency. An internal motor protector secures the electrical motor against overheating and overloading conditions.

Lighter than others

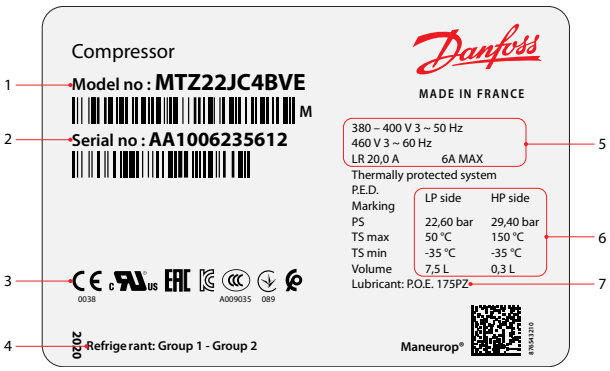
Figure 4: Bearing



The use of aluminum parts (motor support, crankcase, pistons, and connecting rods) offers benefits such as light weight, good heat dissipation, quick starts, and lower stresses on the compressor.

Product identification

Name Plate



1	Model number
2	Serial number
3	Approvals
4	Refrigerant
5	Supply voltage, Locked Rotor Amps (RLA), Maximun Continous Current (MCC)
6	Housing service pressure
7	Factory charged lubricant

Nomenclature

Code numbers (for ordering)

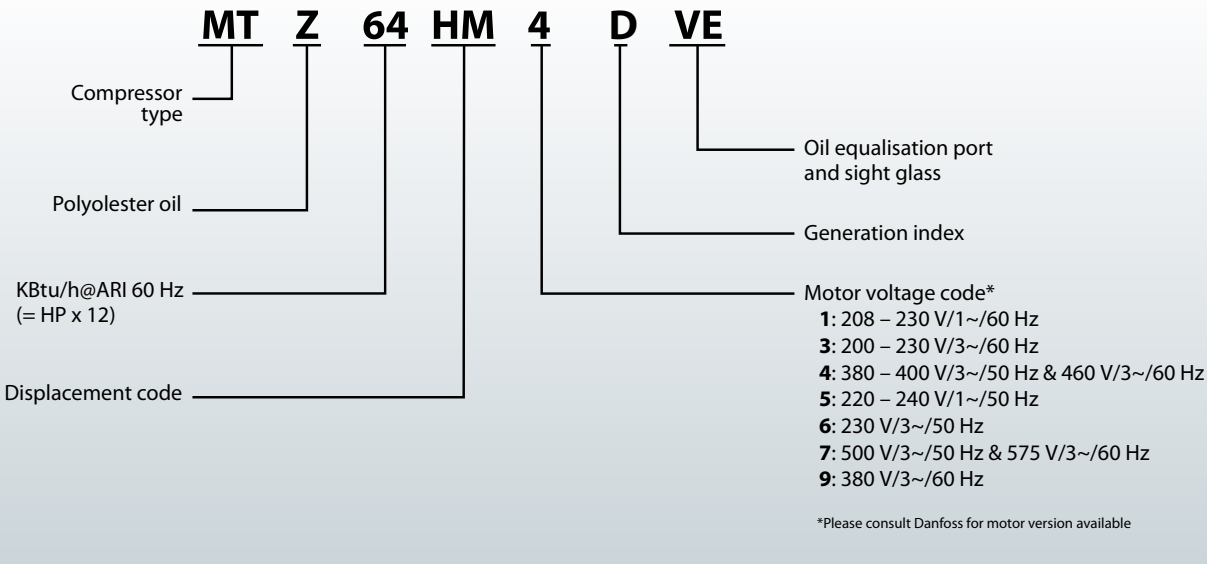
MT Z 64 - 4 V I

- **MT**: Compressor type
- **Z**: Polyolester oil
- **64**: KBtu/h@ARI 60 Hz (= HP x 12)
- **4**: Motor voltage code*
  - **1**: 208 – 230 V/1~/60 Hz
  - **3**: 200 – 230 V/3~/60 Hz
  - **4**: 380 – 400 V/3~/50 Hz & 460 V/3~/60 Hz
  - **5**: 220 – 240 V/1~/50 Hz
  - **6**: 230 V/3~/50 Hz
  - **7**: 500 V/3~/50 Hz & 575 V/3~/60 Hz
  - **9**: 380 V/3~/60 Hz
- **V**: Oil equalisation port and threaded sight glass
- **I**: Packaging type
  - **I** : single pack
  - **M** : industrial pack

(see ordering section)

*Please consult Danfoss for motor version available

Compressor reference (indicated on the compressor nameplate)



Compressors serial number

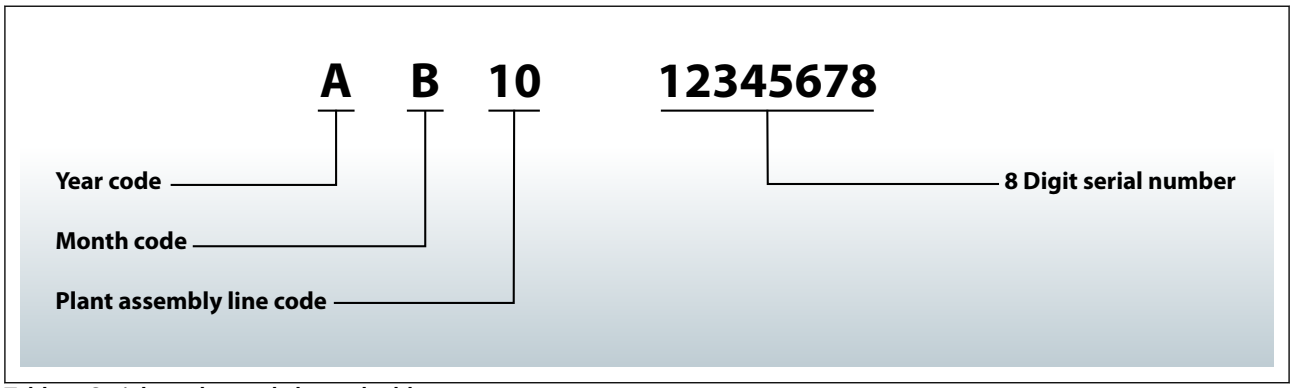


Table 1: Serial number code legend table

Year code		Month code		Plant assembly line code	
Year	Code	Month	Code	Plant	Code
1990, 2010	A	January	A	Trévoux, France	10
1991, 2011	B	February	B		
1992, 2012	C	March	C		
1993, 2013	D	April	D		
1994, 2014	E	May	E		
1995, 2015	F	June	F		
1996, 2016	G	July	G		
1997, 2017	H	August	H		
1998, 2018	J	September	J		
1999, 2019	K	October	K		
2000, 2020	L	November	L		
2001, 2021	M	December	M		
2002, 2022	N				
2003, 2023	P				
2004, 2024	Q				
2005, 2025	R				
2006, 2026	S				
2007, 2027	T				
2008, 2028	U				
2009, 2029	V				

Performances data

ARI capacity and power input data are +/- 5%.
Asercom: Association of European Refrigeration Compressor and Controls Manufacturers
ARI: Air Conditioning and Refrigeration Institute

To	Evaporating temperature at dew point (saturated suction temperature).
Tc	Condensing temperature at dew point (saturated discharge temperature).
SC	Subcooling
SH	Superheat

Nominal performance data for R404

R404A	Refrigeration											
Compressor model	50 Hz, EN12900 ratings				50 Hz, ARI ratings				60 Hz, ARI ratings			
	To = -10 °C, Tc = 45 °C, SC = 0 K, SH = 10 K				To = -6.7 °C, Tc = 48.9 °C, SC = 0 K, SH = 11.1 K				To = -6.7 °C, Tc = 48.9 °C, SC = 0 K, SH = 11.1 K			
	Cooling capacity	Power input	Current input	C.O.P.	Cooling capacity	Power input	Current input	E.E.R.	Cooling capacity	Power input	Current input	E.E.R.
	W	kW	A	W/W	W	kW	A	Btu.h/W	W	kW	A	Btu.h/W
MTZ018-4(1)	1910	1.21	2.73	1.58	2070	1.31	2.86	5.39	2630	1.76	2.86	5.10
MTZ022-4(1)	2630	1.48	3.06	1.77	2830	1.62	3.24	5.96	3600	2.05	3.27	5.99
MTZ028-4(1)	3430	1.96	4.04	1.75	3690	2.14	4.30	5.88	4680	2.68	4.23	5.96
MTZ032-4(1)	3980	2.16	4.25	1.84	4260	2.37	4.56	6.13	5110	2.98	4.56	5.85
MTZ036-4(1)	4670	2.58	4.95	1.81	4990	2.83	5.33	6.02	5900	3.33	5.09	6.05
MTZ040-4(1)	5330	2.95	5.87	1.81	5680	3.24	6.29	5.98	6740	3.76	5.88	6.12
MTZ044-4(1)	5370	2.78	5.35	1.93	5780	3.02	5.67	6.53	7110	3.85	5.85	6.30
MTZ050-4(1)	6260	3.22	5.95	1.94	6700	3.50	6.33	6.53	8360	4.42	6.53	6.46
MTZ056-4(1)	6710	3.51	6.83	1.91	7250	3.85	7.25	6.43	9490	4.98	7.52	6.50
MTZ064-4(1)	7980	4.20	7.82	1.90	8590	4.60	8.35	6.37	10540	5.67	8.31	6.34
MTZ072-4(1)	8920	4.69	8.95	1.90	9570	5.11	9.50	6.39	11960	6.53	9.73	6.25
MTZ080-4(1)	10470	5.61	10.20	1.87	11180	6.14	10.94	6.21	13610	7.81	11.35	5.95
MTZ100-4(1)	12280	6.76	12.21	1.82	13170	7.35	12.94	6.12	15480	8.72	12.79	6.06
MTZ125-4(1)	15710	8.44	14.69	1.86	16800	9.22	15.82	6.22	19970	11.37	16.41	5.99
MTZ144-4(1)	18490	9.78	16.77	1.89	19690	10.66	17.99	6.30	23540	12.99	18.47	6.18
MTZ160-4(1)	20310	11.08	18.80	1.83	21660	12.09	20.22	6.11	25570	14.73	20.77	5.92

(1) 50 Hz, EN12900 data for indicated models are Asercom certified.

NOTE:
R404A data are also valid for refrigerant R507.

Nominal performance data for R22

R22	Refrigeration				Air Conditioning							
Compressor model	50 Hz, EN12900 ratings				50 Hz, ARI ratings				60 Hz, ARI ratings			
	To = -10 °C, Tc = 45 °C, SC = 0 K, SH = 10 K				To = 7.2 °C, Tc = 54.4 °C, SC = 8.3 K, SH = 11.1 K				To = 7.2 °C, Tc = 54.4 °C, SC = 8.3 K, SH = 11.1 K			
	Cooling capacity	Power input	Current input	C.O.P.	Cooling capacity	Power input	Current input	E.E.R.	Cooling capacity	Power input	Current input	E.E.R.
	W	kW	A	W/W	W	kW	A	Btu.h/W	W	kW	A	Btu.h/W
MT018-4	1690	1.00	2.27	1.69	3880	1.45	2.73	9.13	4660	1.74	2.73	9.14
MT022-4	2490	1.29	2.55	1.94	5360	1.89	3.31	9.68	6440	2.27	3.31	9.68
MT028-4	3730	1.81	3.59	2.06	7380	2.55	4.56	9.88	8850	3.06	4.56	9.87
MT032-4	3950	2.11	3.73	1.87	8060	2.98	4.97	9.23	9680	3.58	4.97	9.23
MT036-4	4810	2.35	4.30	2.04	9270	3.37	5.77	9.39	11130	4.05	5.77	9.38
MT040-4	5220	2.67	4.86	1.95	10480	3.86	6.47	9.27	12570	4.63	6.47	9.27
MT044-4	4860	2.46	5.02	1.98	10520	3.53	6.37	10.17	12890	4.32	6.42	10.18
MT050-4	5870	2.94	5.53	2.00	12230	4.19	7.20	9.96	14690	5.04	7.26	9.95
MT056-4	6450	3.18	6.39	2.03	13750	4.58	8.19	10.25	16520	5.58	8.23	10.10

R22	Refrigeration				Air Conditioning							
Compressor model	50 Hz, EN12900 ratings				50 Hz, ARI ratings				60 Hz, ARI ratings			
	To = -10 °C, Tc = 45 °C, SC = 0 K, SH = 10 K				To = 7.2 °C, Tc = 54.4 °C, SC = 8.3 K, SH = 11.1 K				To = 7.2 °C, Tc = 54.4 °C, SC = 8.3 K, SH = 11.1 K			
	Cooling capacity	Power input	Current input	C.O.P.	Cooling capacity	Power input	Current input	E.E.R.	Cooling capacity	Power input	Current input	E.E.R.
	W	kW	A	W/W	W	kW	A	Btu.h/W	W	kW	A	Btu.h/W
MT064-4	7750	3.64	7.03	2.13	15730	5.27	9.16	10.19	18850	6.32	9.33	10.18
MT072-4	8710	4.19	8.48	2.08	18200	6.12	10.98	10.15	21840	7.33	10.77	10.17
MT080-4	10360	4.89	9.52	2.12	20740	7.08	12.48	10.00	24890	8.50	12.34	9.99
MT100-4	11330	5.79	11.82	1.96	23400	7.98	14.59	10.01	28080	9.58	14.59	10.00
MT125-4	15260	7.55	12.28	2.02	30430	10.66	17.37	9.74	36520	12.80	17.37	9.74
MT144-4	17280	8.47	17.06	2.04	34340	11.96	22.75	9.80	41210	14.35	22.75	9.80
MT160-4	19190	9.49	16.81	2.02	38270	13.40	22.16	9.75	45930	16.08	22.16	9.75

Nominal performance data for R407C

R407C	Air Conditioning											
Compressor model	50 Hz, EN12900 ratings				50 Hz, ARI ratings				60 Hz, ARI ratings			
	To = 5 °C, Tc = 50 °C, SC = 0 K, SH = 10 K				To = 7.2 °C, Tc = 54. 4°C, SC = 8.3 K, SH = 11.1 K				To = 7.2 °C, Tc = 54.4 °C, SC = 8.3 K, SH = 11.1 K			
	Cooling capacity	Power input	Current input	C.O.P.	Cooling capacity	Power input	Current input	E.E.R.	Cooling capacity	Power input	Current input	E.E.R.
	W	kW	A	W/W	W	kW	A	Btu.h/W	W	kW	A	Btu.h/W
MTZ018-4[(2)]	3470	1.27	2.73	2.73	3850	1.38	2.86	9.52	5050	1.73	2.82	9.96
MTZ022-4[(2)]	4550	1.71	3.27	2.67	5020	1.86	3.47	9.21	6280	2.26	3.45	9.48
MTZ028-4[(2)]	5890	2.17	4.30	2.72	6540	2.36	4.57	9.46	8220	2.82	4.41	9.95
MTZ032-4[(2)]	6650	2.43	4.57	2.74	7330	2.66	4.90	9.40	9000	3.20	4.80	9.60
MTZ036-4[(2)]	7510	2.93	5.58	2.56	8280	3.21	5.99	8.80	9990	3.90	5.78	8.74
MTZ040-4[(2)]	8660	3.40	6.46	2.55	9580	3.71	6.92	8.81	11720	4.46	6.69	8.97
MTZ044-4[(2)]	9130	3.12	5.84	2.93	10100	3.38	6.18	10.20	12730	4.25	6.34	10.22
MTZ050-4[(2)]	10420	3.69	6.51	2.83	11530	4.01	6.95	9.81	14110	4.87	7.06	9.89
MTZ056-4[(2)]	11680	4.02	7.45	2.90	13000	4.37	7.91	10.15	16050	5.40	8.03	10.14
MTZ064-4[(2)]	13360	4.61	8.35	2.90	14850	5.02	8.91	10.10	18090	6.14	9.01	10.06
MTZ072-4[(2)]	15320	5.42	9.85	2.83	17050	5.87	10.48	9.91	20780	7.30	10.61	9.72
MTZ080-4[(2)]	17380	6.29	11.31	2.76	19330	6.83	12.08	9.66	22870	8.24	11.99	9.47
MTZ100-4[(2)]	20480	7.38	13.05	2.78	22700	8.00	13.83	9.68	28230	9.86	14.22	9.77
MTZ125-4[(2)]	26880	9.48	16.12	2.84	29780	10.33	17.33	9.84	35620	12.83	19.24	9.48
MTZ144-4[(2)]	29770	10.68	18.07	2.79	33060	11.59	19.35	9.74	40900	14.42	20.40	9.68
MTZ160-4[(2)]	34090	12.41	20.68	2.75	37820	13.46	22.14	9.59	45220	16.64	23.13	9.27

[(2)] 50 Hz, EN12900 data for indicated models are Asercom certified

Nominal performance data for R134a

R134a	Refrigeration				Air Conditioning							
Compressor model	50 Hz, EN12900 ratings				50 Hz, ARI ratings				60 Hz, ARI ratings			
	To = -10 °C, Tc = 45 °C, SC = 0 K , SH = 10 K				To = 7.2 °C, Tc = 54.4 °C, SC = 8.3 K, SH = 11.1 K				To = 7.2 °C, Tc = 54.4 °C, SC = 8.3 K, SH = 11.1 K			
	Cooling capacity	Power input	Current input	C.O.P.	Cooling capacity	Power input	Current input	E.E.R.	Cooling capacity	Power input	Current input	E.E.R.
	W	kW	A	W/W	W	kW	A	Btu.h/W	W	kW	A	Btu.h/W
MTZ018-4	1075	0.69	1.92	1.56	2532	0.99	2.19	8.74	3038	1.19	2.29	8.74
MTZ022-4	1408	0.82	2.16	1.73	3335	1.20	2.51	9.52	4001	1.44	2.62	9.52
MTZ028-4	1823	1.02	2.83	1.79	4217	1.53	3.30	9.39	5061	1.84	3.44	9.39
MTZ032-4	2076	1.25	3.33	1.66	4907	1.87	3.94	8.94	5889	2.25	4.11	8.94
MTZ036-4	2753	1.45	3.32	1.90	6013	2.13	4.09	9.62	7216	2.56	4.26	9.62
MTZ040-4	2914	1.61	3.81	1.81	6342	2.33	4.89	9.28	7610	2.80	5.10	9.28
MTZ044-4	2926	1.49	4.05	1.96	6836	2.22	4.73	10.51	8203	2.66	4.93	10.51
MTZ050-4	3364	1.80	4.32	1.87	7956	2.63	5.20	10.31	9547	3.16	5.42	10.31
MTZ056-4	3526	1.88	5.31	1.87	8621	2.85	6.17	10.34	10346	3.41	6.44	10.34

R134a	Refrigeration											
Compressor model	50 Hz, EN12900 ratings				50 Hz, ARI ratings				60 Hz, ARI ratings			
	To = -10 °C, Tc = 45 °C, SC = 0 K , SH = 10 K				To = 7.2 °C, Tc = 54.4 °C, SC = 8.3 K, SH = 11.1 K				To = 7.2 °C, Tc = 54.4 °C, SC = 8.3 K, SH = 11.1 K			
	Cooling capacity	Power input	Current input	C.O.P.	Cooling capacity	Power input	Current input	E.E.R.	Cooling capacity	Power input	Current input	E.E.R.
	W	kW	A	W/W	W	kW	A	Btu.h/W	W	kW	A	Btu.h/W
MTZ064-4	4192	2.17	5.71	1.94	10057	3.26	6.81	10.51	12069	3.92	7.10	10.51
MTZ072-4	4873	2.50	6.67	1.95	11543	3.78	7.99	10.41	13852	4.54	8.33	10.41
MTZ080-4	5857	2.93	7.22	2.00	13262	4.35	8.83	10.41	15915	5.23	9.21	10.41
MTZ100-4	6617	3.65	8.67	1.82	15452	5.28	10.24	10.00	18542	6.34	10.68	10.00
MTZ125-4	8306	4.17	8.89	1.99	18941	6.29	11.50	10.27	22729	7.55	11.99	10.27
MTZ144-4	10732	5.40	11.35	1.99	23536	7.83	14.19	10.27	28243	9.39	14.80	10.27
MTZ160-4	11900	5.84	11.71	2.04	25779	8.57	15.11	10.27	30935	10.29	15.76	10.27

Nominal performance data for R407A

R407A	Refrigeration											
Compressor model	50 Hz, EN12900 ratings				50 Hz, ARI ratings				60 Hz, ARI ratings			
	To = -10 °C, Tc = 45 °C, SC = 0 K, SH = 10 K				To = -6.7 °C, Tc = 48.9 °C, SC = 0 K, SH = 11.1 K				To = -6.7 °C, Tc = 48.9 °C, SC = 0 K, SH = 11.1 K			
	Cooling capacity	Power input	Current input	C.O.P.	Cooling capacity	Power input	Current input	E.E.R.	Cooling capacity	Power input	Current input	E.E.R.
	W	kW	A	W/W	W	kW	A	Btu.h/W	W	kW	A	Btu.h/W
MTZ018-4	1740	1.02	2.46	1.70	1940	1.12	2.58	5.91	2330	1.35	2.69	5.89
MTZ022-4	2390	1.26	2.75	1.90	2650	1.39	2.91	6.51	3180	1.67	3.04	6.50
MTZ028-4	3130	1.67	3.63	1.88	3470	1.85	3.87	6.40	4160	2.22	4.04	6.40
MTZ032-4	3640	1.84	3.82	1.98	4000	2.04	4.10	6.69	4800	2.53	4.28	6.48
MTZ036-4	4260	2.19	4.45	1.95	4670	2.43	4.80	6.56	5600	2.92	5.00	6.55
MTZ040-4	4890	2.51	5.28	1.94	5340	2.80	5.67	6.51	6410	3.36	5.91	6.51
MTZ044-4	4890	2.36	4.81	2.08	5410	2.60	5.11	7.10	6500	3.12	5.33	7.11
MTZ050-4	5700	2.73	5.35	2.09	6280	3.01	5.69	7.12	7530	3.61	5.94	7.12
MTZ056-4	6120	2.98	6.14	2.05	6790	3.30	6.53	7.02	8140	3.96	6.81	7.02
MTZ064-4	7270	3.57	7.04	2.04	8040	3.95	7.51	6.95	9650	4.75	7.83	6.93
MTZ072-4	8130	3.98	8.05	2.04	8960	4.40	8.55	6.95	10760	5.28	8.92	6.96
MTZ080-4	9540	4.76	9.17	2.00	10470	5.28	9.85	6.77	12570	6.33	10.27	6.78
MTZ100-4	11200	5.74	10.98	1.95	12320	6.32	11.65	6.65	14790	7.58	12.15	6.66
MTZ125-4	14330	7.17	13.21	2.00	15740	7.93	14.24	6.77	18890	9.51	14.86	6.78
MTZ144-4	16870	8.32	15.08	2.03	18460	9.18	16.19	6.86	22150	11.02	16.89	6.86
MTZ160-4	18520	9.42	16.91	1.97	20300	10.43	18.20	6.64	24360	12.51	18.99	6.65

Nominal performance data for R407F

R407F	Refrigeration											
Compressor model	50 Hz, EN12900 ratings				50 Hz, ARI ratings				60 Hz, ARI ratings			
	To = -10 °C, Tc = 45 °C, SC = 0 K, SH = 10 K				To = -6.7 °C, Tc = 48.9 °C, SC = 0 K, SH = 11.1 K				To = -6.7 °C, Tc = 48.9 °C, SC = 0 K, SH = 11.1 K			
	Cooling capacity	Power input	Current input	C.O.P.	Cooling capacity	Power input	Current input	E.E.R.	Cooling capacity	Power input	Current input	E.E.R.
	W	kW	A	W/W	W	kW	A	Btu.h/W	W	kW	A	Btu.h/W
MTZ018-4	1850	1.08	2.53	1.71	2080	1.19	2.66	5.97	2500	1.43	2.77	5.97
MTZ022-4	2540	1.33	2.83	1.91	2840	1.48	3.01	6.55	3410	1.77	3.14	6.58
MTZ028-4	3320	1.76	3.74	1.89	3710	1.96	4.00	6.46	4450	2.35	4.17	6.46
MTZ032-4	3860	1.94	3.93	1.99	4280	2.16	4.24	6.76	5130	2.59	4.42	6.76
MTZ036-4	4520	2.32	4.58	1.95	5010	2.58	4.95	6.63	6010	3.10	5.17	6.62
MTZ040-4	5170	2.65	5.43	1.95	5700	2.96	5.85	6.57	6840	3.55	6.10	6.58
MTZ044-4	5200	2.49	4.95	2.09	5810	2.76	5.28	7.18	6970	3.31	5.50	7.19
MTZ050-4	6060	2.90	5.50	2.09	6730	3.20	5.88	7.18	8080	3.85	6.13	7.16
MTZ056-4	6500	3.16	6.31	2.06	7270	3.51	6.74	7.07	8730	4.21	7.03	7.08
MTZ064-4	7730	3.78	7.23	2.05	8620	4.19	7.76	7.02	10340	5.03	8.09	7.02
MTZ072-4	8640	4.21	8.27	2.05	9610	4.66	8.84	7.04	11530	5.60	9.22	7.03
MTZ080-4	10140	5.04	9.43	2.01	11230	5.60	10.18	6.84	13470	6.72	10.61	6.84
MTZ100-4	11900	6.07	11.28	1.96	13220	6.71	12.04	6.72	15870	8.05	12.55	6.73

R407F	Refrigeration											
Compressor model	50 Hz, EN12900 ratings				50 Hz, ARI ratings				60 Hz, ARI ratings			
	To = -10 °C, Tc = 45 °C, SC = 0 K, SH = 10 K				To = -6.7 °C, Tc = 48.9 °C, SC = 0 K, SH = 11.1 K				To = -6.7 °C, Tc = 48.9 °C, SC = 0 K, SH = 11.1 K			
	Cooling capacity	Power input	Current input	C.O.P.	Cooling capacity	Power input	Current input	E.E.R.	Cooling capacity	Power input	Current input	E.E.R.
	W	kW	A	W/W	W	kW	A	Btu.h/W	W	kW	A	Btu.h/W
MTZ125-4	15220	7.58	13.58	2.01	16870	8.41	14.72	6.85	20240	10.09	15.35	6.85
MTZ144-4	17910	8.78	15.50	2.04	19770	9.72	16.73	6.94	23730	11.66	17.45	6.95
MTZ160-4	19670	9.95	17.38	1.98	21740	11.03	18.81	6.73	26090	13.24	19.62	6.73

Nominal performance data R448A/R449A

R448A/R449A	Refrigeration											
Compressor model	50 Hz, EN12900 ratings				50 Hz, ARI ratings				60 Hz, ARI ratings			
	To = -10 °C, Tc = 45 °C, SC = 0 K, SH = 10 K				To = -6.7 °C, Tc = 48.9 °C, SC = 0 K, SH = 11.1 K				To = -6.7 °C, Tc = 48.9 °C, SC = 0 K, SH = 11.1 K			
	Cooling capacity	Power input	Current input	C.O.P.	Cooling capacity	Power input	Current input	E.E.R.	Cooling capacity	Power input	Current input	E.E.R.
	W	kW	A	W/W	W	kW	A	Btu.h/W	W	kW	A	Btu.h/W
MTZ018-4	1840	1.04	2.55	1.77	2030	1.14	2.66	6.08	2430	1.36	2.78	6.10
MTZ022-4	2580	1.37	2.86	1.88	2820	1.52	3.03	6.33	3380	1.82	3.16	6.34
MTZ028-4	3180	1.69	3.85	1.89	3480	1.87	4.07	6.35	4170	2.24	4.25	6.35
MTZ032-4	3660	1.87	3.68	1.96	3970	2.08	3.97	6.51	4770	2.49	4.14	6.54
MTZ036-4	4250	2.24	4.65	1.90	4650	2.48	4.97	6.40	5580	2.98	5.18	6.39
MTZ040-4	4880	2.62	5.87	1.86	5340	2.90	6.27	6.28	6410	3.48	6.54	6.29
MTZ044-4	5010	2.49	4.94	2.01	5500	2.74	5.25	6.85	6600	3.28	5.48	6.87
MTZ050-4	5700	2.87	5.41	1.98	6310	3.18	5.74	6.77	7570	3.82	5.99	6.76
MTZ056-4	6340	3.16	6.53	2.00	7010	3.50	6.93	6.84	8410	4.20	7.23	6.83
MTZ064-4	7330	3.62	7.05	2.02	8040	4.01	7.56	6.84	9650	4.81	7.89	6.85
MTZ072-4	8440	4.20	8.80	2.01	9260	4.64	9.44	6.81	11110	5.57	9.85	6.81
MTZ080-4	10010	4.97	9.66	2.02	10930	5.48	10.34	6.81	13120	6.57	10.79	6.82
MTZ100-4	11310	5.79	10.99	1.95	12430	6.37	11.66	6.66	14910	7.65	12.17	6.65
MTZ125-4	15220	7.45	13.24	2.04	16720	8.19	14.06	6.97	20060	9.88	14.67	6.93
MTZ144-4	17560	8.63	15.45	2.03	19040	9.50	16.69	6.84	22850	11.40	17.40	6.84
MTZ160-4	20140	9.87	17.11	2.04	21830	10.87	18.48	6.85	26200	13.04	19.27	6.86

Nominal performance data R452A

R452A	Refrigeration											
Compressor model	50 Hz, EN12900 ratings				50 Hz, ARI ratings				60 Hz, ARI ratings			
	To = -10 °C, Tc = 45 °C, SC = 0 K, SH = 10 K				To = -6.7 °C, Tc = 48.9 °C, SC = 0 K, SH = 11.1 K				To = -6.7 °C, Tc = 48.9 °C, SC = 0 K, SH = 11.1 K			
	Cooling capacity	Power input	Current input	C.O.P.	Cooling capacity	Power input	Current input	E.E.R.	Cooling capacity	Power input	Current input	E.E.R.
	W	kW	A	W/W	W	kW	A	Btu.h/W	W	kW	A	Btu.h/W
MTZ018-4	2000	1.15	2.65	1.74	2150	1.25	2.77	5.87	2580	1.49	2.88	5.91
MTZ022-4	2810	1.51	2.98	1.86	3010	1.65	3.15	6.23	3610	1.98	3.29	6.22
MTZ028-4	3250	1.86	4.00	1.75	3480	2.03	4.23	5.85	4170	2.44	4.41	5.83
MTZ032-4	3790	2.06	3.83	1.84	4060	2.27	4.13	6.10	4870	2.73	4.31	6.09
MTZ036-4	4300	2.48	4.84	1.74	4610	2.72	5.17	5.78	5530	3.26	5.39	5.79
MTZ040-4	5090	2.89	6.11	1.76	5470	3.18	6.52	5.87	6560	3.81	6.80	5.88
MTZ044-4	5370	2.73	5.24	1.96	5780	2.98	5.55	6.62	6940	3.58	5.79	6.62
MTZ050-4	6110	3.16	5.74	1.93	6630	3.47	6.07	6.52	7960	4.16	6.33	6.53
MTZ056-4	6790	3.48	6.93	1.95	7370	3.82	7.33	6.58	8850	4.58	7.64	6.59
MTZ064-4	7840	3.98	7.48	1.97	8450	4.36	8.00	6.61	10140	5.24	8.34	6.60
MTZ072-4	9020	4.61	9.34	1.96	9730	5.06	9.98	6.56	11670	6.07	10.41	6.56
MTZ080-4	9680	5.26	10.04	1.84	10390	5.75	10.72	6.17	12470	6.90	11.18	6.17
MTZ100-4	12310	6.37	11.68	1.93	13270	6.97	12.42	6.50	15930	8.37	12.96	6.50
MTZ125-4	16070	8.19	14.09	1.96	17330	8.96	14.98	6.60	20790	10.75	15.62	6.60
MTZ144-4	17830	9.58	16.44	1.86	18950	10.46	17.77	6.18	22740	12.55	18.54	6.18
MTZ160-4	19880	10.80	18.20	1.84	21130	11.80	19.68	6.11	25360	14.16	20.52	6.11

Nominal performance data R454A

R454A	Refrigeration											
Compressormodel	50 Hz, EN12900 ratings				50 Hz, AHRI ratings [1]				60 Hz, AHRI ratings[1]			
	To = -10°C, Tc = 45°C , SC = 0K , SH = 10K				To = -6.7°C, Tc = 43.3°C , SC = 0K , SH = 11.1K				To = -6.7°C, Tc = 43.3°C , SC = 0K , SH = 11.1K			
	Cooling capacity	Power input	Current input	COP	Cooling capacity	Power input	Current input	E.E.R.	Cooling capacity	Power input	Current input	E.E.R.
	W	kW	A	W/W	W	kW	A	Btu.h/W	W	kW	A	Btu.h/W
MTZ018-4	1899	1.06	2.81	1.79	2428	1.12	2.85	7.37	3003	1.33	2.29	7.75
MTZ022-4	2540	1.41	2.92	1.80	3144	1.48	2.98	7.27	4010	1.90	3.08	7.23
MTZ028-4	3335	1.84	4.60	1.81	4103	1.92	4.71	7.27	5409	2.45	4.48	7.54
MTZ032-4	3986	2.03	4.12	1.96	4874	2.12	4.22	7.85	6303	2.67	4.27	8.09
MTZ036-4	4410	2.41	5.44	1.83	5398	2.54	5.61	7.27	7094	3.23	5.46	7.51
MTZ040-4	5340	2.85	6.49	1.88	6532	2.94	6.61	7.57	7944	3.58	6.40	7.57
MTZ044-4	4722	2.41	5.23	1.96	5904	2.52	5.31	7.98	7617	3.21	5.41	8.12
MTZ050-4	6093	3.03	6.10	2.01	7540	3.16	6.23	8.15	9743	4.00	6.34	8.29
MTZ056-4	6704	3.28	7.40	2.04	8272	3.42	7.53	8.26	10800	4.47	7.50	8.26
MTZ064-4	7412	3.71	7.80	2.00	9131	3.90	7.99	7.98	12200	5.10	8.11	8.15
MTZ072-4	8875	4.45	10.03	2.00	10920	4.67	10.23	7.98	13880	5.89	9.88	8.02
MTZ080-4	10370	5.05	10.72	2.05	12660	5.30	10.98	8.15	15590	6.62	10.67	8.05
MTZ100-4	12680	6.46	11.54	1.96	15520	6.73	11.88	7.88	18870	7.90	11.88	8.15
MTZ125-4	16360	8.15	14.00	2.01	19990	8.52	14.57	8.02	24510	10.22	15.04	8.19
MTZ160-4	21130	10.67	17.88	1.98	25560	11.18	18.61	7.81	30750	13.73	19.39	7.64

[1] Performance given according to AHRI Standard 540 2020

Nominal performance data R454C

R454C	Refrigeration											
Compressor model	50 Hz, EN12900 ratings				50 Hz, AHRI ratings[1]				60 Hz, AHRI ratings[1]			
	To = -10°C, Tc = 45°C , SC = 0K , SH = 10K				To = -6.7°C, Tc = 43.3°C , SC = 0K , SH = 11.1K				To = -6.7°C, Tc = 43.3°C , SC = 0K , SH = 11.1K			
	Cooling capacity	Power input	Current input	COP	Cooling capacity	Power input	Current input	E.E.R.	Cooling capacity	Power input	Current input	E.E.R.
	W	kW	A	W/W	W	kW	A	Btu.h/W	W	kW	A	Btu.h/W
MTZ018-4	1569	0.87	2.28	1.80	2026	0.93	2.33	7.47	2487	1.15	2.23	7.40
MTZ022-4	2108	1.16	2.39	1.82	2628	1.22	2.44	7.37	3350	1.56	2.53	7.34
MTZ028-4	2768	1.49	3.75	1.85	3422	1.57	3.86	7.44	4512	2.00	3.67	7.71
MTZ032-4	3317	1.67	3.37	1.99	4081	1.74	3.46	7.98	5289	2.19	3.50	8.26
MTZ036-4	3722	1.97	4.43	1.89	4603	2.09	4.59	7.54	5956	2.63	4.48	7.75
MTZ040-4	4479	2.33	5.30	1.92	5565	2.44	5.42	7.78	6678	2.95	5.24	7.75
MTZ044-4	3915	1.97	4.27	1.98	4934	2.07	4.35	8.12	6363	2.63	4.43	8.26
MTZ050-4	5061	2.48	4.98	2.04	6305	2.60	5.11	8.29	8157	3.29	5.20	8.46
MTZ056-4	5576	2.69	6.04	2.08	6924	2.82	6.17	8.39	9027	3.67	6.15	8.39
MTZ064-4	6169	3.04	6.36	2.03	7648	3.20	6.54	8.15	10210	4.18	6.65	8.33
MTZ072-4	7382	3.64	8.18	2.03	9142	3.84	8.38	8.12	11630	4.84	8.10	8.19
MTZ080-4	8625	4.14	8.76	2.08	10610	4.35	9.00	8.33	13070	5.44	8.75	8.19
MTZ100-4	10540	5.28	9.42	2.00	12990	5.52	9.74	8.02	15350	6.61	9.67	7.92
MTZ125-4	13600	6.66	11.45	2.04	16730	6.99	11.96	8.15	19650	8.53	12.35	7.85
MTZ160-4	17580	8.69	14.62	2.02	21410	9.15	15.27	7.98	25240	11.19	15.68	7.71

[1] Performance given according to AHRI Standard 540 2020

Nominal performance data R455A

R455A	Refrigeration											
Compressor model	50 Hz, EN12900 ratings				50 Hz, AHRI ratings[1]				60 Hz, AHRI ratings[1]			
	To = -10°C, Tc = 45°C , SC = 0K , SH = 10K				To = -6.7°C, Tc = 43.3°C , SC = 0K , SH = 11.1K				To = -6.7°C, Tc = 43.3°C , SC = 0K , SH = 11.1K			
	Cooling capacity	Power input	Current input	COP	Cooling capacity	Power input	Current input	E.E.R.	Cooling capacity	Power input	Current input	E.E.R.
	W	kW	A	W/W	W	kW	A	Btu.h/W	W	kW	A	Btu.h/W
MTZ018-4	1708	1.00	2.50	1.71	2185	1.06	2.53	7.03	2660	1.28	2.40	7.06
MTZ022-4	2424	1.27	2.53	1.91	3004	1.33	2.58	7.71	3867	1.66	2.64	7.95
MTZ028-4	3115	1.60	3.77	1.95	3838	1.67	3.86	7.85	4939	2.11	3.70	8.02
MTZ032-4	3534	1.76	3.52	2.01	4334	1.84	3.61	8.05	5598	2.33	3.68	8.19
MTZ036-4	4002	2.08	4.57	1.93	4908	2.18	4.70	7.68	6242	2.71	4.58	7.85
MTZ040-4	4668	2.43	5.54	1.92	5715	2.51	5.61	7.78	6903	2.82	4.76	8.33
MTZ044-4	4254	2.12	4.59	2.01	5348	2.23	4.67	8.19	7176	3.12	5.68	7.85
MTZ050-4	5498	2.66	5.35	2.06	6835	2.79	5.48	8.36	8844	3.53	5.58	8.53
MTZ056-4	6058	2.89	6.48	2.10	7507	3.02	6.62	8.46	9786	3.94	6.60	8.46
MTZ064-4	6704	3.26	6.83	2.05	8294	3.44	7.02	8.22	11090	4.49	7.14	8.43
MTZ072-4	8019	3.91	8.79	2.05	9910	4.12	8.99	8.22	12620	5.20	8.69	8.29
MTZ080-4	9369	4.44	9.41	2.11	11500	4.68	9.66	8.39	14170	5.84	9.40	8.29
MTZ100-4	11450	5.68	10.12	2.02	14090	5.93	10.46	8.12	16640	7.09	10.38	8.02
MTZ125-4	14730	7.09	12.30	2.08	18060	7.46	12.84	8.26	21310	9.16	13.26	7.95
MTZ160-4	19110	9.38	15.71	2.04	23210	9.86	16.39	8.02	27360	12.02	16.84	7.78

[1] Performance given according to AHRI Standard 540 2020

Nominal performance data R513A

R513A	Refrigeration				Air Conditioning							
Compressor model	50 Hz, EN12900 ratings				50 Hz, ARI ratings				60 Hz, ARI ratings			
	To = -10 °C, Tc = 45 °C , SC = 0 K , SH = 10 K				To = 7.2 °C, Tc = 54.4 °C , SC = 8.3 K , SH = 11.1 K				To = 7.2 °C, Tc = 54.4 °C , SC = 8.3 K , SH = 11.1 K			
	Cooling capacity	Power input	Current input	C.O.P.	Cooling capacity	Power input	Current input	E.E.R.	Cooling capacity	Power input	Current input	E.E.R.
	W	kW	A	W/W	W	kW	A	Btu.h/W	W	kW	A	Btu.h/W
MTZ018-4	1181	0.74	2.37	1.60	2757	1.03	2.63	9.15	3395	1.23	2.40	9.45
MTZ022-4	1546	0.88	2.13	1.76	3526	1.26	2.53	9.56	4425	1.58	2.57	9.56
MTZ028-4	1949	1.14	3.32	1.71	4426	1.64	3.77	9.22	5608	2.02	3.59	9.49
MTZ032-4	2318	1.27	2.90	1.83	5107	1.84	3.60	9.45	6543	2.30	3.60	9.73
MTZ036-4	2670	1.47	3.70	1.81	6010	2.12	4.59	9.66	7145	2.59	4.51	9.42
MTZ040-4	3169	1.78	4.74	1.78	6888	2.53	5.62	9.28	8288	2.99	5.28	9.45
MTZ044-4	3183	1.68	4.13	1.89	7380	2.40	4.84	10.51	8915	2.94	4.82	10.38
MTZ050-4	3621	1.90	4.30	1.91	8085	2.73	5.27	10.10	9735	3.42	5.62	9.73
MTZ056-4	3822	2.05	5.27	1.87	8894	2.97	6.28	10.20	11241	3.80	6.19	10.10
MTZ064-4	4419	2.34	5.70	1.89	10141	3.44	6.91	10.07	12580	4.34	6.91	9.90
MTZ072-4	5037	2.70	7.05	1.87	11436	3.95	8.35	9.90	14046	4.97	8.12	9.66
MTZ080-4	5700	3.09	7.27	1.85	12963	4.54	8.86	9.73	16031	5.76	9.02	9.52
MTZ100-4	7150	3.91	8.96	1.83	15950	5.53	10.65	9.86	19397	6.72	10.54	9.86
MTZ125-4	9614	4.81	9.73	2.00	21058	7.00	12.58	10.27	25367	8.69	13.03	9.97
MTZ144-4	10999	5.60	11.70	1.96	23855	8.10	14.64	10.07	28791	9.98	15.04	9.86
MTZ160-4	12490	6.38	12.63	1.96	26641	9.26	16.28	9.83	31756	11.57	16.80	9.39