

ENGINEERING
TOMORROW

Danfoss

Datasheets

Danfoss scroll compressors for refrigeration **MLZ / MLM**



Performance data at 50 Hz, EN 12900 rating conditions, Superheat = 10 K
R134a

Cond. temp. in °C (tc)	Evaporating temperature in °C (to)							
	-15	-10	-5	0	5	10	15	

Cooling capacity in W

22	2 020	2 554	3 186	3 924	4 778	-	-	-	-
30	1 853	2 353	2 948	3 646	4 456	5 387	-	-	-
40	1 651	2 102	2 642	3 282	4 031	4 897	5 890	-	-
50	-	1 848	2 327	2 902	3 581	4 374	5 289	-	-
60	-	-	2 001	2 503	3 105	3 816	4 646	-	-
70	-	-	-	2 083	2 600	3 223	3 960	-	-
73	-	-	-	1 953	2 443	3 038	3 746	-	-

Power input in W

22	618	625	631	639	648	-	-	-	-
30	735	742	748	754	762	773	-	-	-
40	906	916	924	930	938	948	962	-	-
50	-	1 126	1 137	1 147	1 157	1 167	1 181	-	-
60	-	-	1 396	1 411	1 425	1 439	1 455	-	-
70	-	-	-	1 729	1 749	1 769	1 789	-	-
73	-	-	-	1 836	1 858	1 880	1 902	-	-

Current consumption in A

22	1.19	1.20	1.21	1.23	1.25	-	-	-	-
30	1.41	1.43	1.44	1.45	1.47	1.49	-	-	-
40	1.74	1.76	1.78	1.79	1.80	1.82	1.85	-	-
50	-	2.17	2.19	2.21	2.23	2.25	2.27	-	-
60	-	-	2.69	2.72	2.74	2.77	2.80	-	-
70	-	-	-	3.33	3.37	3.40	3.44	-	-
73	-	-	-	3.53	3.58	3.62	3.66	-	-

Mass flow in kg/h

22	43	54	66	80	96	-	-	-	-
30	43	53	65	79	95	113	-	-	-
40	42	52	64	78	94	112	133	-	-
50	-	52	63	77	93	111	132	-	-
60	-	-	62	75	91	109	130	-	-
70	-	-	-	73	89	107	127	-	-
73	-	-	-	73	88	106	126	-	-

Coefficient of performance (C.O.P.)

22	3.27	4.09	5.05	6.15	7.37	-	-	-	-
30	2.52	3.17	3.94	4.83	5.85	6.97	-	-	-
40	1.82	2.29	2.86	3.53	4.30	5.17	6.13	-	-
50	-	1.64	2.05	2.53	3.10	3.75	4.48	-	-
60	-	-	1.43	1.77	2.18	2.65	3.19	-	-
70	-	-	-	1.20	1.49	1.82	2.21	-	-
73	-	-	-	1.06	1.31	1.62	1.97	-	-

Nominal performance at to = -10 °C, tc = 45 °C

Cooling capacity	1 975	W
Power input	1 016	W
Current consumption	1.96	A
Mass flow	52	kg/h
C.O.P.	1.94	

Pressure switch settings

Maximum HP switch setting	23.6	bar(g)
Minimum LP switch setting	0.45	bar(g)
LP pump down setting	0.85	bar(g)

Sound power data

Sound power level	67	dB(A)
With acoustic hood	59	dB(A)

to: Evaporating temperature at dew point

tc: Condensing temperature at dew point

Rating conditions : Superheat = 10 K , Subcooling = 0 K

All performance data +/- 5%

Performance data at 50 Hz, EN 12900 rating conditions, Suction temp. = 20 °C
R134a

Cond. temp. in °C (tc)	Evaporating temperature in °C (to)							
	-15	-10	-5	0	5	10	15	

Cooling capacity in W

22	2 052	2 584	3 211	3 941	4 786	-	-	-	-
30	-	2 397	2 986	3 674	4 471	5 387	-	-	-
40	-	-	2 697	3 325	4 055	4 897	5 862	-	-
50	-	-	2 398	2 958	3 614	4 374	5 247	-	-
60	-	-	-	2 572	3 146	3 816	-	-	-
70	-	-	-	-	2 650	3 223	-	-	-
73	-	-	-	-	2 496	3 038	-	-	-

Power input in W

22	618	625	631	639	648	-	-	-	-
30	-	742	748	754	762	773	-	-	-
40	-	-	924	930	938	948	962	-	-
50	-	-	1 137	1 147	1 157	1 167	1 181	-	-
60	-	-	-	1 411	1 425	1 439	-	-	-
70	-	-	-	-	1 749	1 769	-	-	-
73	-	-	-	-	1 858	1 880	-	-	-

Current consumption in A

22	1.19	1.20	1.21	1.23	1.25	-	-	-	-
30	-	1.43	1.44	1.45	1.47	1.49	-	-	-
40	-	-	1.78	1.79	1.80	1.82	1.85	-	-
50	-	-	2.19	2.21	2.23	2.25	2.27	-	-
60	-	-	-	2.72	2.74	2.77	-	-	-
70	-	-	-	-	3.37	3.40	-	-	-
73	-	-	-	-	3.58	3.62	-	-	-

Mass flow in kg/h

22	39	49	62	76	93	-	-	-	-
30	-	49	61	76	93	113	-	-	-
40	-	-	60	75	92	112	136	-	-
50	-	-	59	74	91	111	135	-	-
60	-	-	-	72	89	109	-	-	-
70	-	-	-	-	87	107	-	-	-
73	-	-	-	-	86	106	-	-	-

Coefficient of performance (C.O.P.)

22	3.32	4.13	5.09	6.17	7.38	-	-	-	-
30	-	3.23	3.99	4.87	5.86	6.97	-	-	-
40	-	-	2.92	3.57	4.32	5.17	6.10	-	-
50	-	-	2.11	2.58	3.12	3.75	4.44	-	-
60	-	-	-	1.82	2.21	2.65	-	-	-
70	-	-	-	-	1.52	1.82	-	-	-
73	-	-	-	-	1.34	1.62	-	-	-

Nominal performance at to = -10 °C, tc = 45 °C

Cooling capacity	-	W
Power input	-	W
Current consumption	-	A
Mass flow	-	kg/h
C.O.P.	-	

to: Evaporating temperature at dew point

tc: Condensing temperature at dew point

Rating conditions : Suction gas temp. = 20 °C , Subcooling = 0 K

Pressure switch settings

Maximum HP switch setting	23.6	bar(g)
Minimum LP switch setting	0.45	bar(g)
LP pump down setting	0.85	bar(g)

Sound power data

Sound power level	67	dB(A)
With acoustic hood	59	dB(A)

All performance data +/- 5%

Performance data at 50 Hz, EN 12900 rating conditions, Suction temp. = 20 °C
R404A

Cond. temp. in °C (tc)	Evaporating temperature in °C (to)								
	-30	-25	-20	-15	-10	-5	0	5	10

Cooling capacity in W

10	2 340	2 903	3 593	4 425	5 415	-	-	-	-
20	2 090	2 625	3 258	4 006	4 885	5 911	7 100	-	-
30	1 767	2 278	2 860	3 529	4 301	5 194	6 222	7 402	8 749
40	-	1 851	2 387	2 982	3 654	4 417	5 289	6 286	7 424
50	-	-	1 829	2 356	2 931	3 571	4 292	5 111	6 044
60	-	-	-	-	2 122	2 643	3 219	3 865	4 599

Power input in W

10	783	782	765	736	696	-	-	-	-
20	977	983	976	958	933	904	876	-	-
30	1 248	1 250	1 240	1 222	1 199	1 176	1 155	1 141	1 136
40	-	1 625	1 601	1 572	1 540	1 510	1 485	1 469	1 465
50	-	-	2 103	2 050	1 997	1 949	1 908	1 879	1 864
60	-	-	-	-	2 615	2 537	2 468	2 414	2 377

Current consumption in A

10	1.61	1.61	1.58	1.52	1.44	-	-	-	-
20	2.01	2.03	2.01	1.97	1.92	1.86	1.81	-	-
30	2.57	2.58	2.56	2.52	2.47	2.42	2.38	2.35	2.34
40	-	3.35	3.30	3.24	3.18	3.11	3.06	3.03	3.02
50	-	-	4.34	4.23	4.12	4.02	3.94	3.87	3.84
60	-	-	-	-	5.39	5.23	5.09	4.98	4.90

Mass flow in kg/h

10	45	58	74	91	113	-	-	-	-
20	44	57	72	90	110	135	163	-	-
30	42	55	70	87	107	131	159	191	229
40	-	51	66	83	102	126	153	184	221
50	-	-	58	75	95	117	144	175	211
60	-	-	-	-	83	105	131	161	197

Coefficient of performance (C.O.P.)

10	2.99	3.71	4.69	6.01	7.78	-	-	-	-
20	2.14	2.67	3.34	4.18	5.24	6.54	8.11	-	-
30	1.42	1.82	2.31	2.89	3.59	4.42	5.39	6.49	7.70
40	-	1.14	1.49	1.90	2.37	2.93	3.56	4.28	5.07
50	-	-	0.87	1.15	1.47	1.83	2.25	2.72	3.24
60	-	-	-	-	0.81	1.04	1.30	1.60	1.93

Nominal performance at to = -10 °C, tc = 45 °C

Cooling capacity	3 302	W
Power input	1 751	W
Current consumption	3.61	A
Mass flow	99	kg/h
C.O.P.	1.89	

Pressure switch settings

Maximum HP switch setting	29.7	bar(g)
Minimum LP switch setting	1.4	bar(g)
LP pump down setting	2	bar(g)

Sound power data

Sound power level	67	dB(A)
With acoustic hood	59	dB(A)

to: Evaporating temperature at dew point

tc: Condensing temperature at dew point

Rating conditions : Suction gas temp. = 20 °C , Subcooling = 0 K

All performance data +/- 5%

Performance data at 50 Hz, EN 12900 rating conditions, Superheat = 10 K
R404A

Cond. temp. in °C (tc)	Evaporating temperature in °C (to)								
	-30	-25	-20	-15	-10	-5	0	5	10

Cooling capacity in W

10	2 248	2 810	3 501	4 339	5 342	-	-	-	-
20	1 966	2 493	3 124	3 876	4 767	5 814	7 032	-	-
30	1 616	2 111	2 686	3 356	4 140	5 055	6 119	7 346	8 749
40	1 197	1 661	2 180	2 771	3 451	4 239	5 152	6 209	7 424
50	-	-	1 605	2 117	2 695	3 358	4 124	5 013	6 044
60	-	-	-	-	1 867	2 405	3 024	3 748	4 599

Power input in W

10	783	782	765	736	696	-	-	-	-
20	977	983	976	958	933	904	876	-	-
30	1 248	1 250	1 240	1 222	1 199	1 176	1 155	1 141	1 136
40	1 640	1 625	1 601	1 572	1 540	1 510	1 485	1 469	1 465
50	-	-	2 103	2 050	1 997	1 949	1 908	1 879	1 864
60	-	-	-	-	2 615	2 537	2 468	2 414	2 377

Current consumption in A

10	1.61	1.61	1.58	1.52	1.44	-	-	-	-
20	2.01	2.03	2.01	1.97	1.92	1.86	1.81	-	-
30	2.57	2.58	2.56	2.52	2.47	2.42	2.38	2.35	2.34
40	3.38	3.35	3.30	3.24	3.18	3.11	3.06	3.03	3.02
50	-	-	4.34	4.23	4.12	4.02	3.94	3.87	3.84
60	-	-	-	-	5.39	5.23	5.09	4.98	4.90

Mass flow in kg/h

10	53	68	84	103	124	-	-	-	-
20	52	67	83	101	122	145	172	-	-
30	50	64	80	98	119	142	168	197	229
40	44	59	76	93	113	136	161	190	221
50	-	-	67	85	105	127	152	180	211
60	-	-	-	-	92	114	139	166	197

Coefficient of performance (C.O.P.)

10	2.87	3.59	4.57	5.90	7.67	-	-	-	-
20	2.01	2.54	3.20	4.05	5.11	6.43	8.03	-	-
30	1.29	1.69	2.17	2.75	3.45	4.30	5.30	6.44	7.70
40	0.73	1.02	1.36	1.76	2.24	2.81	3.47	4.23	5.07
50	-	-	0.76	1.03	1.35	1.72	2.16	2.67	3.24
60	-	-	-	-	0.71	0.95	1.23	1.55	1.93

Nominal performance at to = -10 °C, tc = 45 °C

Cooling capacity	3 082	W
Power input	1 751	W
Current consumption	3.61	A
Mass flow	109	kg/h
C.O.P.	1.76	

Pressure switch settings

Maximum HP switch setting	29.7	bar(g)
Minimum LP switch setting	1.4	bar(g)
LP pump down setting	2	bar(g)

Sound power data

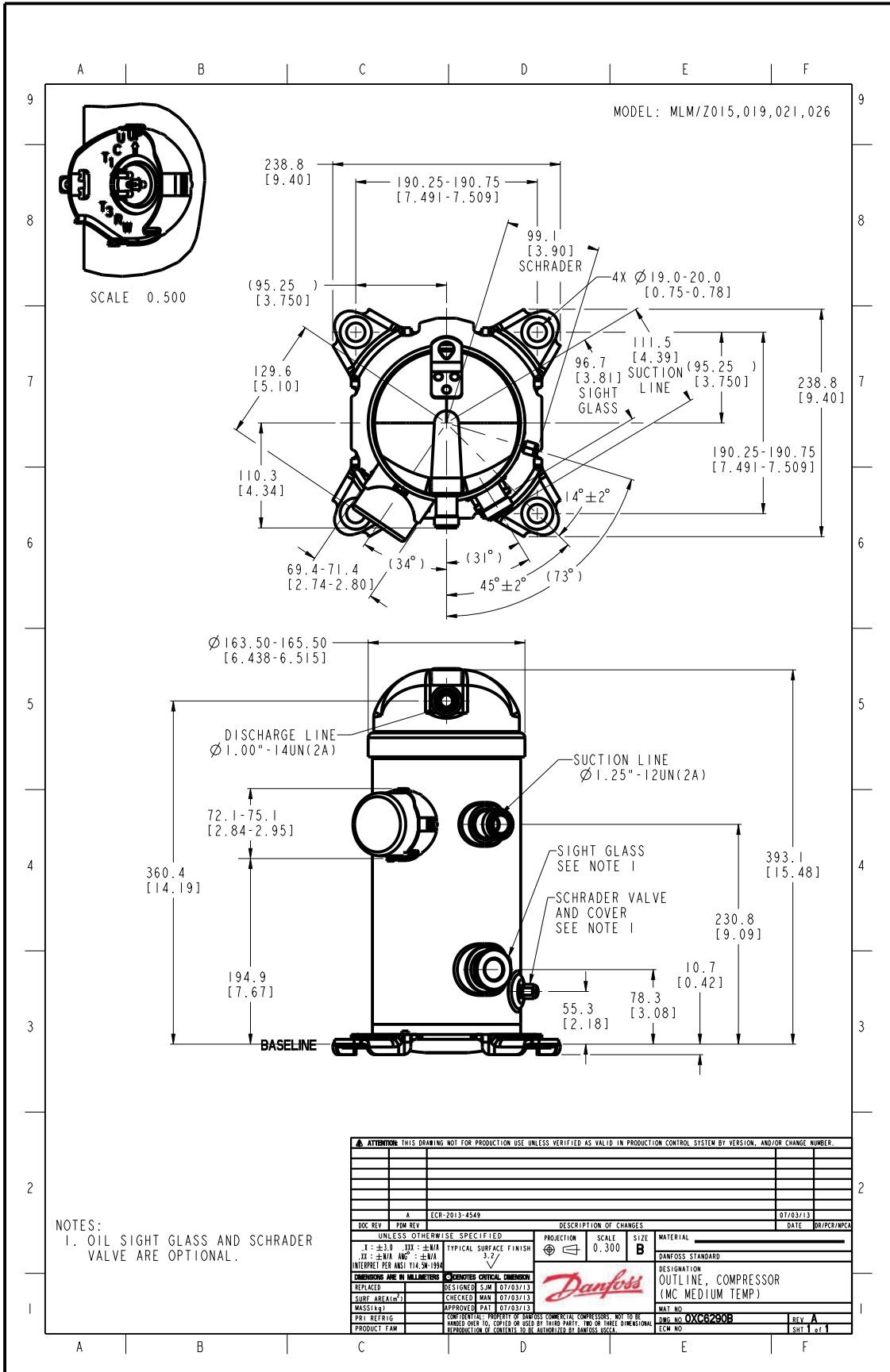
Sound power level	67	dB(A)
With acoustic hood	59	dB(A)

to: Evaporating temperature at dew point

tc: Condensing temperature at dew point

Rating conditions : Superheat = 10 K , Subcooling = 0 K

All performance data +/- 5%



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