

# DL19H Provisional Technical Data Sheet

Compressor model **DL19H**  
 Voltage **12-24 V**  
 Refrigerant **R134a**

## APPLICATION

## COMPRESSOR

## MOTOR

Application	LMHBP	Displacement	1,90 cm <sup>3</sup>	Nominal Power	1/22 hp
Refrigerant	R134a	Diameter	14,70 mm	Voltage	12-24 V
Evaporating Temp.	-35,0 °C to 10 °C	Stroke	12,40 mm	Voltage range	9,6-31,5 V
Expansion	Capillary	Net Weight	3,90 Kg	Type	BLDC
Comp. Cooling	Static / Fan	Oil type	ISO VG 15 ESTER	Speed Range	2.000-3500 r.p.m
Max. ambient temp.	43,0 °C	Oil charge	120 cm <sup>3</sup>		
Compatible refriger.	R1234yf				

## NOMINAL PERFORMANCE (2.000 rpm)

	ASHRAE	CECOMAF
Cooling Capacity	25 kCal/h	23 W
COP	1,08 W/W	0,90 W/W
EER	0,93 kCal/Wh	0,77 kCal/Wh
Input Power	27 W	26 W
Current	2,22 A	2,24 A

## TEST CYCLE CONDITIONS

	ASHRAE LBP (B)	CECOMAF LBP (A)
Evaporating temp. (T <sub>e</sub> )	-23,3 °C	-25,0 °C
Condensing temp. (T <sub>c</sub> )	55,0 °C	55,0 °C
Liquid temp. (T <sub>liq.</sub> )	32,0 °C	55,0 °C
Ambient temp. (T <sub>amb.</sub> )	32,0 °C	32,0 °C
Suction temp. (T <sub>suction</sub> )	32,0 °C	32,0 °C
Voltage/Frequency	12 V	12 V

## ELECTRICAL COMPONENTS

Electronic Controller	Option 1	
Reference	DC controller	
Voltage	12-24 V	

# DL19H Provisional Technical Data Sheet

ASHRAE 2000 rpm						
Tc °C	Te °C	Cooling Capacity kCal/h	Consumption W	Current A	COP W/W	EER kCal/Wh
40	-35	13	19	1.58	0.8	0.68
40	-30	19	22	1.78	1.02	0.88
40	-25	27	24	1.98	1.33	1.14
40	-23.3	31	25	2.05	1.44	1.24
40	-20	39	27	2.19	1.68	1.45
40	-15	52	29	2.39	2.08	1.79
40	-10	68	32	2.6	2.51	2.16
40	-5	87	34	2.81	2.97	2.55
40	0	108	37	3.01	3.44	2.96
40	5	132	39	3.22	3.94	3.38
40	7.2	143	40	3.31	4.16	3.58
40	10	158	41	3.43	4.44	3.82

ASHRAE 2000 rpm						
Tc °C	Te °C	Cooling Capacity kCal/h	Consumption W	Current A	COP W/W	EER kCal/Wh
55	-35	9	18	1.5	0.58	0.5
55	-30	14	22	1.8	0.75	0.65
55	-25	22	26	2.11	0.99	0.85
55	-23.3	25	27	2.22	1.08	0.93
55	-20	32	30	2.43	1.26	1.08
55	-15	45	33	2.74	1.56	1.34
55	-10	60	37	3.07	1.88	1.62
55	-5	78	41	3.39	2.22	1.9
55	0	98	45	3.72	2.56	2.2
55	5	121	48	4.05	2.91	2.5
55	7.2	132	50	4.2	3.07	2.64
55	10	147	52	4.39	3.27	2.81

ASHRAE 2000 rpm						
Tc °C	Te °C	Cooling Capacity kCal/h	Consumption W	Current A	COP W/W	EER kCal/Wh
45	-35	12	19	1.55	0.73	0.63
45	-30	17	22	1.79	0.93	0.8
45	-25	26	25	2.03	1.21	1.04
45	-23.3	29	26	2.11	1.31	1.13
45	-20	36	28	2.27	1.53	1.32
45	-15	50	31	2.51	1.89	1.63
45	-10	65	33	2.75	2.28	1.96
45	-5	84	36	3	2.68	2.31
45	0	105	39	3.25	3.11	2.67
45	5	128	42	3.5	3.54	3.05
45	7.2	139	43	3.61	3.74	3.22
45	10	154	45	3.75	3.99	3.43

ASHRAE 2000 rpm						
Tc °C	Te °C	Cooling Capacity kCal/h	Consumption W	Current A	COP W/W	EER kCal/Wh
60	-35	8	18	1.47	0.5	0.43
60	-30	13	22	1.81	0.66	0.57
60	-25	20	26	2.16	0.88	0.76
60	-23.3	23	28	2.28	0.97	0.83
60	-20	30	30	2.51	1.14	0.98
60	-15	42	35	2.86	1.42	1.22
60	-10	57	39	3.22	1.71	1.47
60	-5	75	43	3.59	2.02	1.74
60	0	95	47	3.96	2.33	2.01
60	5	118	52	4.34	2.66	2.28
60	7.2	128	53	4.5	2.8	2.41
60	10	143	56	4.72	2.98	2.56

ASHRAE 2000 rpm						
Tc °C	Te °C	Cooling Capacity kCal/h	Consumption W	Current A	COP W/W	EER kCal/Wh
50	-35	10	18	1.53	0.66	0.56
50	-30	16	22	1.8	0.84	0.72
50	-25	24	25	2.07	1.1	0.94
50	-23.3	27	26	2.16	1.19	1.03
50	-20	34	29	2.35	1.39	1.2
50	-15	47	32	2.63	1.72	1.48
50	-10	63	35	2.91	2.07	1.78
50	-5	81	39	3.19	2.44	2.09
50	0	101	42	3.48	2.82	2.42
50	5	125	45	3.77	3.21	2.76
50	7.2	136	47	3.9	3.38	2.91
50	10	150	49	4.06	3.61	3.1

ASHRAE 2000 rpm						
Tc °C	Te °C	Cooling Capacity kCal/h	Consumption W	Current A	COP W/W	EER kCal/Wh
65	-35	6	17	1.45	0.42	0.37
65	-30	11	22	1.82	0.58	0.49
65	-25	18	27	2.2	0.78	0.67
65	-23.3	21	28	2.33	0.86	0.74
65	-20	28	31	2.59	1.02	0.88
65	-15	40	36	2.98	1.28	1.1
65	-10	55	41	3.38	1.56	1.34
65	-5	72	45	3.79	1.84	1.58
65	0	92	50	4.2	2.13	1.83
65	5	114	55	4.62	2.43	2.09
65	7.2	125	57	4.81	2.56	2.2
65	10	139	59	5.05	2.73	2.35

## EN12900

2000 rpm				
X	Cooling Capacity (W)	Consumption (W)	Current (A)	Mass Flow (kg/h)
1	-115.0048739	15.27338455	1.094810104	-3.867810178
2	-1.380073008	-0.20422305	-0.017393314	-0.05570606
3	3.932526086	0.56041568	0.05008545	0.119133928
4	0.052361246	-0.000140847	0.000106543	0.001448121
5	0.106211829	0.017967802	0.00158488	0.003206405

# DL19H Provisional Technical Data Sheet



ASHARE						
2500 rpm						
Tc °C	Te °C	Cooling Capacity kCal/h	Consumption W	Current A	COP W/W	EER kCal/Wh
40	-35	17	24	1.98	0.82	0.71
40	-30	26	27	2.25	1.13	0.97
40	-25	39	31	2.52	1.47	1.26
40	-23.3	43	32	2.61	1.59	1.37
40	-20	53	34	2.79	1.84	1.58
40	-15	71	37	3.06	2.22	1.91
40	-10	91	40	3.33	2.62	2.25
40	-5	114	44	3.61	3.03	2.6
40	0	140	47	3.89	3.44	2.96
40	5	168	51	4.17	3.86	3.32
40	7.2	181	52	4.29	4.05	3.48
40	10	199	54	4.45	4.29	3.69

ASHRAE						
2500 rpm						
Tc °C	Te °C	Cooling Capacity kCal/h	Consumption W	Current A	COP W/W	EER kCal/Wh
55	-35	11	23	1.9	0.56	0.48
55	-30	19	28	2.28	0.8	0.69
55	-25	30	32	2.67	1.07	0.92
55	-23.3	34	34	2.8	1.16	1
55	-20	43	37	3.06	1.35	1.16
55	-15	59	42	3.45	1.65	1.42
55	-10	78	47	3.84	1.95	1.67
55	-5	99	51	4.23	2.25	1.94
55	0	124	56	4.63	2.56	2.2
55	5	150	61	5.03	2.87	2.47
55	7.2	163	63	5.21	3.01	2.59
55	10	180	66	5.44	3.18	2.74

ASHRAE						
2500 rpm						
Tc °C	Te °C	Cooling Capacity kCal/h	Consumption W	Current A	COP W/W	EER kCal/Wh
45	-35	15	24	1.95	0.74	0.63
45	-30	24	27	2.26	1.02	0.87
45	-25	36	31	2.57	1.33	1.14
45	-23.3	40	32	2.67	1.44	1.24
45	-20	50	35	2.88	1.66	1.43
45	-15	67	39	3.19	2.01	1.73
45	-10	87	43	3.5	2.37	2.04
45	-5	109	46	3.82	2.74	2.36
45	0	134	50	4.13	3.11	2.68
45	5	162	54	4.45	3.49	3
45	7.2	175	56	4.6	3.66	3.14
45	10	192	58	4.78	3.87	3.33

ASHRAE						
2500 rpm						
Tc °C	Te °C	Cooling Capacity kCal/h	Consumption W	Current A	COP W/W	EER kCal/Wh
60	-35	9	23	1.87	0.46	0.4
60	-30	17	28	2.29	0.69	0.59
60	-25	27	33	2.72	0.94	0.81
60	-23.3	31	35	2.86	1.03	0.89
60	-20	40	38	3.15	1.21	1.04
60	-15	55	43	3.58	1.48	1.27
60	-10	74	49	4.01	1.76	1.51
60	-5	95	54	4.44	2.04	1.76
60	0	118	59	4.88	2.33	2
60	5	145	64	5.32	2.61	2.25
60	7.2	157	67	5.52	2.74	2.36
60	10	174	70	5.77	2.9	2.49

ASHRAE						
2500 rpm						
Tc °C	Te °C	Cooling Capacity kCal/h	Consumption W	Current A	COP W/W	EER kCal/Wh
50	-35	13	23	1.93	0.65	0.56
50	-30	22	28	2.27	0.91	0.78
50	-25	33	32	2.62	1.2	1.03
50	-23.3	37	33	2.74	1.3	1.12
50	-20	47	36	2.97	1.5	1.29
50	-15	63	40	3.32	1.82	1.57
50	-10	82	45	3.67	2.15	1.85
50	-5	104	49	4.03	2.48	2.14
50	0	129	53	4.38	2.82	2.43
50	5	156	57	4.74	3.16	2.72
50	7.2	169	59	4.9	3.31	2.85
50	10	186	62	5.11	3.51	3.01

ASHRAE						
2500 rpm						
Tc °C	Te °C	Cooling Capacity kCal/h	Consumption W	Current A	COP W/W	EER kCal/Wh
65	-35	7	22	1.85	0.36	0.31
65	-30	14	28	2.31	0.59	0.5
65	-25	24	34	2.77	0.82	0.71
65	-23.3	28	36	2.93	0.91	0.78
65	-20	36	39	3.24	1.07	0.92
65	-15	51	45	3.71	1.33	1.14
65	-10	69	51	4.18	1.59	1.37
65	-5	90	56	4.65	1.85	1.59
65	0	113	62	5.13	2.12	1.82
65	5	139	68	5.61	2.38	2.05
65	7.2	151	70	5.83	2.5	2.15
65	10	167	74	6.1	2.65	2.27

## EN12900

2500 rpm				
X	Cooling Capacity (W)	Consumption (W)	Current (A)	Mass Flow (kg/h)
1	-133.1813878	23.98571749	1.938639214	-4.568539578
2	-1.831327266	-0.077965786	-0.006444082	-0.072401144
3	4.737598266	0.617625241	0.051789684	0.144415864
4	0.055388283	0.000545665	7.60494E-05	0.001550824
5	0.128832177	0.019602361	0.001639186	0.003906403

# DL19H Provisional Technical Data Sheet



ASHARE						
3500 rpm						
Tc °C	Te °C	Cooling Capacity kCal/h	Consumption W	Current A	COP W/W	EER kCal/Wh
40	-35	24	35	2.94	0.8	0.69
40	-30	37	40	3.32	1.1	0.95
40	-25	55	44	3.72	1.43	1.23
40	-23.3	61	46	3.86	1.55	1.33
40	-20	75	49	4.13	1.78	1.53
40	-15	100	54	4.55	2.14	1.84
40	-10	128	60	4.99	2.5	2.15
40	-5	160	65	5.45	2.86	2.46
40	0	195	71	5.91	3.22	2.77
40	5	235	76	6.39	3.57	3.07
40	7.2	253	79	6.61	3.72	3.2
40	10	277	82	6.88	3.92	3.37

ASHRAE						
3500 rpm						
Tc °C	Te °C	Cooling Capacity kCal/h	Consumption W	Current A	COP W/W	EER kCal/Wh
55	-35	14	30	2.52	0.54	0.47
55	-30	26	37	3.12	0.83	0.71
55	-25	43	44	3.74	1.12	0.96
55	-23.3	49	47	3.95	1.21	1.04
55	-20	63	52	4.37	1.4	1.2
55	-15	86	60	5.01	1.68	1.44
55	-10	113	68	5.66	1.95	1.68
55	-5	144	76	6.33	2.22	1.91
55	0	179	84	7	2.48	2.13
55	5	217	92	7.69	2.74	2.35
55	7.2	235	96	8	2.85	2.45
55	10	259	101	8.39	2.99	2.57

ASHRAE						
3500 rpm						
Tc °C	Te °C	Cooling Capacity kCal/h	Consumption W	Current A	COP W/W	EER kCal/Wh
45	-35	21	33	2.8	0.72	0.62
45	-30	34	39	3.26	1.01	0.87
45	-25	51	44	3.73	1.33	1.14
45	-23.3	57	46	3.89	1.44	1.24
45	-20	71	50	4.21	1.65	1.42
45	-15	95	56	4.71	1.98	1.7
45	-10	123	62	5.22	2.3	1.98
45	-5	155	68	5.74	2.63	2.26
45	0	190	75	6.28	2.94	2.53
45	5	229	82	6.83	3.26	2.8
45	7.2	247	85	7.07	3.39	2.92
45	10	271	89	7.39	3.56	3.06

ASHRAE						
3500 rpm						
Tc °C	Te °C	Cooling Capacity kCal/h	Consumption W	Current A	COP W/W	EER kCal/Wh
60	-35	11	28	2.38	0.44	0.38
60	-30	23	36	3.06	0.73	0.63
60	-25	39	45	3.74	1.01	0.87
60	-23.3	45	47	3.98	1.1	0.95
60	-20	58	53	4.44	1.28	1.1
60	-15	81	61	5.16	1.54	1.33
60	-10	108	70	5.88	1.79	1.54
60	-5	139	79	6.62	2.04	1.76
60	0	173	88	7.37	2.28	1.96
60	5	211	98	8.12	2.52	2.17
60	7.2	229	102	8.46	2.62	2.25
60	10	253	107	8.89	2.75	2.36

ASHRAE						
3500 rpm						
Tc °C	Te °C	Cooling Capacity kCal/h	Consumption W	Current A	COP W/W	EER kCal/Wh
50	-35	17	32	2.66	0.64	0.55
50	-30	30	38	3.19	0.92	0.79
50	-25	47	44	3.73	1.22	1.05
50	-23.3	53	47	3.92	1.32	1.14
50	-20	67	51	4.29	1.52	1.31
50	-15	91	58	4.86	1.82	1.57
50	-10	118	65	5.44	2.12	1.82
50	-5	149	72	6.03	2.41	2.07
50	0	184	79	6.64	2.7	2.32
50	5	223	87	7.26	2.98	2.56
50	7.2	241	90	7.54	3.1	2.67
50	10	265	95	7.89	3.26	2.8

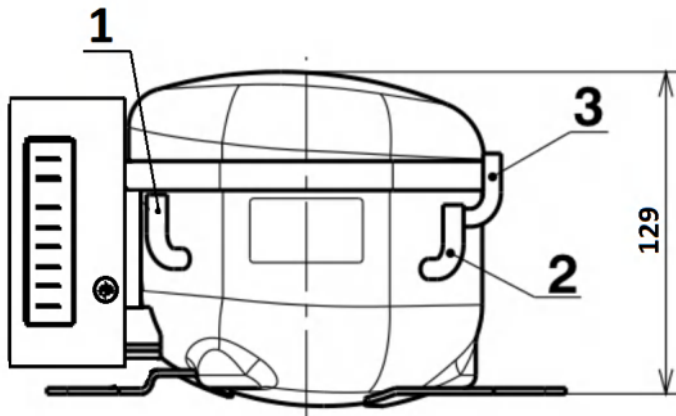
ASHRAE						
3500 rpm						
Tc °C	Te °C	Cooling Capacity kCal/h	Consumption W	Current A	COP W/W	EER kCal/Wh
65	-35	7	27	2.24	0.32	0.27
65	-30	19	36	2.99	0.63	0.54
65	-25	35	45	3.75	0.91	0.78
65	-23.3	41	48	4.01	1	0.86
65	-20	54	54	4.52	1.17	1
65	-15	77	63	5.31	1.41	1.21
65	-10	103	73	6.1	1.65	1.42
65	-5	134	83	6.91	1.88	1.62
65	0	168	93	7.73	2.1	1.81
65	5	205	103	8.55	2.32	2
65	7.2	223	107	8.92	2.42	2.08
65	10	247	113	9.39	2.53	2.18

## EN12900

3500 rpm				
X	Cooling Capacity (W)	Consumption (W)	Current (A)	Mass Flow (kg/h)
1	-201.425584	36.30366559	3.123027338	-6.795874959
2	-3.16425698	-0.234254627	-0.019872706	-0.116938388
3	7.013059099	0.914162869	0.074637957	0.212307671
4	0.076028958	0.004186968	0.000291728	0.002138534
5	0.194158441	0.035898567	0.002957378	0.005832031

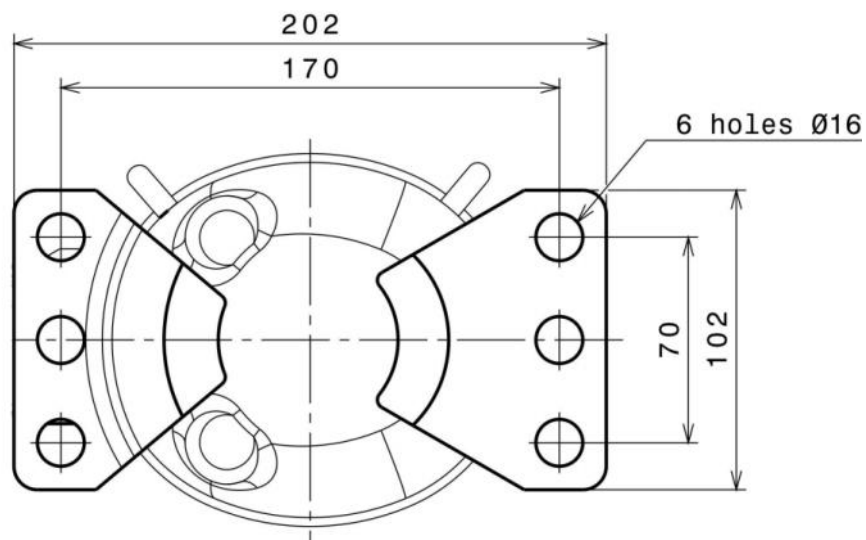
# DL19H Provisional Technical Data Sheet

## COMPRESSOR DIMENSIONS



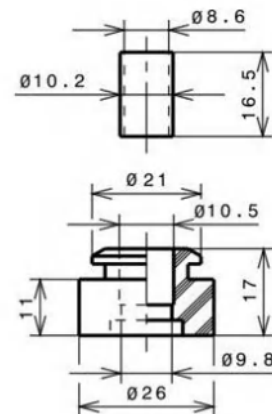
	DESIGNATION	INTERNAL DIAM.
1	Suction	6,2 mm
2	Service	6,2 mm
3	Discharge	4,9 mm

## FIXINGS AND SILENT BLOCKS (MOUNTING ACCESSORIES)



## STANDARD

Ø16 holes (170x70 net)



## SOA

SOA R134a LMHBP

