



KULTHORN KIRBY PUBLIC CO.,LTD.

COMPRESSOR PERFORMANCE TABLE

29/07/2013

AW 5526Z-9 91K

COMPRESSOR DATA

Voltage Range 342-462V, 50Hz
Motor Type 3PH
Application High Back Pressure
Refrigerant R404A

TEST CONDITIONS

Condition ASHARE
Voltage 380-420V, 50Hz
Return Gas 35 °C
Liquid Temperature 46 °C
Ambient Temperature 35 °C

			Condensing Temperature °C				
			40	45	50	55	60
Evaporating Temperature °C	-21	Capacity (Watts)	2,119	1,884	1,688	1,498	1,279
		Power Input (Watts)	551	614	669	726	791
		Current (Amps)	1.36	1.44	1.52	1.60	1.69
		Mass Flow (kg/hr)	35	29	25	20	15
	-18	Capacity (Watts)	2,616	2,365	2,156	1,953	1,722
		Power Input (Watts)	689	757	818	879	950
		Current (Amps)	1.53	1.62	1.70	1.79	1.89
		Mass Flow (kg/hr)	47	40	36	31	25
	-15	Capacity (Watts)	3,132	2,865	2,640	2,424	2,181
		Power Input (Watts)	826	899	965	1,032	1,109
		Current (Amps)	1.70	1.79	1.89	1.98	2.09
		Mass Flow (kg/hr)	59	52	47	42	36
	-12	Capacity (Watts)	3,666	3,382	3,142	2,911	2,655
		Power Input (Watts)	962	1,041	1,112	1,184	1,266
		Current (Amps)	1.87	1.97	2.07	2.18	2.29
		Mass Flow (kg/hr)	72	65	59	54	47
	-9	Capacity (Watts)	4,220	3,918	3,661	3,415	3,145
		Power Input (Watts)	1,097	1,181	1,257	1,335	1,423
		Current (Amps)	2.04	2.15	2.26	2.37	2.49
		Mass Flow (kg/hr)	87	78	72	66	59
	-6	Capacity (Watts)	4,794	4,472	4,198	3,936	3,652
		Power Input (Watts)	1,231	1,320	1,402	1,486	1,579
		Current (Amps)	2.22	2.33	2.45	2.57	2.70
		Mass Flow (kg/hr)	102	93	86	80	72
	-3	Capacity (Watts)	5,387	5,046	4,754	4,475	4,175
		Power Input (Watts)	1,364	1,459	1,547	1,636	1,735
		Current (Amps)	2.40	2.52	2.65	2.78	2.92
		Mass Flow (kg/hr)	118	109	102	95	86
0	Capacity (Watts)	6,002	5,640	5,328	5,031	4,715	
	Power Input (Watts)	1,496	1,597	1,691	1,786	1,891	
	Current (Amps)	2.58	2.71	2.85	2.99	3.14	
	Mass Flow (kg/hr)	136	126	118	111	101	
3	Capacity (Watts)	6,637	6,254	5,921	5,606	5,273	
	Power Input (Watts)	1,629	1,735	1,834	1,935	2,047	
	Current (Amps)	2.77	2.91	3.05	3.20	3.36	
	Mass Flow (kg/hr)	156	146	137	128	118	
6	Capacity (Watts)	7,293	6,888	6,534	6,199	5,848	
	Power Input (Watts)	1,761	1,873	1,978	2,085	2,203	
	Current (Amps)	2.96	3.11	3.26	3.42	3.59	
	Mass Flow (kg/hr)	178	167	157	148	137	
9	Capacity (Watts)	7,971	7,542	7,168	6,812	6,442	
	Power Input (Watts)	1,892	2,010	2,122	2,235	2,359	
	Current (Amps)	3.15	3.31	3.47	3.64	3.82	
	Mass Flow (kg/hr)	202	190	179	169	158	

F-QSO-214-0002/25/01/12/B



KULTHORN KIRBY PUBLIC CO.,LTD.

COMPRESSOR RATINGS COEFFICIENTS

29/07/2013

AW 5526Z-9 91K

COMPRESSOR DATA

Voltage Range 342-462V, 50Hz
Motor Type 3PH
Application High Back Pressure
Refrigerant R404A

TEST CONDITIONS

Condition ASHARE
Voltage 380-420V, 50Hz
Return Gas 35 °C
Liquid Temperature 46 °C
Ambient Temperature 35 °C

PERFORMANCE EQUATION

$$Y = C_1 + C_2 T_e + C_3 T_c + C_4 T_e^2 + C_5 T_e T_c + C_6 T_c^2 + C_7 T_e^3 + C_8 T_e^2 T_c + C_9 T_e T_c^2 + C_{10} T_c^3$$

T_e = Evaporating Temperature °C

T_c = Condensing Temperature °C

COEFFICIENTS

		Capacity	Input	Current	Mass Flow
C_1	=	1.481134E+04	-6.025608E+02	1.231249E+00	4.981885E+02
C_2	=	2.812378E+02	3.070877E+01	4.644860E-02	8.094529E+00
C_3	=	-4.343410E+02	1.020512E+02	4.764210E-02	-1.954186E+01
C_4	=	1.538900E+00	-6.592540E-02	1.587000E-04	1.202327E-01
C_5	=	-2.202487E+00	3.003274E-01	2.409000E-04	-4.355210E-02
C_6	=	7.188409E+00	-1.701848E+00	-5.170000E-04	3.562108E-01
C_7	=	2.410800E-03	8.686000E-04	2.600000E-06	1.232000E-03
C_8	=	-9.478600E-03	1.033000E-03	1.900000E-06	-5.679000E-04
C_9	=	9.402500E-03	8.877000E-04	3.500000E-06	-2.530000E-05
C_{10}	=	-4.589920E-02	1.156180E-02	4.200000E-06	-2.345800E-03





KULTHORN KIRBY PUBLIC CO.,LTD.

COMPRESSOR PERFORMANCE TABLE

29/07/2013

AW 5526Z-9 91K

COMPRESSOR DATA

Voltage Range 414-506V, 60Hz
Motor Type 3PH
Application High Back Pressure
Refrigerant R404A

TEST CONDITIONS

Condition ASHARE
Voltage 460V, 60Hz
Return Gas 35 °C
Liquid Temperature 46 °C
Ambient Temperature 35 °C

			Condensing Temperature °C				
			40	45	50	55	60
Evaporating Temperature °C	-21	Capacity (Watts)	2,349	2,061	1,812	1,573	1,316
		Power Input (Watts)	716	783	852	920	986
		Current (Amps)	1.21	1.29	1.37	1.44	1.52
		Mass Flow (kg/hr)	43	35	29	23	16
	-18	Capacity (Watts)	2,964	2,663	2,402	2,151	1,882
		Power Input (Watts)	866	937	1,010	1,083	1,154
		Current (Amps)	1.39	1.48	1.56	1.64	1.73
		Mass Flow (kg/hr)	58	50	43	37	29
	-15	Capacity (Watts)	3,581	3,264	2,987	2,721	2,437
		Power Input (Watts)	1,015	1,090	1,167	1,246	1,323
		Current (Amps)	1.58	1.67	1.76	1.84	1.94
		Mass Flow (kg/hr)	74	65	58	51	43
	-12	Capacity (Watts)	4,209	3,873	3,578	3,293	2,991
		Power Input (Watts)	1,163	1,243	1,325	1,409	1,492
		Current (Amps)	1.77	1.86	1.95	2.05	2.15
		Mass Flow (kg/hr)	90	81	73	66	58
	-9	Capacity (Watts)	4,859	4,501	4,183	3,877	3,553
		Power Input (Watts)	1,311	1,396	1,484	1,574	1,663
		Current (Amps)	1.95	2.06	2.15	2.25	2.37
		Mass Flow (kg/hr)	107	97	90	82	73
	-6	Capacity (Watts)	5,539	5,156	4,814	4,483	4,135
		Power Input (Watts)	1,461	1,551	1,645	1,741	1,837
		Current (Amps)	2.14	2.25	2.36	2.46	2.58
		Mass Flow (kg/hr)	126	115	107	99	89
	-3	Capacity (Watts)	6,262	5,850	5,480	5,121	4,745
		Power Input (Watts)	1,612	1,707	1,807	1,910	2,013
		Current (Amps)	2.34	2.45	2.56	2.67	2.80
		Mass Flow (kg/hr)	146	135	126	117	107
0	Capacity (Watts)	7,035	6,592	6,191	5,801	5,395	
	Power Input (Watts)	1,765	1,866	1,973	2,083	2,193	
	Current (Amps)	2.53	2.65	2.76	2.88	3.02	
	Mass Flow (kg/hr)	168	156	146	137	126	
3	Capacity (Watts)	7,870	7,393	6,957	6,533	6,093	
	Power Input (Watts)	1,921	2,029	2,142	2,259	2,377	
	Current (Amps)	2.72	2.85	2.97	3.10	3.24	
	Mass Flow (kg/hr)	192	179	169	158	146	
6	Capacity (Watts)	8,777	8,262	7,788	7,327	6,850	
	Power Input (Watts)	2,080	2,195	2,316	2,440	2,566	
	Current (Amps)	2.92	3.05	3.18	3.31	3.46	
	Mass Flow (kg/hr)	218	204	193	182	169	
9	Capacity (Watts)	9,765	9,208	8,694	8,193	7,675	
	Power Input (Watts)	2,243	2,366	2,494	2,626	2,761	
	Current (Amps)	3.11	3.25	3.38	3.52	3.68	
	Mass Flow (kg/hr)	247	232	219	207	193	

F-QSO-214-0002/25/01/12/B



KULTHORN KIRBY PUBLIC CO.,LTD.

COMPRESSOR RATINGS COEFFICIENTS

29/07/2013

AW 5526Z-9 91K

COMPRESSOR DATA

Voltage Range 414-506V, 60Hz
Motor Type 3PH
Application High Back Pressure
Refrigerant R404A

TEST CONDITIONS

Condition ASHARE
Voltage 460V, 60Hz
Return Gas 35 °C
Liquid Temperature 46 °C
Ambient Temperature 35 °C

PERFORMANCE EQUATION

$$Y = C_1 + C_2 T_e + C_3 T_c + C_4 T_e^2 + C_5 T_e T_c + C_6 T_c^2 + C_7 T_e^3 + C_8 T_e^2 T_c + C_9 T_e T_c^2 + C_{10} T_c^3$$

T_e = Evaporating Temperature °C

T_c = Condensing Temperature °C

COEFFICIENTS

		Capacity	Input	Current	Mass Flow
C_1	=	1.553180E+04	1.350258E+03	3.493189E-01	5.570010E+02
C_2	=	3.589122E+02	3.999205E+01	5.675680E-02	9.757904E+00
C_3	=	-3.919006E+02	-3.107496E+00	1.030574E-01	-2.064471E+01
C_4	=	4.805197E+00	-3.999000E-03	7.000000E-06	1.423337E-01
C_5	=	-2.353842E+00	1.707389E-01	2.090000E-05	-5.393000E-02
C_6	=	6.030177E+00	4.383599E-01	-1.690300E-03	3.704660E-01
C_7	=	6.170680E-02	3.979800E-03	-1.600000E-06	1.380400E-03
C_8	=	-3.485160E-02	4.021900E-03	9.000000E-07	-8.137000E-04
C_9	=	1.757100E-03	2.900500E-03	4.200000E-06	1.840000E-05
C_{10}	=	-3.857350E-02	-2.541600E-03	1.190000E-05	-2.437200E-03



RoHS

