

AVA2490ZXN

General

Model	AVA2490ZXN	Unit of Measure	Fahrenheit
Condition	ARI	Voltage/Frequency	230V ~ 60HZ
RETURN GAS	4.4°C (40°F) RETURN GAS	Motor Type	CSR

Performance Information

EVAP TEMP (°F)	Condensing Temperature (°F)						
		90	100	110	120	130	140
-40	Btu/h	4610					
	Watts	1320					
	Amps	6.94					
	Lb/h	82.6					
-35	Btu/h	5940	5200				
	Watts	1540	1450				
	Amps	7.76	7.52				
	Lb/h	108	103				
-30	Btu/h	7410	6530	5380			
	Watts	1760	1690	1600			
	Amps	8.57	8.33	8.06			
	Lb/h	135	129	116			
-25	Btu/h	9050	8000	6680	5300		
	Watts	1990	1930	1850	1770		
	Amps	9.38	9.16	8.90	8.61		
	Lb/h	165	158	144	126		
-20	Btu/h	10900	9640	8130	6550	5090	
	Watts	2230	2170	2100	2030	1960	
	Amps	10.2	9.98	9.76	9.50	9.20	
	Lb/h	199	190	175	156	139	
-15	Btu/h	12900	11500	9740	7940	6260	4890
	Watts	2470	2420	2360	2300	2240	2190
	Amps	10.9	10.8	10.6	10.4	10.2	9.87
	Lb/h	236	226	210	190	172	159
-10	Btu/h	15200	13500	11500	9500	7580	5960
	Watts	2700	2670	2620	2580	2530	2480
	Amps	11.7	11.6	11.5	11.4	11.2	11.0
	Lb/h	278	267	249	229	209	195
-5	Btu/h	17700	15800	13500	11200	9060	7170
	Watts	2920	2910	2880	2840	2810	2780
	Amps	12.4	12.4	12.4	12.4	12.3	12.1
	Lb/h	325	313	294	272	252	237
0	Btu/h	20500	18300	15800	13200	10700	8550
	Watts	3140	3140	3130	3110	3090	3080
	Amps	13.0	13.2	13.3	13.4	13.4	13.3

	Lb/h	378	364	344	321	300	284
5	Btu/h	23600	21100	18300	15400	12600	10100
	Watts	3340	3350	3360	3360	3360	3370
	Amps	13.6	14.0	14.3	14.4	14.6	14.6
	Lb/h	437	423	401	377	354	337
10	Btu/h	27100	24200	21100	17800	14700	11900
	Watts	3520	3550	3580	3600	3620	3650
	Amps	14.2	14.7	15.1	15.5	15.8	15.9
	Lb/h	504	488	465	439	415	397

COEFFICIENTS	CAPACITY	POWER	CURRENT	MASS FLOW
C1	-3.545272E+03	2.007880E+03	8.433211E+00	-4.861019E+02
C2	1.107171E+03	7.693861E+00	-1.727105E-01	1.443422E+01
C3	9.994329E+02	3.059878E+01	7.775496E-02	2.557937E+01
C4	1.026247E+01	-6.220907E-01	-4.556283E-03	1.456307E-01
C5	-5.561623E+00	3.922772E-01	3.937896E-03	-4.189822E-02
C6	-1.102979E+01	-2.660471E-01	-2.822037E-04	-2.390058E-01
C7	3.023590E-02	-5.074239E-03	-7.007492E-06	8.827740E-04
C8	-4.682632E-02	3.558977E-03	4.100318E-05	-1.505243E-04
C9	-1.840082E-03	-1.967841E-04	-6.552914E-06	7.233450E-05
C10	3.219962E-02	7.292282E-04	-1.670946E-07	6.826197E-04

Value = C1 + C2 * Te + C4 * Te^2 + C7 * Te^3 + (C3 + C5 * Te + C8 * Te^2) * Tc + (C6 + C9 * Te) * Tc^2 + C10 * Tc^3

Te = Evaporator Temperature

Tc = Condensing Temperature



Performance Data Sheet

AVA2490ZXN

General

Model	AVA2490ZXN	Unit of Measure	Fahrenheit
Condition	ARI (R-407A)	Voltage/Frequency	230V ~ 60HZ
RETURN GAS	4.4°C (40°F) RETURN GAS	Motor Type	CSR

Performance Information

EVAP TEMP (°F)	Condensing Temperature (°F)						
		90	100	110	120	130	140
-40	Btu/h	3860	3340				
	Watts	1110	1040				
	Amps	5.97	5.77				
	Lb/h	47.8	45.2				
-35	Btu/h	4970	4350	3510			
	Watts	1290	1220	1150			
	Amps	6.67	6.46	6.23			
	Lb/h	62.4	59.3	52.0			
-30	Btu/h	6200	5460	4500	3480		
	Watts	1480	1420	1350	1270		
	Amps	7.37	7.16	6.93	6.67		
	Lb/h	78.2	74.6	66.8	57.2		
-25	Btu/h	7570	6690	5590	4430	3370	
	Watts	1680	1620	1560	1490	1420	
	Amps	8.06	7.87	7.65	7.40	7.12	
	Lb/h	95.6	91.4	83.0	72.9	63.3	
-20	Btu/h	9100	8060	6800	5480	4260	
	Watts	1880	1830	1770	1710	1650	
	Amps	8.73	8.58	8.39	8.17	7.91	
	Lb/h	115	110	101	90.4	80.3	
-15	Btu/h	10800	9590	8150	6650	5240	
	Watts	2080	2040	1990	1940	1890	
	Amps	9.39	9.29	9.15	8.97	8.75	
	Lb/h	136	131	121	110	99.4	
-10	Btu/h	12700	11300	9650	7950	6340	4990
	Watts	2270	2240	2210	2170	2130	2090
	Amps	10.0	9.99	9.92	9.80	9.63	9.42
	Lb/h	160	154	144	132	121	113
-5	Btu/h	14800	13200	11300	9410	7580	6000
	Watts	2460	2440	2420	2390	2370	2340
	Amps	10.6	10.7	10.7	10.7	10.6	10.4
	Lb/h	188	181	170	157	146	137
0	Btu/h	17200	15300	13200	11000	8970	7150
	Watts	2640	2640	2630	2620	2600	2590
	Amps	11.2	11.4	11.5	11.5	11.5	11.5

	Lb/h	218	211	199	186	173	164
5	Btu/h	19800	17700	15300	12900	10500	8460
	Watts	2810	2820	2830	2830	2830	2830
	Amps	11.7	12.0	12.3	12.4	12.5	12.6
	Lb/h	253	244	232	218	205	195
10	Btu/h	22700	20300	17600	14900	12300	9930
	Watts	2960	2990	3010	3030	3050	3070
	Amps	12.2	12.7	13.0	13.3	13.5	13.7
	Lb/h	292	282	269	254	240	229

COEFFICIENTS	CAPACITY	POWER	CURRENT	MASS FLOW
C1	-2.966307E+03	1.689286E+03	7.249602E+00	-2.810688E+02
C2	9.263630E+02	6.473062E+00	-1.484704E-01	8.346005E+00
C3	8.362192E+02	2.574362E+01	6.684198E-02	1.479024E+01
C4	8.586544E+00	-5.233824E-01	-3.916805E-03	8.420507E-02
C5	-4.653375E+00	3.300339E-01	3.385209E-03	-2.422595E-02
C6	-9.228556E+00	-2.238329E-01	-2.425962E-04	-1.381954E-01
C7	2.529819E-02	-4.269100E-03	-6.023984E-06	5.104284E-04
C8	-3.917929E-02	2.994268E-03	3.524835E-05	-8.703460E-05
C9	-1.539585E-03	-1.655600E-04	-5.633207E-06	4.182450E-05
C10	2.694122E-02	6.135202E-04	-1.436427E-07	3.946973E-04

Value = C1 + C2 * Te + C4 * Te^2 + C7 * Te^3 + (C3 + C5 * Te + C8 * Te^2) * Tc + (C6 + C9 * Te) * Tc^2 + C10 * Tc^3

Te = Evaporator Temperature

Tc = Condensing Temperature



Performance Data Sheet

AVA2490ZXN

General

Model	AVA2490ZXN	Unit of Measure	Fahrenheit
Condition	ARI (R-448A)	Voltage/Frequency	230V ~ 60HZ
RETURN GAS	4.4°C (40°F) RETURN GAS	Motor Type	CSR

Performance Information

EVAP TEMP (°F)	Condensing Temperature (°F)						
		90	100	110	120	130	140
-40	Btu/h	4070	3530				
	Watts	1150	1080				
	Amps	6.15	5.95				
	Lb/h	49.8	47.1				
-35	Btu/h	5250	4600	3710			
	Watts	1340	1270	1190			
	Amps	6.88	6.66	6.43			
	Lb/h	65.1	61.9	54.3			
-30	Btu/h	6550	5770	4760	3680		
	Watts	1530	1470	1390	1320		
	Amps	7.60	7.38	7.14	6.88		
	Lb/h	81.6	77.9	69.7	59.6		
-25	Btu/h	8000	7070	5910	4680	3560	
	Watts	1740	1680	1610	1540	1470	
	Amps	8.31	8.11	7.89	7.63	7.34	
	Lb/h	99.7	95.4	86.7	76.1	66.1	
-20	Btu/h	9620	8520	7190	5790	4500	
	Watts	1940	1890	1830	1770	1710	
	Amps	9.00	8.84	8.65	8.42	8.15	
	Lb/h	120	115	105	94.3	83.8	
-15	Btu/h	11400	10100	8610	7020	5540	
	Watts	2150	2110	2060	2010	1950	
	Amps	9.68	9.57	9.43	9.24	9.02	
	Lb/h	142	137	127	115	104	
-10	Btu/h	13400	11900	10200	8400	6700	5270
	Watts	2350	2320	2290	2240	2200	2160
	Amps	10.3	10.3	10.2	10.1	9.93	9.70
	Lb/h	168	161	150	138	126	118
-5	Btu/h	15700	13900	12000	9940	8010	6340
	Watts	2550	2530	2510	2480	2450	2420
	Amps	11.0	11.0	11.0	11.0	10.9	10.7
	Lb/h	196	189	177	164	152	143
0	Btu/h	18200	16200	14000	11700	9480	7560
	Watts	2730	2730	2720	2710	2690	2680
	Amps	11.5	11.7	11.8	11.9	11.9	11.8

	Lb/h	228	220	208	194	181	171
5	Btu/h	20900	18700	16200	13600	11100	8930
	Watts	2910	2920	2930	2930	2930	2930
	Amps	12.1	12.4	12.6	12.8	12.9	12.9
	Lb/h	264	255	242	227	214	203
10	Btu/h	23900	21400	18600	15800	13000	10500
	Watts	3060	3100	3120	3140	3160	3180
	Amps	12.6	13.0	13.4	13.7	14.0	14.1
	Lb/h	304	295	281	265	251	239

COEFFICIENTS	CAPACITY	POWER	CURRENT	MASS FLOW
C1	-3.134412E+03	1.749468E+03	7.471529E+00	-2.933593E+02
C2	9.788615E+02	6.703669E+00	-1.530154E-01	8.710957E+00
C3	8.836091E+02	2.666075E+01	6.888817E-02	1.543698E+01
C4	9.073158E+00	-5.420282E-01	-4.036707E-03	8.788717E-02
C5	-4.917089E+00	3.417915E-01	3.488838E-03	-2.528530E-02
C6	-9.751553E+00	-2.318071E-01	-2.500226E-04	-1.442384E-01
C7	2.673188E-02	-4.421189E-03	-6.208392E-06	5.327483E-04
C8	-4.139964E-02	3.100940E-03	3.632738E-05	-9.084043E-05
C9	-1.626836E-03	-1.714582E-04	-5.805652E-06	4.365340E-05
C10	2.846802E-02	6.353772E-04	-1.480400E-07	4.119565E-04

Value = C1 + C2 * Te + C4 * Te^2 + C7 * Te^3 + (C3 + C5 * Te + C8 * Te^2) * Tc + (C6 + C9 * Te) * Tc^2 + C10 * Tc^3

Te = Evaporator Temperature

Tc = Condensing Temperature



Performance Data Sheet

AVA2490ZXN

General

Model	AVA2490ZXN	Unit of Measure	Fahrenheit
Condition	ARI (R-449A)	Voltage/Frequency	230V ~ 60HZ
RETURN GAS	4.4°C (40°F) RETURN GAS	MotorType	CSR

Performance Information

EVAP TEMP (°F)	Condensing Temperature (°F)						
		90	100	110	120	130	140
-40	Btu/h	4070	3530				
	Watts	1150	1080				
	Amps	6.15	5.95				
	Lb/h	49.8	47.1				
-35	Btu/h	5250	4600	3710			
	Watts	1340	1270	1190			
	Amps	6.88	6.66	6.43			
	Lb/h	65.1	61.9	54.3			
-30	Btu/h	6550	5770	4760	3680		
	Watts	1530	1470	1390	1320		
	Amps	7.60	7.38	7.14	6.88		
	Lb/h	81.6	77.9	69.7	59.6		
-25	Btu/h	8000	7070	5910	4680	3560	
	Watts	1740	1680	1610	1540	1470	
	Amps	8.31	8.11	7.89	7.63	7.34	
	Lb/h	99.7	95.4	86.7	76.1	66.1	
-20	Btu/h	9620	8520	7190	5790	4500	
	Watts	1940	1890	1830	1770	1710	
	Amps	9.00	8.84	8.65	8.42	8.15	
	Lb/h	120	115	105	94.3	83.8	
-15	Btu/h	11400	10100	8610	7020	5540	
	Watts	2150	2110	2060	2010	1950	
	Amps	9.68	9.57	9.43	9.24	9.02	
	Lb/h	142	137	127	115	104	
-10	Btu/h	13400	11900	10200	8400	6700	5270
	Watts	2350	2320	2290	2240	2200	2160
	Amps	10.3	10.3	10.2	10.1	9.93	9.70
	Lb/h	168	161	150	138	126	118
-5	Btu/h	15700	13900	12000	9940	8010	6340
	Watts	2550	2530	2510	2480	2450	2420
	Amps	11.0	11.0	11.0	11.0	10.9	10.7
	Lb/h	196	189	177	164	152	143
0	Btu/h	18200	16200	14000	11700	9480	7560
	Watts	2730	2730	2720	2710	2690	2680
	Amps	11.5	11.7	11.8	11.9	11.9	11.8

	Lb/h	228	220	208	194	181	171
5	Btu/h	20900	18700	16200	13600	11100	8930
	Watts	2910	2920	2930	2930	2930	2930
	Amps	12.1	12.4	12.6	12.8	12.9	12.9
	Lb/h	264	255	242	227	214	203
10	Btu/h	23900	21400	18600	15800	13000	10500
	Watts	3060	3100	3120	3140	3160	3180
	Amps	12.6	13.0	13.4	13.7	14.0	14.1
	Lb/h	304	295	281	265	251	239

COEFFICIENTS	CAPACITY	POWER	CURRENT	MASS FLOW
C1	-3.134412E+03	1.749468E+03	7.471529E+00	-2.933593E+02
C2	9.788615E+02	6.703669E+00	-1.530154E-01	8.710957E+00
C3	8.836091E+02	2.666075E+01	6.888817E-02	1.543698E+01
C4	9.073158E+00	-5.420282E-01	-4.036707E-03	8.788717E-02
C5	-4.917089E+00	3.417915E-01	3.488838E-03	-2.528530E-02
C6	-9.751553E+00	-2.318071E-01	-2.500226E-04	-1.442384E-01
C7	2.673188E-02	-4.421189E-03	-6.208392E-06	5.327483E-04
C8	-4.139964E-02	3.100940E-03	3.632738E-05	-9.084043E-05
C9	-1.626836E-03	-1.714582E-04	-5.805652E-06	4.365340E-05
C10	2.846802E-02	6.353772E-04	-1.480400E-07	4.119565E-04

Value = C1 + C2 * Te + C4 * Te^2 + C7 * Te^3 + (C3 + C5 * Te + C8 * Te^2) * Tc + (C6 + C9 * Te) * Tc^2 + C10 * Tc^3

Te = Evaporator Temperature

Tc = Condensing Temperature



Performance Data Sheet

AVA2490ZXN

General

Model	AVA2490ZXN	Unit of Measure	Fahrenheit
Condition	ARI (R-452A)	Voltage/Frequency	230V ~ 60HZ
RETURN GAS	4.4°C (40°F) RETURN GAS	Motor Type	CSR

Performance Information

EVAP TEMP (°F)	Condensing Temperature (°F)						
		90	100	110	120	130	140
-40	Btu/h	4370	3780				
	Watts	1250	1170				
	Amps	6.64	6.42				
	Lb/h	72.3	68.4				
-35	Btu/h	5630	4930	3980			
	Watts	1450	1370	1280			
	Amps	7.42	7.19	6.93			
	Lb/h	94.5	89.9	78.8			
-30	Btu/h	7030	6190	5100	3950		
	Watts	1660	1590	1510	1420		
	Amps	8.20	7.97	7.71	7.42		
	Lb/h	118	113	101	86.6		
-25	Btu/h	8590	7590	6340	5020	3820	
	Watts	1880	1810	1740	1660	1590	
	Amps	8.96	8.75	8.51	8.23	7.92	
	Lb/h	145	138	126	110	95.9	
-20	Btu/h	10300	9140	7710	6210	4830	
	Watts	2100	2050	1980	1910	1850	
	Amps	9.72	9.54	9.34	9.09	8.80	
	Lb/h	174	167	153	137	122	
-15	Btu/h	12300	10900	9240	7530	5940	
	Watts	2320	2280	2230	2170	2110	
	Amps	10.4	10.3	10.2	9.98	9.73	
	Lb/h	206	198	184	167	151	
-10	Btu/h	14400	12800	10900	9010	7190	5660
	Watts	2540	2510	2470	2430	2380	2340
	Amps	11.1	11.1	11.0	10.9	10.7	10.5
	Lb/h	243	234	218	200	183	171
-5	Btu/h	16800	15000	12900	10700	8590	6810
	Watts	2750	2740	2710	2680	2650	2620
	Amps	11.8	11.9	11.9	11.9	11.7	11.6
	Lb/h	284	274	257	238	220	207
0	Btu/h	19500	17400	15000	12500	10200	8110
	Watts	2960	2950	2940	2930	2910	2900
	Amps	12.5	12.6	12.8	12.8	12.8	12.7

	Lb/h	331	319	301	281	263	248
5	Btu/h	22400	20000	17300	14600	11900	9590
	Watts	3140	3160	3170	3170	3170	3170
	Amps	13.0	13.4	13.6	13.8	13.9	14.0
	Lb/h	383	370	351	330	310	295
10	Btu/h	25700	23000	20000	16900	13900	11300
	Watts	3310	3350	3370	3390	3410	3440
	Amps	13.6	14.1	14.5	14.8	15.1	15.2
	Lb/h	442	427	407	385	364	348

COEFFICIENTS	CAPACITY	POWER	CURRENT	MASS FLOW
C1	-3.363444E+03	1.891072E+03	8.063333E+00	-4.257319E+02
C2	1.050387E+03	7.246273E+00	-1.651355E-01	1.264160E+01
C3	9.481746E+02	2.881870E+01	7.434465E-02	2.240261E+01
C4	9.736135E+00	-5.859007E-01	-4.356446E-03	1.275445E-01
C5	-5.276382E+00	3.694566E-01	3.765181E-03	-3.669479E-02
C6	-1.046410E+01	-2.505699E-01	-2.698263E-04	-2.093232E-01
C7	2.868518E-02	-4.779046E-03	-6.700146E-06	7.731404E-04
C8	-4.442472E-02	3.351934E-03	3.920479E-05	-1.318304E-04
C9	-1.745709E-03	-1.853362E-04	-6.265505E-06	6.335112E-05
C10	3.054819E-02	6.868055E-04	-1.597659E-07	5.978437E-04

Value = C1 + C2 * Te + C4 * Te^2 + C7 * Te^3 + (C3 + C5 * Te + C8 * Te^2) * Tc + (C6 + C9 * Te) * Tc^2 + C10 * Tc^3

Te = Evaporator Temperature

Tc = Condensing Temperature

Model: AVA2490ZXN

Product Description

Type:	Reciprocating Compressors
Application:	LBP - Low Back Pressure
Refrigerant:	R-404A
Voltage/Frequency:	208-230V ~ 60Hz 200-220V ~ 50Hz
Version:	N/A



Product Specifications

Performance

Condition	Test Voltage	Refrigeration Capacity			Input Power (I) W	(E) Efficiency			EVAP TEMP	Condition	AMBIENT TEMP	RETURN GAS	LIQUID TEMP
		(R) Btu/h	(R) kcal/h	(R) W		(E) Btu/Wh	(E) kcal/Wh	W/W					
ARI (R-407A)	230V ~ 60HZ	7949	2004	2330	2166	3.67	.93	1.08	-23°C (-10°F)	49°C (120°F)	35°C (95°F)	4.4°C (40°F)	49°C (120°F)
ARI (R-452A)	230V ~ 60HZ	9013	2273	2641	2425	3.72	.94	1.09	-23°C (-10°F)	49°C (120°F)	35°C (95°F)	4.4°C (40°F)	49°C (120°F)
ARI (R-448A)	230V ~ 60HZ	8399	2118	2462	2244	3.74	.94	1.1	-23°C (-10°F)	49°C (120°F)	35°C (95°F)	4.4°C (40°F)	49°C (120°F)
ARI (R-449A)	230V ~ 60HZ	8399	2118	2462	2244	3.74	.94	1.1	-23°C (-10°F)	49°C (120°F)	35°C (95°F)	4.4°C (40°F)	49°C (120°F)
ARI (R-404A)	230V ~ 60HZ	9500	2394	2784	2575	3.69	.93	1.08	-23°C (-10°F)	49°C (120°F)	35°C (95°F)	4.4°C (40°F)	49°C (120°F)

General

Evaporating Temp. Range:	-40°C to -12.2°C (-40°F to 10°F)
Motor Torque:	High Start Torque (HST)
Compressor Cooling:	Fan

Mechanical

Weight:	95
Weight Unit of Measure:	LB
Displacement (cc):	73.271
Oil Type:	Polyolester
Viscosity (cSt):	32
Oil Charge (cc):	1624

Electrical

Voltage Range (50 Hz):	180-242
Voltage Range (60 Hz):	187-254
Locked Rotor Amps (LRA):	106.6

Rated Load Amps (RLA 50 Hz):	0
Rated Load Amps (RLA 60 Hz):	11.4
Max. Continuous Current (MCC in Amps):	25.3
Motor Resistance (Ohm) - Main:	.536
Motor Resistance (Ohm) - Start:	1.77
MotorType:	CSR
Overload Type:	
Relay Type:	

Agency Approval

CE Listed, VDE Listed, cURus Recognized