# METRIC MEASUREMENT SYSTEM

### Product Specifications for H79B28UABH

Maacuramant System, Matric	Povision 2	Technical	Specific	ations	
Measurement System: Metric	Revision: 2	Voltage	Phase	Frequency	Evaporator Temperature Range
Refrigerant: R407C	Series Family: B	220/240	1	50	-30°C to 10°C

Performance	1	2	3	4	5	6	7
	ARI	ARI	ASRET	B-POINT	CHEER	HEATPUMP	ARI*
	(220v)	(240v)	(220v)	(220v)	(220v)	(220v)	(220v)
Capacity (Watts)	6 400	6 300	6 500	7 800	8 500	5 100	6 700
Motor Input (Watt)	2 100	2 090	2 060	1 850	1 710	1 660	2 220
Current (Amp)	10.6	9.5	9.7	9.4	8.7	8.6	10.5
COP	3.0	3.0	3.1	4.2	5.0	3.1	3.0
Efficiency (%)	64.5	64.0	67.0	63.6	61.6	60.7	68.0
Evaporating Temp.°C	7.2	7.2	7.2	7.2	7.2	-1.1	7.2
Condensing Temp.°C	54.4	54.4	54.4	43.3	37.8	43.3	54.4
Ambient Temp.°C	35	35	35	35	35	35	35
Liquid Temp.°C	41.7	41.7	41.7	30	24.4	30	43.9
Return Gas Temp.°C	18.3	18.3	35	18.3	18.3	10	20.6

Nominal Performance Data @ 50 Hz (±5) based upon 72hr run-in

\* "Average" method (others use the "Dew Point" method).

The "Dew Point" method values were updated July 2010 to conform to AHRI 540.

### Mechanical Data

Bore X Stroke	4.394 X 1.651 cm Speed	2950 rpm			
Displacement	8.9 m <sup>3</sup> /hr IPRV Setting	31 - 38 ΔP(bar)			
Displacement	50.1 cc/rev Refrigerant Charge Limit	3 kg			
Electrical Data					
RLA: 10.5	LRA: 69	MCC: 17.2			
Voltage Range: 198 - 264	Protection Type: Internal Line Break				
U.L. File: SA5470	CE Approval: Yes	CCC Approval: No			
	Motor Res. in Ohms ( $\Omega$ ) ± 5%				
Т1-Т3	Т1-Т2	T2-T3			
(C-R)	(C-S)	(S-R)			
0.960	2.430	3.390			

### **Electrical Accessories**

Start Relay: 3ARR3*3L* ()				
Start Cap: 145-175/250 μF/volts				
Run Cap: 40/370 μF/volts		(Parenthesis Denot	e Med.Torque Components)	
PTCR Start Device: Ceramite P/N	: 305C19	PTCR Start Device: A	C Ohms : 20	
Crankcase Heater Vendor P/N: S Type-Watts: PTCR - 30	Sensata 8HT5			
Other Technical Info				
Oil Names Balvalastar 22BCE	Oil Charge		Internal Free Volume	5 572 cc
Oil Name: Polyolester 32BCE	Oil Charge		Max. Compressor Height	34.925 cm
il Spec: 581857 Initial Charge: 1035 cc		Recharge: 946 cc	Weight Net	29.7 kg
Viscosity: 30.0 cSt @ 40°C			Weight Shipped	31.3 kg

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### Performance Table for H79B28UABH

220/240-1-50Hz R407C -Dew Point 11°K Superheat 8°K Subcooling 35°C Ambient @220-1-50

Cond.										
emp.	Nominal no	rformance ±5%	bacad on 72 l	or run in						Evap. Temp
emp.	Nominarpe	-30°C	-25°C	-20°C	-15°C	-10°C	-5°C	0°C	5°C	10°C
25°C	Conscitu	<u>-30 C</u> 627	1260	2062	3049	4241	<u>-5 C</u> 5655	7307	9217	11401
25 C	Capacity Power	760	899	1041	1174	1286	1367	1407	1393	1315
	Current	4.9	5.4	5.8	6.3	6.7	6.9	6.9	6.6	6.0
	MassFlow	11.9	24.1	39.0	56.8	77.8	102.1	129.9	161.4	196.8
	COP	0.83	1.40	1.98	2.60	3.30	4.14	5.19	6.62	8.67
	Efficiency	23.2	33.4	40.7	45.6	48.5	50.1	50.6	50.8	50.9
	Efficiency	25.2	55.4	40.7	45.0	40.5	50.1	50.0	50.8	50.9
30°C	Capacity	497	1081	1830	2760	3889	5235	6815	8647	10749
50 0	Power	765	901	1046	1188	1317	1421	1490	1512	1477
	Current	4.9	5.4	5.9	6.5	7.0	7.4	7.6	7.5	7.2
	MassFlow	10.0	21.5	35.9	53.3	73.9	97.9	125.6	157.0	192.5
	COP	0.65	1.20	1.75	2.32	2.95	3.68	4.57	5.72	7.28
	Efficiency	20.6	32.6	41.5	47.7	51.8	54.3	55.5	56.1	56.5
25%2	<b>0</b>					2512	1700	6224		10055
35°C	Capacity		883	1577	2447	3512	4788	6294	8047	10065
	Power		897 5.3	1045 5.9	1197	1342	1470	1568	1627	1636
	Current		5.5 18.4	32.1	6.5 49.1	7.1 69.3	7.7 93.1	8.1 120.5	8.3 151.9	8.2 187.3
	MassFlow COP		0.98	52.1 1.51	49.1 2.04	2.62		4.01	4.94	6.15
			30.2	40.6	48.2		3.26			60.5
	Efficiency		50.2	40.6	40.2	53.5	56.8	58.8	59.8	60.5
40°C	Capacity		676	1314	2123	3121	4327	5757	7430	9362
	Power		885	1037	1199	1361	1512	1641	1737	1789
	Current		5.3	5.8	6.5	7.2	7.9	8.5	8.9	9.1
	MassFlow		14.8	28.0	44.4	64.2	87.6	114.9	146.1	181.6
	COP		0.76	1.27	1.77	2.29	2.86	3.51	4.28	5.23
	Efficiency		26.4	38.5	47.4	53.8	58.0	60.7	62.2	63.0
45°C	Capacity			1053	1799	2730	3863	5216	6806	8651
15 0	Power			1021	1194	1373	1548	1708	1841	1936
	Current			5.8	6.5	7.3	8.1	8.8	9.4	9.8
	MassFlow			23.5	39.4	58.8	81.9	108.9	140.0	175.4
	COP			1.03	1.51	1.99	2.50	3.05	3.70	4.47
	Efficiency			35.2	45.5	53.0	58.1	61.4	63.4	64.5
50%0						2240	2400	4604	6407	7044
50°C	Capacity					2349	3408	4681	6187	7944
	Power					1376	1575	1765	1936	2076
	Current					7.3	8.2	9.1	9.9	10.5
	MassFlow					53.2	75.9	102.7	133.6	168.9
	COP					1.71 51.4	2.16 57.4	2.65	3.20 63.8	3.83 65.1
	Efficiency					51.4	57.4	61.4	05.0	05.1
55°C	Capacity						2973	4166	5586	7252
	Power						1592	1814	2022	2206
	Current						8.2	9.2	10.2	11.1
	MassFlow						70.0	96.4	127.1	162.3
	COP						1.87	2.30	2.76	3.29
	Efficiency						56.2	60.9	63.7	65.2
60°C	Capacity							3682	5015	6588
00 0	Power							1851	2098	2327
	Current							9.4	10.5	11.6
	MassFlow							90.4	120.8	155.9
	COP							1.99	2.39	2.83
	Efficiency							60.1	63.4	65.1
65%	Conceitre							2240	1101	EOC 4
65°C	Capacity Power							3240 1877	4484 2162	5964 2436
								9.5	10.8	12.0
	(urrent							0.0	±0.0	12.0
	Current MassElow									149.7
	Current MassFlow COP							84.6 1.73	114.8 2.07	149.7 2.45

Units: Capacity (Watt), Power(Watt), Current (Amp), Mass Flow(kg/hr), COP, Efficiency(%)

### H79B28UABH Revision: 2

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# ENGLISH MEASUREMENT SYSTEM

### Product Specifications for H79B28UABH

Measurement System: English	Revision: 2	Technical Specifications							
· •		Voltage	Phase	Frequency	Evaporator Temperature Range				
Refrigerant: R407C	Series Family: B	220/240	1	50	-20°F to 55°F				

Performance	1	2	3	4	5	6	7
	ARI	ARI	ASRET	B-POINT	CHEER	HEATPUMP	ARI*
	(220v)	(240v)	(220v)	(220v)	(220v)	(220v)	(220v)
Capacity (Btu/hr)	21 700	21 600	22 100	26 700	29 200	17 300	23 000
Motor Input (Watt)	2 100	2 090	2 060	1 850	1 710	1 660	2 220
Current (Amp)	10.6	9.5	9.7	9.4	8.7	8.6	10.5
EER (Btu/W-hr)	10.4	10.3	10.7	14.4	17.1	10.5	10.4
Efficiency (%)	64.5	64.0	67.0	63.6	61.6	60.7	68.0
Evaporating Temp.°F	45	45	45	45	45	30	45
Condensing Temp.°F	130	130	130	110	100	110	130
Ambient Temp.°F	95	95	95	95	95	95	95
Liquid Temp.°F	107	107	107	86	76	86	111
Return Gas Temp.°F	65	65	95	65	65	50	69

Nominal Performance Data @ 50 Hz (±5) based upon 72hr run-in

\* "Average" method (others use the "Dew Point" method).

The "Dew Point" method values were updated July 2010 to conform to AHRI 540.

## **Mechanical Data**

1.730 X 0.650 in	Speed	2950 rpm		
313.0 ft <sup>3</sup> /hr	IPRV Setting	450 - 550 ΔP(psi)		
3.056 in <sup>3</sup> /rev	Refrigerant Charge Limit	6 l b		
	LRA: 69	MCC: 17.2		
Pro	tection Type: Internal Line Break			
	CE Approval: Yes	CCC Approval: No		
Moto	r Res. in Ohms (Ω) ± 5%			
	T1-T2	T2-T3		
	(C-S)	(S-R)		
	2.430	3.390		
	313.0 ft <sup>3</sup> /hr 3.056 in <sup>3</sup> /rev Pro	3.056 in <sup>3</sup> /rev Refrigerant Charge Limit LRA: 69 Protection Type: Internal Line Break CE Approval: Yes Motor Res. in Ohms (Ω) ± 5% T1-T2 (C-S)		

### **Electrical Accessories**

Start Relay: 3ARR3*3L* () Start Cap: 145-175/250 μF/volts Run Cap: 40/370 μF/volts PTCR Start Device: Ceramite P/N: Crankcase Heater Vendor P/N: S Type-Watts: PTCR - 30 <b>Other Technical Info</b>		(Parenthesis Denot PTCR Start Device: A	e Med.Torque Components) C Ohms: 20	
Oil Name: Polyolester 32BCE Oil Spec: 581857 Viscosity: 30.0 cSt @ 40°C	Oil Charge Initial Charge: 35 oz	Recharge: 32 oz	Internal Free Volume Max. Compressor Height Weight Net Weight Shipped	340 in <sup>3</sup> 13.75 in 65.5 lb 69.0 lb

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#### Performance Table for H79B28UABH

220/240-1-50Hz R407C -Dew Point 20°F Superheat 15°F Subcooling 95°F Ambient @220-1-50

Cond.																	
Temp.		Nomina	Inorfor	mance -	+5% has	ed on 72	hr run-in									Eva	p. Temp.
remp.		-20°F	-15°F	-10°F	-5°F	0°F	5°F	10°F	15°F	20°F	25°F	30°F	35°F	40°F	45°F	50°F	55°F
80°F	Capacity	2425	3594	4935	6459	8175	10094	12226	14582	17171	20005	23094	26447	30076	33990	38201	42717
	Power	792	869	948	1028	1105	1179	1247	1308	1360	1400	1428	1440	1436	1413	1369	1303
	Current	5.0	5.3	5.5	5.8	6.1	6.4	6.6	6.8	7.0	7.1	7.2	7.1	7.0	6.8	6.4	5.9
	MassFlow	30.4	45.0	61.5	79.9	100.4	122.9	147.5	174.4	203.6	235.2	269.2	305.7	344.7	386.5	430.9	478.2
	EER	3.06	4.14	5.20	6.29	7.40	8.56	9.80	11.15	12.63	14.29	16.17	18.36	20.95	24.06	27.90	32.78
	Efficiency	25.2	31.2	36.2	40.4	43.8	46.5	48.5	50.1	51.2	51.9	52.4	52.6	52.7	52.8	53.0	53.3
90°F	Capacity	1858	2925	4157	5567	7163	8956	10957	13176	15622	18308	21242	24436	27899	31642	35676	40009
	Power	794	869	948	1030	1112	1193	1270	1343	1408	1465	1510	1544	1562	1564	1548	1512
	Current	5.0	5.3	5.5	5.8	6.2	6.5	6.8	7.1	7.4	7.6	7.8	7.9	7.9	7.8	7.6	7.4
	MassFlow EER	24.8 2.34	38.5 3.37	54.1 4.39	71.8 5.41	91.6 6.44	113.5 7.51	137.6 8.63	164.0 9.81	192.9 11.09	224.1 12.50	257.9 14.06	294.2 15.83	333.2 17.86	375.0 20.23	419.5 23.04	466.9 26.46
	Efficiency	2.34	29.2	35.2	40.4	44.6	48.1	50.9	53.1	54.8	56.0	56.9	57.5	57.9	58.2	23.04 58.5	58.8
	Linclency	22.1		55.2	40.4	44.0	40.1	50.9	55.1	54.0	50.0	50.9	57.5	57.5	50.2	58.5	50.0
100°F	Capacity		2195 860	3315 940	4607 1024	6079	7743	9608 1286	11686 1370	13986 1450	16519	19296	22325 1641	25619 1683	29187 1710	33039	37187 1715
	Power Current		5.2	940 5.5	5.8	1111 6.2	1199 6.5	6.9	7.3	7.6	1523 8.0	1587 8.2	8.5	8.6	8.7	1722 8.7	8.6
	MassFlow		30.6	45.3	62.2	81.2	102.5	126.1	152.0	180.4	211.3	244.8	281.0	319.9	361.5	406.1	453.6
	EER		2.55	3.53	4.50	5.47	6.46	7.47	8.53	9.65	10.85	12.16	13.61	15.23	17.07	19.19	21.68
	Efficiency		25.3	32.4	38.5	43.6	47.9	51.5	54.3	56.5	58.3	59.6	60.5	61.2	61.6	62.0	62.4
110°F	Capacity			2465	3634	4979	6509	8235	10168	12318	14695	17309	20171	23291	26680	30348	34304
	Power			922	1009	1101	1196	1293	1389	1483	1572	1655	1730	1795	1849	1888	1912
	Current			5.4	5.7	6.1	6.5	6.9	7.4	7.8	8.2	8.6	8.9	9.2	9.4	9.6	9.7
	MassFlow			35.7	51.7	70.0	90.5	113.5	138.9	166.8	197.3	230.5	266.4	305.1	346.7	391.3	438.8
	EER			2.67	3.60	4.52	5.44	6.37	7.32	8.31	9.35	10.46	11.66	12.97	14.43	16.07	17.94
	Efficiency			28.1	35.1	41.1	46.2	50.5	54.0	56.8	59.0	60.7	62.0	62.9	63.6	64.1	64.5
120°F	Capacity					3917	5310	6894	8678	10673	12890	15338	18029	20972	24177	27656	31418
	Power					1080	1183	1289	1398	1506	1612	1714	1810	1899	1978	2046	2100
	Current MassFlow					6.0 58.3	6.4 78.1	6.9 100.4	7.4 125.2	7.9 152.6	8.3 182.7	8.8 215.5	9.3 251.1	9.7 289.6	10.1 331.1	10.4 375.6	10.6 423.1
	EER					3.63	4.49	5.35	6.21	7.09	8.00	8.95	9.96	11.04	12.22	13.52	14.96
	Efficiency					37.5	43.4	48.4	52.6	55.9	58.7	60.8	62.4	63.6	64.4	65.0	65.4
130°F	Capacity							5639	7270	9107	11160	13438	15953	18715	21734	25020	28584
1301	Power							1274	1394	1517	1640	1761	1879	1991	2096	2192	20304
	Current							6.8	7.3	7.9	8.4	9.0	9.5	10.1	10.6	11.0	11.4
	MassFlow							87.4	111.5	138.4	168.0	200.4	235.6	273.9	315.1	359.5	407.0
	EER							4.43	5.21	6.00	6.81	7.63	8.49	9.40	10.37	11.41	12.55
	Efficiency							45.6	50.4	54.4	57.6	60.1	62.1	63.5	64.5	65.2	65.7
140°F	Capacity									7676	9560	11665	14001	16577	19405	22495	25856
	Power									1514	1655	1795	1935	2071	2202	2327	2443
	Current									7.9	8.5	9.1	9.8	10.4	11.0	11.6	12.1
	MassFlow									124.6	153.7	185.6	220.5	258.4	299.5	343.7	391.1
	EER									5.07	5.78	6.50	7.24	8.00	8.81	9.67	10.59
	Efficiency									52.5	56.2	59.1	61.4	63.1	64.3	65.1	65.5
150°F	Capacity											10074 1814	12226 1976	14614 2136	17247 2294	20136 2447	23291 2594
	Power Current											1814 9.2	1976 9.9	2136	2294 11.4	2447 12.0	2594 12.7
	MassFlow											9.2 171.8	9.9 206.3	243.9	11.4 284.6	328.6	375.9
	EER											5.55	6.19	6.84	7.52	8.23	8.98
	Efficiency											58.1	60.7	62.7	64.1	65.0	65.5
	,														–		

Units: Capacity (Btu/hr), Power(Watt), Current (Amp), Mass Flow(lb/hr), EER(Btu/W-hr), Efficiency(%)

### H79B28UABH Revision: 2

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