

Product Data



The CAPMP and CARMP evaporator coils incorporate proven standards for reliable system operation and performance throughout the life of a quality Air Conditioner or Heat Pump system.

The coils are available for use in R-410A and R-22 systems. The CAPMP and CARMP are cased A-coils that are housed in a durable, 22 gauge, pre-painted taupe metallic cabinet. The fully-insulated cabinet (foil faced with R-2.1 insulation properties) provides for quiet, efficient operation of the evaporator coil. The coils are available in sizes 018 through 060 (1.5 - 5 tons). These multipoise coils offer the most in installation application flexibility, one coil for a variety of applications with fewer SKUs to stock.

DESIGN FEATURES

Performance — Designed with performance in mind, these new A-coils offer low pressure drops to enhance system performance and airflow characteristics.

Thermostatic Expansion Valves (TXV) — All coils have refrigerant-specific, factory-installed TXVs.

Durable Condensate Pans (2) — The corrosion-resistant drain pans, one for vertical applications and one for horizontal, are designed in a new “fiberglass reinforced thermoset polyester” material (FRTP) that offers unsurpassed pan strength. It is engineered with proper slope in both pans to help ensure water drainage, improved moisture removal, and home comfort.

Refrigerant Connections — The coils are provided with industry proven sweat connections for leak-free operation to maintain system reliability. The side mounting tubing to the coil slabs allows for easy cleaning/servicing of the coils, as well as easy access to the TXV.

Burst Pressure — These coils meet or exceed burst pressure of 2100 psi which is at least three to five times the pressure they will see in actual application; good for either R-410A or R-22 refrigerant designs.

UV Knockouts — The cased coils also come with factory-installed UV knockouts for quick and easy installation of UV lights.

Serviceability — All the coils come with a “split delta plate” for easy, quick access to the coil for service and cleaning. Also, after the door is removed, the coils are removable from the front of the unit without use of any tools.

MODEL NUMBER NOMENCLATURE

1 2 3 4 5 6 7 8 9 10 11 12
 C A P M P 1 8 1 4 A C A

Product
 C = Coil

Type
 A = A Coil

Refrigerant Type
 P = R-410A TXV
 R = R-22 TXV

Coil Configuration
 M = Multipoise

Cabinet Finish
 P = Painted

Variations
 A = Basic

Tubing Design
 C = Copper

Revision Level
 A = 1st

Cabinet Width
 14 = 14-in (356 mm) 23 = 23-in (584 mm)
 17 = 17-in (432 mm) 24 = 24-in (610 mm)
 19 = 19-in (483 mm) 25 = 25-in (635 mm)
 21 = 21-in (533 mm)

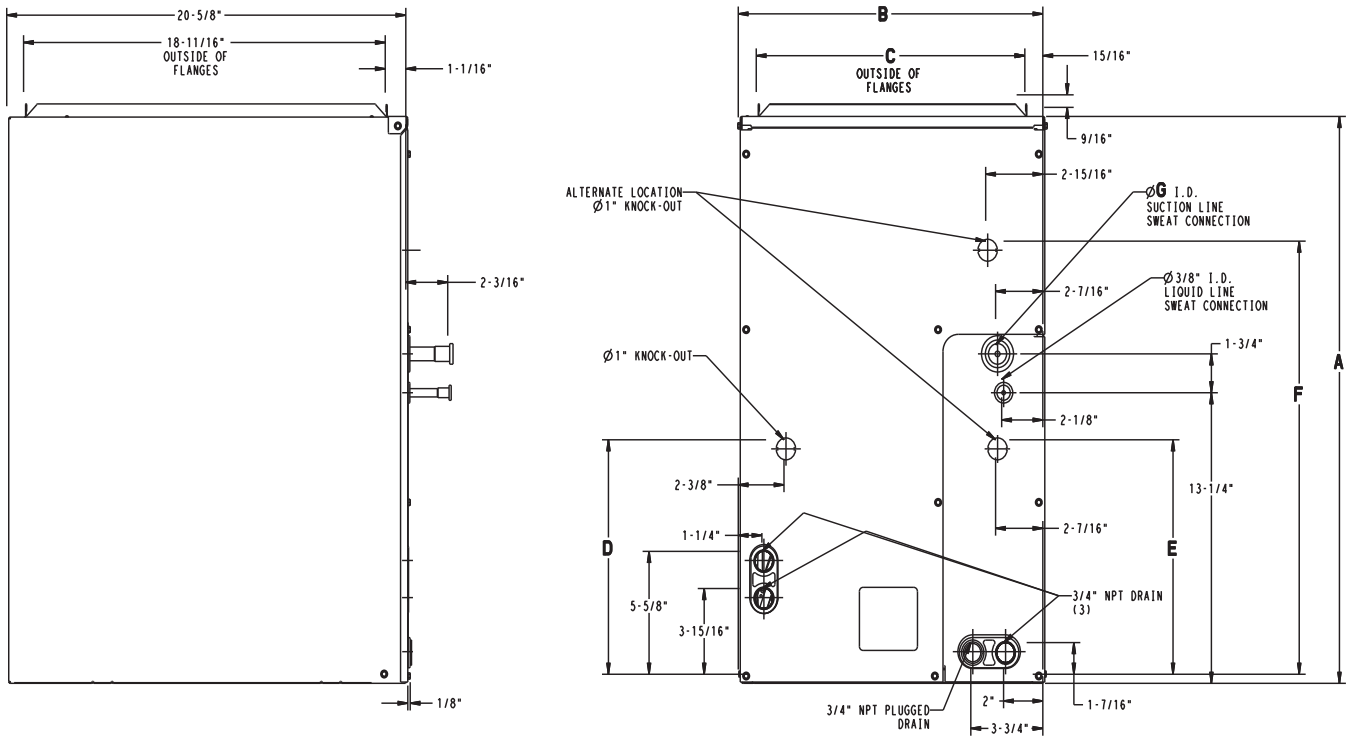
Unit Capacity
 18 = 1 1/2 Ton 42 = 3 1/2 Ton
 24 = 2 Ton 48 = 4 Ton
 30 = 2 1/2 Ton 60 = 5 Ton
 36 = 3 Ton



CERTIFICATION APPLIES ONLY WHEN THE COMPLETE SYSTEM IS LISTED WITH ARI



CAPMP / CARMP

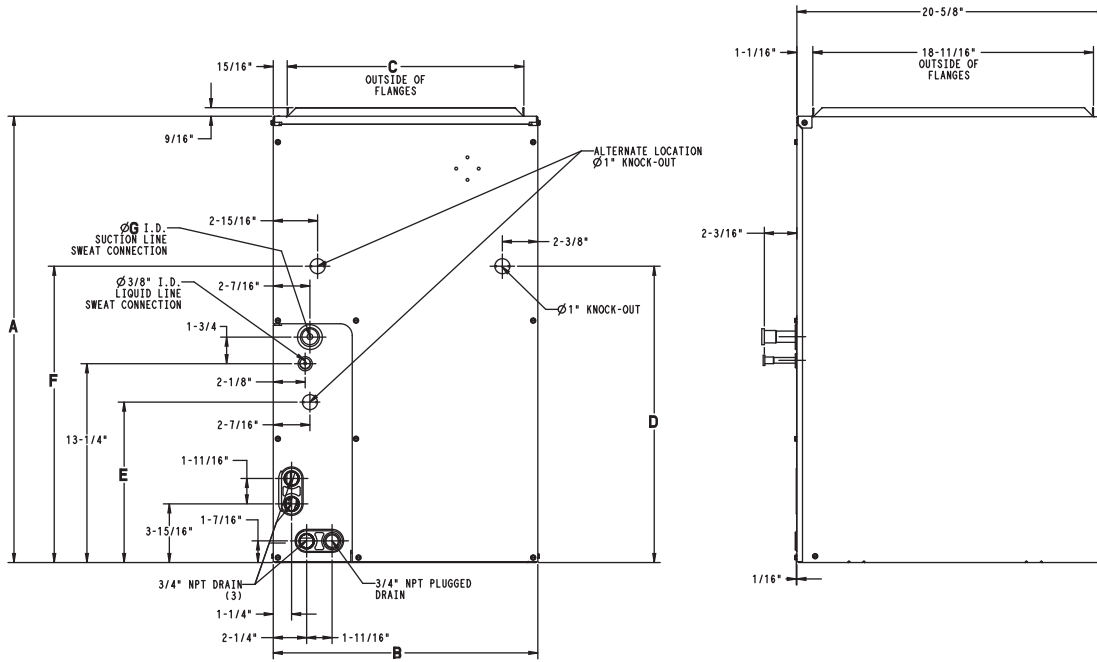


CAPMP / CARMP

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DIMENSIONS

UNIT	A (IN.)	B (IN.)	C (IN.)	D (IN.)	E (IN.)	F (IN.)	G (IN.)	SHIPPING WT. (LBS.)
CAPMP3619ACA	29-3/4	19-1/4	17-1/2	19-3/4	-	19-3/4	3/4	69.5
CAPMP4823ACA	29-3/4	22-7/8	21-1/8	19-3/4	-	19-3/4	7/8	83.0
CAPMP6025ACA	35	24-1/4	22-3/4	19-3/4	-	19-3/4	7/8	97.0
CARMP3619ACA	29-3/4	19-1/4	17-1/2	19-3/4	-	19-3/4	3/4	69.5
CARMP4823ACA	29-3/4	22-7/8	21-1/8	19-3/4	-	19-3/4	7/8	83.0
CARMP6025ACA	35	24-1/2	22-3/4	19-3/4	-	19-3/4	7/8	97.0



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DIMENSIONS

UNIT	A (IN.)	B (IN.)	C (IN.)	D (IN.)	E (IN.)	F (IN.)	G (IN.)	SHIPPING WT. (LBS.)
CAPMP1814ACA	25-13/16	14-3/16	12-7/16	17-3/16	10-11/16	-	5/8	49.5
CAPMP2414ACA	25-13/16	14-3/16	12-7/16	17-3/16	10-11/16	-	5/8	51.5
CAPMP2417ACA	25-13/16	17-1/2	15-3/4	10-11/16	10-11/16	-	5/8	55.0
CAPMP3014ACA	25-13/16	14-3/16	12-7/16	17-3/16	-	19-3/4	3/4	56.5
CAPMP3017ACA	25-13/16	17-1/2	15-3/4	17-3/16	-	19-3/4	3/4	62.5
CAPMP3614ACA	29-3/4	14-3/16	12-7/16	19-3/4	-	19-3/4	3/4	63.0
CAPMP3617ACA	29-3/4	17-1/2	15-3/4	19-3/4	-	19-3/4	3/4	66.5
CAPMP3621ACA	29-3/4	21	19-1/4	19-3/4	-	19-3/4	3/4	70.5
CAPMP4221ACA	29-3/4	21	19-1/4	19-3/4	-	19-3/4	7/8	75.0
CAPMP4224ACA	29-3/4	24-1/2	22-3/4	19-3/4	-	19-3/4	7/8	79.0
CAPMP4817ACA	35	17-1/2	15-3/4	19-3/4	-	19-3/4	7/8	88.5
CAPMP4821ACA	29-3/4	21	19-1/4	19-3/4	-	19-3/4	7/8	81.0
CAPMP4824ACA	29-3/4	24-1/2	22-3/4	19-3/4	-	19-3/4	7/8	86.0
CAPMP6021ACA	35	21	19-1/4	19-3/4	-	19-3/4	7/8	93.0
CAPMP6024ACA	35	24-1/2	22-3/4	19-3/4	-	19-3/4	7/8	98.0
CARMP1814ACA	25-13/16	14-3/16	12-7/16	17-3/16	10-11/16	-	5/8	49.5
CARMP2414ACA	25-13/16	14-3/16	12-7/16	17-3/16	10-11/16	-	5/8	51.5
CARMP2417ACA	25-13/16	17-1/2	15-3/4	10-11/16	10-11/16	-	5/8	55.0
CARMP3014ACA	25-13/16	14-3/16	12-7/16	17-3/16	-	19-3/4	3/4	56.5
CARMP3017ACA	25-13/16	17-1/2	15-3/4	17-3/16	-	19-3/4	3/4	62.5
CARMP3614ACA	29-3/4	14-3/16	12-7/16	19-3/4	-	19-3/4	3/4	63.0
CARMP3617ACA	29-3/4	17-1/2	15-3/4	19-3/4	-	19-3/4	3/4	66.5
CARMP3621ACA	29-3/4	21	19-1/4	19-3/4	-	19-3/4	3/4	70.5
CARMP4221ACA	29-3/4	21	19-1/4	19-3/4	-	19-3/4	7/8	75.0
CARMP4224ACA	29-3/4	24-1/2	22-3/4	19-3/4	-	19-3/4	7/8	79.0
CARMP4817ACA	35	17-1/2	15-3/4	19-3/4	-	19-3/4	7/8	88.5
CARMP4821ACA	29-3/4	21	19-1/4	19-3/4	-	19-3/4	7/8	81.0
CARMP4824ACA	29-3/4	24-1/2	22-3/4	19-3/4	-	19-3/4	7/8	86.0
CARMP6021ACA	35	21	19-1/4	19-3/4	-	19-3/4	7/8	93.0
CARMP6024ACA	35	24-1/2	22-3/4	19-3/4	-	19-3/4	7/8	98.0

NOTES:

1. Contact manufacturer for cooling capacities at conditions other than shown in table.
2. Formulas:
 Leaving db = entering db - $\frac{\text{sensible heat cap.}}{1.09 \times \text{CFM}}$
 Leaving wb = wb corresponding to enthalpy of air leaving coil (h_{LWB})

$$h_{LWB} = h_{EWB} - \frac{\text{total capacity (Btuh)}}{4.5 \times \text{CFM}}$$
 Where h_{EWB} = enthalpy of air entering coil
3. SHC is based on 80°F db temperature of air entering the evaporator coil.
 Below 80°F db, subtract (Correction Factor x CFM) from SHC.
 Above 80°F db, add (Correction Factor x CFM) to SHC.
4. Direct interpolation is permissible. Do not extrapolate.
5. Fan motor heat has not been deducted.
6. All data points are based on 10°F superheat leaving coil and use of thermostatic expansion valve (TXV) device.
7. All units have sweat suction-tube connection and a liquid-tube connection. For 1-1/8-in. system suction tube, 3/4 x 1-1/8-in. suction tube connection adapter is available as accessory.
8. The CAPMP coils can be used in any properly designed system using R-410A refrigerant.
9. The CARMP coils can be used in any properly designed system using R-22 refrigerant.
10. Before using maximum cfm shown in table, check coil static pressure drop to ensure system blower can provide necessary static pressure needed for coil and duct systems.
11. Bypass Factor = 0 indicates no psychometric solution. Use bypass factor of next lower EWB for approximation.

BYPASS FACTOR	ENTERING AIR DRY BULB TEMPERATURE (°F)					
	79	78	77	76	75	Under 75
	81	82	83	84	84	Above 85
Correction Factor						
0.10	0.98	1.96	2.94	3.92	4.91	Use formula shown below
0.20	0.87	1.74	2.62	3.49	4.36	
0.30	0.76	1.53	2.29	3.05	3.82	

Interpolation is permissible.

Correction Factor = $1.09 \times (1 - \text{BF}) \times (\text{db} - 80)$

PERFORMANCE DATA (CONT.)

COIL STATIC PRESSURE DROP (in. w.c.) R-410A and R-22 REFRIGERANTS

UNIT SIZE	STANDARD CFM																	
	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100
1814	Dry																	
	0.079	0.111	0.145	0.186	0.232													
2414	Wet																	
	0.083	0.116	0.151	0.196	0.243													
2417	Dry																	
	0.065	0.091	0.120	0.154	0.194	0.237	0.284											
3014	Wet																	
	0.066	0.094	0.124	0.161	0.203	0.250	0.301											
3017	Dry																	
	0.056	0.076	0.097	0.123	0.151	0.182	0.215											
3614	Wet																	
	0.060	0.082	0.105	0.132	0.163	0.195	0.231											
3617	Dry																	
	0.054	0.077	0.102	0.133	0.167	0.206	0.248	0.296	0.347									
3619	Wet																	
	0.059	0.084	0.111	0.142	0.181	0.223	0.269	0.319	0.375									
3621	Dry																	
	0.043	0.059	0.077	0.096	0.119	0.144	0.171	0.201	0.232									
4221	Wet																	
	0.046	0.063	0.083	0.105	0.130	0.157	0.186	0.219	0.252									
4224	Dry																	
	0.047	0.069	0.093	0.119	0.151	0.187	0.227	0.270	0.317	0.362	0.418							
4817	Wet																	
	0.053	0.076	0.101	0.129	0.162	0.200	0.241	0.286	0.335	0.388	0.447							
4821	Dry																	
	0.023	0.036	0.052	0.069	0.089	0.110	0.135	0.160	0.189	0.219	0.251							
4823	Wet																	
	0.042	0.058	0.076	0.095	0.117	0.142	0.169	0.198	0.231	0.265	0.299							
6021	Dry																	
							0.133	0.154	0.177	0.203	0.227							
6024	Wet																	
							0.139	0.163	0.189	0.216	0.245							
6025	Dry																	
	0.026	0.037	0.050	0.062	0.077	0.092	0.109	0.128	0.148	0.170	0.193							
6025	Wet																	
	0.029	0.040	0.053	0.065	0.082	0.099	0.119	0.138	0.160	0.185	0.209							
6025	Dry																	
			0.044	0.056	0.068	0.082	0.099	0.119	0.138	0.161	0.183	0.205	0.233					
6025	Wet																	
			0.058	0.073	0.089	0.106	0.125	0.143	0.165	0.189	0.213	0.239	0.268					
6025	Dry																	
			0.039	0.049	0.060	0.072	0.085	0.099	0.114	0.130	0.146	0.164	0.182					
6025	Wet																	
			0.054	0.066	0.079	0.092	0.103	0.125	0.142	0.161	0.182	0.202	0.222					
6025	Dry																	
			0.065	0.082	0.105	0.128	0.156	0.185	0.216	0.253	0.290	0.331	0.372	0.417	0.464			
6025	Wet																	
			0.066	0.084	0.106	0.130	0.159	0.188	0.222	0.256	0.296	0.337	0.379	0.425	0.476			
6025	Dry																	
			0.055	0.072	0.089	0.107	0.128	0.150	0.175	0.199	0.228	0.257	0.288	0.321	0.356			
6025	Wet																	
			0.058	0.075	0.094	0.115	0.136	0.161	0.188	0.217	0.247	0.279	0.313	0.347	0.386			
6025	Dry																	
											0.192	0.219	0.245	0.273	0.303			
6025	Wet																	
											0.196	0.225	0.253	0.283	0.314			
6025	Dry																	
			0.044	0.056	0.069	0.084	0.100	0.118	0.137	0.159	0.180	0.198	0.222	0.247	0.275			
6025	Wet																	
			0.052	0.065	0.080	0.095	0.112	0.131	0.150	0.171	0.193	0.214	0.241	0.270	0.296			
6025	Dry																	
					0.075	0.093	0.112	0.133	0.157	0.181	0.206	0.234	0.264	0.294	0.326	0.360	0.396	0.432
6025	Wet																	
					0.077	0.095	0.115	0.137	0.159	0.184	0.209	0.238	0.268	0.300	0.334	0.370	0.407	0.444
6025	Dry																	
					0.073	0.083	0.095	0.107	0.120	0.136	0.152	0.169	0.184	0.203	0.217	0.238	0.260	0.283
6025	Wet																	
					0.076	0.086	0.098	0.110	0.124	0.140	0.157	0.175	0.193	0.215	0.238	0.261	0.286	0.314
6025	Dry																	
														0.232	0.256	0.283	0.308	0.335
6025	Wet																	
														0.236	0.291	0.321	0.354	0.386

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