

**Magic-Pak® Thru-The-Wall Units**  
Net Cooling - 3.5 to 7.4 kW (12 000 to 28 000 Btuh)  
Electric Heat - 4.0 to 14.4 kW (13 800 to 49 100 Btuh)

Bulletin No. 490083  
August 1999

**FEATURES**

**Applications**

- Completely self-contained.
- Ideal for apartments, condominiums and hotels for individual control of units.
- No outside condensing unit, no external refrigerant lines no separate indoor coil.
- Slide out cooling chassis.
- Pre-wired and pre-charged.

**Completely Tested**

- Each unit is factory run tested to ensure proper operation.

**Unit Cabinet**

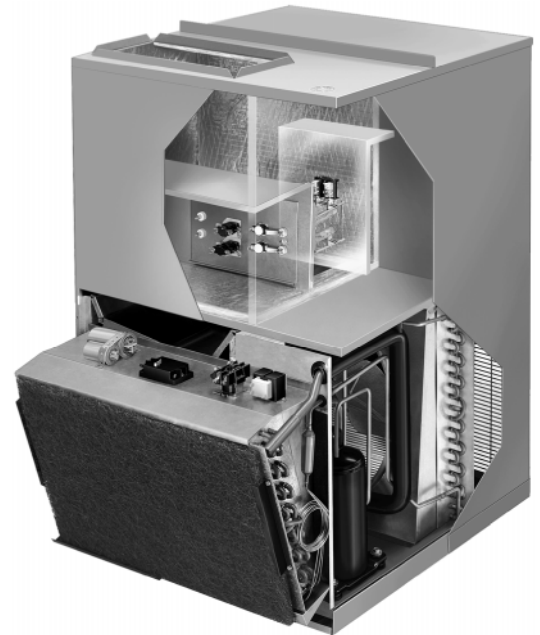
- Baked-on powder paint finish provides rust and corrosion protection.
- Mounts flush with any wall.

**Compressor**

- High efficiency scroll or rotary compressor.
- Designed for dependable efficiency with minimum operating cost.
- Suction cooled and overload protected with internal pressure relief.
- Hermetically sealed with built-in protection from excessive current and temperatures.

**Direct Drive Blower**

- Units are equipped with quiet multi-speed direct drive blower.
- Each blower assembly is statically and dynamically balanced.
- Multiple-speed motor is resiliently mounted.
- See blower performance table.



Unit Showing Slide-Out Cooling Section

**Supplemental Electric Heat**

- Factory installed internal to unit cabinet with controls installed and wired.
- Available in 5, 10 and 15 kW sizes.
- Helix wound nichrome heating elements exposed directly in air stream resulting in instant heat transfer, low element temperatures and long service life.
- Each element equipped with limit control with fixed temperature off setting and automatic reset.

**Controls**

- Standard trade available components.
- Color coded wiring for easy service.

**Copper Tube/Enhanced Fin Coil**

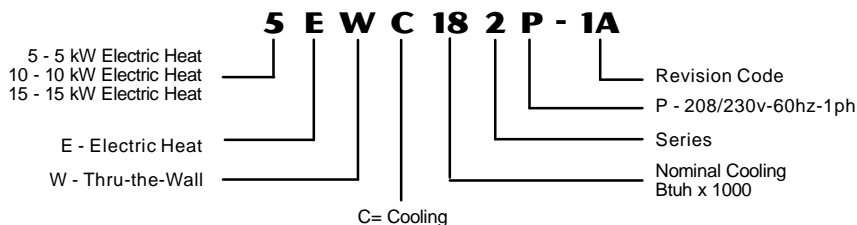
- Ripple-edged aluminum fins.
- Copper tube construction.
- Coil is factory tested under high pressure to insure leakproof construction.

**OPTIONAL ACCESSORIES**

**Wall Sleeve (40L33)**

- Use for roughing in opening for units.
- Unit cabinet mounts in the wall sleeve for ease of installation.

**MODEL NUMBER IDENTIFICATION**



## SPECIFICATIONS

Model Number		5EWC 122	5EWC 182	10EWC 182	15EWC 182	5EWC 242	10EWC 242	15EWC 242	10EWC 302	15EWC 302		
Cooling Data	kW (Btuh)	3.5 (12 000)	5.1 (17 800)			6.9 (23 600)			8.2 (28 000)			
	EER	9.0	8.8			8.7			9.0			
	Sensible/Total	.78	.74			.75			.68			
Outdoor Coil Fan	Diameter - mm (in.)	457 (18)										
	Motor output - W (hp)	93 (1/8)	186 (1/4)									
	Rev/Min	1075										
Indoor Blower	Blower wheel nominal diameter x width - mm (in.)	254 x 102 (10 x 4)										
	Nominal motor output - W (hp)	124 (1/6)	224 (1/3)									
	Voltage & phase	208/230v-1ph										
Refrigerant charge furnished — kg (oz.) HCFC-22		1.19 (2 lbs. 10 oz.)	2.10 (3 lbs. 1 oz.)			1.64 (3 lbs. 10 oz.)			1.67 (3 lbs. 11 oz.)			
Shipping weight — kg (lbs.) 1 package		147 (325)	159 (350)			163 (360)			172 (380)			
Electrical Data	Line voltage and Phase - 60 hz		208/230 - 1									
	Compressor	Rated load amps	5.0	8.3	11.6	14.6	11.6			14.6		
		Locked rotor amps	26.3	45.0	62.5	76.0	62.5			76.0		
	Outdoor Coil Fan Motor - Rated load amps		.90			1.8						
	Electric Heater Nominal kW @ 240v		4.8			9.6	14.4	4.8	9.6	14.4	9.6	14.4
	Minimum Circuit Ampacity	208v	24	26	47	70	26	47	70	47	70	
		230v	27	28	53	78	28	53	78	53	78	
	Maximum Fuse/ HACR Breaker	208v	25	30	50	70	30	50	70	50	70	
230v		30	30	60	80	30	60	80	60	80		
<b>OPTIONAL ACCESSORIES - MUST BE ORDERED EXTRA</b>												
Wall Sleeve		CA-239 (40L33)										

NOTE — Refer to local electrical codes to determine wire, fuse and disconnect size requirements.

## BLOWER PERFORMANCE

Model No.	Blower Speed	L/s (cfm) at external static pressure with filter - Pa (in. wc)			
		50 (0.2)	75 (0.3)	100 (0.4)	125 (0.5)
EWC122	High	307 (650)	290 (615)	271 (575)	255 (540)
	Medium	224 (475)	212 (450)	201 (425)	189 (400)
	Low	196 (415)	191 (405)	184 (390)	179 (380)
EWC182 EWC242 EWC302	High	413 (875)	389 (825)	366 (775)	342 (725)
	Medium	401 (850)	380 (805)	359 (760)	335 (710)
	Low	297 (630)	286 (605)	271 (575)	260 (550)
EWC242	High	390 (825)	370 (785)	355 (755)	335 (715)
	Medium	300 (635)	295 (630)	285 (600)	270 (570)
	Low	240 (505)	235 (495)	225 (480)	210 (450)

# COOLING PERFORMANCE EXTENDED RATINGS

## EWC-122 COOLING CAPACITY

Entering Wet Bulb Temperature	Total Air Volume		Outdoor Air Temperature Entering Outdoor Coil																							
			29°C (85°F)						35°C (95°F)						41°C (105°F)						46°C (115°F)					
			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T)			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T)			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T)			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T)		
						Dry Bulb						Dry Bulb						Dry Bulb						Dry Bulb		
			m³/s	cfm	kW	Btuh	24°C 75°F	27°C 80°F	29°C 85°F	kW	Btuh	Input	24°C 75°F	27°C 80°F	29°C 85°F	kW	Btuh	Input	24°C 75°F	27°C 80°F	29°C 85°F	kW	Btuh	Input	24°C 75°F	27°C 80°F
17.2°C (63°F)	190	400	3.7	12 600	0.82	.78	.92	1.00	3.5	12 000	0.91	.80	.95	1.00	3.3	11 400	1.00	.82	.95	1.00	3.2	10 800	1.09	.85	1.00	1.00
	210	450	3.8	12 800	0.82	.82	.97	1.00	3.6	12 200	0.91	.85	1.00	1.00	3.4	11 600	1.00	.87	1.00	1.00	3.2	11 000	1.09	.90	1.00	1.00
	235	500	3.8	13 100	0.82	.87	1.00	1.00	3.6	12 400	0.91	.90	1.00	1.00	3.5	11 800	1.00	.92	1.00	1.00	3.3	11 200	1.09	.95	1.00	1.00
19.4°C (67°F)	190	400	3.9	13 400	0.82	.59	.74	.89	3.7	12 700	0.91	.60	.76	.91	3.5	12 100	1.01	.62	.79	1.00	3.4	11 500	1.11	.63	.81	.96
	210	450	4.0	13 600	0.82	.62	.78	.94	3.8	12 900	0.91	.64	.80	.97	3.6	12 300	1.01	.65	.83	1.00	3.4	11 700	1.11	.67	.86	1.00
	235	500	4.1	13 900	0.82	.65	.82	.99	3.9	13 200	0.91	.67	.84	1.00	3.7	12 600	1.01	.69	.88	1.00	3.5	11 900	1.11	.70	.91	1.00
21.7°C (71°F)	190	400	4.2	14 200	0.83	.40	.56	.72	4.0	13 500	0.92	.40	.57	.74	3.8	12 800	1.02	.41	.58	.76	3.5	12 100	1.12	.41	.59	.78
	210	450	4.2	14 400	0.83	.42	.59	.76	4.0	13 700	0.92	.42	.60	.78	3.8	13 000	1.02	.43	.62	.80	3.6	12 300	1.12	.43	.63	.82
	235	500	4.3	14 700	0.83	.44	.62	.80	4.1	14 000	0.92	.44	.63	.82	3.9	13 300	1.02	.45	.65	.84	3.7	12 600	1.12	.45	.66	.87

## EWC-182 COOLING CAPACITY

Entering Wet Bulb Temperature	Total Air Volume		Outdoor Air Temperature Entering Outdoor Coil																							
			29°C (85°F)						35°C (95°F)						41°C (105°F)						46°C (115°F)					
			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T)			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T)			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T)			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T)		
						Dry Bulb						Dry Bulb						Dry Bulb						Dry Bulb		
			m³/s	cfm	kW	Btuh	24°C 75°F	27°C 80°F	29°C 85°F	kW	Btuh	Input	24°C 75°F	27°C 80°F	29°C 85°F	kW	Btuh	Input	24°C 75°F	27°C 80°F	29°C 85°F	kW	Btuh	Input	24°C 75°F	27°C 80°F
17°C (63°F)	260	550	5.4	18 400	1.37	.75	.90	1.00	5.0	17 100	1.47	.78	.92	1.00	4.6	15 700	1.55	.82	.96	1.00	4.2	14 400	1.64	.86	.96	1.00
	285	600	5.5	18 700	1.38	.78	.93	1.00	5.1	17 400	1.48	.81	.96	1.00	4.7	16 000	1.56	.85	1.00	1.00	4.3	14 600	1.65	.89	1.00	1.00
	305	650	5.5	18 900	1.39	.81	.96	1.00	5.2	17 600	1.49	.84	.99	1.00	4.7	16 200	1.57	.88	1.00	1.00	4.3	14 800	1.66	.92	1.00	1.00
19°C (67°F)	260	550	5.8	19 800	1.41	.58	.72	.87	5.4	18 500	1.51	.59	.74	.89	5.0	17 100	1.60	.62	.78	.94	4.6	15 600	1.70	.64	.80	.96
	285	600	5.9	20 100	1.42	.60	.75	.90	5.5	18 800	1.52	.62	.77	.93	5.1	17 400	1.61	.64	.81	.98	4.7	15 900	1.71	.66	.83	1.00
	305	650	6.0	20 400	1.43	.62	.78	.93	5.6	19 000	1.53	.64	.80	.96	5.2	17 600	1.62	.66	.84	1.00	4.7	16 100	1.72	.68	.86	1.00
22°C (71°F)	260	550	6.2	21 200	1.45	.40	.55	.69	5.8	19 700	1.55	.40	.56	.72	5.4	18 300	1.65	.41	.58	.75	4.9	16 700	1.75	.41	.60	.78
	285	600	6.3	21 500	1.46	.42	.57	.72	5.9	20 000	1.56	.42	.59	.75	5.5	18 600	1.66	.43	.61	.78	5.0	17 000	1.76	.43	.62	.81
	305	650	6.4	21 800	1.47	.43	.59	.74	5.9	20 300	1.57	.43	.60	.78	5.5	18 800	1.67	.44	.63	.81	5.0	17 200	1.77	.44	.64	.84

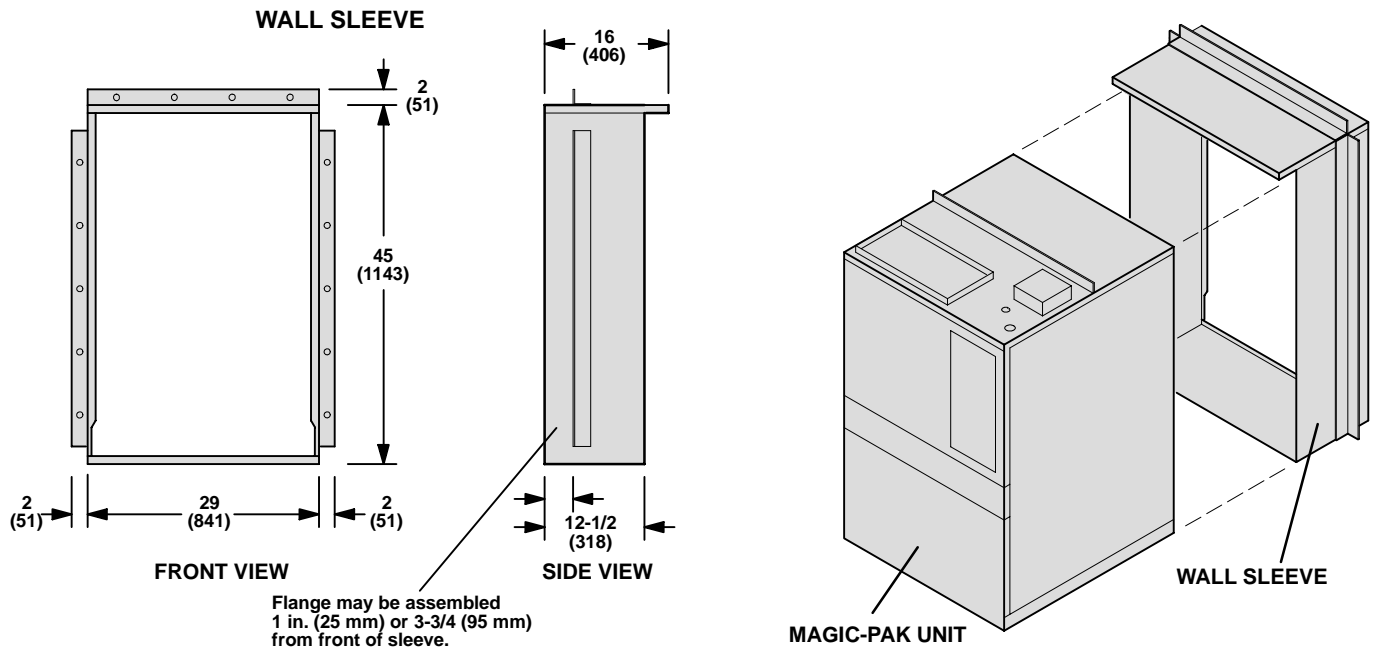
## EWC-242 COOLING CAPACITY

Entering Wet Bulb Temperature	Total Air Volume		Outdoor Air Temperature Entering Outdoor Coil																							
			29°C (85°F)						35°C (95°F)						41°C (105°F)						46°C (115°F)					
			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T)			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T)			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T)			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T)		
						Dry Bulb						Dry Bulb						Dry Bulb						Dry Bulb		
			m³/s	cfm	kW	Btuh	24°C 75°F	27°C 80°F	29°C 85°F	kW	Btuh	Input	24°C 75°F	27°C 80°F	29°C 85°F	kW	Btuh	Input	24°C 75°F	27°C 80°F	29°C 85°F	kW	Btuh	Input	24°C 75°F	27°C 80°F
17°C (63°F)	330	700	7.1	24 300	1.87	.74	.88	1.00	6.8	23 200	2.11	.76	.89	1.00	6.4	21 800	2.38	.78	.94	1.00	6.2	21 000	2.710	.80	.95	1.00
	380	800	7.2	24 700	1.87	.78	.93	1.00	6.9	23 600	2.11	.80	.94	1.00	6.5	22 200	2.38	.82	.99	1.00	6.2	21 300	2.710	.84	1.00	1.00
	425	900	7.4	25 200	1.88	.82	.98	1.00	7.1	24 100	2.12	.85	.99	1.00	6.6	22 600	2.39	.87	1.00	1.00	6.4	21 700	2.720	.89	1.00	1.00
19°C (67°F)	330	700	7.6	25 900	1.89	.57	.71	.85	7.2	24 700	2.13	.58	.72	.86	6.9	23 600	2.40	.59	.75	.91	6.6	22 400	2.750	.60	.76	.92
	380	800	7.7	26 300	1.89	.60	.75	.90	7.4	25 100	2.13	.61	.76	.91	7.0	24 000	2.40	.62	.79	.96	6.7	22 800	2.750	.63	.80	.97
	425	900	7.9	26 800	1.89	.63	.79	.95	7.5	25 600	2.14	.64	.80	.96	7.2	24 500	2.41	.66	.84	1.00	6.8	23 200	2.760	.67	.85	1.00
22°C (71°F)	330	700	8.0	27 300	1.91	.40	.55	.69	7.6	26 100	2.15	.40	.55	.70	7.3	24 900	2.43	.40	.56	.72	6.9	23 700	2.770	.40	.57	.74
	380	800	8.1	27 700	1.91	.42	.58	.73	7.8	26 500	2.15	.42	.58	.74	7.4	25 300	2.43	.42	.59	.76	7.1	24 100	2.770	.42	.60	.78
	425	900	8.3	28 300	1.92	.44	.61	.77	7.9	27 000	2.16	.44	.61	.78	7.6	25 800	2.44	.44	.62	.80	7.2	24 600	2.780	.44	.63	.82

## EWC-302 COOLING CAPACITY

Entering Wet Bulb Temperature	Total Air Volume		Outdoor Air Temperature Entering Outdoor Coil																							
			29°C (85°F)						35°C (95°F)						41°C (105°F)						46°C (115°F)					
			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T)			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T)			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T)			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T)		
						Dry Bulb						Dry Bulb						Dry Bulb						Dry Bulb		
			m³/s	cfm	kW	Btuh	24°C 75°F	27°C 80°F	29°C 85°F	kW	Btuh	Input	24°C 75°F	27°C 80°F	29°C 85°F	kW	Btuh	Input	24°C 75°F	27°C 80°F	29°C 85°F	kW	Btuh	Input	24°C 75°F	27°C 80°F
17°C (63°F)	365	775	8.4	28 500	2.15	.72	.84	.97	8.0	27 300	2.39	.73	.87	1.00	7.6	26 100	2.67	.74	.89	1.00	7.3	24 800	2.99	.76	.90	1.00
	400	850	8.5	28 900	2.16	.74	.87	1.00	8.1	27 600	2.40	.76	.90	1.00	7.7	26 400	2.68	.77	.93	1.00	7.4	25 100	3.00	.79	.93	1.00
	435	925	8.6	29 300	2.17	.77	.90	1.00	8.2	28 000	2.41	.79	.93	1.00	7.9	26 800	2.69	.80	.96	1.00	7.4	25 400	3.01	.82	.96	1.00
19°C (67°F)	365	775	8.9	30 400	2.19	.56	.69	.82	8.5	29 000	2.44	.57	.71	.84	8.1	27 800	2.72	.58	.73	.88	7.7	26 400	3.05	.59	.73	.88
	400	850	9.0	30 800	2.20	.58	.71	.85	8.6	29 400	2.45	.59	.73	.87	8.2	28 100	2.73	.60	.75	.91	7.8	26 700	3.06	.61	.76	.91
	435	925	9.1	31 200	2.21	.60	.73	.87	8.7	29 800	2.46	.61	.76	.90	8.4	28 500	2.74	.62	.78	.94	7.9	27 100	3.07	.63	.79	.94
22°C (71°F)	365	775	9.4	32 200	2.22	.40	.54	.68	9.0	30 800	2.48	.41	.55	.69	8.6	29 300	2.76	.41	.56	.71	8.2	28 000	3.09	.42	.57	.73
	400	850	9.6	32 600	2.23	.41	.56	.70	9.1	31 200	2.49	.42	.57	.71	8.7	29 700	2.77	.42	.58	.73	8.3	28 300	3.10	.43	.59	.75
	435	925	9.7	33 000	2.24	.42	.57	.72	9.3	31 600	2.50	.43	.58	.73	8.8	30 100	2.78	.43	.60	.76	8.4	28 700	3.11	.45	.61	.78

## ACCESSORY DIMENSIONS – INCHES (MM)



## DIMENSIONS – INCHES (MM)

