

PS-EC-M Series

LOW PROFILE EVAPORATORS

MEDIUM TEMPERATURE EVAPORATORS WITH EC FANS

ORIGINAL MANUFACTURED EQUIPMENT

PS-EC-M
Series



HX-408-3 AUS



Product Specifications

The PS-EC-M evaporator incorporates BITZER's innovative and modern design together with "EC" fan technology suited to Medium Temperature Applications. The crisp white finish compliments the quality installation on display.

Incorporating the PS Series coil design with cutting edge fan technology improves product quality whilst in storage.

The Specific Features Include:

- "EC" fans standard
- Internal ripple finned tube for higher heat-transfer performance and improved oil return
- Hinged access door both ends - easily removable, where coil is installed close to adjacent walls
- Hinged and fully reversible drip tray
- Crisp, white powder coated evaporator panels
- Absolute flush mounting
- Stainless steel fastenings
- Innovative design in coil geometry
- Performance optimised circuitry and distributor system with Venturi-Effect technology
- Standard coils circuited for multiple refrigerants (no orifice change required)
- Fan Type: 300mm

Optional Extras

- Epoxy coated fins
- Other Fin Series: 4, 5, 7, 8 FPI
- Factory fitted TX/EXV valves (on multiple orders)
- Special application designs
- Blygold coil protection
- E-Coat coil protection (on selected models refer to Page 4.)
- Copper fins
- Hazardous location motors (e.g. flameproof)

Explanation of Type Designation

PS - **EC** - **M** - **032**

PS Series Evaporators

PS - **EC** - **M** - **032**

EC = Electronically Commutative Fans

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Application Range, M = Medium Temp

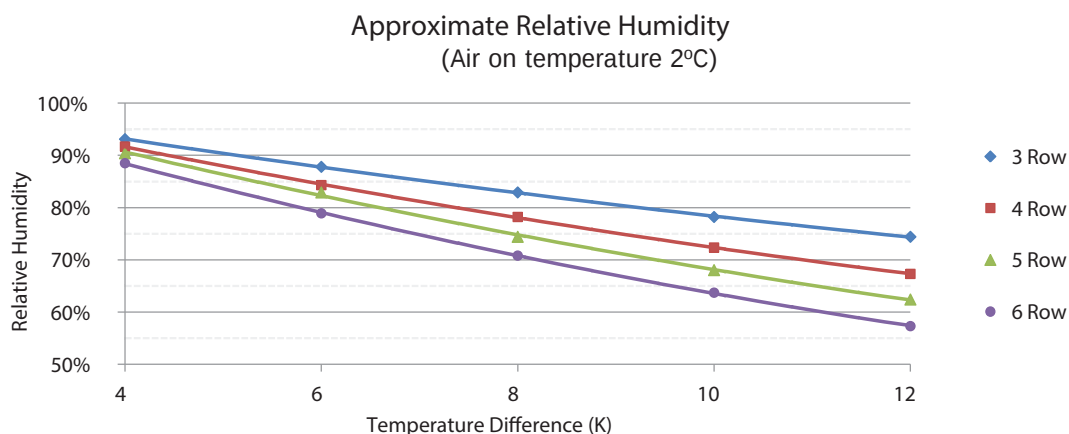
PS - **EC** - **M** - **032**

032 = Nominal Refrigeration Capacity, 032= 3.2kW@6ktd on R404A

Product Specifications

PS-EC-M Series Evaporators - Medium Temperature

The relative humidity of an air/water mixture is defined as the ratio of the partial pressure of water vapour in the mixture to the saturated vapour pressure of water at a given temperature. As the air volume and capacity ratio will vary from model to model in any range, the relative humidity graph reading can only be regarded as an approximate value.



Cross Reference List - Model / Number of Rows

Model	No. Rows
PS-EC-M 015	3R
PS-EC-M 024	6R
PS-EC-M 032	3R
PS-EC-M 038	4R
PS-EC-M 048	6R
PS-EC-M 049	5R
PS-EC-M 053	6R
PS-EC-M 065	4R
PS-EC-M 076	5R
PS-EC-M 082	6R
PS-EC-M 099	5R
PS-EC-M 109	6R
PS-EC-M 127	5R
PS-EC-M 140	6R

DISCLAIMER:

The above relative humidity values are based on approximate normal conditions of a standard cool room. Many factors can ultimately effect the range of humidities within a room. These include but, are not limited to, infiltration (air change overs per day), product entering temperature, product entering packaging type, system suction temperature, system temperature difference, system defrost type and system run hours.



Performance Data

PS-EC-M Series Evaporators - Medium Temperature

Specifications - 300mm Diameter EC Fan Models Fin Series 6 (236 Fins/m)

Capacities In Accordance With European DT1 ‡ Conditions, And Based On -4°C Saturated Suction Temperature

MODEL		PS-EC-M 015	PS-EC-M 024	PS-EC-M 032	PS-EC-M 038	PS-EC-M 048
R404A	Watts @ 6ktd	1535	2362	3168	3834	4766
	Watts @ 1ktd	256	394	528	639	794
R134a	Watts @ 6ktd	1343	2109	2904	3493	4301
	Watts @ 1ktd	224	352	484	582	717
Air flow	L/s	479	416	958	910	832
	M³/h	1724	1498	3449	3276	2995
Number of 300mm fans		1	1	2	2	2
Fan Motor(s) **	Total watts	85	85	170	170	170
	Total amps	0.66	0.66	1.32	1.32	1.32
Motor heat / 24hrs watts		2040	2040	4080	4080	4080

‡ = DT1 = (Air On Temp) - (Saturated Suction Temperature)

** = Based On Manufacturers Nominal Data

NOTE: PLEASE SPECIFY REFRIGERANT WHEN ORDERING

MODEL		PS-EC-M 049	PS-EC-M 053	PS-EC-M 065	PS-EC-M 076	PS-EC-M 082	PS-EC-M 099	PS-EC-M 109	PS-EC-M 127	PS-EC-M 140
R404A	Watts @ 6ktd	4928	5273	6478	7613	8175	9933	10945	12736	13978
	Watts @ 1ktd	821	879	1080	1269	1362	1655	1824	2123	2330
R134a	Watts @ 6ktd	4471	4804	5926	6964	7433	9100	9981	11775	12912
	Watts @ 1ktd	745	801	988	1161	1239	1517	1664	1963	2152
Air flow	L/s	954	923	1480	1431	1385	1908	1847	2385	2309
	M³/h	3434	3323	5328	5152	4986	6869	6649	8586	8312
Number of 300mm fans		2	2	3	3	3	4	4	5	5
Fan Motor(s) **	Total watts	170	170	255	255	255	340	340	425	425
	Total amps	1.32	1.32	1.98	1.98	1.98	2.64	2.64	3.30	3.30
Motor heat / 24hrs watts		4080	4080	6120	6120	6120	8160	8160	10200	10200

‡ = DT1 = (Air On Temp) - (Saturated Suction Temperature)

** = Based On Manufacturers Nominal Data

NOTE: PLEASE SPECIFY REFRIGERANT WHEN ORDERING

Capacity Correction Factors

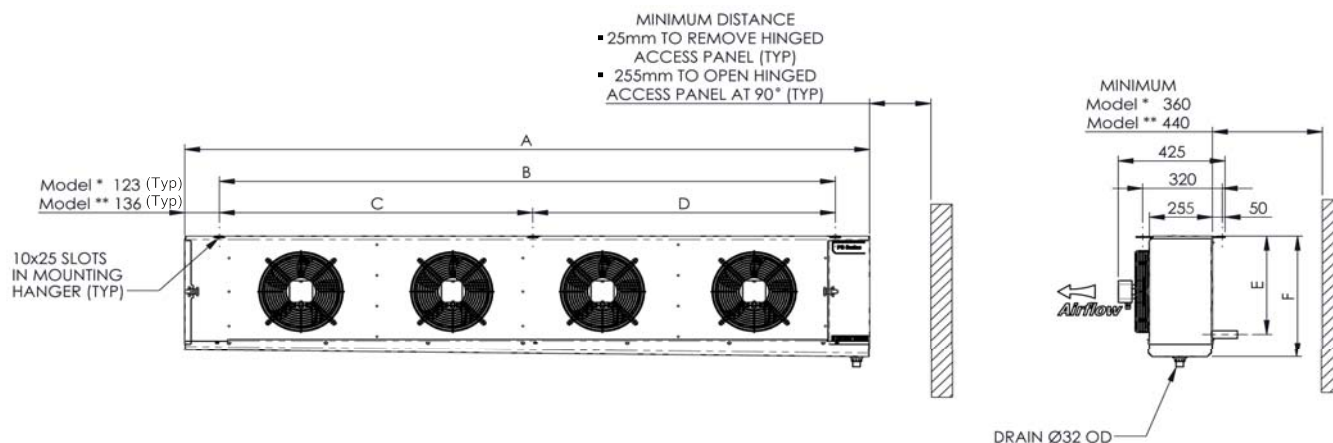
FIN SERIES	4	5	6	7	8
CAPACITY MULTIPLIER	0.82	0.91	1	1.06	1.12

SUCTION TEMPERATURE	-10	-8	-6	-4	-2	0	2	4	6
CAPACITY MULTIPLIER	0.87	0.9	0.95	1	1.045	1.17	1.23	1.28	1.35

PS-EC E-Coat Models

PS-EC-M	15	24	32	38	48	49	53
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Physical Data



Physical Data - 300mm EC Fans

MODEL	PS-EC-M 015	PS-EC-M 024	PS-EC-M 032	PS-EC-M 038	PS-EC-M 048	PS-EC-M 49	PS-EC-M 053
Suction Connection (mm)	15.9	15.9	15.9	19.0	19.0	22.2	28.6
Distributor Connection (mm)	15.9	15.9	15.9	15.9	15.9	15.9	15.9
Ext Equaliser (mm)	6.4	6.4	6.4	6.4	6.4	6.4	6.4
Operating Refrigerant Charge (kg) Based on R404A	0.6	0.6	0.8	0.9	1.2	1.7	2.0
Dimensions (mm)							
A	840	840	1390	1390	1390	1535	1535
B	594	594	1144	1144	1144	1263	1263
C & D	NOTE : Not Applicable						
E	358	358	358	358	335	420	410
F	440	440	440	440	440	520	520
Weight	Unpacked (kg)	16	20	27	28	34	40
	Packed (kg)	22	26	35	36	42	48

MODEL	PS-EC-M 065	PS-EC-M 076	PS-EC-M 082	PS-EC-M 099	PS-EC-M 109	PS-EC-M 127	PS-EC-M 140
Suction Connection (mm)	28.6	28.6	28.6	28.6	31.8	31.8	31.8
Distributor Connection (mm)	15.9	15.9	15.9	22.2	22.2	22.2	22.2
Ext Equaliser (mm)	6.4	6.4	6.4	6.4	6.4	6.4	6.4
Operating Refrigerant Charge (kg) Based on R404A	2.1	2.7	3.0	3.5	4.4	4.8	5.9
Dimensions (mm)							
A	2145	2145	2145	2754	2754	3364	3364
B	1873	1873	1873	2482	2482	3092	3092
C	-	-	-	1263	1263	1873	1873
D	-	-	-	1219	1219	1219	1219
E	420	410	410	420	410	420	410
F	520	520	520	520	520	520	520
Weight	Unpacked (kg)	47	53	56	68	75	88
	Packed (kg)	57	63	66	100	107	128

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