

HS Series

Ceiling Air Cooler





HS Series Ceiling Air Cooler



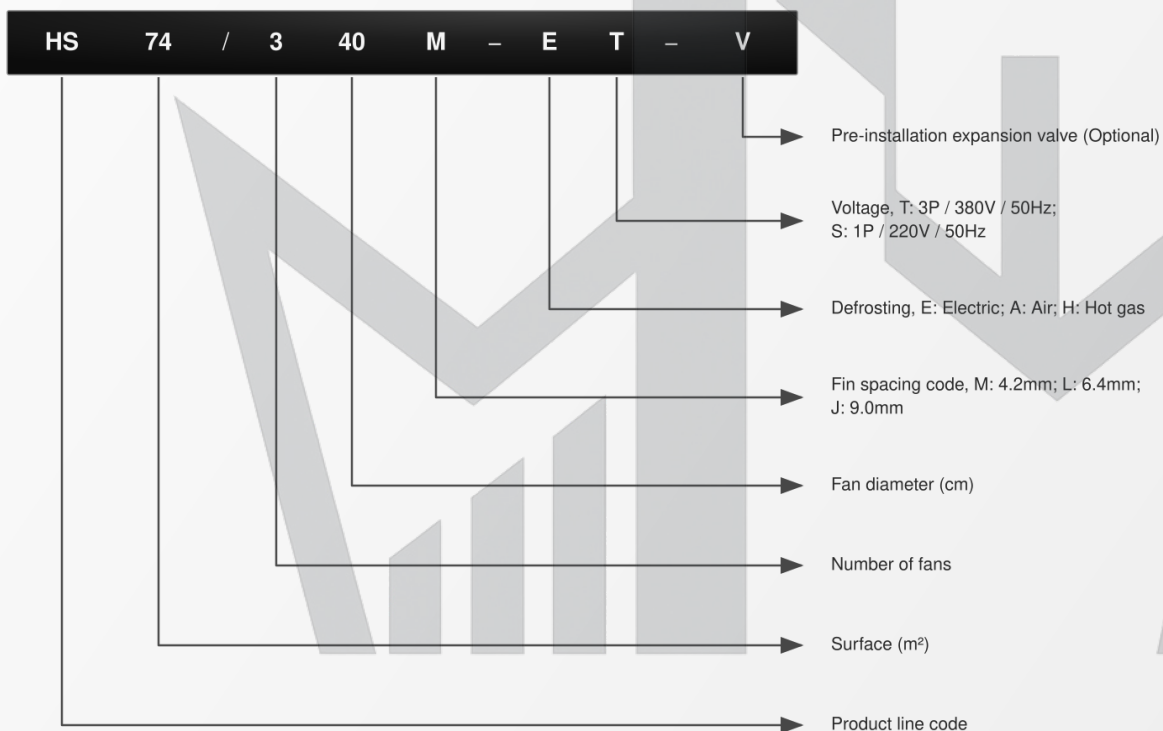


HS Series Ceiling Air Cooler

1. Product Description

- 1 Casing: Adopt high-quality steel plate with powder coating RAL9003. Hinged structure is adopted for both side plates and external drip tray, which is convenient and quick to operate;
- 2 Heat Exchanger Coil: Copper tubing $\Phi 12$, spacing 38.1×33 ; corrugated aluminium fins, fin spacing 4.2mm, 6.4mm and 9.0mm;
- 3 Fans: Axial fans with high wind circle, working temperature -40°C to 60°C . High air duct design with integral stretching, good ventilation effect, further air throw and lower noise.
Fans are individually connected to a junction box. Fan blade $\Phi 300$ (Optional), $\Phi 350$, $\Phi 400$, $\Phi 500$, standard 4-pole motor;
- 4 Defrosting: Standard use of electric defrosting; stainless heating pipes installed in the middle of the coil and inner water plate. Independent electric heating tube junction box. Hot-gas defrosting or coil hot-gas defrosting can also be used.
- 5 It can meet the requirements of R404A, R507A, R448A, R449A, R134a, R22 and other refrigerants.

2. Model Description





Performance Data Sheet

3

Fin Spacing 4.2mm

Model	Capacity R404A (kW)		Surface (m ²)	Volume (dm ³)	Airflow (m ³ /h)	Air Throw (m)	Connection Pipe			Weight (kg)
	T _c = 0°C ΔT = 8K	T _c = -18°C ΔT = 7K					Inlet	Outlet	Drain	
Fan 350										
HS11/135M-ES	2.7	2.2	10.5	2.1	2300	6	Φ12	Φ19	G1"	33
HS14/135M-ES	3.4	2.7	13.9	2.8	2000	6	Φ12	Φ19	G1"	35
HS21/235M-ES	5.5	4.5	21.0	4.1	4600	8	Φ12	Φ19	G1"	52
HS28/235M-ES	6.7	5.4	27.9	5.5	4000	8	Φ12	Φ22	G1"	55
HS31/335M-ES	8.3	6.6	31.4	5.8	6900	10	Φ12	Φ22	G1"	71
HS42/335M-ES	10.1	8.0	41.9	8.1	6000	10	Φ16	Φ28	G1"	76
HS42/435M-ES	11.1	8.9	41.9	7.7	9200	12	Φ12	Φ22	G1"	91
HS56/435M-ES	13.6	10.9	55.9	10.6	8000	12	Φ16	Φ28	G1"	97
Fan 400										
HS24/140M-ET	5.8	4.6	24.2	4.8	3000	8	Φ12	Φ22	G1"	49
HS36/140M-ET	7.6	6.1	36.3	7.2	2700	7	Φ12	Φ22	G1"	55
HS36/240M-ET	8.7	7.0	36.3	7.2	6300	11	Φ16	Φ28	G1"	79
HS48/240M-ET	11.6	9.2	48.3	9.0	6000	11	Φ16	Φ28	G1"	83
HS73/240M-ET	15.2	12.1	72.5	13.5	5400	10	Φ16	Φ28	G1"	91
HS74/340M-ET	17.9	14.3	74.4	13.6	9000	14	Φ22	Φ42	2"G1"	125
HS112/340M-ET	23.4	18.7	111.6	20.4	8100	13	Φ22	Φ42	2"G1"	139
HS97/440M-ET	23.2	18.5	96.7	17.5	12000	16	Φ22	Φ42	2"G1"	161
HS121/440M-ET	26.6	21.2	120.8	21.9	11400	15	Φ22	Φ42	2"G1"	170
HS145/440M-ET	30.5	24.4	145.0	26.3	10800	15	Φ22	Φ42	2"G1"	179
HS121/540M-ET	28.9	23.0	120.8	21.7	15000	18	Φ28	Φ42	3"G1"	197
HS147/540M-ET	32.4	25.9	147.3	26.5	14250	17	Φ28	Φ50	3"G1"	210
HS181/540M-ET	38.0	30.4	181.3	32.6	13500	17	Φ28	Φ50	3"G1"	223

Remarks: In the table, T_c is the cold-room temperature, and ΔT is the difference between the cold-room temperature and the evaporation temperature.



Performance Data Sheet

3

3.1 Fin Spacing 4.2mm

Model	Capacity R404A (kW)		Surface (m ²)	Volume (dm ³)	Airflow (m ³ /h)	Air Throw (m)	Connection Pipe			Weight (kg)
	T _c = 0°C ΔT = 8K	T _c = -18°C ΔT = 7K					Inlet	Outlet	Drain	
Fan 500										
HS38/150M-ET	10.5	8.4	37.6	7.2	6000	18	Φ16	Φ28	G1"	73
HS47/150M-ET	12.0	9.6	47.1	9.0	5750	17	Φ16	Φ28	G1"	78
HS57/150M-ET	13.6	10.8	56.5	10.8	5500	17	Φ16	Φ28	G1"	83
HS75/250M-ET	21.1	16.8	75.3	13.8	12000	21	Φ22	Φ42	G1"	135
HS94/250M-ET	24.0	19.2	94.1	17.3	11500	20	Φ22	Φ42	G1"	143
HS113/250M-ET	27.1	21.6	112.9	20.7	11000	20	Φ22	Φ42	G1"	152
HS113/350M-ET	31.6	25.2	112.9	20.5	18000	23	Φ28	Φ50	2"G1"	187
HS141/350M-ET	36.0	28.8	141.2	25.5	17300	22	Φ28	Φ50	2"G1"	201
HS169/350M-ET	40.6	32.4	169.4	30.6	16500	22	Φ28	Φ50	2"G1"	213
HS151/450M-ET	42.2	33.7	150.6	27.0	24000	25	Φ28	Φ50	3"G1"	243
HS188/450M-ET	48.0	38.4	188.2	33.8	23000	24	Φ28	Φ50	3"G1"	260
HS226/450M-ET	54.2	43.3	225.9	40.6	22000	24	Φ28	Φ50	3"G1"	277

Remarks: In the table, T_c is the cold-room temperature, and ΔT is the difference between the cold-room temperature and the evaporation temperature.

3.2 Fin Spacing 6.4mm

Model	Capacity R404A (kW)		Surface (m²)	Volume (dm³)	Airflow (m³/h)	Air Throw (m)	Connection Pipe			Weight (kg)
	T _c = 0°C ΔT = 8K	T _c = −18°C ΔT = 7K					Inlet	Outlet	Drain	
Fan 350										
HS7/135L-ES	2.1	1.7	7.1	2.1	2400	6	Φ12	Φ19	G1"	32
HS10/135L-ES	2.6	2.0	9.5	2.8	2100	6	Φ12	Φ19	G1"	34
HS14/235L-ES	4.1	3.3	14.2	4.1	4800	8	Φ12	Φ19	G1"	50
HS19/235L-ES	5.0	3.9	18.9	5.5	4200	8	Φ12	Φ22	G1"	53
HS21/335L-ES	6.3	5.0	21.3	5.8	7200	10	Φ16	Φ28	G1"	68
HS28/335L-ES	7.5	6.0	28.4	8.1	6300	10	Φ16	Φ28	G1"	72
HS28/435L-ES	8.3	6.5	28.4	7.7	9600	12	Φ16	Φ28	G1"	87
HS38/435L-ES	10.0	8.0	37.8	10.6	8400	12	Φ16	Φ28	G1"	92

Remarks: In the table, T_c is the cold-room temperature, and ΔT is the difference between the cold-room temperature and the evaporation temperature.



Performance Data Sheet

3

3.2 Fin Spacing 6.4mm

Model	Capacity R404A (kW)		Surface (m²)	Volume (dm³)	Airflow (m³/h)	Air Throw (m)	Connection Pipe			Weight (kg)
	Tc = 0°C ΔT = 8K	Tc = −18°C ΔT = 7K					Inlet	Outlet	Drain	
Fan 400										
HS16/140L-ET	4.3	3.4	16.4	4.8	3200	8	Φ12	Φ22	G1"	48
HS25/140L-ET	5.4	4.3	24.6	7.2	2900	7	Φ12	Φ22	G1"	53
HS25/240L-ET	6.5	5.0	24.6	7.2	6600	12	Φ16	Φ28	G1"	78
HS33/240L-ET	8.5	6.8	32.8	9.0	6400	12	Φ16	Φ28	G1"	81
HS49/240L-ET	10.8	8.6	49.2	13.5	5800	11	Φ16	Φ28	G1"	88
HS50/340L-ET	13.1	10.4	50.4	13.6	9600	14	Φ22	Φ42	2"G1"	122
HS76/340L-ET	16.6	13.2	75.6	20.4	8700	13	Φ22	Φ42	2"G1"	135
HS66/440L-ET	17.1	13.6	65.6	17.5	12800	16	Φ22	Φ42	2"G1"	157
HS82/440L-ET	19.3	15.4	82.0	21.9	12200	15	Φ22	Φ42	2"G1"	165
HS98/440L-ET	21.6	17.2	98.3	26.3	11600	15	Φ22	Φ42	2"G1"	173
HS82/540L-ET	21.3	17.0	82.0	21.7	16000	19	Φ28	Φ42	3"G1"	192
HS100/540L-ET	23.5	18.8	99.9	26.5	15200	18	Φ28	Φ50	3"G1"	203
HS123/540L-ET	27.1	21.6	122.9	32.6	14500	18	Φ28	Φ50	3"G1"	215
Fan 500										
HS26/150L-ET	8.4	6.7	25.5	7.2	6200	18	Φ16	Φ28	G1"	71
HS32/150L-ET	9.6	7.6	31.9	9.0	5950	17	Φ16	Φ28	G1"	76
HS38/150L-ET	10.7	8.5	38.3	10.8	5700	17	Φ16	Φ28	G1"	80
HS51/250L-ET	16.7	13.3	51.1	13.8	12400	21	Φ22	Φ42	G1"	132
HS64/250L-ET	19.1	15.2	63.8	17.3	11900	20	Φ22	Φ42	G1"	139
HS77/250L-ET	21.4	17.1	76.6	20.7	11400	20	Φ22	Φ42	G1"	146
HS77/350L-ET	25.3	20.2	76.6	20.5	18600	23	Φ28	Φ50	2"G1"	182
HS96/350L-ET	28.7	22.9	95.7	25.5	17850	22	Φ28	Φ50	2"G1"	195
HS115/350L-ET	32.2	25.7	114.9	30.6	17100	22	Φ28	Φ50	2"G1"	204
HS102/450L-ET	33.7	26.9	102.1	27.0	24800	25	Φ28	Φ50	3"G1"	236
HS128/450L-ET	38.3	30.6	127.7	33.8	23800	24	Φ28	Φ50	3"G1"	252
HS153/450L-ET	42.9	34.3	153.2	40.6	22800	24	Φ28	Φ50	3"G1"	265

Remarks: In the table, T_c is the cold-room temperature, and ΔT is the difference between the cold-room temperature and the evaporation temperature.



Performance Data Sheet

3

3.3 Fin Spacing 9.0mm

Model	Capacity R404A (kW)		Surface (m²)	Volume (dm³)	Airflow (m³/h)	Air Throw (m)	Connection Pipe			Weight (kg)
	Tc = 0°C ΔT = 8K	Tc = -18°C ΔT = 7K					Inlet	Outlet	Drain	
Fan 350										
HS5/135J-ES	1.7	1.3	5.2	2.1	2500	6	φ12	φ19	G1"	32
HS7/135J-ES	2.1	1.7	7.0	2.8	2200	6	φ12	φ19	G1"	34
HS11/235J-ES	3.4	2.7	10.5	4.1	5000	8	φ12	φ19	G1"	50
HS14/235J-ES	4.2	3.4	14.0	5.5	4400	7	φ12	φ22	G1"	53
HS16/335J-ES	5.0	4.0	15.7	5.8	7500	10	φ16	φ28	G1"	68
HS21/335J-ES	6.4	5.1	21.0	8.1	6600	10	φ16	φ28	G1"	72
HS21/435J-ES	6.8	5.4	21.0	7.7	10000	12	φ16	φ28	G1"	87
HS28/435J-ES	8.5	6.8	27.9	10.6	8800	12	φ16	φ28	G1"	92
Fan 400										
HS12/140J-ET	3.3	2.6	12.1	4.8	3400	8	φ12	φ22	G1"	48
HS18/140J-ET	4.2	3.3	18.2	7.2	3100	7	φ12	φ22	G1"	53
HS18/240J-ET	5.0	4.0	18.2	7.2	7100	12	φ16	φ28	G1"	77
HS24/240J-ET	6.5	5.2	24.2	9.0	6800	12	φ16	φ28	G1"	80
HS36/240J-ET	8.3	6.6	36.3	13.5	6200	11	φ16	φ28	G1"	87
HS37/340J-ET	10.0	8.0	37.2	13.6	10200	14	φ22	φ42	2"G1"	121
HS56/340J-ET	12.8	10.2	55.9	20.4	9300	13	φ22	φ42	2"G1"	133
HS48/440J-ET	13.1	10.4	48.4	17.5	13600	16	φ22	φ42	2"G1"	156
HS61/440J-ET	14.8	11.8	60.5	21.9	13000	15	φ22	φ42	2"G1"	164
HS73/440J-ET	16.7	13.3	72.6	26.3	12400	15	φ22	φ42	2"G1"	171
HS61/540J-ET	16.3	13.0	60.5	21.7	17000	19	φ28	φ42	3"G1"	190
HS74/540J-ET	18.1	14.4	73.8	26.5	16200	18	φ28	φ50	3"G1"	202
HS91/540J-ET	20.9	16.7	90.8	32.6	15500	18	φ28	φ50	3"G1"	213

Remarks: In the table, T_c is the cold-room temperature, and ΔT is the difference between the cold-room temperature and the evaporation temperature.



Performance Data Sheet

3

3.3 Fin Spacing 9.0mm — Continued

Model	Capacity R404A (kW)		Surface (m ²)	Volume (dm ³)	Airflow (m ³ /h)	Air Throw (m)	Connection Pipe			Weight (kg)
	Tc = 0°C ΔT = 8K	Tc = -18°C ΔT = 7K					Inlet	Outlet	Drain	
Fan 500										
HS19/150J-ET	7.4	5.9	18.9	7.2	6400	18	φ16	φ28	G1"	71
HS24/150J-ET	8.7	6.9	23.6	9.0	6150	17	φ16	φ28	G1"	75
HS28/150J-ET	9.9	7.9	28.3	10.8	5900	17	φ16	φ28	G1"	80
HS38/250J-ET	14.7	11.7	37.7	13.8	12800	21	φ22	φ42	G1"	131
HS47/250J-ET	17.4	13.9	47.1	17.3	12300	20	φ22	φ42	G1"	138
HS57/250J-ET	19.8	15.8	56.6	20.7	11800	20	φ22	φ42	G1"	145
HS57/350J-ET	22.1	17.6	56.6	20.5	19200	23	φ28	φ50	2"G1"	181
HS71/350J-ET	26.1	20.8	70.7	25.5	18450	22	φ28	φ50	2"G1"	194
HS85/350J-ET	29.7	23.7	84.9	30.6	17700	22	φ28	φ50	2"G1"	203
HS75/450J-ET	29.4	23.5	75.4	27.0	25600	25	φ28	φ50	3"G1"	235
HS94/450J-ET	34.8	27.8	94.3	33.8	24600	24	φ28	φ50	3"G1"	250
HS113/450J-ET	39.5	31.6	113.1	40.6	23600	24	φ28	φ50	3"G1"	263

Remarks: In the table, T_c is the cold-room temperature, and ΔT is the difference between the cold-room temperature and the evaporation temperature.

Electrical Parameter Table

4

Model	Fan Motor				Electric Defrost		
	Voltage (V)	Power (W)	Current (A)	Rev. (r/min)	Coil (kW)	Tray (kW)	Total (kW)
HS*/135**	380-3	195	0.46	1330	2×0.5	1×0.5	1.5
HS*/235**	380-3	390	0.92	1330	2×0.9	1×0.9	2.7
HS*/335**	380-3	585	1.38	1330	2×1.3	1×1.3	3.9
HS*/435**	380-3	780	1.84	1330	2×1.7	1×1.7	5.1
HS24/140M-ET HS16/140L-ET HS12/140J-ET	380-3	240	0.52	1330	3×0.65	1×0.7	2.0
HS36/140M-ET HS25/140L-ET HS18/140J-ET	380-3	240	0.52	1330	6×0.65	1×0.7	4.6

Remarks: In the table, T_c is the cold-room temperature, and ΔT is the difference between the cold-room temperature and the evaporation temperature.



Electrical Parameter Table

4

Section 4 — Continued

Model	Fan Motor				Electric Defrost		
	Voltage (V)	Power (W)	Current (A)	Rev. (r/min)	Coil (kW)	Tray (kW)	Total (kW)
HS36/240M-ET HS25/240L-ET HS18/240J-ET	380-3	480	1.04	1330	3×1.17	1×1.22	4.7
HS48/240M-ET HS33/240L-ET HS24/240J-ET	380-3	480	1.04	1330	3×1.17	1×1.22	4.7
HS73/240M-ET HS49/240L-ET HS36/240J-ET	380-3	480	1.04	1330	6×1.17	1×1.22	8.2
HS74/340M-ET HS50/340L-ET HS37/340J-ET	380-3	720	1.56	1330	3×1.73	1×1.78	7.0
HS112/340M-ET HS76/340L-ET HS56/340J-ET	380-3	720	1.56	1330	6×1.73	1×1.78	12.2
HS97/440M-ET HS66/440L-ET HS48/440J-ET	380-3	960	2.08	1330	3×2.2	1×2.26	8.9
HS121/440M-ET HS82/440L-ET HS61/440J-ET	380-3	960	2.08	1330	5×2.2	1×2.26	13.3
HS145/440M-ET HS98/440L-ET HS73/440J-ET	380-3	960	2.08	1330	6×2.2	1×2.26	15.5
HS121/540M-ET HS82/540L-ET HS61/540J-ET	380-3	1200	2.6	1330	3×2.73	1×2.8	11.0
HS147/540M-ET HS100/540L-ET HS74/540J-ET	380-3	1200	2.6	1330	5×2.73	1×2.8	16.5
HS181/540M-ET HS123/540L-ET HS91/540J-ET	380-3	1200	2.6	1330	6×2.73	1×2.8	19.2
HS38/150M-ET HS26/150L-ET HS19/150J-ET	380-3	548	1.1	1380	3×0.85	2×0.9	4.4
HS47/150M-ET HS32/150L-ET HS24/150J-ET	380-3	548	1.1	1380	6×0.85	2×0.9	6.9
HS57/150M-ET HS38/150L-ET HS28/150J-ET	380-3	548	1.1	1380	6×0.85	2×0.9	6.9

Remarks: In the table, T_c is the cold-room temperature, and ΔT is the difference between the cold-room temperature and the evaporation temperature.



Electrical Parameter Table

4

Section 4 — Continued

Model	Fan Motor				Electric Defrost		
	Voltage (V)	Power (W)	Current (A)	Rev. (r/min)	Coil (KW)	Tray (KW)	Total (KW)
HS75/250M-ET HS51/250L-ET HS38/250J-ET	380-3	1096	2.2	1380	3×1.57	2×1.62	8.0
HS94/250M-ET HS64/250L-ET HS47/250J-ET	380-3	1096	2.2	1380	6×1.57	2×1.62	12.7
HS113/250M-ET HS77/250L-ET HS57/250J-ET	380-3	1096	2.2	1380	6×1.57	2×1.62	12.7
HS113/350M-ET HS77/350L-ET HS57/350J-ET	380-3	1644	3.3	1380	3×2.3	2×2.34	11.6
HS141/350M-ET HS96/350L-ET HS71/350J-ET	380-3	1644	3.3	1380	6×2.3	2×2.34	18.5
HS169/350M-ET HS115/350L-ET HS85/350J-ET	380-3	1644	3.3	1380	6×2.3	2×2.34	18.5
HS151/450M-ET HS102/450L-ET HS75/450J-ET	380-3	2192	4.4	1380	3×3.0	2×3.1	15.2
HS188/450M-ET HS128/450L-ET HS94/450J-ET	380-3	2192	4.4	1380	6×3.0	2×3.1	24.2
HS226/450M-ET HS153/450L-ET HS113/450J-ET	380-3	2192	4.4	1380	6×3.0	2×3.1	24.2

Remarks: In the table, T_c is the cold-room temperature, and ΔT is the difference between the cold-room temperature and the evaporation temperature.

Outline & Installation Dimensions

5

Dimensions in millimetres (mm)

Model	Outline Dimensions (mm)			Installation Dimensions (mm)							
	L	W	H	A	B	B1	B2	B3	B4	C	Installation Hole
HS*/135**	900	515	590	380	530	/	/	/	/	300	4-φ13
HS*/235**	1400	515	590	380	1030	/	/	/	/	300	4-φ13
HS*/335**	1900	515	590	380	1530	/	/	/	/	300	4-φ13
HS*/435**	2400	515	590	380	2030	/	1000	/	/	300	6-φ13
HS*/140**	1050	540	730	430	680	/	/	/	/	400	4-φ13
HS*/240**	1700	540	730	430	1330	/	/	/	/	400	4-φ13
HS*/340**	2400	540	730	430	2030	/	/	/	/	400	4-φ13
HS*/440**	3000	540	730	430	2630	/	1300	/	/	400	6-φ13
HS*/540**	3650	540	730	430	3280	/	1300	1950	/	400	8-φ13
HS*/150**	1300	700	830	530	930	/	/	/	/	500	4-φ13
HS*/250**	2200	700	830	530	1830	900	/	/	/	500	6-φ13
HS*/350**	3100	700	830	530	2730	900	1800	/	/	500	8-φ13
HS*/450**	4000	700	830	530	3630	900	1800	2700	/	500	10-φ13

Original Engineering Draft — Unmodified

