

LS Series

Ground-Type Air Cooler





GROUND-TYPE AIR COOLER

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1. Product Description

1**Casing**

High-quality steel plate with RAL 9003 powder coating for strong corrosion resistance. Both side plates and the external drip tray are convenient to disassemble.

2**Heat Exchanger Coil**

φ15 copper tubing with 50 × 50 spacing. Corrugated aluminium fins with fin spacing of 6.4 mm, 9.0 mm, and 12.0 mm.

3**Fans**

Axial fans with fan blade diameters φ500 and φ630. Operating temperature: -40°C to 60°C. Independent fan junction box.

4**Electric Defrosting**

Stainless-steel heating pipes installed in the middle of the coil and inner water plate. Independent electric-heating pipe junction box.

5**Refrigerants**

Compatible with R404A, R507A, R448A, R449A, R22, and other refrigerants.

2. Model Description

LS 55 / 1 50 M - E T - V

Code	Definition
V	Pre-installed expansion valve (Optional)
T	Voltage: T: 3P / 380V / 50Hz
E	Defrost: E: Electric
M	Fin spacing code: L: 6.4mm, J: 9.0mm, K: 12mm
50	Fan diameter (cm)
1	Number of fans
55	Surface (m ²)
LS	Product line code



3. Performance Data Sheet

3.1 Fin Spacing 6.4 mm

Model	R404A Capacity (kW)		Surface (m ²)	Volume (dm ³)	Airflow (m ³ /h)	Inlet	Outlet	Drain	Weight (kg)
	Condition 1	Condition 2							
	Tc=0°C, ΔT=8K	Tc=-18°C, ΔT=7K							
Fan 500									
LS37/150L-ET	9.3	7.3	37.1	8.7	6900	φ16	φ28	G1.5	166
LS49/150L-ET	11.4	9.0	49.4	11.5	6500	φ16	φ28	G1.5	172
LS62/150L-ET	13.0	10.2	61.8	14.4	6200	φ16	φ28	G1.5	177
LS74/250L-ET	18.5	14.6	74.1	16.4	13800	φ22	φ42	G1.5	260
LS99/250L-ET	22.7	17.9	98.8	21.8	13000	φ22	φ42	G1.5	271
LS124/250L-ET	25.9	20.5	123.5	27.3	12400	φ22	φ42	G1.5	283
LS111/350L-ET	27.8	22.0	111.2	24.1	20700	φ28	φ50	2*G1.5	354
LS148/350L-ET	34.1	26.9	148.2	32.1	19500	φ28	φ50	2*G1.5	372
LS185/350L-ET	38.9	30.7	185.3	40.1	18600	φ28	φ50	2*G1.5	389
LS151/450L-ET	37.6	29.7	150.5	32.3	27600	φ28	φ50	2*G1.5	452
LS196/450L-ET	45.0	35.5	195.7	42.0	26000	φ28	φ50	2*G1.5	475
LS241/450L-ET	50.6	40.0	240.9	51.7	24800	φ28	φ50	2*G1.5	498
Fan 630									
LS78/163L-ET	17.8	14.0	77.8	18.0	10100	φ22	φ35	G1.5	255
LS97/163L-ET	21.4	16.9	97.3	22.5	9600	φ22	φ35	G1.5	264
LS156/263L-ET	35.8	28.2	155.6	34.2	20200	φ22	φ42	G1.5	408
LS195/263L-ET	42.8	33.8	194.5	42.7	19200	φ22	φ42	G1.5	426
LS234/363L-ET	53.7	42.4	233.5	50.3	30300	φ28	φ50	2*G1.5	564
LS292/363L-ET	64.2	50.7	291.8	62.9	28800	φ28	φ50	2*G1.5	591
LS311/463L-ET	71.6	56.5	311.3	66.5	40400	2-φ22	2-φ42	2*G1.5	716
LS384/463L-ET	84.3	66.6	383.5	82.0	38400	2-φ22	2-φ42	2*G1.5	751

3.2 Fin Spacing 9.0 mm

Model	R404A Capacity (kW)		Surface (m ²)	Volume (dm ³)	Airflow (m ³ /h)	Inlet	Outlet	Drain	Weight (kg)
	Condition 1	Condition 2							
	Tc=0°C, ΔT=8K	Tc=-25°C, ΔT=6K							
Fan 500									
LS27/150J-ET	7.3	4.8	27.0	8.7	7000	φ16	φ28	G1.5	164
LS36/150J-ET	9.0	5.9	36.0	11.5	6800	φ16	φ28	G1.5	170
LS45/150J-ET	10.3	6.8	45.0	14.4	6500	φ16	φ28	G1.5	175
LS54/250J-ET	14.5	9.6	54.0	16.4	14000	φ22	φ42	G1.5	257
LS72/250J-ET	18.0	11.9	72.1	21.8	13600	φ22	φ42	G1.5	268
LS90/250J-ET	20.7	13.7	90.1	27.3	13000	φ28	φ42	G1.5	279
LS81/350J-ET	21.9	14.5	81.1	24.1	21000	φ28	φ50	2*G1.5	351
LS108/350J-ET	27.0	17.8	108.1	32.1	20400	φ28	φ50	2*G1.5	367
LS135/350J-ET	31.0	20.5	135.1	40.1	19500	φ28	φ50	2*G1.5	383
LS110/450J-ET	29.6	19.5	109.8	32.3	21000	φ28	φ50	2*G1.5	446
LS143/450J-ET	35.7	23.6	142.7	42.0	27200	φ28	φ50	2*G1.5	468
LS176/450J-ET	40.4	26.7	175.7	51.7	26000	φ28	φ50	2*G1.5	489
Fan 630									
LS57/163J-ET	13.9	9.1	56.8	18.0	10300	φ22	φ35	G1.5	253
LS71/163J-ET	16.3	10.7	70.9	22.5	10000	φ22	φ35	G1.5	261
LS114/263J-ET	27.8	18.3	113.5	34.2	20600	φ22	φ42	G1.5	403
LS142/263J-ET	32.6	21.5	141.9	42.7	20000	φ22	φ42	G1.5	419
LS170/363J-ET	41.7	27.5	170.3	50.3	30900	φ28	φ50	2*G1.5	557
LS213/363J-ET	48.9	32.2	212.8	62.9	30000	φ28	φ50	2*G1.5	581
LS227/463J-ET	55.6	36.6	227.0	66.5	41200	2-φ22	2-φ42	2*G1.5	706
LS280/463J-ET	64.3	42.4	279.7	82.0	40000	2-φ22	2-φ42	2*G1.5	738



3.3 Fin Spacing 12.0 mm

Model	R404A Capacity at Condition 1 (kW)	R404A Capacity at Condition 2 (kW)	Surface (m ²)	Volume (dm ³)	Airflow (m ³ /h)	Inlet	Outlet	Drain	Weight (kg)
	Tc=0°C, ΔT=8K	Tc=-35°C, ΔT=6K							
Fan 500									
LS21/150K-ET	5.8	3.5	20.8	8.7	7100	φ16	φ28	G1.5	164
LS28/150K-ET	7.2	4.3	27.8	11.5	6900	φ16	φ28	G1.5	170
LS35/150K-ET	8.7	5.2	34.7	14.4	6700	φ16	φ28	G1.5	175
LS42/250K-ET	11.6	7.0	41.7	16.4	14200	φ22	φ42	G1.5	256
LS56/250K-ET	14.5	8.7	55.6	21.8	13800	φ22	φ42	G1.5	267
LS69/250K-ET	17.4	10.4	69.4	27.3	13400	φ22	φ42	G1.5	277
LS63/350K-ET	17.5	10.5	62.5	24.1	21300	φ28	φ50	2*G1.5	350
LS83/350K-ET	21.6	13.0	83.3	32.1	20700	φ28	φ50	2*G1.5	365
LS104/350K-ET	26.0	15.6	104.2	40.1	20100	φ28	φ50	2*G1.5	381
LS85/450K-ET	23.6	14.1	84.6	32.3	28400	φ28	φ50	2*G1.5	445
LS110/450K-ET	28.6	17.2	110.0	42.0	27600	φ28	φ50	2*G1.5	467
LS135/450K-ET	33.8	20.2	135.4	51.7	26800	φ28	φ50	2*G1.5	487
Fan 630									
LS44/163K-ET	11.1	6.6	43.7	18.0	10500	φ22	φ35	G1.5	252
LS55/163K-ET	13.1	7.8	54.7	22.5	10200	φ22	φ35	G1.5	260
LS88/263K-ET	22.3	13.4	87.5	34.2	21000	φ22	φ42	G1.5	401
LS109/263K-ET	26.2	15.7	109.4	42.7	20400	φ22	φ42	G1.5	417
LS131/363K-ET	33.5	20.1	131.2	50.3	31500	φ28	φ50	2*G1.5	554
LS164/363K-ET	39.4	23.6	164.1	62.9	30600	φ28	φ50	2*G1.5	578
LS175/463K-ET	44.6	26.7	175.0	66.5	42000	2-φ22	2-φ42	2*G1.5	703
LS216/463K-ET	51.7	31.0	215.6	82.0	40800	2-φ22	2-φ42	2*G1.5	734

4. Electrical Parameter Table

Model	Fan Motor				Electric Defrost		
	Voltage (V)	Power (W)	Current (A)	Rev. (r/min)	Coil (kW)	Tray (kW)	Total (kW)
LS37/150L-ET LS27/150J-ET LS21/150K-ET	380-3	548	1.1	1380	5×0.75	2×0.83	5.4
LS49/150L-ET LS36/150J-ET LS28/150K-ET	380-3	548	1.1	1380	5×0.75	2×0.83	5.4
LS62/150L-ET LS45/150J-ET LS35/150K-ET	380-3	548	1.1	1380	9×0.75	2×0.83	8.4
LS74/250L-ET LS54/250J-ET LS42/250K-ET	380-3	1096	2.2	1380	5×1.39	2×1.47	9.9
LS99/250L-ET LS72/250J-ET LS56/250K-ET	380-3	1096	2.2	1380	5×1.39	2×1.47	9.9
LS124/250L-ET LS90/250J-ET LS69/250K-ET	380-3	1096	2.2	1380	9×1.39	2×1.47	15.5
LS111/350L-ET LS81/350J-ET LS63/350K-ET	380-3	1644	3.3	1380	5×2.03	2×2.11	14.4
LS148/350L-ET LS108/350J-ET LS83/350K-ET	380-3	1644	3.3	1380	5×2.03	2×2.11	14.4
LS185/350L-ET LS135/350J-ET LS104/350K-ET	380-3	1644	3.3	1380	9×2.03	2×2.11	22.5

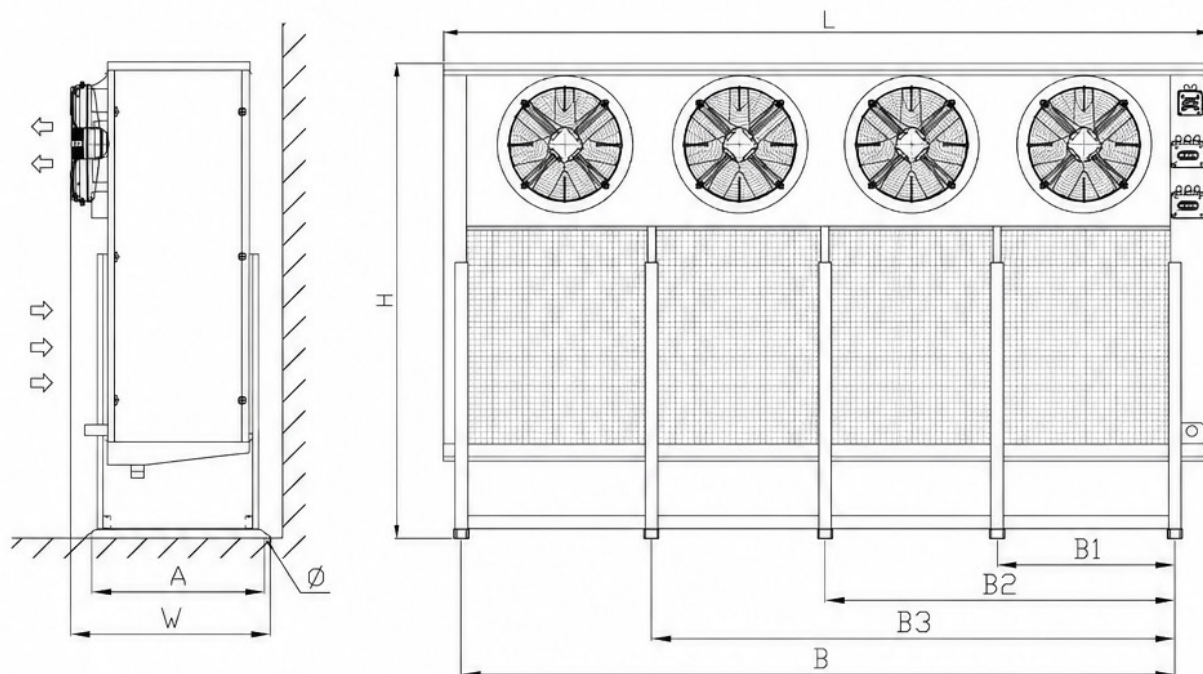


Model	Fan Motor				Electric Defrost		
	Voltage (V)	Power (W)	Current (A)	Rev. (r/min)	Coil (kW)	Tray (kW)	Total (kW)
LS151/450L-ET LS110/450J-ET LS85/450K-ET	380-3	2192	4.4	1380	5×2.71	2×2.79	19.1
LS196/450L-ET LS143/450J-ET LS110/450K-ET	380-3	2192	4.4	1380	5×2.71	2×2.79	19.1
LS241/450L-ET LS176/450J-ET LS135/450K-ET	380-3	2192	4.4	1380	9×2.71	2×2.79	30.0
LS78/163L-ET LS57/163J-ET LS44/163K-ET	380-3	937	1.75	1378	7×0.83	2×0.91	7.6
LS97/163L-ET LS71/163J-ET LS55/163K-ET	380-3	937	1.75	1378	12×0.83	2×0.91	11.8
LS156/263L-ET LS114/263J-ET LS88/263K-ET	380-3	1874	3.5	1378	7×1.55	2×1.63	14.1
LS195/263L-ET LS142/263J-ET LS109/263K-ET	380-3	1874	3.5	1378	12×1.55	2×1.63	21.9
LS234/363L-ET LS170/363J-ET LS131/363K-ET	380-3	2811	5.25	1378	7×2.27	2×2.35	20.6
LS292/363L-ET LS213/363J-ET LS164/363K-ET	380-3	2811	5.25	1378	12×2.27	2×2.35	31.9
LS311/463L-ET LS227/463J-ET LS175/463K-ET	380-3	3748	7.0	1378	7×3.0	2×3.07	27.1
LS384/463L-ET LS280/463J-ET LS216/463K-ET	380-3	3748	7.0	1378	12×3.0	2×3.07	42.1

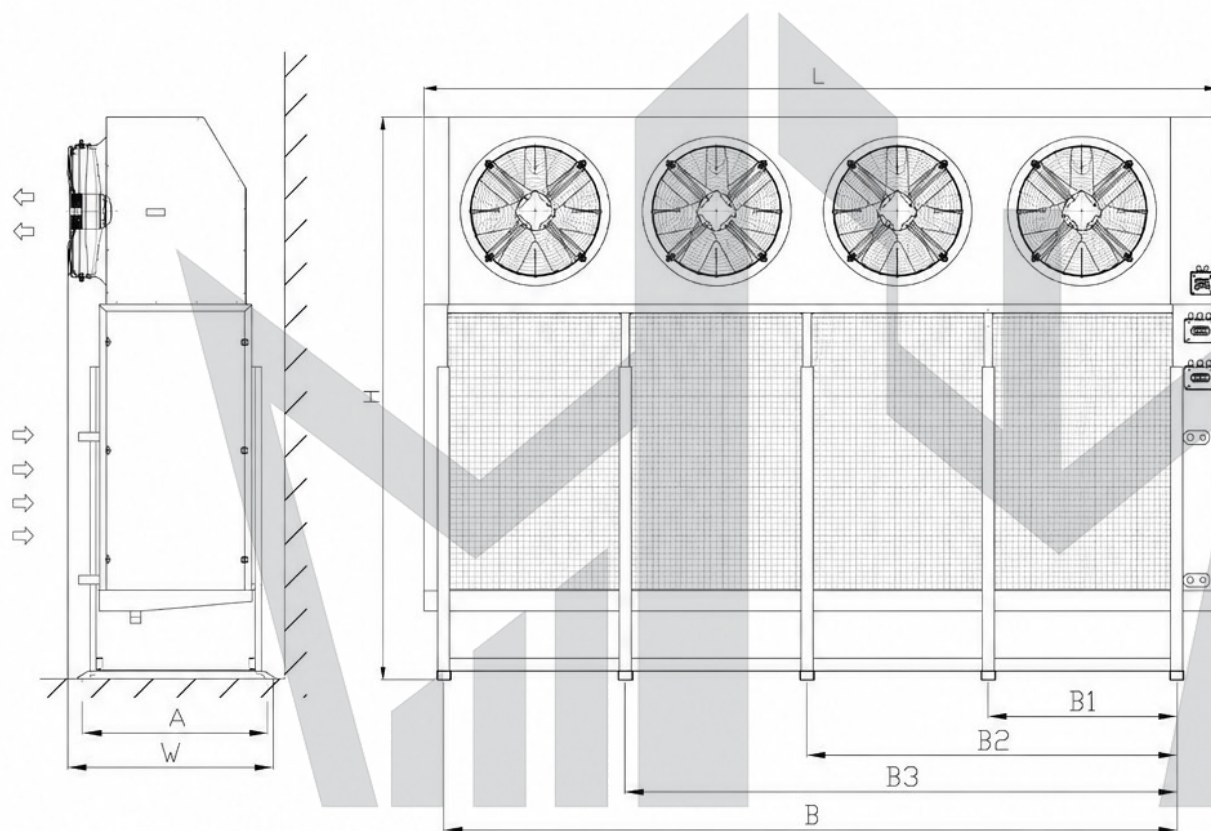
5. Outline & Installation Dimension

Model	Outline (mm)			Install (mm)						Drawing
	L	W	H	A	B	B1	B2	B3	Hole	
LS*/150**	1130	920	2150	800	840	/	/	/	4-φ13	A
LS*/250**	1930	920	2150	800	1640	840	/	/	6-φ13	
LS*/350**	2730	920	2150	800	2440	840	1640	/	8-φ13	
LS*/450**	3580	920	2150	800	3290	853	1665	2478	10-φ13	
LS*/163**	1240	1030	2765	910	940	/	/	/	4-φ13	B
LS*/263**	2140	1030	2765	910	1840	940	/	/	6-φ13	
LS*/363**	3040	1030	2765	910	2740	940	1840	/	8-φ13	
LS*/463**	3940	1030	2765	910	3640	940	1840	2740	10-φ13	

Note: Figure A is an integral structure, while Figure B is A split structure.



Drawing A



Drawing B