

Evaporator E5 Series



High, Medium & Low Temperature Models

GREENHALGH

Innovative Refrigeration Solutions

HIGH EFFICIENCY HEAT EXCHANGER COIL

- Capacity steps in the range are compatible with most compressor capacities
- Optimised with inner grooved tube and designed to maximise the sensible capacity and minimise latent heat and frost losses
- Hydrophilic blue aluminium fins
- Leak tested at 31 bar pressure
- E5-H 2.5mm fin spacing
- E5-L 6.0mm fin spacing
- E5-M 4.2mm fin spacing

STATE OF THE ART DESIGN SOFTWARE

- Greenhalgh thermodynamic & aerodynamic design software was developed, tested and proved in Germany and assures accurate designs

FANS

- High energy-efficiency fans
- Fan nozzle designed for maximum air flow and air throw with reduced power input
- Ziehl Abegg fan motors as standard
- Motor protection to IP54 and insulation to class F
- Single phase fans as standard in this series: 240V/1N/50Hz
- Wiring to AS/NZS standards



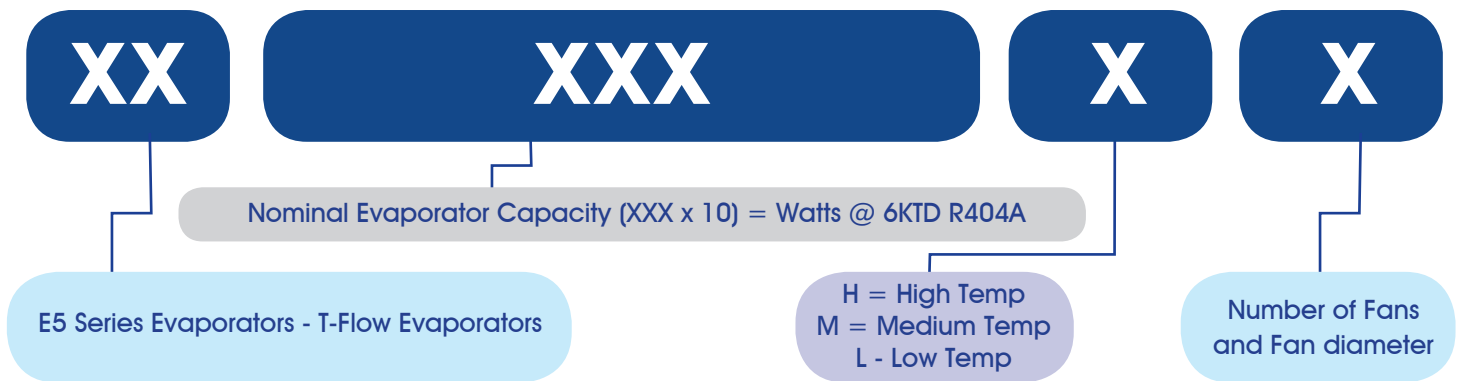
DEFROST

- Designed for efficient cooling capacity during an 8 hour cycle under humid conditions
- Electrical defrost elements designed to thermodynamic calculation of latent heat/ frost energy related to an 8 hour defrost cycle
- Robust stainless steel electric defrost elements with high insulation cable connections to meet UL-SA5102 and CSA-LR19489 standards
- Factory tested at full load
- Defrost elements wired to terminal box suitable for moist conditions (IP66) and low temperature (tested at -40C)

OPTIONS

- Customised fin spacing
- Coils for glycol applications
- Thermostatic expansion valve can be factory fitted by prior arrangement
- Overheat Klixon protection as standard
- EC fan motors

NOMENCLATURE GREENHALGH EVAPORATORS



Example: E5-017-M/1.30

Nomenclature

- E5 = Series
- 017 = Capacity x 10 in Watts on R404A @ 6KTD
- H, M or L
- 1 = Number of Fans
- 30 = Fan diameter x 10 in mm (300mm)

Legend

- H = High Temp
- M = Medium Temp
- L = Low Temp

PERFORMANCE CORRECTION FACTORS

F1 For Temperature

(MEDIUM TEMPERATURE) COOLROOM EVAPORATOR TEMPERATURE CAPACITY CORRECTION FACTORS

F.1	EVAPORATOR TEMPERATURE	-10°C	-8°C	-5°C	-4°C	0°C	+5°C
	MULTIPLICATION FACTOR	0.957	0.98	0.99	1.0	1.021	1.04

(LOW TEMPERATURE) FREEZER ROOM EVAPORATOR TEMPERATURE CAPACITY CORRECTION FACTORS

F.1	EVAPORATOR TEMPERATURE	-35°C	-30°C	-28°C	-25°C	-24°C	-20°C	-15°C	-10°C
	MULTIPLICATION FACTOR	0.95	0.978	0.98	0.99	1.0	1.023	1.06	1.08

For Calculation of the Evaporator Capacity under different conditions

RATED EVAPORATOR CAPACITY
R404A in Watts

X

F.1



E5-H HIGH TEMPERATURE SERIES

Model	GH Reference	Capacity in Watts @ 6KTD			Air Flow		Fan Motors				Defrost Heater	Weight (kg)	Connections				Dimensions (mm)		
		R404A	R22	R134A	l/s	Air Throw (m)	Fan Qty x Ømm	Amps	Watts	Power Supply	Watts		Inlet (mm)	Outlet (mm)	Ext Equaliser	Drain	Length 'L'	Width 'W'	Height 'H'
E5-H HIGH TEMPERATURE SERIES (2.5mm FIN SPACING - 10FPI) (T-FLOW)																			
E5-021-H/1.30	E5-040-H	2130	2000	1810	406	6	1 x 300	0.38	85	380-415/3N/50	NO ELEMENTS AS STANDARD	40	12.70	15.88	6.35	NPT1	803	878	415
E5-024-H/1.30	E5-050-H	2420	2160	2060	364	6	1 x 300	0.38	85			43	12.70	15.88	6.35		803	803	878
E5-031-H/1.35	E5-067-H	3140	2900	2670	654	6	1 x 350	0.92	200			48	12.70	15.88	6.35		903	903	940
E5-039-H/1.35	E5-080-H	3880	3470	3300	583	6	1 x 350	0.92	200			51	12.70	22.22	6.35		903	903	940
E5-045-H/2.30	E5-095-H	4450	4150	3780	764	7	2 x 300	0.76	170			60	12.70	22.22	6.35		1305	1305	878
E5-050-H/2.30	E5-101-H	5000	4800	4250	727	7	2 x 300	0.76	170			65	12.70	22.22	6.35		1305	1305	878
E5-063-H/2.35	E5-137-H	6300	5900	5355	1309	8	2 x 350	1.84	400			68	15.88	22.22	6.35		1503	1503	940
E5-072-H/1.45	E5-155-H	7150	6400	6080	1493	15	1 x 450	0.79	430			71	15.88	28.58	6.35		1403	1403	1040
E5-078-H/2.35	E5-163-H	7780	6970	6610	1165	8	2 x 350	1.84	400			75	15.88	28.58	6.35		1503	1503	940
E5-092-H/1.45	E5-193-H	9150	8860	7780	1402	14	1 x 450	0.79	430			82	15.88	28.58	6.35		1403	1403	1040
E5-116-H/1.50	E5-231-H	11560	11000	9830	1946	18	1 x 500	1.50	820			104	15.88	34.93	6.35		1703	1703	1083
E5-128-H/1.50	E5-255-H	12760	12200	10850	1898	17	1 x 500	1.50	820			109	15.88	34.93	6.35		1703	1703	1083
E5-144-H/2.45	E5-317-H	14400	13800	12240	2985	16	2 x 450	1.58	860			118	15.88	34.93	6.35		2549	2549	1040
E5-183-H/2.45	E5-387-H	18300	16350	15560	2805	15	2 x 450	1.58	860			138	15.88	41.28	6.35		2549	2549	1040
E5-232-H/2.50	E5-466-H	23230	22300	19750	3893	20	2 x 500	3.00	1640			180	22.22	41.28	6.35		3103	1083	543
E5-242-H/2.50	E5-515-H	24150	23900	20530	3794	18	2 x 500	3.00	1640			190	22.22	41.28	6.35		3103	1083	543
E5-304-H/3.45	E5-570-H	30400	28550	25840	4206	12	3 x 450	2.37	1290			205	22.22	53.98	6.35		3603	1083	543

- Capacities based on +4C SST/ 6KTD for high temperature models
- NOTE: Medium Temperature models are not fitted with defrost heater elements

E5-M MEDIUM TEMPERATURE SERIES

Innovative Refrigeration Solutions

Model	GH Reference	Capacity in Watts @ 6KTD			Air Flow		Fan Motors				Defrost Heater	Weight (kg)	Connections				Dimensions (mm)		
		R404A	R22	R134A	l/s	Air Throw (m)	Fan Qty x Ømm	Amps	Watts	Power Supply	Watts		Inlet (mm)	Outlet (mm)	Ext Equaliser	Drain	Length 'L'	Width 'W'	Height 'H'
E5-M MEDIUM TEMPERATURE SERIES (4.2mm FIN SPACING - 6FPI) (T-FLOW)																			
E5-017-M/1.30	E5-024-M	1720	1630	1460	419	6	1 x 300	0.38	85	380-415/3N/50	NO ELEMENTS AS STANDARD	38	12.7	15.88	6.35	NPT1	803	878	415
E5-020-M/1.30	E5-030-M	1970	1780	1675	386	6	1 x 300	0.38	85			40	12.7	15.88	6.35		803	878	415
E5-024-M/1.35	E5-039-M	2430	2300	2070	672	6	1 x 350	0.92	200			44	12.7	15.88	6.35		903	940	479
E5-032-M/1.35	E5-049-M	3170	2880	2695	623	6	1 x 350	0.92	200			48	12.7	22.22	6.35		903	940	479
E5-036-M/2.30	E5-057-M	3550	3220	3020	804	7	2 x 300	0.76	170			57	12.7	22.22	6.35		1305	878	415
E5-043-M/2.30	E5-064-M	4340	4100	3690	772	7	2 x 300	0.76	170			62	12.7	22.22	6.35		1305	878	415
E5-049-M/2.35	E5-079-M	4870	4400	4140	1343	8	2 x 350	1.84	400			65	15.88	22.22	6.35		1503	940	479
E5-060-M/1.45	E5-090-M	5960	5590	5070	1488	15	1 x 450	0.79	430			68	15.88	28.58	6.35		1403	1040	543
E5-074-M/2.35	E5-100-M	7440	7100	6320	1245	8	2 x 350	1.84	400			72	15.88	28.58	6.35		1503	940	479
E5-084-M/1.45	E5-117-M	8350	7920	7100	1427	14	1 x 450	0.79	430			79	15.88	28.58	6.35		1403	1040	543
E5-094-M/1.50	E5-139-M	9400	8850	7990	1940	18	1 x 500	1.5	820			100	15.88	34.93	6.35		1703	1083	543
E5-127-M/1.50	E5-151-M	12700	11940	10800	1907	17	1 x 500	1.5	820			105	15.88	34.93	6.35		1703	1083	543
E5-151-M/2.45	E5-180-M	15100	14200	12840	2976	16	2 x 450	1.58	860			115	15.88	34.93	6.35		2549	1040	543
E5-168-M/2.45	E5-236-M	16800	15900	14280	2853	15	2 x 450	1.58	860			135	15.88	41.28	6.35		2549	1040	543
E5-189-M/2.50	E5-279-M	18880	17760	16050	5765	20	2 x 500	3.00	1640			175	22.22	41.28	6.35		3103	1083	543
E5-203-M/2.50	E5-351-M	20300	19970	17260	3813	18	2 x 500	3.00	1640			185	22.22	41.28	6.35		3103	1083	543
E5-253-M/3.45	E5-356-M	25300	23950	21500	4280	12	3 x 450	2.37	1290			195	22.22	53.98	6.35		3603	1083	543

- Capacities based on -4C SST/ 6KTD for medium temperature models
- NOTE: Medium Temperature models are not fitted with defrost heater elements



E5-L LOW TEMPERATURE SERIES

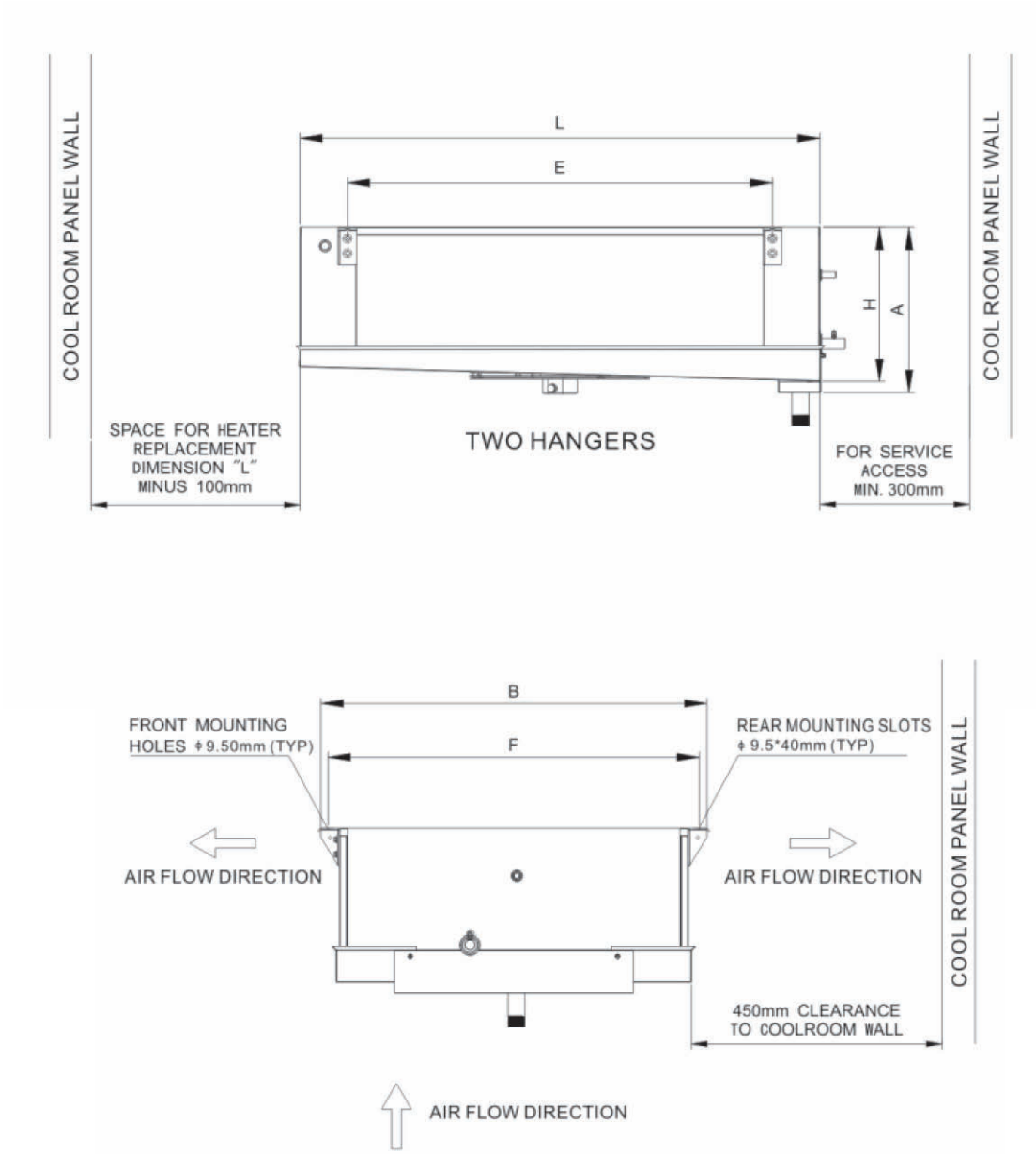
Model	GH Reference	Capacity in Watts @ 6KTD			Air Flow		Fan Motors				Defrost Heater	Weight (kg)	Connections				Dimensions (mm)		
		R404A	R22	R134A	l/s	Air Throw (m)	Fan Qty x Ømm	Amps	Watts	Power Supply	Watts		Inlet (mm)	Outlet (mm)	Ext Equaliser	Drain	Length 'L'	Width 'W'	Height 'H'
E5-L LOW TEMPERATURE SERIES (6.0mm FIN SPACING - 4FPI) (T-FLOW)																			
E5-013-L/1.30	E5-015-L	1250	1220	1060	406	6	1 x 300	0.38	85		2 x 300	35	12.7	15.88	6.35		803	878	415
E5-015-L/1.30	E5-019-L	1460	1340	1240	380	6	1 x 300	0.38	85		2 x 300	38	12.7	15.88	6.35		803	878	415
E5-019-L/1.35	E5-024-L	1890	1810	1610	648	6	1 x 350	0.92	200		2 x 500	40	12.7	15.88	6.35		903	940	479
E5-024-L/1.35	E5-031-L	2400	2390	2040	612	6	1 x 350	0.92	200		2 x 500	45	12.7	22.22	6.35		903	940	479
E5-028-L/2.30	E5-035-L	2800	2700	2380	661	7	2 x 300	0.76	170		2 x 750	53	12.7	22.22	6.35		1305	878	415
E5-033-L/2.30	E5-040-L	3340	3230	2840	761	7	2 x 300	0.76	170		2 x 750	59	12.7	22.22	6.35		1305	878	415
E5-038-L/2.35	E5-048-L	3800	3660	3230	1296	8	2 x 350	1.84	400		2 x 1000	62	15.88	28.58	6.35		1503	940	479
E5-045-L/1.45	E5-055-L	4520	4380	3840	1411	15	1 x 450	0.79	430		2 x 800	65	15.88	28.58	6.35		1403	1040	543
E5-048-L/2.35	E5-062-L	4820	4590	4100	1224	8	2 x 350	1.84	400		2 x 1000	68	15.88	28.58	6.35		1503	940	479
E5-059-L/1.45	E5-072-L	5920	5690	5030	1367	14	1 x 450	0.79	430		2 x 800	75	15.88	28.58	6.35		1403	1040	543
E5-071-L/1.50	E5-084-L	7050	6830	5990	1845	18	1 x 500	1.50	820		2 x 1200	95	15.88	34.93	6.35		1703	1083	543
E5-080-L/1.50	E5-095-L	8000	7740	6800	1819	17	1 x 500	1.50	820		2 x 1200	100	15.88	34.93	6.35		1703	1083	543
E5-087-L/2.45	E5-109-L	8660	8420	7360	2824	16	2 x 450	1.58	860		2 x 1500	110	15.88	34.93	6.35		2549	1040	543
E5-123-L/2.45	E5-144-L	12340	11990	10500	2635	15	2 x 450	1.58	860		2 x 1500	124	15.88	41.28	6.35		2549	1040	543
E5-142-L/2.50	E5-170-L	14200	13750	12070	3689	20	2 x 500	3.00	1640		2 x 2000	164	22.22	41.28	6.35		3103	1083	543
E5-158-L/2.50	E5-191-L	15750	15150	13400	3639	18	2 x 500	3.00	1640		2 x 2000	174	22.22	53.98	6.35		3103	1083	543
E5-186-L/3.45	E5-217-L	18600	18000	15800	4103	12	3 x 450	2.37	1290		2 x 2000	170	22.22	53.98	6.35		3603	1083	543

380-415/3N/50

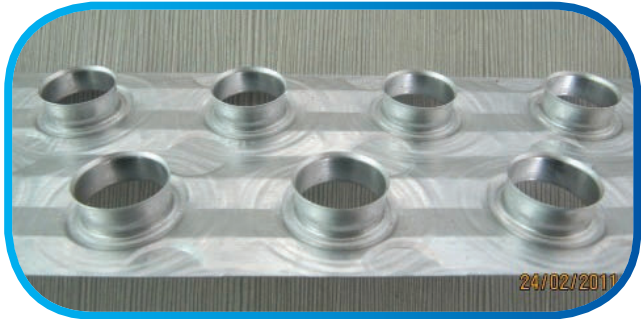
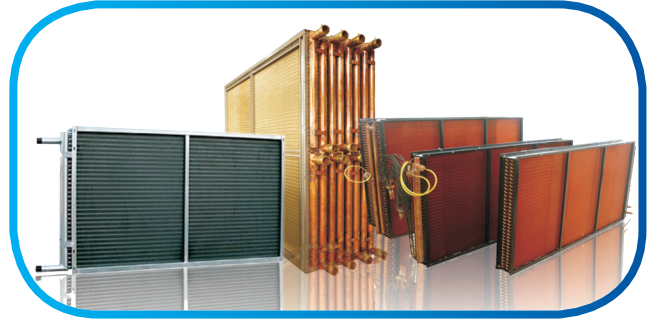
NPT1

- Capacities based on -24C SST/ 6KTD for low temperature models
- NOTE: Low Temperature evaporators are supplied with defrost elements fitted

Dimensions Diagram



- Detailed drawings for each model with full specifications available on request.



Re-Order No. RA-E5-EVAPORATOR

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