

NEW MODEL



E2-SERIES

EVAPORATOR AIR COOLER



The fresh keeper for
The **BEST**

E2-SERIES EVAPORATOR

Greenhalgh evaporator is a high efficiency heat exchanger. Capacity design according to the most popular compressor sizes in this range. Fin and tube design for maximizing the sensible capacity. Fin spacing can be made 4.2mm to 6mm. Greenhalgh chooses only low specific energy consumption fans. Robust stainless steel electric heater with high isolation cable connections to meet standards and ensure the safety of the equipment.

Application Benefits/Features

High Efficiency Heat Exchanger

- Capacity design according to the most popular compressor sizes in this range.
- Fin and tube design for maximizing the sensible capacity.
- The Greenhalgh thermodynamic and aerodynamic designing software is long year tested and proved in Germany.

Fan

- Greenhalgh chooses only low specific energy consumption fans.
- Fan nozzle design for maximum air flow and air throw
- Our fans from the world's leading manufacturer are practically proved to be reliable in operation and long lasting.
- Motor : protection class IP 54 and Insulation class F.

Greenhalgh Defrost

- 4.2mm fin spacing for medium temperature and 6mm for low temperature ensure a good cooling capacity during 4 hour's cycle under typical humid conditions.
- Capacity of the defrost heater is according to the thermodynamic calculation of the latent heat and 4 hour's defrost cycle.
- Robust stainless steel electric heater with high isolation cable connections to meet standards and ensure the safety of the equipment.
- 100% leakage has been tested with method immersed in water tank to make sure the product doesn't leak.
- Heater wired to electric terminal box suitable for wet condition (standard IP66) and low temperature (tested at -40°C).

We Facilitate You To Meet HACCP

- Durable material powder coated finish.
- Coil block made from robust fins to withstand the cleaning processes.
- Water drain tray design with slope towards the drainage to minimize the water in tray.
- Double drip tray for low temperature model.
- 100% leakage tested at 31 bar.

Options

- Customized fin spacing
- Coil for Glycol operations

Catalogue Rating Condition

Medium Temperature (SC2)

- Air inlet temperature 0°C
- Evaporator temperature -8°C
- Superheat 5.2K
- Refrigerant liquid temperature 30°C
- Relative humidity 85%

Low Temperature (SC3)

- Air inlet temperature -18°C
- Evaporator temperature -25°C
- Superheat 4.55K
- Refrigerant liquid temperature 20°C
- Relative humidity 95%

Medium Temperature Evaporators

With Fin Spacing 4.2mm

E2-Series

Type	E2-018- M-1x300	E2-021- M-1x300	E2-025- M-1x300	E2-039- M-2x300	E2-046- M-2x300	E2-051- M-2x300	E2-059- M-3x300	E2-069- M-3x300	E2-077- M-3x300	E2-089- M-4x300	E2-100- M-4x300
Cooling capacity											
R404a (kW)	1.82	2.13	2.48	3.94	4.60	5.09	5.90	6.87	7.67	8.92	9.99
Air flow (m³)	1428	1379	1332	2855	2758	2664	4283	4137	3997	5272	5054
Air throw (m)	8	8	8	9	9	9	9	9	9	10	10
Fan 1Ph/230V/50Hz											
Quantity	1	1	1	2	2	2	3	3	3	4	4
Diameter (mm)	300	300	300	300	300	300	300	300	300	300	300
Amphere	0.38	0.38	0.38	0.76	0.76	0.76	1.14	1.14	1.14	1.52	1.52
Watt	90	90	90	180	180	180	270	270	270	360	360
Sound level dB(A) 1m	54	54	54	55	55	55	56	56	56	57	57
Dimension											
Length (mm)	710	710	710	1110	1110	1110	1510	1510	1510	1910	1910
Height (mm)	445	445	445	445	445	445	445	445	445	445	445
Depth (mm)	487	487	487	487	487	487	487	487	487	487	487
Weight (kg)	23	24	25	36	38	40	49	52	54	67	70
Connection											
Inlet (mm)	1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2	5/8	5/8
Outlet (mm)	5/8	5/8	5/8	5/8	5/8	7/8	7/8	7/8	7/8	1 1/8	1 1/8
Drain pipe (NW")	NPT 1	NPT 1	NPT 1	NPT 1	NPT 1	NPT 1	NPT 1	NPT 1	NPT 1	NPT 1.5	NPT 1.5

Type	E2-027 M-1x350	E2-034- M-1x350	E2-053- M-2x350	E2-067- M-2x350	E2-078- M-2x350	E2-088- M-2x350	E2-104- M-3x350	E2-120- M-3x350	E2-132- M-3x350	E2-165- M-4x350	E2-185- M-4x350
Cooling capacity											
R404a (kW)	2.72	3.41	5.31	6.65	7.77	8.82	10.40	12.04	13.23	16.52	18.45
Air flow (m³)	2548	2477	5097	4955	4798	4653	7184	6919	6699	9226	8933
Air throw (m)	10	10	11	11	11	11	11	11	11	12	12
Fan 1Ph/230V/50Hz											
Quantity	1	1	2	2	2	2	3	3	3	4	4
Diameter (mm)	350	350	350	350	350	350	350	350	350	350	350
Amphere	0.60	0.60	1.20	1.20	1.20	1.20	1.80	1.80	1.80	2.40	2.40
Watt	140	140	280	280	280	280	420	420	420	560	560
Sound level dB(A) 1m	55	55	56	56	56	56	57	57	57	58	58
Dimension											
Length (mm)	910	910	1510	1510	1510	1510	2110	2110	2110	2710	2710
Height (mm)	515	515	515	515	515	515	515	515	515	515	515
Depth (mm)	487	487	487	487	487	487	487	487	487	487	487
Weight (kg)	30	31	44	47	50	53	70	74	79	97	102
Connection											
Inlet (mm)	1/2	1/2	1/2	1/2	1/2	1/2	5/8	5/8	5/8	5/8	5/8
Outlet (mm)	5/8	5/8	7/8	7/8	7/8	7/8	1 1/8	1 1/8	1 3/8	1 3/8	1 3/8
Drain pipe (NW")	NPT 1	NPT 1	NPT 1	NPT 1	NPT 1	NPT 1	NPT 1	NPT 1	NPT 1	NPT 1.5	NPT 1.5

E2-Series

Medium Temperature Evaporators

With Fin Spacing 4.2mm

Type	E2-018- ME- 1x300	E2-021- ME- 1x300	E2-025- ME- 1x300	E2-039- ME- 2x300	E2-046- ME- 2x300	E2-051- ME- 2x300	E2-059- ME- 3x300	E2-069- ME- 3x300	E2-077- ME- 3x300	E2-089- ME- 4x300	E2-100- ME- 4x300
Cooling capacity											
R404a (kW)	1.82	2.13	2.48	3.94	4.60	5.09	5.90	6.87	7.67	8.92	9.99
Air flow (m³)	1428	1379	1332	2855	2758	2664	4283	4137	3997	5272	5054
Air throw (m)	8	8	8	9	9	9	9	9	9	10	10
Fan 1Ph/230V/50Hz											
Quantity	1	1	1	2	2	2	3	3	3	4	4
Diameter (mm)	300	300	300	300	300	300	300	300	300	300	300
Amphere	0.38	0.38	0.38	0.76	0.76	0.76	1.14	1.14	1.14	1.52	1.52
Watt	90	90	90	180	180	180	270	270	270	360	360
Sound level dB(A) 1m	54	54	54	55	55	55	56	56	56	57	57
Heater 1Ph/220V/50Hz											
Watt	480	960	960	960	1920	1920	1440	2880	2880	3840	3840
Dimension											
Length (mm)	710	710	710	1110	1110	1110	1510	1510	1510	1910	1910
Height (mm)	445	445	445	445	445	445	445	445	445	445	445
Depth (mm)	487	487	487	487	487	487	487	487	487	487	487
Weight (kg)	23	24	25	36	38	40	49	52	54	67	70
Connection											
Inlet (mm)	1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2	5/8	5/8
Outlet (mm)	5/8	5/8	5/8	5/8	5/8	7/8	7/8	7/8	7/8	1 1/8	1 1/8
Drain pipe (NW")	NPT 1	NPT 1	NPT 1	NPT 1	NPT 1	NPT 1	NPT 1	NPT 1	NPT 1	NPT 1.5	NPT 1.5

Type	E2-027- ME- 1x350	E2-034- ME- 1x350	E2-053- ME- 2x350	E2-067- ME- 2x350	E2-078- ME- 2x350	E2-088- ME- 2x350	E2-104- ME- 3x350	E2-120- ME- 3x350	E2-132- ME- 3x350	E2-165- ME- 4x350	E2-185- ME- 4x350
Cooling capacity											
R404a (kW)	2.72	3.41	5.31	6.65	7.77	8.82	10.40	12.04	13.23	16.52	18.45
Air flow (m³)	2548	2477	5097	4955	4798	4653	7184	6919	6699	9226	8933
Air throw (m)	10	10	11	11	11	11	11	11	11	12	12
Fan 1Ph/230V/50Hz											
Quantity	1	1	2	2	2	2	3	3	3	4	4
Diameter (mm)	350	350	350	350	350	350	350	350	350	350	350
Amphere	0.60	0.60	1.20	1.20	1.20	1.20	1.80	1.80	1.80	2.40	2.40
Watt	140	140	280	280	280	280	420	420	420	560	560
Sound level dB(A) 1m	55	55	56	56	56	56	57	57	57	58	58
Heater 1Ph/220V/50Hz											
Watt	720	720	1440	1440	2880	2880	2160	4320	4320	5760	5760
Dimension											
Length (mm)	910	910	1510	1510	1510	1510	2110	2110	2110	2710	2710
Height (mm)	515	515	515	515	515	515	515	515	515	515	515
Depth (mm)	487	487	487	487	487	487	487	487	487	487	487
Weight (kg)	30	31	44	47	50	53	70	74	79	97	102
Connection											
Inlet (mm)	1/2	1/2	1/2	1/2	1/2	1/2	5/8	5/8	5/8	5/8	5/8
Outlet (mm)	5/8	5/8	7/8	7/8	7/8	7/8	1 1/8	1 1/8	1 3/8	1 3/8	1 3/8
Drain pipe (NW")	NPT 1	NPT 1	NPT 1	NPT 1	NPT 1	NPT 1	NPT 1	NPT 1	NPT 1	NPT 1.5	NPT 1.5

Note: standard medium temperature evaporator is without heater. If you need heater, please add E in nomenclature. Ex: E2-018-ME.

Type	E2-012- L-1x300	E2-014- L-1x300	E2-019- L-2x300	E2-024- L-2x300	E2-028- L-2x300	E2-036- L-3x300	E2-049- L-3x300	E2-054- L-4x300	E2-061- L-4x300
Cooling capacity									
R404a (kW)	1.17	1.37	1.90	2.39	2.80	3.62	4.87	5.35	6.12
Air flow (m³)	1481	1440	3052	2962	2881	4444	4212	5557	5379
Air throw (m)	7	7	8	8	8	8	8	9	9
Fan 1Ph/230V/50Hz									
Quantity	1	1	2	2	2	3	3	4	4
Diameter (mm)	300	300	300	300	300	300	300	300	300
Amphere	0.37	0.37	0.74	0.74	0.74	1.11	1.11	1.48	1.48
Watt	90	90	180	180	180	270	270	360	360
Sound level dB(A) 1m	54	54	55	55	55	56	56	57	57
Heater 1Ph/220V/50Hz									
Watt	960	1440	1920	1920	2880	2880	5040	5760	6720
Dimension									
Length (mm)	710	710	1110	1110	1110	1510	1510	1910	1910
Height (mm)	445	445	445	445	445	445	445	445	445
Depth (mm)	487	487	487	487	487	487	487	487	487
Weight (kg)	23	24	34	36	38	49	54	66	70
Connection									
Inlet (mm)	1/2	1/2	1/2	1/2	1/2	1/2	1/2	5/8	5/8
Outlet (mm)	5/8	5/8	5/8	5/8	5/8	7/8	7/8	1 1/8	1 1/8
Drain pipe (NW")	NPT 1	NPT 1	NPT 1	NPT 1	NPT 1	NPT 1	NPT 1	NPT 1.5	NPT 1.5

Type	E2-017- L-1x350	E2-021- L-1x350	E2-032- L-2x350	E2-040- L-2x350	E2-048- L-2x350	E2-055- L-2x350	E2-063- L-3x350	E2-073- L-3x350	E2-083- L-4x350	E2-097- L-4x350	E2-104- L-4x350
Cooling capacity											
R404a (kW)	1.65	2.08	3.18	4.03	4.77	5.50	6.26	7.35	8.27	9.70	10.38
Air flow (m³)	2597	2547	5193	5095	4990	4876	7468	7249	9957	9665	9380
Air throw (m)	9	9	10	10	10	10	10	10	11	11	11
Fan 1Ph/230V/50Hz											
Quantity	1	1	2	2	2	2	3	3	4	4	4
Diameter (mm)	350	350	350	350	350	350	350	350	350	350	350
Amphere	0.79	0.79	1.58	1.58	1.58	1.58	2.37	2.37	3.16	3.16	3.16
Watt	140	140	280	280	280	280	420	420	560	560	560
Sound level dB(A) 1m	55	55	56	56	56	56	57	57	58	58	58
Heater 1Ph/220V/50Hz											
Watt	1440	1440	2880	2880	4320	5040	4320	6480	5760	8640	10800
Dimension											
Length (mm)	910	910	1510	1510	1510	1510	2110	2110	2710	2710	2710
Height (mm)	515	515	515	515	515	515	515	515	515	515	515
Depth (mm)	487	487	487	487	487	487	487	487	487	487	487
Weight (kg)	30	31	44	47	50	52	69	73	90	95	101
Connection											
Inlet (mm)	1/2	1/2	1/2	1/2	1/2	1/2	1/2	5/8	5/8	5/8	7/8
Outlet (mm)	5/8	5/8	7/8	7/8	7/8	7/8	7/8	1 1/8	1 3/8	1 3/8	1 3/8
Drain pipe (NW")	NPT 1	NPT 1	NPT 1	NPT 1	NPT 1	NPT 1	NPT 1	NPT 1	NPT 1.5	NPT 1.5	NPT 1.5

RH Conversion Factors

Medium Temperature											
RH	50%	55%	60%	65%	70%	75%	80%	85%	90%	95%	100%
Conversion Factors	0.857	0.86	0.859	0.883	0.915	0.945	0.974	1	1.025	1.049	1.084

Performance Conversion Factors

Table 1. - Medium Temperature										
Air Inlet Temperature										
$\Delta t(K)$		-25	-20	-15	-10	-5	0	2	5	10
	10	0.98	1.10	1.2	1.21	1.26	1.32	1.33	1.36	1.41
	9	0.92	1.00	1.03	1.07	1.11	1.16	1.17	1.20	1.23
	8	0.87	0.87	0.89	0.93	0.97	1.00	1.01	1.03	1.07
	7	0.73	0.75	0.77	0.80	0.83	0.86	0.87	0.88	0.89
	6	0.62	0.63	0.64	0.67	0.69	0.70	0.71	0.72	-
	5	0.50	0.51	0.52	0.54	0.55	0.57	0.57	-	-

RH Conversion Factors

Low Temperature											
RH	50%	55%	60%	65%	70%	75%	80%	85%	90%	95%	100%
Conversion Factors	0.955	0.96	0.957	0.959	0.962	0.969	0.978	0.986	0.993	1	1.012

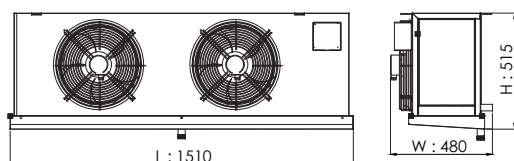
Performance Conversion Factors

Table 1. - Low Temperature										
Air Inlet Temperature										
$\Delta t(K)$		-35	-30	-25	-20	-18	-15	-10	-5	0
	10	1.05	1.13	1.29	1.45	1.50	1.58	1.60	1.66	1.74
	9	1.00	1.11	1.21	1.32	1.34	1.36	1.41	1.46	1.53
	8	0.93	1.03	1.15	1.15	1.16	1.17	1.23	1.28	1.32
	7	0.91	0.94	0.96	0.99	1.00	1.02	1.06	1.09	1.13
	6	0.79	0.80	0.82	0.83	0.84	0.84	0.88	0.91	0.92
	5	0.63	0.65	0.66	0.67	0.68	0.69	0.71	0.73	0.75

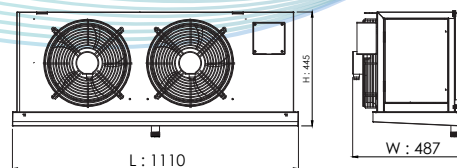
E2-Series

Dimensional drawing with different fans

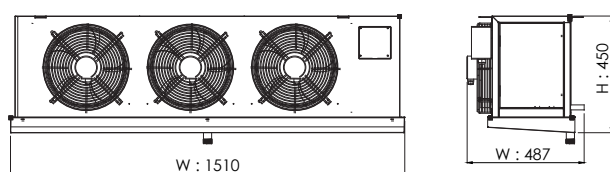
1 x 300 Fan



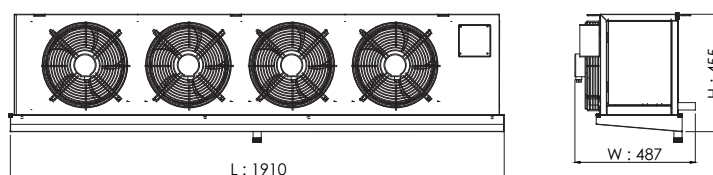
2 x 300 Fan



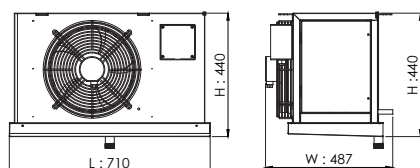
3 x 300 Fan



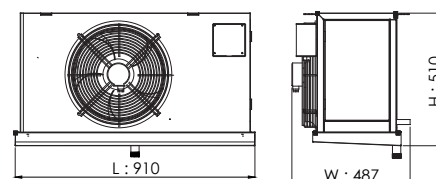
4 x 300 Fan



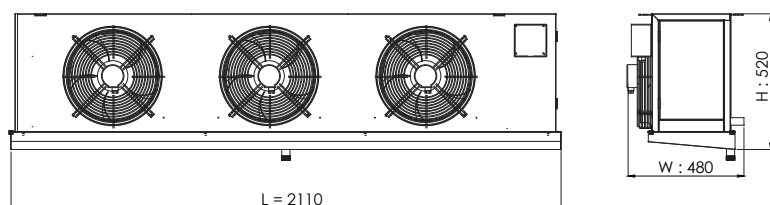
1 x 350 Fan



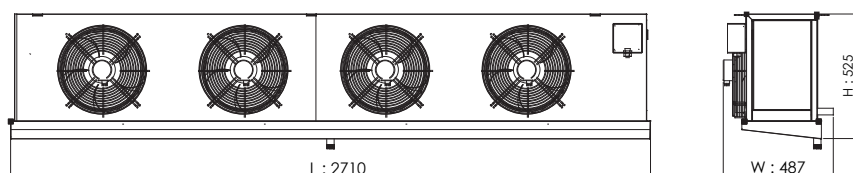
2 x 350 Fan



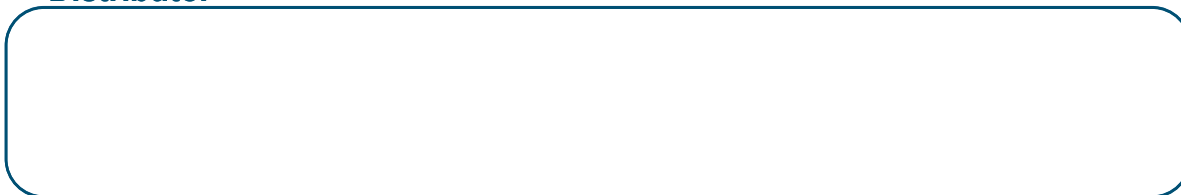
3 x 350 Fan



4 x 350 Fan



Distributor



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