

G4 LOW AIR / DUAL THROW UNIT COOLER

EDEN[®]
The Cool Solution



EPC - High & Medium Temperature Application
Capacity: 2.2kW to 19.2kW

DEPC - High & Medium Temperature Application Dual Air Throw
Capacity: 4.4kW to 38.4kW

Low Noise Level: 49dB(A) to 52dB(A) at 1 meter

Effective Air Throw: 12m to 14m

G4 Low Air / Dual Throw Series Unit Cooler EPC / DEPC

General Features

EPC & DEPC are specially designed for Process Chiller room using the forced draught air flow for better air distribution. They operate at a low noise level of 49dB(A) to 52dB(A) which provide comfortable environment for the people working in the room.

Coils are designed with the Latest Smart Circuitry. It allows maximum massflow rate of refrigerant to be evenly distributed throughout the evaporator, maximizing coil efficiency thus providing higher efficiency and capacity with a smaller physical unit cooler dimension.

Copper Tubes are accordance with JIS. C12T. Inner Groove Tube (IGT) increases the internal coil surface, having a low oil film coefficient thus providing higher efficiency and capacity.

Casing comes in high quality powder coated Aluminum, according to AA 1100 Standard. Centre plates are built in to enhance air side performance and structural strength for models with 2 or more fans.

Fins are produced from high-grade Aluminum (Aluminum Association AA 1100 Standard) with Double Sine Wave Pattern and Rippled Fin Edges to provide higher heat transfer efficiency.

Fan Motors used in all the models are high quality German brand motors, fitted with thermistor motor protection and conform to DIN 40050 safety standards. Fan motors are of the highest quality offered in the industry ensuring long life and durability for both high and low temperature application.

Capacity Ratings are thermally guaranteed by Eden and tested in accordance to ASHRAE dry box standards.

Quality Assurance for all Eden products are designed, manufactured and tested in our factories that are ISO 9001 certified.

One Year Warranty for all Eden Heat Exchanger products (Terms and conditions apply).

Options

- a) Copper-Fins Coil (Available only for 6FPI to 12FPI)
- b) Epoxy-Coated Aluminum Fin Coil (Only on large volume orders)
- c) Passivated Corrosion Protection For All Aluminum Fin Products
- d) Stainless Steel Casing
- e) CO₂ Application On Request
- f) Insulated Drip Tray (For Chiller Only)
- g) Defrost Heaters (For ET -10°C to -1°C)



G4 Low Air / Dual Throw Series Unit Cooler

EPC / DEPC

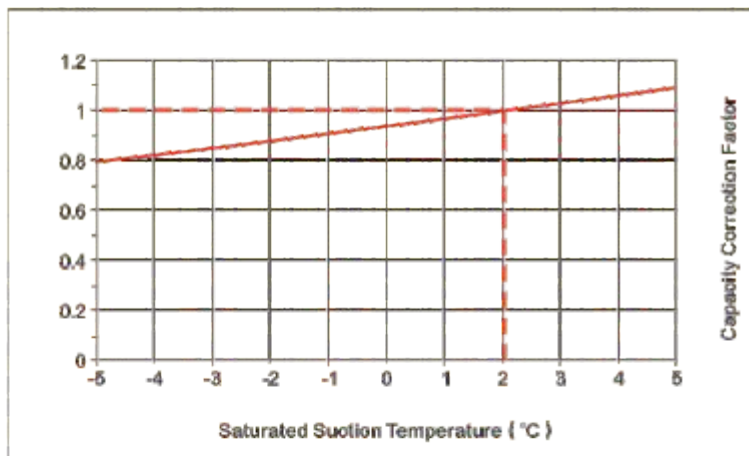
EPC - Low Air Series Unit Coolers Specifications

Air Defrost 5FPI Room Temperature +10°C

Model	Capacity R22				No. of 250mm Fan	Fan Data							
	ASHRAE		EUROVENT SC1*			Fan Motor			Fan Speed	Air Flow		Air Throw (m)	Noise Level dB(A)
	Watts	Btu/hr	Watts	Btu/hr		(V/Ph/Hz)	(Watts)	(Amps)	(rpm)	(L/s)	(m ³ /h)		
8 KTD	14.4 FTD	10 KTD	18 FTD										
EPC 0220	2,200	7,506	3,416	11,654	1	230/1/50	45	0.21	1,410	306	1,102	12	49
EPC 0260	2,600	8,871	4,037	13,773	1	230/1/50	45	0.21	1,410	295	1,062	12	49
EPC 0320	3,200	10,918	4,968	16,951	1	230/1/50	45	0.21	1,410	286	1,030	12	49
EPC 0430	4,300	14,672	6,676	22,778	2	230/1/50	90	0.42	1,410	612	2,203	12	49
EPC 0540	5,400	18,425	8,384	28,605	2	230/1/50	90	0.42	1,410	590	2,124	12	49
EPC 0630	6,300	21,496	9,781	33,372	2	230/1/50	90	0.42	1,410	572	2,059	12	49
EPC 0700	7,000	23,884	10,868	37,080	3	230/1/50	135	0.63	1,410	920	3,312	13	50
EPC 0890	8,900	30,367	13,817	47,144	3	230/1/50	135	0.63	1,410	885	3,186	13	50
EPC 1040	10,400	35,485	16,146	55,090	3	230/1/50	135	0.63	1,410	860	3,096	13	50
EPC 1200	12,000	40,944	18,630	63,566	4	230/1/50	180	0.84	1,410	1,170	4,212	13	51
EPC 1370	13,700	46,744	21,269	72,571	4	230/1/50	180	0.84	1,410	1,130	4,068	13	51
EPC 1510	15,100	51,521	23,443	79,987	4	230/1/50	180	0.84	1,410	1,110	3,996	13	51
EPC 1760	17,600	60,051	27,324	93,229	5	230/1/50	225	1.05	1,410	1,430	5,148	14	52
EPC 1920	19,200	65,510	29,808	101,705	5	230/1/50	225	1.05	1,410	1,400	5,040	14	52

* Noise Level is stated at 1 m distance

Application & Correction Factor Guideline



Capacity Correction Factor

Refrigerant	Capacity Multiplier
R22	1.00
R407B	0.93
R407C	0.90
R134A	0.95
R404A	0.97
R507	0.97

Capacity Ratings & Conditions

All Eden Heat Exchangers are tested in accordance to ASHRAE Dry Box Standard. (Recommended for Asia Usage)

EUROVENT Data is used for Comparison Purposes

*EUROVENT Data is based on SC1 Nominal Capacity

SC1 Condition - Air Inlet Temperature = +10°C and Evaporating Temperature = 0°C

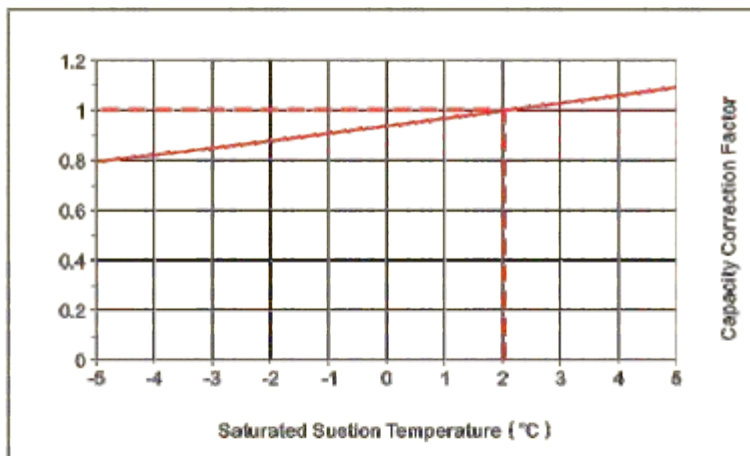
G4 Low Air / Dual Throw Series Unit Cooler EPC / DEPC

DEPC - Dual Throw Series Unit Coolers Specifications Air Defrost 5FPI Room Temperature +10°C

Model	Capacity R22				No. of 250mm Fan	Fan Data							
	ASHRAE		EUROVENT SC1*			Fan Motor			Fan Speed	Air Flow		Air Throw (m)	Noise Level dB(A)
	Watts	Btu/hr	Watts	Btu/hr		(V/Ph/Hz)	(Watts)	(Amps)	(rpm)	(L/s)	(m³/h)		
8 KTD	14.4 FTD	10 KTD	18 FTD										
DEPC 0440	4,400	15,013	6,831	23,307	2	230/1/50	90	0.42	1,410	612	2,203	12	49
DEPC 0520	5,200	17,742	8,073	27,545	2	230/1/50	90	0.42	1,410	590	2,124	12	49
DEPC 0640	6,400	21,837	9,936	33,902	2	230/1/50	90	0.42	1,410	572	2,059	12	49
DEPC 0860	8,600	29,343	13,352	45,555	4	230/1/50	180	0.84	1,410	1,224	4,406	12	49
DEPC 1080	10,800	36,850	16,767	57,209	4	230/1/50	180	0.84	1,410	1,180	4,248	12	49
DEPC 1260	12,600	42,991	19,562	66,744	4	230/1/50	180	0.84	1,410	1,144	4,118	12	49
DEPC 1400	14,000	47,768	21,735	74,160	6	230/1/50	270	1.26	1,410	1,840	6,624	13	50
DEPC 1780	17,800	60,734	27,635	94,289	6	230/1/50	270	1.26	1,410	1,770	6,372	13	50
DEPC 2080	20,800	70,970	32,292	110,180	6	230/1/50	270	1.26	1,410	1,720	6,192	13	50
DEPC 2400	24,000	81,888	37,260	127,131	8	230/1/50	360	1.68	1,410	2,340	8,424	13	51
DEPC 2740	27,400	93,489	42,539	145,141	8	230/1/50	360	1.68	1,410	2,260	8,136	13	51
DEPC 3020	30,200	103,042	46,886	159,973	8	230/1/50	360	1.68	1,410	2,220	7,992	13	51
DEPC 3520	35,200	120,102	54,648	186,459	10	230/1/50	450	2.10	1,410	2,860	10,296	14	52
DEPC 3840	38,400	131,021	59,616	203,410	10	230/1/50	450	2.10	1,410	2,800	10,080	14	52

* Noise Level is stated at 1 m distance

Application & Correction Factor Guideline



Capacity Correction Factor

Refrigerant	Capacity Multiplier
R22	1.00
R407B	0.93
R407C	0.90
R134A	0.95
R404A	0.97
R507	0.97

Capacity Ratings & Conditions

All Eden Heat Exchangers are tested in accordance to ASHRAE Dry Box Standard.
(Recommended for Asia Usage)

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SC1 Condition Air Inlet Temperature = +10°C and Evaporating Temperature = 0°C

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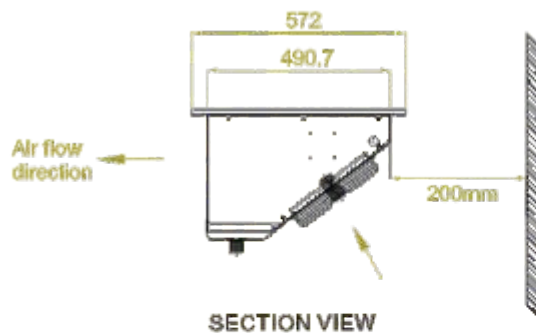
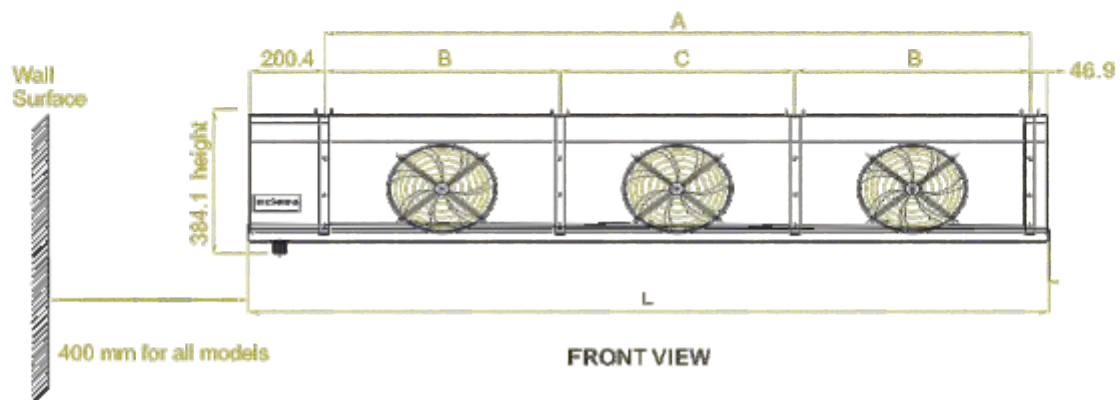
Technical Specifications

Model	Size (mm)									Weight (kg)*	Liquid Connection (mm)	Suction Connection (mm)	B.S.P 1" Thread Drain Pipe (mm)
	A	B	C	L	H	W	L*	H*	W*				
EPC 0220	628	-	-	874	333	491	1,079	538	696	15.2	12.7	22.2	25.4
EPC 0260	628	-	-	874	333	491	1,079	538	696	15.3	12.7	22.2	25.4
EPC 0320	628	-	-	874	333	491	1,079	538	696	15.5	12.7	22.2	25.4
EPC 0430	1,226	613	-	1,474	333	491	1,679	538	696	18.8	12.7	28.6	25.4
EPC 0540	1,226	613	-	1,474	333	491	1,679	538	696	19.2	12.7	28.6	25.4
EPC 0630	1,226	613	-	1,474	333	491	1,679	538	696	19.3	12.7	28.6	25.4
EPC 0700	1,878	625.8	625.8	2,124	333	491	2,329	538	696	22.8	12.7	28.6	25.4
EPC 0890	1,878	625.8	625.8	2,124	333	491	2,329	538	696	23.4	12.7	28.6	25.4
EPC 1040	1,878	625.8	625.8	2,124	333	491	2,329	538	696	23.8	12.7	28.6	25.4
EPC 1200	2,503	625.8	625.8	2,574	333	491	2,779	538	696	26.5	15.8	28.6	25.4
EPC 1370	2,503	625.8	625.8	2,574	333	491	2,779	538	696	26.8	15.8	28.6	25.4
EPC 1510	2,503	625.8	625.8	2,574	333	491	2,779	538	696	27.2	15.8	28.6	25.4
EPC 1760	3,129	625.8	625.8	3,024	333	491	3,229	538	696	30.5	15.8	28.6	25.4
EPC 1920	3,129	625.8	625.8	3,024	333	491	3,229	538	696	30.9	15.8	28.6	25.4
DEPC 0440	628	-	-	874	345	1,142	1,079	550	1,347	30.4	12.7	22.2	25.4
DEPC 0520	628	-	-	874	345	1,142	1,079	550	1,347	30.6	12.7	22.2	25.4
DEPC 0640	628	-	-	874	345	1,142	1,079	550	1,347	31.0	12.7	22.2	25.4
DEPC 0860	1,226	613	-	1,474	345	1,142	1,679	550	1,347	37.6	12.7	28.6	25.4
DEPC 1080	1,226	613	-	1,474	345	1,142	1,679	550	1,347	38.4	12.7	28.6	25.4
DEPC 1260	1,226	613	-	1,474	345	1,142	1,679	550	1,347	38.6	12.7	28.6	25.4
DEPC 1400	1,878	625.8	625.8	2,124	345	1,142	2,329	550	1,347	45.6	12.7	28.6	25.4
DEPC 1780	1,878	625.8	625.8	2,124	345	1,142	2,329	550	1,347	46.8	12.7	28.6	25.4
DEPC 2080	1,878	625.8	625.8	2,124	345	1,142	2,329	550	1,347	47.6	12.7	28.6	25.4
DEPC 2400	2,503	625.8	625.8	2,574	345	1,142	2,779	550	1,347	53.0	15.8	28.6	25.4
DEPC 2740	2,503	625.8	625.8	2,574	345	1,142	2,779	550	1,347	53.6	15.8	28.6	25.4
DEPC 3020	2,503	625.8	625.8	2,574	345	1,142	2,779	550	1,347	54.4	15.8	28.6	25.4
DEPC 3520	3,129	625.8	625.8	3,024	345	1,142	3,229	550	1,347	61.0	15.8	28.6	25.4
DEPC 3840	3,129	625.8	625.8	3,024	345	1,142	3,229	550	1,347	61.8	15.8	28.6	25.4

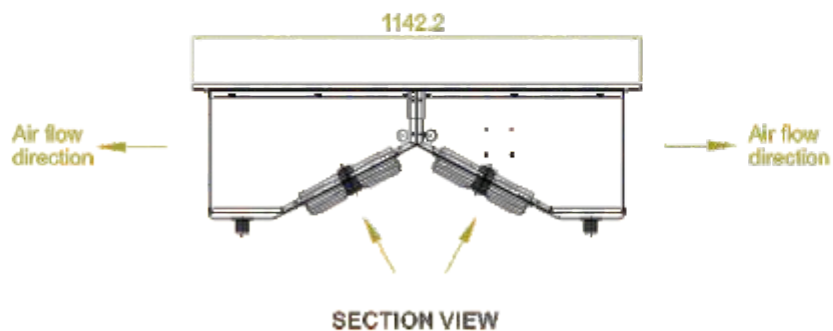
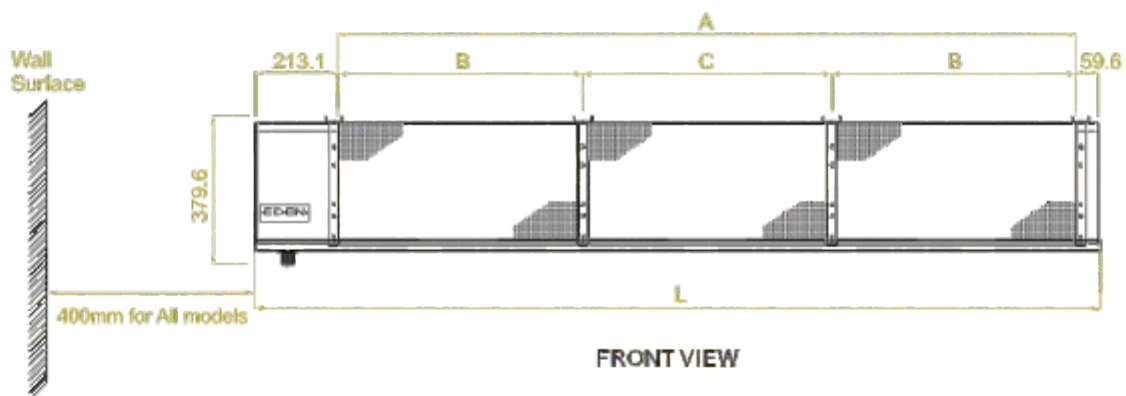
* Packed Dimensions / Weight

G4 Low Air / Dual Throw Series Unit Cooler EPC / DEPC

Installation Guide for EPC



Installation Guide for DEPC



G4 Low Air / Dual Throw Series Unit Cooler EPC / DEPC

ADDITIONAL INFORMATION

Example:

Application: Meat Processing Room

Required Room Temperature: +12°C

Ambient: +35°C

Evaporating Temperature: +2°C at 10KTD

Cooling Capacity: 18kW with Dual Air-Throw capability (Not inclusive of the FCU load)

Type of Refrigerant: R134A

Selection of the Eden G4 Unit Cooler as follow:

1. Determine the Correction Factors and Multiplier (Refers to page 3):
 - a. Capacity Correction Factor is Approximately 1.00
 - b. Refrigerant multiplier = 0.95
2. Calculation of required capacity:
 - a. $18\text{kW} / 1 / 0.95 = 18.95\text{kW}$ (Not inclusive of the FCU load)
3. Determine the FCU load:
 - a. Fan load (6 fans model) = 0.36kW
4. Total capacity (Inclusive of FCU) required:
 - a. Required capacity = $18.95\text{kW} + 0.36\text{kW} = 19.31\text{kW}$
5. Hence a **DEPC 2080** is the suitable unit cooler for the above application.

Eden Select:



The Eden Select software enables you to do a refrigeration heat load calculation and select the actual model for the unit cooler and condenser.



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