

# G3 ETLE BLAST FREEZER UNIT COOLER

**EDEN**<sup>®</sup>  
*The Cool Solution*



ETLE / H - Super Blast Freezer Application  
Capacity: 15.20kW to 116.40kW

Effective Air Throw: 40m to 46m

# G3 ETLE Blast Freezer Profile Series Unit Cooler ETLE / H

## General Features

**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 capacity with a smaller physical unit cooler dimension.

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

**Defrosting** is by electrical sheathed stainless steel heater elements fitted with molded insulated connection and ultra low temperature silicone leads (rated to  $-80^{\circ}\text{C}$ ), to ensure effective defrosting and durability. Water resulting from defrosting is channelled to the drain pan with a centrally positioned outlet for positive draining from all points.

**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 industry ensuring long life and durability for low temperature application.

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

**Quality Assurance** 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

- Passivated Corrosion Protection for Aluminum Fins
- Hot Gas Bypass Defrost
- Stainless Steel Casing
- Special Circuitry for Ultra Low Temperature (below SST  $-50^{\circ}\text{C}$ ) or Overfeed Systems





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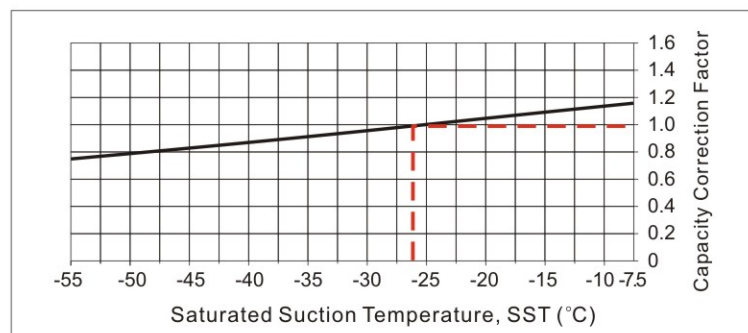
## ETLE / H

### ETLE / H - Super Blast Freezer Unit Cooler Specifications

Electric Defrost Staggered Fin 2FPI / 4FPI Room Temperature -20°C

Model	Capacity for R22				No. of Fan 710mm	Fan Data							Heater Data	
	ASHRAE		EUROVENT SC3*			Fan Motor			Fan Speed	Air Flow		Air Throw (m)	Coil Heater (Watts)	Drain Pan Heater (Watts)
	Watts	Btu/hr	Watts	Btu/hr		(V/Ph/Hz)	(Watts)	(Amps)	(rpm)	(L/s)	(m³/h)			
	6 KTD	10.8 FTD	7 KTD	12.6 FTD										
ETLE/H 0150-1H	15,200	51,860	18,500	63,120	1	400/3/50	2,800	5.1	1,300	5,200	18,720	41	5 × 1917	2 × 675
ETLE/H 0220-1H	22,100	75,410	27,000	92,120	1	400/3/50	2,800	5.1	1,300	5,000	18,000	41	5 × 1917	2 × 675
ETLE/H 0250-1H	25,400	86,670	31,000	105,770	1	400/3/50	2,800	5.1	1,300	4,700	16,920	40	6 × 1917	2 × 675
ETLE/H 0320-2H	32,500	110,890	39,700	135,460	2	400/3/50	5,600	10.2	1,300	10,200	36,720	45	5 × 3744	2 × 900
ETLE/H 0460-2H	46,900	160,020	57,200	195,170	2	400/3/50	5,600	10.2	1,300	10,000	36,000	45	5 × 3744	2 × 900
ETLE/H 0580-2H	58,200	198,580	71,000	242,250	2	400/3/50	5,600	10.2	1,300	9,400	33,840	43	6 × 3744	2 × 900
ETLE/H 0300-2V	30,400	103,730	37,100	126,590	2	400/3/50	5,600	10.2	1,300	10,400	37,440	45	10 × 1917	2 × 675
ETLE/H 0440-2V	44,200	150,810	53,900	183,910	2	400/3/50	5,600	10.2	1,300	10,000	36,000	45	10 × 1917	2 × 675
ETLE/H 0500-2V	50,800	173,330	62,000	211,540	2	400/3/50	5,600	10.2	1,300	9,400	33,840	43	12 × 1917	2 × 675
ETLE/H 0650-4V	65,100	222,120	79,400	270,910	4	400/3/50	11,200	20.4	1,300	20,400	73,440	46	10 × 3744	2 × 900
ETLE/H 0930-4V	93,800	320,050	114,400	390,330	4	400/3/50	11,200	20.4	1,300	20,000	72,000	46	10 × 3744	2 × 900
ETLE/H 1160-4V	116,400	397,160	142,000	484,500	4	400/3/50	11,200	20.4	1,300	18,800	67,680	44	12 × 3744	2 × 900

## Application & Correction Factor Guideline

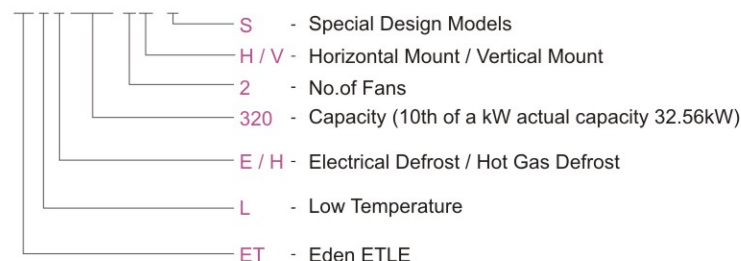


Capacity Multiplying Correction Factor For Blast Freezer

Refrigerant	Capacity Multiplier
R22	1.00
R407B	0.95
R407C	0.93
R134A	0.975
R404A	0.989
R507	0.989

## Nomenclature

### ETLE 320-2H-S



### 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 SC3 Nominal Capacity (ETLE / H)

SC3 Condition - Air Inlet Temperature = -18°C and Evaporating Temperature = -25°C

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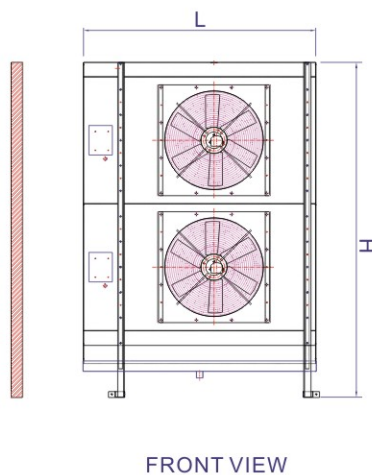
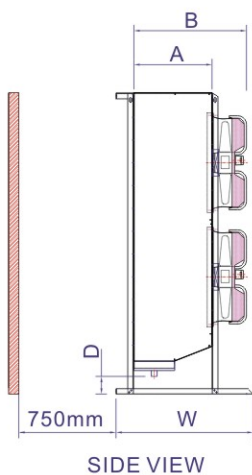
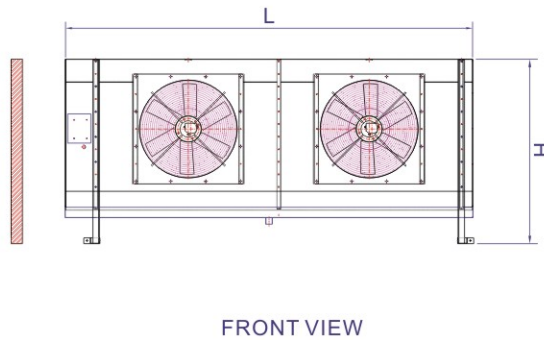
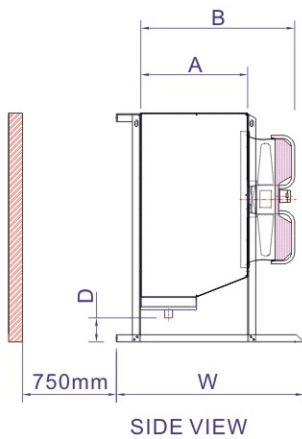
## ETLE / H

### Technical Specification

Model	Size (mm)									Weight (kg)*	Liquid Connection (mm)	Suction Connection (mm)	Drain Pipe (mm)
	A	B	D	H	W	L	H*	W*	L*				
ETLE/H 0150-1H	667	1,110	150	1,424	1,169	1,780	1,620	1,330	1,960	371	15.8	34.9	50
ETLE/H 0220-1H	667	1,110	150	1,424	1,169	1,780	1,620	1,330	1,960	400	15.8	34.9	50
ETLE/H 0250-1H	667	1,110	150	1,424	1,169	1,780	1,620	1,330	1,960	430	15.8	34.9	50
ETLE/H 0320-2H	667	1,110	150	1,424	1,169	3,150	1,620	1,330	3,330	566	15.8	41.3	50
ETLE/H 0460-2H	667	1,110	150	1,424	1,169	3,150	1,620	1,330	3,330	624	15.8	54.0	50
ETLE/H 0580-2H	667	1,110	150	1,424	1,169	3,150	1,620	1,330	3,330	682	22.2	66.7	50
ETLE/H 0300-2V	667	1,110	150	2,568	1,169	1,780	2,770	1,330	1,960	550	15.8	41.3	50
ETLE/H 0440-2V	667	1,110	150	2,568	1,169	1,780	2,770	1,330	1,960	611	15.8	54.0	50
ETLE/H 0500-2V	667	1,110	150	2,568	1,169	1,780	2,770	1,330	1,960	670	22.2	66.7	50
ETLE/H 0650-4V	667	1,110	150	2,568	1,169	3,150	2,770	1,330	3,330	867	22.2	66.7	50
ETLE/H 0930-4V	667	1,110	150	2,568	1,169	3,150	2,770	1,330	3,330	983	28.6	79.4	50
ETLE/H 1160-4V	667	1,110	150	2,568	1,169	3,150	2,770	1,330	3,330	1,099	28.6	79.4	50

\* Packed Dimensions / Weight

### 3 Installation Guide for ETLE / H





# G3 ETLE Blast Freezer Profile Series Unit Cooler



## ETLE / H

### ADDITIONAL INFORMATION

#### Example:

Application: Freezer, Chicken Meat  
Required Room Temperature: -30°C  
Ambient: +35°C  
Evaporating Temperature: -35°C at 5KTD  
Cooling Capacity: 28kW (Inclusive of the Fan and Heater load)  
Type of Refrigerant: R404A

#### Selection of the Eden G3 Unit Cooler as follow:

1. Determine the Correction Factors and Multiplier (Refers to page 2)
  - a. Capacity Correction Factor is Approximately 0.82
  - b. Refrigerant multiplier = 0.97
2. Calculation of required capacity:
  - a.  $28\text{kW} / 0.82 / 0.97 = 35.21\text{kW}$  (Inclusive of the Fan and Heater load)
3. Calculate the unit cooler capacity needed at 5KTD:
  - a.  $35.21\text{kW} \times 6 / 5 = 42.26\text{kW}$
4. Hence an **ETLE / H 0440-2V** for Vertical  or **ETLE / H 0460-2H** for horizontal  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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