

# G3 TITAN BLAST FREEZER UNIT COOLER

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



ETLE / H - Super Blast Freezer Application  
Capacity: 15.033kW to 116.40kW

Effective Air Throw: 40m to 46m

# G3 Titan 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



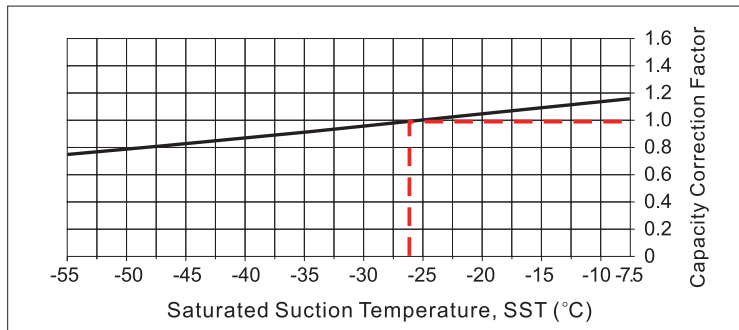
# G3 Titan Blast Freezer Profile Series Unit Cooler ETLE / H

## ETLE / H - Super Blast Freezer Unit Cooler Specifications Electric Defrost Staggered Fin 2FPI / 4FPI Room Temperature -20°C

Model	Capacity(Watts)				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)
	R22	R404A	R22	R404A		(V/Ph/Hz)	(Watts)	(Amps)	(rpm)	(L/s)	(m³/h)			
	6 KTD	6 KTD	7 KTD	7 KTD										
ETLE/H 0150-1H	15,200	15,033	18,500	18,297	1	400/3/50	2,900	5.3	1,290	5,200	18,720	41	5 x 2130	2 x 750
ETLE/H 0220-1H	22,100	21,857	27,000	26,703	1	400/3/50	2,900	5.3	1,290	5,000	18,000	41	5 x 2130	2 x 750
ETLE/H 0250-1H	25,400	25,121	31,000	30,659	1	400/3/50	2,900	5.3	1,290	4,700	16,920	40	6 x 2130	2 x 750
ETLE/H 0320-2H	32,500	32,143	39,700	39,263	2	400/3/50	5,800	10.6	1,290	10,200	36,720	45	5 x 4160	2 x 1000
ETLE/H 0460-2H	46,900	46,384	57,200	56,571	2	400/3/50	5,800	10.6	1,290	10,000	36,000	45	5 x 4160	2 x 1000
ETLE/H 0580-2H	58,200	57,560	71,000	70,219	2	400/3/50	5,800	10.6	1,290	9,400	33,840	43	6 x 4160	2 x 1000
ETLE/H 0300-2V	30,400	30,066	37,100	36,692	2	400/3/50	5,800	10.6	1,290	10,400	37,440	45	10 x 2130	2 x 750
ETLE/H 0440-2V	44,200	43,714	53,900	53,307	2	400/3/50	5,800	10.6	1,290	10,000	36,000	45	10 x 2130	2 x 750
ETLE/H 0500-2V	50,800	50,241	62,000	61,318	2	400/3/50	5,800	10.6	1,290	9,400	33,840	43	12 x 2130	2 x 750
ETLE/H 0650-4V	65,100	64,384	79,400	78,527	4	400/3/50	11,600	21.2	1,290	20,400	73,440	46	10 x 4160	2 x 1000
ETLE/H 0930-4V	93,800	92,768	114,400	113,142	4	400/3/50	11,600	21.2	1,290	20,000	72,000	46	10 x 4160	2 x 1000
ETLE/H 1160-4V	116,400	115,120	142,000	140,438	4	400/3/50	11,600	21.2	1,290	18,800	67,680	44	12 x 4160	2 x 1000

2

## 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

S	- Special Design Models
H/V	- Horizontal Mount / Vertical Mount
2	- No. of Fans
320	- Capacity (10th of a kW actual capacity 32.56kW)
E/H	- Electrical Defrost / Hot Gas Defrost
L	- Low Temperature
ET	- Eden Titan

## 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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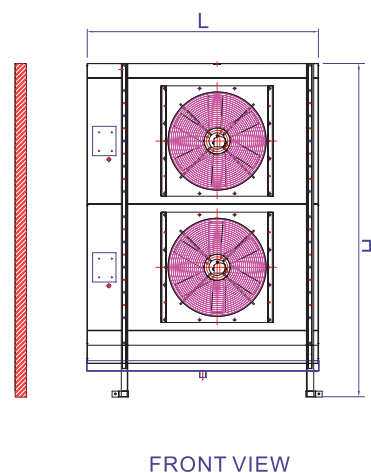
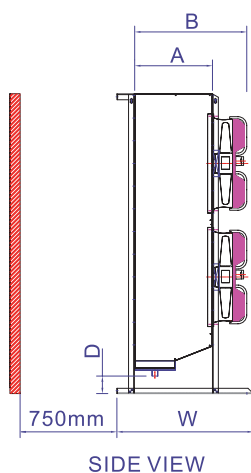
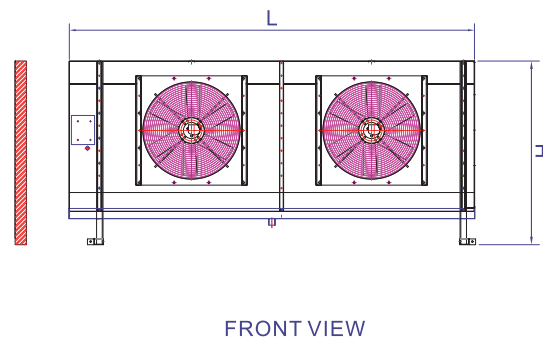
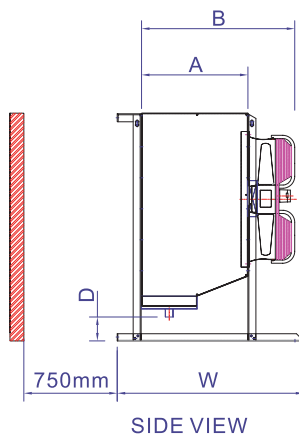
## Technical Specification

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	22.2	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	22.2	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 Titan 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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