www.edensolution.com

G5 CO2 MEDIUM PROFILE UNIT COOLER

SERIES APPLICATION CAPACITY

ECON - Medium Temperature: 5.14kW ~ 53.52kW
ECOL - Low Temperature: 3.62kW ~ 18.5kW
Effective Air Throw: 17.2m ~ 21.1m
Pressure limit: up to 60bar

WELCOME TO EDEN!

Eden has made "Green Program" a timeless mission, constantly using revolutionary green technology and aided customers around the world to solve the increasingly competitive environmental challenges.

Eden adopts compact and energy efficient design that has significant advantages in heat transfer technology.

Eden has accumulated rich experience in various applications, providing customers with customised refrigeration solutions and services by improving efficiency and reducing costs.

SPECIFICATIONS

Variety of specifications that go into the production of Eden unit coolers, such as temperature range, fin spacing, defrosting method and refrigerant.

TEMPERATURE RANGE

MT - Medium (Above 0°C)
PD - Partial Defrost (-8°C ~ +2°C)
LT - Low (-32°C ~ -10°C)

FPI

4 - 4FPI (6.35mm)
6 - 6FPI (4.23mm)

DEFROSTING METHOD

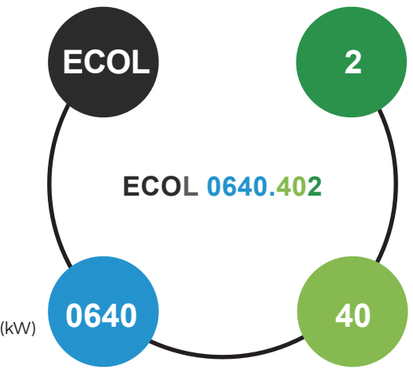
A - Air Defrost
E - Electric Defrost
H - Hot gas

REFRIGERANT

HFC (R404A,R507,R22...)
CO2 (On request basis)

NOMENCLATURE

ECOL
ECON - Medium Temperature
ECOL - Low Temperature



2
No. of Fans

0640
Capacity
Based on ET = -25°C, RT = -19°C condition (kW)
0640 = 6.4kW at 6KTD, CO2 refrigerant

40
Fan Size (400mm)

Advantages of Refrigerant CO2

Zero Ozone Depletion Potential | Toxic free | Low Global Warming Potential | Flammability free | Safety group L1/A1

QUALITY ASSURANCE

- ISO 9001 Certification
- International Accreditation Forum
- China National Accreditation Service
- CE Certification

GENERAL FEATURES

Eden G5 Medium Profile CO2 Unit Cooler Series is specifically engineered for the commercial and light industrial refrigeration suitable for chiller and freezer cold rooms applications.

Compact Design

Easier installations

Suitable for compact spaces

Tubes

Stainless steel

High yield, tensile strength, corrosion resistance and durability

Does not susceptible to embrittlement

In accordance to GB/T24593-2018

Maximum operating pressure of 60 bar

Hinged side panels

Easy access and service of components without removing the panels

Capacity Rating

Thermally guaranteed by Eden

Fins

Double Sine Wave

High grade Aluminum (AA1100 Standard)

Double Sine Wave Pattern & Rippled Fin Edges

Maximum fin surface and higher heat transfer coefficient

Defrosting

Centrally Positioned

Electrical sheathed stainless-steel heating elements with vulcanized rubber connections

Centrally positioned drain outlet

Modular Design

Balanced and even airflow distribution

Enhanced air side performance and structural strength

Electrical Junction Box(es)

With IP56 Rating

3mm thick ABS

IP56 protection rating with flame class V-0

Mounted internally

Casing

High quality powder coated Aluminium (AA1100 Standard)

Excellent weathering resistance

Fan Motor

German Fan

High quality German fan motors

Thermistor motor protection

IEC 60529 safety standards

Long life and durability

Quality Assurance

ISO 9001 Certification •

International Accreditation Forum •

China National Accreditation Service •

CE Certification •

One (1) Year Warranty (Terms and conditions apply) •

Options available at page 11-12

EDEN G5 CO2 MEDIUM PROFILE UNIT COOLER

G5 Medium Profile

It is developed on a compact coil platform using latest commercially available coil design software. Coil efficiencies and cooling capacities were calculated, allowing maximum mass flow rate of refrigerant to be evenly distributed throughout the evaporator.

Modular Design

Eden G5 Medium Profile CO2 Unit Cooler Series incorporates a modular design for models with 2 fans or more ensuring a balanced and even airflow distribution over each fan bay section and across the entire coil. Fan bay centre plates were incorporated between to enhance air side performance and structural strength for models with 2 or more fans.

Tubes

Stainless steel is an ideal tube material for use in CO2 Unit Coolers due to its higher yield, tensile strength, corrosion resistance and durability as compared to copper tubes. It does not susceptible to embrittlement even at extremely low (cryogenic) temperatures. These high pressure Stainless steel tubes are in accordance to GB/T24593-2018 and allow maximum operating pressure of 60 bar.

Fins

Fins are produced from high grade Aluminium (Aluminium Association - AA1100 Standard) with Double Sine Wave Pattern and Rippled Fin Edges for maximum fin surface and higher heat transfer coefficient from primary to secondary surfaces.

Fan Motors

Fan Motors used in all models are high quality German fan motors, fitted with thermistor motor protection and conform to IEC 60529 safety standards. Fan motors are of the highest quality offered in the industry ensuring long life and durability for low temperature applications.

Compact Design

Compact design reduces dimensional volume to enhance cold room productivity without losing cooling capacity. It is suitable for compact spaces and is also easier to handle during installations.

Defrosting

Defrosting is by electrical sheathed stainless-steel heating elements with vulcanized rubber connections 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.

Electrical Junction Box(es)

Electrical junction box(es) is 3mm thick ABS, IP56 protection rating with flame class V-0 and are mounted internally.

Hinged Side Panel

Both side panels with hinges, created to allow easy access and service of components without removing the panels.

Casing

Casing is made from high quality powder coated Aluminium, according to AA1100 Standard. The coating which made from carboxyl polyester resin has excellent weathering resistance.

Quality Assurance

Eden G5 Medium Profile CO2 Unit Cooler Series comes with Quality Assurance as they are designed, manufactured and tested at our factory with ISO9001 certification. It also comes with a One (1) Year Warranty against quality & manufacturing defects (Terms and conditions apply) .

TECHNICAL DATA
ECON - Medium Temperature Unit Cooler

Air Defrost 6FPI (4.23mm), Room Temperature +2˚C

Defrost			Temperature			Refrigerant		FPI	
A	E	H	MT	PD	LT	CO2	HFC	4	6

CO2 RATED CAPACITY		FAN DATA								DIMENSIONAL DETAILS								CONNECTION DETAILS			
ECON MODEL	ET = -12˚C RT = +2˚C	Fan Qty 400mm	Fan Motor			Speed	Air Flow		Air Throw**	Sound Power Level dB(A)	A	B	H	W	L	[H]	[W]	[L]	inlet Liquid	outlet Suction	Drain Pipe	Weight [Kg]
	Watts (14KTD)		(V/Ph/Hz)	(kW)	(Amps)	(rpm)	(l/s)	(m³/hr)	(m)		(mm)								(mm)			
ECON 0514.401	5140	1	400/3/50	0.135	0.44	1450	917	3300	19.1	74	588	-	639	330	1027	820	620	1170	16	16	25.4	37
ECON 0734.401	7340	1	400/3/50	0.135	0.44	1450	861	3100	18.8	74	588	-	639	330	1027	820	620	1170	16	16	25.4	41
ECON 0903.401	9030	1	400/3/50	0.135	0.44	1450	778	2800	17.8	74	588	-	639	330	1027	820	620	1170	10	28	25.4	44
ECON 1162.401	11620	1	400/3/50	0.135	0.44	1450	681	2450	17.2	74	588	-	639	330	1027	820	620	1170	10	28	25.4	51
ECON 1468.402	14680	2	400/3/50	0.270	0.88	1450	1722	6200	20.1	77	1148	574	639	330	1587	820	620	1730	16	28	25.4	68
ECON 1807.402	18070	2	400/3/50	0.270	0.88	1450	1556	5600	19.0	77	1148	574	639	330	1587	820	620	1730	16	28	25.4	74
ECON 2092.402	20920	2	400/3/50	0.270	0.88	1450	1444	5200	18.5	77	1148	574	639	330	1587	820	620	1730	16	28	25.4	82
ECON 2323.402	23230	2	400/3/50	0.270	0.88	1450	1361	4900	18.0	77	1148	574	639	330	1587	820	620	1730	16	28	25.4	87
ECON 2744.403	27440	3	400/3/50	0.405	1.32	1450	2333	8400	20.6	79	1707	569	639	330	2147	820	620	2290	16	28	25.4	108
ECON 3170.403	31700	3	400/3/50	0.405	1.32	1450	2167	7800	19.9	79	1707	569	639	330	2147	820	620	2290	16	28	25.4	118
ECON 3655.404	36550	4	400/3/50	0.540	1.76	1450	3111	11200	20.9	80	2268	567	639	330	2707	820	620	2860	22	28	25.4	150
ECON 4227.404	42270	4	400/3/50	0.540	1.76	1450	2889	10400	20.0	80	2268	567	639	330	2707	820	620	2860	22	28	25.4	165
ECON 4697.404	46970	4	400/3/50	0.540	1.76	1450	2722	9800	19.4	80	2268	567	639	330	2707	820	620	2860	22	28	25.4	181
ECON 5352.405	53520	5	400/3/50	0.675	2.20	1450	3611	13000	21.1	82	2830	566	639	330	3268	820	620	3420	22	32	25.4	203

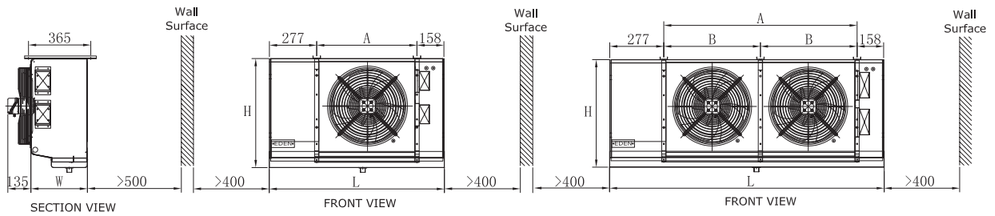
> Maximum permissible operating pressure: 60 bar

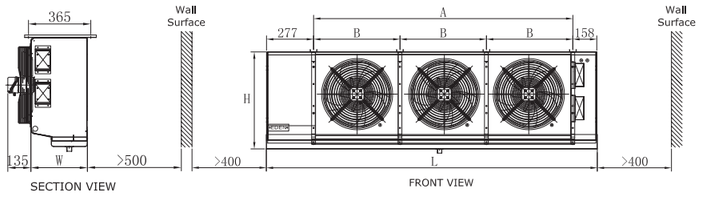
> Direct Expansion

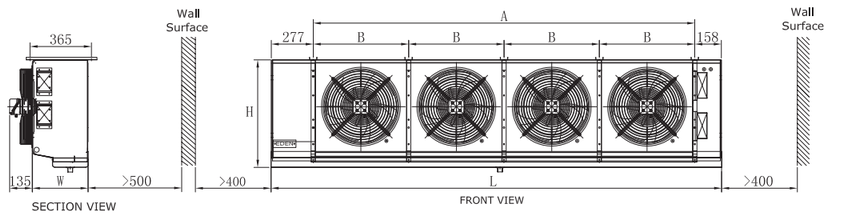
> ** Air Throw indicated is the distance from the unit to the furthest point where an air velocity of 0.5m/s can still be measured.

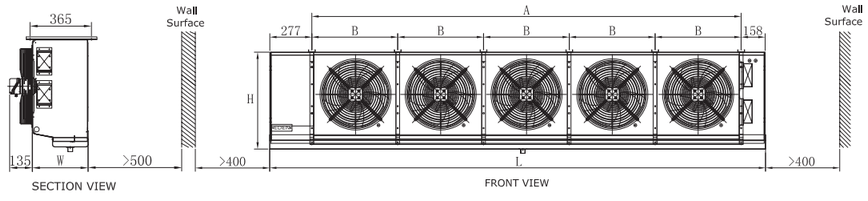
[Packed Dimensions / Weight]

DIMENSIONAL DRAWINGS









TECHNICAL DATA
ECOL - Low Temperature Unit Cooler

Electric Defrost 4FPI (6.35mm), Room Temperature -19˚C

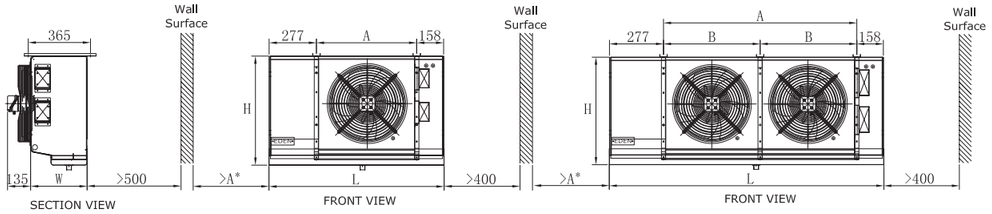
Defrost			Temperature			Refrigerant		FPI	
A	E	H	MT	PD	LT	CO2	HFC	4	6

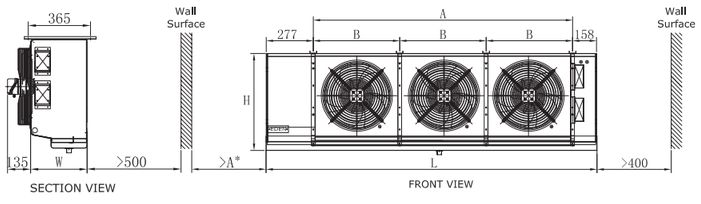
CO2 RATED CAPACITY		FAN DATA								DIMENSIONAL DETAILS								CONNECTION DETAILS			HEATER DETAILS		
ECOL MODEL	ET = -25˚C RT = -19˚C Watts (6KTD)	Fan Qty 400mm	Fan Motor (V/Ph/Hz)	Fan Motor (kW)	Fan Motor (Amps)	Speed (rpm)	Air Flow (l/s)	Air Flow (m³/hr)	Air Throw** (m)	Sound Power Level dB(A)	A	B	H	W	L	[H]	[W]	[L]	Liquid inlet	Suction outlet	Drain Pipe	Coil Heater	Drain Pan Heater	Weight [Kg]
											(mm)								(mm)			(Watts)		
ECOL 0362.401	3620	1	400/3/50	0.135	0.44	1450	764	2750	17.8	74	588	-	639	330	1027	820	620	1170	16	16	25.4	4 x 600	1 x 450	50
ECOL 0428.402	4280	2	400/3/50	0.270	0.88	1450	1833	6600	18.8	77	1148	574	639	330	1587	820	620	1730	16	16	25.4	4 x 1150	1 x 700	66
ECOL 0541.402	5410	2	400/3/50	0.270	0.88	1450	1722	6200	18.4	77	1148	574	639	330	1587	820	620	1730	10	16	25.4	4 x 1150	1 x 700	73
ECOL 0640.402	6400	2	400/3/50	0.270	0.88	1450	1611	5800	18.1	77	1148	574	639	330	1587	820	620	1730	10	16	25.4	4 x 1150	1 x 700	80
ECOL 0726.402	7260	2	400/3/50	0.270	0.88	1450	1528	5500	17.9	77	1148	574	639	330	1587	820	620	1730	10	16	25.4	4 x 1150	1 x 700	86
ECOL 0819.403	8190	3	400/3/50	0.405	1.32	1450	2583	9300	20.2	79	1707	569	639	330	2147	820	620	2290	16	28	25.4	4 x 1700	1 x 1070	105
ECOL 0970.403	9700	3	400/3/50	0.405	1.32	1450	2417	8700	19.6	79	1707	569	639	330	2147	820	620	2290	16	28	25.4	4 x 1700	1 x 1070	115
ECOL 1092.404	10920	4	400/3/50	0.540	1.76	1450	3444	12400	20.4	80	2268	567	639	330	2707	820	620	2860	16	28	25.4	4 x 2300	1 x 1400	147
ECOL 1294.404	12940	4	400/3/50	0.540	1.76	1450	3222	11600	19.7	80	2268	567	639	330	2707	820	620	2860	16	28	25.4	4 x 2300	1 x 1400	162
ECOL 1468.404	14680	4	400/3/50	0.540	1.76	1450	3056	11000	19.2	80	2268	567	639	330	2707	820	620	2860	16	28	25.4	4 x 2300	1 x 1400	177
ECOL 1630.405	16300	5	400/3/50	0.675	2.20	1450	4028	14500	21.0	82	2830	566	639	330	3268	820	620	3420	16	28	25.4	4 x 2950	1 x 1770	198
ECOL 1850.405	18500	5	400/3/50	0.675	2.20	1450	3819	13750	20.4	82	2830	566	639	330	3268	820	620	3420	16	28	25.4	4 x 2950	1 x 1770	217

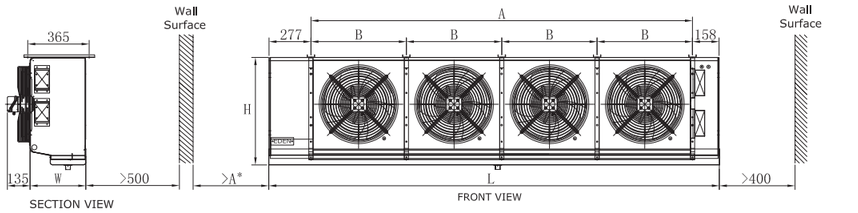
[Packed Dimensions / Weight]

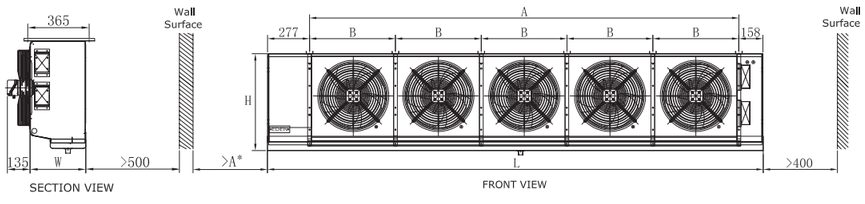
> Maximum permissible operating pressure: 60 bar
> Direct Expansion
> ** Air Throw indicated is the distance from the unit to the furthest point where an air velocity of 0.5m/s can still be measured.

DIMENSIONAL DRAWINGS









A*: Minimum distance required for heater replacement

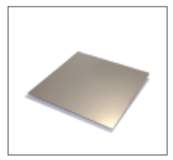
OPTIONS

The following options and accessories are available to enhance the performance and operation of Eden unit coolers.

Casings

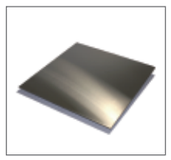
Support Legs

Support legs are offered to facilitate the installation of unit coolers



SS304 Casing

This is a popular and commercial grade stainless steel sheet metal that is ideal for kitchen appliances



SS316 Casing

Marine grade stainless steel 316 sheet metal is used primarily for its high corrosion resistance

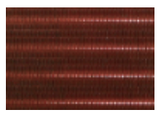
Defrosting

Eden provides a variety of defrosting methods, such as hot gas, water, air and electric; all of which may be used individually or in various combination.

Hot gas Defrost

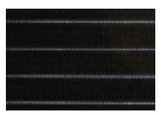
Combination hot gas coil / heater at drain pan

Fins



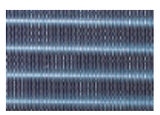
Copper Fins

Copper Fins possess higher thermal conductivity, corrosion resistance and strength than aluminum fins. It is ideal for harsh environments.



Epoxy Fins

Epoxy Fins protect against corrosive agents and severe environments.



Blue Fins

Blue Fins prevent corrosion from the accumulation of salt, acid deposit and water droplets.

Fan

EC Fan

Improved motor efficiency and variable fan speed control when require

Single Phase Fan

High performance single phase fan motor

Explosion Proof

Ideal for explosive environments

SS304 Fan Grill

Easy cleaning and longer functional life

Coil

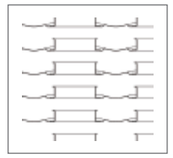
Eden's coil selection program allows coils to be customized to meet the needs of most applications.

External Re-heat Coil

Internal Re-heat Coil (Model End With – RH)

Distributor Connection on Right

Fitted with Thermostat Sensor



Fin Spacing 8,9,10mm (Custom-made)

Eden CO2 unit coolers are supported by our range of CO2 RACK solution

> Better Internal Rate of Return (IRR)
> Higher Net Present Value (NPV)
> Lower operational costs
> Lower initial investment
> Smaller dosage forms
> Lower compliance costs