RIVACOLD

CUX CO_2 COMMERCIAL COOLERS

CUX 1.5 to 7.1kW

CUX Commercial – Draw through $C0_2$ unit coolers 1.5 to 7.1 kW

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GENERAL

The CUX range of commercial unit coolers has been designed to meet all the latest requirements of the contractor and supermarket specifier

There are 7 basic models, which are available in both standard velocity (4 pole 1300 RPM) and Low velocity (6 pole 900 RPM)

A fin spacing of 6mm is offered to allow coverage of various evaporating temperatures to cover Sub critical and Transcritical applications

The coils used have been designed to give optimum performance over all conditions, and are suitable for use with CO_2

MODEL IDENTIFICATION CODES: -

CUX – 1 4 - 70

Cooler Type :

No of Fans :

Nominal Fins per Inch :

Model :

FEATURES

Transcritical

- ½ Coils :- Plain Copper tubing with Corrugated fins
- Fin thickness 0.20mm
  Tube thickness = 0.7mm
  Tube centres 30mm x 30mm staggered pitch
- Stainless steel headers
- All coils pressure tested to 200 Bar, Max working Pressure 150 Bar

Sub critical

- ½ Coils :- Plain Copper tubing with Corrugated fins
- Fin thickness 0.20mm
  Tube thickness = 0.70mm
  Tube centres 30mm x 30mm staggered pitch
- All coils pressure tested to 60 Bar, Max working Pressure 45 Bar

General

- Draw through high output design
- Electrostatic Powder Coated casework
- Flush to the ceiling mounted
- Easy change motors
- O/Cycle, Electric Defrost options
- All motors and heaters (where fitted) are wired to a common junction box for convenience

FAN MOTORS

Fans are high efficiency External rotor motors with Die-cast aluminium alloy enclosure complete with aluminium blades and capacitor start

IP54 rated with an operating range between –35°C to + 70°C. Maximum RH = 100%

All motors are single phase 230v – 50 Hz and come complete with an internal thermal protection device

Insulation class "F"

All mounted via a steel guard finished in Ral 5013

CAPACITY CORRECTION

To calculate the correct performance at a given condition you divide the catalogue capacity by the correction factor.

Example 1 CUX 14-70 Room at –18°C evap at -25°C R744

Catalogue duty $= \frac{2.41\ kW}{1.29} =$ **1.86 kW corrected duty**

Alternatively you can multiply your desired performance by the correction factor to select a model.

Example 2 Duty required 5.0 kW on R744 evaporating at -10°C with a 6°C TD

Required duty = 5.0 kW x 1.35 (Correction factor)

The corrected duty is 6.75 kW (catalogue conditions)

Therefore the Cooler selection would be a **CUX 34-215**
Which has a catalogue duty of 7.10 kW.

OPTIONS

- Copper fins
- Vinyl coated fins
- Epoxy phenolic coated coil and fins
- Fan ring mounted peripheral heaters

Changes possible without prior notice

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NOMINAL CAPACITIES (kW)

MODEL	R744 - 6mm	
	STD	LV
CUX 14-45	1.50 kW	1.16 kW
CUX 14-55	1.90 kW	1.41 kW
CUX 14-70	2.41 kW	1.80 kW
CUX 24-110	3.75 kW	2.78 kW
CUX 24-145	4.92 kW	3.67 kW
CUX 34-170	5.78 kW	4.29 kW
CUX 34-215	7.10 kW	5.28 kW

CORRECTION FACTORS

TD1 K	EVAPORATING TEMPERATURE (to)°C +5	0	-5	-8	-10	-15	-20	-25	-30	-35
6	1.12	1.11	1.18	1.33	1.35	1.38	1.47	1.51	1.61	1.69
7	0.96	0.97	1.01	1.14	1.16	1.20	1.25	1.29	1.38	1.45
8	0.84	0.85	0.88	**1.00**	1.01	1.05	1.08	1.13	1.21	1.26
9	0.74	0.75	0.77	0.89	0.90	0.93	0.97	1.01	1.08	1.13
10	0.67	0.68	0.70	0.80	0.81	0.84	0.87	0.90	0.97	1.02

Motor Details

Model	Power Supply	Nominal Motor size - Each	Power Absorbed - Watts/Each
STD Velocity	230v 50 Hz 1 phase	100 Watts	**136 Watts**
LOW Velocity	230v 50 Hz 1 phase	30 Watts	90 Watts

Capacities

TD1 - The nominal capacities stated are based on -8°C evaporating temperature (to) and 8°C difference between air on and evaporating temperature (EN 328 Standard condition 2)

(to) – Evaporating temperature is the saturated temperature according to the pressure at the suction outlet under subcritical conditions.

Performance figures and correction factors quoted in this manual may change without notice.

For pumped over feed systems refer to Rivacold for duties.

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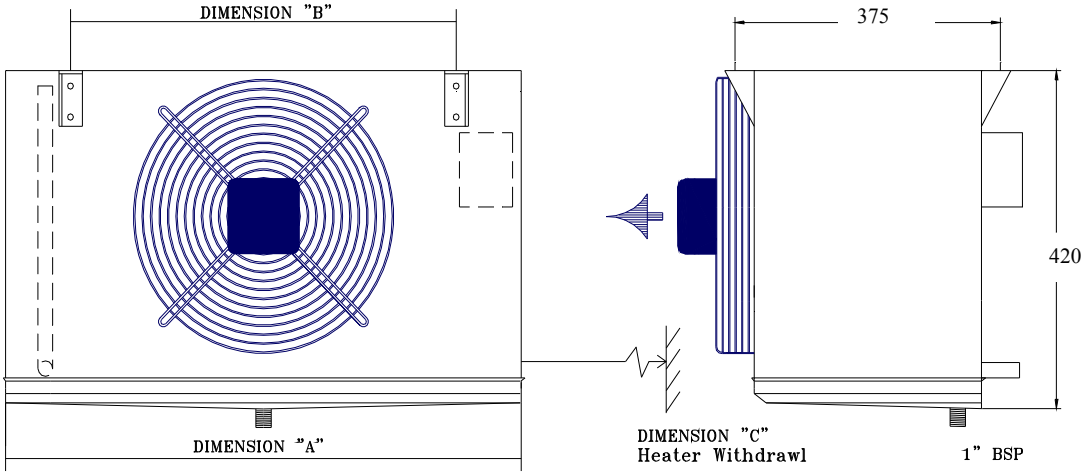
DIMENSIONS / CONNECTIONS / WEIGHTS

MODEL :-	DIMENSIONS :-			DRY WEIGHT KG	COIL SURFACE AREA m2	INTERNAL VOLUME dm3	FIN SPACING	CONNECTIONS	
	DIM "A"	DIM "B"	DIM "C"					INLET	OUTLET
CUX 14-45	715 mm	490 mm	535 mm	24	6.05	3.2	6 mm	½"	5/8"
CUX 14-55	715 mm	490 mm	535 mm	27	7.10	4.1	6 mm	½"	5/8"
CUX 14-70	715 mm	490 mm	535 mm	29	10.30	6.2	6 mm	½"	5/8"
CUX 24-110	1150 mm	925 mm	970 mm	40	14.25	7.0	6 mm	½"	7/8"
CUX 24-145	1150 mm	925 mm	970 mm	42	19.12	10.2	6 mm	½"	7/8"
CUX 34-170	1585 mm	1360 mm	1400 mm	48	20.40	10.4	6 mm	½"	1 1/8"
CUX 34-215	1585 mm	1360 mm	1400 mm	50	28.09	14.2	6 mm	½"	1 1/8"

AIR VOLUMES / FANS / DEFROST

MODEL :-	AIR VOLUMES :-		AIR THROW :-		MOTOR FLC :-		DEFROST LOADS :-			
	STD VELOCITY	LOW VELOCITY	STD VELOCITY	LOW VELOCITY	STD VELOCITY	LOW VELOCITY	GAS Watts	GAS Amps	ELECTRIC Watts	ELECTRIC Amps
CUX 14-45	**1548 m3/hr**	1084 m3/hr	14 Mt	9 Mt	**0.75 Amps**	0.44 Amps	200	0.87	1320	5.74
CUX 14-55	**1512 m3/hr**	1028 m3/hr	14 Mt	9 Mt	**0.75 Amps**	0.44 Amps	200	0.87	1320	5.74
CUX 14-70	**1430 m3/hr**	972 m3/hr	14 Mt	8 Mt	**0.75 Amps**	0.44 Amps	200	0.87	1320	5.74
CUX 24-110	**3024 m3/hr**	2056 m3/hr	16 Mt	11 Mt	**1.50 Amps**	0.88 Amps	300	1.30	2100	9.13
CUX 24-145	**2858 m3/hr**	1943 m3/hr	16 Mt	11 Mt	**1.50 Amps**	0.88 Amps	300	1.30	2100	9.13
CUX 34-170	**4590 m3/hr**	3121 m3/hr	17 Mt	12 Mt	**2.25 Amps**	1.32 Amps	400	1.74	3280	14.26
CUX 34-215	**4284 m3/hr**	2913 m3/hr	17 Mt	12 Mt	**2.25 Amps**	1.32 Amps	400	1.74	3280	14.26



Minimum Mounting distance from rear wall is 300mm

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Rivacold UK Ltd
Unit 12 Ashchurch Business Centre, Alexandra Way, Tewkesbury, Glos. GL20 8NB
Tel: 01684 878035 Fax: 01684 297437 Website http:www.rivacolduk.co.uk