KIRBY GUARDIAN ECOCOOL

DESIGNED FOR R744 CARBON DIOXDE (CO_2)



KIRBY GUARDIAN® ECOCOOL

CO_2 Evaporators

Future proof, environmentally friendly performance



Exclusively distributed by

KIRBY
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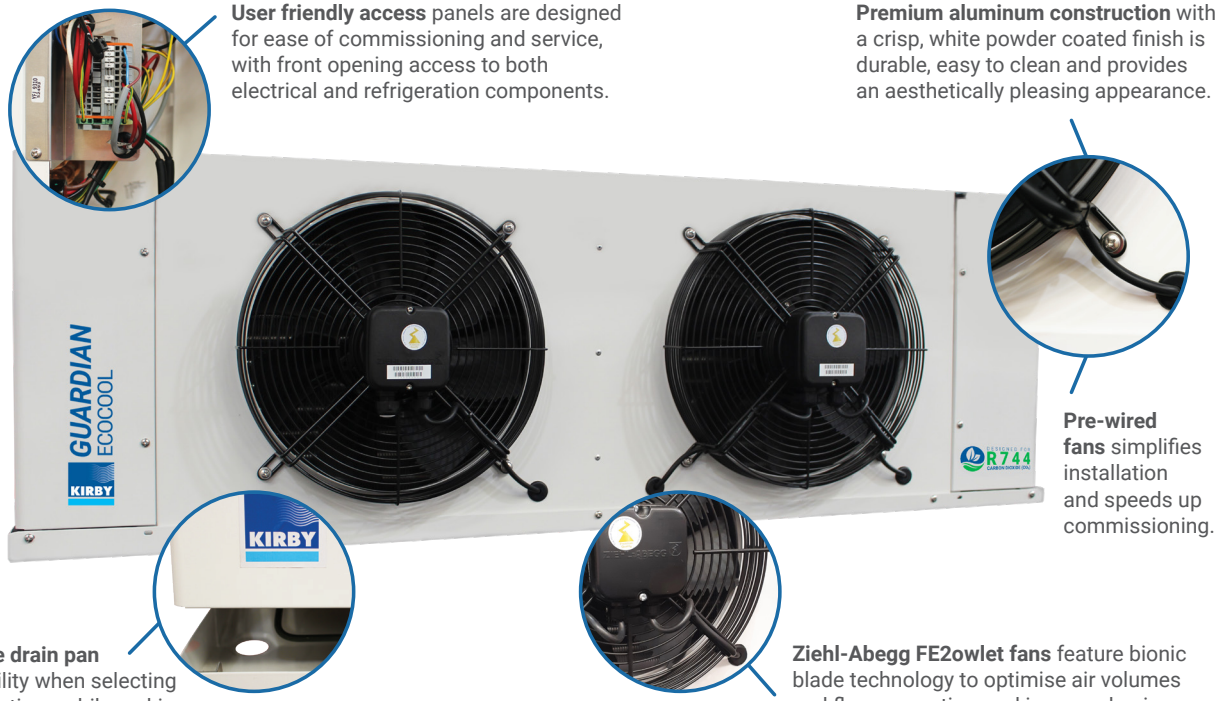
KIRBY GUARDIAN® ECOCOOL
CO_2 Evaporators

Innovative Features, Real Benefits

All models within the Kirby Guardian Ecocool range are rated for a maximum working pressure up to 80 Bar, making them suitable for both transcritical and subcritical applications.



User friendly access panels are designed for ease of commissioning and service, with front opening access to both electrical and refrigeration components.

Premium aluminum construction with a crisp, white powder coated finish is durable, easy to clean and provides an aesthetically pleasing appearance.

Pre-wired fans simplifies installation and speeds up commissioning.

Fully reversible drain pan provides flexibility when selecting installation locations while making maintenance quick and easy.

Ziehl-Abegg FE2owlet fans feature bionic blade technology to optimise air volumes and flow properties, and improved noise ratings, whilst offering maintenance free use.

Future Proof, Environmentally Friendly Performance

With a very low global warming potential (GWP) base value of 1, R744 is an environmentally friendly alternative to synthetic refrigerants. Naturally occurring, it is non-toxic (within a ventilated space), non-flammable and non-ozone depleting. Furthermore, not only does it provide exceptional performance, your investment is future proof for years to come.

Kirby Guardian® Ecocool CO_2 Evaporators – Nomenclature

K	MS	H	A	A	3	-RC

Fan Type & Size

A	300mm (AC)	C	300mm (EC)
B	350mm (AC)	D	350mm (EC)

Fluid Type

H	HFC & HFC Blends	C	CO_2

Usage Application

LU	Low Temperature – Low Frost
LS	Low Temperature – Standard
MU	Medium Temperature – Low Frost
MS	Medium Temperature – Standard

Manufacturer Brand

K	Kirby

Additional Functionality

-E	Electric Defrost
-RC	Factory Fitted Carel EVD-Ice

Nominal Capacity

HFC Models - R448A
CO_2 Models - R744

Number of Fans

1	1 Fan	4	4 Fans
2	2 Fans	5	5 Fans
3	3 Fans		

KIRBY GUARDIAN® ECOCOOL EVAPORATORS
Medium Temperature Performance Data

PRODUCT NUMBER	CAPACITY WATTS @ -4°C SST. & 6KTD (AUSTRALIAN CONDITION)	CAPACITY WATTS @ -8°C SST. & 8KTD (EN328 SC2 CONDITION)	REFRIGERANT CHARGE (kg)	FAN MOTOR DATA					DEFROST HEATER DATA				SOUND POWER dB(A)
				240V / 50HZ / 1 PHASE					FACTORY FITTED - OPTIONAL				
				NO. OF FANS	AIR MOVEMENT		MOTORS (TOTAL)		VOLTS	TOTAL WATTS	TOTAL AMPS/ PHASE	PHASE	
	R774	R774			FLOW (l/s)	THROW (m)	WATTS	AMPS					
300mm FAN DIAMETER													
KMSCA1014	1420	1770	0.76	1	364	7.1	85	0.42	240	1000	4.2	Single Phase	68
KMSCA1017	1694	2111	1.13	1	322	6.4	85	0.42	240	1000	4.2	Single Phase	69
KMSCA2025	2499	3115	1.16	2	778	10.6	170	0.84	240	2000	8.3	Single Phase	71
KMSCA2032	3180	3964	1.89	2	683	9.6	170	0.84	240	2000	8.3	Single Phase	71
KMSCA3044	4396	5480	2.18	3	1091	12.5	255	1.26	415	3000	4.4	Three Phase (Star)	72
KMSCA4059	5853	7297	2.90	4	1455	14.0	340	1.68	415	4000	5.8	Three Phase (Star)	74
350mm FAN DIAMETER													
KMSCB1020	1976	2463	0.83	1	725	8.9	215	1.05	240	1750	7.3	Single Phase	72
KMSCB2044	4400	5486	1.86	2	1450	13.0	430	2.10	415	3500	7.0	Three Phase (Star)	77
KMSCB2061	6086	7587	3.73	2	1189	11.7	430	2.10	415	3500	7.0	Three Phase (Star)	77
KMSCB3077	7705	9605	3.77	3	2017	14.8	645	3.15	415	5250	10.6	Three Phase (Star)	79
KMSCB4104	10395	12958	5.02	4	2689	16.5	860	4.20	415	7000	14.2	Three Phase (Star)	81
KMSCB4122	12238	15256	7.45	4	2378	15.7	860	4.20	415	7000	14.2	Three Phase (Star)	81
KMSCB5162	16268	20280	9.35	5	2796	16.6	1075	5.25	415	8750	17.7	Three Phase (Star)	83

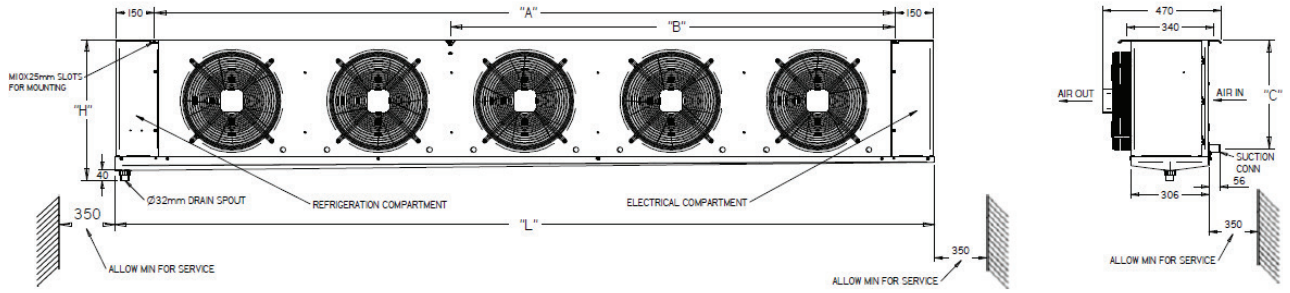
KIRBY GUARDIAN® ECOCOOL EVAPORATORS
Low Temperature Performance Data

PRODUCT NUMBER	CAPACITY WATTS @ -24°C SST. & 6KTD (AUSTRALIAN CONDITION)	CAPACITY WATTS @ -25°C SST. & 7KTD (EN328 SC3 CONDITION)	REFRIGERANT CHARGE	FAN MOTOR DATA					DEFROST HEATER DATA				SOUND POWER dB(A)
				240V / 50HZ / 1 PHASE					FACTORY FITTED - OPTIONAL				
				NO. OF FANS	AIR MOVEMENT		MOTORS (TOTAL)		VOLTS	TOTAL WATTS	TOTAL AMPS/ PHASE	PHASE	
	R774	R774	(kg)		FLOW (l/s)	THROW (m)	WATTS	AMPS					
300mm FAN DIAMETER													
KLUCA1013	1270	1482	0.81	1	386	6.1	85	0.42	240	1000	4.2	Single Phase	68
KLUCA2025	2470	2881	1.61	2	772	9.5	170	0.84	240	2000	8.3	Single Phase	71
KLUCA3033	3308	3859	1.82	3	1233	11.2	255	1.26	415	3000	4.4	Three Phase (Star)	72
350mm FAN DIAMETER													
KLUCB1018	1773	2068	0.88	1	767	8.3	215	1.05	240	1750	7.3	Single Phase	73
KLUCB2039	3907	4558	1.98	2	1533	12.1	430	2.10	415	3500	7.0	Three Phase (Star)	77
KLUCB2050	5045	5886	3.31	2	1350	11.0	430	2.10	415	3500	7.0	Three Phase (Star)	77
KLUCB3068	6836	7975	3.96	3	2158	14.3	645	3.15	415	5250	10.6	Three Phase (Star)	79
KLUCB4090	9041	10547	5.28	4	2878	15.6	860	4.20	415	7000	14.2	Three Phase (Star)	81
KLUCB4100	10037	11710	6.61	4	2700	15.3	860	4.20	415	7000	14.2	Three Phase (Star)	81

KIRBY GUARDIAN® ECOCOOL EVAPORATORS

Physical Data

PRODUCT NUMBER	DIMENSIONS (mm)						CONNECTIONS (mm)		WEIGHT (kg)	PACKED
	LENGTH	DEPTH	HEIGHT	A	B	C	LIQUID	SUCTION	UNPACKED	
KIRBY GUARDIAN ECOCOOL – MEDIUM TEMPERATURE (300mm FAN DIAMETER)										
KMSCA1014	750	470	494	440	-	375	9.50	9.52	15.00	18.00
KMSCA1017	750	470	494	440	-	375	9.50	9.52	17.00	20.00
KMSCA2025	1155	470	494	845	-	375	9.50	12.70	23.00	28.00
KMSCA2032	1155	470	494	845	-	375	9.50	12.70	26.00	31.00
KMSCA3044	1560	470	494	1250	-	375	12.70	15.90	TBA	TBA
KMSCA4059	1970	470	494	1660	-	375	12.70	15.90	TBA	TBA
KIRBY GUARDIAN ECOCOOL – MEDIUM TEMPERATURE (350mm FAN DIAMETER)										
KMSCB1020	850	470	545	540	-	420	9.50	12.70	18.00	22.00
KMSCB2044	1485	470	545	1175	-	420	12.70	15.90	32.00	52.00
KMSCB2061	1485	470	545	1175	-	420	12.70	15.90	42.00	62.00
KMSCB3077	2060	470	545	1745	-	420	12.70	15.88	49.00	74.00
KMSCB4104	2630	470	545	2320	1165	420	15.90	19.10	65.00	95.00
KMSCB4122	2630	470	545	2320	1165	420	15.90	19.05	78.00	108.00
KMSCB5162	3200	470	545	2890	1735	420	19.1	22.2	96.0	130.0
KIRBY GUARDIAN ECOCOOL – LOW TEMPERATURE (300mm FAN DIAMETER)										
KLUCA1013	750	470	494	440	-	375	9.52	9.50	15.00	18.00
KLUCA2025	1155	470	494	845	-	375	9.50	12.70	24.00	29.00
KLUCA3033	1560	470	494	1250	-	375	9.50	12.70	32.00	48.00
KIRBY GUARDIAN ECOCOOL – LOW TEMPERATURE (350mm FAN DIAMETER)										
KLUCB1018	850	470	545	540	-	420	9.50	9.50	18.00	22.00
KLUCB2039	1485	470	545	1175	-	420	9.50	12.70	32.00	52.00
KLUCB2050	1485	470	545	1175	-	420	9.52	12.70	38.00	58.00
KLUCB3068	2060	470	545	1745	-	420	12.70	15.90	49.00	74.00
KLUCB4090	2630	470	545	2320	1165	420	15.90	19.10	65.00	95.00
KLUCB4100	2630	470	545	2320	1165	420	15.90	19.10	73.00	103.00



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