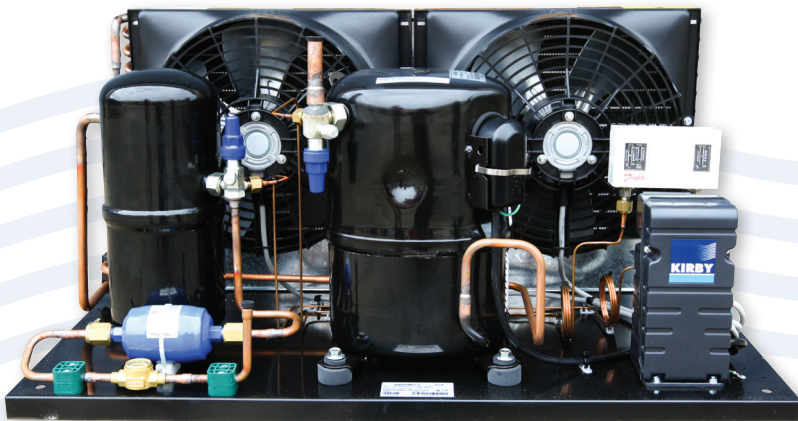




KIRBY® NULLARBOR Condensing Units

Built tough and reliable
for Australia's
harsh conditions



Exclusively distributed by

KIRBY
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KIRBY NULLARBOR

Condensing Units

Introduction and Overview

Developed for harsh Australian conditions, our Nullarbor Hi-Ambient condensing units are rated for operation up to 45°C ambient.

With improved performance due to the inclusion of large condensers, the Kirby® Nullarbor range delivers high output and efficiency. And because they're from Kirby®, they're robust and reliable – guaranteed.

Features & Benefits

The Nullarbor Condensing Units offer proven design attributes to be installation ready:

- Incorporating the latest Kirby® BA, WJ and AW series compressors delivers reliability and proven performance
- KN Series units include liquid line dryer, sight glass and HP/LP control
- High ambient condenser optimises efficiency and airflow for continuous operation at temperatures up to 45°C ambient temperatures
- Select units available in single phase or three phase
- Durable painted galvanised bases maximise service life (non-condensate waste base models only)
- Lower noise and vibration levels through clever compressor design
- Compact footprint for ease of installation
- Premium quality inclusions and controls
- KN Series units include liquid line dryer, sight glass and HP/LP control

Condensate Waste Models

Select models (BA6MHGBC1, BA8MGBC1, BA9MGBC1 and BA12MGBC1) feature a built-in condensate tray which eliminates the need for a separate tray and condensate heater (not available on other models).

Kirby® Nullarbor Condensing Units – KN Series and BA Series Nomenclatures

KN 014 MH 1 -1

Number: Power Supply to Compressor
Odd Number: Single Phase
Even Number: Three Phase

Series

Usage Application
MH Medium/High
LM Low/Medium
L Low

Number
Primary Refrigerant Capacity x 10

Manufacturer Brand
KN Kirby Nullarbor

BA 8 LM Y A 1

Series

Receiver
A No Receiver
B Fitted Receiver

Primary Refrigerant
G/Z R404A Y R134a

Usage Application
M Medium LM Low/Medium
MH Medium/High L Low

Number
Displacement CC/REV

Compressor Family
Kirby BA

NULLARBOR CONDENSING UNITS

R134a Low/Medium/High Temperature Performance Data

PRODUCT NUMBER	AMBIENT TEMP. °C	CAPACITY (WATTS)								
		SATURATED SUCTION TEMPERATURE (SST) °C								
		-30	-25	-20	-15	-10	-5	0	5	10
BA9MHYAC1 BA9MHYBC1	35			230	295	370	465	590	755	960
	45			195	260	325	410	520	665	855
BA12LMYA2 BA12LMYB2	35			305	400	505	635	795	995	
	45			265	350	445	560	705	880	
BA14LMYA2 BA14LMYB2	35			345	455	580	725	915	1150	
	45			300	400	505	640	805	1020	
BA16LMYB2	35			490	635	815	1030	1300	1620	
	45			425	555	715	910	1150	1430	
BA18LZB2	35			585	745	920	1140	1410	1760	2190
	45			510	650	810	1000	1250	1560	1950
KN014MH1 (WJ22LZ)	35			565	780	1030	1340	1710	2140	2660
	45			490	680	905	1180	1510	1900	2360
KN017MH1 (WJ26LZ)	35			705	965	1270	1630	2050	2540	3120
	45			610	845	1120	1430	1810	2250	2780
KN022MH1 (WJ31MHY)	35			870	1160	1490	1880	2340	2880	3530
	45			755	1010	1310	1650	2060	2550	3140
KN023MH1 (AW40LMY)	35			1020	1340	1710	2150	2670	3300	
	45			890	1170	1500	1890	2360	2920	
KN029MH1 (AW43LMY)	35			1230	1640	2100	2670	3380	4280	
	45			1070	1430	1840	2340	2980	3790	
KN031MH1 (AW48MHY)	35			1400	1810	2300	2900	3660	4630	5840
	45			1210	1580	2020	2550	3230	4100	5200

NULLARBOR CONDENSING UNITS

R404A/R507 Medium/High Temperature Performance Data

PRODUCT NUMBER	AMBIENT TEMP. °C	CAPACITY (WATTS)						
		SATURATED SUCTION TEMPERATURE (SST) °C						
		-20	-15	-10	-5	0	5	10
BA6MHGB1 BA6MHGBC1	35	220	280	350	425	515	600	695
	45	175	230	295	360	430	505	580
BA8MGB1 BA8MGBC1	35	385	460	545	635	730	835	
	45	325	390	460	535	620	710	
BA9MGB1 BA9MGBC1	35	445	520	630	760	900	1030	
	45	375	435	525	630	755	865	
BA12MGB1 BA12MGBC1	35	510	645	805	975	1150	1330	
	45	415	535	670	815	970	1110	
BA14MGB2	35	630	780	950	1150	1360	1560	
	45	520	645	800	960	1140	1310	
BA16MGB2	35	760	965	1190	1430	1690	1980	
	45	615	805	1000	1200	1430	1670	
BA18MGB2	35	985	1210	1460	1750	2050	2360	
	45	815	1000	1220	1460	1720	1980	
KN024MH1 (WJ22MHG)	35	1220	1500	1820	2170	2550	2980	3440
	45	950	1190	1450	1730	2050	2390	
KN028MH1 (WJ26MHG)	35	1440	1770	2150	2560	3020	3530	4070
	45	1200	1510	1830	2170	2530	2900	3290
KN036MH1 (WJ31MHG)	35	1810	2280	2790	3360	3980	4650	5380
	45	1430	1850	2300	2780	3280	3810	4370
KN035MH1 (AW38MGB)	35	1910	2260	2720	3290	3890	4490	
	45	1580	1880	2280	2740	3260		
KN044MH1-1 KN044MH1-2	35	2130	2650	3280	4020	4820	5660	6510
	45	1640	2100	2670	3330	4040	4790	
KN048MH1-1 KN048MH1-2	35	2160	2820	3570	4410	5350	6370	7490
	45	1700	2260	2900	3640	4460	5370	
KN051MH1-1 KN051MH1-2	35	2300	3050	3860	4730	5620	6570	
	45	1870	2530	3240	3940	4730		

NULLARBOR CONDENSING UNITS

R404A/R507 Low/Medium/High Temperature Performance Data

PRODUCT NUMBER	AMBIENT TEMP °C	CAPACITY (WATTS)							
		SATURATED SUCTION TEMPERATURE (SST) °C							
		-40	-35	-30	-25	-20	-15	-10	-5
BA8MGB1 BA8MGBC1	35	135	190	250	315	385	460	545	
	45	105	155	205	260	325	390	460	
BA12LMYA2 BA12LMYB2	35	210	285	365	455	555	665		
	45	160	230	300	380	465	560		
BA14LMYA2 BA14LMYB2	35	250	340	435	545	665	800		
	45	195	275	360	455	560	675		
BA16LMYB2	35	290	385	495	615	755	910		
	45	220	310	405	515	635	770		
BA18LZB2	35	330	470	630	810	1010	1230	1450	
	45	255	375	520	680	850	1040	1230	
KN014MH1 (WJ22LZ)	35	320	480	665	870	1100	1350	1630	
	45	195	335	495	675	870	1090	1320	
KN017MH1 (WJ26LZ)	35	415	600	830	1090	1380	1690	2020	
	45	230	395	595	825	1080	1350	1640	
KN017MH1 (WJ26LZ)	35	505	740	1020	1330	1660	2020	2390	
	45	325	535	785	1060	1360	1680	2000	
KN022MH1 (WJ31MHY)	35	510	795	1090	1400	1740	2120	2550	
	45	400	655	915	1190	1490	1820	2200	
KN015L1 (AW40LZ)	35	505	785	1070	1370	1680	1990	2310	
	45	385	630	880	1140	1410	1680	1960	
KN023MH1 (AW40LMY)	35	515	795	1090	1400	1740	2110	2510	
	45	395	640	900	1170	1460	1780	2130	
KN029MH1 (AW43LMY)	35	750	1090	1460	1860	2300	2810		
	45	575	880	1200	1550	1940	2380		
KN024L1 (AW54LZ)	35	865	1260	1690	2180	2740	3390		
	45	660	1010	1390	1820	2310	2870		

Capacity Correction Factors

Liquid Entering Temperature varies with condensing temperature, with inherent sub-cooling averaging 2 to 3K.

The following factors may be used with sufficient accuracy for capacity correction as required.

Return Vapour Temperature should never exceed 20°C for M/HBP applications. Max superheat for LBP application is 20K.

SST	-40	-30	-20	-10	0	10
R404A	0.88	0.89	0.91	0.94	0.97	1
R134a	--	0.95	0.95	0.95	0.98	1

Product Specification

- Supported through [smart@ccess](#) with product selection and heatload information
- Complementary Kirby Select™ Project Tool assists with project estimations.
- Refer to [smart@ccess](#) for rating conditions on alternate refrigerants.

NULLARBOR CONDENSING UNITS

Dimensional Data

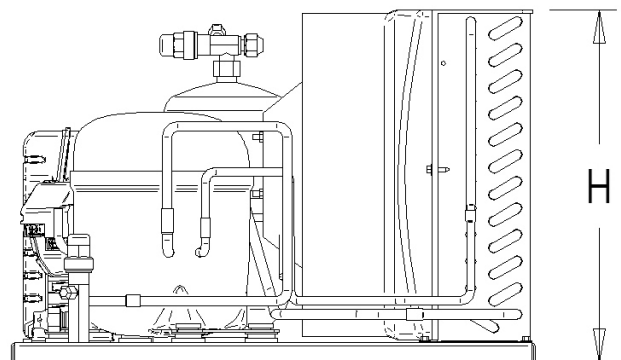
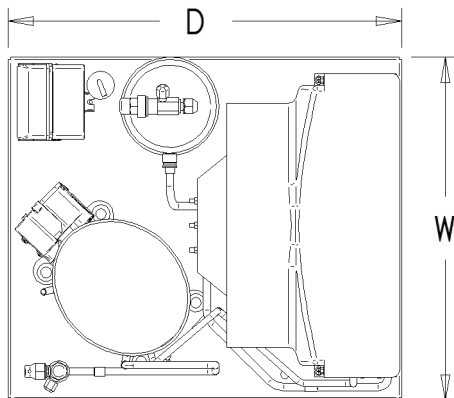
MODEL NUMBER	CONNECTIONS (IN.)		DIMENSIONS (mm)			NET WEIGHT (kg)
	SUCTION	LIQUID	DEPTH	WIDTH	HEIGHT	
BA6MHGBC1*	3/8 S.T.	1/4 S.V.	470	330	276	17
BA8MGBC1*	3/8 S.T.	1/4 S.V.	470	330	276	17
BA9MGBC1*	3/8 S.T.	1/4 S.V.	470	330	276	21
BA12MGBC1*	3/8 S.T.	1/4 S.V.	470	330	276	22
BA6MHGB1	3/8 S.T.	1/4 S.V.	470	330	235	17
BA8MGB1	3/8 S.T.	1/4 S.V.	470	330	235	17
BA9MGB1	3/8 S.T.	1/4 S.V.	470	330	279	21
BA9MHYAC1	3/8 S.T.	1/4 S.V.	470	330	280	16
BA9MHYBC1	3/8 S.T.	1/4 S.V.	470	330	280	18
BA12LMYA2	3/8 S.T.	1/4 S.V.	470	330	279	19
BA12LMYB2	3/8 S.T.	1/4 S.V.	470	330	279	21
BA12MGB1	3/8 S.T.	1/4 S.V.	500	435	338	32
BA14LMYA2	3/8 S.T.	1/4 S.V.	470	330	279	20
BA14LMYB2	3/8 S.T.	1/4 S.V.	470	330	279	22
BA14MGB1	3/8 S.T.	1/4 S.V.	500	435	338	34
BA16LMYA2	3/8 S.T.	1/4 S.V.	500	435	338	30
BA16LMYB2	3/8 S.T.	1/4 S.V.	500	435	338	32
BA16MGB2	3/8 S.T.	1/4 S.V.	500	435	338	35
BA18LZB2	3/8 S.T.	3/8 S.V.	550	435	338	34
BA18MGB2	3/8 S.T.	3/8 S.V.	550	435	395	35

* Model features a built-in condensate tray that eliminates the need for a separate tray and condensate heater.

MODEL NUMBER	CONNECTIONS (IN.)		DIMENSIONS (mm)			NET WEIGHT (kg)
	SUCTION	LIQUID	DEPTH	WIDTH	HEIGHT	
KN014MH1	1/2 S.T.	3/8 S.T.	550	435	338	37
KN024MH1	1/2 S.T.	3/8 S.T.	620	520	398	41
KN017MH1	1/2 S.T.	3/8 S.T.	550	435	338	38
KN028MH1	1/2 S.T.	3/8 S.T.	620	520	448	42
KN014L1	5/8 S.T.	3/8 S.T.	620	520	395	41
KN036MH1	5/8 S.T.	3/8 S.T.	620	520	446	43
KN022MH1	5/8 S.T.	3/8 S.T.	620	520	448	42
KN035MH1	5/8 S.T.	3/8 S.T.	550	860	422	63
KN015L1	5/8 S.T.	3/8 S.T.	550	635	340	61
KN023MH1	5/8 S.T.	3/8 S.T.	620	520	448	60
KN029MH1	5/8 S.T.	3/8 S.T.	550	860	345	61
KN044MH1-1	5/8 S.T.	3/8 S.T.	550	860	421	69
KN048MH1-1	5/8 S.T.	3/8 S.T.	550	860	421	71
KN031MH1	5/8 S.T.	3/8 S.T.	550	860	421	70
KN024L1	5/8 S.T.	3/8 S.T.	550	860	421	68
KN051MHI-1	5/8 S.T.	3/8 S.T.	550	860	421	71

S.T.: Solder Tube

S.V.: Solder Valve



NULLARBOR CONDENSING UNITS

R134a Low/Medium/High Temperature Physical Data

PRODUCT NUMBER	APPLICATION	HP	UNIT POWER	RLA	COM-PRESSOR MODEL	DISPL. (CC)	MOTOR TYPE	VOLTS	FACE DIMS. (MM)	FAN(S) (QTY X DIA.)	RECEIVER VOL. (LITRES) 'B' MODELS	AIRFLOW (L/SEC)	SOUND POWER LEVEL DB(A)	SOUND PRESSURE LEVEL *DB(A) @ 3M
BA9MHYA BA9MHYB	M/H	1/4	410	2.6	BA9MHY	8.88	CSIR	240	254 X 270	1 X 230	1.4	115	58.5	41.0
BA12LMYA BA12LMYB	L/M	1/3	410	2.9	BA12LMY	12.1	CSIR	240	254 X 270	1 X 230	1.4	105	58.7	41.2
BA14LMYA BA14LMYB	L/M	1/3	535	4	BA14LMY	14.1	CSIR	240	254 X 270	1 X 230	1.4	105	64.3	46.8
BA16LMYA BA16LMYB	L/M	3/8	640	3	BA16LMY	16.2	CSR	240	305 X 350	1 X 300	1.4	285	64.8	47.3
BA18LZB2	L/M	1/2	750	3.5	BA18LZ	18.0	CSR	220 / 240	305 X 350	1 X 300	2.4	275	69.2	51.7
KN014MH1	L/M	5/8	840	4.1	WJ22LZ	21.5	CSR	220 / 240	305 X 350	1 X 300	2.4	240	70.1	52.6
KN017MH1	L/M	3/4	910	4.6	WJ26LZ	26.8	CSR	220 / 240	305 X 350	1 X 300	2.4	240	71.6	54.1
KN022MH1	M/H	1	1140	5.5	WJ31LZ	30.5	CSR	220 / 240	406 X 450	1 X 350	2.4	530	71.9	54.4
KN023MH1	L/M	1	1110	4.6	AW40LZ	39.6	CSR	220 / 240	406 X 450	1 X 350	2.4	530	71.5	54.0
KN029MH1	L/M	1	1380	5.8	AW43LZ	43.1	CSR	220 / 240	305 X 770	2 X 300	4.4	520	71.9	54.4
KN031MH1	M/H	1 1/2	1750	8.2	AW48MHY	48.1	CSR	220 / 240	381 X 770	2 X 300	4.4	600	72.1	54.6

*Sound pressure level at 3m distance from the unit can be estimated using various deductions depending on the location of the unit.

R404A/R507 Medium/High Temperature Physical Data

PRODUCT NUMBER	APPLICATION	HP	UNIT POWER	RLA	COM-PRESSOR MODEL	DISPL. (CC)	MOTOR TYPE	VOLTS	FACE DIMS. (MM)	FAN(S) (QTY X DIA.)	RECEIVER VOL. (LITRES) 'B' MODELS	AIRFLOW (L/SEC)	SOUND POWER LEVEL DB(A)	SOUND PRESSURE LEVEL DB(A) @ 3M
BA6MHGB1	M/H	1/4	480	2.8	BA6MHG	5.51	CSIR	240	203 X 273	1 X 200	1.4	65	57.5	40.0
BA8MGB1	M	1/4	470	2.8	BA8MG	7.55	CSIR	240	203 X 273	1 X 200	1.4	60	57.9	40.4
BA9MGB1	M	1/3	560	3.2	BA9MG	8.88	CSIR	240	254 X 270	1 X 230	1.4	105	58.5	41.0
BA12MGB1	M	3/8	580	2.8	BA12MG	12.1	CSR	240	305 X 350	1 X 300	1.4	285	58.7	41.2
BA14MGB2	M	1/2	750	3.4	BA14MG	14.1	CSR	240	305 X 350	1 X 300	1.4	275	64.3	46.8
BA16MGB2	M	3/4	850	3	BA16MG	16.2	CSR	240	305 X 350	1 X 300	2.4	240	64.8	47.3
BA18MGB2	M	3/4	1290	4.4	BA18MG	18.0	CSR	220 / 240	356 X 450	1 X 300	2.4	260	69.2	51.7
KN024MH1	M/H	7/8	1390	5.6	WJ22MHG	21.5	CSR	220 / 240	356 X 450	1 X 300	2.4	245	70.3	52.8
KN028MH1	M/H	1	1650	7	WJ26MHG	26.8	CSR	220 / 240	406 X 450	1 X 300	2.4	290	71.6	54.1
KN036MH1	M/H	1 1/4	2000	7.9	WJ31MHG	30.5	CSR	220 / 240	406 X 450	1 X 350	2.4	480	73.3	55.8
KN035MH1	M	1 1/2	1660	7.9	AW38MG	37.5	CSR	220 / 240	381 X 770	2 X 300	4.4	630	69.5	52.0
KN044MH1-1	M/H	2	2150	9.6	AW43MHG	43.1	CSR	220 / 240	381 X 770	2 X 300	4.4	600	69.2	51.7
KN044MH1-2	M/H	2	2200	3.2/PH	AW43MHG	43.1	3 PH	380 / 420	381 X 770	2 X 300	4.4	600	69.8	52.3
KN048MH1-1	M/H	2 1/4	2400	11.2	AW48MHG	48.4	CSR	220 / 240	381 X 770	2 X 300	4.4	600	70.3	52.8
KN048MH1-2	M/H	2 1/4	2600	4.0/PH	AW48MHG	48.4	3 PH	380 / 420	381 X 770	2 X 300	4.4	600	70.3	52.8
KN051MH1-1	M	2 1/2	2550	12.5	AW54MHG	53.5	CSR	220 / 240	381 X 770	2 X 300	4.4	600	71.5	54.0
KN051MH1-2	M	2 1/2	2850	4.6/PH	AW54MHG	53.5	3 PH	380 / 420	381 X 770	2 X 300	4.4	600	71.5	54.0

R404A/R507 Low Temperature Physical Data

PRODUCT NUMBER	APPLICATION	HP	UNIT POWER	RLA	COM-PRESSOR MODEL	DISPL. (CC)	MOTOR TYPE	VOLTS	FACE DIMS. (MM)	FAN(S) (QTY X DIA.)	RECEIVER VOL. (LITRES) 'B' MODELS	AIRFLOW (L/SEC)	SOUND POWER LEVEL DB(A)	SOUND PRESSURE LEVEL DB(A) @ 3M
BA8MGB1	L	1/4	370	2.6	BA8MG	7.55	CSIR	240	203 X 273	1 X 200	1.4	60	57.9	40.4
BA12LMYA BA12LMYB	L	1/3	480	2.8	BA12LMY	12.1	CSIR	240	254 X 270	1 X 230	1.4	105	58.7	41.2
BA14LMYA BA14LMYB	L	1/3	540	4.0	BA14LMY	14.1	CSIR	240	254 X 270	1 X 230	1.4	105	64.3	46.8
BA16LMYA BA16LMYB	L	3/8	600	2.8	BA16LMY	16.2	CSR	240	305 X 350	1 X 300	1.4	285	64.8	47.3
BA18LZB2	L	1/2	770	3.5	BA18LZ	18.0	CSR	220 / 240	305 X 350	1 X 300	2.4	275	69.2	51.7
KN014MH1	L	3/4	830	3.3	WJ22LZ	21.5	CSR	220 / 240	305 X 350	1 X 300	2.4	240	70.6	53.1
KN017MH1	L	7/8	970	4.8	WJ26LZ	26.8	CSR	220 / 240	305 X 350	1 X 300	2.4	240	71.0	53.5
KN014L1	L	1	1040	5.5	WJ31LZ	30.5	CSR	220 / 240	356 X 450	1 X 300	2.4	245	70.9	53.4
KN015L1	L	1	1120	4.7	AW40LZ	39.6	CSR	220 / 240	305 X 560	1 X 300	2.4	280	71.2	53.7
KN023MH1	L	1	1110	4.6	AW40LZ	39.6	CSR	220 / 240	406 X 450	1 X 350	2.4	530	70.3	52.8
KN029MH1	L	1 1/4	1380	5.8	AW43LZ	43.1	CSR	220 / 240	305 X 770	2 X 300	4.4	520	70.6	53.1
KN024L1	L	1 1/2	1800	7.8	AW54LZ	53.5	CSR	220 / 240	381 X 770	2 X 300	4.4	530	70.9	53.4

NOTES



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