KIRBY CONTRACTOR®
Condensing Units

Built tough and reliable
for Australia's
harsh conditions

Exclusively distributed by
KIRBY
A BEIJER REF Company

KIRBY CONTRACTOR®
Condensing Units

Introduction and Overview

Developed for harsh Australian conditions, The Kirby Contractor® Hi-Ambient condensing units are rated for operation up to 43°C ambient.

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

Features & Benefits

The Kirby Contractor® Condensing Units offer proven design attributes to be installation ready:

- Incorporating either an Embraco or Copeland compressor to deliver reliability and proven performance
- High ambient condenser optimises efficiency and airflow for continuous operation at up to 43 °C ambient temperatures
- Lower noise and vibration levels through clever compressor design
- Select units avaliable in single phase or three phase
- All condenser coils supplied with "Blue Coat" fin and coil protective coating
- Contractor Series units include liquid line drier, sight glass and HP/LP control
- Compact footprint for ease of installation
- Durable painted galvanised bases maximise service life
- Premium quality inclusions and controls

Kirby Contractor® Condensing Units Nomenclature

KC M 200 Y S

Number: Power Supply to Compressor
S : Single Phase
T : Three Phase

Primary Refrigerant
Y : R134a
G : R404A

Number: Primary Refrigerant Capacity x 10
Condition
-5 SST + 35°C For Medium Temperature Application
-25 SST + 35°C For Low Temperature Application

Usage Application
M Medium Temperature Application
L Low Temperature Application

Manufacturer Brand
KC Kirby Contractor

CONTRACTOR CONDENSING UNITS

R134a Medium/High Temperature Performance Data

ITEM NUMBER	AMBIENT TEMP. °C	CAPACITY (WATTS)						
		SATURATED SUCTION TEMPERATURE (SST) °C						
		-20	-15	-10	-5	0	5	10
KCM130YS (NT6220Z)	35		860	1060	1290	1560	1850	2170
	43			930	1140	1370	1630	1900
KCM150YS (NTU6222ZV)	35		1030	1260	1530	1850	2190	2580
	43			1130	1370	1650	1960	2310
KCM180YS (NTU6224ZV)	35		1250	1520	1840	2200	2610	3040
	43			1320	1600	1920	2260	2640
KCM200YS (KCM511CAL-B312H)	35		1190	1590	2050	2570	3160	3810
	43		940	1310	1720	2170	2690	3240
KCM260YS (KCM514CAL-B312H)	35		1470	1980	2590	3290	4060	4870
	43		1160	1620	2170	2780	3440	4120
KCM310YS (KCM519CAL-B312H)	35		2380	2500	3100	4130	5370	6640
	43		1510	2060	2740	3510	4380	5340

* Capacities based on return vapour temperature of 20°C and zero subcooling.

CONTRACTOR CONDENSING UNITS

R404A Medium/High Temperature Performance Data

ITEM NUMBER	AMBIENT TEMP. °C	CAPACITY (WATTS)						
		SATURATED SUCTION TEMPERATURE (SST) °C						
		-20	-15	-10	-5	0	5	10
KCM210GS (NTU6232GKV)	35	1230	1480	1770	2100	2460	2840	3260
	43		1260	1510	1780	2080	2400	2740
KCM270GS (NTU6238GKV)	35	1600	1930	2320	2740	3190	3650	4130
	43		1660	1990	2340	2710	3090	3470
KCM300GS (NTU6240GKV)	35	1730	2100	2520	2990	3510	4060	4630
	43		1810	2160	2560	2990	3440	3910
KCM340GS (KCM511CAL-B312H)	35		2090	2700	3360	4050	4740	5410
	43		1630	2170	2760	3370	3990	4580
KCM380GS (NJX6250GK)	35	2240	2720	3260	3840	4450	5080	5730
	43		2320	2780	3280	3780	4310	4840
KCM440GS (KCM514CAL-B312H)	35		2820	3580	4370	5210	6070	6970
	43		2240	2910	3610	4350	5090	5840
KCM440GT (KCM514CAL-E512H)	35		2860	3610	4410	5250	6130	7020
	43		2260	2950	3650	4400	5140	5890
KCM560GS (KCM519CAL-B312H)	35		3620	4580	5580	6670	7850	9100
	43		2910	3720	4570	5490	6490	7590
KCM560GT (KCM519CAL-E512H)	35		3630	4630	5640	6680	7820	9110
	43		2920	3740	4570	5450	6440	7570

* Capacities based on return vapour temperature of 20°C and zero subcooling.

CONTRACTOR CONDENSING UNITS

R404A Low Temperature Performance Data

ITEM NUMBER	AMBIENT TEMP. °C	CAPACITY (WATTS)						
		SATURATED SUCTION TEMPERATURE (SST) °C						
		-40	-35	-30	-25	-20	-15	-10
KCL080GS (NT2180GK)	35		510	660	830	1020	1230	1440
	43			550	700	860	1030	1210
KCL110GS (NT2210GK)	35		660	860	1100	1350	1620	1910
	43			730	930	1150	1380	1620
KCL130GS (NJ2212GK)	35		780	1020	1300	1590	1890	2180
	43			840	1070	1320	1570	1810
KCL170GS (NJX2219GK)	35		1060	1340	1660	2010	2390	2780
	43			1130	1400	1700	2010	2330
KCL180GS (KCM475LAL-C312H)	35		980	1410	1790	2180	2640	3190
	43		700	1050	1350	1670	2040	2520

* Capacities based on return vapour temperature of 20°C and zero subcooling.

Capacity Correction Factors

Ratings are based on return gas temperature of 20°C and zero subcooling.

The following factors may be used with sufficient accuracy for return gas superheat of 10K.

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

For R404A & R134a, the following factors can be used for 10K superheat

SST	-40	-30	-20	-10	0	10
R404A	0.85	0.87	0.90	0.92	0.96	1
R134a	-	0.94	0.96	0.97	0.98	1

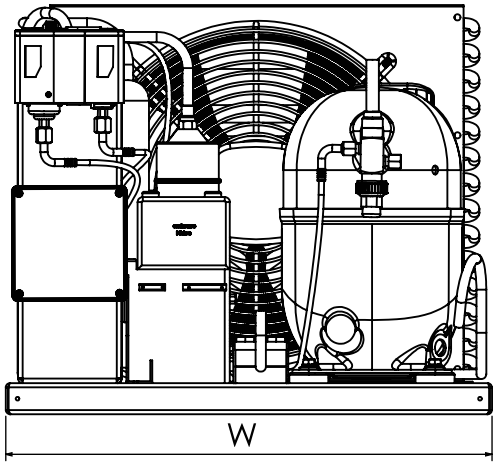
Product Specification

- Supported through smart@ccess with product selection and heatload information
- Complementary Kirby Select Project Tool assists with project estimation.
- Refer to smart@ccess for rating conditions on alternate refrigerants.

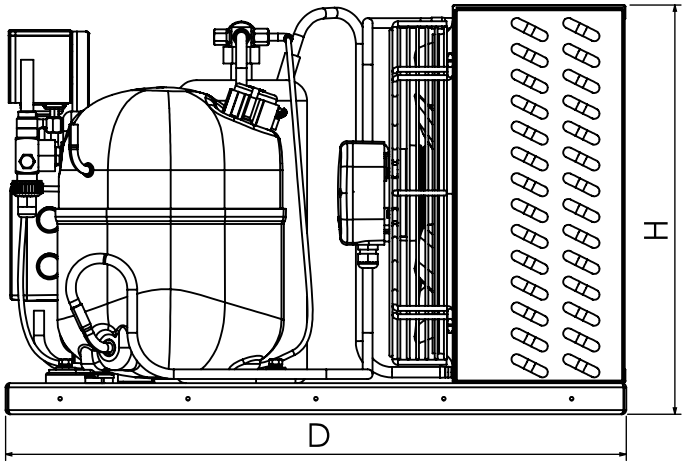
CONTRACTOR CONDENSING UNITS

Dimensional Data

	ITEM NUMBER	CONNECTION (IN.)		DIMENSIONS (mm.)			NET WEIGHT (kg)
		SUCTION	LIQUID	DEPTH	WIDTH	HEIGHT	
R134a MT/HT	KCM130YS	1/2"	3/8"	600	470	400	51
	KCM150YS	1/2"	3/8"	600	470	400	51
	KCM180YS	1/2"	3/8"	600	470	400	51
	KCM200YS	5/8"	3/8"	570	600	450	70
	KCM260YS	5/8"	3/8"	550	860	400	77
	KCM310YS	5/8"	3/8"	550	860	400	77
R404A MT/HT	KCM210GS	1/2"	3/8"	600	470	400	51
	KCM270GS	1/2"	3/8"	570	600	450	66
	KCM300GS	1/2"	3/8"	570	600	450	66
	KCM340GS	5/8"	3/8"	550	860	400	77
	KCM380GS	5/8"	3/8"	550	860	400	70
	KCM440GS	5/8"	3/8"	550	860	400	77
	KCM440GT	5/8"	3/8"	550	860	400	77
	KCM560GS	5/8"	3/8"	570	990	450	88
	KCM560GT	5/8"	3/8"	570	990	450	88
R404A LT	KCL080GS	1/2"	3/8"	600	470	400	51
	KCL110GS	1/2"	3/8"	600	470	400	51
	KCL130GS	5/8"	3/8"	600	470	400	51
	KCL170GS	5/8"	3/8"	600	470	400	51
	KCL180GS	5/8"	3/8"	550	860	400	77



FRONT VIEW



SIDE VIEW

CONTRACTOR CONDENSING UNITS

R134a Medium/High Temperature Physical Data

ITEM NUMBER	APPLICATION	HP	UNIT POWER (Watt)	RLA	COMPRESSOR MODEL	DISPL (cc)	MOTOR TYPE	VOLTS	FACE DIMS (mm.)	FAN(S) (QTY x DIA.)	RECEIVER VOL. (Litres)	AIR FLOW (L/Sec)	SOUND POWER LEVEL DB(A)	SOUND PRESSURE LEVEL DB(A) @3M
KCM130YS	M/H	1	815	5.5	NT6220Z	22.37	CSR	220-240	376 x 356	1x300	3	350	63	43
KCM150YS	M/H	1	775	3.9	NTU6222ZV	23.7	CSR	220-240	376 x 356	1x300	3	350	66	46
KCM180YS	M/H	1.3	895	4.4	NTU6224ZV	27.8	CSR	220-240	376 x 356	1x300	3	320	68	48
KCM200YS	M/H	2	1120	6.3	KCM511CAL-B312H	40.8	CSR	220-240	458 x 406	1x350	3	550	74	54
KCM260YS	M/H	2.5	1470	8.2	KCM514CAL-B312H	51.5	CSR	220-240	756 x 356	2x300	4	790	77	57
KCM310YS	M/H	3	1780	10	KCM519CAL-B312H	59.7	CSR	220-240	756 x 356	2x300	4	690	79	59

CONTRACTOR CONDENSING UNITS

R404A Medium/High Temperature Physical Data

ITEM NUMBER	APPLICATION	HP	UNIT POWER (Watt)	RLA	COMPRESSOR MODEL	DISPL (cc)	MOTOR TYPE	VOLTS	FACE DIMS (mm.)	FAN(S) (QTY x DIA.)	RECEIVER VOL. (Litres)	AIR FLOW (L/Sec)	SOUND POWER LEVEL DB(A)	SOUND PRESSURE LEVEL DB(A) @3M
KCM210GS	M/H	1	1115	5	NTU6232GKV	20.44	CSR	220-240	376 x 356	1x300	3	320	71	51
KCM270GS	M/H	1.5	1510	6.2	NTU6238GKV	26.21	CSR	220-240	458 x 406	1x350	3	550	72	52
KCM300GS	M/H	1.5	1580	6.5	NTU6240GKV	27.8	CSR	220-240	458 x 406	1x350	3	510	72	52
KCM340GS	M/H	2	1860	7.8	KCM511CAL-B312H	40.8	CSR	220-240	756 x 356	2x300	4	690	74	54
KCM380GS	M/H	2	2270	9.7	NJX6250GK	37.88	CSR	220-240	756 x 356	2x300	4	690	73	53
KCM440GS	M/H	2.5	2350	10.2	KCM514CAL-B312H	51.5	CSR	220-240	756 x 356	2x300	4	630	77	57
KCM440GT	M/H	2.5	2270	4.6	KCM514CAL-E512H	51.5	3 PH	380-420	756 x 356	2x300	4	630	77	57
KCM560GS	M/H	3	2950	12.8	KCM519CAL-B312H	59.7	CSR	220-240	838 x 406	2x350	4	1010	79	59
KCM560GT	M/H	3	2880	5.8	KCM519CAL-E512H	59.7	3 PH	380-420	838 x 406	2x350	4	1010	79	59

CONTRACTOR CONDENSING UNITS

R404A Low Temperature Physical Data

ITEM NUMBER	APPLICATION	HP	UNIT POWER (Watt)	RLA	COMPRESSOR MODEL	DISPL (cc)	MOTOR TYPE	VOLTS	FACE DIMS (mm.)	FAN(S) (QTY x DIA.)	RECEIVER VOL. (Litres)	AIR FLOW (L/Sec)	SOUND POWER LEVEL DB(A)	SOUND PRESSURE LEVEL DB(A) @3M
KCL080GS	L	1	825	2.8	NT2180GK	20.44	CSR	220-240	376 x 356	1x300	3	390	64	44
KCL110GS	L	1.3	1035	4.1	NT2210GK	26.21	CSR	220-240	376 x 356	1x300	3	350	64	44
KCL130GS	L	1.3	1245	8.3	NJ2212GK	34.38	CSR	220-240	376 x 356	1x300	3	350	68	48
KCL170GS	L	2	1445	7.9	NJX2219GK	37.88	CSR	220-240	376 x 356	1x300	3	320	71	51
KCL180GS	L	2	1640	7.6	KCM475LAL-C312H	51.47	CSR	220-240	756 x 356	2x300	4	790	75	55

* Total unit input power = Compressor input (-5 sst/+AMB35 or -25 sst/+AMB35) + total fan motor input
* Total unit RLA = Compressor RLA (-5 sst/+AMB35 or -25/+AMB35) + total fan motor RLA
* Sound pressure level at 3m distance from the unit can be estimated using various deductions depending on the location of the unit.

NOTES

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