Copeland KCE444HAG hermetic compressor

Site: Mbsmpro

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Mbsmpro.com, Compressor, KCE444HAG, 3/8 Hp, Copeland, R134a, 230V 50Hz, High / Medium temperature, Water cooler applications

Overview of the Copeland KCE444HAG compressor

The **Copeland KCE444HAG** is a hermetic reciprocating compressor designed for high and medium temperature commercial refrigeration using R134a refrigerant.
It is widely used in water coolers and bottle coolers where stable performance, compact size, and low noise are required.

Technical specifications and operating range

The KCE444HAG belongs to the KCE family and uses a connecting-rod type reciprocating mechanism with a single-phase induction motor.
Its evaporating temperature range is approximately −17.8°C to +12.8°C, covering typical high / medium temperature applications in beverage and water cooling.

Main electrical and performance data

Parameter	Value	Notes
Refrigerant	R134a	HFC, medium-pressure.
Nominal horsepower	0.36 HP (≈3/8 HP)	Depending on rating condition HBP/CBP.
Cooling capacity	1077 W (HBP), 551 W (CBP)	At specified EN12900 conditions.
Power input	475 W (HBP), 339 W (CBP)	Single-phase operation.
Voltage / frequency	230 V, 50 Hz, 1-phase	Typical for water coolers 40–80 L.

Parameter	Value	Notes
Motor type	2-pole single-phase induction	Internally thermally protected.
Application group	High / Medium temperature (HBP / CBP)	Not suitable for low-temperature freezing.
Compressor cooling	Fan, about 350 ft³/min	Forced air cooling around shell.
Oil type / volume	POE, approx. 0.31 L	Pre-charged from factory.
Approx. internal free volume	2400 cm³ (81.1 oz)	Without oil.

This **specification table** is essential for system designers who must match condenser size, evaporator load, and expansion device selection to the compressor envelope.
Using the correct voltage, frequency, and oil type is critical to preserve warranty and avoid early motor or mechanical failure.

Application examples and exploitation in the field

In practice, the KCE444HAG is commonly installed in:

- Water coolers between 40 and 80 liter nominal storage.
- Bottle coolers and small commercial beverage merchandisers operating in high or medium temperature ranges.

For water coolers, the compressor offers enough capacity to chill drinking water quickly while keeping energy consumption moderate, thanks to its roughly 475 W input at high-back-pressure conditions.

In bottle coolers, the wide evaporating envelope from negative temperatures up to more than +10°C allows flexible control of cabinet temperature without putting the compressor outside its design limits.

Performance comparison with similar compressors

To understand the real value of the KCE444HAG, it is useful to compare it with another well-known R134a hermetic compressor such as the **GL90AA (ZMC EGL90AA)** widely used in domestic and light commercial refrigeration.

Capacity and power comparison

Model	Refrigerant	Nominal HP	Cooling capacity (approx.)	Input power	Typical use
KCE444HAG	R134a	0.36 HP	1077 W (HBP), 551 W (CBP)	475 W (HBP)	Commercial water/bottle coolers.
EGL90AA (GL90AA)	R134a	0.25 HP	227 W (LBP)	–	Domestic refrigerators, small LBP cabinets.

From this table, the KCE444HAG clearly delivers a much higher **cooling capacity** than the EGL90AA, which translates into faster pull-down times and suitability for larger, more demanding systems.

However, the smaller EGL90AA consumes less power and is better suited where low-back-pressure, small-load operation is required, such as household fridges and compact freezers.

Application temperature range comparison

Model	Application group	Evaporating temperature range
KCE444HAG	HBP / CBP	−17.8°C to +12.8°C.
EGL90AA	LBP	Around −35°C to −6.7°C in typical LBP charts.

The table shows why the KCE444HAG is chosen for positive temperature applications like water coolers, while the EGL90AA works better in freezer-type systems requiring lower evaporating temperatures.
Selecting the wrong compressor for the required evaporating range can lead to high discharge temperatures, low efficiency, and premature failure.

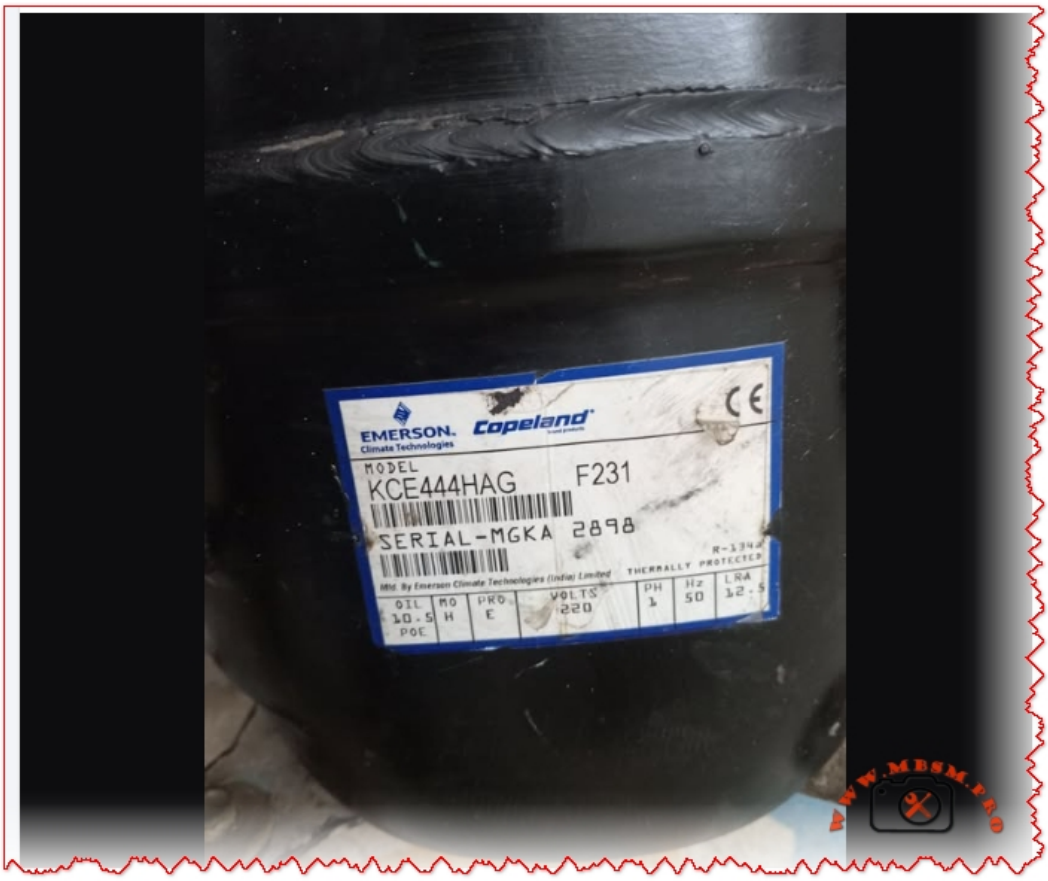
Installation, reliability, and service considerations

The KCE444HAG compressor must be operated inside the condensing and evaporating temperature envelope defined by the manufacturer to guarantee long service life.
The datasheet specifies that performance values are valid only inside this envelope and also gives maximum allowable internal moisture and solid residue limits, emphasizing the need for clean, well-evacuated systems.

Technicians should:

- Use R134a only and charge with the correct POE oil volume if a major repair requires oil replacement.
- Keep the mounting angle within the 5° limit and respect guidelines for handling and disposal listed in the detailed product documentation.

Good airflow around the compressor and condenser, combined with properly sized capillary or expansion valve, keeps shell temperature and discharge pressure under control, further improving **reliability** in continuous water-cooler duty.



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Performance Nominals

High Back Pressure | Commercial Back Pressure

Model	HP	Displacement cc per Rev	Capacity 7.2°C Btu/Hr.	7.2°C kCal/Hr.	7.2°C Watt	-6.7°C Btu/Hr.	-6.7°C kCal/Hr.	-6.7°C Watt	Cooling Type (CFM)	Oil Charge Qty (cc)	Net Wt. (Kg.)
R134a, 50 Hz, 1 Phase											
KCE419HAG	1/6	5.79	1585	399	465	860	217	252	Fan 350	310	10.2
KCN413CAG	1/6	6.15	-	-	-	1080	272	316	Fan 350	340	9.7
KCE425HAG	1/5	7.58	2145	540	629	1075	271	315	Fan 350	310	10.8
KCN416CAG	1/5	7.31	-	-	-	1380	338	392	Fan 350	340	9.7
KCE432HAG	1/4	9.42	2690	678	788	1330	332	390	Fan 350	310	11.8
KCE444HAG	3/8	12.05	3675	926	1077	1880	474	551	Fan 350	310	11.8
KCJ444HAG	3/8	12.58	3700	932	1064	1720	433	504	Fan 350	890	20.2
KCN463HAG	1/2	15.33	5250	1323	1538	3130	789	917	Fan 350	380	11.5
KCJ467HAG	1/2	18.27	5600	1411	1640	2830	713	829	Fan 350	890	21.0
KCJ498HAG	3/4 +	25.91	8200	2066	2402	4100	1033	1201	Fan 350	890	21.5
R134a, 60 Hz, 1 Phase 230 V											
KCE432HAG	1/4	9.42	3225	813	944	1595	402	467	Fan 350	310	11.8
KCE444HAG	3/8	12.05	4275	1077	1252	2187	551	640	Fan 350	310	11.8
KCN463HAG	1/2	15.33	6300	1588	1845	3443	868	1008	Fan 350	380	11.5
KCJ467HAG	1/2	18.27	6700	1688	1964	3120	786	914	Fan 350	890	21.0
KCJ498HAG	3/4 +	25.91	9250	2330	2710	4633	1167	1358	Fan 350	890	21.5
R134a, 60Hz, 115V											
KCE444HAG	1/3	12.05	4200	1058	1231	2175	548	637	Fan 350 FM	310	11.8
R22, 50 Hz, 1 Phase											
KCE443HAE	1/3	8.00	3600	907	1054	1620	408	475	Fan 350	310	11.8
KCE461HAE	1/2	11.50	5100	1285	1494	2590	653	759	Fan 350	590	13.4
KCJ511HAE	1	18.27	9350	2356	2740	4210	1061	1234	Fan 350	905	21.5
KCJ513HAE	1 1/4	25.91	12800	3225	3749	6366	1604	1865	Fan 350	890	22.5
CR22K6M-PF1	1 1/2+	40.80	19000	4788	5563	8920	2248	2614	Fan 400	1330	29.8
CR30K6M-PF1	2 1/2	51.47	25000	6300	7330	12000	3024	3516	Fan 400	1330	32.5
CR36K6-PFZ	3	59.65	30100	7585	8814	14200	3578	4161	Fan 400	1330	34.9
CR42K6-PFZ	3 1/2	72.08	36100	9100	10570	17300	4360	5069	Fan 400	1330	34.9
R22, 50 Hz, 3 Phase											
CR22K6M-TFM	1 1/2+	40.80	18350	4633	5373	8260	2082	2420	Fan 400	1330	29.5
CR30K6M-TFM	2 1/2	51.47	24400	6161	7144	11600	2923	3399	Fan 400	1330	30.0
CR36K6-TF6	3	59.66	29900	7535	8755	14500	3654	4249	Fan 400	1330	31.0
CR42K6-TF5	3 1/2	72.09	35100	8845	10278	17200	4334	5040	Fan 400	1330	32.7
KCG554HAE	4 1/2	99.96	45000	11340	13185	-	-	-	Fan 420	2250	50.1
KCG562HAE	5	117.65	52000	13100	15236	-	-	-	Fan 420	2250	50.7
KCG572HAE	6	133.22	60000	15120	17580	-	-	-	Fan 420	2250	51.4
R22, 60 Hz, 1 Phase											
KCE461HAE	1/2	11.50	6100	1537	1788	3082	-	-	Fan 350	510	13.4
KCJ511HAE	1	18.27	10500	2646	3077	4210	1061	1234	Fan 350	905	21.5
KCJ513HAE	1 1/4	25.91	14500	3653	4247	6366	-	-	Fan 350	890	22.5
R404A, 50 Hz, 1 Phase											
KCJ422CAL	1/4	8.00	-	-	-	1800	454	527	Fan 350	890	20.0
KCJ438CAL	1/2	11.50	-	-	-	3200	807	937	Fan 350	890	21.5
KCJ461CAL	3/4	18.27	-	-	-	5100	1285	1495	Fan 350	890	21.5
KCJ484CAL	1	25.91	-	-	-	7000	1763	2052	Fan 350	890	22.5
KCM511CAL	1 3/8	40.80	-	-	-	9000	2268	2637	Fan 400	1330	29.8
KCM514CAL	1 3/4	51.47	-	-	-	12000	3025	3515	Fan 400	1330	32.5
KCM519CAL	2 3/8	59.65	-	-	-	16100	4057	4717	Fan 400	1330	34.9
KCM522CAL	2 3/4	72.08	-	-	-	18300	4610	5360	Fan 400	1330	34.9
R404A, 50 Hz, 3 Phase											
KCM519CAL	2 3/8	59.65	-	-	-	15800	3981	4630	Fan 400	1330	31.0
KCM522CAL	2 3/4	72.08	-	-	-	18300	4610	5360	Fan 400	1330	32.7

Note : KCM models can be used with R-134a

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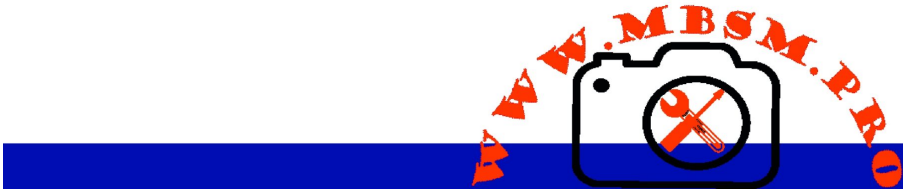
Electrical Specifications

High Back Pressure — Commercial Back Pressure

Model	Power (W)	Current (A)	LRA (A)	Voltage Range	Motor Type	Start Capacitor (Mfd)	Run Capacitor (Mfd)	Relay		OLP
								Potential / PTC	Current	
R134a, 50 Hz, 1 Phase										
KCE419HAG	245	1.60	11	180-260	RSIR				KARP3627	TAE15/H3
KCN413CAG	180	0.84	10	180-260	CSCR	40/60	6	PTC-KCP14PO	KAT0411/H3	
	210	1.3	8.5	198-264	CSIR	40/60	-	-	KARP-3141	TAE12/H3
KCE425HAG	360	2.50	13	180-260	CSIR	40/60	-	-	KARP4241	KAT0072/H3
KCN416CAG	220	1.00	10	180-260	CSCR	40/60	6	PTC-KCP14PO	KAT0413/H3	
KCE432HAG	375	2.80	12.5	180-260	CSIR	40/60			KARP4241	KAT0072/H3
KCE444HAG	475	2.20	13	180-260	CSCR	40/60	10	LT85002 OR PTC-KCP14PO		KAT0072/K3 OR T0072/K3
	575	3.20	16	198-264	CSIR	40/60	-	-	KARP4741	KAT0747/H3
KCJ444HAG	450	2.80	17	180-260	CSIR	80/100	-	-	KARP4841	MRT36ALX-112 OR KAT0159/B2
KCN463HAG	615	2.70	14	180-260	CSCR	80/100	15	LT85002		KAT0463/B2
KCJ467HAG	675	3.85	23	180-260	CSIR	80/100			KARP5641	MRA12024-112 OR KAT0733/B2
KCJ498HAG	975	5.90	32	198-264	CSIR	80/100		AC85001	-	MS-24-AJK-112 OR KAT0163/B2
R134a, 60 Hz, 1 Phase										
KCE432HAG	470	2.75	12.5	207-253	CSIR	40/60		-	KARP4241	KAT0072/H3
KCE444HAG	550	2.35	13	207-253	CSCR	40/60	10	PTC-KCP14PO		KAT0072/K3 OR
	550	2.35	16	207-253	CSCR	40/60	10	LT85002		T0072/K3
KCN463HAG	810	3.65	14	197-253	CSCR	80/100	15	LT85002		KAT0463/B2
KCJ467HAG	820	4.20	23	198-242	CSIR	80/100	-		MTRP5941	KAT0733/B2
KCJ498HAG	1120	6.10	28	207-253	CSIR	80/100	-	AC85001	-	KAT0167/B2
R134a, 60Hz,115v										
KCE44HAG	600	6.9	27	103-127	CSIR	150/200	-	-	MTRPH-6241	KAT0166/H3
R22, 50 Hz, 1 Phase										
KCE443HAE	475	2.30	13	180-260	PSC/CSCR*	40/60*	10	LT85002*		KAT0072/K3 OR KAT 0159/B2
KCE461HAE	675	3.10	17	180-260	PSC/CSCR*	60/80*	15	LT85003*		KAT0159/B2
KCJ511HAE	1020	4.70	25	180-260	PSC/CSCR*	80/100*	25	LT85002*		INTERNAL
KCJ513HAE	1440	6.80	30	180-260	PSC/CSCR*	80/100*	36	AC85001*		INTERNAL
CR22K6M-PFI	1750	7.20	44	180-260	CSCR*	80/100*	36	AC85004*		INTERNAL
CR30K6M-PFI	2350	11.00	72	180-260	PSC/CSCR*	150/200*	45	AC85001*		INTERNAL
CR36K6-PFZ	2720	13.60	85	198-264	CSCR	130/156 OR 120/150	40 OR 45	AC85004	-	INTERNAL
CR42K6-PFZ	3240	15.40	104	198-264	CSCR	189/227 OR 150/200	60 OR 65	AC85005	-	INTERNAL
R22, 50 Hz, 3 Phase										
CR22K6M-TFM	1750	3.20	20	342-462	3PH	-	-	-	-	INTERNAL
CR30K6M-TFM	2275	4.20	28	342-462	3PH	-	-	-	-	INTERNAL
CR36K6-TF6	2680	4.90	41	360-460	3PH	-	-	-	-	INTERNAL
CR42K6-TF5	3300	6.10	45	340-460	3PH	-	-	-	-	INTERNAL
KCG554HAE	4450	7.20	44	360-460	3PH	-	-	-	-	INTERNAL
KCG562HAE	5250	8.50	49	360-460	3PH	-	-	-	-	INTERNAL
KCG572HAE	6100	10.20	55	360-460	3PH	-	-	-	-	INTERNAL
R22, 60 Hz, 1 Phase										
KCE461HAE	740	3.3	21	207-253	CSCR	60-80	15	LT85003	-	T0733/B9
KCJ511HAE	1175	5.30	23	197-253	CSCR	80/100	25	LT85002	-	INTERNAL
KCJ513HAE	1720	7.9	36	207-253	PSC/CSCR	80/100	36	AC85001	-	INTERNAL



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Company Profile

Karad Plant

Atit Plant

Computer Aided Engineering Facility

Product Approvals

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Refrigeration Catalogue 010808

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Emerson Climate Technologies' Best Practices Guide

System Cleanliness

- It is absolutely necessary that all impurities / contamination like moisture, burr, cleaning agent and chemicals are removed from the system before operation in order to avoid compressor failures.
- All system components have to be de-hydrated and should be Nitrogen charged till they are taken for assembly. Use bright annealed refrigeration grade Copper tubes.
- Use tri-chloro Ethylene for flushing followed by dry air or Nitrogen to remove the trace of tri-chlo Ethylene.

Brazing

- While brazing all the joints purge low pressure Nitrogen through the tube. This will avoid internal oxidation and formation of contamination. Use adequate amount of flux while brazing.
- The joints have to be free from oil and grease before brazing. For Copper to Copper joints use phosphorous Copper as brazing alloy and Copper - Silver for Copper to Steel joints. Oxy Acetylene is best suited for brazing.

Leak Testing

- The system has to be adequately pressurized with dry air or Nitrogen.
- Use of electronic leak detectors is the best way to detect leaks.
- Conventional methods of checking the leaks can also be used.
- Do not pressurize the system with air and R134a.

Evacuation

Effective evacuation of the system ensures removal of moisture. For achieving desired vacuum level of 200 microns:

- Pull vacuum from both sides
- Heat the system with bulbs or infra red lamps
- Use Copper tubes to connect the vacuum pump and the system
- The connecting Copper tubes have to be short in length and bigger in diameter
- Use adequately sized two stage rotary vacuum pump having anti-suckback provision
- Use electronic vacuum gauge to measure the vacuum level
- Never use a hermetic compressor for evacuation. It is not meant for evacuation and cannot achieve desired vacuum level

Refrigerant Charging

- Quality and quantity of refrigerant immensely influences the performance and reliability of any refrigeration system.
- Refrigerant should be procured from genuine source. Use digital weigh balance during refrigerant charging.
- Maintain a separate set of hoses, tubes, valves for different refrigerants. Do not use anti-choke as it damages the compressor.
- Use pressure temperature chart of refrigerant for achieving optimum system performance.

Compressor Mounting

- Torque the nut adequately and ensure that the washer / bolt head rest on the sleeve and not on the rubber grommet.
- The suction and discharge piping should be properly looped to avoid vibrations and refrigerant leakages. The compressor should not be held rigidly by any means.
- These compressors are not suitable for mobile applications.

Electricals

- Always check the voltage across C & R terminals. Voltage at this point should fall within the prescribed operating voltage range. If the supply voltage conditions are poor, use appropriately sized voltage stabilizer with low, high voltage cutout and On-delay timer.
- Always use genuine electrical accessories supplied by Emerson Climate Technologies.
- Earthing the appliance is necessary from the safety stand point.
- All electrical joints have to be firm and properly insulated.

Attending The Field Complaints

Verify the field complaint based on facts and observations made through use of proper tools and equipment. Rule out all the possibility before replacing the compressor. Analyze the compressor independently for its proper functioning.

Removing of compressor from the system without understanding the root cause will lead to another compressor failure.

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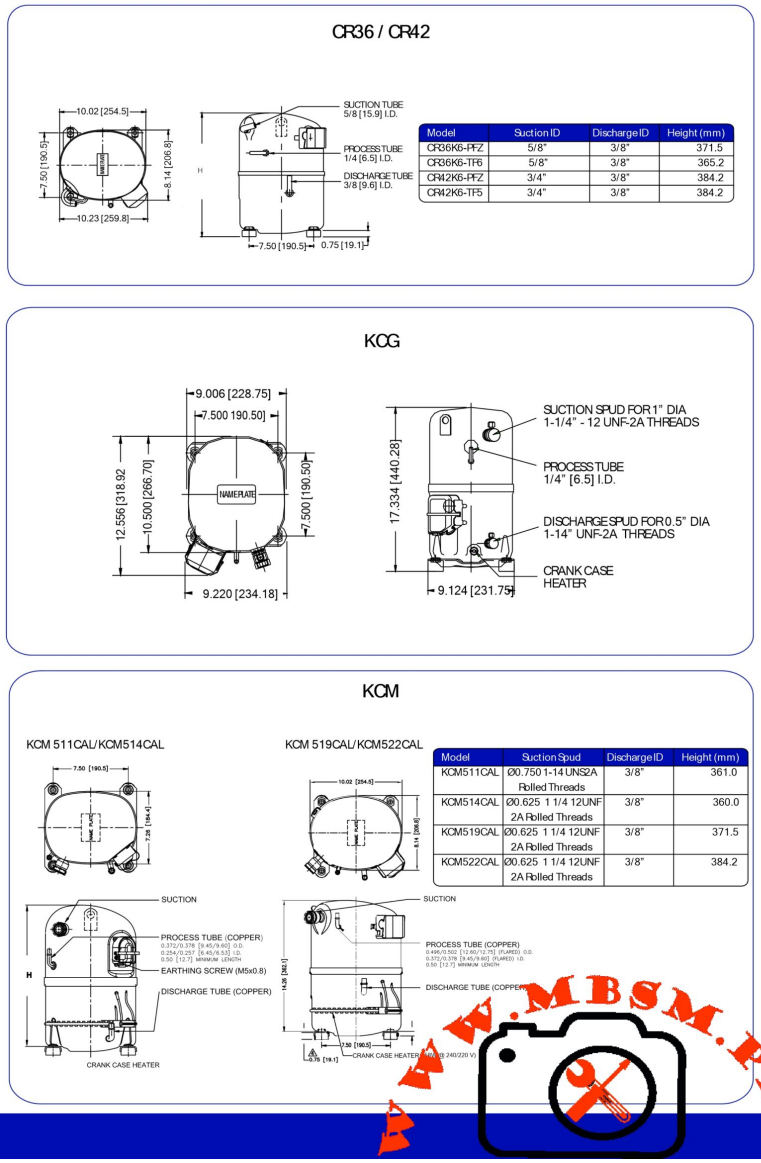

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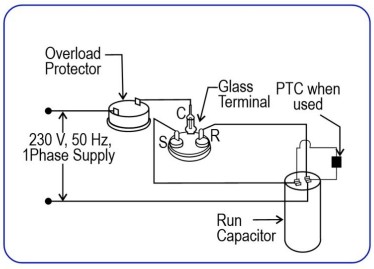
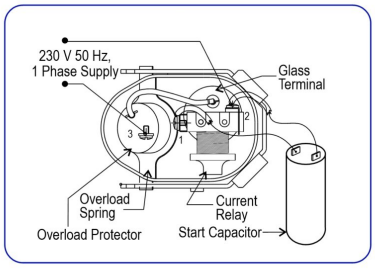
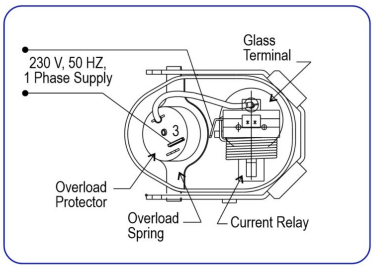
Wiring Diagrams



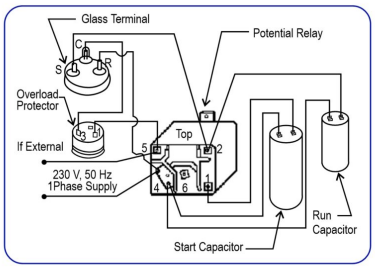
PERMANENT SPLIT CAPACITOR (PSC)



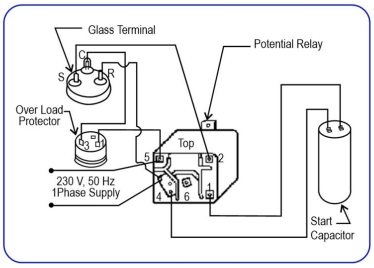
CAPACITOR START INDUCTION RUN (CSIR) WITH PLUG-IN START RELAY



RESISTANCE START INDUCTION RUN (RSIR) WITH PLUG-IN START RELAY



CAPACITOR START CAPACITOR RUN (CSCR)



CAPACITOR START INDUCTION RUN (CSIR)

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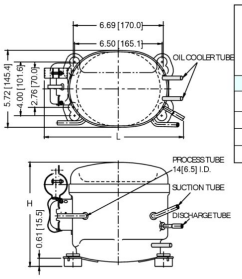
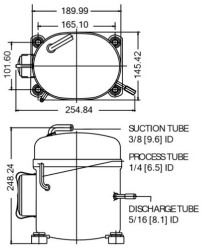
Dimensional Drawings

KCE

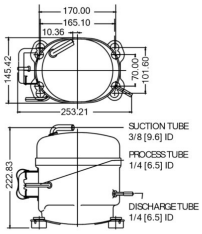


Model	Suction ID		Discharge ID		L	H	Oil Cooler Tube		Capacitor Mounting Bracket Provision
	inch	mm	inch	mm	mm	mm	inch	mm	
R134a High Back Pressure									
KCE419HAG	1 / 4	6.5	1 / 4	6.5	253	196	—	—	No
KCE425HAG	1 / 4	6.5	1 / 4	6.5	257	196	—	—	Yes
KCE432HAG	5 / 16	8.0	1 / 4	6.5	257	212	—	—	Yes
KCE444HAG	5 / 16	8.0	1 / 4	6.5	253	212	—	—	No

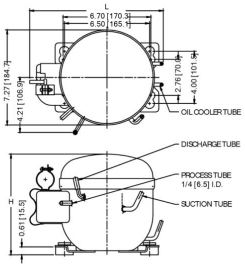
KCE461HAE



KCE443HAE



KCN



Model	Suction ID		Discharge ID		L	H	Oil Cooler Tube		Capacitor mounting
	Inch	mm	inch	mm	mm	mm	inch	mm bracket Provision	
KCN372LAG	1 / 4	6.5	1 / 4	6.5	259	189	3 / 16	4.9	NO
KCN396LAG	1 / 4	6.5	1 / 4	6.5	259	196	3 / 16	4.9	YES
KCN411LAG	5 / 16	8.0	5 / 16	8.0	250	202	–	–	YES
KCN415LAG	5 / 16	8.0	5 / 16	8.0	250	202	–	–	YES
KCN463HAG	5 / 16	8.0	5 / 16	8.0	244	202	–	–	YES
KCN413CAG	1 / 4	6.5	1 / 4	6.5	244	18			YES
KCN416CAG	1 / 4	6.5	1 / 4	6.5	244	[illegible]			YES

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Guidelines For Achieving Optimum Appliance Performance

Deep Freezer

- Evaporator circuit should be bottom to top
- Minimum 75mm PUF insulation
- Capillary to suction line heat exchanger of 6" improves the performance

Walk-in Cooler

- Proper heat load should be estimated for selecting number of systems.
- Adequate wall and floor insulation with ante room to be provided.
- Initial pull down time will range from 18 to 24 hrs.
- Hot gas defrost method should not be used.
- Use proper capacity strip heaters placed equidistant across the width of evaporator coil.

Softy Ice-cream Machine

- Precooling of softy mix to 4°C should be achieved through separate refrigeration system.
- Compressor cycling should not exceed 6 cycles.

Ice Candy

- Use suction line accumulator of 3" dia x 8" height having oil return orifice.
- Evaporator feeding from bottom to top.
- Use stirrer in brine tank for brine circulation to achieve uniform brine temperature.
- Correct %mix of brine and water is important to achieve desired brine temperature.
- -20°C of brine temperature will ensure 20 minute batch time of hard candies.

Copeland Brand Products are used for several other applications. Above guidelines are apart from system design details.
For details contact nearest Emerson Climate Technologies (India) Limited office.

Notes

1. Electrical rating is 230 V, 50 Hz and 230 V, 60 Hz for single phase models and, 400 V, 50 Hz for three phase models.
2. Operating voltage range signifies the range of voltage for which the compressor can start and run up to 43°C ambient.
3. Cooling capacity and power consumption are nominal values at specified rating conditions and subject to ±5% variation.
4. Direct air flow on glass terminal cover should be avoided.
5. Compressors with CSIR, CSCR circuit and three phase models may be used with thermostatic expansion valve.
6. Compressors with RSIR Circuit must use capillary tube only.
7. All compressors use two pole motors.
8. Compressors for specific applications are rated for IS-10617 Part I and Part III-1983.
9. All run capacitor should have a rating of 440 VAC and start capacitor 275 VAC surge, unless otherwise specified by Emerson Climate Technologies (India) Limited.

Useful Conversions

Pressure

1 micron	= 0.001 mm
0.1 mm Hg	= 100 microns
1 mm Hg	= 1 Torr
1 kg / cm^2	= 14.223 psig
1 bar	= 14.504 psig
1 bar	= 1.0197 kg/cm^2

Temperature

°F	= 1.8 x °C +32

Volume

1ft^3	= 28.3 Liters
1ft^3	= 0.0283 $meter^3$
1 $metre^3$	= 35.315 ft^3
1 $metre^3$	= 1000 Liters
1cc	= 1 milliliter
1 oz	= 29.57 milliliter

Energy

Watt / hr x 0.8598	= kcal/hr
Watt / hr x 3.413	= Btu/hr
1 ton	= 12000 Btu/hr
1 kilojoule	= 0.95 Btu
kcal/hr x 3.968	= Btu/hr

Area

1ft^2	= 0.0929 $metre^2$
1$metre^2$	= 10.758 ft^2

Distance

1 inch	= 25.4 mm
1 ft	= 12 inch
1 meter	= 3.28 foot
1 meter	= 39.36 inch
1 yard	= 36 inch

Weight

1ton	= 1000 kg
1 kg	= 2.2 pounds (lb)

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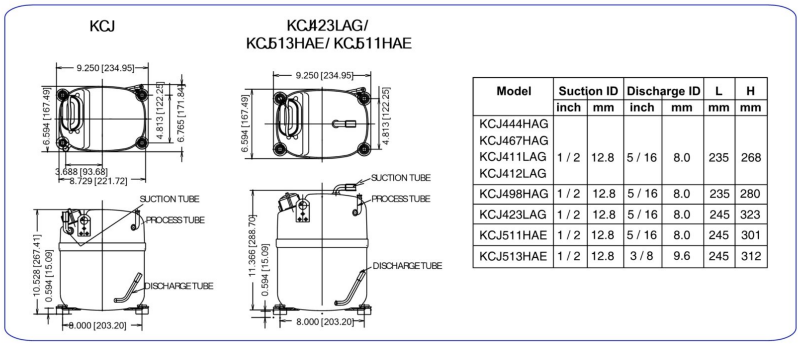
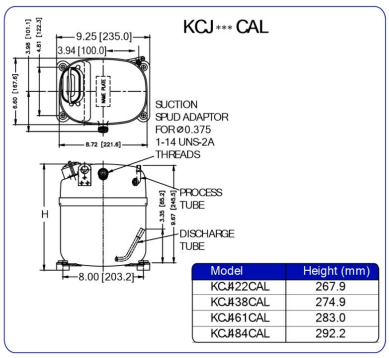
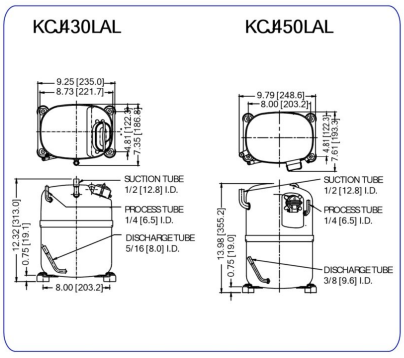
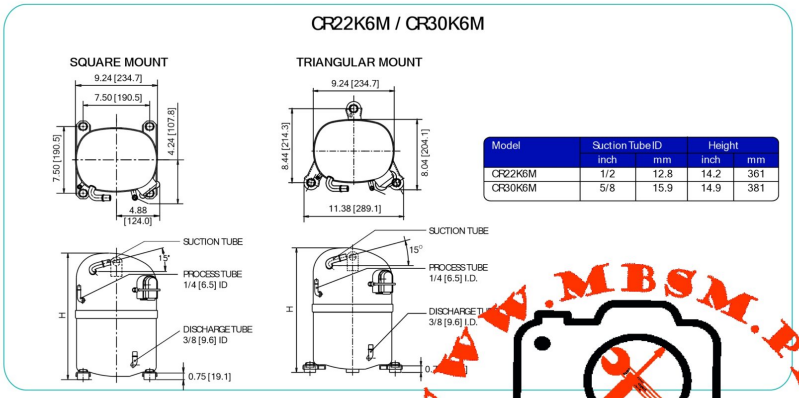


Model	Suction ID		Discharge ID		L	H
	inch	mm	inch	mm	mm	mm
KCJ444HAG KCJ467HAG KCJ411LAG KCJ412LAG	1 / 2	12.8	5 / 16	8.0	235	268
KCJ498HAG	1 / 2	12.8	5 / 16	8.0	235	280
KCJ423LAG	1 / 2	12.8	5 / 16	8.0	245	323
KCJ511HAE	1 / 2	12.8	5 / 16	8.0	245	301
KCJ513HAE	1 / 2	12.8	3 / 8	9.6	245	312



Model	Height (mm)
KCJ422CAL	267.9
KCJ438CAL	274.9
KCJ461CAL	283.0
KCJ484CAL	292.2





Model	Suction Tube ID		Height	
	inch	mm	inch	mm
CR22K6M	1/2	12.8	14.2	361
CR30K6M	5/8	15.9	14.9	381

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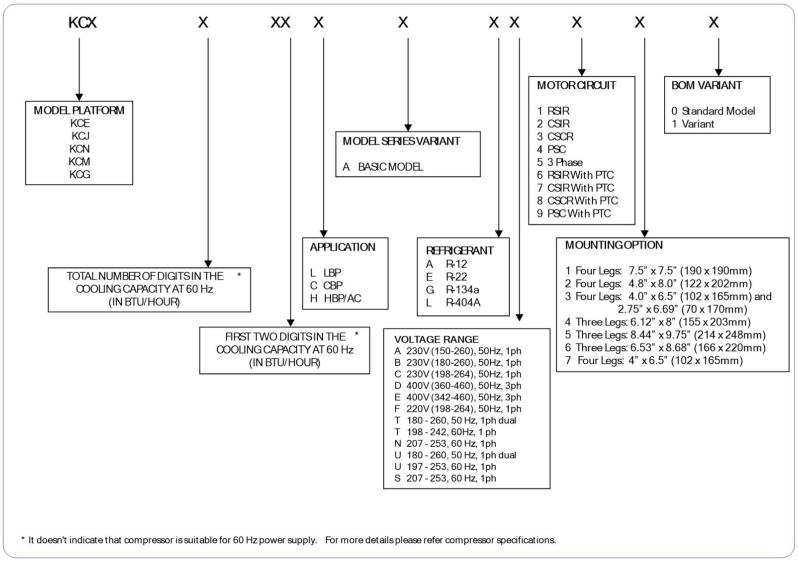
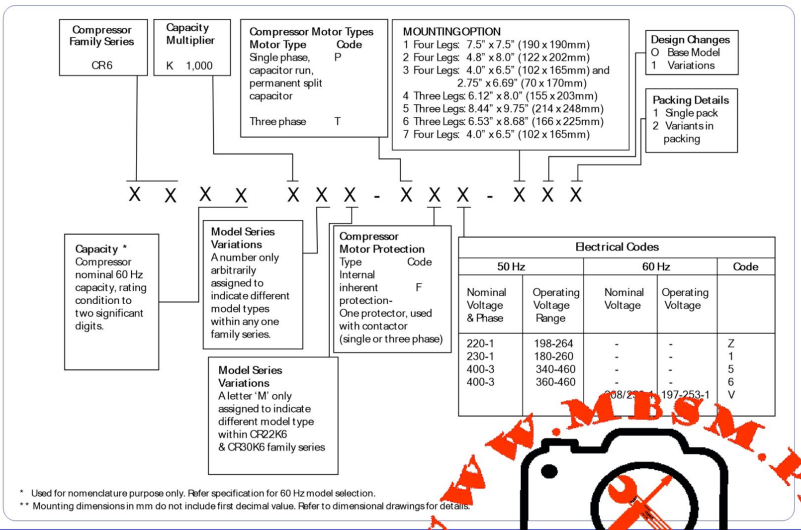
KCX Series Compressor Nomenclature



CR6 Series Compressor Nomenclature



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Electrical Specifications

High Back Pressure

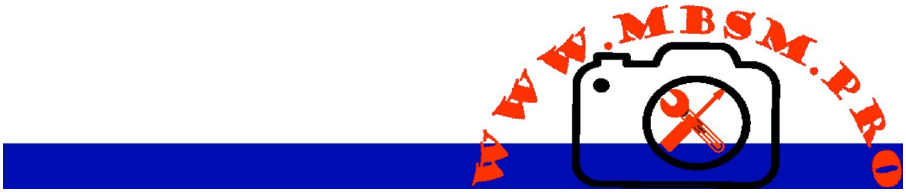
Commercial Back Pressure

Model	Power (W)	Current (A)	LRA (A)	Voltage Range	Motor Type	Start Capacitor (Mfd)	Run Capacitor (Mfd)	Relay		OLP
								Potential / PTC	Current	
R404A, 50 Hz, 1 Phase										
KCJ422CAL	400	2.40	16	180-260	CSIR	80/100	-	-	KARP4741	KAT0463/B2
KCJ438CAL	625	3.70	24	180-260	CSIR	80/100	-	-	KARP5641/ MTRP5641	T0732/B2
KCJ461CAL	925	4.50	25	180-260	CSCR	80/100	25	LT85002	-	INTERNAL
KCJ484CAL	1250	6.20	37	180-260	CSCR	80/100	25	AC85001	-	INTERNAL
KCM511CAL	1385	6.30	54	180-260	CSCR	80/100	36	AC85004	-	INTERNAL
KCM514CAL	1840	8.70	72	180-260	CSCR	150/200	45	AC85001	-	INTERNAL
KCM519CAL	2360	12.30	85	180-260	CSCR	130/156 OR 120/150	40 OR 45	AC85004	-	INTERNAL
KCM522CAL	2600	12.00	104	180-260	CSCR	189/227 OR 150/200	60 OR 65	AC85005	-	INTERNAL
R404A, 50 Hz, 3 Phase										
KCM519CAL	2325	4.70	41	342-460	3PH	-	-	-	-	INTERNAL
KCM522CAL	2600	5.20	45	342-460	3PH	-	-	-	-	INTERNAL

Low Back Pressure

Model	Power (W)	Current (A)	LRA (A)	Voltage Range	Motor Type	Start Capacitor (Mfd)	Run Capacitor (Mfd)	Relay		OLP
								Potential / PTC	Current	
KCE334LAG	110	1.1	9	150-260	RSIR	-	-	-	KARP2827	TAE7/H3
KCE345LAG	135	1.2	9	180-260	RSIR	-	-	-	KARP3227	TAE7/H3
KCN372LAG	159	1.34	10	180-260	CSIR	40/60			KARP3141	TAE15/H3
	159	1.34	11	180-260	RSIR	40/60			KARP3227	TAE15/H3
KCN396LAG	205	1.85	10	180-260	CSIR	40/60	-	-	KARP4141/MTRP14141	TAE15/H3
KCN411LAG	245	2.10	10	180-260	CSIR	40/60	-	-	KARP4241 OR MTRP4241	KAT0072/H3
	245	2.10	10	180-260	RSIR			KCP15-RO		KAT0072/H3
KCJ411LAG	280	2.20	22	180-260	CSIR	80/100	-	-	KARP4841	KAT0159/B2
KCJ412LAG	310	2.75	24	180-260	CSIR	80/100	-	-	KARP5641	KAT0159/B2
KCN415LAG	325	2.00	14	180-260	CSCR	80/100	10	LT85002	-	KAT0072/B2
KCJ423LAG	485	3.00	30	198-264	CSCR	150/200	10	LT85003	-	KAT0732/B2
R404A, 50Hz, 1 Phase										
KCN414LAL	325	2.3	16	180-260	CSIR	60/80			KARP4241	KAT0072/H3
KCN418LAL	375	2	14	180-260	CSCR	80/100	10	LT85002		KAT0072/B2
KCN422LAL	455	2.22	16	180-260	CSCR	80/100	15	LT85003		KAT164/B2
KCJ430LAL	580	3.2	30	180-260	CSCR	150/200	10	LT85003	-	INTERNAL
KCJ450LAL	975	5	50	180-260	CSCR	150/200	25	AC85004	-	INTERNAL

* These are optional Accessories to be used for CSCR Circuit



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