



Exclusively Distributed by

STAREAST
INTERNATIONAL

COMMERCIAL REFRIGERATION CONDENSING UNITS

DESIGNED AND BUILT
IN AUSTRALIA



 **EMERSON** **COPELAND™**

HVAC & R | ENGINEERING, EQUIPMENT & SPARES

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INTRODUCTION & OVERVIEW

Incorporating the world-renowned Copeland hermetically sealed reciprocating compressor this range of condensing units has been designed to provide proven capacity and reliable performance at Australian ambient conditions. All models in the range are designed with features and components that will provide easy installation and service accessibility.

FEATURES

- Designed and Built in Australia Specifically for Australian Conditions
- Reliable & Efficient Copeland Hermetically Sealed Reciprocating Compressors
- Extensive Range of Both Medium & Low Temperature Application Models
- Finned Tube Condensers with Extra Surface Area for High Ambient Applications
- Larger Volume Liquid Receiver for Long Pipe Runs
- Liquid Line Filter Drier & Sight Glass
- Factory Wired For Quick Field Connection
- Dual Pressure Control Fitted on All Models
- Durable Corrosion Resistant Painted Finish
- Secure & Vibration Free Piping Layout
- Rotalock Valves & Copper Connection Pipes
- Crankcase Heater Is Fitted on All Low Temperature Models
- Oil Separator Pre-Charged with POE Oil for Low Temperature Models
- Optional All-Weather Unit Cover Available for All Models
- Fan Cycling Controller (FSC) on dual fan models
- Phase Failure/Protection on 3 phase models
- Optional: Fan Cycling Controller (FSC) on single fan models

NOMENCLATURE

For Example: Model **SM3360-1**

S	M	3360	-1: Single Phase Supply -3: Three Phase Supply
Application: M - Medium Temperature L - Low Temperature		Capacity Watts at 35°C Ambient Temperature -5°C S.S.T. - Medium Temperature -25°C S.S.T. - Low Temperature Models	
Manufactured by: Stareast international Pty Ltd			

R134a MEDIUM TEMPERATURE PERFORMANCE DATA

Stareast Model No.	Nom. HP	Disp. (cc)	Compressor Model	Ambient Temp. °C	Capacity (Watts) Evaporating Temperature (SST) °C					
					-15	-10	-5	0	5	10
SM525-1	1/4	9.42	KCE432HAG ^①	30	316	452	580	736	878	1210
				35	286	415	525	673	810	1134
				43	214	330	419	540	678	985
SM706-1	3/8	12.05	KCE444HAG ^①	30	516	632	769	999	1242	1660
				35	459	577	706	919	1142	1529
				43	365	482	595	773	956	1284
SM1064-1	1/2	15.33	KCN463HAG ^①	30	809	952	1134	1415	1687	2115
				35	714	875	1064	1326	1571	1954
				43	592	779	972	1211	1417	1727
SM1585-1	3/4	25.91	KCJ498HAG ^①	30	1245	1430	1723	2244	2687	3315
				35	1152	1311	1585	2077	2505	3112
				43	978	1110	1319	1762	2156	2709
SM2037-1	1-3/8	40.8	KCM511CAL ^②	30	--	1671	2300	3186	3967	5050
				35	--	--	2037	2859	3583	4585
				43	--	--	1554	2256	2869	3722
SM2690-1	1-3/4	51.47	KCM514CAL ^②	30	--	2163	3038	4284	5374	6851
				35	--	--	2690	3846	4855	6222
				43	--	--	1995	3035	3890	5050
SM3167-1	2-3/8	59.65	KCM519CAL ^②	30	--	2597	3575	4952	6166	7851
				35	--	--	3167	4445	5569	7129
				43	--	--	2416	3506	4461	5785
SM3577-1	2-3/4	72.08	KCM522CAL ^②	30	--	2915	4006	5544	6899	8773
				35	--	--	3577	5004	6263	8009
				43	--	--	2792	3976	5039	6525

Capacity ratings are based on ASHRAE or ARI conditions for R134a using Copeland reciprocating compressors

- ① ASHRAE (HBP) conditions: 35°C suction return gas temperature and 8.3K subcooling.
- ② ARI (HBP) conditions: 11.1K Superheat and 8.3K subcooling.

R404A/R507 MEDIUM TEMPERATURE PERFORMANCE DATA

Stareast Model No.	Nom. HP	Disp. (cc)	Compressor Model	Ambient Temp. °C	Capacity (Watts) Evaporating Temperature (SST) °C					
					-15	-10	-5	0	5	10
SM1020-1	1/2	11.5	KCJ438CAL	30	730	930	1150	1400	1730	2140
				35	630	810	1020	1260	1560	1940
				43	510	670	840	1050	1320	1670
SM1710-1	3/4	18.27	KCJ461CAL	30	1240	1580	1940	2380	2910	3590
				35	1070	1380	1710	2110	2610	3250
				43	810	1070	1350	1700	2150	2730
SM2600-1	1	25.91	KCJ484CAL	30	1940	2400	2890	3460	4160	5030
				35	1730	2150	2600	3120	3770	4590
				43	1400	1750	2140	2590	3160	3900
SM3360-1	1-3/8	40.8	KCM511CAL	30	2219	2973	3846	4808	5829	6881
				35	1882	2567	3360	4230	5149	6087
				43	--	1947	2647	3406	4197	4990
SM4556-1	1-3/4	51.47	KCM514CAL	30	3107	4063	5136	6332	7655	9112
				35	2661	3557	4556	5663	6885	8227
				43	--	2781	3651	4609	5659	6807
SM5552-1	2-3/8	59.65	KCM519CAL	30	3805	4981	6288	7763	9439	11352
				35	3302	4365	5552	6897	8437	10204
				43	--	3369	4350	5478	6787	8311
SM5594-1	2-3/4	59.65	CS17K6ME	30	3810	4974	6337	7929	--	--
				35	3283	4346	5594	7061	--	--
				43	--	3345	4413	5671	--	--
SM6394-1	2-3/4	72.08	KCM522CAL	30	4422	5747	7247	8953	10896	13106
				35	3791	5012	6394	7968	9763	11811
				43	--	3889	5059	6397	7933	9698
SM6423-1	3	72.08	CS20K6ME	30	4354	5736	7318	9112	--	--
				35	3750	5000	6423	8035	--	--
				43	--	3853	5027	6340	--	--
SM7664-1	3-3/4	82.74	CS25K6ME	30	5334	6903	8646	10567	--	--
				35	4620	6063	7664	9430	--	--
				43	--	4741	6105	7596	--	--
SM8531-3	4	88.28	CS27KQME	30	5937	7682	9623	11761	--	--
				35	5143	6748	8531	10496	--	--
				43	--	5279	6797	8457	--	--
SM10567-3	5	101.9	CS33KQME	30	7322	9392	11808	14642	--	--
				35	6363	8296	10567	13250	--	--
				43	--	6446	8459	10856	--	--

All capacity ratings are based on EN12900 conditions for R404A using Copeland reciprocating compressors

EN12900 Conditions: 20°C suction return gas temperature and without liquid subcooling. Capacity may be increased by approximately 1% for every 1K of subcooling.

R404A/R507 LOW TEMPERATURE PERFORMANCE DATA

Stareast Model No.	Nom. HP	Disp. (cc)	Compressor Model	Ambient Temp. °C	Capacity (Watts) Evaporating Temperature (SST) °C					
					-35	-30	-25	-20	-15	-10
SL450-1	1/2	11.10	KCN422LAL	30	270	380	510	650	810	1000
				35	240	330	450	580	730	900
				43	200	270	370	480	610	770
SL640-1	3/4	15.33	KCN430LAL	30	390	550	730	930	1150	1420
				35	340	480	640	820	1030	1280
				43	280	400	530	680	870	1090
SL940-1	1-1/4	32.64	KCJ450LAL	30	450	730	1040	1370	1710	2040
				35	380	640	940	1260	1590	1920
				43	300	510	770	1070	1390	1720
SL1481-1	1-3/4	51.47	KCM475LAL	30	953	1274	1727	2308	3018	3865
				35	788	1074	1481	1995	2631	3396
				43	--	797	1145	1589	2131	2772
SL1885-1	2-3/4	59.65	CS17K6ME	30	--	1545	2229	3058	4042	5221
				35	--	1262	1885	2627	3510	4605
				43	--	841	1344	1943	2676	3602
SL2061-1	3	72.08	CS20K6ME	30	--	1684	2453	3438	4622	6028
				35	--	1347	2061	2948	4010	5302
				43	--	853	1454	2188	3069	4144
SL2621-1	3-3/4	82.74	CS25K6ME	30	--	2150	3099	4276	5647	7229
				35	--	1751	2621	3685	4929	6411
				43	--	1210	1905	2772	3815	5075
SL2899-3	4	88.28	CS27KQME	30	--	2402	3436	4744	6294	8070
				35	--	1965	2899	4096	5474	7157
				43	--	1381	2124	3091	4282	5668
SL3292-3	3	82.74	KCM512LAL	30	1855	2695	3700	4874	6179	7647
				35	1622	2381	3292	4344	5570	6942
				43	--	1775	2528	3440	4481	5687
SL3812-3	5	101.9	CS33KQME	30	--	3147	4461	5977	7725	9797
				35	--	2603	3812	5187	6786	8759
				43	--	1786	2747	3859	5210	6928
SL4245-3	4-1/2	94.61	KCM517LAL	30	2469	3583	4773	6127	7676	9544
				35	2112	3157	4245	5447	6888	8615
				43	--	2344	3271	4312	5516	7010
SL4540-3	5-1/4	101	KCM520LAL	30	2582	3754	5130	6704	8411	10285
				35	2248	3302	4540	5934	7520	9247
				43	--	2557	3600	4820	6167	7676

All capacity ratings are based on EN12900 conditions for R404A using Copeland reciprocating compressors

EN12900 Conditions: 20°C suction return gas temperature and without liquid subcooling. Capacity may be increased by approximately 1% for every 1K of subcooling.

ELECTRICAL SPECIFICATIONS

R134a Medium Temperature

Model No.	Nom. HP	Motor Type	Compressor Model	Voltage @ 50Hz	Comp. Input Power (W) ①	MCC (A) ②	LRA (A) ③	RLA (A) ④
SM525-1	1/4	CSIR	KCE432HAG	220-240	303	3	12.5	2.14
SM706-1	3/8	CSCR	KCE444HAG	220-240	333	3	13	2.14
SM1064-1	1/2	CSCR	KCN463HAG	220-240	489	4.5	14	3.21
SM1585-1	3/4	CSIR	KCJ498HAG	220-240	719	9.9	32	7.07
SM2037-1	1-3/8	CSCR	KCM511CAL	220-240	846	9.5	54	6.79
SM2690-1	1-3/4	CSCR	KCM514CAL	220-240	1138	13.5	72	9.64
SM3167-1	2-3/8	CSCR	KCM519CAL	220-240	1352	17.0	85	12.14
SM3577-1	2-3/4	CSCR	KCM522CAL	220-240	1442	19.0	104	13.57

R404A/R507 Medium Temperature

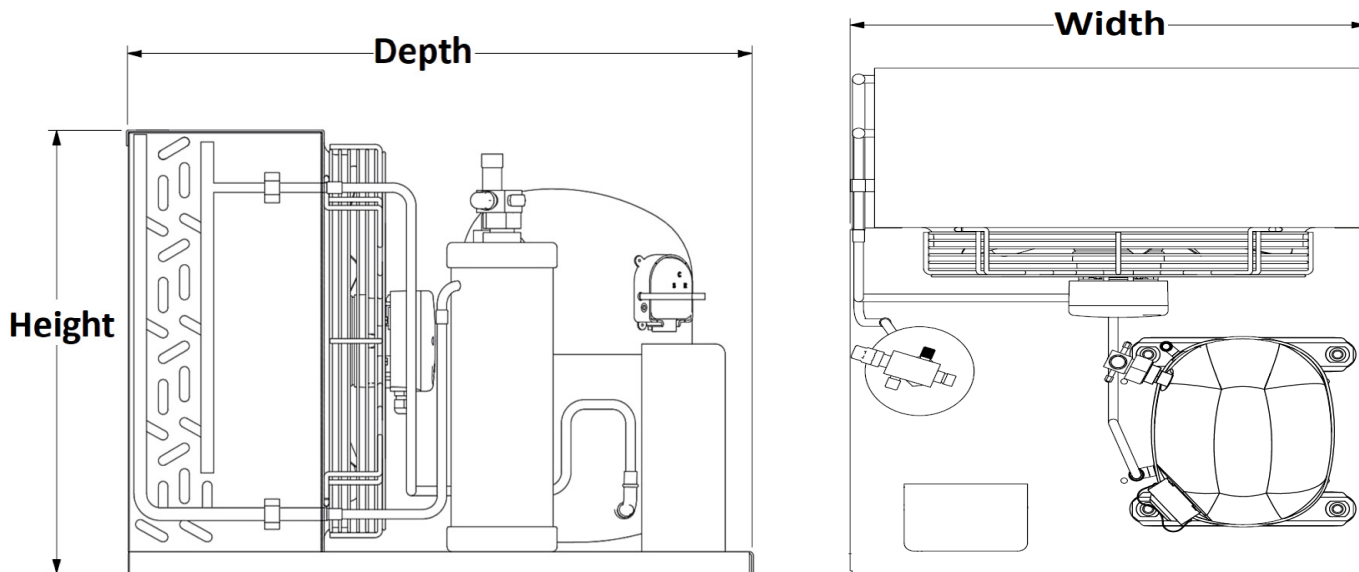
Model No.	Nom. HP	Motor Type	Compressor Model	Voltage @ 50Hz	Comp. Input Power (W) ①	MCC (A) ②	LRA (A) ③	RLA (A) ④
SM1020-1	1/2	CSIR	KCJ438CAL	220-240	580	5	24	3.57
SM1710-1	3/4	CSCR	KCJ461CAL	220-240	910	6	25	4.29
SM2600-1	1	CSCR	KCJ484CAL	220-240	1220	11.5	37	8.21
SM3360-1	1-3/8	CSCR	KCM511CAL	220-240	1536	9.5	54	6.79
SM4556-1	1-3/4	CSCR	KCM514CAL	220-240	2005	13.5	72	9.64
SM5552-1	2-3/8	CSCR	KCM519CAL	220-240	2406	17.0	85	12.14
SM5594-1	2-3/4	CSCR	CS17K6ME	220-240	2299	21.3	85	15.21
SM6394-1	2-3/4	CSCR	KCM522CAL	220-240	2705	19.0	104	13.57
SM6423-1	3	CSCR	CS20K6ME	220-240	2628	24	104	17.14
SM7664-1	3-3/4	CSCR	CS25K6ME	220-240	3221	30.1	110	21.5
SM8531-3	4	3 PH	CS27KQME	380-420	3407	13.8	61	9.85
SM10567-3	5	3 PH	CS33KQME	380-420	4277	16	55	11.43

R404A/R507 Low Temperature

Model No.	Nom. HP	Motor Type	Compressor Model	Voltage @ 50Hz	Comp. Input Power (W) ①	MCC (A) ②	LRA (A) ③	RLA (A) ④
SL450-1	1/2	CSCR	KCN422LAL	220-240	410	3.8	17	2.71
SL640-1	3/4	CSCR	KCN430LAL	220-240	540	5.9	18	4.21
SL940-1	1-1/4	CSCR	KCJ450LAL	220-240	870	6.6	50	4.71
SL1481-1	1-3/4	CSCR	KCM475LAL	220-240	990	13	72	9.29
SL1885-1	2-3/4	CSCR	CS17K6ME	220-240	1495	21.3	85	15.21
SL2061-1	3	CSCR	CS20K6ME	220-240	1721	24	104	17.14
SL2621-1	3-3/4	CSCR	CS25K6ME	220-240	2108	30.1	110	21.5
SL2899-3	4	3 PH	CS27KQME	380-420	2267	13.8	61	9.86
SL3292-3	3	3 PH	KCM512LAL	380-420	2176	8	45	5.71
SL3812-3	5	3 PH	CS33KQME	380-420	2847	16	55	11.43
SL4245-3	4-1/2	3 PH	KCM517LAL	380-420	2837	14.2	61	10.14
SL4540-3	5-1/4	3 PH	KCM520LAL	380-420	3002	16	55	11.43

- ① Comp. input power rating based on 45°C condensing temperature @-5°C SST for Medium Temperature and 43°C condensing temperature @-25°C SST for Low Temperature.
- ② MCC (MCA) = Maximum Continuous Current (Amp).
- ③ Emerson CSS-32U or EVCO Soft Starter is available upon request.
- ④ Rated Load Ampere (RLA) = MCC/1.4: - use RLA for contactor selection (Amp) [Copeland/UL Standard]

DIMENSIONAL DATA



R134a Medium Temperature

Model	Compressor Model	Dimensions (mm)			Connections ①		Fan(s) (Qty x dia.)	Receiver Volume (L) ②
		Width	Depth	Height	Liquid	Suction		
SM525-1	KCE432HAG-S231H	450	600	310	1/4" S.T.	1/2" S.T.	1X250	1
SM706-1	KCE444HAG-V331H	450	600	310	1/4" S.T.	1/2" S.T.	1X250	1
SM1064-1	KCN463HAG-U337H	450	600	360	1/4" S.T.	1/2" S.T.	1X300	1.5
SM1585-1	KCJ498HAG-S224H	500	600	360	1/4" S.T.	5/8" R/L	1X300	2
SM2037-1	KCM511CAL-B312H	500	600	460	3/8" S.T.	5/8" R/L	1X350	2
SM2690-1	KCM514CAL-B312H	500	600	460	3/8" S.T.	3/4" R/L	1X350	3
SM3167-1	KCM519CAL-B312H	600	650	510	3/8" S.T.	3/4" R/L	1X350	4
SM3577-1	KCM522CAL-B312H	600	650	560	3/8" S.T.	3/4" R/L	1X400	4

R404A/R507 Medium Temperature

Model	Compressor Model	Dimensions (mm)			Connections ①		Fan(s) (Qty x dia.)	Receiver Volume (L) ②
		Width	Depth	Height	Liquid	Suction		
SM1020-1	KCJ438CAL-B223H	450	600	360	3/8" S.T.	1/2" R/L	1X300	2
SM1710-1	KCJ461CAL-B323H	500	600	460	3/8" S.T.	5/8" R/L	1X350	3
SM2600-1	KCJ484CAL-B323H	500	600	460	3/8" S.T.	5/8" R/L	1X350	3
SM3360-1	KCM511CAL-B312H	600	650	560	3/8" S.T.	5/8" R/L	1X400	4
SM4556-1	KCM514CAL-B312H	600	650	560	3/8" S.T.	5/8" R/L	1X400	5
SM5552-1	KCM519CAL-B312H	910	700	460	1/2" S.T.	7/8" R/L	2X350	6
SM5594-1	CS17K6ME-PFZ-135	910	700	460	1/2" S.T.	7/8" R/L	2X350	6
SM6394-1	KCM522CAL-B312H	910	700	510	1/2" S.T.	7/8" R/L	2X350	7.5
SM6423-1	CS20K6ME-PFZ-135	910	700	510	1/2" S.T.	7/8" R/L	2X350	7.5
SM7664-1	CS25K6ME-PFZ-135	1035	700	610	1/2" S.T.	7/8" R/L	2X400	7.5
SM8531-3	CS27KQME-TFD-232	1035	700	610	1/2" S.T.	7/8" R/L	2X400	9
SM10567-3	CS33KQME-TFD-232	1035	700	710	1/2" S.T.	7/8" R/L	2X400	10

R404A/R507 Low Temperature

Model	Compressor Model	Dimensions (mm)			Connections ①		Fan(s) (Qty x dia.)	Receiver Volume (L) ②
		Width	Depth	Height	Liquid	Suction		
SL450-1	KCN422LAL-B331H	450	600	310	1/4" S.T.	1/2" S.T.	1X250	1
SL640-1	KCN430LAL-B331H	450	600	360	3/8" S.T.	1/2" S.T.	1X300	1.5
SL940-1	KCJ450LAL-B322H	500	600	360	3/8" S.T.	1/2" S.T.	1X300	2
SL1481-1	KCM475LAL-C312H	600	650	460	3/8" S.T.	5/8" S.T.	1X350	3
SL1885-1	CS17K6ME-PFZ-135	600	650	510	3/8" S.T.	5/8" S.T.	1X350	4
SL2061-1	CS20K6ME-PFZ-135	650	720	560	3/8" S.T.	5/8" S.T.	1X400	4
SL2621-1	CS25K6ME-PFZ-135	650	720	560	3/8" S.T.	7/8" S.T.	1X400	5
SL2899-3	CS27KQME-TFD-232	650	720	560	3/8" S.T.	7/8" S.T.	1X400	6
SL3292-3	KCM512LAL-E512H	910	700	460	3/8" S.T.	7/8" S.T.	2X350	6
SL3812-3	CS33KQME-TFD-232	910	700	510	3/8" S.T.	7/8" S.T.	2X350	7.5
SL4245-3	KCM517LAL-E514H	910	700	510	3/8" S.T.	7/8" S.T.	2X350	7.5
SL4540-3	KCM520LAL-E514H	910	700	510	3/8" S.T.	7/8" S.T.	2X350	7.5

Condensing units' dimensions are for reference only.

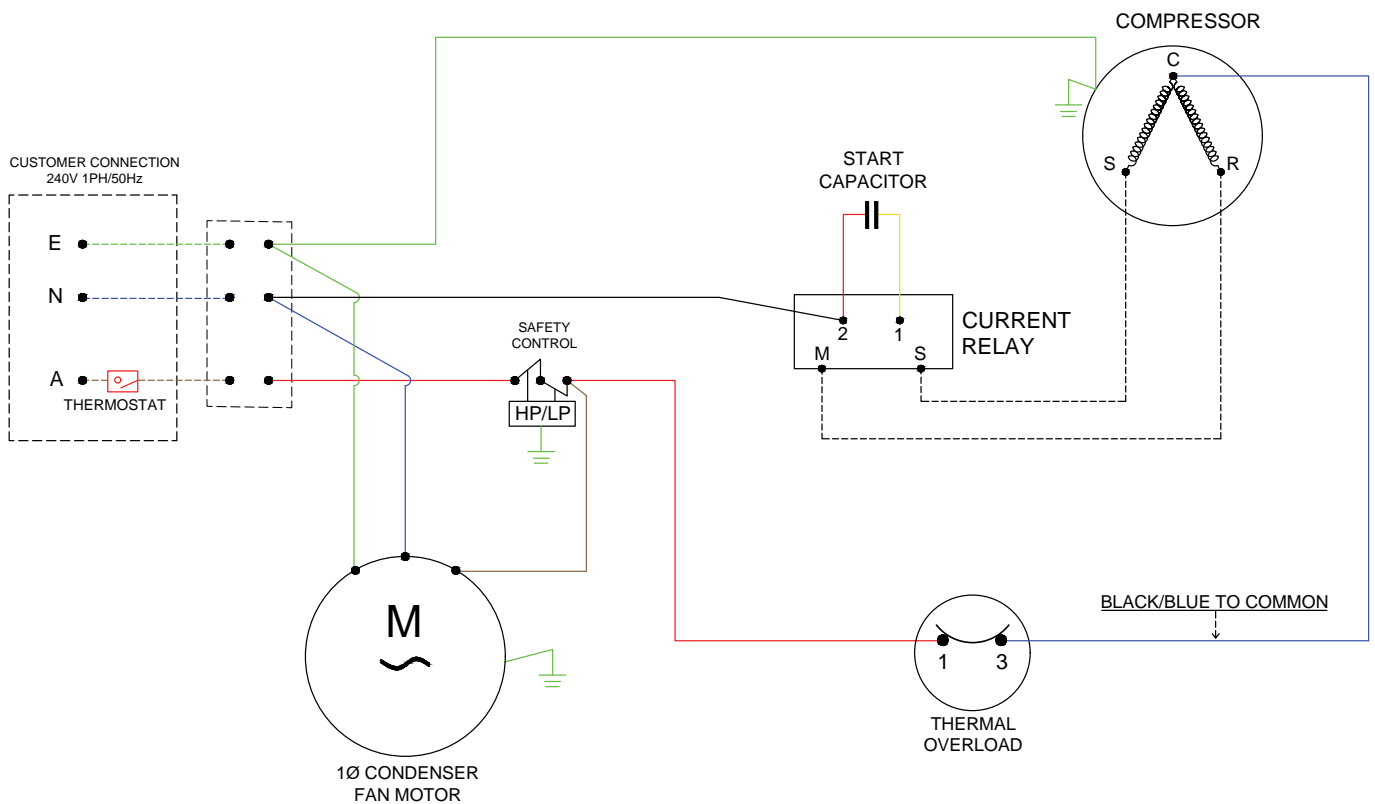
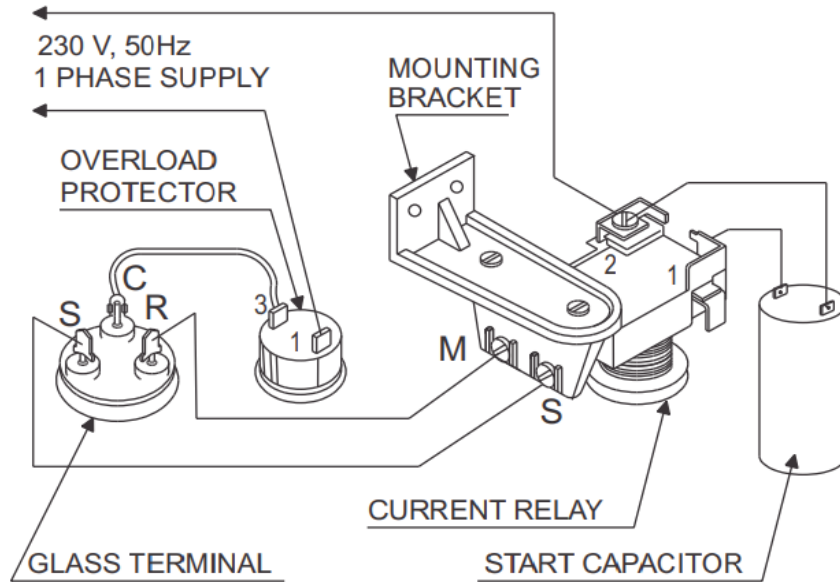
We reserve the right to modify the product specification without notice.

- ① S.T. = Solder tube. R/L= Rotalock valves with copper tails.
- ② Receiver volume & line size are based on 10M pipe run. May change for different refrigerants, pipe run & applications. When the length of the pipe run between the condensing unit and the evaporator exceeds 10 metres please contact Stareast for information regarding the size of the liquid receiver and refrigerant line sizes.

WIRING DIAGRAMS

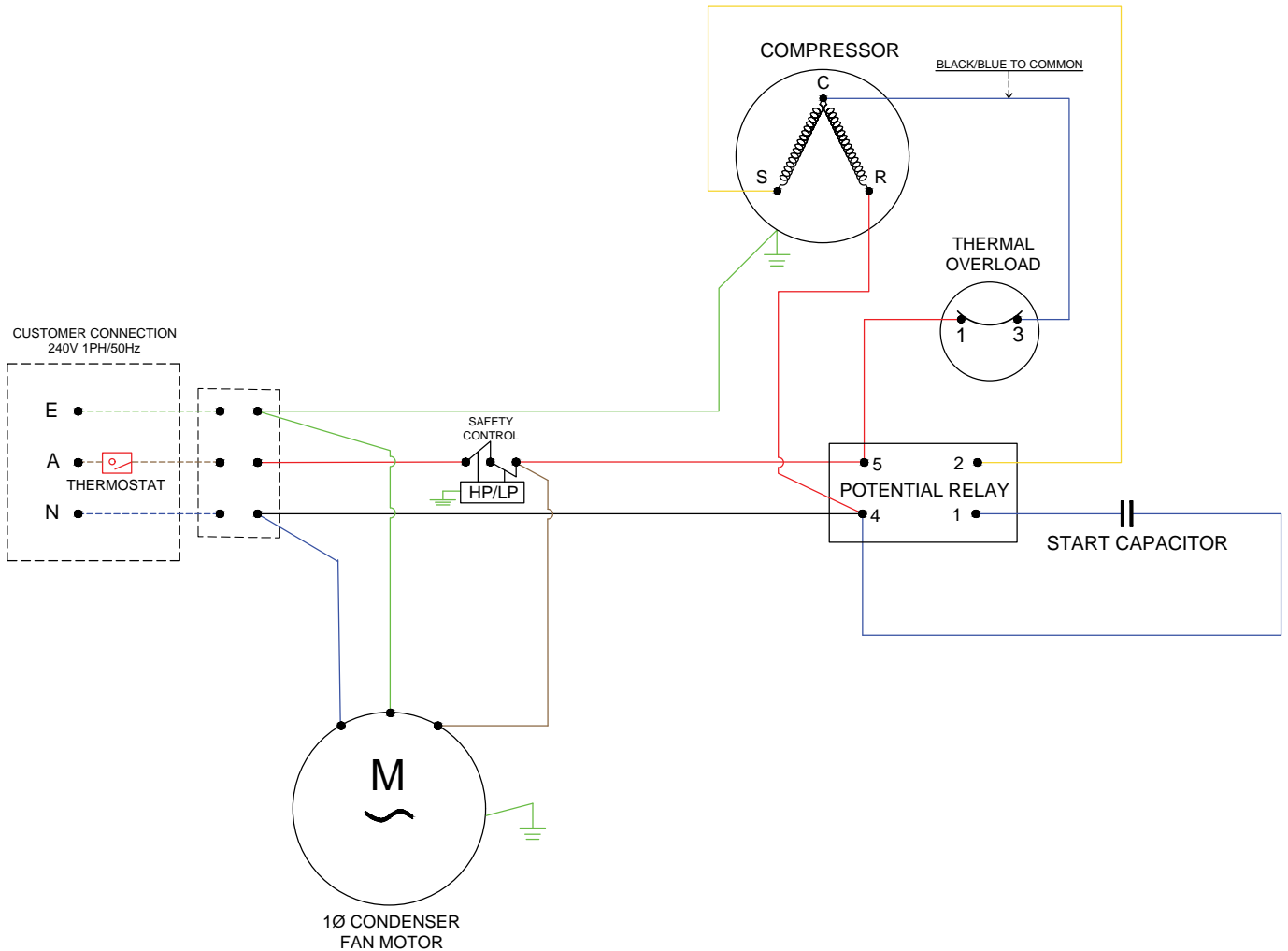
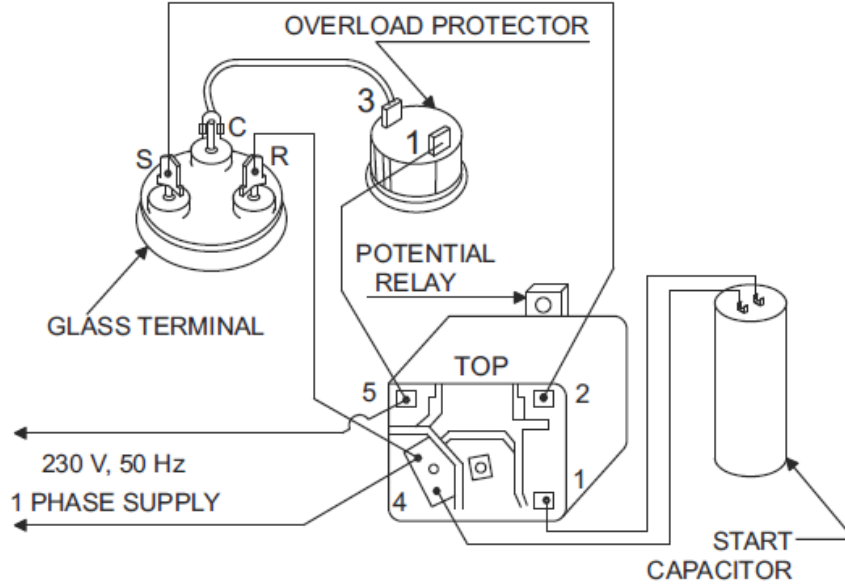
Capacitor Start Induction Run (CSIR) with Current Relay

Compressor Model	Motor Circuit	Relay Type	Overload Type
KCE432HAG-S231H	CSIR	Current	External
KCJ438CAL-B223H			



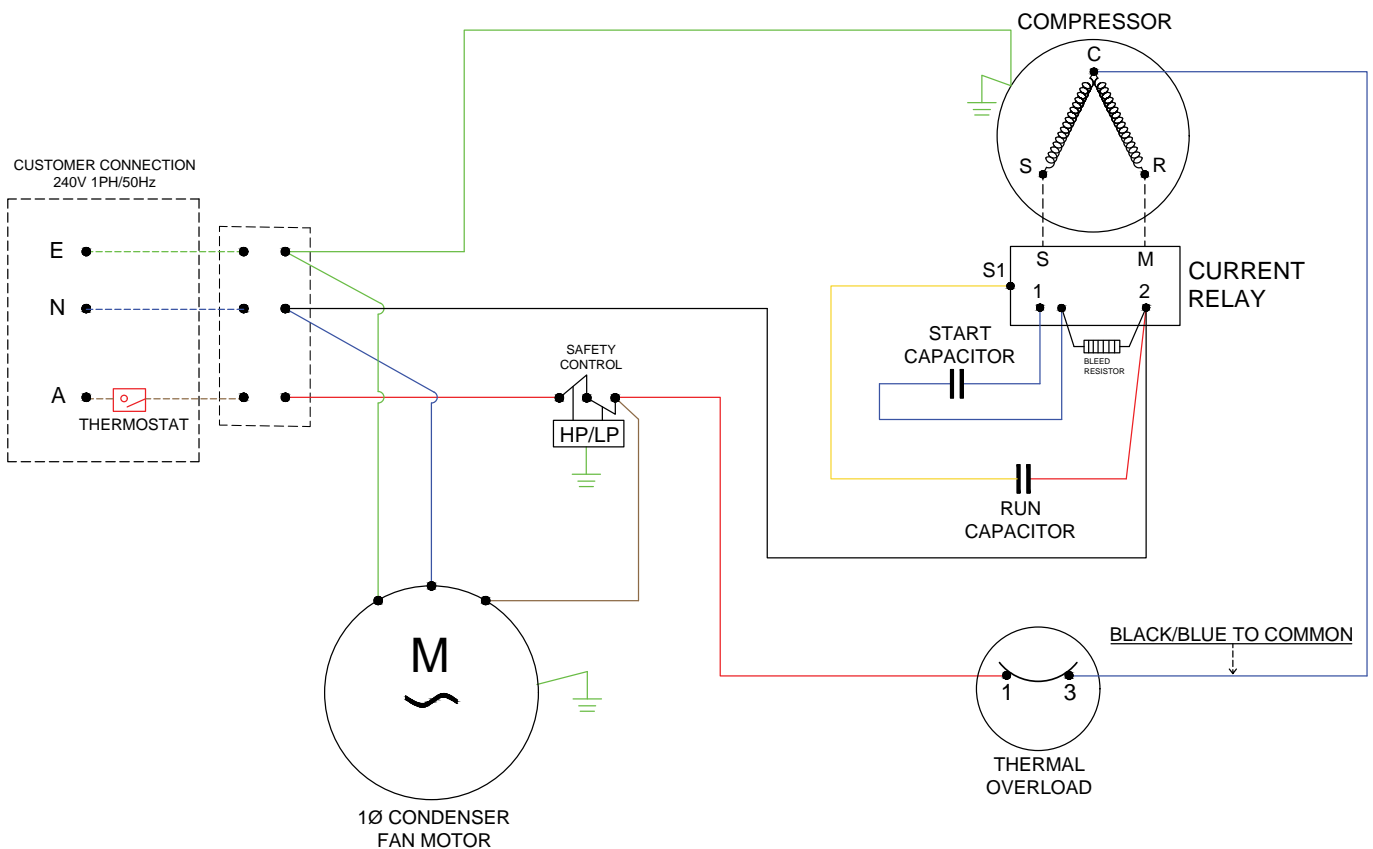
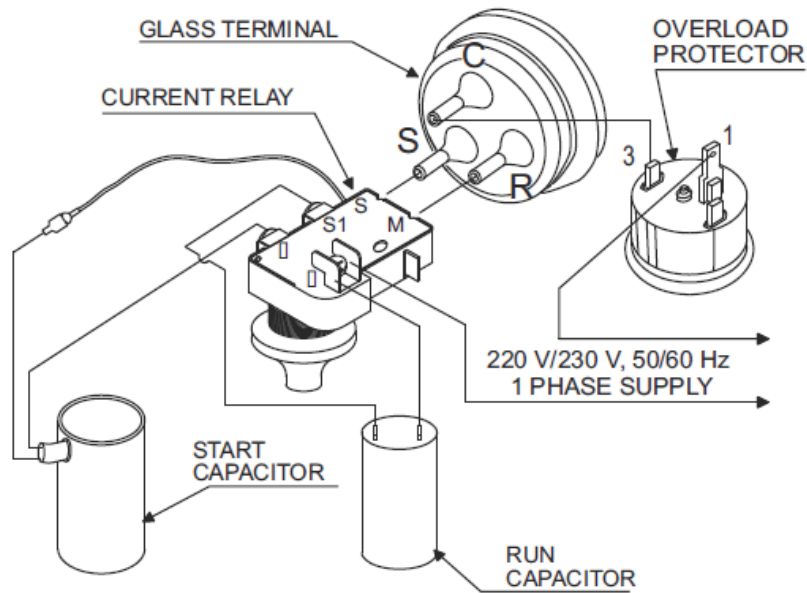
Capacitor Start Induction Run (CSIR) With Potential Relay

Compressor Model	Motor Circuit	Relay Type	Overload Type
KCJ498HAG-S224H	CSIR	Potential	External



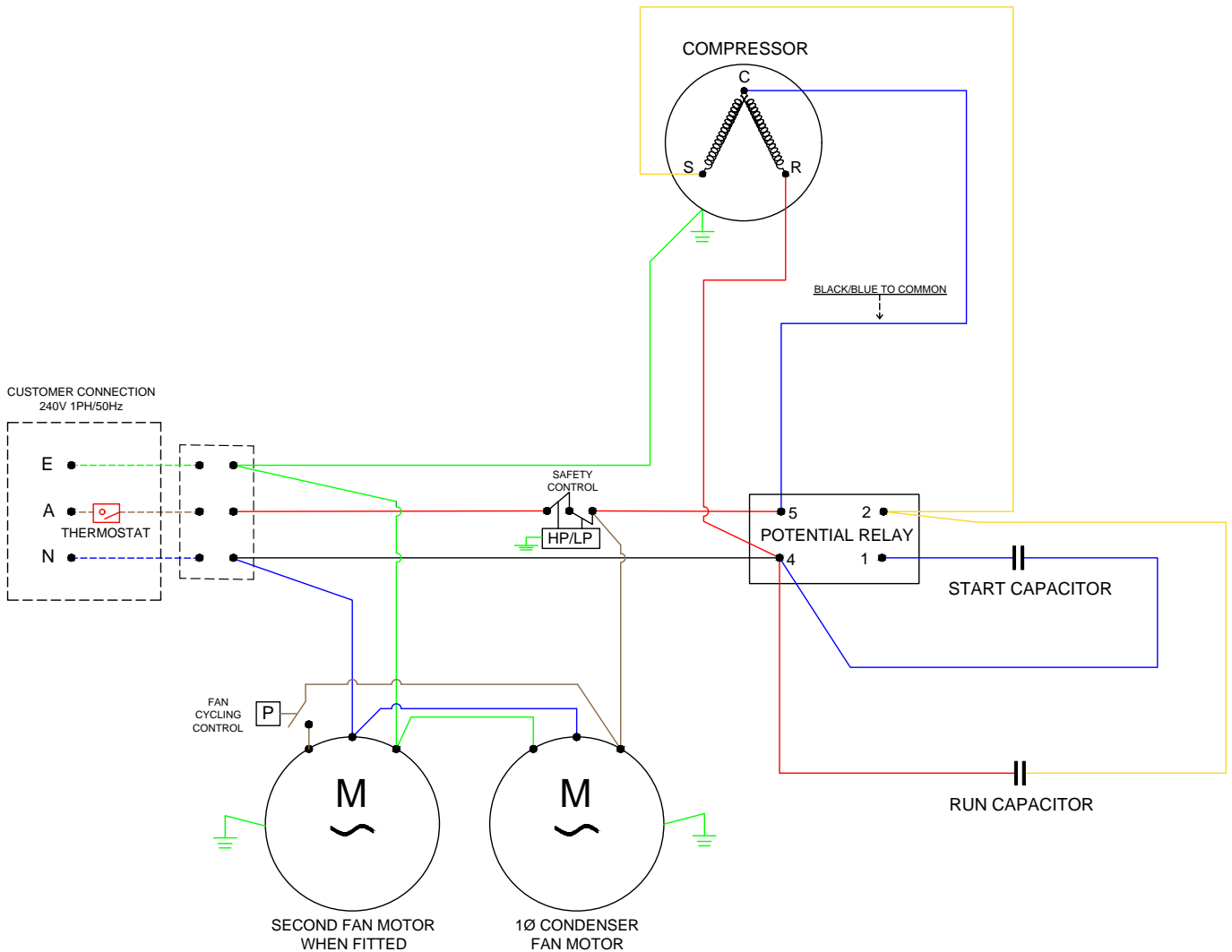
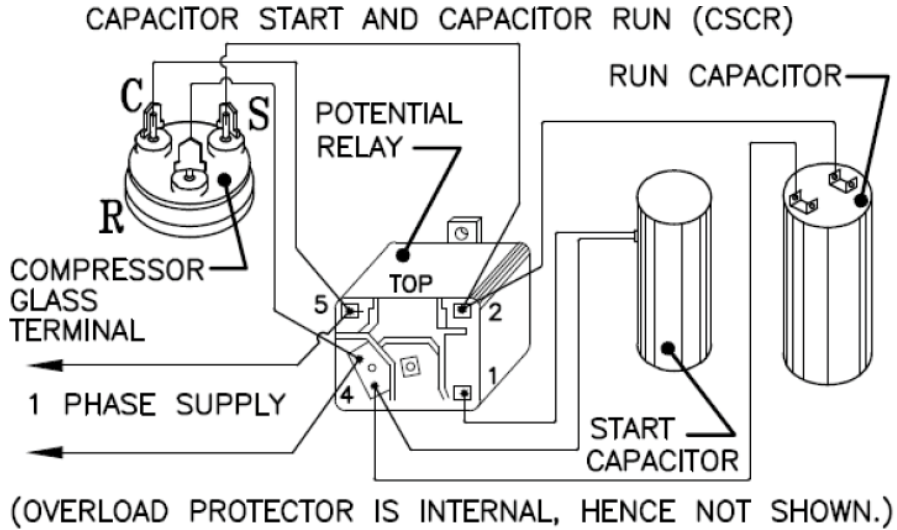
Capacitor Start Capacitor Run (CSCR) with NTC Current Relay

Compressor Model	Motor Circuit	Relay Type	Overload Type
KCE444HAG-V331H	CSCR	Current	External
KCN463HAG-U337H			



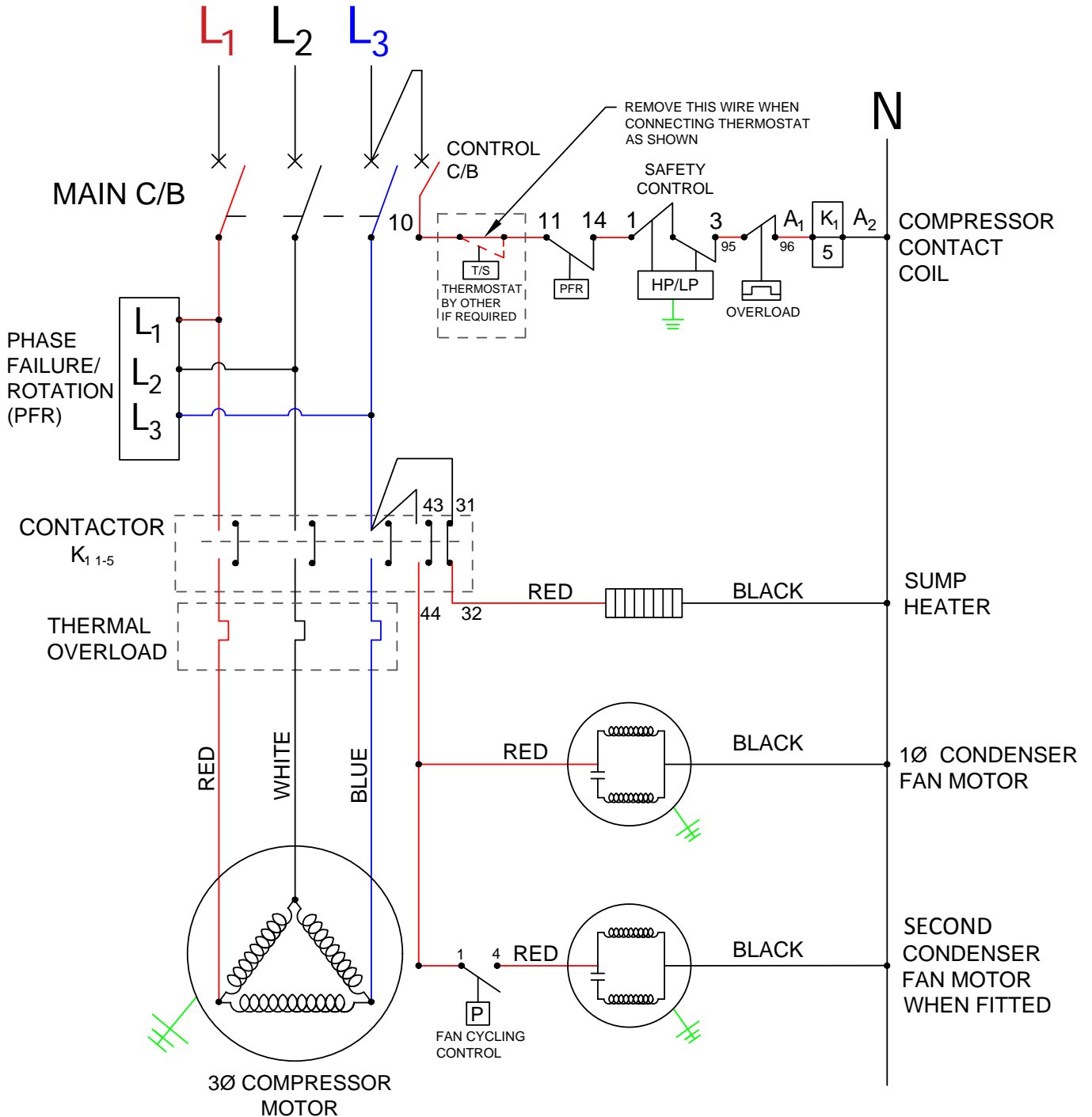
Capacitor Start Capacitor Run (CSCR) with Potential Relay

Compressor Model					Overload Type
KCJ461CAL-B323H	KCM519CAL-B312H	KCM514CAL-B312H	KCM475LAL-C312H	CS17K6ME-PFZ	Internal
KCJ484CAL-B323H	KCM522CAL-B312H	KCN430LAL-B331H	CS10K6ME-PFZ	CS20K6ME-PFZ	
KCM511CAL-B312H	KCN422LAL-B331H	KCJ450LAL-B322H	CS13K6ME-PFZ	CS25K6ME-PFZ	



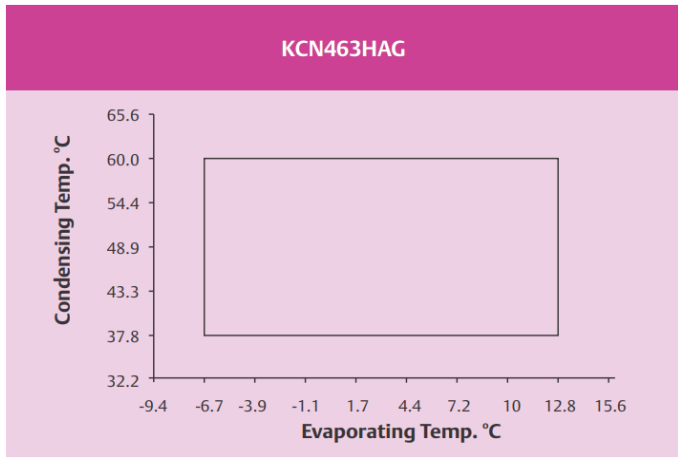
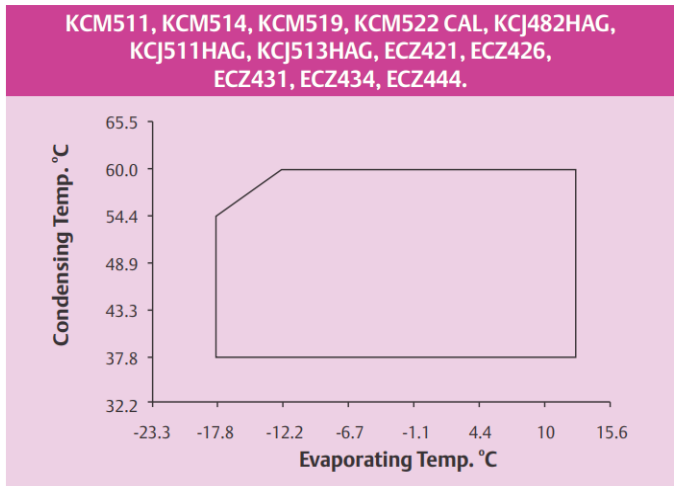
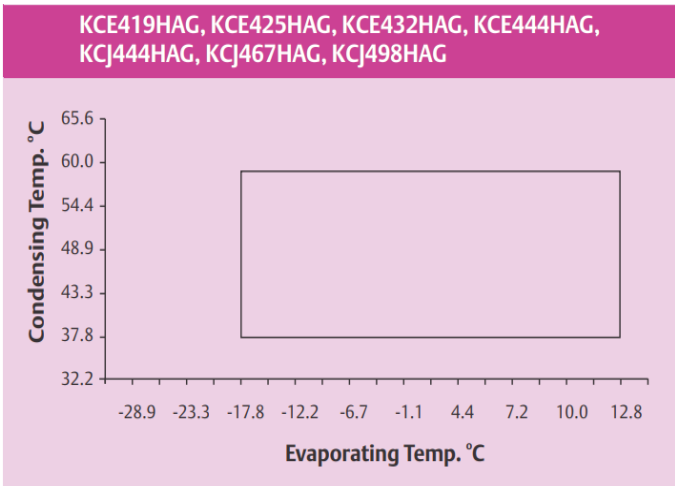
3 Phase Condensing Units Wiring Diagram

Compressor Model	Motor Circuit	Relay Type	Overload Type
CS27KQME-TFD-232	3 Phase	---	Internal
CS33KQME-TFD-232			
KCM512LAL-E512H			
KCM517LAL-E514H			
KCM520LAL-E514H			

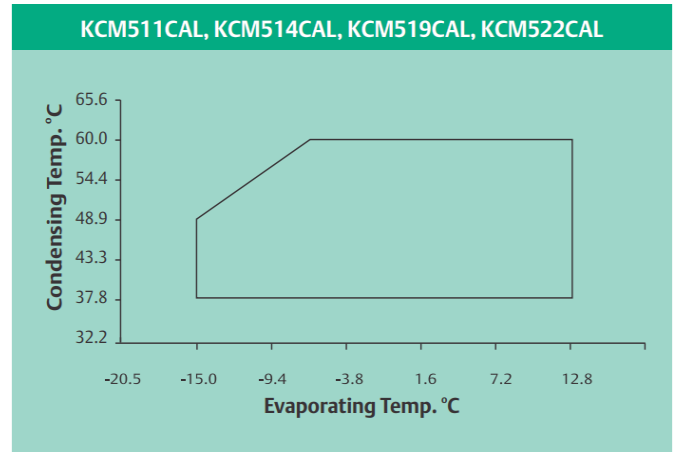
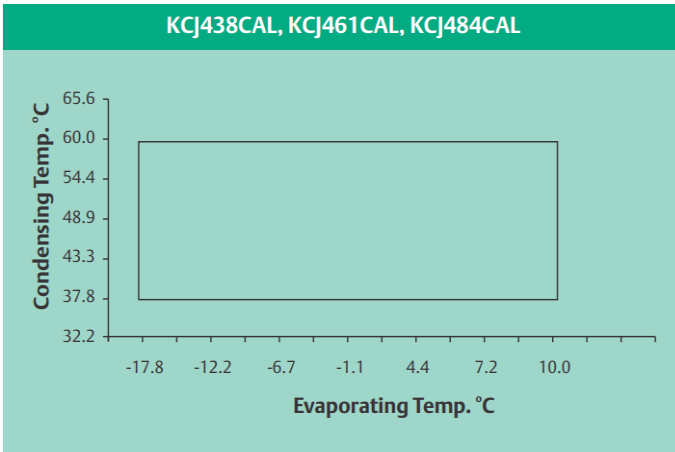


OPERATING ENVELOPES

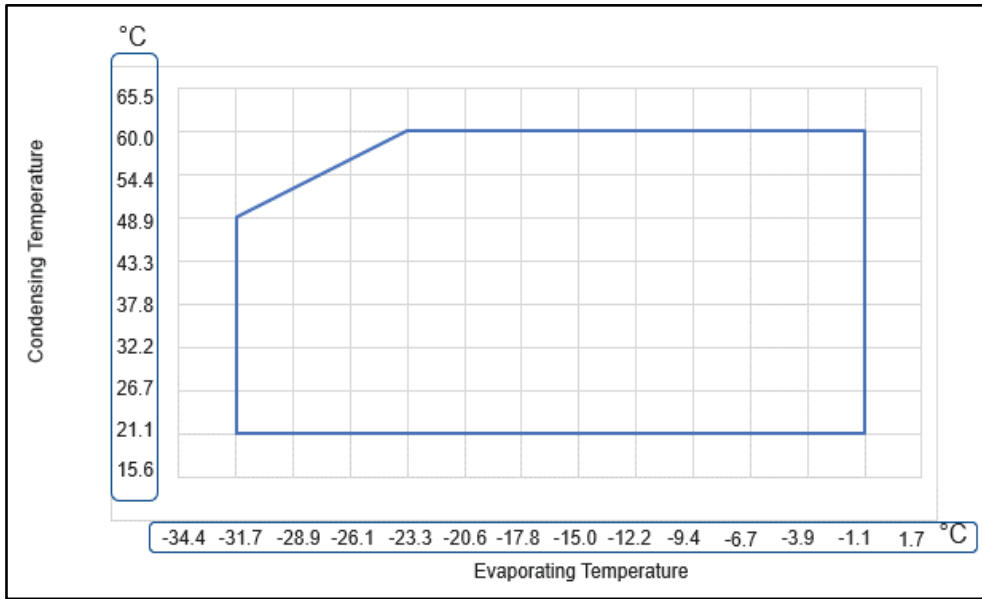
High Temperature (R134a)



Medium Temperature (R404A)

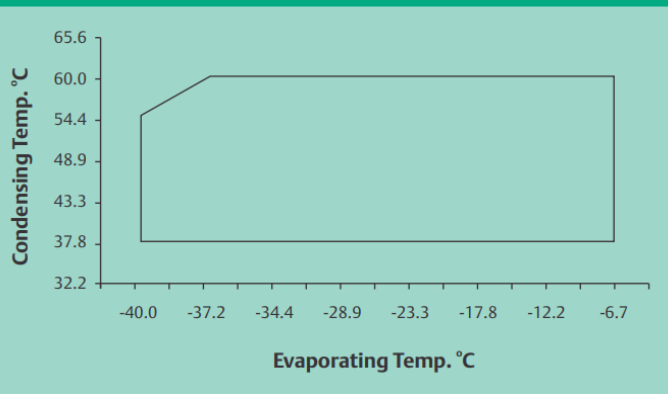


CS**KQME R404A

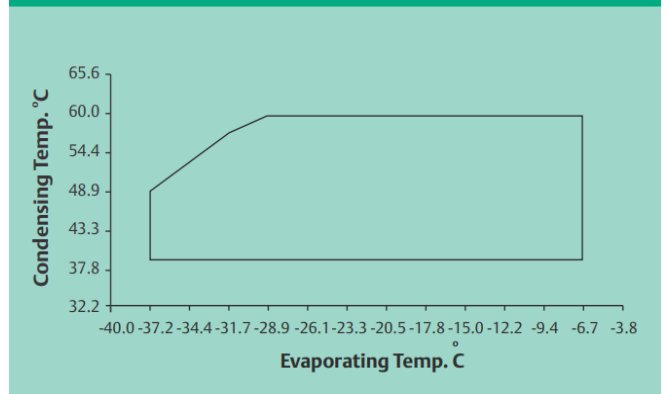


Low Temperature (R404A)

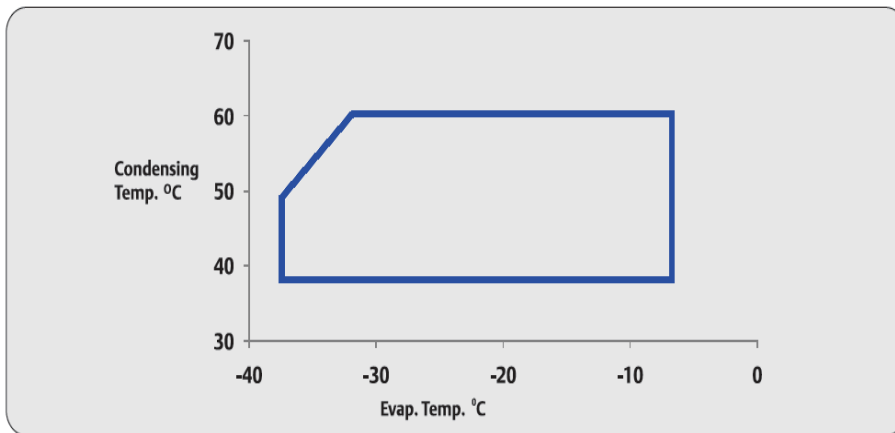
KCN414, 418,422,430LAL, KCJ430, 450LAL, ECZ412, ECZ417, ECZ419



KCM475LAL



Low Temperature KCM***LAL (R404A)



COPELAND RECIPROCATING COMPRESSOR SPARE PARTS

Part Description	Copeland KCE & KCN Platform				
	KCE432HAG	KCE444HAG	KCN463HAG	KCN422LAL	KCN430LAL
Start Capacitor μF @ VAC	40-60@230	40-60@230	80-100@230	80-100@230	80-100@275
Run Capacitor μF @ VAC	N/A	10@440	15@440	15@440	15@440
Start Relay	KARP-4241	KARPN-4241	KARPN-5041	HLR3800-4L3C-3	HLR3800-4L3C-3
Overload Protector	MRA12309-12101	MRA12309-12101	KAT0463/H3	KAT0164/B2	KAT0733/B2
Oil Charge POE cm^3	310	310	380	380	420

Part Description	Copeland KCJ Platform				
	KCJ498HAG	KCJ438CAL	KCJ461CAL	KCJ484CAL	KCJ450LAL
Start Capacitor μF @ VAC	80-100@230	80-100@230	80-100@230	80-100@230	150-200@230
Run Capacitor μF @ VAC	N/A	N/A	25@440	25@440	25@440
Start Relay	HLR3800-6H3C-1	KARP-5641	HLR3800-4I3C-2	HLR3800-6H3C-1	HLR3800-4G3C-5
Overload Protector	KAT0167/B2	T0732/B9	Internal	Internal	Internal
Oil Charge POE cm^3	890	890	890	890	890

Part Description	Copeland KCM (MT) Platform			
	KCM511CAL	KCM514CAL	KCM519CAL	KCM522CAL
Start Capacitor μF @ VAC	80-100@230	150-200@ 230	120-150@230	150-200@230
Run Capacitor μF @ VAC	36@440	45@440	45@440	60@440
Start Relay	HLR3800-3F3C-4	HLR3800-6H3C-1	HLR3800-3F3C-4	HLR3800-4G3C-5
Overload Protector	Internal	Internal	Internal	Internal
Oil Charge POE cm^3	1330	1330	1330	1330

Part Description	Copeland KCM (LT) Platform			
	KCM475LAL	KCM512LAL (3PH)	KCM517LAL (3PH)	KCM520LAL (3PH)
Start Capacitor μF @ VAC	150-200@230	N/A	N/A	N/A
Run Capacitor μF @ VAC	25@440	N/A	N/A	N/A
Start Relay	HLR3800-3F3C-4	N/A	N/A	N/A
Overload Protector	Internal	Internal	Internal	Internal
Oil Charge POE cm^3	1300	1330	1330	1330

Part Description	Copeland CS Platform				
	CS17K6ME-PFZ	CS20K6ME-PFZ	CS25K6ME-PFZ	CS27KQME-TFD	CS33KQME-TFD
Start Capacitor μF @ VAC	120-150@ 230	150-200 @ 230	189-227 @ 330	N/A	N/A
Run Capacitor μF @ VAC	45@370	60@440	60 @ 440	N/A	N/A
Start Relay	HLR3800-3F3C-4	HLR3800-4G3C-5	HLR3800-6M3C-6	N/A	N/A
Overload Protector	Internal	Internal	Internal	Internal	Internal
Oil Charge POE cm^3	1330	1330	1330	1330	1330

WARRANTY

To meet the terms of the product warranty it is imperative that the unit is installed by licensed tradespeople only and that all work complies with the relevant Australian refrigeration and electrical trade practices and standards.

Inspection: Check the unit for any transport damage and report any damage to the transport company immediately.

Ensure that the model and capacity shown on the nameplate is correct and complies with what was ordered. Confirm that the voltage and RLA rating shown on the nameplate can be provided by the available electrical power supply.

Unit Location: Easy access to the unit is necessary for effective service and maintenance.

The condensing unit should be positioned in a cool, well ventilated area allowing adequate air flow through the condenser. If the unit is located outdoors it must be protected from rain, excessive sun, or wind by a protective cover.

The distance between the condenser and a wall behind it should be equal to at least half the height of the condenser. The minimum clearance space in front and on both sides of the unit should be equal to the base area of the condensing unit.

When the length of the pipe run between the condensing unit and the evaporator exceeds 10 metres please contact Stareast for information regarding the size of the liquid receiver and refrigerant line sizes. If the unit is mounted on wall brackets, make sure the structure is suitable to support the weight of the condensing unit.

Refrigerant Charging: The condensing unit is supplied with a nitrogen gas holding charge; the holding charge should be heard escaping when the unit connections are opened. The oil separator, if fitted, has been charged with oil. After completing the pipework and connections pressure test the entire system using nitrogen, use soapy water to locate any leaks.

Evacuate the system to 500 μ m minimum pressure, charge the system with the nominated refrigerant, and adjust the safety and cycling controls, as necessary.

Check that the compressor current draw, the system operating pressures and the degree of superheat at the end of the evaporator are all correct. Ensure the fixture operates to the customer's satisfaction.

Emerson recommends a minimum of 11K superheat, measured on the suction line 150mm from the suction valve, to prevent liquid refrigerant flood back.



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