

COOLING SOLUTIONS



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**R 600a
R 134a
R 12 (Blends)**

Product Line

**EM
PW
F
EG**



R 600a - R 134a - R 12 (Blends)

1) - COMPRESSOR COOLING TYPE

1.1) - Static Cooling (S)

The compressor does not require fan cooling and must be installed in such a way so as to allow cooling through ambient air, thus, preventing over heating.

1.2) - Fan Cooling (F)

The compressor requires a minimum air flow of 3 m/s for its cooling. Flows of lesser values must be evaluated through laboratory tests.

1.3) - Oil Cooling (OC)

The compressor uses an internal coil immersed in oils and connected to the hermetic system to help with compressor cooling. The use of more efficient compressors can eliminate the need for oil cooling.

2) - OPERATING CONDITIONS

2.1) - Starting and Operating Voltage

The compressors start at 90% of the nominal voltage

- Equalized pressures of up to 4 kgf/cm² gauge (58 psig) (R 600a).
- Equalized pressures of up to 5 kgf/cm² gauge (R 12 / Blends).
- Equalized pressures of up to 6 kgf/cm² gauge (R 134a).

Depending on the working condition and system characteristics, the compressor can operate at even lower voltages, see performance table.

2.2) - Winding Temperature

The winding temperature should not exceed 130°C (266 °F) when in continuous operation. For the winding temperature evaluation we recommend the "Ohmic Resistance Measurement Method".

(According to Application Manual Embraco)

2.3) - Condensing Pressure Limit

The compressors must operate in accordance with that described below:

R 600a

Condensing pressure must not exceed 7.7 kgf/cm² (113 psig) when in continuous operation at maximum expected ambient temperature (43°C) and the peak condensing temperature must not exceed 9.8 kgf/cm² gauge (145 psig).

R 12 (Blends)

Condensing pressure must not exceed 14.5 kgf/cm² (206 psig) when in continuous operation at maximum expected ambient temperature (43°C) and the peak condensing temperature must not exceed 18.2 kgf/cm² gauge (259 psig).

R 134a

Condensing pressure must not exceed 16.2 kgf/cm² (230 psig) when in continuous operation at maximum expected ambient temperature (43°C) and the peak condensing temperature must not exceed 20.6 kgf/cm² gauge (293 psig).

2.4) - Evaporating Temperature Range

APPLICATION	TEMPERATURE RANGE
LBP	-35°C to -10°C (-31°F to +14°F)
L / MBP	-35°C to -5°C (-31°F to +23°F)
M/HBP	-10°C to +15°C (-14°F to +59°F)
HBP	-5°C to +15°C (-23°F to +59°F)
L/M/HBP	-35°C to +15°C (-31°F to +59°F)

3) - MOTOR

The compressors in the performance table are equipped with monophase, induction motors.

3.1) - Motor Torque

The compressor motors are denominated:

LST - Low Starting Torque,
used in systems with capillary tube

HST - High Starting Torque,
used in systems with expansion valve or with capillary tube

3.2) - Types of Electric Motors

RSIR (PTCSIR) - Resistive Start - Inductive Run
Does not use capacitors

CSIR - Capacitive Start - Inductive Run
Uses electrolytic capacitor (starting)

RSCR (PTCSCR) - Resistive Start - Capacitive Run
Uses permanent capacitor (running)

CSR (CSCR) - Capacitive Start & Run
Uses electrolytic (starting) and permanent capacitor
at the same time – used with 4 terminal PTC

4) - WARNINGS

Compressors must not be charged with anti-freeze agents, as their use can have adverse effects on the various materials used, jeopardizing the useful life of the compressor (the use of anti-freeze agents renders the compressor warranty null and void).

Please note the use of any capacitor other than the ones listed in the tables of this catalog or in the Application Table, will cause the starting relay and overload protector not to work properly and may even cause the compressor motor to burn.

It is recommended that manufacturers of refrigeration systems using flammable refrigerants such as R 600a, develop accurate charging, leak testing and system testing methods to guarantee that all necessary safety procedures have been met.

Use flushing agents which are compatible with the refrigerant used to clean systems.

The system to which the compressor will be assembled must be developed and adequately prepared for use with R 134a and ester oil, i.e. without anti-freeze agents, greasy residues, mineral oil, impurities in R 134a and without chlorides, alkaline residues and moisture.

The compressors must not be tested unless they are connected to the refrigeration system.

The compressor must not be subjected to high voltage or starting tests while under vacuum. All Embraco compressors have already been submitted to a 1650 V high voltage test for one second.

Gas charging and evacuating equipment must only be used for R 134a in order to avoid chloride residue contamination.

The halogen leak detectors presently used in R 12 (blends) systems are not efficient with R 134a. This type of leak detector reacts with chlorine, a halogen, which is absent in R 134a. Equipment that uses helium as a tracer gas in combination with helium detectors, is recommended for the assembly lines of HFC 134a systems. There are compact electronic leak detectors on the market which are compatible with the R 134a refrigerant.

To maintain the performance presented in the performance table, the suction line must be connected to the suction connector.

For each type of refrigerant fluid there are appropriate dryer filters. (According to Application Manual Embraco).

To prevent excessive moisture from entering the compressor, the connector should be kept sealed at all times. Plugs should only be removed immediately before brazing connectors to system tubes (maximum time allowed is 15 minutes).

5) - OIL TYPE AND SPECIFICATION

Compressors are charged with a specific quantity of completely degassed oil which is moisture free:

R 600a

- Mineral Naphthenic (ISO 32 / ISO 10).
- Alkylbenzene (ISO 32).

R 12 (Blends)

- Mineral Naphthenic (ISO 32).
- Alkylbenzene (ISO 32).

Note: The blends R 401a and R 401b can only be applied with alkylbenzene oil + additive.

The compressors charged with Alkylbenzene oil + additive, receive the label bellow.

COMPRESSOR APPROVED TO BE USED WITH BLENDS LISTED BELOW

REFRIGERANT GAS	
ASHRAE	Commercial Name
R 401a	SUVA MP39
R 401b	SUVA MP66
R 409a	FORANE FX56
R 413a	ISCEON 49

R 134a

- Ester oil (ISO 22).
- Ester oil (ISO 10).
- Ester oil (ISO 7).

Note: The oil charge must not be removed or mixed.

6) - TEST CONDITIONS

TEMPERATURE	CHECK POINT HBP (ASHRAE)		CHECK POINT LBP (ASHRAE)		CHECK POINT (CECOMAF)	
	°C	°F	°C	°F	°C	°F
EVAPORATING TEMPERATURE	7.2	45	-23.3	-10	-25	-13
CONDENSING TEMPERATURE	54.4	130	54.4	130	55	131

7) - CONVERSION

1 Watt	=	3.41	Btu/h
1 Watt	=	0.86	kcal/h
1 kcal/h	=	3.97	Btu/h
1 cu.ft.	=	28.32	liters

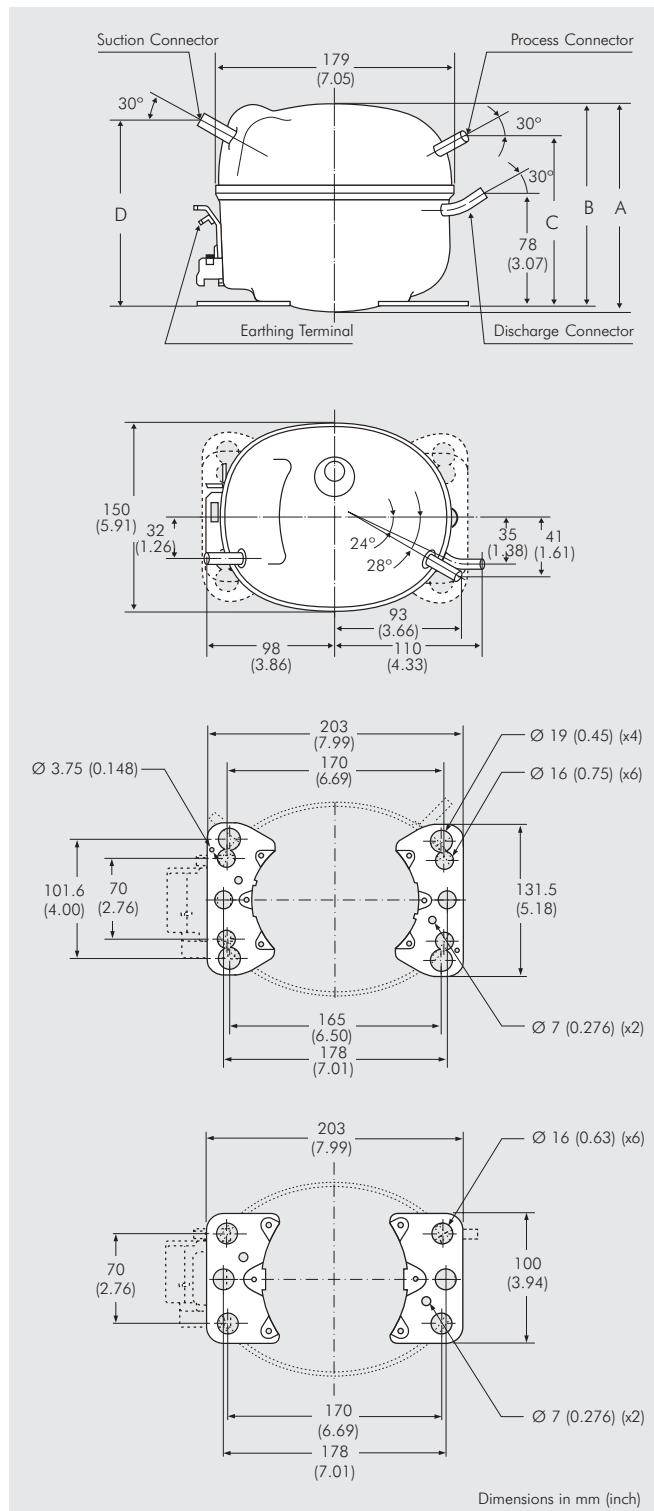
8) - TOLERANCES

Capacity	= ±5%
Power Consumption	= ±5%
Current Consumption	= ±5%
Efficiency	= ±7%

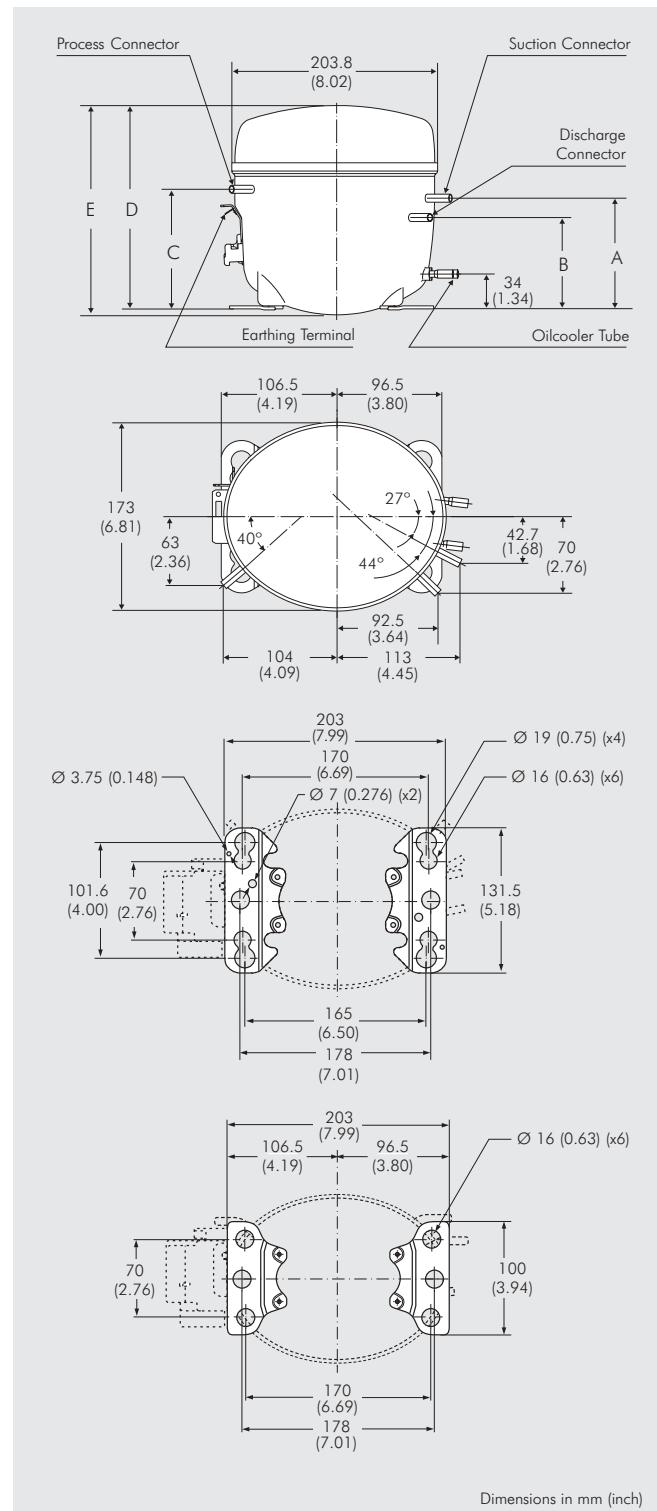
R 600a - R 134a - R 12 (Blends)

9) - COMPRESSOR HOUSING

EM



EG / F

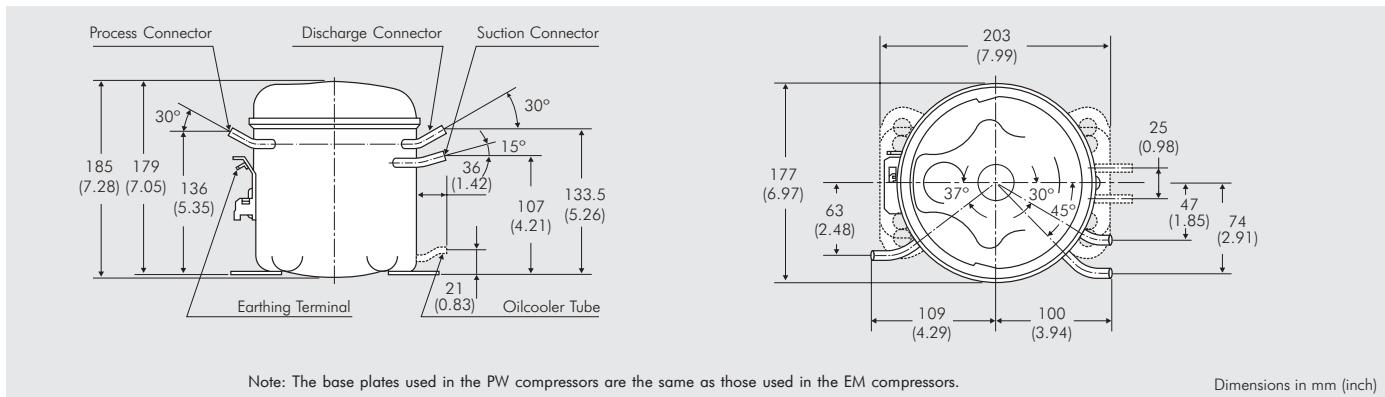


COMPRESSORS	A	B	C	D
EM (tall)	168 (6.61)	166 (6.54)	150 (5.91)	155 (6.10)
EM (short)	157 (6.18)	155 (6.10)	139 (5.47)	144 (5.67)

COMPRESSORS	A	B	C	D	E
EG / F (tall)	109 (4.29)	90 (3.54)	118 (4.65)	201 (7.91)	207 (8.15)
EG / F (short)	103 (4.06)	84 (3.31)	112 (4.41)	195 (7.68)	201 (7.91)

Compressors may be supplied with either of the above plates. Please make sure you indicate which base should be supplied.

PW



Note: The base plates used in the PW compressors are the same as those used in the EM compressors.

Dimensions in mm (inch)

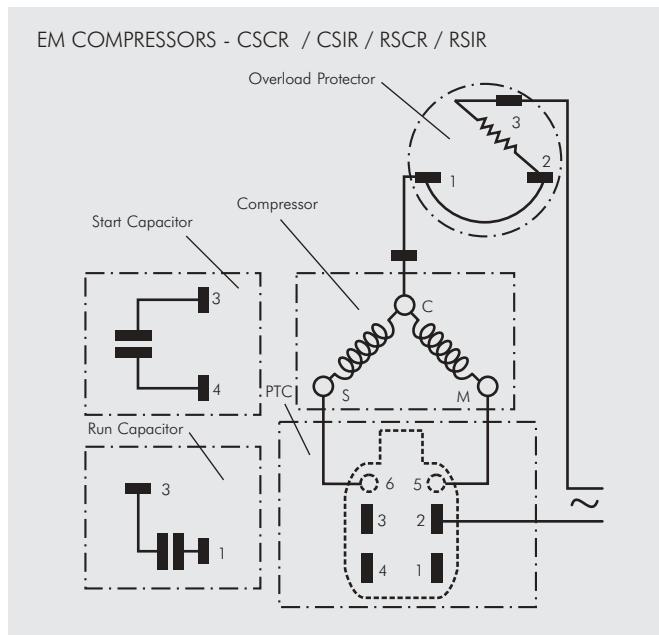
CONNECTORS INTERNAL DIAMETERS - mm (in)																
COMPRESSORS		F / EG														
CONNECTORS		COPPER PLATED STEEL														
MATERIAL	COPPER										COPPER PLATED STEEL					
SUCTION	6.50 (0.256)	6.50 (0.256)	6.50 (0.256)	6.50 (0.256)	8.20 (0.323)	8.20 (0.323)	6.10 (0.240)	6.50 (0.256)	6.50 (0.256)	6.50 (0.256)	6.50 (0.256)	6.50 (0.256)	8.20 (0.323)	8.20 (0.323)	6.50 (0.256)	6.50 (0.256)
DISCHARGE	4.94 (0.194)	4.94 (0.194)	6.50 (0.256)	6.50 (0.256)	6.50 (0.256)	4.94 (0.194)	5.00 (0.197)	5.00 (0.197)	5.00 (0.197)	5.00 (0.197)	6.50 (0.256)	6.50 (0.256)	5.00 (0.197)	6.50 (0.256)	6.50 (0.256)	6.50 (0.256)
PROCESS	6.50 (0.256)	6.50 (0.256)	6.50 (0.256)	6.50 (0.256)	6.50 (0.256)	6.50 (0.256)	6.10 (0.240)	6.50 (0.256)	6.50 (0.256)	6.50 (0.256)	6.50 (0.256)	6.50 (0.256)	6.50 (0.256)	6.50 (0.256)	6.50 (0.256)	6.50 (0.256)
OIL COOLER TUBE	4.90 (0.193)	5.10 (0.201)	4.90 (0.193)	6.50 (0.256)	6.50 (0.256)	—	—	4.90 (0.193)	5.10 (0.201)	6.50 (0.256)	6.50 (0.256)	5.10 (0.201)	5.10 (0.201)	6.50 (0.256)	4.77 (0.188)	4.90 (0.193)

For other connectors configurations, please contact our sales division.

		TOLERANCE				COPPER PLATED STEEL			
MATERIAL		COPPER				COPPER PLATED STEEL			
CONNECTORS	4.94	5.10	6.50	8.20		5.00	6.10	6.50	8.20
	+0.08	+0.10	+0.12	+0.12		+0.18	+0.10	+0.12	+0.12
	-0.08	-0.00	-0.08	-0.08		+0.06	-0	-0.08	-0.08
	$\begin{pmatrix} 0.194 \\ +0.003 \\ -0.003 \end{pmatrix}$	$\begin{pmatrix} 0.201 \\ +0.004 \\ -0.000 \end{pmatrix}$	$\begin{pmatrix} 0.256 \\ +0.005 \\ -0.003 \end{pmatrix}$	$\begin{pmatrix} 0.323 \\ +0.005 \\ -0.003 \end{pmatrix}$		$\begin{pmatrix} 0.197 \\ +0.007 \\ +0.002 \end{pmatrix}$	$\begin{pmatrix} 0.201 \\ +0.004 \\ -0.000 \end{pmatrix}$	$\begin{pmatrix} 0.256 \\ +0.005 \\ -0.003 \end{pmatrix}$	$\begin{pmatrix} 0.323 \\ +0.005 \\ -0.003 \end{pmatrix}$
	4.77	4.90	5.10	6.50					
	+0.17	+0.02	+0.10	+0.09					
	-0.17	-0.05	-0.00	+0.09					
OILCOOLER TUBE	$\begin{pmatrix} 0.188 \\ +0.007 \\ -0.007 \end{pmatrix}$	$\begin{pmatrix} 0.193 \\ +0.001 \\ -0.002 \end{pmatrix}$	$\begin{pmatrix} 0.201 \\ +0.004 \\ -0.000 \end{pmatrix}$	$\begin{pmatrix} 0.256 \\ +0.004 \\ -0.004 \end{pmatrix}$					

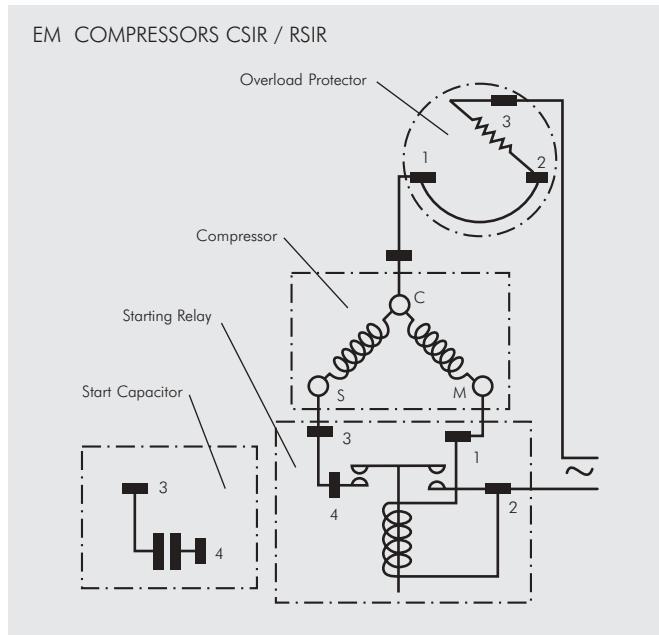
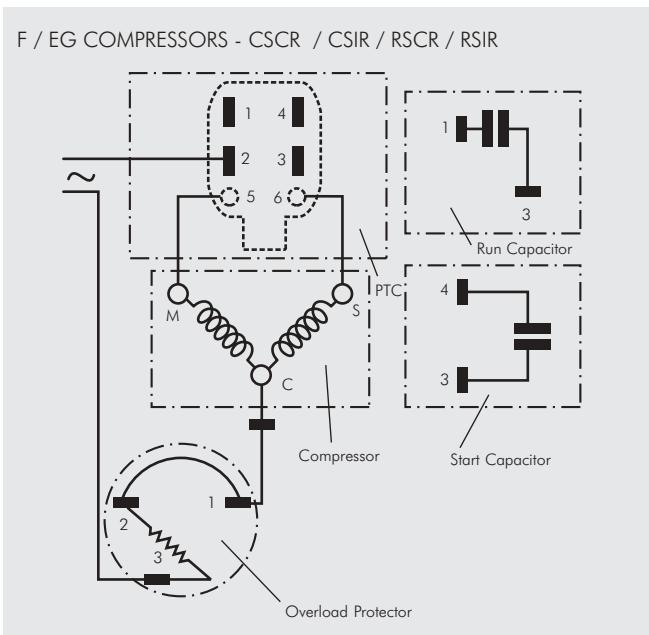
R 600a - R 134a - R 12 (Blends)

10) - ELECTRICAL DIAGRAMS

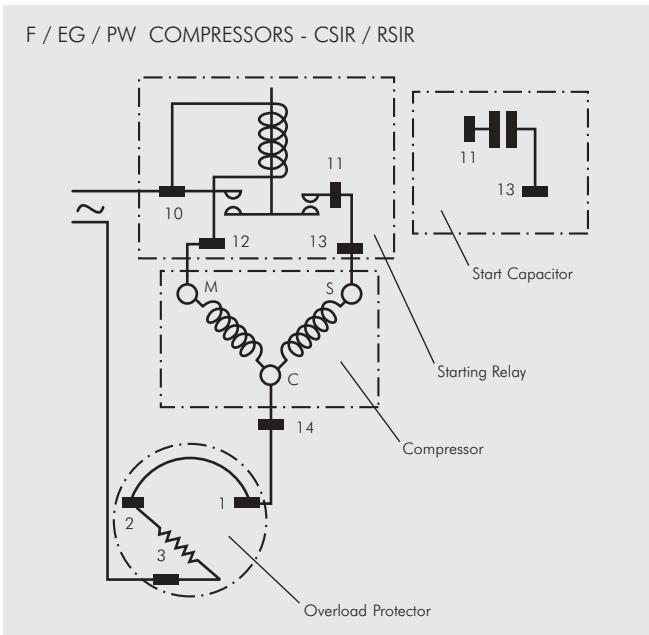


Compressors with a run capacitor must use PTC with 3 terminals.

Compressors without run capacitor use PTC with 1 terminal.



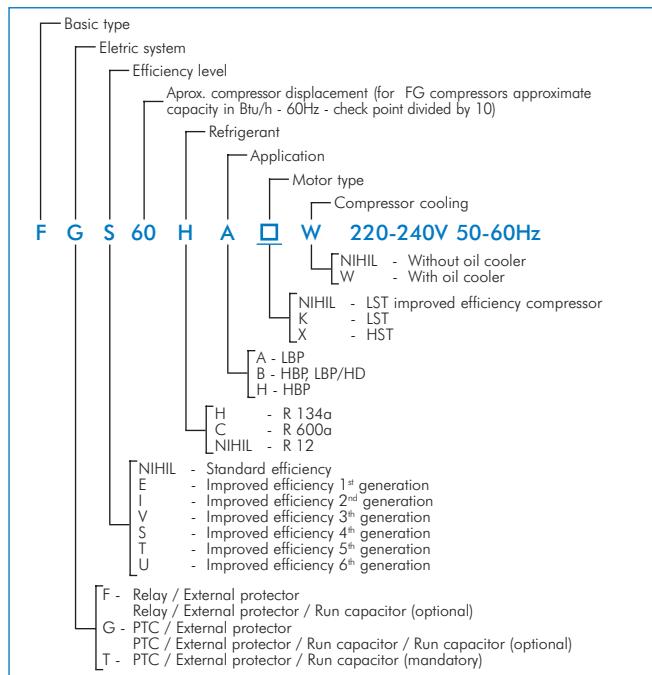
If application of a start capacitor is necessary, then it must be connected between terminals 3 and 4. To achieve this, just rupture this bridge.



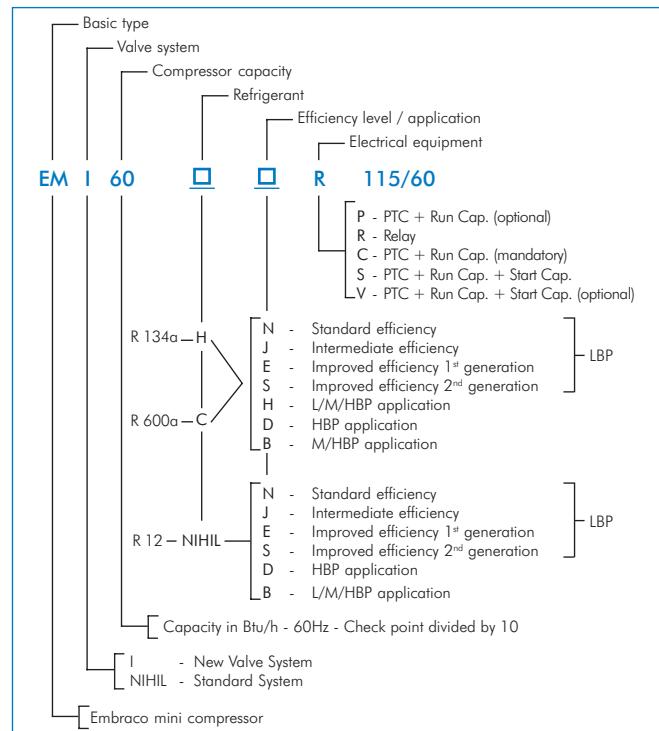
If application of a start capacitor is necessary, then it must be connected between terminals 11 and 13. This requires a specific relay, with fast on terminals for better start capacitor installation, which can be supplied upon request.

11) - COMPRESSOR DENOMINATION

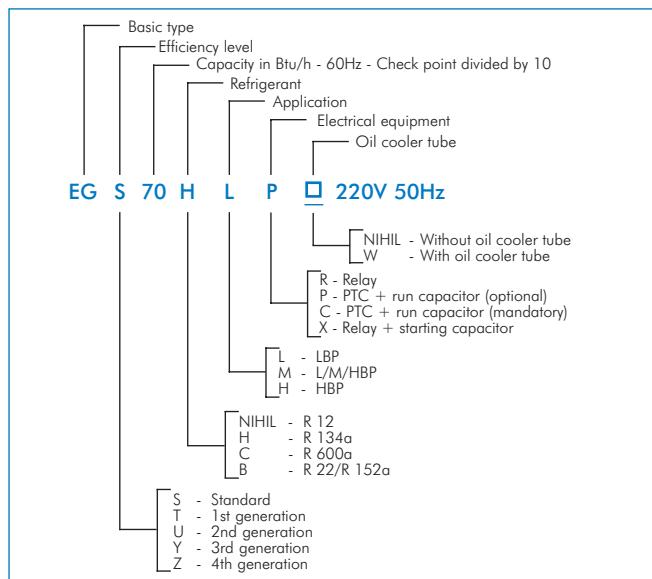
11.1) - F



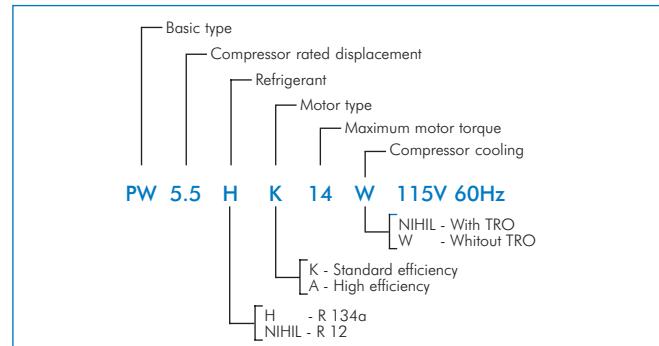
11.2) - EM



11.3) - EG



11.4) - PW



R 134a - Performance Table



APPLICATION	MODEL	VOLTAGE / FREQUENCY	DISPLACEMENT cm³	OPERATING VOLTAGE RANGE (V)	COOLING TYPE*	OIL VISCOSITY	CHECK POINT DATA CECOMAF (CALCULATED)	PERFORMANCE / EVAPORATING TEMPERATURE °C - ASHRAE																MOTOR TYPE	STARTING RELAY SUBASSEMBLY CODE	OVERLOAD PROTECTOR	RUN CAPACITOR µF	STARTING CAPACITOR µF					
								-35		-25		CHECK POINT DATA -23.3				-15		-5		0		+5		CHECK POINT DATA + 7.2				+10	+15				
								CAPACITY (W)	COP (W/W)	CAPACITY		POWER CONSUMPTION W	CURRENT CONSUMPTION A	EFFICIENCY		Btu/h	W	Btu/h	W	Btu/h	W	Btu/h	W	Btu/h	W	Btu/h	W	Btu/h	W	Btu/h	W		
										Btu/h	W	Btu/h	W	Btu/h	W	Btu/h	W	Btu/h	W	Btu/h	W	Btu/h	W	Btu/h	W	Btu/h	W						
EMI 28HER	115V 60Hz		98 - 140		S	ISO10	61	0.83	86	25	249	73	280	82	78	1.20	3.59	1.05	499	146	-	-	-	-	-	-	-	-	-	213514008	4TM283RFBYY-53	-	97-116
	220V 50-60Hz (50Hz data)	3.00	187 - 255		S	ISO10	53	0.74	78	23	211	62	245	72	76	0.75	3.22	0.94	406	119	-	-	-	-	-	-	-	-	LST / RSIR-CSIR	213514016	4TM718MFBBYY-53	-	50-60
	220V 50-60Hz (60Hz data)		187 - 242		S	ISO10	61	0.83	86	25	249	73	280	82	78	0.65	3.59	1.05	499	146	-	-	-	-	-	-	-	-	213514075	4TM734LFBBYY-53	-	64-77	
	115-127V 60Hz		98 - 140		S	ISO10	61	0.92	99	29	247	72	280	82	71	0.96	3.95	1.16	472	138	-	-	-	-	-	-	-	-	LST / RSIR-CSIR	213514032	4TM189KFBYY-53	-	72-88
	220-240V 50-60Hz (50Hz data)	3.00	198 - 255		S	ISO10	53	0.89	80	23	217	64	245	72	63	0.56	3.86	1.13	407	119	-	-	-	-	-	-	-	-	213514075	4TM734LFBBYY-53	-	64-77	
	220-240V 50-60Hz (60Hz data)		198 - 242		S	ISO10	61	0.92	99	29	247	72	280	82	71	0.51	3.95	1.16	472	138	-	-	-	-	-	-	-	-	213514032	4TM189KFBYY-53	-	72-88	
EM 30HNP	220-240V 50Hz	3.00	198 - 255	S	ISO22	46	0.77	70	21	190	56	210	62	64	0.45	3.30	0.97	367	108	-	-	-	-	-	-	-	-	LST / RSIR-RSCR	8EA5B3	4TM110NFBYY-53	2	-	
EM 30HNR	115V 60Hz		98 - 135		S	ISO10	66	0.90	94	28	265	78	305	89	78	1.03	3.90	1.14	490	144	-	-	-	-	-	-	-	-	213514075	4TM283NFBYY-53	-	88-108	
	220V 50-60Hz (50Hz data)	3.00	187 - 242		S	ISO10	54	0.79	74	22	209	61	250	73	74	0.62	3.40	1.00	397	116	-	-	-	-	-	-	-	-	LST / RSIR-CSIR	213514032	4TM189KFBYY-53	-	38-46
	220V 50-60Hz (60Hz data)		187 - 242		S	ISO10	66	0.87	94	28	265	78	305	89	81	0.56	3.75	1.10	490	144	-	-	-	-	-	-	-	-	213514075	4TM734LFBBYY-53	-	64-77	
EMI 30HEP	100V 50-60Hz (50Hz data)	3.00	85 - 110	S	ISO10	50	0.80	58	17	214	63	230	67	67	1.21	3.45	1.01	393	115	-	-	-	-	-	-	-	-	LST / RSIR	4R7MD	4TM276RFBYY-53	-	-	
EMI 30HER	100V 50-60Hz (60Hz data)		85 - 110	S	ISO10	60	0.84	64	19	242	71	275	81	76	1.12	3.62	1.06	474	139	-	-	-	-	-	-	-	-	213514008	4TM734LFBBYY-53	-	64-77		
	115-127V 60Hz		98 - 140		S	ISO10	66	0.95	102	30	275	81	305	89	74	0.99	4.10	1.20	482	141	-	-	-	-	-	-	-	-	LST / RSIR-CSIR	213514032	4TM189KFBYY-53	-	72-88
	220V 50-60Hz (50Hz data)	3.00	187 - 242		S	ISO10	53	0.89	78	23	211	62	245	72	64	0.56	3.84	1.13	420	123	-	-	-	-	-	-	-	-	213514008	4TM734LFBBYY-53	-	64-77	
EMI 30HSC	115V 60Hz	3.00	103 - 135	S	ISO10	67	1.00	110	32	292	86	310	91	72	0.65	4.3	1.26	505	148	-	-	-	-	-	-	-	-	LST / RSCR	490D314R7	4TM189RHBYY-53	12	-	
EMI 30HSR	115V 60Hz	3.00	103 - 135	S	ISO10	67	1.04	114	33	277	81	310	91	69	0.89	4.49	1.32	510	150	-	-	-	-	-	-	-	-	LST / RSIR	213514075	4TM283KFBYY-53	-	-	
EMU 30HER	115V 60Hz		98 - 140		S	ISO10	75	1.06	144	42	311	91	345	101	76	0.94	4.57	1.34	540	158	-	-	-	-	-	-	-	-	LST / RSIR	213514075	4TM283NFBYY-53	-	-
	220-240V 50-60Hz (50Hz data)	3.00	187 - 255		S	ISO10	60	0.98	108	32	247	72	275	81	65	0.55	4.23	1.24	443	130	-	-	-	-	-	-	-	-	LST / RSIR-CSIR	213514016	4TM718KFBYY-53	-	-
	220-240V 50-60Hz (60Hz data)		187 - 242		S	ISO10	75	1.05	144	42	311	91	345	101	76	0.52	4.54	1.33	540	158	-	-	-	-	-	-	-	-	P400E	4TM189RFBYY-53	-	-	
LBP	115V 60Hz		98 - 140		S	ISO10	72	0.89	125	37	292	86	330	97	86	1.20	3.85	1.13	548	161	-	-	-	-	-	-	-	-	213514008	4TM283RFBYY-53	-	97-116	
	220-240V 50-60Hz (50Hz data)	3.29	187 - 255		S	ISO10	58	0.77	88	26	232	68	265	78	80																		

R 134a - Performance Table



APPLICATION	MODEL	VOLTAGE / FREQUENCY	DISPLACEMENT cm³	OPERATING VOLTAGE RANGE (V)	COOLING TYPE*	OIL VISCOSITY	CHECK POINT DATA CECOMAF (CALCULATED)	PERFORMANCE / EVAPORATING TEMPERATURE °C - ASHRAE																MOTOR TYPE	STARTING RELAY SUBASSEMBLY CODE	OVERLOAD PROTECTOR	RUN CAPACITOR µF	STARTING CAPACITOR µF				
								-35		-25		CHECK POINT DATA -23.3				-15		-5		0		+5		CHECK POINT DATA + 7.2				+10	+15			
								CAPACITY (W)	COP (W/W)	CAPACITY		POWER CONSUMPTION W	CURRENT CONSUMPTION A	EFFICIENCY		Btu/h	W	Btu/h	W	Btu/h	W	Btu/h	W	Btu/h	W	Btu/h	W	Btu/h	W	Btu/h	W	
										Btu/h	W	Btu/h	W	Btu/h	W	Btu/h	W	Btu/h	W	Btu/h	W	Btu/h	W	Btu/h	W	Btu/h	W					
EM 55HNX	115-127V 60Hz	4.60	103 - 140	S/F	ISO22	115	0.94	216	63	438	128	530	155	130	1.73	4.07	1.19	777	228	-	-	-	-	-	-	-	-	HST / CSIR	213515292	4TM762KFBYY-53	-	145-175
	115-127V 60Hz		98 - 140			110	1.03	228	67	459	134	510	149	115	1.54	4.45	1.30	807	236	-	-	-	-	-	-	-	-	213514105	4TM757KDBYY-53	-	233-280	
EMI 55HER	220V 50-60Hz (50Hz data)	4.60	198 - 255	S/F	ISO22	91	0.97	199	58	387	113	420	123	100		4.20	1.23	672	197	-	-	-	-	-	-	-	-	LST / RSIR-CSIR	213514059	4TM718NFBYY-53	-	108-130
	220V 50-60Hz (60Hz data)		198 - 242			110	1.03	228	67	458	134	510	149	115		4.45	1.30	806	236	-	-	-	-	-	-	-	-	213514059	4TM718NFBYY-53	-	108-130	
EM 60HNP	220-240V 50Hz	5.54	198 - 255	S	ISO22	105	0.95	199	58	437	128	485	142	118	0.83	4.11	1.20	790	232	-	-	-	-	-	-	-	-	LST / RSIR-RSCR	8EA5B3	4TM213PFBYY-53	2	-
EMI 60HEP	100V 50-60Hz (50Hz data)		90 - 127			98	0.95	191	56	412	121	455	133	111	2.13	4.09	1.20	709	208	-	-	-	-	-	-	-	-	LST / RSIR	490C814R7	4TM427NFBYY-53	-	-
	100V 50-60Hz (60Hz data)		198 - 255	S	ISO10	124	1.05	270	79	524	153	571	167	126	1.89	4.54	1.33	869	255	-	-	-	-	-	-	-	-	7M220MC1	4TM189RHBYY-53	-	-	
	220-240V 50Hz		98 - 135			98	0.96	191	56	412	121	455	133	109	0.78	4.16	1.22	709	208	-	-	-	-	-	-	-	-	213514083	4TM762KFBYY-53	-	158-190	
EMI 60HER	220V 50-60Hz (50Hz data)	4.99	187 - 242	S	ISO22	102	0.90	215	63	421	123	470	138	121	1.05	3.88	1.14	738	216	-	-	-	-	-	-	-	-	LST / RSIR-CSIR	213514130	4TM718REBYY-53	-	70-84
	220V 50-60Hz (60Hz data)		187 - 242			124	0.99	241	71	511	150	570	167	133	0.93	4.28	1.25	907	266	-	-	-	-	-	-	-	-	213514130	4TM718REBYY-53	-	70-84	
EMI 60HSC	115V 60Hz	4.99	103 - 135	S	ISO10	124	1.07	249	73	515	151	570	167	123	1.20	4.65	1.36	904	265	-	-	-	-	-	-	-	-	LST / RSCR	8EA1B3	4TM283RFBYY-53	15	-
EMI 60HSR	115V 60Hz	4.99	98 - 140	S	ISO10	124	1.07	273	80	512	150	570	167	124	1.60	4.60	1.35	867	254	-	-	-	-	-	-	-	-	LST / RSIR	213514105	4TM757LFBYY-53	-	-
	220V 60Hz		198 - 242	S/F	ISO10	124	1.07	273	80	512	150	570	167	124	0.80	4.60	1.35	867	254	-	-	-	-	-	-	-	-	LST / RSIR	213514059	4TM734KFBYY-53	-	-
EMT 60HSC	115V 60Hz	4.99	103 - 135	S	ISO10	130	1.16	294	86	570	167	600	176	120	1.10	5.00	1.47	950	278	-	-	-	-	-	-	-	-	LST / RSCR	8EA3B3	4TM319RFBYY-53	15	-
EMU 60HEP	100V 50-60Hz (50Hz data)	4.99	85 - 110	S	ISO10	105	0.98	229	67	453	133	485	142	115	2.06	4.22	1.24	778	228	-	-	-	-	-	-	-	-	LST / RSIR	490C814R7	4TM427NFBYY-53	-	-
	100V 50-60Hz (60Hz data)		128			128	1.09	270	79	545	160	590	173	126	1.86	4.70	1.38	914	268	-	-	-	-	-	-	-	-	213514083	4TM762KFBYY-53	-	-	
EMU 60HER	115-127V 60Hz	4.99	98 - 140	S	ISO10	128	1.09	285	84	551	162	590	173	125	1.62	4.72	1.38	921	270	-	-	-	-	-	-	-	-	LST / RSIR	213514105	4TM757LFBYY-53	-	-
	115-127V 60Hz		198 - 242	S/F	ISO10	128	1.09	270	79	545	160	590	173	126	1.86	4.70	1.38	914	268	-	-	-	-	-	-	-	-	LST / RSCR	8EA3B3	4TM319NFBYY-53	12	-
EMU 60HLC	115V 60Hz	5.19	103 - 127	S	ISO10	131	1.16	286	84	550	161	605	177	121	1.22	5.00	1.47	956	280	-	-	-	-	-	-	-	-	LST / RSCR	8EA3B3	4TM319NFBYY-53	12	-
	115-127V 60Hz		103 - 140	S	ISO10	128	1.15	271	80	531	156	590	173	118	1.14	4.98	1.46	916	269	-	-	-	-	-	-	-	-	LST				

R 134a - Performance Table



APPLICATION	MODEL	VOLTAGE / FREQUENCY	DISPLACEMENT cm ³	OPERATING VOLTAGE RANGE (V)	COOLING TYPE*	OIL VISCOSITY	CHECK POINT DATA CECOMAF (CALCULATED)	PERFORMANCE / EVAPORATING TEMPERATURE °C - ASHRAE																MOTOR TYPE	STARTING RELAY SUBASSEMBLY CODE	OVERLOAD PROTECTOR	RUN CAPACITOR µF	STARTING CAPACITOR µF					
								-35		-25		CHECK POINT DATA -23.3				-15		-5		0		+5		CHECK POINT DATA + 7.2									
								CAPACITY W	COP (W/W)	CAPACITY		POWER CONSUMPTION W	CURRENT CONSUMPTION A	EFFICIENCY		CAPACITY	POWER CONSUMPTION W	CURRENT CONSUMPTION A	EFFICIENCY		CAPACITY	POWER CONSUMPTION W	CURRENT CONSUMPTION A	EFFICIENCY									
										Btu/h	W	Btu/h	W	Btu/h	W/W	Btu/h	W	Btu/h	W	Btu/h	W	Btu/h	W/W	Btu/h	W	Btu/h	W						
LBP	FGS 90HA	115-127V 60Hz	103 - 140	7.95	S	ISO10	204	1.22	401	118	821	241	940	275	178	1.66	5.28	1.55	1434	420	-	-	-	-	-	-	-	-	LST / RSCR	8EA1B3	4TM437NFBYY-53	20	-
		220-240V 50-60Hz (50Hz data)	198 - 255				173	1.22	358	105	687	201	800	234	152	0.78	5.26	1.54	1184	347	-	-	-	-	-	-	-	-	LST / RSIR-RSCR	8EA5B3	4TM283KFBYY-53	5	-
		220-240V 50-60Hz (60Hz data)	198 - 242				204	1.23	399	117	830	243	940	275	177	0.82	5.31	1.56	1433	420	-	-	-	-	-	-	-	-	LST / RSCR	7M220MC1	4TM283KFBYY-53	-	-
	FGU 90HA	115-127V 60Hz	7.55	98 - 140	S	ISO10	204	1.26	415	122	852	250	940	275	172	1.70	5.45	1.60	1447	424	-	-	-	-	-	-	-	-	LST / RSCR	7M4R7MB3	4TM445NFBYY-53	12	-
	FGT 90HA	115V 60Hz	7.95	103 - 135	S	ISO10	202	1.25	436	128	843	247	930	273	172	1.59	5.40	1.58	1482	434	-	-	-	-	-	-	-	-	LST / RSCR	8EA1B3	4TM427NFBYY-53	20	-
	FGS 100HA	115V 60Hz	103 - 135	9.04	S	ISO10	231	1.23	461	135	956	280	1065	312	200	1.80	5.33	1.56	1651	484	-	-	-	-	-	-	-	-	LST / RSIR-RSCR	8EA1B3	4TM427RFBYY-53	20	-
		220-240V 50-60Hz (50Hz data)	198 - 255				184	1.18	376	110	778	228	850	249	167	0.97	5.10	1.49	1312	384	-	-	-	-	-	-	-	-	LST / RSCR	8EA5B3	4TM276RFBYY-53	5	-
		220-240V 50-60Hz (60Hz data)	187 - 255				458	134	969	284			1618	474	-	-	-	-	-	-	-	-	-	-	-	-	-	LST / RSCR	8EA5B3	4TM276RFBYY-53	-	-	
	FF 11HAK	220-240V 50Hz	10.61	198 - 255	S	ISO22	191	0.95	407	119	795	233	880	258	215	1.61	4.09	1.20	1378	404	-	-	-	-	-	-	-	-	LST / RSIR	213516078	4TM757KFBYY-53	-	-
	FGV 110HA	220-240V 50Hz	9.04	198 - 255	S	ISO22	184	1.07	364	107	771	226	850	249	185	1.21	4.59	1.35	1318	386	-	-	-	-	-	-	-	-	LST / RSIR	8EA5B1	4TM189RFBYY-53	-	-
	FGS 130HA	115V 60Hz	103 - 135	11.14	S	ISO22	282	1.16	558	163	1188	348	1300	381	260	2.52	5.00	1.47	2002	587	-	-	-	-	-	-	-	-	LST / RSCR	7M4R7MD3	4TM795NFBYZ-53	20	-
		220-240V 50Hz	198 - 255				235	1.18	495	145	969	284	1080	317	213	1.12	5.07	1.49	1703	499	-	-	-	-	-	-	-	-	LST / RSCR	8EA5B3	4TM283RFBYZ-53	5	-
		220V 60Hz	198 - 242				277	1.17	558	164	1180	346	1275	374	253	1.36	5.04	1.48	2006	588	-	-	-	-	-	-	-	-	LST / RSCR	8EA5B3	4TM319NFBYZ-53	-	-
	EG 60HLR	220-240V 50Hz	5.96	170 - 255	S	ISO22	123	1.09	246	72	513	150	565	166	120	0.99	4.71	1.38	900	264	-	-	-	-	-	-	-	-	LST / RSIR-CSIR	213516116	4TM283KFBYY-53	-	72-88
	EGS 60HLP	115-127V 60Hz	5.56	103 - 140	S	ISO10	130	1.19	246	72	549	161	600	176	117	1.05	5.13	1.50	1010	296	-	-	-	-	-	-	-	-	LST / RSCR	8EA3B3	4TM283RFBYY-53	20	-
	EGT 60HLC	115-127V 60Hz	5.56	98 - 140	S	ISO10	130	1.23	221	65	543	159	600	176	113	1.01	5.31	1.56	963	282	-	-	-	-	-	-	-	-	LST / RSCR	8EA1B3	4TM283RFBYY-53	20	-
	EGU 60HLC	115-127V 60Hz	5.56	98 - 140	S	ISO10	130	1.26	221	65	543	159	600	176	111	1.03	5.41	1.59	963	282	-	-	-	-	-	-	-	-	LST / RSCR	7M4R7MD2	4TM283ULBY-53	20	-
	EGY 60HLP	115-127V 60Hz	5.56	98 - 140	S	ISO10	135	1.31	274	80	585	171	620	182	112	0.99	5.55	1.63	1016	298	-	-	-	-	-	-	-	-	LST / RSIR-RSCR	8EA3B3	4TM319NFBYY-53	12	-
	EG 70HLR	220-240V 50Hz	6.76	170 - 255	S	ISO22	142	1.10	292	85	592	174	655	192	138	1.11	4.75	1.39	1051	308	-	-	-	-	-	-	-	-	LST / RSIR-CSIR	213516159	4TM302KFBYY-53	-	72-88
	EG 75HLR	115-127V 60Hz	6.76	98 - 140	S	ISO10	175	1.16	380	111	728	213	805	236	161	2.03	5.00	1.47	1268	372	-	-	-	-	-	-	-	-	LST / RSIR-CSIR	213516272	4TM762MFBYZ-53	-	175-228
	EGS 70HLP	115-127V 60Hz	6.36	103 - 140	S	ISO10	153	1.22	267	78	627	184	705	207	134	1.23	5.24	1.54	1110	325	-	-	-	-	-	-	-	-	LST / RSIR-RSCR	490D314R7	4TM427NFBYY-53	20	-
	EGU 70HLC	115-127V 60Hz	94 - 140	6.36	S	ISO10	152	1.29	292	86	633	186	700	205	126	1.14	5.57	1.63	1113	326	-	-	-	-	-	-	-	-	LST / RSIR-RSCR	8EA3B3	4TM427NFBYY-53	15	-
		220-240V 50-60Hz (50Hz data)	198 - 255				130	1.24	266	78	538	158	600	176	112	0.56	5.36	1.57	994	291	-	-	-	-	-	-	-	-	LST / RSCR	8EA5B3	4TM197NFBYY-53	5	-
		220-240V 50-60Hz (60Hz data)	198 - 242				152	1.27	292	86	633	186	700	205	127	0.60	5.50	1.61	1113	326	-	-	-	-	-	-	-	-	LST / RSCR	8EA5B3	4TM197NFBYY-53	-	-
	EGY 70HLP	115-127V 60Hz	5.96	98 - 140	S	ISO10	149	1.34	304	89	622	182	685	201	121	1.07	5.67	1.66	1093	320	-	-	-	-	-	-	-	-	LST / RSIR-RSCR	8EA3B3	4TM319RFBYY-53	12	-
	EGZ 70HLP	115-127V 60Hz	5.57	98 - 140	S	ISO10	152	1.37	306	90	617	181	700	205	119	1.06	5.90	1.73	1166	342	-	-	-	-	-	-	-	-	LST / RSCR	TSD - 115V	4TM319RFBYY-53	12	-
	EG 80HLR	220-240V 50Hz	7.15	170 - 255	S	ISO22	152	1.09	33																								

Note: Condensing Temperature 54.4°C (129.92°F)

*Static Cooling (S) / Fan Cooling (F)

CODE 03014

R 134a - Performance Table



APPLICATION	MODEL	VOLTAGE / FREQUENCY	DISPLACEMENT cm³	OPERATING VOLTAGE RANGE (V)	COOLING TYPE*	OIL VISCOSITY	CHECK POINT DATA CECOMAF (CALCULATED)	PERFORMANCE / EVAPORATING TEMPERATURE °C - ASHRAE																MOTOR TYPE	STARTING RELAY SUBASSEMBLY CODE	OVERLOAD PROTECTOR	RUN CAPACITOR µF	STARTING CAPACITOR µF						
								-35		-25		CHECK POINT DATA -23.3				-15		-5		0		+5		CHECK POINT DATA +7.2				+10	+15					
								CAPACITY (W)	COP (W/W)	CAPACITY		POWER CONSUMPTION W	CURRENT CONSUMPTION A	EFFICIENCY		Btu/h Wh	W/W	Btu/h	W	Btu/h	W	Btu/h Wh	W/W	Btu/h	W	Btu/h	W	Btu/h	W	Btu/h	W			
										Btu/h	W	Btu/h	W	Btu/h	W	Btu/h	W/W	Btu/h	W	Btu/h	W	Btu/h	W	Btu/h	W/W	Btu/h	W	Btu/h	W	Btu/h	W			
L/M/BPP	FFI 6HAK	115V 60Hz	98 - 135	S	ISO22	147	0.99	301	88	619	181	680	199	160	2.32	4.25	1.25	1046	306	1798	527	-	-	-	-	-	-	-	-	-	213516272	4TM762NFBZZ-53	158-190	
		220V 50-60Hz (50Hz data)	6.23			126	0.91	221	65	518	152	580	170	148	1.37	3.92	1.15	913	268	1491	437	-	-	-	-	-	-	-	-	-	LST / RSIR-CSIR	213516159	4TM743KDBYY-53	-
		220V 50-60Hz (60Hz data)	187 - 242			147	0.99	258	76	608	178	675	198	158	1.17	4.27	1.25	1080	317	1815	532	-	-	-	-	-	-	-	-	-	64-77			
	FFI 7.5HAK	115V 60Hz	98 - 135	S	ISO10	166	1.08	361	106	690	202	765	224	164	2.24	4.67	1.37	1230	360	1979	580	-	-	-	-	-	-	-	-	-	213516060	4TM762PFBZZ-53	175-228	
		220-240V 50-60Hz (50Hz data)	6.76			141	1.00	267	78	600	176	648	190	149	1.30	4.35	1.27	1028	301	1603	470	-	-	-	-	-	-	-	-	-	LST / RSIR-CSIR	213516159	4TM743KDBYY-53	-
		220-240V 50-60Hz (60Hz data)	187 - 242			167	1.09	361	106	695	204	770	226	164	1.18	4.70	1.38	1234	362	1984	581	-	-	-	-	-	-	-	-	-	64-77			
	FFU 70HAK	115-127V 60Hz	98 - 140	S/F	ISO10	163	1.18	319	93	676	198	750	220	147	1.93	5.10	1.49	1182	346	1893	555	-	-	-	-	-	-	-	-	-	213516583	4TM762MFBZZ-53	175-228	
		220-240V 50-60Hz (50Hz data)	6.36			137	1.13	274	80	568	166	630	185	129	1.07	4.88	1.43	998	293	1609	471	-	-	-	-	-	-	-	-	-	LST / RSIR-CSIR	213516353	4TM283NFBYY-53	-
		220-240V 50-60Hz (60Hz data)	187 - 255			163	1.18	319	93	676	198	750	220	147	1.00	5.10	1.49	1182	346	1893	555	-	-	-	-	-	-	-	-	-	64-77			
	FFV 7.5HAK	115-127V 60Hz	98 - 140	S	ISO10	166	1.16	332	97	689	202	765	224	153	2.00	5.00	1.47	1223	358	1979	580	-	-	-	-	-	-	-	-	-	213516272	4TM762MFBZZ-53	175-228	
		220-240V 50-60Hz (50Hz data)	6.76			141	1.11	296	87	597	175	650	190	136	1.13	4.78	1.40	1025	300	1636	479	-	-	-	-	-	-	-	-	-	LST / RSIR-CSIR	213516159	4TM319KFBYY-53	-
		220-240V 50-60Hz (60Hz data)	187 - 242			166	1.16	332	97	692	203	765	224	153	1.03	5.00	1.47	1234	362	2028	594	-	-	-	-	-	-	-	-	-	64-77			
	FFI 8.5HAK	115V 60Hz	98 - 135	S	ISO10	180	1.12	363	106	738	216	830	243	171	2.33	4.85	1.42	1319	387	2084	611	-	-	-	-	-	-	-	-	-	213516132	4TM762NFBZZ-53	243-292	
		220-240V 50-60Hz (50Hz data)	7.15			152	1.07	318	93	640	188	700	205	152	1.35	4.60	1.35	1098	322	1733	508	-	-	-	-	-	-	-	-	-	LST / RSIR-CSIR	213516078	4TM757KDBYY-53	-
		220-240V 50-60Hz (60Hz data)	187 - 242			180	1.12	363	107	753	221	830	243	171	1.21	4.85	1.42	1317	386	2115	620	-	-	-	-	-	-	-	-	-	64-77			
	FFU 80HAK	115-127V 60Hz	98 - 140	S/F	ISO10	177	1.18	381	112	737	216	815	239	160	2.25	5.10	1.49	1292	379	2053	602	-	-	-	-	-	-	-	-	-	213516094	4TM762PFBZZ-53	243-292	
		220-240V 50-60Hz (50Hz data)	6.76			147	1.11	307	90	620	182	680	199	142	1.30	4.80	1.41	1041	305	1702	499	-	-	-	-	-	-	-	-	-	LST / RSIR-CSIR	213516086	4TM743KDBYY-53	-
		220-240V 50-60Hz (60Hz data)	187 - 242			177	1.18	380	111	737	216	815	239	160	1.18	5.10	1.49	1292	379	2055	602	-	-	-	-	-	-	-	-	-	108-130			
	FFV 8.5HAK	115-127V 60Hz	98 - 140	S	ISO10	180	1.16	382	112	766	225	830	243	166	2.23	5.00	1.47	1361	399	2126	623	-	-	-	-	-</td								

R 134a - Performance Table



APPLICATION	MODEL	VOLTAGE / FREQUENCY	DISPLACEMENT cm³	OPERATING VOLTAGE RANGE (V)	COOLING TYPE*	OIL VISCOSITY	CHECK POINT DATA CECOMAF (CALCULATED)	PERFORMANCE / EVAPORATING TEMPERATURE °C - ASHRAE																MOTOR TYPE	STARTING RELAY SUBASSEMBLY CODE	OVERLOAD PROTECTOR	RUN CAPACITOR µF	STARTING CAPACITOR µF											
								-35		-25		DADOS CHECK POINT -23.3				-15		-5		0		+5		CHECK POINT DATA + 7.2				+10		+15									
								CAPACITY (W)	COP (W/W)	CAPACITY		POWER CONSUMPTION W		CURRENT CONSUMPTION A		EFFICIENCY		Btu/h	W	Btu/h	W	Btu/h	W	Btu/h	W	Btu/h	W	Btu/h	W										
										Btu/h	W	Btu/h	W	Btu/h	W	Btu/h	W	Btu/h	W	Btu/h	W	Btu/h	W	Btu/h	W	Btu/h	W	Btu/h	W										
M/HBP	EM 20HBR	115V 60Hz	2.27	98 - 140	S/F	ISO22	214	1.87	-	-	-	-	-	-	-	-	-	-	579	170	729	214	912	267	985	289	122	1.31	8.07	2.37	1128	331	1377	404	LST / RSIR	213514180	4TM730KFBYY-53	-	-
		220V 50Hz					186	2.00	-	-	-	-	-	-	-	-	-	-	477	140	609	179	767	225	855	251	99	0.64	8.64	2.53	951	279	1160	340	LST / RSIR-CSIR	213514032	4TM189NFBYY-53	-	70-84
		220V 60Hz					221	1.90	-	-	-	-	-	-	-	-	-	-	617	181	745	218	915	268	1020	299	124	0.69	8.23	2.41	1125	330	1376	403	LST / RSIR	4TM189KFBYY-53	-	-	
	EM 65HHR	115V 60Hz	5.54	103 - 135	F	ISO22	564	1.98	-	-	-	-	-	-	-	-	-	-	1531	449	1899	556	2329	682	2600	762	305	3.45	8.52	2.50	2821	827	3375	989	LST / RSIR	213514121	5TM 771RFBZZ-53	-	270-324
		220V 50-60Hz (50Hz data)					477	1.89	-	-	-	-	-	-	-	-	-	-	1327	389	1657	486	2026	594	2200	645	270	1.91	8.15	2.39	2434	713	2881	844	LST / RSIR-CSIR	213514172	4TM743KDBYY-53	-	88-108
		220V 50-60Hz (60Hz data)					567	1.97	-	-	-	-	-	-	-	-	-	-	1617	474	1987	582	2411	707	2615	766	308	1.77	8.49	2.49	2891	847	3424	1004	LST / RSIR	213514121	5TM 771RFBZZ-53	-	88-108
	FFI 12HBX	220-240V 50Hz	11.14	198 - 255	F	ISO22	939	2.01	-	-	-	-	-	-	-	-	-	-	2581	757	3257	955	4015	1177	4330	1269	499	2.83	8.68	2.54	4854	1423	5775	1692	HST / CSIR	213516450	4TM757UFBYY-53	-	88-108
HBP	EM 55HHR	115V 60Hz	4.60	98 - 135	F	ISO22	466	1.99	-	-	-	-	-	-	-	-	-	-	1250	366	1556	456	1917	562	2150	630	250	2.85	8.60	2.52	2333	684	2803	822	LST / RSIR	213514067	4TM762NFBZZ-53	-	-
		220-240V 50-60Hz (50Hz data)					394	2.13	-	-	-	-	-	-	-	-	-	-	1117	327	1367	401	1661	487	1820	533	198	1.25	9.19	2.69	1997	585	2377	697	LST / RSIR	213514130	4TM734KDBYY-53	-	-
		220-240V 50-60Hz (60Hz data)					466	2.05	-	-	-	-	-	-	-	-	-	-	1292	379	1612	472	1982	581	2150	630	242	1.35	8.88	2.60	2400	704	2868	841	LST / RSIR	213514130	4TM734LFBYY-53	-	-
	EM 65HHR	220-240V 50Hz	5.54	198 - 255	F	ISO22	473	2.06	-	-	-	-	-	-	-	-	-	-	1388	407	1626	476	1940	569	2180	639	245	1.42	8.90	2.61	2332	683	2800	821	LST / RSIR	213514130	4TM734LFBYY-53	-	-
	EMI 70HDR	115V 60Hz	5.89	103 - 135	S/F	ISO22	610	1.96	-	-	-	-	-	-	-	-	-	-	1743	511	2134	625	2587	758	2815	825	333	3.68	8.45	2.48	3101	909	3677	1078	LST / RSIR	213514121	4TM771RFBZZ-53	-	-

Note: Condensing Temperature 54.4°C (129.92°F)

* Static Cooling (S) / Fan Cooling (F)

R 600a - Performance Table



APPLICATION	MODEL	VOLTAGE / FREQUENCY	DISPLACEMENT cm³	OPERATING VOLTAGE RANGE (V)	COOLING TYPE*	OIL VISCOSITY	CHECK POINT DATA CECOMAF (CALCULATED)	PERFORMANCE / EVAPORATING TEMPERATURE °C - ASHRAE																MOTOR TYPE	STARTING RELAY SUBASSEMBLY CODE	OVERLOAD PROTECTOR	RUN CAPACITOR µF	STARTING CAPACITOR µF
								-35		-25		DADOS CHECK POINT -23.3				-15		-5		0		+5						

R 12 - Performance Table



APPLICATION	MODEL	VOLTAGE / FREQUENCY	DISPLACEMENT cm³	OPERATING VOLTAGE RANGE (V)	COOLING TYPE*	OIL VISCOSITY	CHECK POINT DATA CECOMAF (CALCULATED)	PERFORMANCE / EVAPORATING TEMPERATURE °C - ASHRAE																								MOTOR TYPE	STARTING RELAY SUBASSEMBLY CODE	OVERLOAD PROTECTOR	RUN CAPACITOR μF	STARTING CAPACITOR μF		
								-35		-25		CHECK POINT DATA -23.3				-15		-5		0		+5		CHECK POINT DATA + 7.2				+10		+15								
								CAPACITY Btu/h		W		CAPACITY Btu/h		W		POWER CONSUMPTION W		CURRENT CONSUMPTION A		EFFICIENCY		CAPACITY Btu/h		W		Btu/h		W		Btu/h		W						
								Btu/h	W	Btu/h	W	Btu/h	W	Btu/h	W	Btu/h	W	Btu/h	W	Btu/h	W	Btu/h	W	Btu/h	W	Btu/h	W	Btu/h	W	Btu/h	W	MOTOR TYPE	STARTING RELAY SUBASSEMBLY CODE	OVERLOAD PROTECTOR	RUN CAPACITOR μF	STARTING CAPACITOR μF		
LBP	EM 20NP	220-240V 50Hz	2.27	198 - 255	S	ISO32	37	0.62	40	12	139	41	165	48	61	0.36	2.70	0.79	274	80	-	-	-	-	-	-	-	-	-	-	LST / RSIR-RSCR	8EA5B3	4TM110NFBYY-53	4	-			
	EM 20NR	115V 60Hz	2.27	103 - 127	S	ISO32	46	0.72	80	23	184	54	205	60	66	0.80	3.10	0.91	341	100	-	-	-	-	-	-	-	-	-	-	-	LST / RSIR-CSIR	213514024	4TM711MHBYY-53	-	145-175		
	EM 20NR	220V 60Hz	2.27	198 - 242	S	ISO32	55	0.73	102	30	219	64	245	72	78	0.33	3.16	0.93	393	115	-	-	-	-	-	-	-	-	-	-	-	213514032	4TM703KFBYY-53	-	38-46			
	EM 30NP	220-240V 50Hz	3.00	198 - 255	S	ISO32	55	0.73	102	30	219	64	245	72	78	0.33	3.16	0.93	393	115	-	-	-	-	-	-	-	-	-	-	-	LST / RSIR-RSCR	8EA5B3	4TM134NFBYY-53	4	-		
	EM 30NR	115V 60Hz	3.00	103 - 127	S	ISO32	71	0.82	139	41	284	83	315	92	89	1.10	3.54	1.04	494	145	-	-	-	-	-	-	-	-	-	-	-	213514008	4TM734LFBYY-53	-	145-175			
	EM 30NR	220V 60Hz	3.00	198 - 242	S	ISO32	71	0.82	139	41	284	83	315	92	89	0.60	3.54	1.04	494	145	-	-	-	-	-	-	-	-	-	-	-	213514016	4TM711KFBYY-53	-	38-46			
	EM 30SC	115V 60Hz	3.00	103 - 135	S	ISO32	71	0.93	139	41	284	83	315	92	78	0.73	4.01	1.18	494	145	-	-	-	-	-	-	-	-	-	-	-	LST / RSCR	8EA4B3	4TM197NFBYY-53	12	-		
	EM 30SC	115-127V 60Hz	3.00	98 - 140	S	ISO32	79	0.95	116	34	306	90	350	103	85	1.07	4.10	1.20	540	158	-	-	-	-	-	-	-	-	-	-	-	213514008	4TM734LFBYY-53	-	64-77			
	EMI 30ER	220V 50-60Hz (50Hz data)	3.00	187 - 242	S	ISO32	65	0.92	88	26	242	71	290	85	73	3.95	1.16	484	142	-	-	-	-	-	-	-	-	-	-	-	LST / RSIR-CSIR	213514032	4TM189KFBYY-53	-	72-88			
	EMI 30ER	220V 50-60Hz (60Hz data)	3.00	187 - 242	S	ISO32	79	0.95	116	34	306	90	350	103	85	0.57	4.10	1.20	540	158	-	-	-	-	-	-	-	-	-	-	-	LST / RSIR-CSIR	213514032	4TM189KFBYY-53	-	72-88		
	EM 40NP	220-240V 50Hz	3.77	198 - 255	S	ISO32	79	0.83	160	47	309	91	350	103	98	0.61	3.57	1.05	517	152	-	-	-	-	-	-	-	-	-	-	-	LST / RSIR-RSCR	8EA5B3	4TM189NFBYY-53	4	-		
	EM 40NR	115V 60Hz	3.77	103 - 127	S	ISO32	95	0.85	202	59	389	114	420	123	114	1.45	3.68	1.08	642	188	-	-	-	-	-	-	-	-	-	-	-	213514040	4TM743PFBYY-53	-	145-175			
	EM 40NR	220V 60Hz	3.77	198 - 242	S	ISO32	95	0.85	202	59	389	114	420	123	114	0.75	3.68	1.08	642	188	-	-	-	-	-	-	-	-	-	-	-	213514059	4TM711MHBYY-53	-	38-46			
	EM 40SC	115V 60Hz	3.77	103 - 115	S	ISO32	96	1.00	189	55	389	114	425	125	99	0.86	4.29	1.26	645	189	-	-	-	-	-	-	-	-	-	-	-	LST / CSCR	8EA4B3	4TM724REBYY-53	12	77-64		
	EM 40SC	115-127V 60Hz	3.77	98 - 140	S	ISO32	109	1.01	214	63	338	99	485	142	111	1.34	4.37	1.28	757	222	-	-	-	-	-	-	-	-	-	-	-	LST / RSIR	213514040	4TM757KFBYY-53	-	-		
	EMI 45ER	220V 50-60Hz (50Hz data)	3.77	187 - 242	S	ISO32	85	0.95	139	41	336	99	380	111	93	0.77	4.10	1.20	604	177	-	-	-	-	-	-	-	-	-	-	-	LST / RSIR-CSIR	213514016	4TM724KFBYY-53	-	50-60		
	EMI 45ER	220V 50-60Hz (60Hz data)	3.77	187 - 242	S	ISO32	109	1.01	175	51	413	121	485	142	111	0.71	4.37	1.28	741	217	-	-	-	-	-	-	-	-	-	-	-	LST / RSIR-CSIR	213514016	4TM724KFBYY-53	-	50-60		
	EM 55NP	220-240V 50Hz	4.99	198 - 255	S	ISO32	106	0.86	242	71	425	125	470	138	126	0.81	3.73	1.09	709	208	-	-	-	-	-	-	-	-	-	-	-	LST / RSIR-RSCR	8EA5B3	4TM189RHBYY-53	-	-		
	EM 55NR	115V 60Hz	4.99	103 - 135	S	ISO32	132	0.93	286	84	528	155	585	171	146	1.87	4.01</																					