

EMBRACO scroll

Air Conditioning
application for
replacement



think ahead

embraco
Nidec

from 1.5 to 5 ton, for
Residential Air Conditioning



ready for sales in the USA



multiple refrigerant options
– R410A and R22



capacity range, and service kits to minimize effort to replace Copeland and LG.



Main Applications



Packaged systems
(rooftop)



Residential A/C for central
ducted systems

Portfolio

Refrigerant	Power Source	Embraco Model	Tons	Displacement (cc/Rev.)	Capacity [BTU/h]	EER [BTU/Wh]	Capacitor	Copeland	LG
R410A	208-230V 60Hz 1~	EAF22H-C1	1.7	21.6	22,428	8.97	50μF/440V	ZP22K6E-PFV	APA024KA*
		EAF25H-C1	2	25.0	25,165	9.11	60μF/440V	ZP25K5E-PFV	APA026KA*
		EAF32H-C1	2.6	30.5	30,426	9.18	70μF/440V	ZP31K6E-PFV	APA032KA*
		EAF36H-C1	3	34.8	37,104	10.13	70μF/440V	ZP36K5E-PFV	ABA036KA*
		EAF42H-C1	3.5	40.1	43,051	10.27	100μF/450V	ZP42K5E-PFV	ABA042KA*
		EAF49H-C1	4	45.8	49,200	10.37	100μF/450V	ZP49K5E-PFV	ABA049KA*
		EAF54H-C1	4.5	50.0	54,158	10.24	100μF/450V	ZP54K5E-PFV	ABA054KA*
		EAF61H-C1	5	57.5	61,869	10.27	100μF/450V	ZP61K5E-PFV	N/A
R22	208-230V 60Hz 1~	EAF22E-C1	1.7	28.8	21,172	10.44	50μF/440V	ZR22K3-PFV	N/A
		EAF25E-C1	2	34.8	26,041	10.85	60μF/440V	ZR26K3-PFV	N/A
		EAF32E-C1	2.6	42.7	31,126	10.92	70μF/440V	ZR32K3-PFV	N/A
		EAF36E-C1	3	48.0	35,984	11.12	70μF/440V	ZR36K3-PFV	SBA040KA
		EAF42E-C1	3.5	57.5	40,130	10.51	100μF/450V	ZR42K3-PFV	N/A
		EAF49E-C1	4	67.2	46,388	10.68	100μF/450V	ZR48K3-PFV	N/A
		EAF54E-C1	4.5	73.6	51,093	10.27	100μF/450V	ZR54K3-PFV	N/A
		EAF61E-C1	5	82.0	56,935	10.48	100μF/450V	ZR61KC-PFV	N/A

*Replacements based on +/- 10% actual capacity

Standard Spare parts: supplied with compressors

Part Name	Quantity	Picture
E-box	1	
T terminal	1	
Grommets	4	
Sleeves	4	
Re-piping kit*	1	

*Specific re-pipe kit for each compressor replacement

Packaging - Single box



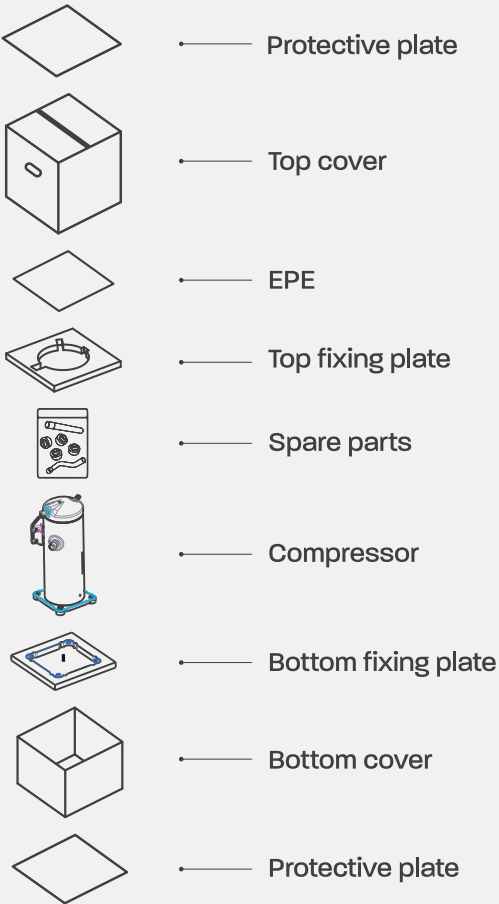
Single Box Packaging			
Frame	Quantity / Pallet	Dimensions	Quantity / Container 20ft
150	9	44.1 x 4.1 x 22.4 in	270

Optional accessories

Part Name	Quantity	Picture
Crankcase heater	1	
Capacitor	1	
Noise jacket	1	

*50/60/70µF Capacitor: NOT INCLUDED. Must be supplied by wholesaler following compressor specifications.

*100µF Capacitor: Included with compressors.



Compressor Label



MODEL: EAF22H-C1-NABA



SERIAL: 00000000000





THERMALLY PROTECTED | MADE IN CHINA
Nidec Global Appliance

REFRIGERANT	OIL TYPE	OIL CHARGE	VOLTAGE	PH	FREQUENCY	DISPLACEMENT	RUN CAP.	LRA	RLA	I-OPER MAX
R410A	POE	1.4 L	208-230 V	1 ~	60 Hz	21.6 cc	50 uF	102 A	12.4 A	17.3 A

Chamber	LP side	HP side
PED Module/Category	A2 / II	SEP
PS	19.0 bar 275.5 psi	42.0 bar 609.0 psi
TS max	43 C / 109 F	150 C / 302 F
TS min	-40 C / -40 F	-40 C / -40 F



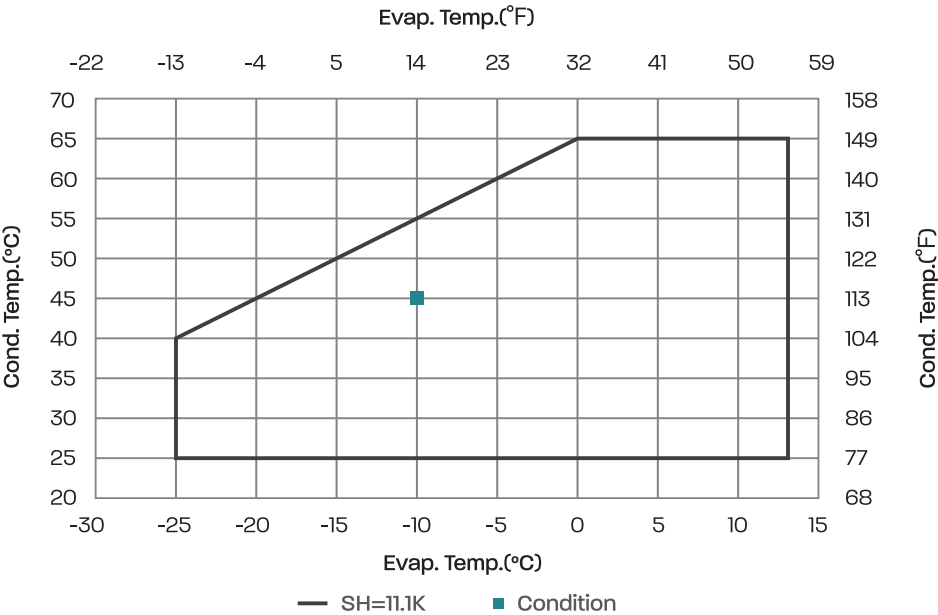
WARNING

Service should be performed by trained personnel only. Failure to follow these safety warnings could result in serious injury or death. **ELECTRICAL SHOCK HAZARD.** Turn off power before servicing. Discharge all capacitors. Use this equipment in a grounded system only. Wear protective goggles. System contains oil and refrigerant under pressure. Remove pressure from both high and low side before removing compressor. Use tubing cutter to remove compressor. Do not use torch. Refer to applicable system wiring diagram. Replace terminal cover, if applicable, before applying power.

CAUTION

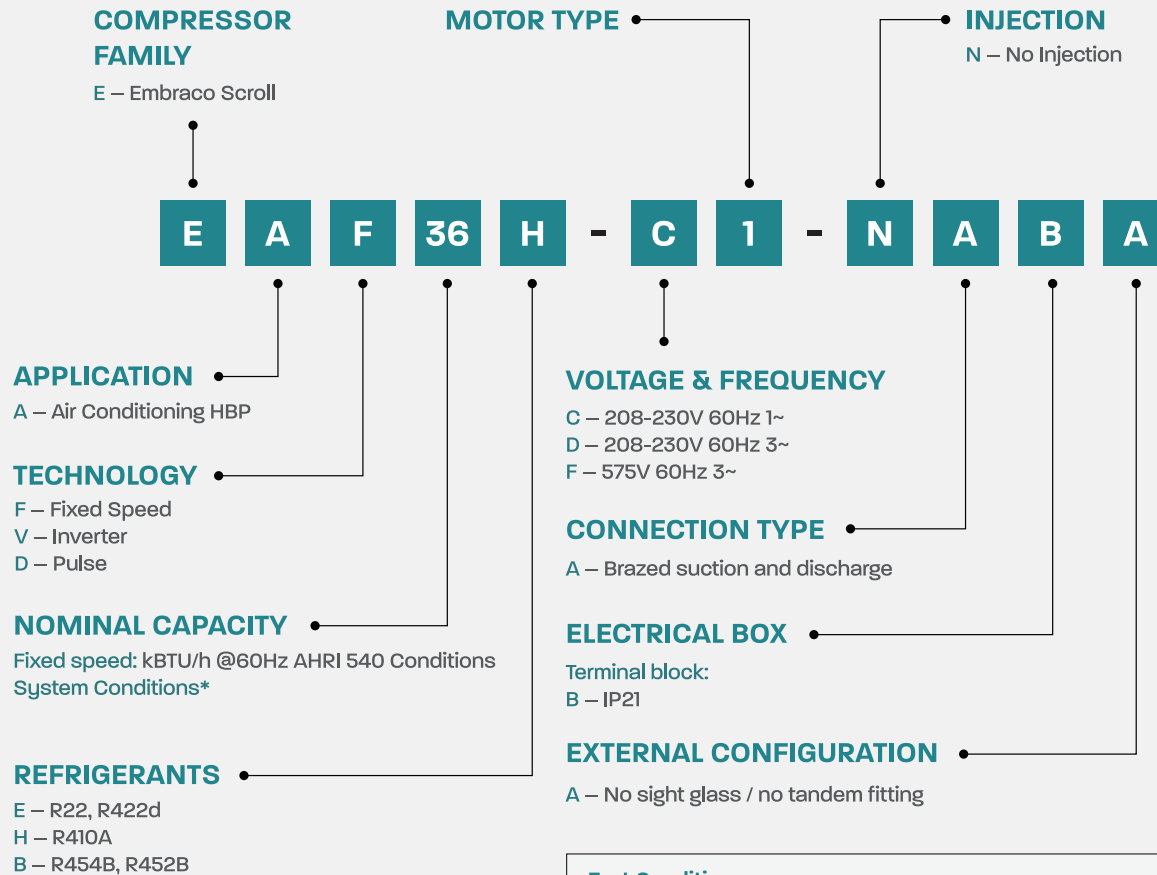
Use only approved refrigerants and lubricants and electrical components in the manner approved by the Manufacturer. For details contact manufacturer. Any others may be dangerous, and could cause fires, explosions, or electrical shorting.

Envelope



Always operate within the limits shown in the envelope for a safe operating condition.

Embraco Scroll Nomenclature

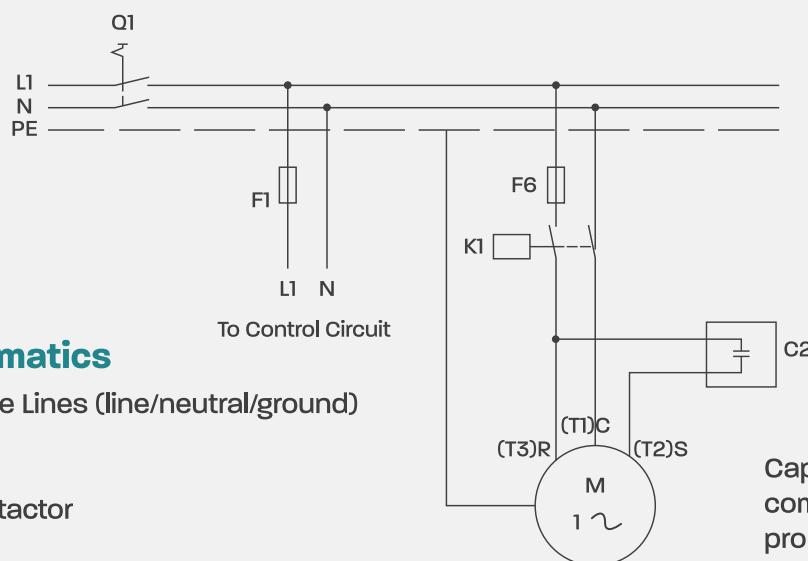

Test Condition:

AHRI 540 HBP / A/C: E.T. 7.2°C (45°F), C.T. 54.4°C (130°F),
SH 11.1K 20°F, SC 8.3K (15°F) - 60 Hz

Electrical Diagram



Access our technical documents



Capacitor use on 1ph compressors is mandatory for proper compressor operation.

Electrical Schematics

L1/N/PE: Single Phase Lines (line/neutral/ground)

Q1: Manual Switch

F1/F6: Fuse

K1: Compressor Contactor

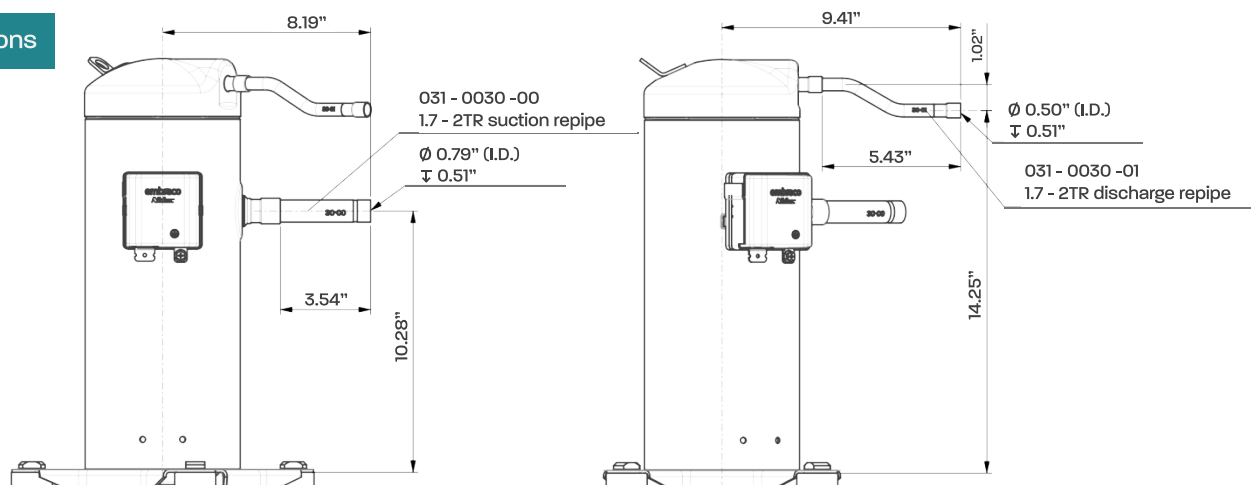
C1: Run Capacitor

M: Compressor Motor

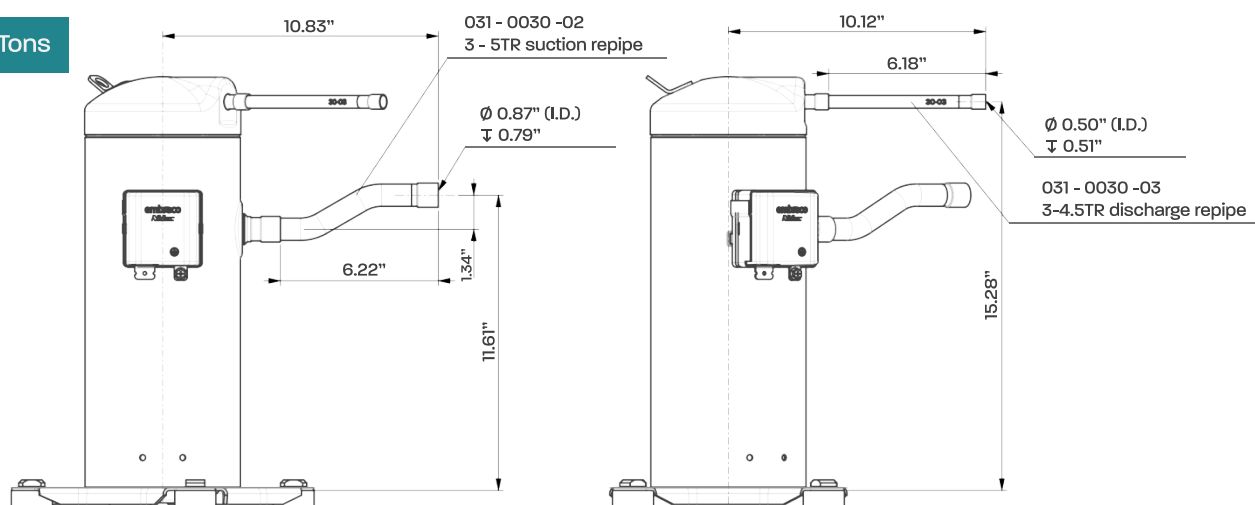
R/C/S: Compressor Terminal

Drawing

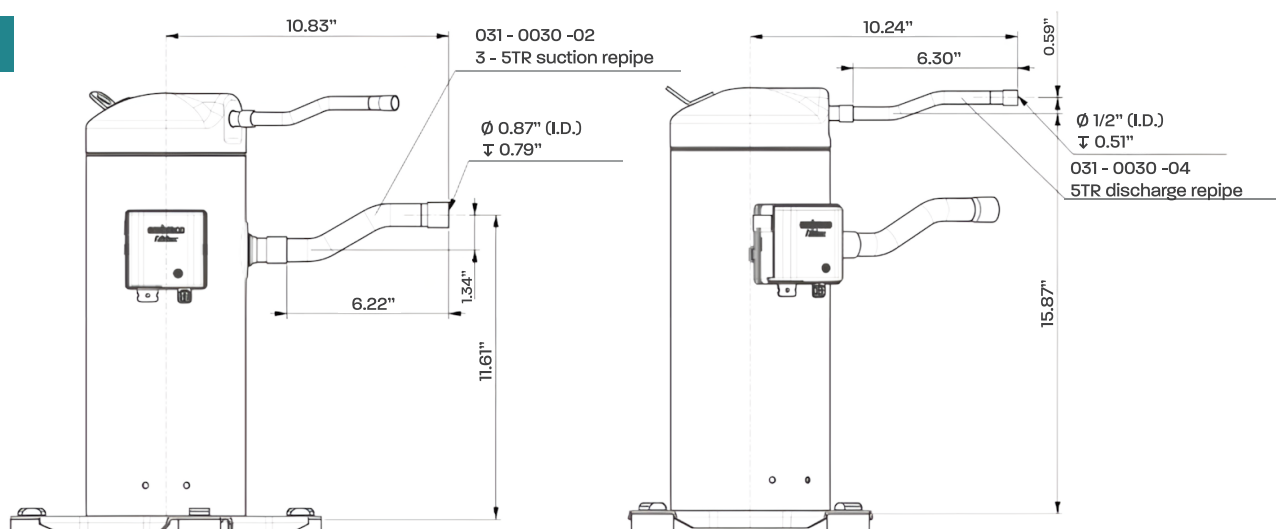
1.7 - 2 Tons



3 - 4.5 Tons



5 Tons



think ahead,
now in HVAC as well



Access now and see more
information, such as launch details
and cross references.

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