

Compressor Technical Data

Model: EM30HNP
Code: 513302460

Description

Refrigerant:	R-134a	Displacement (cm ³):	3
Voltage:	220-240 V 50 Hz 1 ~	Lubricant Type:	ISO22
Frequency (Hz):	50	Lubricant Charge (ml):	160
Application:	LBP	Motor Type:	RSCR
HP:	1/10	Starting Torque:	LST
Efficiency:	3,30	Type of Test:	ASHRAE32
Capacity:	210,00		

Approval

IRAM

Data

External Features

	Shape	Material	Diameter (mm)
Suction Connector	Straight	Copper	6,10
Discharge Connector	Slanted	Copper	4,94
Process Connector	Straight	Copper	6,10

Oil Cooler:	
Base Plate:	European Standard EG/F/AMEM Version 2
Tray Holder:	Yes
Weight (kg):	6,72

Application

Maximum ambient temperature (°C):	43
Expansion device:	Capillary
Cooling:	Static
Air flow rate:	

Mechanical Data

Bill of materials:	513302460
Starting torque:	Low Starting Torque
Bore (mm):	19,00
Stroke (mm):	5,30
Weight (kg):	6,72

Electrical Data

Motor type:	RSCR
Winding Resistance (25°C) - Start:	34,60
Winding Resistance (25°C) - Run:	38,40

Check Point - Condensing Temperature 54,4 °C

Evaporating Temperature	Cooling Capacity			Power Consumption +/- 5%	Current Consumption +/-5%	Efficiency +/-7%		
	(°C)	(kcal/h)	(W)			(Btu/h)	(W)	(A)
-23,3	54	63	216	65	0,82	0,83	0,97	3,30

Condensing Temperature 45 °C

Evaporating Temperature	Cooling Capacity			Power Consumption +/- 5%	Current Consumption +/-5%	Gas Flow Rate +/- 5%	Efficiency +/-7%		
	(°C)	(kcal/h)	(W)				(Btu/h)	(W)	(A)
-35	26	30	101	49	0,55	0,57	0,52	0,60	2,05
-30	40	46	157	54	0,73	0,89	0,73	0,85	2,89
-25	57	66	224	61	0,93	1,27	0,93	1,09	3,70
-20	77	90	307	68	1,15	1,75	1,13	1,32	4,50
-15	102	119	406	76	1,37	2,32	1,34	1,56	5,31
-10	132	154	525	85	1,61	3,01	1,56	1,81	6,18

Condensing Temperature 55 °C

Evaporating Temperature	Cooling Capacity			Power Consumption +/- 5%	Current Consumption +/-5%	Gas Flow Rate +/- 5%	Efficiency +/-7%		
	(°C)	(kcal/h)	(W)				(Btu/h)	(W)	(A)
-35	17	20	68	44	0,36	0,39	0,39	0,45	1,54
-30	31	36	122	53	0,54	0,69	0,58	0,68	2,32
-25	47	55	188	62	0,74	1,07	0,76	0,89	3,03
-20	68	79	268	72	0,94	1,53	0,94	1,09	3,73
-15	92	107	365	82	1,16	2,08	1,13	1,31	4,47
-10	121	141	481	91	1,38	2,76	1,33	1,55	5,29

Condensing Temperature 65 °C

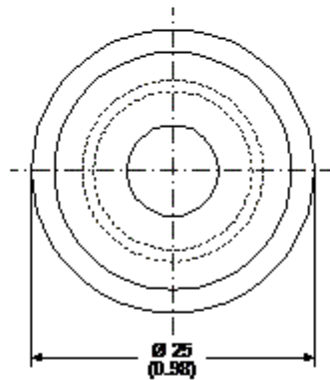
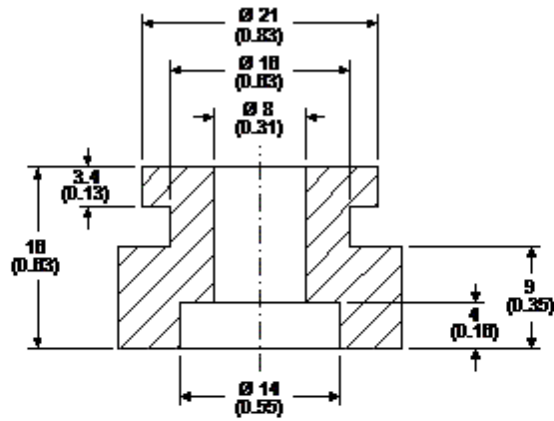
Evaporating Temperature	Cooling Capacity			Power Consumption +/- 5%	Current Consumption +/-5%	Gas Flow Rate +/- 5%	Efficiency +/-7%		
	(°C)	(kcal/h)	(W)				(Btu/h)	(W)	(A)
-35	8	9	31	40	0,21	0,18	0,20	0,23	0,78
-30	21	25	85	49	0,39	0,48	0,43	0,50	1,72
-25	38	44	149	59	0,59	0,85	0,64	0,75	2,54
-20	57	67	228	68	0,79	1,30	0,85	0,98	3,36
-15	81	95	323	76	1,00	1,84	1,07	1,24	4,23
-10	110	128	437	84	1,20	2,50	1,32	1,53	5,22

Dimensions

Rubber Grommet

Engineering Code	13146411
Dimensions	mm (Inch)

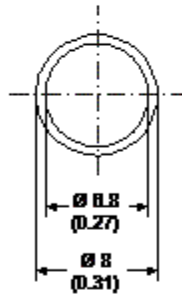
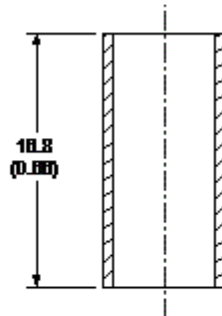
The grommets are made of special rubber and used in the nut and bolt type or in the snap on type assembly. The rubber grommet, the dimensions of which are shown in the figure below, was developed for installation in compressors with 16 and 19 mm diameters holes in the base plate.



Metal Bushing

Engineering Code	13126755
Dimensions	mm (Inch)

As an optional assembly accessory, Embraco can supply metal bushings, the purpose of which is to limit tightening of the screws upon attachment of the compressor assembly to the refrigeration system. This bushing is made of steel in the dimensions shown in the figure below, and comes with an anti-rust coating of chromated zinc.

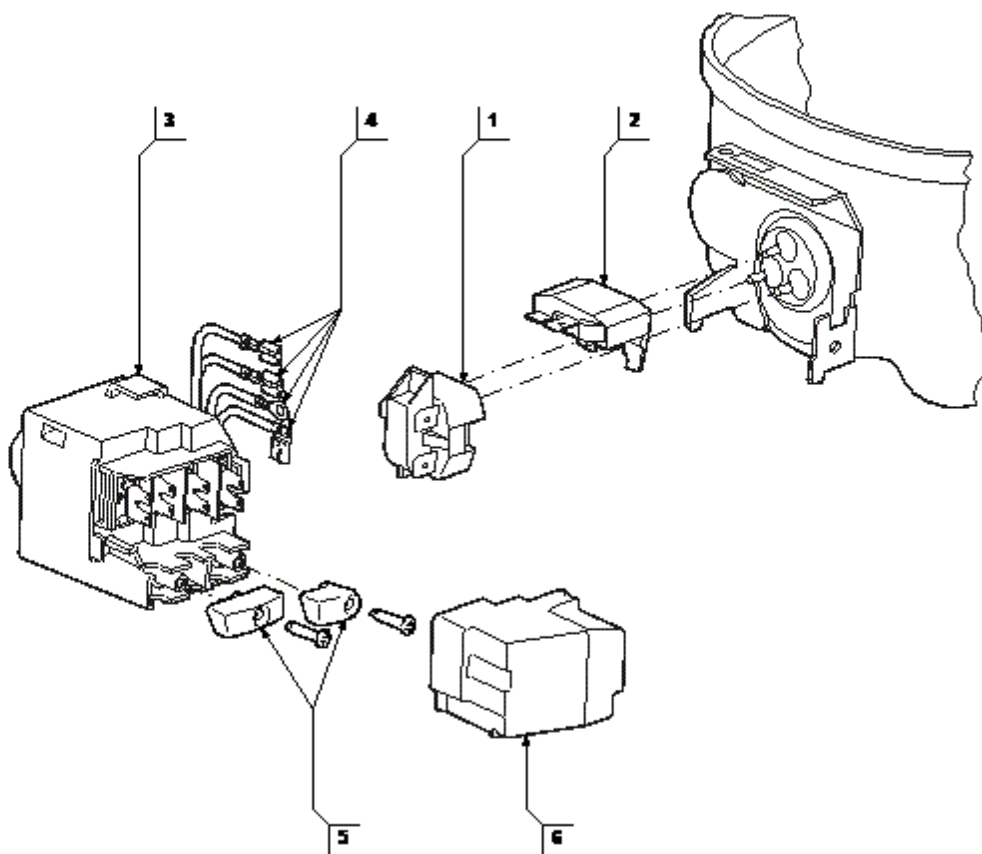


Accessories

Starting Device

Assembly Engineering Code	519106450
Starting Device - PTC	Starting Device - PTC
Overload Protector	13634238
Electrical Components Cover	

Note: 1 - Starting device - PTC 2 - Overload protector 3 - Terminal board 4 - Internal wiring 5 - Cord anchorages 6 - Terminals cover



Starting Device - PTC

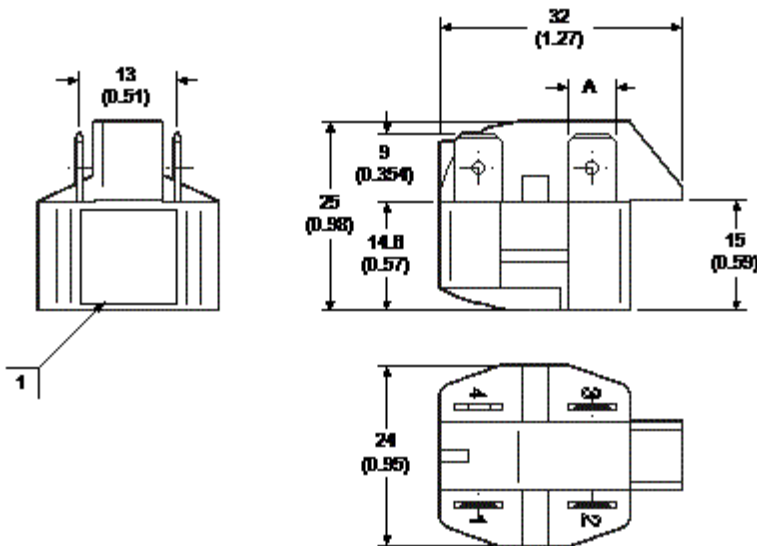
Engineering Code	13650098
Vendor Code	8EA17C3
Resistance at 25°C (77°F)	22
Maximum Operating Voltage	350 V
Maximum Operating Current	8 A
Terminal Size	6.3 x 0.8 (0.250 x 0.03)
Dimensions	mm (Inch)

ADVICE FOR USE: The PTC should not be used in environments where one or more of the following conditions are present:

- Corrosive or oxidizing gaseous atmosphere.
- Volatile or flammable gaseous atmosphere.
- Dust.
- Abnormal atmospheric pressure.
- Water or high humidity levels approximating dew point.
- Salt water or salty mist, oils, chemicals agents and solvent.

Especially, do not use polyvinyl chloride (PVC) as an insulation material around the terminal connecting to the PTC element as these may release chlorine when subject to higher temperatures, causing the PTC to malfunction.

Note: 1 - Identification code.



Overload Protector

Engineering Code	13634238
Vendor Code	4TM110NFBYY-53
Opening Temperature	120°C (248°F)
Closing Temperature	61°C (141,8°F)
Tripping Current at 25°C (77°F)	3,2 A
Reaction Time	5.0s - 15.0s
Terminal Size "A"	6.3 x 0.8 (0.250 x 0.03)
Dimensions	mm (Inch)

The overload protectors are identified by the suppliers. Each thermal protector has its own distinct characteristics of opening temperature, closing temperature and trip current. 1 - Vendor number 2 - Overload protector model

