Compressor Technical Data

Model: EM45HNR

Code: 513307359

Description

Refrigerant:	R-134a	Displacement (cm³):	3,77
Voltage:	220 V 50-60 Hz 1 ~	Lubricant Type:	ISO22
Frequency (Hz):	50	Lubricant Charge (ml):	160
Application:	LBP	Motor Type:	RSIR-CSIR
HP:	1/8	Starting Torque:	LST
Efficiency:	3,30	Type of Test:	ASHRAE32
Capacity:	330,00		

Approval

UL

Data

External Features

	Shape	Material	Diameter (mm)
Suction Connector	Straight	Copper	6,50
Discharge Connector	Slanted	Copper	4,94
Process Connector	Straight	Copper	6,50

Oil Cooler:	
Base Plate:	Universal EG/F/AMEM version 2
Tray Holder:	No
Weight (kg):	7,52

Application

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

Mechanical Data

Bill of materials:	513307359
Starting torque:	Low Starting Torque
Bore (mm):	19,00
Stroke (mm):	6,65
Weight (kg):	7,52

Electrical Data

Motor type:	RSIR-CSIR
Winding Resistance (25ºC) - Start:	20,50
Winding Resistance (25ºC) - Run:	38,00

Check Point - Condensing Temperature 54,4 ºC

Evaporating Temperature	Cooling Capacity			Power Consumption +/- 5%	Current Consumption +/-5%	Efficiency +/-7%		
(ºC)	(kcal/h)	(W)	(Btu/h)	(W)	(A)	(kcal/Wh)	(W/W)	(Btu/Wh)
-23,3	83	97	329	95	0,87	0,87	1,01	3,46

Condensing Temperature 45 ºC

Evaporating Temperature	Cooling Capacity			Power Consumption +/- 5%	Current Consumption +/-5%	Gas Flow Rate +/- 5%	Efficiency +/-7%		
(ºC)	(kcal/h)	(W)	(Btu/h)	(W)	(A)	(kg/h)	(kcal/Wh)	(W/W)	(Btu/Wh)
-35	43	51	172	73	0,84	0,98	0,60	0,70	2,38
-30	62	72	244	82	0,85	1,38	0,75	0,88	2,99
-25	82	95	324	90	0,86	1,84	0,91	1,06	3,61
-20	107	124	424	98	0,87	2,41	1,09	1,27	4,33
-15	140	163	555	107	0,89	3,17	1,31	1,53	5,21
-10	184	214	730	117	0,91	4,18	1,57	1,83	6,24

Condensing Temperature 55 ºC

Evaporating Temperature	Cooling Capacity			Power Consumption +/- 5%	Current Consumption +/-5%	Gas Flow Rate +/- 5%	Efficiency +/-7%		
(ºC)	(kcal/h)	(W)	(Btu/h)	(W)	(A)	(kg/h)	(kcal/Wh)	(W/W)	(Btu/Wh)
-35	35	41	140	71	0,84	0,79	0,50	0,58	1,97
-30	55	64	217	82	0,86	1,23	0,67	0,78	2,65
-25	75	87	297	92	0,87	1,69	0,81	0,95	3,23
-20	99	115	392	102	0,88	2,23	0,97	1,13	3,85
-15	129	150	513	112	0,90	2,93	1,15	1,34	4,57
-10	169	197	671	124	0,92	3,84	1,37	1,59	5,42

Condensing Temperature 65 ºC

Evaporating Temperature	Cooling Capacity			Power Consumption +/- 5%	Current Consumption +/-5%	Gas Flow Rate +/- 5%	Efficiency +/-7%		
(ºC)	(kcal/h)	(W)	(Btu/h)	(W)	(A)	(kg/h)	(kcal/Wh)	(W/W)	(Btu/Wh)
-35	19	22	76	66	0,83	0,43	0,29	0,34	1,15
-30	42	48	165	79	0,85	0,94	0,52	0,61	2,08
-25	63	74	252	92	0,87	1,43	0,69	0,81	2,75
-20	88	102	347	103	0,89	1,98	0,85	0,99	3,36
-15	117	136	464	116	0,91	2,65	1,01	1,18	4,01
-10	154	180	613	129	0,94	3,51	1,20	1,39	4,75

Dimensions

Compressor Housing

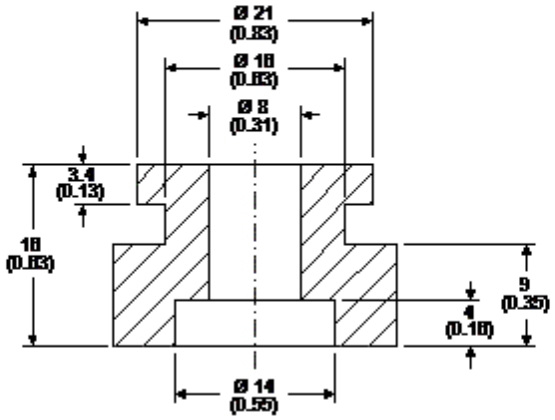
	mm	inch		mm	inch		mm	inch		mm	inch
A	166,00	6,54	Rb	---	---	Sa	157,00	6,18	Rc	---	---
B	229,00	9,02	F	170,00	6,69	Pa	152,00	5,98	G1	10.160,00	400,00
C	150,00	5,91	G	70,00	2,76	Da	87,00	3,43	F2	178,00	7,01
E	---	---	F1	165,00	6,50	Ra	---	---	N	---	---
Sb	101,00	3,98	T	---	---	Sc	32,00	1,26	L	203,00	7,99
Pb	95,00	3,74	M	13.150,00	517,72	Pc	42,00	1,65	H	16,00	0,63
Db	119,00	4,69	J	7,00	0,28	Dc	35,00	1,38	H1	19,00	0,75

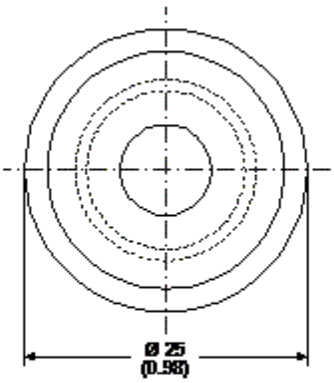
1 - Suction Connector 2 - Process Connector 3 - Discharge Connector 4 - Earthing Terminal

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 rummer 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.

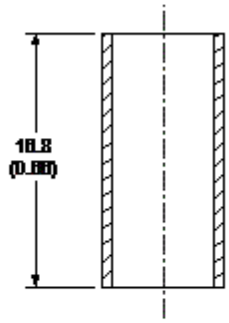


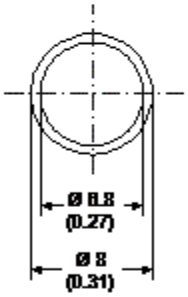


Metal Bushing

Engineering Code	13126755
Dimensions	mm (Inch)

As an optional assembly accessory, Embraco can supply metal bushings, the purpose os 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 chromatized zinc.





Accessories