

Compressor Technical Data

Model: FFU80HAK

Code: 513200500

Description

Refrigerant:	R-134a	Displacement (cm ³):	6,76
Voltage:	220-240 V 50-60 Hz 1 ~	Lubricant Type:	ISO10
Frequency (Hz):	50	Lubricant Charge (ml):	280
Application:	L/MBP	Motor Type:	RSIR-CSIR
HP:	1/4+	Starting Torque:	LST
Efficiency:	4,80	Type of Test:	ASHRAE32
Capacity:	680,00		

Approval

IRAM

TUV

Data

External Features

	Shape	Material	Diameter (mm)
Suction Connector	Slanted	Copper	8,20
Discharge Connector	Slanted	Copper	6,50
Process Connector	Slanted	Copper	6,50

Oil Cooler:	
Base Plate:	Universal EG/F/AMEM version 2
Tray Holder:	No
Weight (kg):	11,42

Application

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

Mechanical Data

Bill of materials:	513200500
Starting torque:	Low Starting Torque
Bore (mm):	22,50
Stroke (mm):	8,50
Weight (kg):	11,42

Electrical Data

Motor type:	RSIR-CSIR
Winding Resistance (25°C) - Start:	8,52
Winding Resistance (25°C) - Run:	30,10

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	172	199	681	142	1,33	1,21	1,40	4,79

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	94	110	374	102	1,26	2,12	0,93	1,08	3,67
-30	133	154	526	117	1,28	2,98	1,13	1,31	4,48
-25	174	202	689	132	1,30	3,91	1,31	1,53	5,21
-20	221	258	879	147	1,33	5,00	1,51	1,75	5,97
-15	280	326	1.113	162	1,37	6,35	1,73	2,01	6,86
-10	355	413	1.408	178	1,41	8,07	1,99	2,32	7,91
-5	448	522	1.780	195	1,45	10,24	2,30	2,68	9,14

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	76	89	303	99	1,26	1,72	0,77	0,90	3,06
-30	115	133	455	118	1,28	2,58	0,97	1,13	3,87
-25	155	181	616	136	1,32	3,50	1,14	1,33	4,53
-20	203	236	805	155	1,36	4,58	1,31	1,52	5,20
-15	261	304	1.037	174	1,41	5,92	1,50	1,75	5,96
-10	335	389	1.329	194	1,46	7,61	1,72	2,01	6,84
-5	428	497	1.697	216	1,52	9,76	1,98	2,31	7,87

Condensing Temperature 65 °C

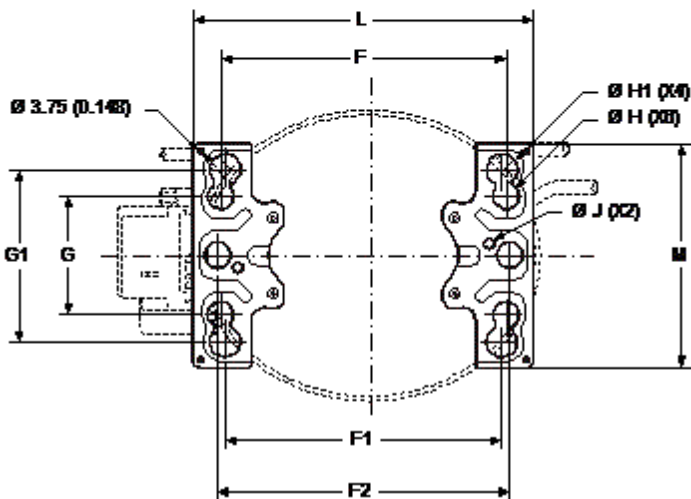
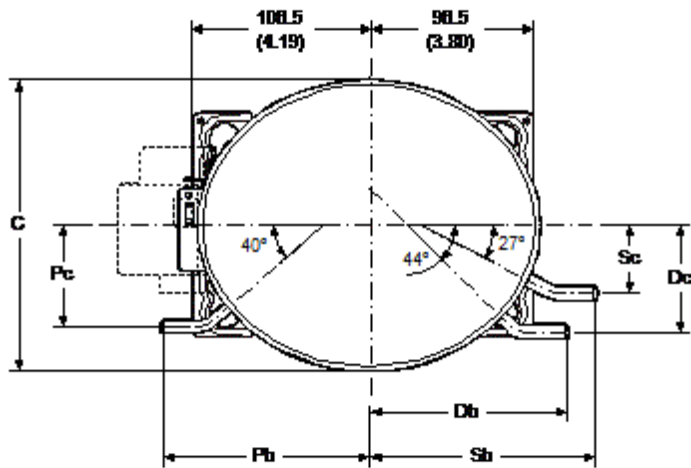
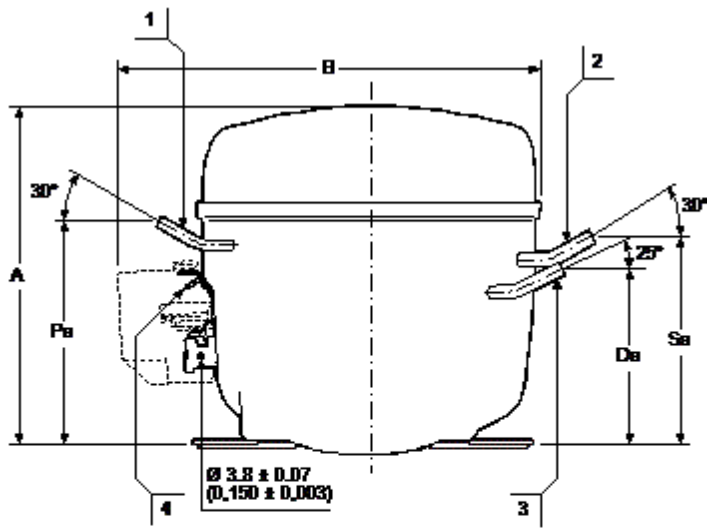
Evaporating Temperature	Cooling Capacity			Power Consumption +/- 5%	Current Consumption +/-5%	Gas Flow Rate +/- 5%	Efficiency +/-7%		
	(°C)	(kcal/h)	(W)				(Btu/h)	(W)	(A)
-35	62	72	245	95	1,25	1,39	0,65	0,76	2,58
-30	100	116	396	116	1,28	2,24	0,86	1,00	3,41
-25	140	163	557	137	1,32	3,16	1,02	1,19	4,05
-20	187	218	743	159	1,37	4,23	1,18	1,37	4,67
-15	245	285	973	182	1,43	5,55	1,35	1,57	5,35

-10	318	370	1.262	206	1,49	7,23	1,55	1,80	6,14
-5	410	477	1.628	231	1,56	9,36	1,77	2,06	7,04

Dimensions

Compressor Housing

	mm	inch		mm	inch		mm	inch		mm	inch
A	201,00	7,91	Rb	---	---	Sa	124,00	4,88	Rc	---	---
B	251,00	9,88	F	178,00	7,01	Pa	132,00	5,20	G1	1.016,00	40,00
C	173,00	6,81	G	70,00	2,76	Da	104,00	4,09	F2	170,00	6,69
E	---	---	F1	165,00	6,50	Ra	---	---	N	---	---
Sb	132,00	5,20	T	---	---	Sc	40,00	1,57	L	203,00	7,99
Pb	125,00	4,92	M	1.315,00	51,77	Pc	60,00	2,36	H	16,00	0,63
Db	115,00	4,53	J	7,00	0,28	Dc	63,00	2,48	H1	19,00	0,75

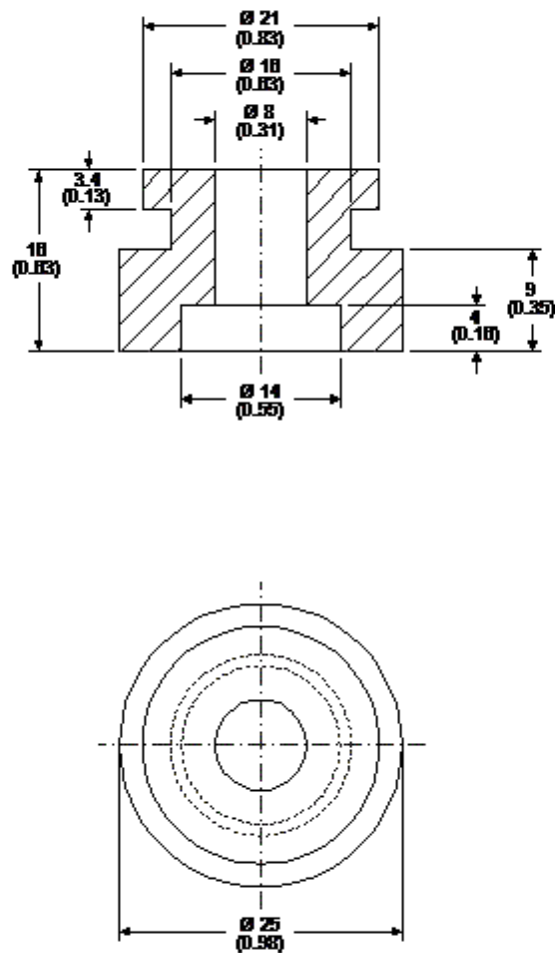


1 - Process Connector 2 - Suction Connector 3 - Discharge Connector 4 - Earthing Terminal 6 - Tray Hold

Rubber Grommet

Engineering Code	13146411
Dimensions	mm (Inch)

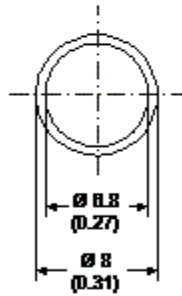
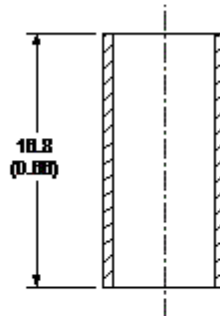
The grommets are made of special rubber and used in the nut and bolt type or in the snap on type assembly. The rubber grommet, the dimensions of which are shown in the figure below, was developed for installation in compressors with 16 and 19 mm diameters holes in the base plate.



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.

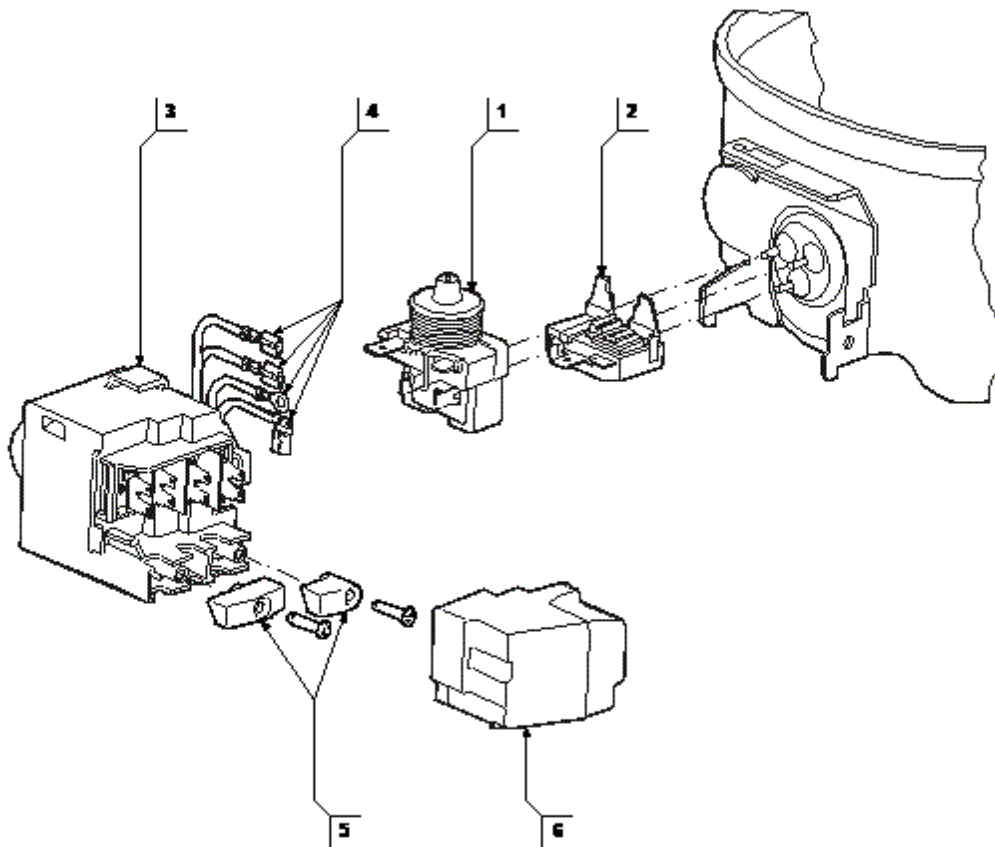


Accessories

Starting Device

Assembly Engineering Code	519109559
Starting Device - Relay	Starting Device - Relay
Overload Protector	13634513
Electrical Components Cover	

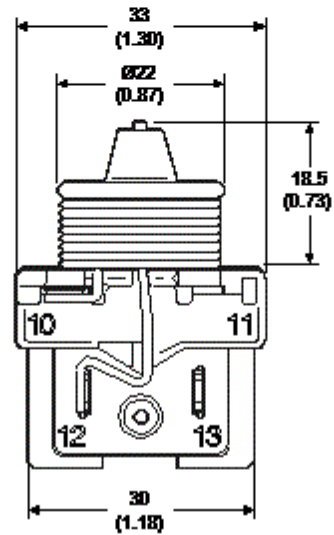
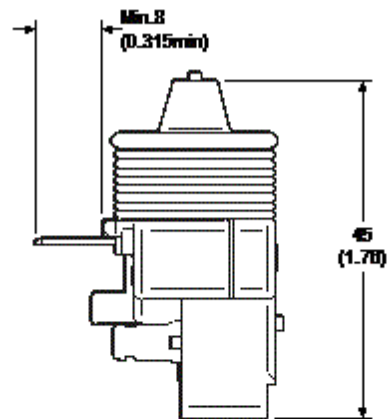
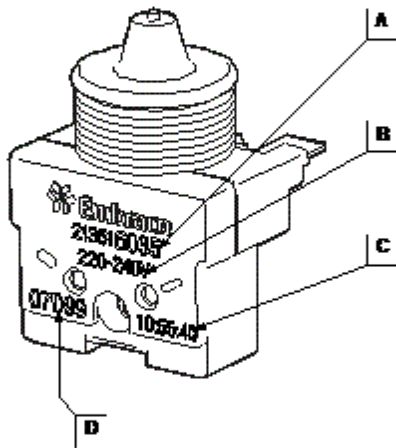
Note: 1 - Starting device - Relay 2 - Overload protector 3 - Terminal board 4 - Internal wiring 5 - Cord anchorages 6 - Terminals cover



Starting Device - Relay

Engineering Code	213516086
Pick Up Current (A)	5,5
Drop-Out Current (A)	4,2
Terminal Size "E"	6.3 x 0.8 (0.250 x 0.03)
Dimensions	mm (Inch)

Notes: A - Subassembly cod



Overload Protector

Engineering Code	13634513
Vendor Code	4TM743KDBYY-53
Opening Temperature	105°C (221°F)
Closing Temperature	52°C (125,6°F)
Tripping Current at 25°C (77°F)	9 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

