

Compressor Technical Data

Model: FFU100AK

Code: 513200553

Description

Refrigerant:	Blend	Displacement (cm ³):	7,95
Voltage:	220 V 50-60 Hz 1 ~	Lubricant Type:	ISO32
Frequency (Hz):	50	Lubricant Charge (ml):	280
Application:	L/MBP	Motor Type:	RSIR-CSIR
HP:	1/3	Starting Torque:	LST
Efficiency:	4,40	Type of Test:	ASHRAE32
Capacity:	860,00		

Approval

TUV

Data

External Features

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

Oil Cooler:	
Base Plate:	Universal EG/F/AMEM version 2
Tray Holder:	No
Weight (kg):	10,65

Application

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

Mechanical Data

Bill of materials:	513200553
Starting torque:	Low Starting Torque
Bore (mm):	22,50
Stroke (mm):	10,00
Weight (kg):	10,65

Electrical Data

Motor type:	RSIR-CSIR
Winding Resistance (25°C) - Start:	7,15

Winding Resistance (25°C) - Run:

28,15

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)	(kcal/Wh)
-23,3		229	267	910	193	1,72	1,19	1,38	4,71

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	130	151	517	145	1,61	3,77	0,90	1,05	3,58
-30	171	198	677	161	1,66	4,94	1,06	1,23	4,20
-25	219	255	870	178	1,69	6,36	1,23	1,43	4,88
-20	277	322	1.100	196	1,72	8,06	1,41	1,64	5,61
-15	346	402	1.373	214	1,75	10,09	1,61	1,88	6,40
-10	427	496	1.693	233	1,79	12,48	1,83	2,13	7,26
-5	521	606	2.066	252	1,86	15,29	2,07	2,40	8,20

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	117	136	464	150	1,63	3,39	0,78	0,91	3,11
-30	160	186	635	168	1,68	4,64	0,95	1,11	3,79
-25	210	244	833	187	1,71	6,09	1,12	1,31	4,45
-20	268	311	1.063	207	1,74	7,79	1,29	1,50	5,13
-15	335	390	1.330	229	1,77	9,77	1,47	1,70	5,82
-10	413	480	1.639	250	1,82	12,08	1,65	1,92	6,54
-5	503	585	1.995	273	1,90	14,76	1,84	2,14	7,31

Condensing Temperature 65 °C

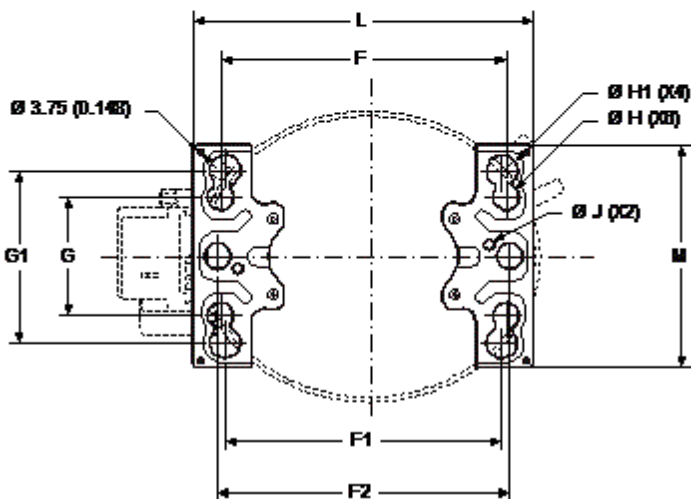
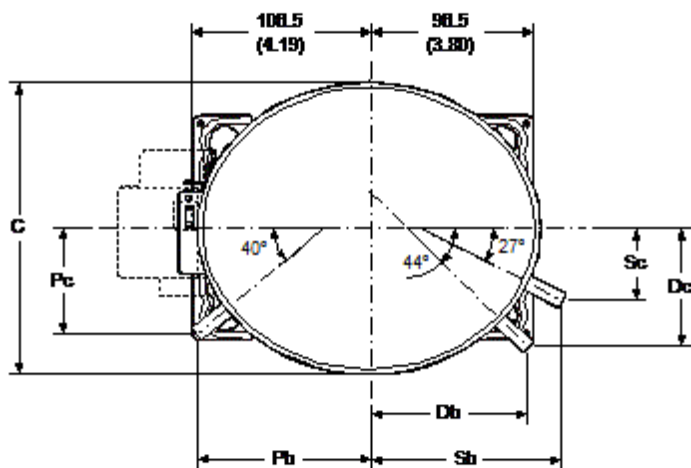
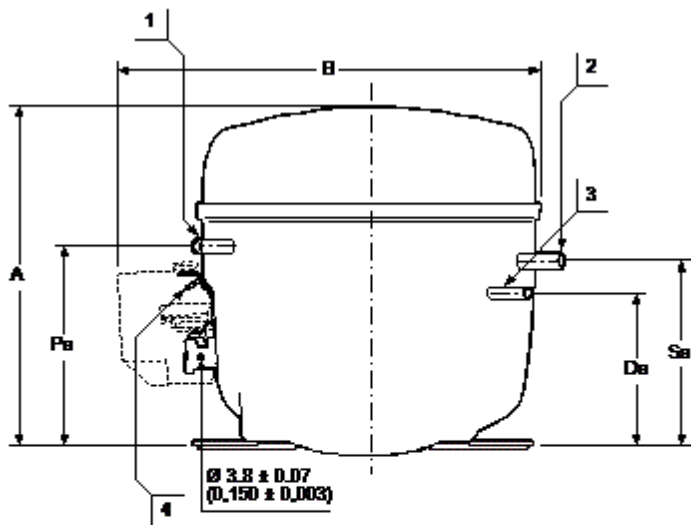
Evaporating Temperature	Cooling Capacity			Power Consumption +/- 5%	Current Consumption +/-5%	Gas Flow Rate +/- 5%	Efficiency +/-7%		
	(°C)	(kcal/h)	(W)				(Btu/h)	(W)	(A)
-35	100	117	398	152	1,65	2,90	0,66	0,77	2,61
-30	147	171	584	173	1,70	4,27	0,85	0,99	3,37
-25	199	232	791	195	1,73	5,79	1,02	1,19	4,05
-20	258	300	1.025	219	1,76	7,52	1,18	1,37	4,68
-15	325	378	1.291	244	1,79	9,49	1,33	1,55	5,29

-10	401	467	1.593	270	1,85	11,75	1,49	1,73	5,89
-5	488	568	1.937	297	1,94	14,34	1,64	1,91	6,52

Dimensions

Compressor Housing

	mm	inch		mm	inch		mm	inch		mm	inch
A	201,00	7,91	Rb	---	---	Sa	1.093,00	43,03	Rc	---	---
B	251,00	9,88	F	170,00	6,69	Pa	118,00	4,65	G1	1.016,00	40,00
C	173,00	6,81	G	70,00	2,76	Da	90,00	3,54	F2	174,00	6,85
E	---	---	F1	165,00	6,50	Ra	---	---	N	---	---
Sb	113,00	4,45	T	---	---	Sc	427,00	16,81	L	203,00	7,99
Pb	104,00	4,09	M	1.315,00	51,77	Pc	63,00	2,48	H	16,00	0,63
Db	925,00	36,42	J	7,00	0,28	Dc	70,00	2,76	H1	19,00	0,75

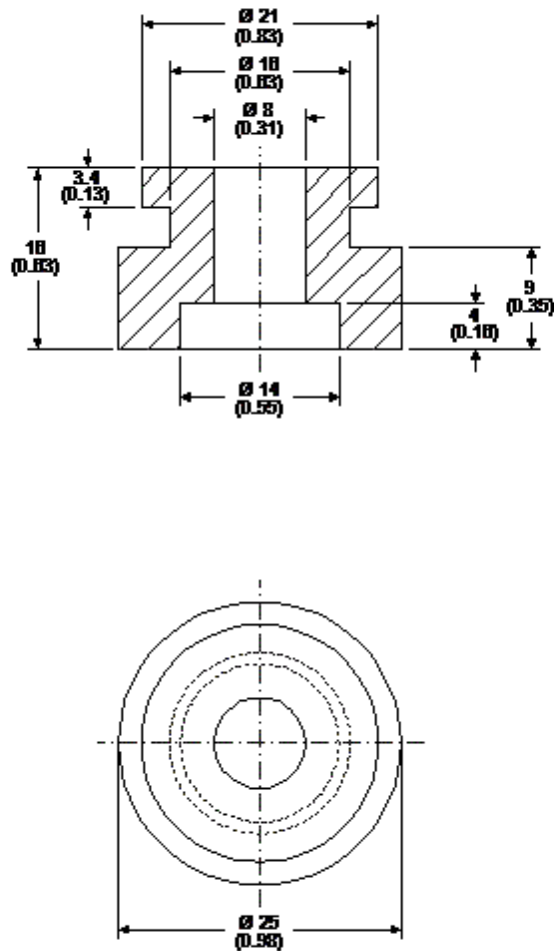


1 - Process Connector 2 - Suction Connector 3 - Discharge Connector 4 - Earthing Terminal 6 - Tray Hold

Rubber Grommet

Engineering Code	13146411
Dimensions	mm (Inch)

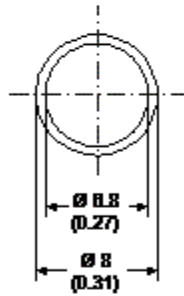
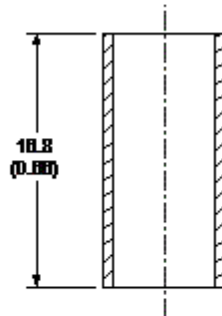
The grommets are made of special rubber and used in the nut and bolt type or in the snap on type assembly. The rummer grommet, the dimensions of which are shown in the figure below, was developed for installation in compressors with 16 and 19 mm diameters holes in the base plate.



Metal Bushing

Engineering Code	13126755
Dimensions	mm (Inch)

As an optional assembly accessory, Embraco can supply metal bushings, the purpose 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

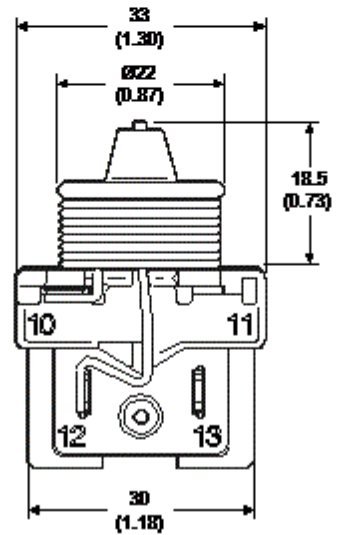
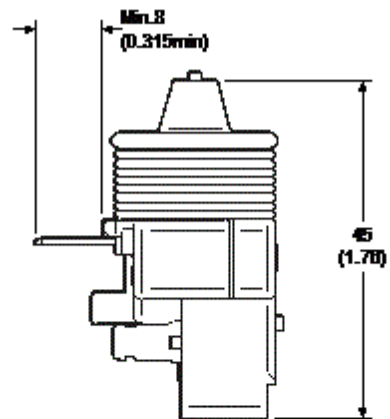
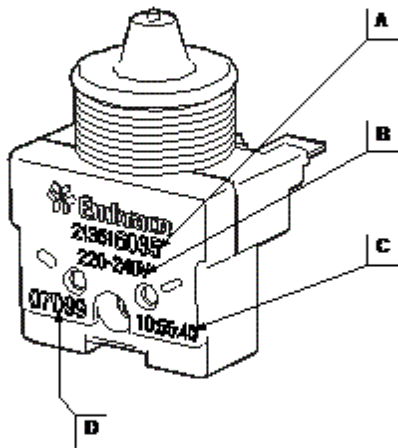
Assembly Engineering Code	513506288
Starting Device - Relay	Starting Device - Relay
Overload Protector	13634394
Electrical Components Cover	13555007

Note: 1 - Starting device - Relay 2 - Overload protector 3 - Electrical components cover 4 - Cord relief

Starting Device - Relay

Engineering Code	213516043
Pick Up Current (A)	6,8
Drop-Out Current (A)	5,2
Terminal Size "E"	6.3 x 0.8 (0.250 x 0.03)
Dimensions	mm (Inch)

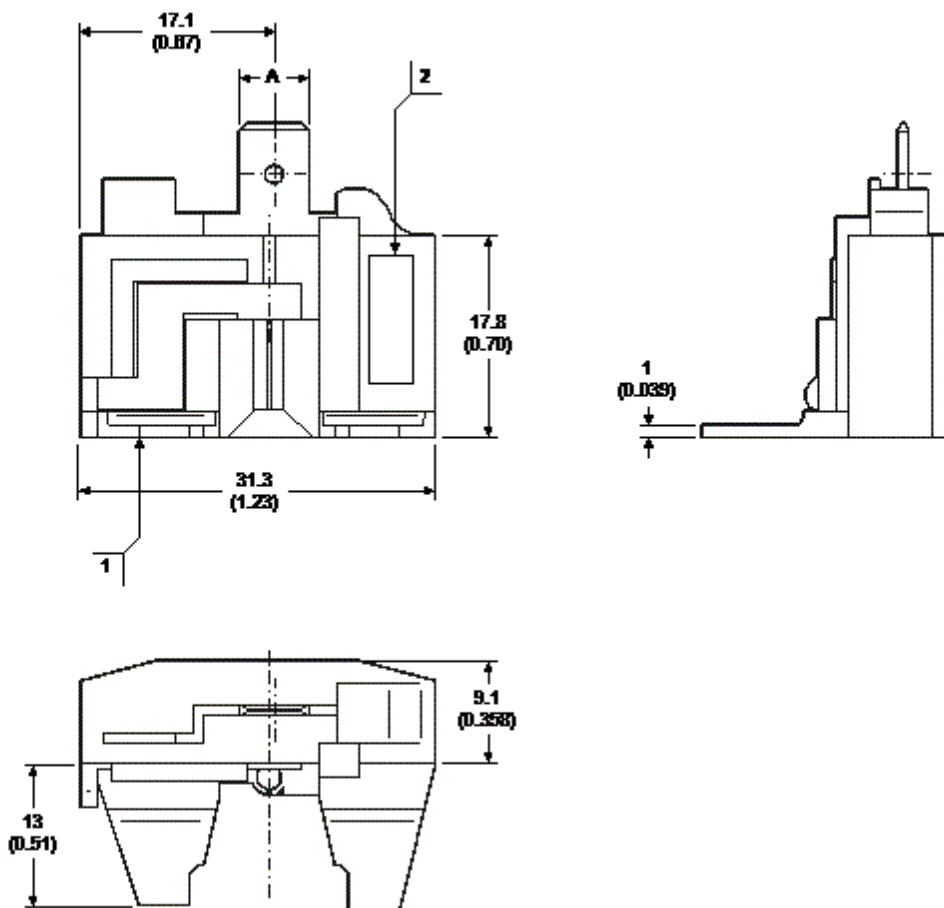
Notes: A - Subassembly cod



Overload Protector

Engineering Code	13634394
Vendor Code	4TM757KFBYY-53
Opening Temperature	105°C (221°F)
Closing Temperature	61°C (141,8°F)
Triping Current at 25°C (77°F)	9,8 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



Electrical Components Cover

Engineering Code	013555007
Material	Technyl A205F
Material Class	V - 2
Thickness	1.8 (0.07)
Dimensions	mm (inch)

