

Compressor Technical Data

Model: FFU70AK
Code: 513200592

Description

Refrigerant:	Blend	Displacement (cm ³):	6,36
Voltage:	220-240 V 50-60 Hz 1 ~	Lubricant Type:	ISO32
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:	700,00		

Approval

IRAM

TUV

Data

External Features

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

Oil Cooler:	
Base Plate:	Universal EG/F/AMEM version 2
Tray Holder:	No
Weight (kg):	10,80

Application

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

Mechanical Data

Bill of materials:	513200592
Starting torque:	Low Starting Torque
Bore (mm):	22,50
Stroke (mm):	8,00
Weight (kg):	10,80

Electrical Data

Motor type:	RSIR-CSIR
Winding Resistance (25°C) - Start:	10,35
Winding Resistance (25°C) - Run:	43,10

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	177	206	704	144	1,13	1,23	1,43	4,89

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	103	120	410	108	1,05	2,99	0,96	1,11	3,80
-30	135	158	538	120	1,07	3,92	1,13	1,31	4,48
-25	174	203	692	133	1,10	5,06	1,31	1,53	5,21
-20	221	257	878	146	1,13	6,44	1,52	1,76	6,02
-15	277	323	1.101	160	1,17	8,09	1,74	2,02	6,90
-10	344	400	1.365	173	1,22	10,06	1,98	2,31	7,87
-5	422	491	1.675	187	1,27	12,39	2,25	2,62	8,93

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	93	109	371	110	1,05	2,70	0,85	0,99	3,37
-30	125	145	495	124	1,08	3,62	1,01	1,17	3,99
-25	162	189	644	139	1,12	4,71	1,17	1,36	4,63
-20	207	241	821	155	1,16	6,02	1,34	1,56	5,31
-15	260	303	1.032	171	1,21	7,59	1,52	1,77	6,04
-10	323	376	1.281	188	1,27	9,45	1,72	2,00	6,82
-5	396	461	1.573	205	1,33	11,64	1,93	2,25	7,67

Condensing Temperature 65 °C

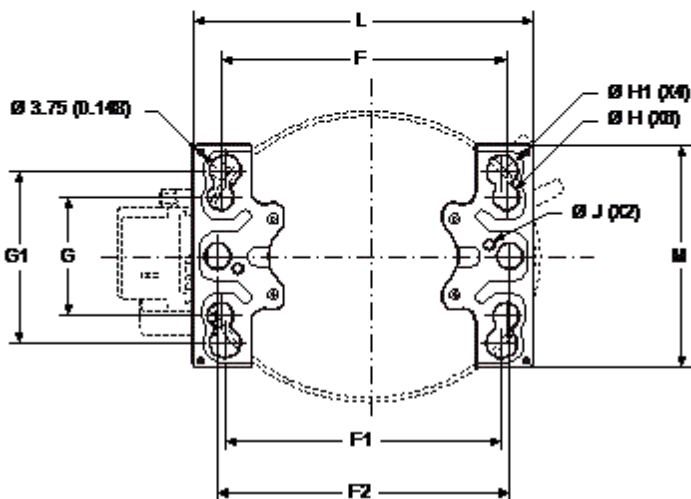
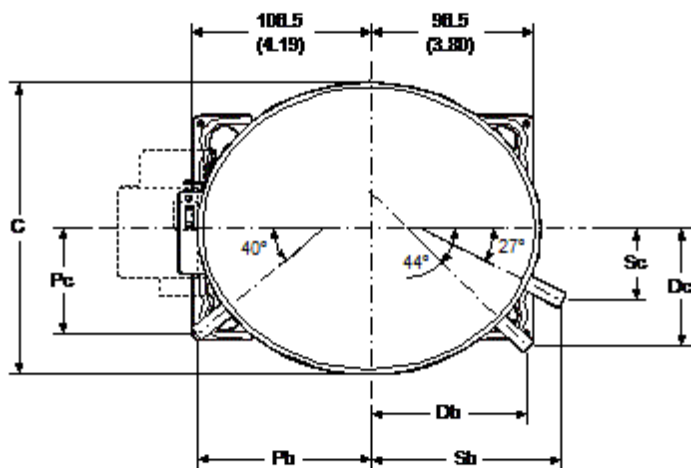
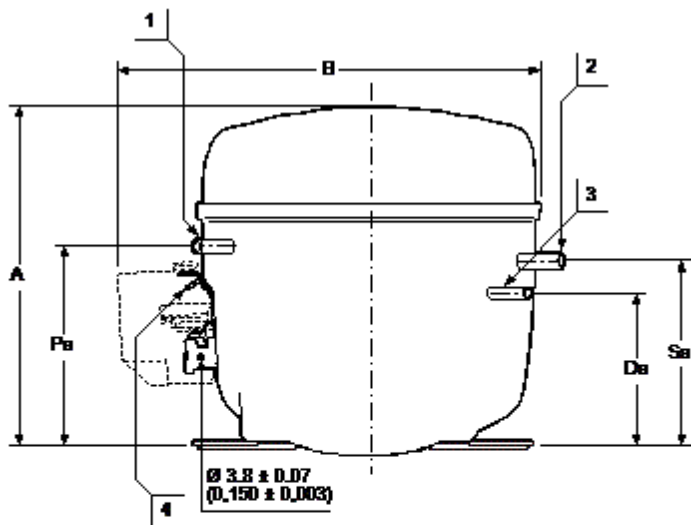
Evaporating Temperature	Cooling Capacity			Power Consumption +/- 5%	Current Consumption +/-5%	Gas Flow Rate +/- 5%	Efficiency +/-7%		
	(°C)	(kcal/h)	(W)				(Btu/h)	(W)	(A)
-35	84	97	332	109	1,04	2,42	0,77	0,90	3,06
-30	115	134	458	125	1,08	3,35	0,92	1,07	3,65
-25	152	177	605	143	1,14	4,43	1,06	1,24	4,22
-20	196	228	778	162	1,19	5,70	1,21	1,41	4,79
-15	247	287	981	182	1,26	7,21	1,36	1,58	5,39

-10	307	357	1.219	202	1,32	8,99	1,52	1,77	6,02
-5	377	439	1.497	224	1,40	11,08	1,69	1,96	6,69

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	1.154,00	45,43	T	---	---	Sc	44,00	1,73	L	203,00	7,99
Pb	106,00	4,17	M	1.315,00	51,77	Pc	65,00	2,56	H	16,00	0,63
Db	95,00	3,74	J	7,00	0,28	Dc	72,00	2,83	H1	19,00	0,75

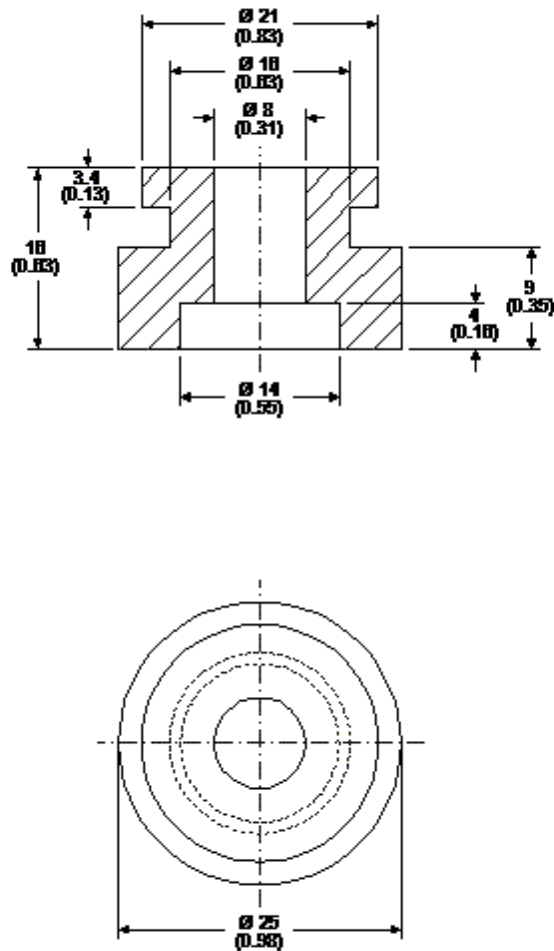


1 - Process Connector 2 - Suction Connector 3 - Discharge Connector 4 - Earthing Terminal 6 - Tray Hold

Rubber Grommet

Engineering Code	13146411
Dimensions	mm (Inch)

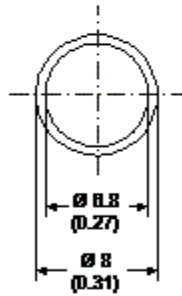
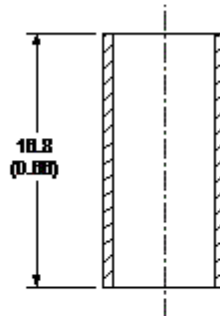
The grommets are made of special rubber and used in the nut and bolt type or in the snap on type assembly. The rummer grommet, the dimensions of which are shown in the figure below, was developed for installation in compressors with 16 and 19 mm diameters holes in the base plate.



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.

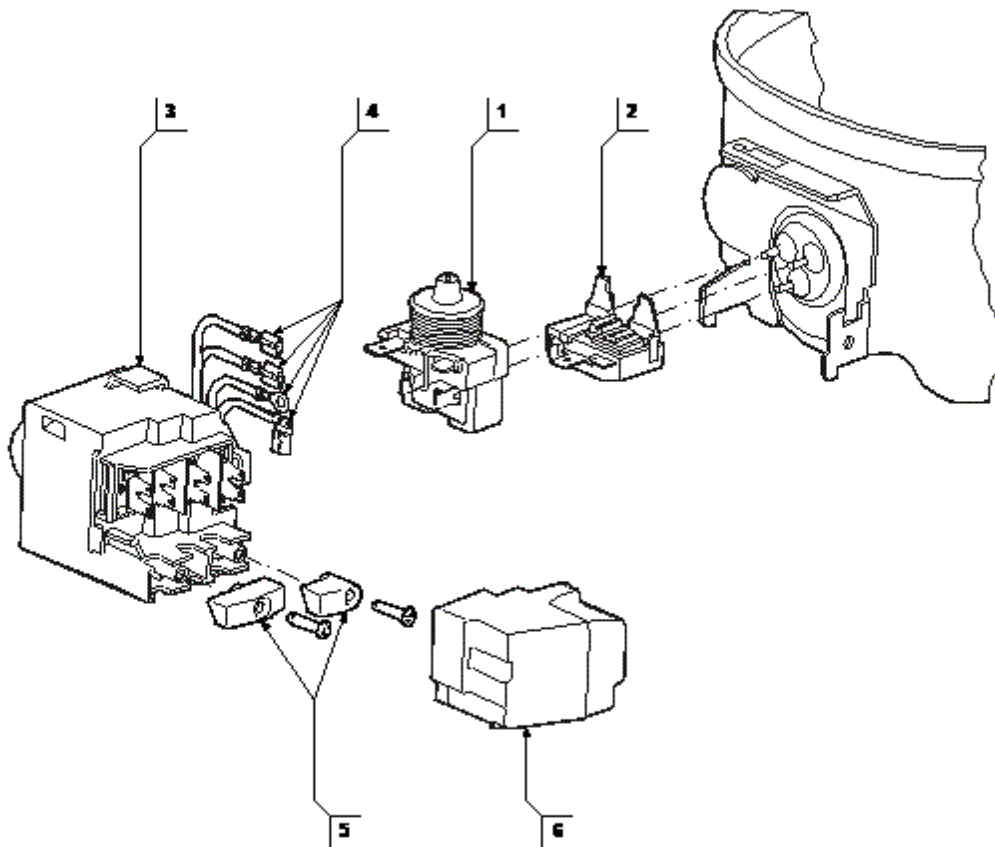


Accessories

Starting Device

Assembly Engineering Code	519109554
Starting Device - Relay	Starting Device - Relay
Overload Protector	13634491
Electrical Components Cover	

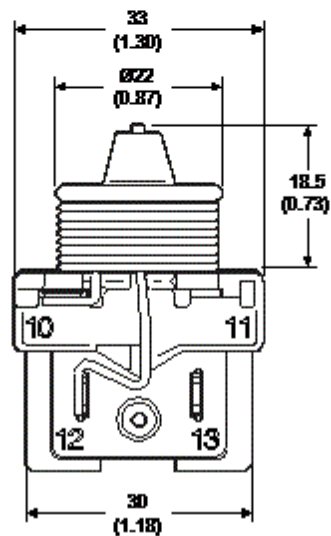
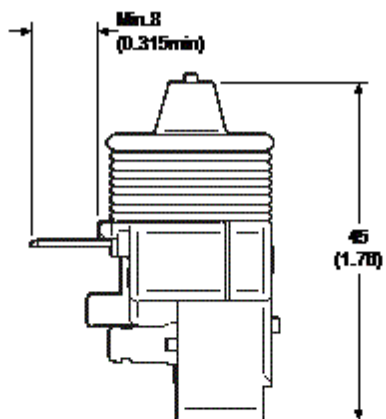
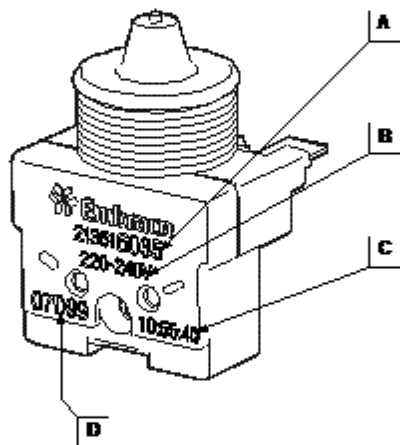
Note: 1 - Starting device - Relay 2 - Overload protector 3 - Terminal board 4 - Internal wiring 5 - Cord anchorages 6 - Terminals cover



Starting Device - Relay

Engineering Code	213516353
Pick Up Current (A)	4,3
Drop-Out Current (A)	3,3
Terminal Size "E"	6.3 x 0.8 (0.250 x 0.03)
Dimensions	mm (Inch)

Notes: A - Subassembly cod



Overload Protector

Engineering Code	13634491
Vendor Code	4TM283NFBYY-53
Opening Temperature	120°C (248°F)
Closing Temperature	61°C (141,8°F)
Tripping Current at 25°C (77°F)	9,5 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

