

SUIKA  CLIMATE

HERMETIC COMPRESSOR PRODUCT CATALOG

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ABOUT US



Suika Climate (US), Toeflex (non-US) is a well-established distributor and manufacturer specializing in HVAC-R components and customized end-to-end solutions (commercial heat pumps, drying equipment etc.). Originally founded in South Africa in 1996, we have been headquartered in Chengdu, China since 2004. Starting as a supplier of refrigeration components for the local market, we have expanded into over 30 countries and are today internationally competitive in both commercial and residential HVAC-R applications.

Our catalog of products are of high quality, follow key international standards and have necessary approvals and certifications. We pride ourselves in fast, clear and effective communication and believe in building a long-term relationships with customers that are mutually beneficial.

We have served customers of all sizes and maintained decade long relationships with many of them. We sincerely appreciate the opportunity to serve you and hope to hear from you!



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MINI

COMPRESSOR

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1. TF Hermetic Reciprocating Compressor

The TF range of refrigeration compressors have cooling capacity from 37 to 1050W and coefficient of performance (COP) from 1.23 to 1.95 W/W. Our products have been successfully used in wide range of applications and are exported to over 30 countries. This range have a number of key international approvals (CCC, CB, VDE, CE, UL etc.)

This catalog lists TF hermetic refrigeration compressors operating in 110V to 240V voltage range. They are designed for household and light commercial applications using listed common refrigerant.



Refrigerant	Voltage Range	Frequency	Application
R134a	220-240V	50Hz	LBP
			MBP/LBP
			HBP
	110-120V	60Hz	MBP/LBP
			LBP
			HBP
R600a	220-240V	50Hz	LBP
		50/60Hz	
	110-120V	60Hz	
R290	220-240V	50Hz	LBP
		50/60Hz	HBP
			MBP/LBP
R404a	220-240V	50Hz	LBP
			HBP
R22	220V	50Hz	LBP

2. General Requirements

2.1

The compressor should be stored in a well ventilation, dry and clean room

2.2

Compressor accessories such as starter, motor protector etc. are packaged in a separate accessory box when delivered (not pre-installed)

2.3

Keep the compressor up-right when moving. Do not tilt, flip or use excessive force on casing

2.4

Before installing, please confirm the model, voltage/frequency range and accepted refrigerant on the label plate matches the intended application

2.5

The angle of inclination should not exceed 5° when the compressor is installed. Please also use specialized anti-vibration pads supplied by our company

2.6

If the label plate contains specific inlet pipe connection position and orientation, please ensure the correct connection is made

2.7

Please select the correct application category based on evaporation temperature

Application Category	Evaporation Temperature	Application Examples
LBP	-35 to -15°C / -31 to 5F	Freezer, Refrigerator
LBP/MBP	-35 to -5°C / -31 to 23F	Water Dispenser, Wine Cooler
HBP	-5 to 15°C / 23 to 59F	Dehumidifier, Air Cooler

2.8

Do not remove the connection rubber plugs before installing the compressor to prevent impurities and moisture build-up

2.9

Prevent dust from accumulating on the surface of wiring terminal, as insulation uncomformity may occur

2.10

The earth the compressor should be reliably connected to that of the refrigeration appliance

2.11

All compressors have been 1800V/1s tested before delivery

2.12

To maintain pressure balance of the system, interval between start and stop should be no less than 5 minutes

2.13

The compressor can not be started under vacuum condition

2.14

According to the working medium, the refrigeration system can be started under the following equilibrium pressure and operating voltage

Work Medium	Gauge Pressure	Operating Voltage
R600a	0.2mpa	Rated Voltage -15% to 10%
R134a	0.4mpa	Rated Voltage -15% to 10%

2.15

The normal working ambient temperature of the compressor are listed below

Location	Working Ambient Temperature
Subtemperate Zone (SN)	10 to 32°C (50 to 90F)
Temperate Zone (N)	16 to 32°C (61 to 90F)
Subtropical Zone (ST)	18 to 38°C (64 to 100F)
Tropical Zone (T)	18 to 43°C (64 to 109F)

2.16

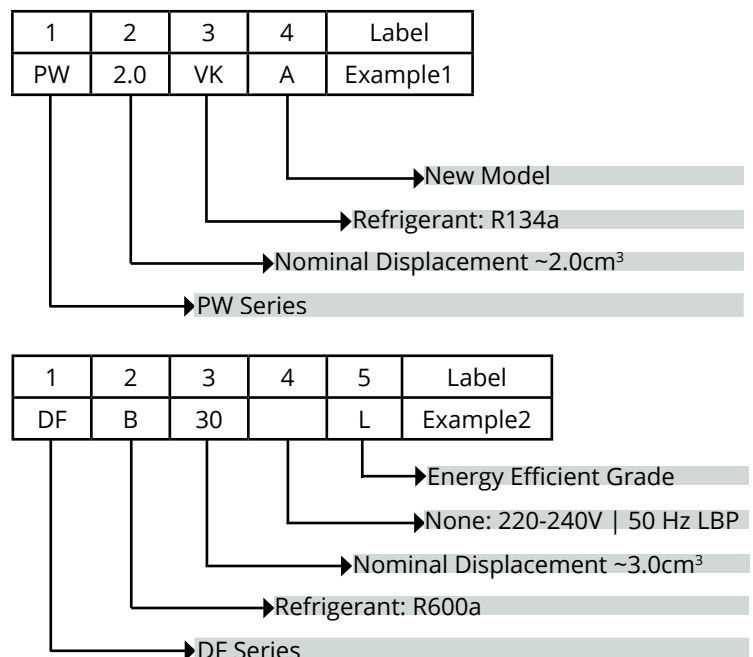
In case of power loss (or if shutdown is required) while the system is being vacuumized, the vacuumize system must be separated from the refrigeration system to prevent potential backflow into the refrigeration loop

2.17

The compressor is factory filled with specialized oil. Do not drain or add any other oil or antifreeze

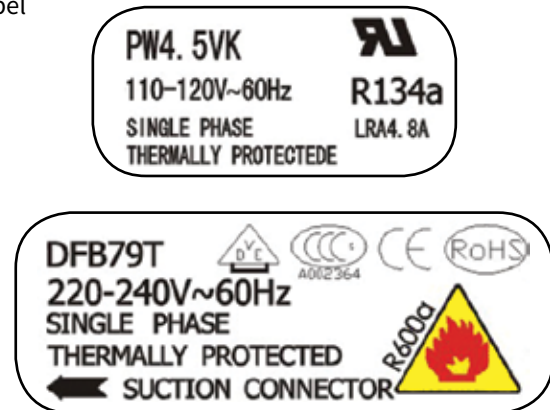
2.18

Compressor Model Label



Refrigerant Code	Type
B/BM	R600a
VK/DV	R134a
E	R404a
C	R22
Voltage Code	Voltage Range
K	220-240V 60 Hz
H	220-240V 50 Hz
D	110-120V 60 Hz
None	220-240V 50 Hz LBP

2.19
Label



3. Special requirements for R134a compressor

3.1 Specialized vacuum pump and charging equipment must be used when installing the compressor

3.2 The content of moisture, impurities, paraffin, silicone oil and chloride should be strictly controlled in the refrigeration system

3.3 Once plugs are removed from the air suction pipe and exhaust pipe, the compressor should be connected with the refrigeration system as soon as possible. It is recommended that the waiting period should not exceed 10 minutes

3.4 A R134a compliant filter with drying agent should be used in the refrigeration system

4. Special requirements for R600a compressor

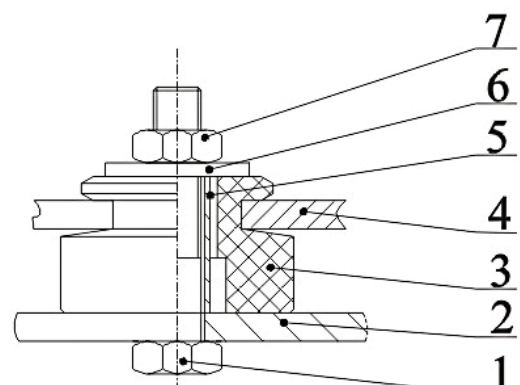
4.1 Corresponding PTC starter and blade protector must be used in the compressor

4.2 For safety, the refrigerant charge must not exceed 150g

4.3 The refrigerant will ignited when temperature is over 460°C (860F) or when concentration is between 1.98% to 8.5% by volume

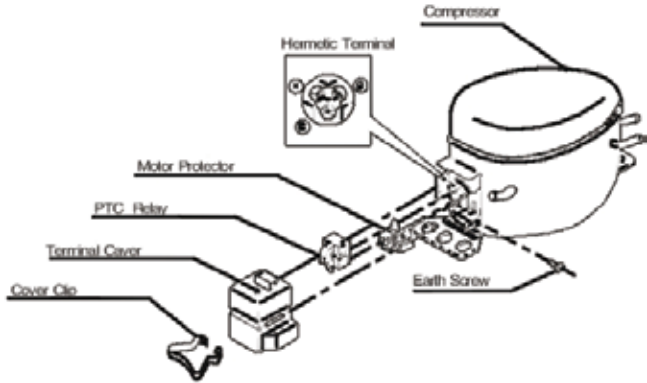
5. Mounting Accessory

Item	Name
1	Fixing Bolt
2	Cabinet Base
3	Rubber Grommet
4	Compressor Mounting Bracket
5	Spacer
6	Flat Washer
7	Hexagon Nut

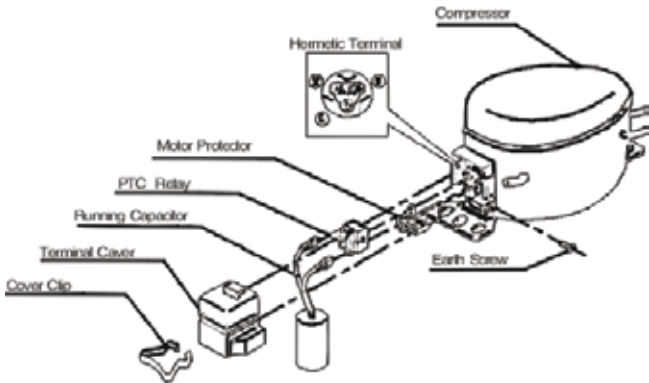


6.Exploded View

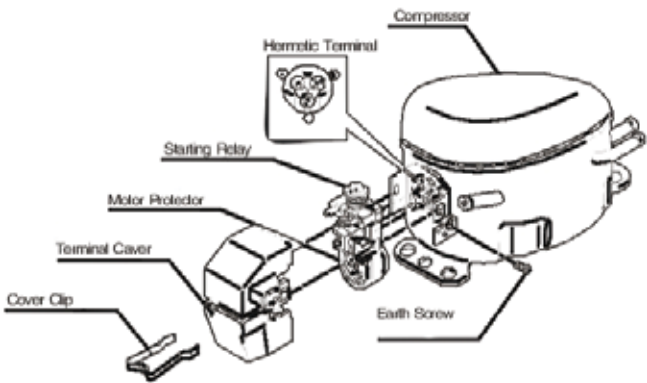
6.1 PTC RSIR



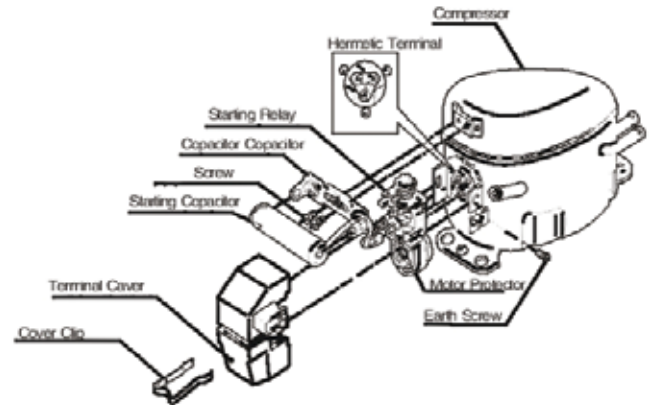
6.2 PTC RSCR



6.3 Relay RSIR

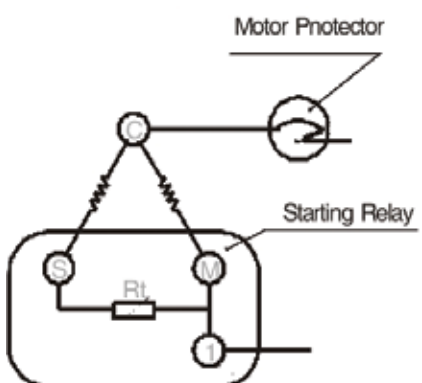


6.4 Relay RSCR

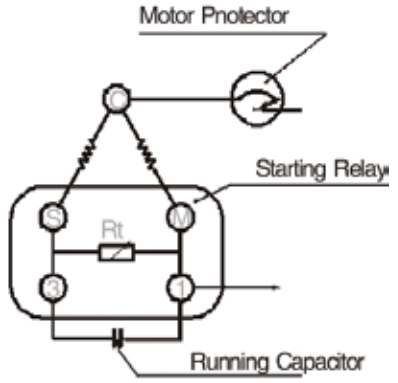


7. Wiring Diagrams

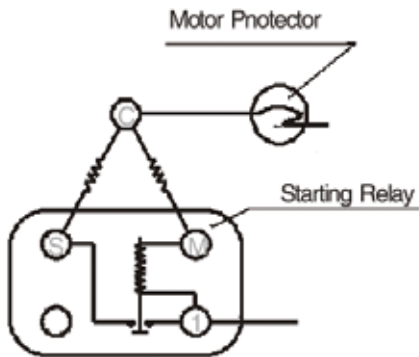
7.1 PTC RSIR



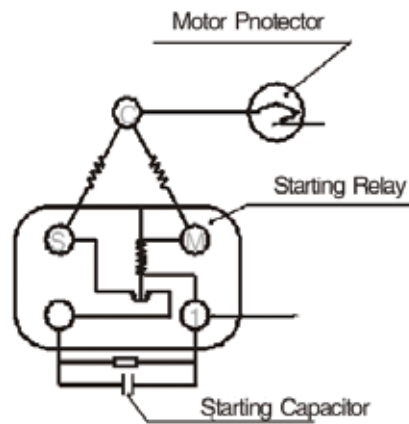
7.2 PTC RSCR



7.3
Relay RSIR



7.4
RelayRSCR



8. Packaging

Quantity	Dimensions	Notes
72	1110 x 860 x 1110 (max)	4 Layers
125	1120 x 865 x 1250 (max)	5 Layers
150	1120 x 865 x 1110 (max)	5 Layers
150	1120 x 885 x 1200 (max)	5 Layers



HERMETIC RECIPROCATING COMPRESSOR

R134a • 110-120V • MBP/LBP

Application

MBP/LBP version of TF compressors are ideally suited for light commercial applications such as display counters, commercial refrigerator, bottle cooler, drinking fountains and water purifiers, where the evaporating temperature is between -35 to -5°C (-31 to 23°F). This series is designed to accept a wide voltage range for all common markets.

For applications with non-typical requirements, we are able to redesign the compressor to match requirements. Please contact us to discuss further.

Features

- ▶ Sleek design coupled with innovative engineering
- ▶ Energy savings and cost efficiency
- ▶ Reduced shipping and storage costs
- ▶ Easy mounting

Main Technical Data

R134a • 110-120V • 60 Hz			
MBP/LBP			
Model	PW2.0DV-F	PW2.5DV-F	PW3.0DV-F
Evaporating temperature	-35 to -5°C / -31 to 23°F		
Ambient temperature	10 to 38°C / 50 to 100°F		
Voltage range/frequency	110-120V 60Hz		
Performance Data			
Displ. (cm ³)	2.33	2.65	2.95
Power (Hp)	1/14+	1/12+	1/9
Capacity (W)	55	65	78
Capacity (Btu/h)	188	222	266
Input Power (W)	66	70	76
COP (W/W)	0.83	0.93	1.03
Motor Type	RSIR		
Running capacitor (µF)	-		
Starting capacitor (µF)	-		
Compressor cooling	Static Cooling		

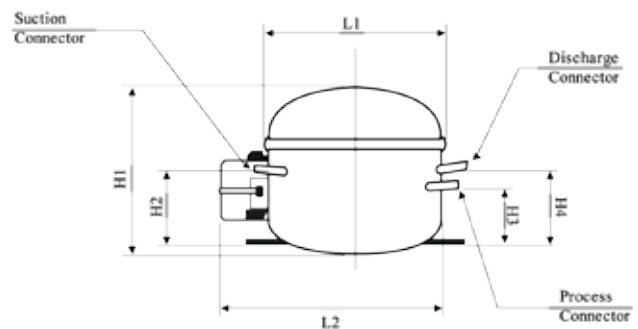
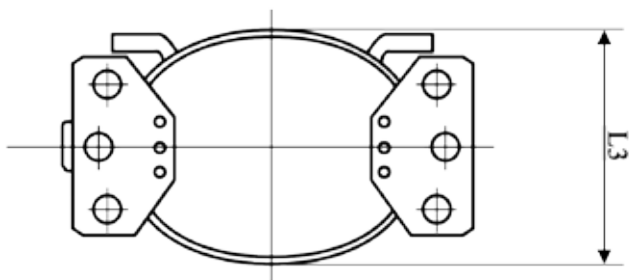


Test Conditions

Evaporating temperature	-23.3°C / -10°F
Condensing temperature	54.4°C / 130°F
Subcooling temperature	32.2°C / 90°F
Suction temperature	32.2°C / 90°F
Ambient temperature	32.2°C / 90°F
Power Supply	110V 60Hz

Dimensions

Model	PW2.0DV-F	PW2.5DV-F	PW3.0DV-F
H1	154	156	159
H2	67	67	67
H3	58	58	58
H4	69	69	69
L1	143	143	143
L2	183	183	183
L3	122	122	122
Suction connector	Ø6.1 ± 0.1		
Process connector	Ø6.1 ± 0.1		
Discharge connector	Ø4.9 ± 0.1		



HERMETIC RECIPROCATING COMPRESSOR

R134a • 220-240V • MBP/LBP

Application

MBP/LBP version of TF compressors are ideally suited for light commercial applications such as display counters, commercial refrigerator, bottle cooler, drinking fountains and water purifiers, where the evaporating temperature is between -35 to -5°C (-31 to 23°F). This series is designed to accept a wide voltage range for all common markets.

For applications with non-typical requirements, we are able to redesign the compressor to match requirements. Please contact us to discuss further.

Features

- ▶ Sleek design coupled with innovative engineering
- ▶ Energy savings and cost efficiency
- ▶ Reduced shipping and storage costs
- ▶ Easy mounting

Main Technical Data

R134a • 220-240V • 50/60 Hz					50 Hz	
MBP/LBP						
Model	PW2.0VKF	PW2.5VKF	PW4.0VKF	PW4.5VKF	DF12V	DF15V
Evaporating temperature	-35 to -5°C / -31 to 23°F					
Ambient temperature	10 to 38°C / 50 to 100°F					
Voltage range/frequency	220-240V 50/60Hz				220-240V 50Hz	
Performance Data						
Displ. (cm ³)	2.65	2.95	3.16	4.29	12.56	15.56
Power (Hp)	1/13+	1/12+	1/10-	1/6-	1/3+	1/2
Capacity (W)	55	67	72	115	270	370
Capacity (Btu/h)	188	229	246	392	921	1262
Input Power (W)	70	73	77	110	245	330
COP (W/W)	0.79	0.92	0.94	1.05	1.10	1.12
Motor Type	RSIR	RSIR	RSIR	RSIR	RSIR	RSIR
Running capacitor (µF)	-					
Starting capacitor (µF)	-				47	75
Compressor cooling	Static Cooling				Fan Cooling	

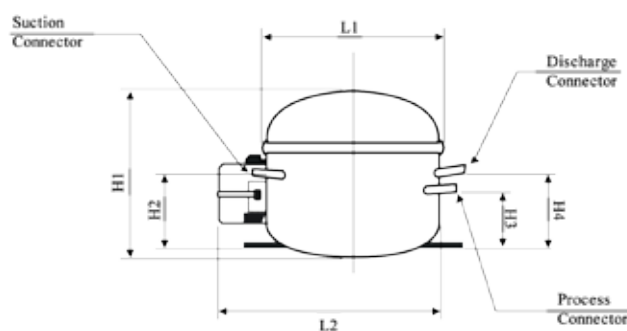
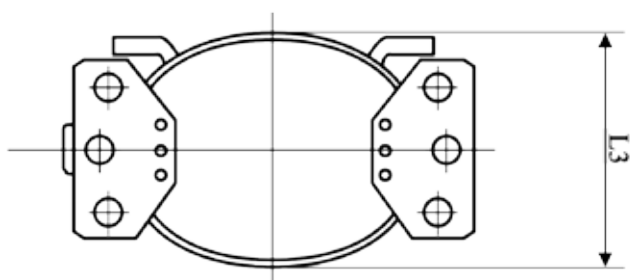


Test Conditions

Evaporating temperature	-23.3°C / -10°F
Condensing temperature	54.4°C / 130°F
Subcooling temperature	32.2°C / 90°F
Suction temperature	32.2°C / 90°F
Ambient temperature	32.2°C / 90°F
Power Supply	220V 50Hz

Dimensions

Model	PW2.0VKF	PW2.5VKF	PW4.0VKF	PW4.5VKF	DF12V	DF15V
H1	154	156	159	153	205	211
H2	67	67	67	51	88	88
H3	58	58	58	55	98	98
H4	69	69	69	83	113	113
L1	143	143	143	159	249	249
L2	183	183	183	198	237	237
L3	122	122	122	133.5	164	164
Suction connector	Ø6.1 ± 0.1				Ø8.2 ± 0.1	
Process connector	Ø6.1 ± 0.1				Ø6.2 ± 0.1	
Discharge connector	Ø4.9 ± 0.1				Ø6.2 ± 0.1	



HERMETIC RECIPROCATING COMPRESSOR

R134a • 110-120V • LBP

Application

One of the original and most popular TF compressors. The LBP version is widely used for freezers and refrigerators, where evaporating temperatures can be as low as -35°C (-31°F). This series is designed to accept a wide voltage range for all common markets.

For applications with non-typical requirements, we are able to redesign the compressor to match. Please contact us to discuss further.

Features

- ▶ Sleek design coupled with innovative engineering
- ▶ Energy savings and cost efficiency
- ▶ Reduced shipping and storage costs
- ▶ Reduction in complexity
- ▶ Easy mounting

Main Technical Data

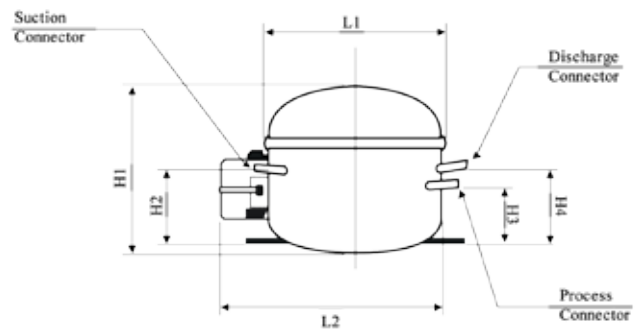
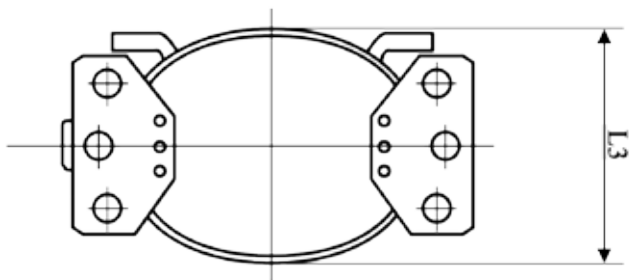
R134a • 110-120V • 60 Hz				
LBP				
Model	PW2.5DVF	PW3.0DVF	PW3.5DVF	PW4.0DVF
Evaporating temperature	-35 to -15°C / -31 to 5°F			
Ambient temperature	10 to 38°C / 50 to 100°F			
Voltage range/frequency	110-120V 60Hz			
Performance Data				
Displ. (cm ³)	2.64	3.15	3.66	4.29
Power (Hp)	1/12+	1/9-	1/7-	1/6+
Capacity (W)	65	80	105	138
Capacity (Btu/h)	222	273	358	471
Input Power (W)	70	84	105	120
COP (W/W)	0.93	0.95	1.00	1.15
Motor Type	RSIR	RSIR	RSIR	RSIR
Running capacitor (µF)	-	-	-	-
Starting capacitor (µF)	-	-	-	-
Compressor cooling	Static Cooling			



Test Conditions	
Evaporating temperature	7.2°C / 45°C
Condensing temperature	54.4°C / 130°C
Subcooling temperature	46.1°C / 115°C
Suction temperature	35°C / 95°C
Ambient temperature	35°C / 95°C
Power Supply	110V 60Hz

Dimensions

Model	PW3.5VK-F	PW4.0VK-F
H1	147	149
H2	51	51
H3	55	55
H4	83	83
L1	159	159
L2	198	198
L3	133.5	133.5
Suction connector	Ø6.1 ± 0.1	
Process connector	Ø6.1 ± 0.1	
Discharge connector	Ø4.9 ± 0.1	



HERMETIC RECIPROCATING COMPRESSOR

R134a • 220-240V • LBP

Application

One of the original and most popular TF compressors. The LBP version is widely used for freezers and refrigerators, where evaporating temperatures can be as low as -35°C (-31°F). This series is designed to accept for a wide voltage range for all common markets.

For applications with non-typical requirements, we are able to redesign the compressor to match. Please contact us to discuss further.

Features

- ▶ Sleek design coupled with innovative engineering
- ▶ Energy savings and cost efficiency
- ▶ Reduced shipping and storage costs
- ▶ Reduction in complexity
- ▶ Easy mounting

Main Technical Data

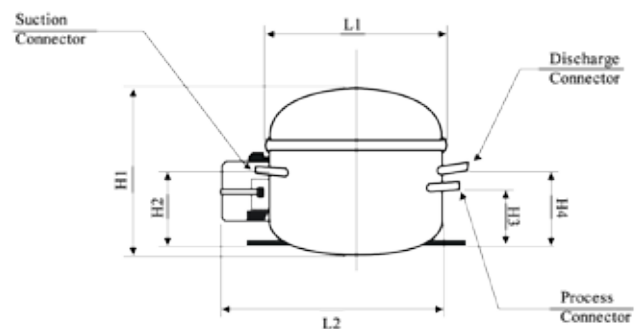
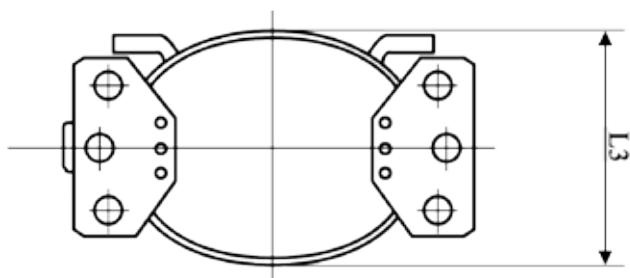
R134a • 220-240V • 50 Hz										
LBP										
Model	PW2.0VKL	PW2.5VKL	PW3.0VK	PW3.5VK	PW4.0VKL	PW4.5VK	PW5.5VK	PW6.5VK	PW7.5VK	PW8.5VK
Evaporating temperature	-35 to -15°C / -31 to 5°F									
Ambient temperature	10 to 38°C / 50 to 100°F									
Voltage range/ frequency	220-240V 50Hz									
Performance Data										
Displ. (cm ³)	2.65	2.95	3.16	3.66	4.29	4.99	5.68	6.37	7.07	8.05
Power (Hp)	1/14	1/10	1/9	1/8	1/6-	1/6+	1/5+	1/4-	1/4	1/4+
Capacity (W)	55	65	80	95	112	130	150	170	190	220
Capacity (Btu/h)	188	222	273	324	382	444	512	580	648	751
Input Power (W)	65	72	84	95	102	113	122	142	152	183
COP (W/W)	0.85	0.90	0.95	1.00	1.10	1.15	1.23	1.20	1.25	1.20
Motor Type	RSIR									
Running capacitor (µF)	-									
Starting capacitor (µF)	-									
Compressor cooling	Static Cooling									



Test Conditions	
Evaporating temperature	-23.3°C / -10°F
Condensing temperature	54.4°C / 130°F
Subcooling temperature	32.2°C / 90°F
Suction temperature	32.2°C / 90°F
Ambient temperature	32.2°C / 90°F
Power Supply	220V 50Hz

Dimensions

Model	PW2.0VKL	PW2.5VKL	PW3.0VK	PW3.5VK	PW4.0VKL	PW4.5VK	PW5.5VK	PW6.5VK	PW7.5VK	PW8.5VK
H1	154	156	159	147	153	159	172	178	178	178
H2	67	67	67	51	51	55	77	77	77	77
H3	58	58	58	55	55	60	65	65	65	65
H4	69	69	69	83	83	88	93	93	93	93
L1	143	143	143	159	159	159	154.5	154.5	154.5	154.5
L2	183	183	183	198	198	198	203	203	203	203
L3	122	122	122	133.5	133.5	133.5	135.5	135.5	135.5	135.5
Suction connector	Ø6.1 ± 0.1									
Process connector	Ø6.1 ± 0.1									
Discharge connector	Ø4.9 ± 0.1									



Main Technical Data - Continued

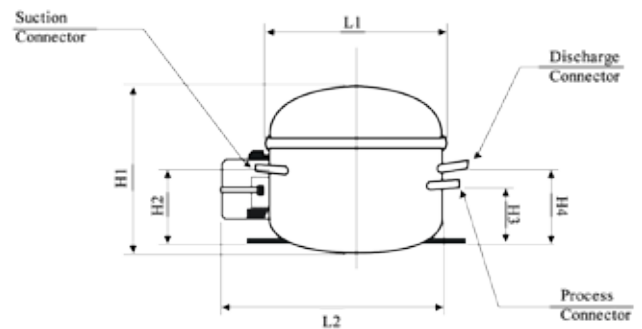
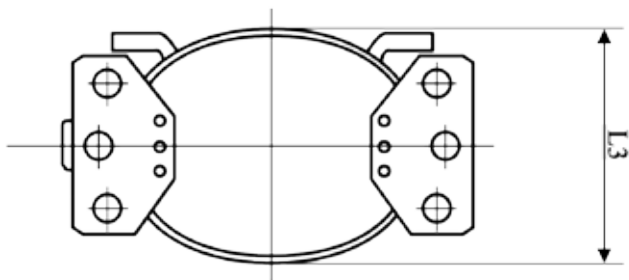
R134a • 220-240V • 50 Hz								
LBP								
Model	DFV95	DFV105	DFV115	DFV125	PW4.5VKA	PW5.5VKA	PW6.5VKA	PW7.5VKA
Evaporating temperature	-35 to -15°C / -31 to 5°F							
Ambient temperature	10 to 38°C / 50 to 100°F							
Voltage range/frequency	220-240V 50Hz							
Performance Data								
Displ. (cm ³)	9.52	10.51	11.49	12.47	4.99	5.68	6.37	7.07
Power (Hp)	1/3	1/3+	1/3+	1/2-	1/6+	1/5+	1/4-	1/4
Capacity (W)	250	280	300	320	130	150	170	190
Capacity (Btu/h)	853	955	1024	1092	444	512	580	648
Input Power (W)	200	233	273	267	87	100	113	127
COP (W/W)	1.25	1.20	1.10	1.20	1.49	1.50	1.50	1.50
Motor Type	RSCR							
Running capacitor (μF)	5	10	10	10	5	5	5	5
Starting capacitor (μF)	-							
Compressor cooling	Fan Cooling				Static Cooling			

Test Conditions	
Evaporating temperature	-23.3°C / -10°F
Condensing temperature	54.4°C / 130°F
Subcooling temperature	32.2°C / 90°F
Suction temperature	32.2°C / 90°F
Ambient temperature	32.2°C / 90°F
Power Supply	220V 50Hz



Dimensions

Model	DFV95	DFV105	DFV115	DFV125	PW4.5VKA	PW5.5VKA	PW6.5VKA	PW7.5VKA
H1	187	190	193	192	178	184	189	192
H2	81	81	93	93	79	86	81	93
H3	83	83	95	95	71	77	83	95
H4	101	101	113	113	89	96	101	113
L1	182	182	182	182	178	178	182	182
L2	217	217	217	217	215	215	217	217
L3	148	148	148	148	148	148	148	148
Suction connector	$\text{Ø}8.2 \pm 0.1$				$\text{Ø}6.1 \pm 0.1$		$\text{Ø}8.2 \pm 0.1$	
Process connector	$\text{Ø}6.3 \pm 0.1$				$\text{Ø}6.1 \pm 0.1$		$\text{Ø}6.3 \pm 0.1$	
Discharge connector	$\text{Ø}6.2 \pm 0.1$				$\text{Ø}4.9 \pm 0.1$		$\text{Ø}6.2 \pm 0.1$	



HERMETIC RECIPROCATING COMPRESSOR

R134a • 110-120V • HBP

Application

HBP version of TF compressors are ideally suited for air dehumidifiers, liquid coolers and various commercial refrigeration appliances.

For applications with non-typical requirements, we are able to redesign the compressor to match. Please contact us to discuss further.

Features

- ▶ Sleek design coupled with innovative engineering
- ▶ Energy savings and cost efficiency
- ▶ Reduced shipping and storage costs
- ▶ Reduction in complexity
- ▶ Easy mounting

Main Technical Data

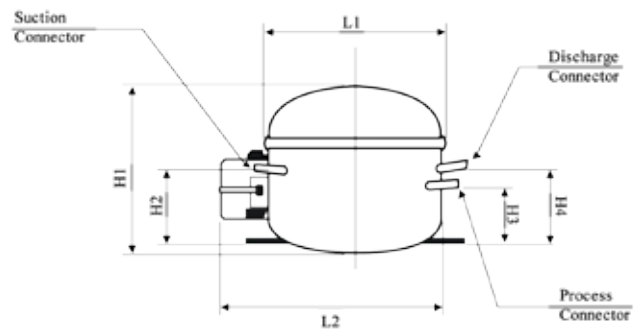
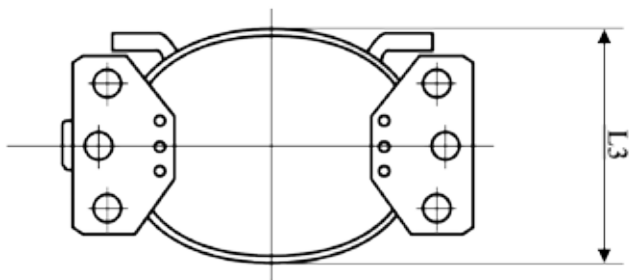
R134a • 110-120V • 60 Hz		
HBP		
Model	PW3.5VK-F	PW4.0VK-F
Evaporating temperature	-20 to 15°C / -4 to 59°F	
Ambient temperature	10 to 38°C / 50 to 100°F	
Voltage range/frequency	110-120V 60Hz	
Performance Data		
Displ. (cm ³)	3.15	3.66
Power (Hp)	1/2-	1/2-
Capacity (W)	360	420
Capacity (Btu/h)	1228	1433
Input Power (W)	171	200
COP (W/W)	2.11	2.10
Motor Type	RSIR	RSIR
Running capacitor (µF)	-	-
Starting capacitor (µF)	-	-
Compressor cooling	Static Cooling	Static Cooling



Test Conditions	
Evaporating temperature	7.2°C / 45°C
Condensing temperature	54.4°C / 130°C
Subcooling temperature	46.1°C / 115°C
Suction temperature	35°C / 95°C
Ambient temperature	35°C / 95°C
Power Supply	110V 60Hz

Dimensions

Model	PW3.5VK-F	PW4.0VK-F
H1	147	149
H2	51	51
H3	55	55
H4	83	83
L1	159	159
L2	198	198
L3	133.5	133.5
Suction connector	Ø6.1 ± 0.1	
Process connector	Ø6.1 ± 0.1	
Discharge connector	Ø4.9 ± 0.1	



HERMETIC RECIPROCATING COMPRESSOR

R134a • 220-240V • HBP

Application

HBP version of TF compressors are ideally suited for air dehumidifiers, liquid coolers and various commercial refrigeration appliances.

For applications with non-typical requirements, we are able to redesign the compressor to match. Please contact us to discuss further.

Features

- ▶ Sleek design coupled with innovative engineering
- ▶ Energy savings and cost efficiency
- ▶ Reduced shipping and storage costs
- ▶ Reduction in complexity
- ▶ Easy mounting

Main Technical Data

R134a • 220-240V • 50 Hz							
HBP							
Model	PW3.5VK	DFV4.0HF	DFV4.5HF	DFV5.5HF	DFV6.5HF	DFV6.5HF	DFV7.5HF
Evaporating temperature	-20 to 15°C / -4 to 59°F						
Ambient temperature	10 to 38°C / 50 to 100°F						
Voltage range/frequency	220-240V 50Hz						
Performance Data							
Displ. (cm ³)	3.66	4.29	4.99	5.68	6.37	6.37	7.07
Power (Hp)	1/2-	1/2	1/2+	1/2+	1/2+	1/2+	1/2+
Capacity (W)	310	420	505	580	645	645	715
Capacity (Btu/h)	1058	1433	1723	1979	2201	2201	2440
Input Power (W)	163	183	213	247	282	264	318
COP (W/W)	1.90	2.30	2.37	2.35	2.29	2.44	2.25
Motor Type	RSIR						
Running capacitor (μF)	-	-	-	-	-	5	-
Starting capacitor (μF)	-						
Compressor cooling	Static Cooling						



Continued

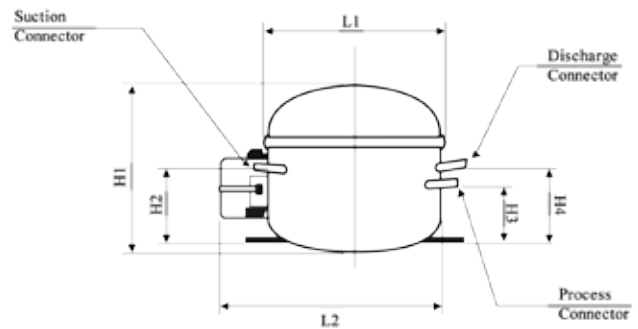
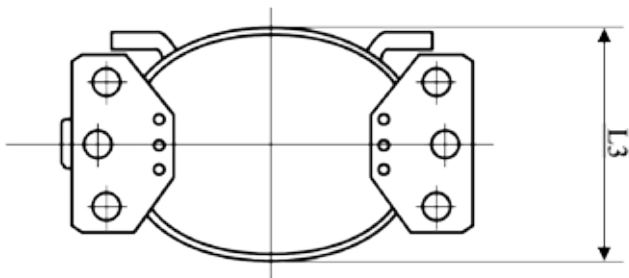
R134a • 220-240V • 50 Hz							
HBP							
Model	DFV8.5HF	DFV9.5HF	DFV105HF	DFV115HF	DFV125HF	DF12VH	DF15VH
Evaporating temperature	-20 to 15°C / -4 to 59°F						
Ambient temperature	10 to 38°C / 50 to 100°F						
Voltage range/frequency	220-240V 50Hz						
Performance Data							
Displ. (cm ³)	8.05	9.52	10.51	11.49	12.47	12.56	15.56
Power (Hp)	1+	1+	1+	1+	1+	1+	1+
Capacity (W)	820	920	980	1020	1120	1120	1440
Capacity (Btu/h)	2798	3139	3344	3480	3821	3821	4913
Input Power (W)	365	400	445	464	560	560	655
COP (W/W)	2.25	2.30	2.20	2.20	2.00	2.00	2.20
Motor Type	RSIR					CISR	CISR
Running capacitor (µF)	5	5	10	10	10	47	75
Starting capacitor (µF)	-						
Compressor cooling	Static Cooling	Fan Cooling					

Test Conditions	
Evaporating temperature	7.2°C / 45°C
Condensing temperature	54.4°C / 130°C
Subcooling temperature	46.1°C / 115°C
Suction temperature	35°C / 95°C
Ambient temperature	35°C / 95°C
Power Supply	220V 50Hz



Dimensions

Model	PW3.5VK	DFV4.0HF	DFV4.5HF	DFV5.5HF	DFV6.5HF	DFV7.5HF	
H1	147	153	167	170	173	176	
H2	51	51	77	82	82	87	
H3	55	55	65	76	76	81	
H4	83	83	93	89	89	94	
L1	159	159	154.5	167	167	167	
L2	198	198	203	207	207	207	
L3	133.5	133.5	135.5	142	142	142	
Suction connector	$\varnothing 6.1 \pm 0.1$						
Process connector	$\varnothing 6.1 \pm 0.1$						
Discharge connector	$\varnothing 4.9 \pm 0.1$						
Model	DFV8.5HF	DFV9.5HF	DFV105HF	DFV115HF	DFV125HF	DF12VH	DF15VH
H1	176	187	190	193	192	205	211
H2	87	81	81	93	93	88	88
H3	81	83	83	95	95	98	98
H4	94	101	101	113	113	113	113
L1	167	182	182	182	182	249	249
L2	207	217	217	217	217	237	237
L3	142	148	148	148	148	164	164
Suction connector	$\varnothing 6.1 \pm 0.1$	$\varnothing 8.2 \pm 0.1$				$\varnothing 8.2 \pm 0.1$	
Process connector	$\varnothing 6.1 \pm 0.1$	$\varnothing 6.3 \pm 0.1$				$\varnothing 6.2 \pm 0.1$	
Discharge connector	$\varnothing 4.9 \pm 0.1$	$\varnothing 6.2 \pm 0.1$				$\varnothing 6.2 \pm 0.1$	



HERMETIC RECIPROCATING COMPRESSOR

R600a • 110-120V • LBP

Application

As one of the earliest version of TF compressors, it is widely recommended by many top international companies in the refrigeration industry. The LBP version is widely used for freezers and refrigerators and are supplied with both RSCR and RSIR type motors.

For applications with non-typical requirements, we are able to redesign the compressor to match requirements. Please contact us to discuss further. For applications using R600a refrigerant, please refer to special requirements as highlighted on Manual Page3

Features

- ▶ Sleek design coupled with innovative engineering
- ▶ Energy savings and cost efficiency
- ▶ Reduced shipping and storage costs
- ▶ Reduction in complexity
- ▶ Easy mounting

Main Technical Data

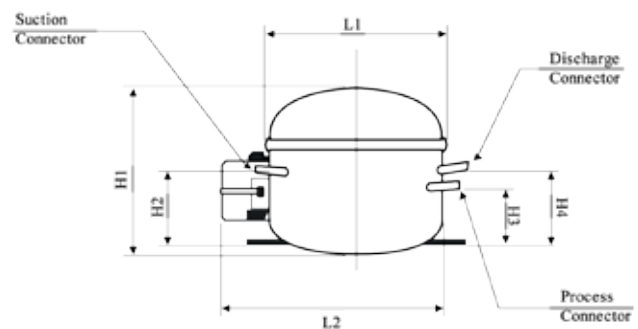
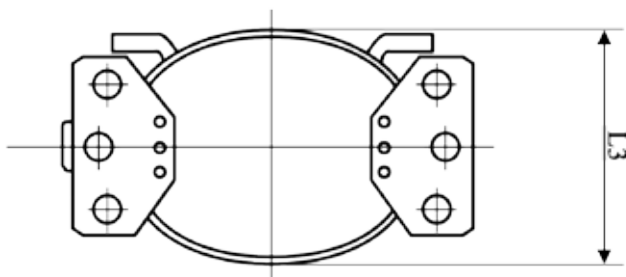
R600a • 110-120V • 60 Hz • DFBD												
LBP												
Model	DFB30DF	30DLF	DFB40DF	40DLF	DFB50DF	50DLF	DFB55DF	55DLF	DFB60DF	60DLF	DFB70DF	70DLF
Evaporating temperature	-35 to -15°C / -31 to 5°F											
Ambient temperature	10 to 38°C / 50 to 100°F											
Voltage range/frequency	110-120V 60Hz											
Performance Data												
Displ. (cm ³)	3.15	3.15	4.29	4.29	4.99	4.99	5.68	5.68	6.37	6.37	7.07	7.07
Power (Hp)	1/14	1/14	1/12-	1/12-	1/9	1/9	1/8+	1/8+	1/6-	1/6-	1/6+	1/6+
Capacity (W)	55	55	74	75	87	87	100	100	120	120	138	138
Capacity (Btu/h)	188	188	252	256	297	297	341	341	409	409	471	471
Input Power (W)	44	42	61	56	67	60	74	65	86	78	97	89
COP (W/W)	1.25	1.31	1.21	1.34	1.30	1.45	1.35	1.54	1.40	1.54	1.42	1.55
Motor Type	RSIR	RSCR	RSIR	RSCR	RSIR	RSCR	RSIR	RSCR	RSIR	RSCR	RSIR	RSCR
Running capacitor (µF)	-	8	8	8	-	8	-	8	-	8	-	8
Starting capacitor (µF)	-											
Compressor cooling	Static Cooling											



Test Conditions		
Evaporating temperature		-23.3°C / -10°F
Condensing temperature		54.4°C / 130°F
Subcooling temperature		32.2°C / 90°F
Suction temperature		32.2°C / 90°F
Ambient temperature		32.2°C / 90°F
Power Supply		110V 60Hz

Dimensions

Model	DFB30DF/DLF	DFB40DF/DLF	DFB50DF/DLF	DFB55DF/DLF	DFB60DF/DLF	DFB70DF/DLF
H1	150	158	164	169	175	171
H2	71	71	67	77	77	84
H3	47	47	55	65	65	76
H4	75	75	83	93	93	94
L1	148.5	148.5	154.5	154.5	154.5	174
L2	186.5	186.5	203	203	203	209
L3	130.5	130.5	135.5	135.5	135.5	147
Suction connector	Ø6.1 ± 0.1					
Process connector	Ø6.1 ± 0.1					
Discharge connector	Ø4.9 ± 0.1					



Main Technical Data - BLDC

R600a • BLDC			
General	DFB8.0YL	DFB9.0YL	DFB11.0YL
Speed (Rpm)	1200 - 4500	1200 - 4500	1200 - 4500
Capacity (W)	54 - 205	60 - 230	75 - 285
COP (W/W)	1.63 - 1.75	1.63 - 1.75	1.63 - 1.75
Motor Type	BLDC	BLDC	BLDC
Compressor cooling	Static Cooling	Static Cooling	Static Cooling



HERMETIC RECIPROCATING COMPRESSOR

R600a • 220-240V • LBP

Application

As one of the earliest version of TF compressors, it is widely recommended by many top international companies in the refrigeration industry. The LBP version is widely used for freezers and refrigerators and are supplied with both RSCR and RSIR type motors.

For applications with non-typical requirements, we are able to redesign the compressor to match requirements. Please contact us to discuss further. For applications using R600a refrigerant, please refer to special requirements as highlighted on Manual Page3

Features

- ▶ Sleek design coupled with innovative engineering
- ▶ Energy savings and cost efficiency
- ▶ Reduced shipping and storage costs
- ▶ Reduction in complexity
- ▶ Easy mounting

Main Technical Data - PW Series

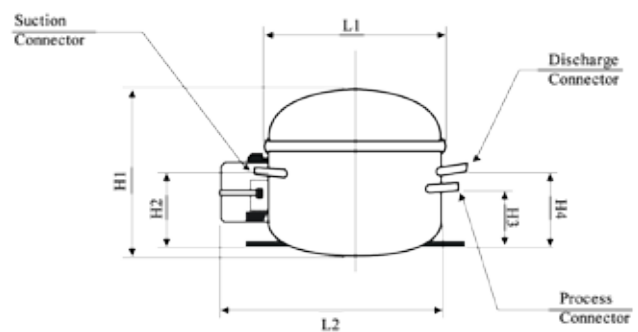
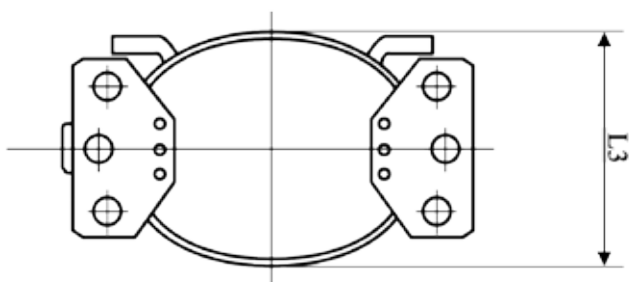
R600a • 220-240V • 50 Hz								
LBP								
Model	PW3.0B	PW4.0B	PW58BM	PW5.0B	PW7.0B	PW9.0B	PW10.0B	PW12.0B
Evaporating temperature	-35 to -15°C / -31 to 5°F							
Ambient temperature	10 to 38°C / 50 to 100°F							
Voltage range/frequency	220-240V 50Hz							
Performance Data								
Displ. (cm ³)	4.99	5.68	6.09	7.07	8.05	9.03	10.10	11.33
Power (Hp)	1/12	1/8	1/8+	1/6-	1/6+	1/5	1/4-	1/4+
Capacity (W)	70	90	100	115	135	150	170	190
Capacity (Btu/h)	239	307	341	392	461	512	580	648
Input Power (W)	58	72	82	92	108	115	131	146
COP (W/W)	1.21	1.25	1.22	1.25	1.25	1.30	1.30	1.30
Motor Type	RSIR							
Running capacitor (µF)	-							
Starting capacitor (µF)	-							
Compressor cooling	Static Cooling							



Test Conditions	
Evaporating temperature	-23.3°C / -10°F
Condensing temperature	54.4°C / 130°F
Subcooling temperature	32.2°C / 90°F
Suction temperature	32.2°C / 90°F
Ambient temperature	32.2°C / 90°F
Power Supply	220V 50Hz

Dimensions

Model	PW3.0B	PW4.0B	PW58BM	PW5.0B	PW7.0B	PW9.0B	PW10.0B	PW12.0B
H1	147	147	147	149	159	167	172	171
H2	51	51	51	51	67	77	77	74
H3	55	55	55	55	55	65	65	66
H4	83	83	83	83	83	93	93	84
L1	159	159	159	159	154.5	154.5	154.5	178
L2	198	198	198	198	203	203	203	215
L3	133.5	133.5	133.5	133.5	135.5	135.5	135.5	148
Suction connector	Ø6.1 ± 0.1							
Process connector	Ø6.1 ± 0.1							
Discharge connector	Ø4.9 ± 0.1							



Main Technical Data - DFBL Series

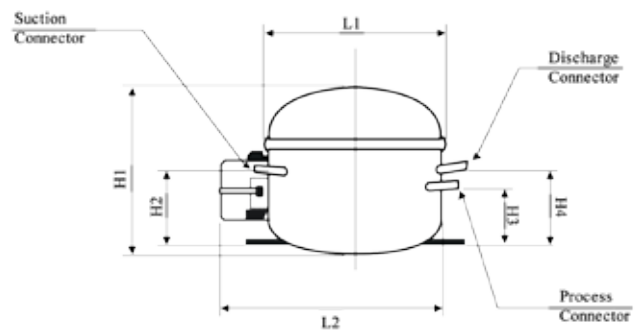
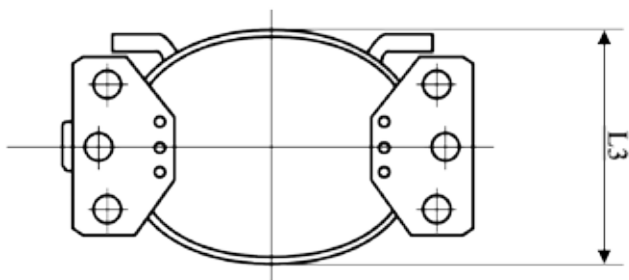
R600a • 220-240V • 50 Hz							
LBP							
Model	DFB30LF	DFB30L-1F	DFB35L	DFB53L		DFB60L	
Displ. (cm ³)	3.51	3.66	4.29	5.68	5.68	6.17	6.17
Power (Hp)	1/14-	1/14-	1/10-	1/9	1/9	1/8+	1/8+
Capacity (W)	55	55	65	90	90	100	100
Capacity (Btu/h)	188	188	222	307	307	341	341
Input Power (W)	48	39	50	64	60	69	62.5
COP (W/W)	1.15	1.41	1.30	1.41	1.50	1.45	1.60
Motor Type	RSIR	RSCR	RSCR	RSCR	-	RSCR	-
Running capacitor (μF)	-	3.5	3.5	-	3.5	-	3.5
Starting capacitor (μF)	-						
Compressor cooling	Static Cooling						
Model	DFB69L		DFB79L		DFB90L		
Displ. (cm ³)	7.07	7.07	8.05	8.05	9.03	9.03	
Power (Hp)	1/6-	1/6-	1/6+	1/6+	1/5	1/5	
Capacity (W)	115	115	135	135	150	150	
Capacity (Btu/h)	392	392	461	461	512	512	
Input Power (W)	82	76	96	90	103	96	
COP (W/W)	1.40	1.51	1.41	1.50	1.46	1.56	
Motor Type	RSCR	-	RSCR	-	RSCR	-	
Running capacitor (μF)	-	3.5	-	3.5	-	3.5	
Starting capacitor (μF)	-						
Compressor cooling	Static Cooling						
General							
Evaporating temperature	-35 to -15°C / -31 to 5°F						
Ambient temperature	10 to 38°C / 50 to 100°F						
Voltage range/frequency	220-240V 50Hz						



Test Conditions		
Evaporating temperature		-23.3°C / -10°F
Condensing temperature		54.4°C / 130°F
Subcooling temperature		32.2°C / 90°F
Suction temperature		32.2°C / 90°F
Ambient temperature		32.2°C / 90°F
Power Supply		220V 50Hz

Dimensions

Model	DFB30LF	DFB30L-1F	DFB35L	DFB53L	DFB60L	DFB69L	DFB79L	DFB90L
H1	154	148	150	169	169	169	175	174
H2	67	71	71	77	77	77	77	74
H3	58	47	47	65	65	65	65	66
H4	69	75	75	93	93	93	93	84
L1	143	148.5	148.5	154.5	154.5	154.5	154.5	178
L2	183	186.5	186.5	203	203	203	203	215
L3	122	130.5	130.5	135.5	135.5	135.5	135.5	148.0
Suction connector	Ø6.1 ± 0.1							
Process connector	Ø6.1 ± 0.1							
Discharge connector	Ø4.9 ± 0.1							



Main Technical Data - DFBS Series

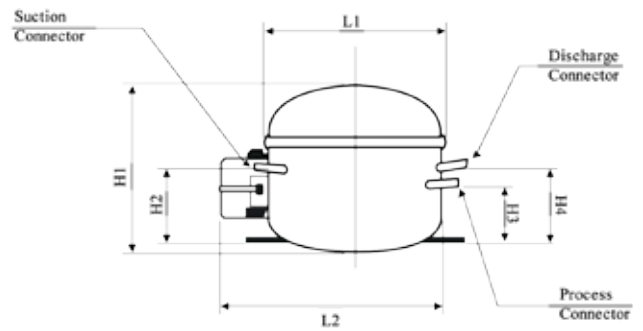
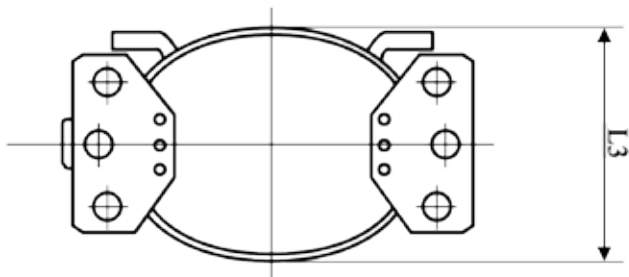
R600a • 220-240V • 50 Hz				
LBP				
Model	DFB60S	DFB69S	DFB79S	DFB90S
Evaporating temperature	-35 to -15°C / -31 to 5°F			
Ambient temperature	10 to 38°C / 50 to 100°F			
Voltage range/frequency	220-240V 50Hz			
Performance Data				
Displ. (cm ³)	6.17	7.07	8.05	9.03
Power (Hp)	1/8+	1/6-	1/6+	1/5
Capacity (W)	100	115	135	150
Capacity (Btu/h)	341	392	461	512
Input Power (W)	61	70	81	91
COP (W/W)	1.64	1.64	1.67	1.65
Motor Type	RSCR			
Running capacitor (µF)	3.5			
Starting capacitor (µF)	-			
Compressor cooling	Static Cooling			

Test Conditions	
Evaporating temperature	-23.3°C / -10°F
Condensing temperature	54.4°C / 130°F
Subcooling temperature	32.2°C / 90°F
Suction temperature	32.2°C / 90°F
Ambient temperature	32.2°C / 90°F
Power Supply	220V 50Hz



Dimensions

Model	DFB60S	DFB69S	DFB79S	DFB90S
H1	169	172	174	177
H2	77	77	74	74
H3	65	65	66	66
H4	93	93	84	84
L1	154.5	154.5	178	178
L2	203	203	215	215
L3	135.5	135.5	148	148
Suction connector	Ø6.1 ± 0.1			
Process connector	Ø6.1 ± 0.1			
Discharge connector	Ø4.9 ± 0.1			



Main Technical Data - DFBT Series

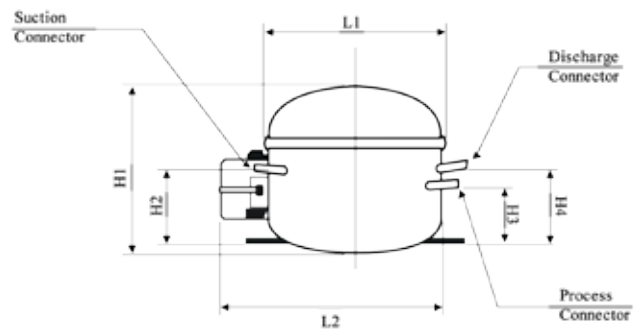
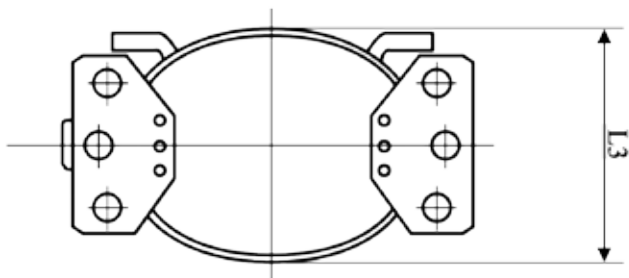
R600a • 220-240V • 50 Hz								
LBP								
Model	DFB35T	DFB45T	DFB60T	DFB69T	DFB79T	DFB90T	DFB103T	DFB115T
Evaporating temperature	-35 to -15°C / -31 to 5°F							
Ambient temperature	10 to 38°C / 50 to 100°F							
Voltage range/frequency	220-240V 50Hz							
Performance Data								
Displ. (cm ³)	4.29	4.99	6.37	7.07	8.05	9.03	10.10	11.33
Power (Hp)	1/10-	1/9	1/8+	1/6-	1/6+	1/5	1/4-	1/4
Capacity (W)	65	80	100	115	135	150	170	190
Capacity (Btu/h)	222	273	341	392	461	512	580	648
Input Power (W)	42	52.5	60	67	78	85	98	114
COP (W/W)	1.55	1.52	1.67	1.72	1.73	1.76	1.73	1.67
Motor Type	RSCR							
Running capacitor (µF)	3.5							
Starting capacitor (µF)	-							
Compressor cooling	Static Cooling							

Test Conditions	
Evaporating temperature	-23.3°C / -10°F
Condensing temperature	54.4°C / 130°F
Subcooling temperature	32.2°C / 90°F
Suction temperature	32.2°C / 90°F
Ambient temperature	32.2°C / 90°F
Power Supply	220V 50Hz



Dimensions

Model	DFB35T	DFB45T	DFB60T	DFB69T	DFB79T	DFB90T	DFB103T	DFB115T
H1	164	154	166	166	174	174	174	176
H2	67	74	74	74	74	74	74	74
H3	55	66	66	66	66	66	66	66
H4	83	84	84	84	84	84	84	84
L1	154.5	174	178	178	178	178	178	178
L2	203	209	215	215	215	215	215	215
L3	135.5	147	148	148	148	148	148	148
Suction connector	$\text{Ø}6.1 \pm 0.1$							
Process connector	$\text{Ø}6.1 \pm 0.1$							
Discharge connector	$\text{Ø}4.9 \pm 0.1$							



Main Technical Data

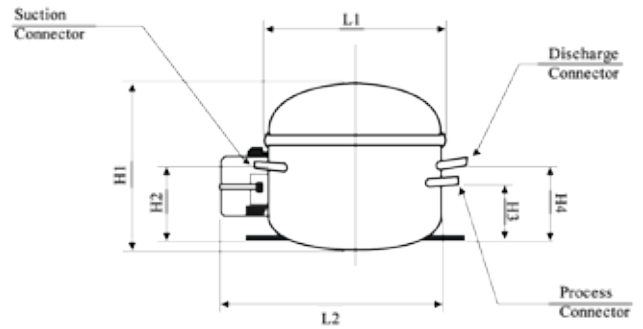
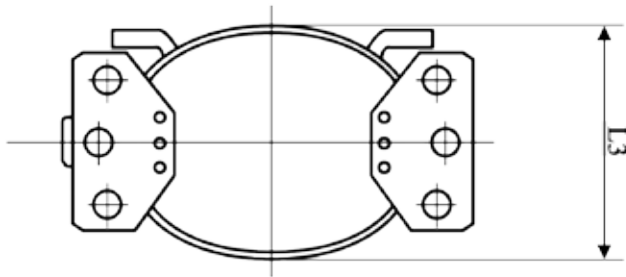
R600a • 220-240V • 50/60 Hz				
LBP				
Model	PW48BMF	DFB55KF	DFB69LKF	DFB79LKF
Evaporating temperature	-35 to -15°C / -31 to 5°F			
Ambient temperature	10 to 38°C / 50 to 100°F			
Voltage range/frequency	220-240V 50/60Hz			
Performance Data				
Displ. (cm ³)	4.29	5.68	7.07	8.05
Power (Hp)	1/10+	1/8+	1/6+	1/5
Capacity (W)	70	100	130	143
Capacity (Btu/h)	239	341	444	488
Input Power (W)	61	76	87	95
COP (W/W)	1.15	1.32	1.49	1.51
Motor Type	RSIR		RSCR	
Running capacitor (μF)	-		3.5	
Starting capacitor (μF)	-			
Compressor cooling	Static Cooling			

Test Conditions	
Evaporating temperature	-23.3°C / -10°F
Condensing temperature	54.4°C / 130°F
Subcooling temperature	32.2°C / 90°F
Suction temperature	32.2°C / 90°F
Ambient temperature	32.2°C / 90°F
Power Supply	220V 50Hz



Dimensions

Model	PW48BMF	DFB55KF	DFB69LKF	DFB79LKF
H1	148	159	175	174
H2	71	67	77	74
H3	47	55	65	66
H4	75	83	93	84
L1	148.5	154.5	154.5	178
L2	186.5	203	203	215
L3	130.5	135.5	135.5	148
Suction connector	$\text{Ø}6.1 \pm 0.1$			
Process connector	$\text{Ø}6.1 \pm 0.1$			
Discharge connector	$\text{Ø}4.9 \pm 0.1$			



HERMETIC RECIPROCATING COMPRESSOR

R404a • 220-240V • LBP

Application

One of the original and most popular TF compressors. The LBP version is widely used for freezers and refrigerators, where evaporating temperatures can be as low as -35°C (-31°F).

For applications with non-typical requirements, we are able to redesign the compressor to match. Please contact us to discuss further.

Features

- ▶ Sleek design coupled with innovative engineering
- ▶ Energy savings and cost efficiency
- ▶ Reduced shipping and storage costs
- ▶ Reduction in complexity
- ▶ Easy mounting

Main Technical Data

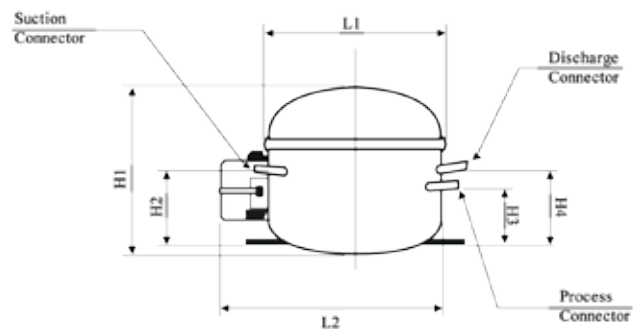
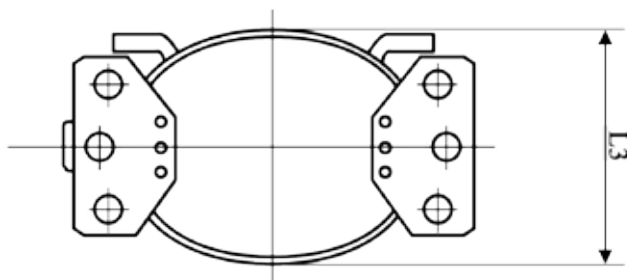
R404a • 220-240 V • 50 Hz							
LBP							
Model	DFE60L	DFE70L	DFE80L	DFE90L	DFE105L	DF12EL	DF15EL
Evaporating temperature	-35 to -15°C / -31 to 5°F						
Ambient temperature	10 to 38°C / 50 to 100°F						
Voltage range/frequency	220-240V 50Hz						
Performance Data							
Displ. (cm3)	6.03	6.72	8.11	8.80	10.51	12.56	15.55
Power (Hp)	1/2-	1/2-	1/2+	1/2+	2/3	2/3+	1-
Capacity (W)	300	335	408	440	525	580	720
Capacity (Btu/h)	1024	1143	1392	1501	1791	1979	2457
Input Power (W)	273	305	355	383	457	504	626
COP (W/W)	1.10	1.10	1.15	1.15	1.15	1.15	1.15
Motor Type	RSIR	RSIR	CSIR	CSIR	CSIR	CSIR	CSIR
Running capacitor (µF)	-	-	-	-	-	-	-
Starting capacitor (µF)	-	-	-	-	75	47	75
Compressor cooling	Static Cooling			Fan Cooling			



Test Conditions	
Evaporating temperature	-23.3°C / -10°F
Condensing temperature	54.4°C / 130°F
Subcooling temperature	32.2°C / 90°F
Suction temperature	32.2°C / 90°F
Ambient temperature	32.2°C / 90°F
Power Supply	220V 50Hz

Dimensions

Model	DFE60L	DFE70L	DFE80L	DFE90L	DFE105L	DF12EL	DF15EL
H1	176	178	192	192	192	205	211
H2	87	87	93	93	93	88	88
H3	81	81	95	95	95	98	98
H4	94	94	113	113	113	113	113
L1	167	167	182	182	182	249	249
L2	207	207	217	217	217	237	237
L3	136	136	148	148	148	164	164
Suction connector	Ø6.1 ± 0.1		Ø8.2 ± 0.1			Ø8.2 ± 0.1	
Process connector	Ø6.1 ± 0.1		Ø6.3 ± 0.1			Ø6.2 ± 0.1	
Discharge connector	Ø4.9 ± 0.1		Ø6.2 ± 0.1			Ø6.2 ± 0.1	



HERMETIC RECIPROCATING COMPRESSOR

R404a • 220-240V • HBP

Application

HBP version of TF compressors are ideally suited for air dehumidifiers, liquid coolers and various commercial refrigeration appliances.

For applications with non-typical requirements, we are able to redesign the compressor to match. Please contact us to discuss further.

Features

- ▶ Sleek design coupled with innovative engineering
- ▶ Energy savings and cost efficiency
- ▶ Reduced shipping and storage costs
- ▶ Reduction in complexity
- ▶ Easy mounting

Main Technical Data

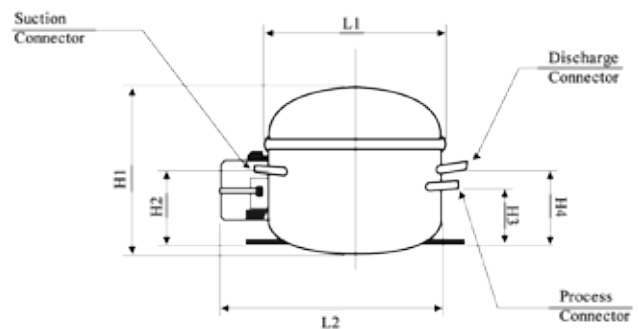
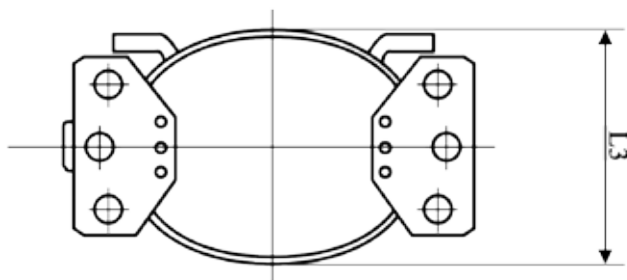
R404a • 220-240 V • 50 Hz							
HBP							
Model	DFE60H	DFE70H	DFE80H	DFE90H	DFE105H	DF12EH	DF15EH
Evaporating temperature	-20 to 15°C / -4 to 59°F						
Ambient temperature	10 to 38°C / 50 to 100°F						
Voltage range/frequency	220-240V 50Hz						
Performance Data							
Displ. (cm3)	6.03	6.72	8.11	8.80	10.51	12.56	15.55
Power (Hp)	1+	1.5-	1.5+	1.5+	2+	2.5+	3+
Capacity (W)	880	980	1210	1315	1575	1905	2250
Capacity (Btu/h)	3003	3344	4129	4487	5374	6500	7677
Input Power (W)	440	490	576	626	750	952.5	1125
COP (W/W)	2.00	2.00	2.10	2.10	2.10	2.00	2.00
Motor Type	RSIR	RSIR	CSIR	CSIR	CSIR	CSIR	CSIR
Running capacitor (µF)	-	-	-	-	-	-	-
Starting capacitor (µF)	75	-	75	75	75	47	75
Compressor cooling	Static Cooling			Fan Cooling			



Test Conditions	
Evaporating temperature	7.2°C / 45°F
Condensing temperature	54.4°C / 130°F
Subcooling temperature	46.1°C / 115°F
Suction temperature	35°C / 95°F
Ambient temperature	35°C / 95°F
Power Supply	220V 50Hz

Dimensions

Model	DFE60H	DFE70H	DFE80H	DFE90H	DFE105H	DF12EH	DF15EH
H1	176	178	192	192	192	205	211
H2	87	87	93	93	93	88	88
H3	81	81	95	95	95	98	98
H4	94	94	113	113	113	113	113
L1	167	167	182	182	182	249	249
L2	207	207	217	217	217	237	237
L3	142	142	148	148	148	164	164
Suction connector	Ø6.1 ± 0.1		Ø8.2 ± 0.1			Ø8.2 ± 0.1	
Process connector	Ø6.1 ± 0.1		Ø6.3 ± 0.1			Ø6.2 ± 0.1	
Discharge connector	Ø4.9 ± 0.1		Ø6.2 ± 0.1			Ø6.2 ± 0.1	



HERMETIC RECIPROCATING COMPRESSOR

R290 • 220-240V • MBP/LBP

Application

MBP/LBP version of TF compressors are ideally suited for light commercial applications such as display counters, commercial refrigerator, bottle cooler, drinking fountains and water purifiers, where the evaporating temperature is between -35 to -5°C (-31 to 23°F).

For applications with non-typical requirements, we are able to redesign the compressor to match requirements. Please contact us to discuss further.

Features

- ▶ Sleek design coupled with innovative engineering
- ▶ Energy savings and cost efficiency
- ▶ Reduced shipping and storage costs
- ▶ Reduction in complexity
- ▶ Easy mounting

Main Technical Data

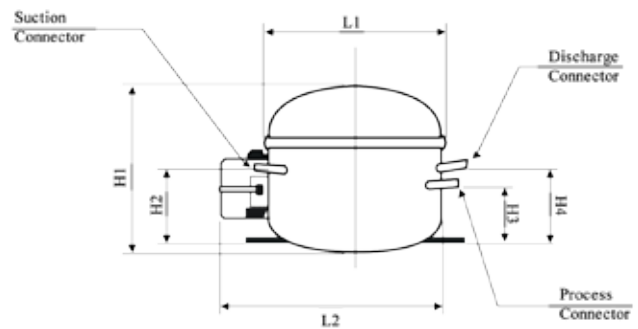
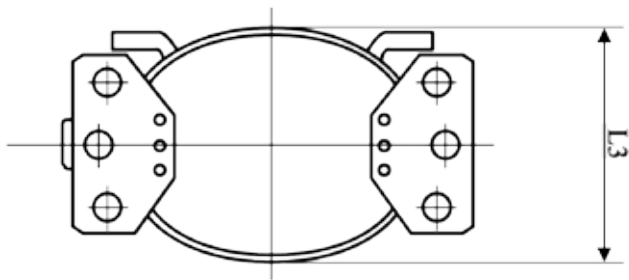
R290 • 220-240 V • 50 Hz											50/60 Hz	
LBP											MBP/LBP	
Model	DFR30L	DFR35L	DFR40L	DFR50L	DFR60L	DFR70L	DFR80L	DFR90L	DFR105L	DFR115L	DFR15	DFR20
Evaporating temperature	-35 to -5°C / -31 to 23°F											
Ambient temperature	10 to 38°C / 50 to 100°F											
Voltage range/ frequency	220-240V 50Hz										220-240V 50/60Hz	
Performance Data												
Displ. (cm3)	3.15	3.60	4.29	4.99	6.03	6.72	8.11	8.80	10.51	11.49	1.45	1.85
Power (Hp)	1/6+	1/5+	1/4-	1/4+	1/3+	1/3+	1/2-	1/2+	1/2+	1/2+	1/13-	1/10-
Capacity (W)	130	150	175	205	255	290	350	380	435	490	52	72
Capacity (Btu/h)	444	512	597	699	870	989	1194	1297	1484	1672	177	246
Input Power (W)	104	130	135	158	205	211	260	282	327	360	61	83
COP (W/W)	1.25	1.15	1.30	1.30	1.24	1.37	1.35	1.35	1.33	1.36	0.85	0.87
Motor Type	RSIR										RSIR	
Running capacitor (µF)	-										-	
Starting capacitor (µF)	-										-	
Compressor cooling	Static Cooling					Fan Cooling					Static Cooling	



Test Conditions		
Evaporating temperature		-23.3°C / -10°F
Condensing temperature		54.4°C / 130°F
Subcooling temperature		32.2°C / 90°F
Suction temperature		32.2°C / 90°F
Ambient temperature		32.2°C / 90°F
Power Supply		220V 50Hz

Dimensions

Model	DFR30H	DFR35H	DFR40H	DFR50H	DFR60H	DFR70H	DFR80H	DFR90H	DFR105H	DFR115H	DFR15	DFR20
H1	153	170	173	176	178	187	189	192	192	192	152	154
H2	51	82	82	82	87	81	81	93	93	93	67	67
H3	55	76	76	76	81	83	83	95	95	95	58	58
H4	83	89	89	89	94	101	101	113	113	113	69	69
L1	159	167	167	167	167	182	182	182	182	182	143	143
L2	198	207	207	207	207	217	217	217	217	217	183	183
L3	133.5	142	142	142	142	148	148	148	148	148	122	122
Suction connector	Ø6.1 ± 0.1					Ø8.2 ± 0.1					Ø6.1 ± 0.1	
Process connector	Ø6.1 ± 0.1					Ø6.3 ± 0.1					Ø6.1 ± 0.1	
Discharge connector	Ø4.9 ± 0.1					Ø6.2 ± 0.1					Ø4.9 ± 0.1	



HERMETIC RECIPROCATING COMPRESSOR

R290 • 220-240V • HBP

Application

HBP version of TF compressors are ideally suited for air dehumidifiers, liquid coolers and various commercial refrigeration appliances.

For applications with non-typical requirements, we are able to redesign the compressor to match. Please contact us to discuss further.

Features

- ▶ Sleek design coupled with innovative engineering
- ▶ Energy savings and cost efficiency
- ▶ Reduced shipping and storage costs
- ▶ Reduction in complexity
- ▶ Easy mounting

Main Technical Data

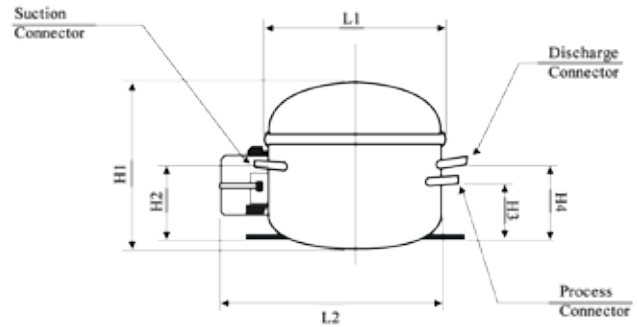
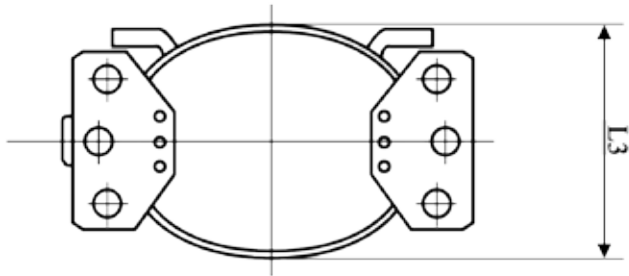
R290 • 220-240 V • 50 Hz										
HBP										
Model	DFR30H	DFR35H	DFR40H	DFR50H	DFR60H	DFR70H	DFR80H	DFR90H	DFR105H	DFR115H
Evaporating temperature	-20 to 15°C / -4 to 59°F									
Ambient temperature	10 to 38°C / 50 to 100°F									
Voltage range/frequency	220-240V 50Hz									
Performance Data										
Displ. (cm3)	3.15	3.60	4.29	4.99	6.03	6.72	8.11	8.80	10.51	11.49
Power (Hp)	1/2+	1/2+	1/2+	1/2+	1+	1+	1+	1+	1+	2+
Capacity (W)	410	470	550	640	780	870	1050	1150	1360	1490
Capacity (Btu/h)	1399	1604	1877	2184	2661	2968	3583	3924	4640	5084
Input Power (W)	187	212	228	262	332	383	462	500	570	646
COP (W/W)	2.19	2.22	2.41	2.44	2.35	2.27	2.27	2.30	2.39	2.31
Motor Type	RSIR									
Running capacitor (µF)	-									
Starting capacitor (µF)	-									
Compressor cooling	Fan Cooling									



Test Conditions	
Evaporating temperature	7.2°C / 45°F
Condensing temperature	54.4°C / 130°F
Subcooling temperature	46.1°C / 115°F
Suction temperature	35°C / 95°F
Ambient temperature	35°C / 95°F
Power Supply	220V 50Hz

Dimensions

Model	DFR30H	DFR35H	DFR40H	DFR50H	DFR60H	DFR70H	DFR80H	DFR90H	DFR105H	DFR115H
H1	153	170	173	176	178	187	189	192	192	192
H2	51	82	82	82	87	81	81	93	93	93
H3	55	76	76	76	81	83	83	95	95	95
H4	83	89	89	89	94	101	101	113	113	113
L1	159	167	167	167	167	182	182	182	182	182
L2	198	207	207	207	207	217	217	217	217	217
L3	133.5	142	142	142	142	148	148	148	148	148
Suction connector	Ø6.1 ± 0.1					Ø8.2 ± 0.1				
Process connector	Ø6.1 ± 0.1					Ø6.3 ± 0.1				
Discharge connector	Ø4.9 ± 0.1					Ø6.2 ± 0.1				



HERMETIC RECIPROCATING COMPRESSOR

R22 • 220V • LBP

Application

One of the original and most popular TF compressors. The LBP version is widely used for freezers and refrigerators, where evaporating temperatures can be as low as -35°C (-31°F). This series is designed to accept a wide voltage range for all common markets.

For applications with non-typical requirements, we are able to redesign the compressor to match. Please contact us to discuss further.

Features

- ▶ Sleek design coupled with innovative engineering
- ▶ Energy savings and cost efficiency
- ▶ Reduced shipping and storage costs
- ▶ Reduction in complexity
- ▶ Easy mounting

Main Technical Data

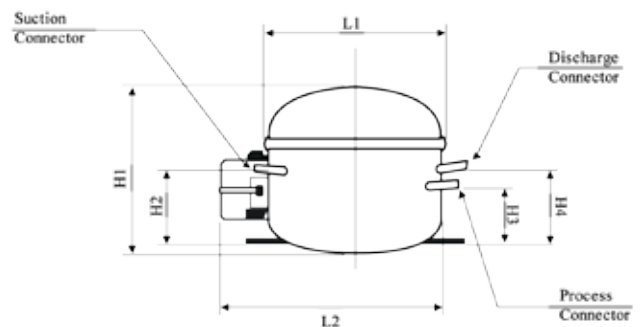
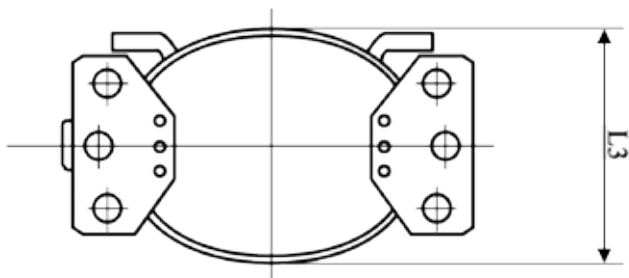
R22 • 220V • 50 Hz											
LBP											
Model	PW2.4C	PW3.5C	PW4.5C	PW5.5C	PW6.1C	PW7.1C	PW8.1C	PW9.1C	PW10.0C	DF12CH	DF15CH
Evaporating temperature	-35 to -15°C / -31 to 5°F										
Ambient temperature	10 to 38°C / 50 to 100°F										
Voltage range/ frequency	220V 50Hz										
Performance Data											
Displ. (cm ³)	2.65	3.66	4.29	4.99	6.03	6.72	8.11	8.80	10.51	12.56	15.55
Power (Hp)	1/3	1/2+	1/2+	1-	1-	1.3	1.5	1.65	1.85	2.3	2.6
Capacity (W)	320	380	490	630	745	880	1110	1200	1420	1750	2160
Capacity (Btu/h)	1092	1297	1672	2150	2542	3003	3787	4094	4845	5971	7370
Input Power (W)	168	200	258	300	355	400	505	545	676	875	1080
COP (W/W)	1.90	1.90	1.90	2.10	2.10	2.20	2.20	2.20	2.10	2.00	2.00
Motor Type	RSIR						CSIR				
Running capacitor (µF)	-										
Starting capacitor (µF)	-						75	75	75	47	75
Compressor cooling	Static Cooling						Fan Cooling				



Test Conditions	
Evaporating temperature	-23.3°C / -10°F
Condensing temperature	54.4°C / 130°F
Subcooling temperature	32.2°C / 90°F
Suction temperature	32.2°C / 90°F
Ambient temperature	32.2°C / 90°F
Power Supply	220V 50Hz

Dimensions

Model	PW2.4C	PW3.5C	PW4.5C	PW5.5C	PW6.1C	PW7.1C	PW8.1C	PW9.1C	PW10.0C	DF12CH	DF15CH
H1	153	159	173	176	178	181	189	192	192	205	211
H2	51	55	82	82	87	87	81	93	93	88	88
H3	55	60	76	76	81	81	83	95	95	98	98
H4	83	88	89	89	94	94	101	113	113	113	113
L1	159	159	167	167	167	167	182	182	182	249	249
L2	198	198	207	207	207	207	217	217	217	237	237
L3	133.5	133.5	142	142	142	142	148	148	148	164	164
Suction connector	Ø6.1 ± 0.1						Ø8.2 ± 0.1			Ø8.2 ± 0.1	
Process connector	Ø6.1 ± 0.1						Ø6.3 ± 0.1			Ø6.2 ± 0.1	
Discharge connector	Ø4.9 ± 0.1						Ø6.2 ± 0.1			Ø6.2 ± 0.1	



MINI COMPRESSOR

BRUSHLESS DC

Application

At a height of 99mm (3.9in), this quite BLDC mini compressor is a breakthrough invention in compressor technology to meet the demands of novel applications, such as portable refrigerator, medical devices, reagents cooling, CPU/GPU cooling etc.

Features

- ▶ Height: 99mm / 3.9in
- ▶ H type caseless design among world's smallest compressors
- ▶ 20% higher efficiency compared with traditional compressors
- ▶ Durable, tested working continuously for 5 years @ 50°C
- ▶ Operating as low as 50dB for silent applications

Model Selection

Model	Power	Max. Current	Displacement	Weight	Height	Certificate
BSW014SKEW3GG2	9 to 30V DC	15A	1.4cc	1050g	91mm	CCC
BSW020SKEW3GG2	9 to 30V DC	15A	2.0cc	1050g	91mm	CCC
BSW014SKEW3GGA	36 to 60V DC	6A	1.4cc	1050g	91mm	CCC
BSW020SKEW3GGA	36 to 60V DC	8.5A	2.0cc	1050g	91mm	CCC

BSW020SK Series Capacity

2700 rpm (W)				
Condensing Temperature (°C)	Evaporating Temperature (°C)			
	0	5	10	15
35	165.1	212.1	259.2	
40	154.6	201.6	248.7	
45	137.0	184.0	231.1	
3600 rpm (W)				
Condensing Temperature (°C)	Evaporating Temperature (°C)			
	0	5	10	15
35	244.8	312.1	379.4	446.7
40	231.9	299.2	366.5	435.3
45	201.3	268.6	335.9	403.2
50	188.5	249.9	311.3	372.7
60	137.1	199.0	260.9	322.8



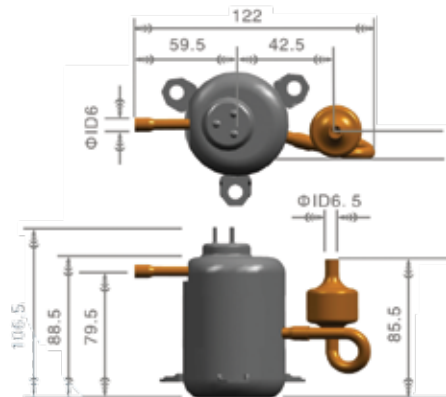
4500 rpm (W)			
Condensing Temperature (°C)	Evaporating Temperature (°C)		
	-5	0	5
45	216.5	281.1	345.6
50	191.6	256.1	320.7
5400 rpm (W)			
Condensing Temperature (°C)	Evaporating Temperature (°C)		
	-5	0	
50	213.1	275.0	
60	207.1	267.3	

Subcooling Temp.=8.3K; Superheat Temp.=11.1K

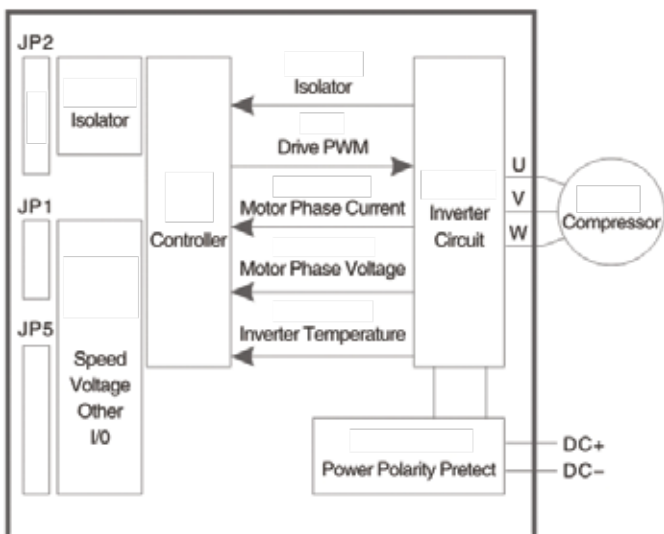
Specifications

Refrigerant	R134a
Oil	α 68
Displacement	2.0cc
Capacity	100 to 700W
Motor	BLDC
Power	DC (12V/24V/48V)
Max. Current	8.5A
Frequency Range	2400 to 6000rpm
Rated Capacity	350W
Evaporating Temperature	-18 to 24°C
Condensing Temperature	26 to 76 °C

Dimensions



Wiring Diagram and Inverter



Please contact us for detailed information