

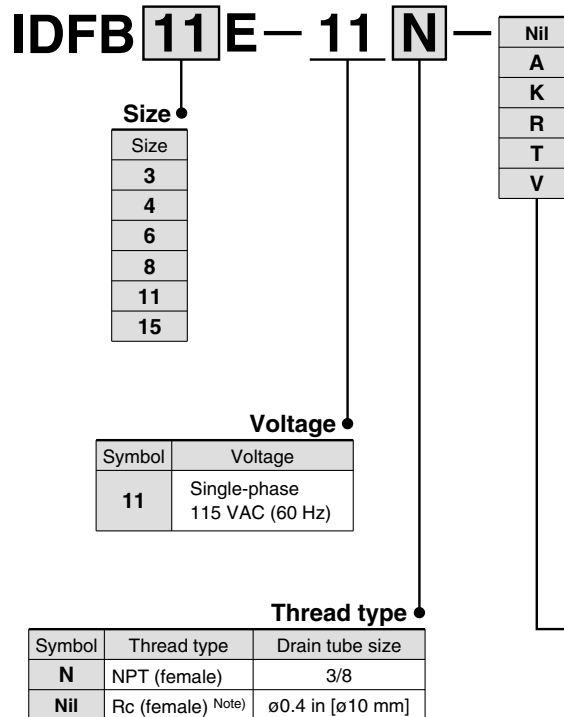
Refrigerant R134a (HFC) Standard Inlet Air

Series **IDFB** □ **E**

3E, 4E, 6E, 8E, 11E, 15E

(Inlet air temperature: 100°F [37.8°C])

How to Order



Note) An adapter for converting NPT to Rc is included if the thread symbol is "Nil".

Table of Options and Available Combinations (Size/Option)

Symbol ^{Note 1)}	Nil	A	K	R	T	V
Optional specifications	None	Cool compressed air output	For medium air pressure (Auto drain bowl: Metal case with level gauge)	With circuit breaker	With terminal block for run & alarm signal	Timer type solenoid valve with auto drain (Suitable for medium air pressure)
Size						
3	●	●	—	—	—	—
4	●	●	—	●	●	●
6	●	●	●	●	●	●
8	●	●	●	●	●	●
11	●	●	●	●	●	●
15	●	—	●	●	●	●

Note 1) Enter alphabetically when multiple options are combined. However, the following combination cannot be achieved.
• Combination of K and V (Only one or the other may be attached.)

Note 2) Refer to pages 10 and 11 for further information on options.

Standard Specifications

Specifications		Model	Standard inlet air				
		IDFB3E	IDFB4E	IDFB6E	IDFB8E	IDFB11E	IDFB15E
Operating ranges	Fluid	Compressed air					
	Inlet air temperature °F (°C)	41 to 122 (5 to 50)					
	Inlet air pressure psi (MPa)	22 (0.15) to 150 (1.0)					
	Ambient temperature °F (°C)	36 to 104 (2 to 40) Relative humidity of 85% or less					
Air flow capacity SCFM <small>Note 1, 2)</small> (m ³ /h (ANR))	Outlet air pressure dew point 37°F (2.8°C)	10 (17)	15 (25)	25 (43)	41 (70)	59 (100)	71 (120)
	Outlet air pressure dew point 45°F (7.2°C)	11 (19)	16 (27)	26 (45)	43 (74)	62 (106)	80 (136)
	Outlet air pressure dew point 50°F (10°C)	12 (20)	17 (28)	28 (47)	45 (77)	65 (110)	86 (147)
Rated conditions	Operating pressure psi (MPa)	100 (0.7)					
	Inlet air temperature °F (°C)	100 (37.8)					
	Ambient temperature °F (°C)	100 (37.8)					
Electric specifications	Power supply voltage	Single-phase 115 VAC [voltage fluctuation ±10%] 60 Hz					
	Operating current (A)	2.7	3.0	3.0	3.5	6.5	7.5
	Power consumption (W)	240	260	260	310	550	750
	Applicable circuit breaker capacity <small>Note 3)</small> (A)	15					
Condenser		Forced air-cooled					
Refrigerant		R134a (HFC)					
Thread symbol and size	Symbol N	NPT 3/8 (female)	NPT 1/2 (female)	NPT 3/4 (female)		NPT 1 (female)	
	Symbol Nil	Rc 3/8 (female) With Rc conversion adapter	Rc 1/2 (female) With Rc conversion adapter	Rc 3/4 (female) With Rc conversion adapter		Rc 1 (female) With Rc conversion adapter	
Drain tube O.D.	Symbol N	3/8 inch					
	Symbol Nil	10 mm					
Coating color		White 1					
Mass	lbs (kg)	40 (18)	55 (25)	57 (26)	64 (29)	73 (33)	110 (50)
Compliant standards		UL, CSA					

Note 1) ANR is under the conditions of 68°F (20°C) at atmospheric pressure and relative humidity of 65%.

Note 2) Air flow capacity for each outlet air pressure dew point is indicated.

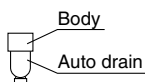
Note 3) Install a circuit breaker with a sensitivity of 30 mA.

Note 4) If this equipment suffers a short-term power outage (even if it is only momentary), it may require some time before normal operation resumes, and protective mechanisms may prevent normal operation even after the power supply has been restored.

Replacement Parts

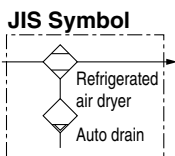
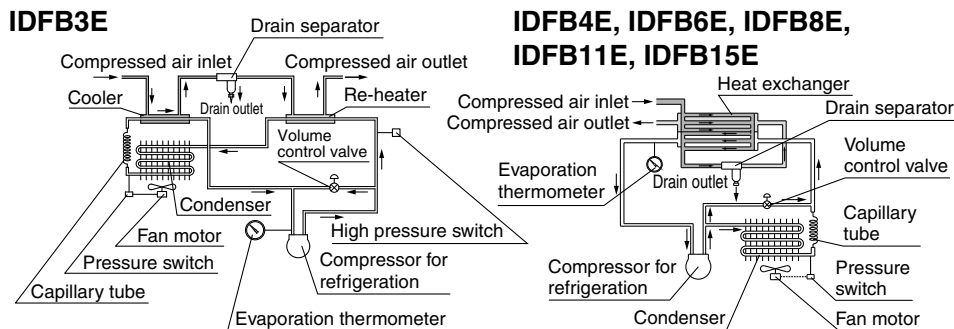
Model		IDFB3E	IDFB4E	IDFB6E	IDFB8E	IDFB11E	IDFB15E
Auto drain replacement part no. <small>Note 5)</small>	Thread symbol N	AD38N-Z			AD48N-Z		
	Thread symbol Nil	AD38			AD48		

Note 5) The part number for the auto drain components without including the body part. Body part replacement is impossible.



Construction Principle (Circuit for Air/Refrigerant)

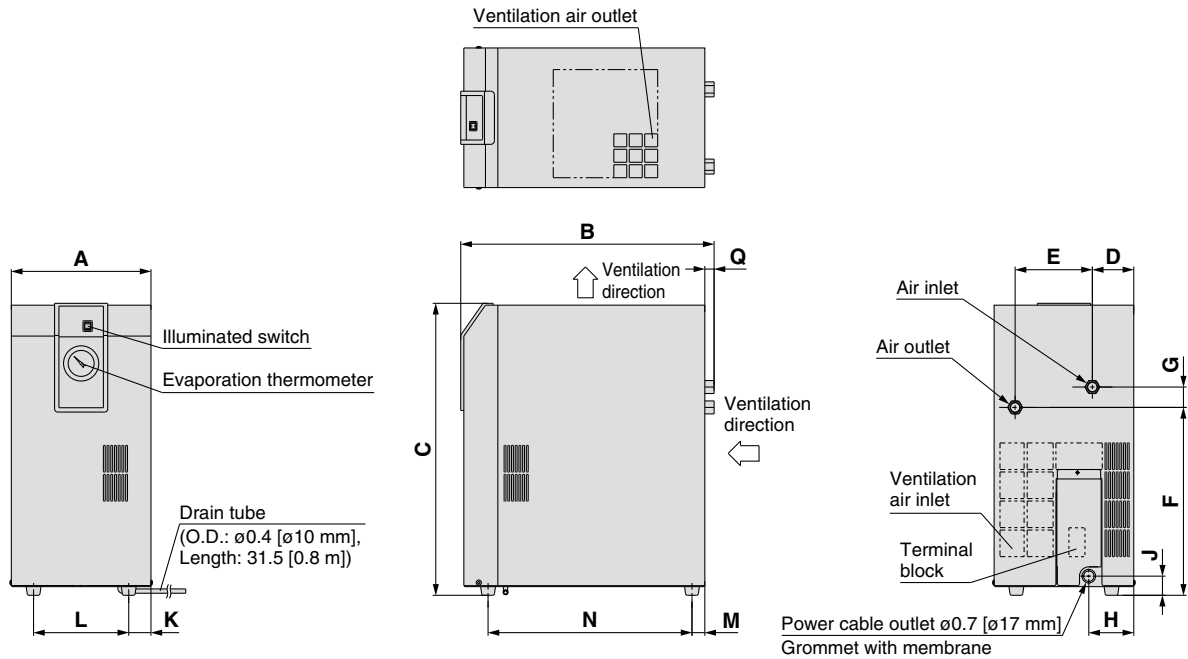
Humid, hot air coming into the air dryer will be cooled down by a cooler (heat exchanger). Water condensed at this time will be removed from the air by a drain separator (auto drain) and drained out automatically. Air separated from the water will be heated by a re-heater (heat exchanger) to obtain the dried air, which goes through to the outlet side.



Series IDFB□E

Dimensions

IDFB3E

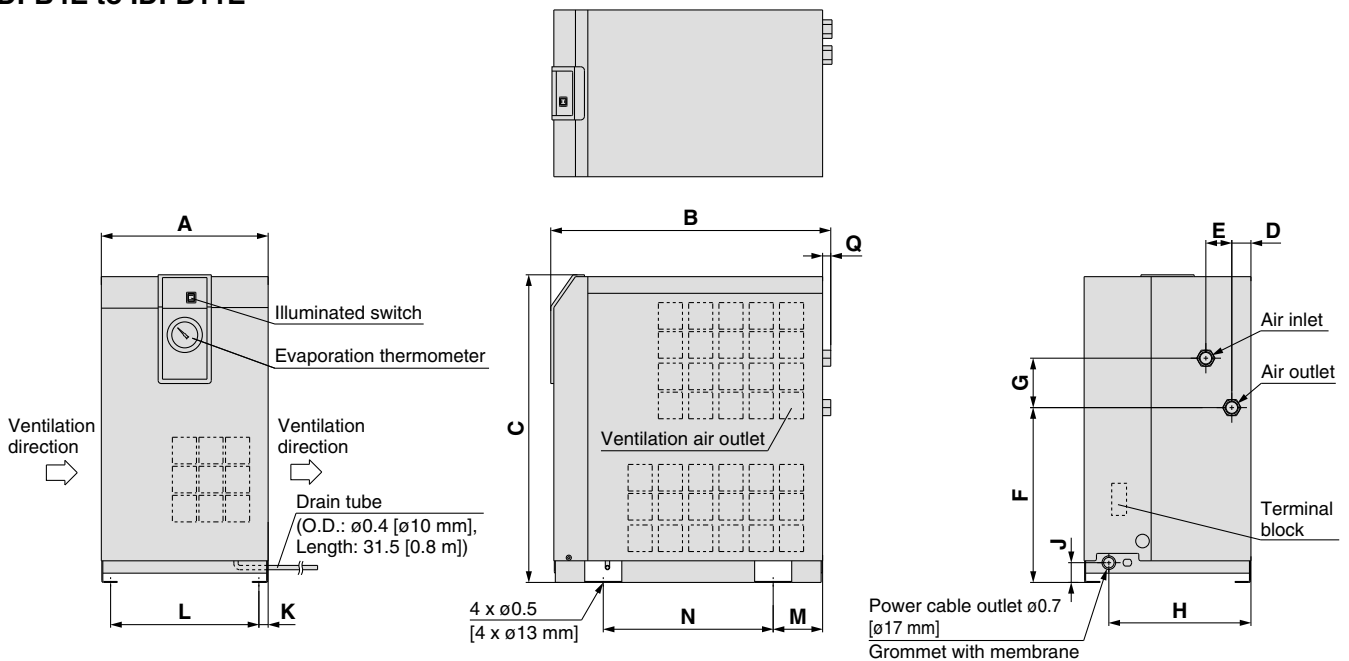


Dimensions

Model	Port size	A	B	C	D	E	F	G	H	J	K	L	M	N	Q
IDFB3E	3/8	8.9 [226]	16.1 [410]	18.6 [473]	2.6 [67]	4.9 [125]	12.0 [304]	1.3 [33]	2.9 [73]	1.2 [31]	1.4 [36]	6.1 [154]	0.8 [21]	13.0 [330]	0.6 [15]

Unit: inch [mm]

IDFB4E to IDFB11E



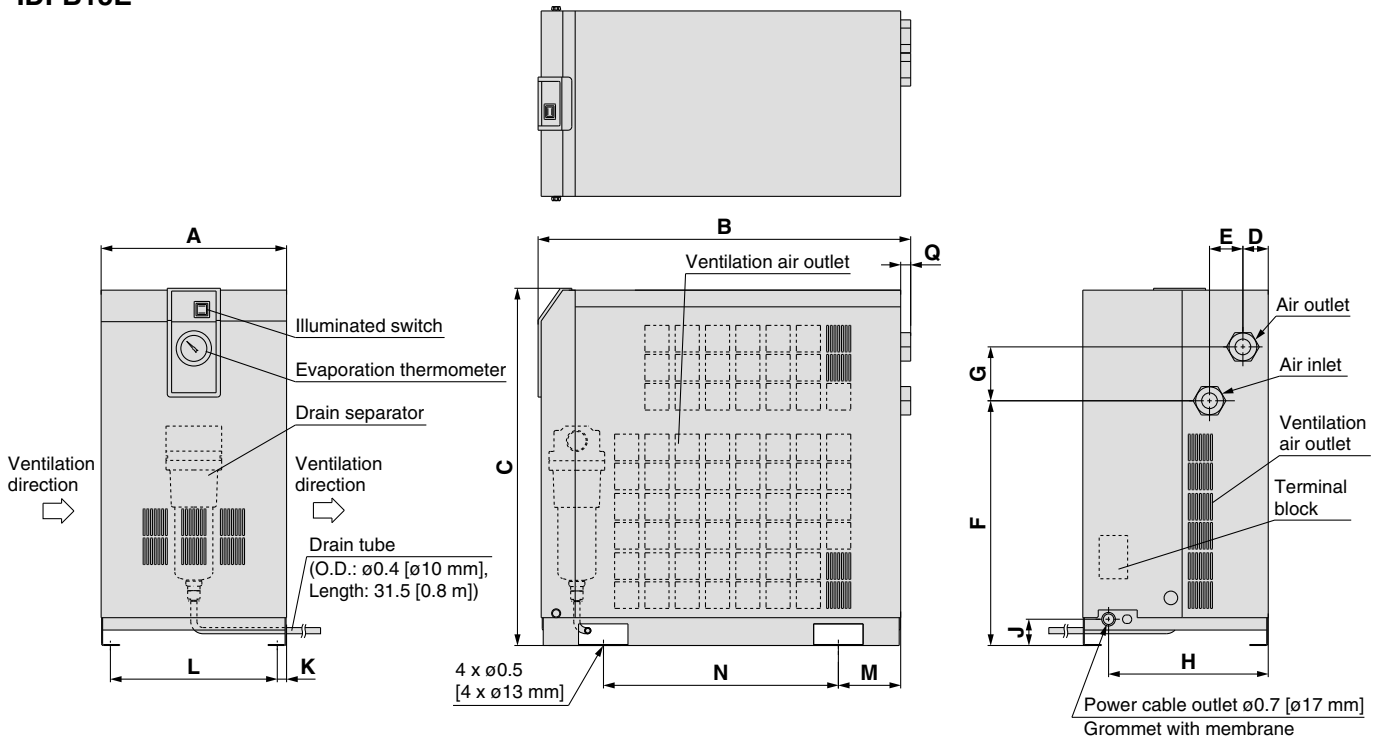
Dimensions

Model	Port size	A	B	C	D	E	F	G	H	J	K	L	M	N	Q
IDFB4E	1/2		17.8 [453]	19.6			11.1 [283]							10.8 [275]	
IDFB6E			17.9 [455]					3.1 [80]	9.1 [230]	1.3 [32]	0.6 [15]	9.4 [240]	3.1 [80]		0.5 [13]
IDFB8E	3/4	10.6 [270]		1.2 [31]	1.7 [42]										
IDFB11E			19.1 [485]	22.4 [568]			14 [355]							11.8 [300]	

Unit: inch [mm]

Dimensions

IDFB15E



Dimensions

Unit: inch [mm]

Model	Port size	A	B	C	D	E	F	G	H	J	K	L	M	N	Q
IDFB15E	1	11.8 [300]	23.7 [603]	22.8 [578]	1.6 [41]	2.1 [54]	16.6 [396]	3.4 [87]	10.2 [258]	1.7 [43]	0.6 [15]	10.6 [270]	4.0 [101]	15.0 [380]	0.6 [16]

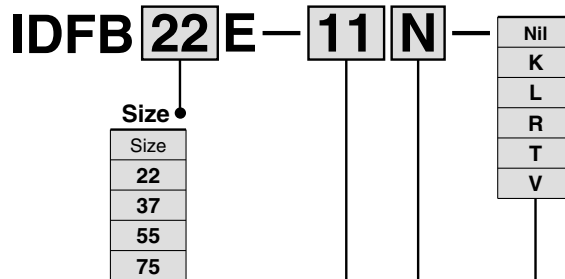
Refrigerant R134a (HFC), R407C (HFC) Standard Inlet Air

Series **IDFB** **E**

22E, 37E, 55E, 75E

(Inlet air temperature: 100°F [37.8°C])

How to Order



● **Voltage**

Symbol	Voltage	Applicable size			
		22	37	55	75
11	Single-phase 115 VAC (60 Hz)	●	—	—	—
23	Single-phase 230 VAC (60 Hz)	●	●	—	—
46	Three-phase 460 VAC (60 Hz)	—	—	●	●

● **Thread type**

Symbol	Thread type	Drain tube size
N	NPT (male)	3/8
Nil	R (male)	ø0.4 in [ø10 mm]

● **Table of Options and Available Combinations (Size/Option)**

Symbol <small>Note 1)</small>	Nil	K	L	R	T	V
Optional specifications	None	For medium air pressure (Auto drain bowl: Metal case with level gauge)	With heavy duty auto drain (Suitable for medium air pressure)	With circuit breaker	With terminal block for run & alarm signal	Timer type solenoid valve with auto drain (Suitable for medium air pressure)
Size						
22	●	●	—	●	●	●
37	●	●	—	●	●	●
55	●	—	●	●	●	●
75	●	—	●	●	●	●

Note 1) Enter alphabetically when multiple options are combined.
However, the following combination cannot be achieved.

- Combination of K, L and V (All of them are auto drain and only one or the other may be attached.)

Note 2) Refer to pages 10 and 11 for further information on options.

Standard Specifications

Specifications		Standard inlet air			
		IDFB22E	IDFB37E	IDFB55E	IDFB75E
Operating ranges	Fluid	Compressed air			
	Inlet air temperature °F (°C)	41 to 122 (5 to 50)			
	Inlet air pressure psi (MPa)	22 (0.15) to 150 (1.0)			
	Ambient temperature °F (°C)	36 to 104 (2 to 40) Relative humidity of 85% or less			
Air flow capacity SCFM <small>(Note 1, 2)</small> (m ³ /h (ANR))	Outlet air pressure dew point 37°F (2.8°C)	107 (182)	161 (273)	226 (384)	300 (510)
	Outlet air pressure dew point 45°F (7.2°C)	120 (205)	173 (294)	258 (438)	353 (600)
	Outlet air pressure dew point 50°F (10°C)	130 (221)	181 (308)	297 (504)	406 (690)
Rated conditions	Operating pressure psi (MPa)	100 (0.7)			
	Inlet air temperature °F (°C)	100 (37.8)			
	Ambient temperature °F (°C)	100 (37.8)			
Electric specifications	Power supply voltage	Single-phase 115 VAC [voltage fluctuation ±10%] 60 Hz	Single-phase 230 VAC [voltage fluctuation ±10%] 60 Hz		Three-phase 460 VAC [voltage fluctuation ±10%] 60 Hz
	Operating current (A)	9	4.5	5.6	3.8
	Power consumption (W)	1000		1270	2400
	Applicable circuit breaker capacity <small>(Note 3)</small> (A)	15		10	
Condenser		Forced air-cooled			
Refrigerant		R134a (HFC)		R407C (HFC)	
Thread symbol and size	Symbol N	NPT 1 (male)	NPT 1½ (male)	NPT 2 (male)	
	Symbol Nil	R 1 (male)	R 1½ (male)	R 2 (male)	
Drain tube O.D.	Symbol N	3/8 inch			
	Symbol Nil	10 mm			
Coating color		White 1			
Mass	lbs (kg)	119 (54)	137 (62)	258 (117)	271 (123)
Compliant standards		UL, CSA			

Note 1) ANR is under the conditions of 68°F (20°C) at atmospheric pressure and relative humidity of 65%.

Note 2) Air flow capacity for each outlet air pressure dew point is indicated.

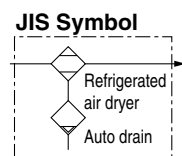
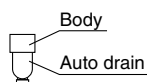
Note 3) Install a circuit breaker with a sensitivity of 30 mA.

Note 4) If this equipment suffers a short-term power outage (even if it is only momentary), it may require some time before normal operation resumes, and protective mechanisms may prevent normal operation even after the power supply has been restored.

Replacement Parts

Model		IDFB22E	IDFB37E	IDFB55E	IDFB75E
Auto drain replacement part no. <small>(Note 5)</small>	Thread symbol N	AD48N-Z			
	Thread symbol Nil	AD48			

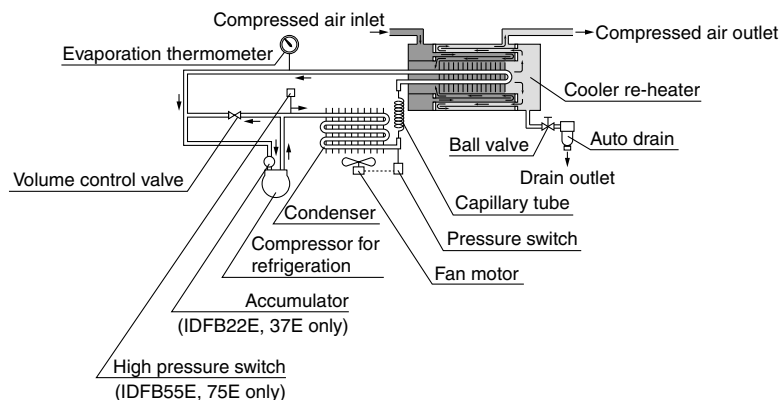
Note 5) The part number for the auto drain components without including the body part. Body part replacement is impossible.



Construction Principle (Circuit for Air/Refrigerant)

Humid, hot air coming into the air dryer will be cooled down by a cooler re-heater (heat exchanger). Water condensed at this time will be removed from the air by a drain separator (auto drain) and drained out automatically. Air separated from the water will be heated by a cooler re-heater (heat exchanger) to obtain the dried air, which goes through to the outlet side.

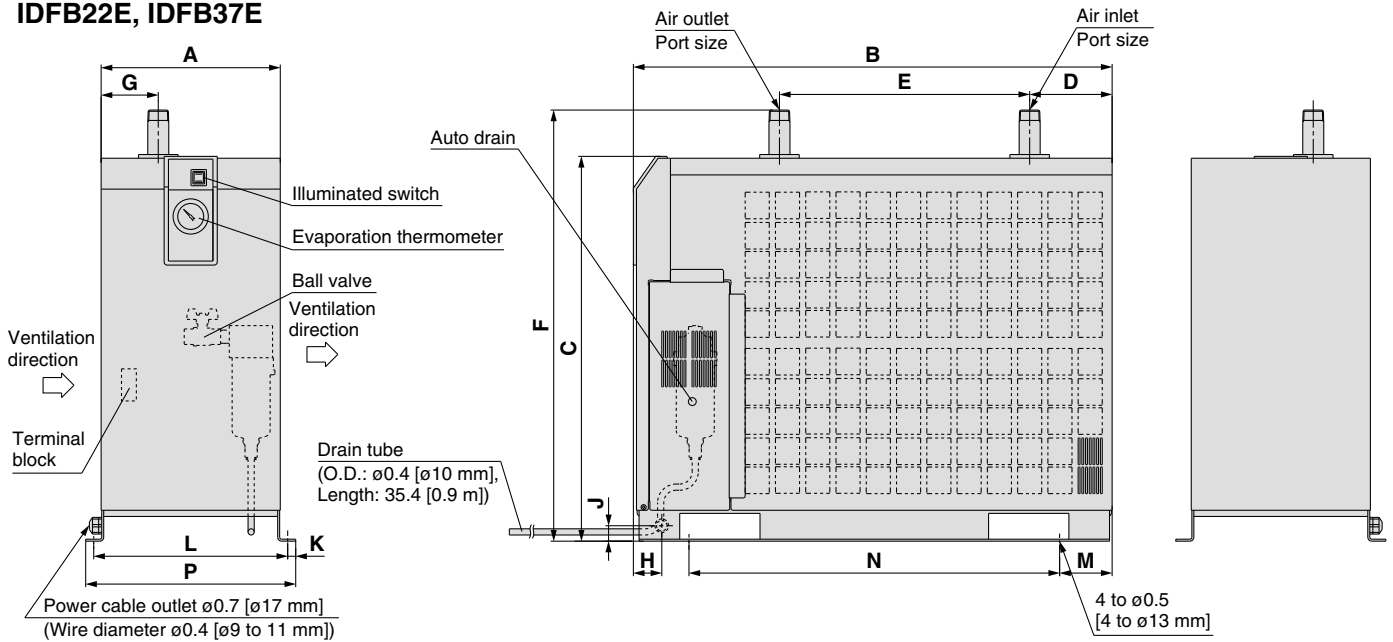
IDFB22E, IDFB37E



Series IDFB□E

Dimensions

IDFB22E, IDFB37E

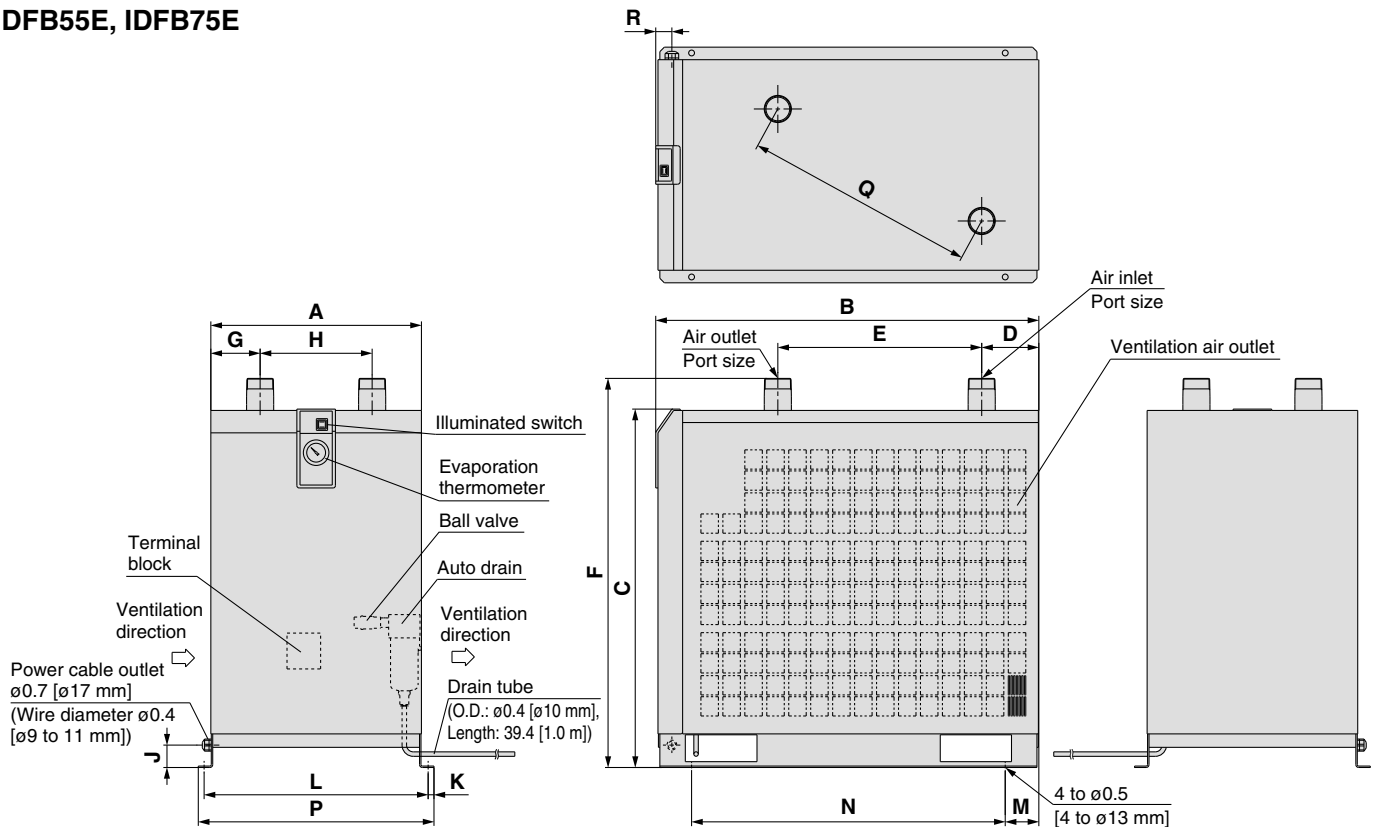


Dimensions

Unit: inch [mm]

Model	Port size	A	B	C	D	E	F	G	H	J	K	L	M	N	P
IDFB22E	1	11.4 [290]	30.5 [775]	24.5 [623]	5.3 [134]	15.9 [405]	27.5 [698]	3.7 [93]	1.8 [46]	1.0 [25]	0.5 [13]	12.4 [314]	3.3 [85]	23.6 [600]	13.4 [340]
IDFB37E	1½		33.7 [855]											26.8 [680]	

IDFB55E, IDFB75E



Dimensions

Unit: inch [mm]

Model	Port size	A	B	C	D	E	F	G	H	J	K	L	M	N	P	Q	R
IDFB55E	2	18.5 [470]	33.7 [855]	31.5 [800]	5.0 [128]	17.9 [455]	34.2 [868]	4.3 [110]	9.8 [250]	2 [50]	0.5 [13]	19.7 [500]	3.0 [75]	27.6 [700]	20.7 [526]	20.4 [519]	1.4 [36]
IDFB75E	2			35.4 [900]			38.1 [968]										

Series IDFB□E

Optional Specifications 1

Refer to “How to Order” pages 3 and 7 for optional models.

A Option symbol Cool compressed air output IDFB3E to 11E

There is no heating of cooled, dehumidified air as it leaves the air dryer. The air flow capacity with this option is smaller than that of the standard dryer. (The external dimensions are identical with the standard product.)
Note) Perform thermal insulation treatment for pipings and equipment installed after the dryer to prevent the formation of condensation.

Air Flow Capacity

Model	IDFB3E	IDFB4E	IDFB6E	IDFB8E	IDFB11E
Air flow capacity (ANR)	5 SCFM (8 m ³ /h)	13 SCFM (23 m ³ /h)	17 SCFM (29 m ³ /h)	19 SCFM (32 m ³ /h)	23 SCFM (39 m ³ /h)

Conditions: Inlet air pressure: 100 psi (0.7 MPa), Inlet air temperature: 100°F (37.8°C),
Outlet air temperature: 50°F (10°C), Ambient temperature: 100°F (37.8°C)

K Option symbol For medium air pressure (Auto drain bowl: Metal bowl with level gauge) IDFB6E to 37E

The auto drain is changed from the standard one to one with a medium pressure specification.
A metal bowl with a level gauge which can confirm the water level is used for the auto drain.

Specifications

1. Maximum operating pressure: 240 psi (1.6 MPa)
2. Dimensions ... same as standard products

Replacement Parts

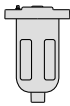

Model	Auto drain assembly part no.	Note
IDFB6E to 15E-11N	IDF-S0201	The AD48-8Z-X2110 auto drain, insulator, and one-touch fitting are included.
IDFB22E, 37E-□N	AD48-8Z-X2110	One-touch fitting (KQ2H11-02S) is not included.
IDFB6E to 15E-11	IDF-S0086	The AD48-8-X2110 auto drain, insulator, and one-touch fitting are included.
IDFB22E, 37E-□	AD48-8-X2110	One-touch fitting (KQ2H10-02S) is not included.

L Option symbol With heavy duty auto drain (Suitable for medium air pressure) IDFB55E, 75E

More thorough drain discharge can be achieved by replacing the float type auto drain (used with standard equipment) with a heavy duty auto drain (ADH4000-04).
(The external dimensions are identical with the standard product.)

Maximum operating pressure: 240 psi (1.6 MPa)

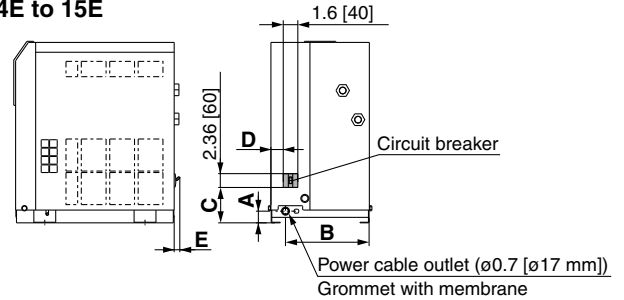
Replacement Parts

Model	Replacement part no. (Description)	Configuration
IDFB55E, 75E	ADH-E400 (Exhaust mechanism replacement kit)	 Exhaust mechanism replacement kit  Housing (a mounted unit is used)

R Option symbol With circuit breaker IDFB4E to 75E

A circuit breaker with cover is attached to the side of the air dryer. This saves additional electrical wiring at the time of installation.

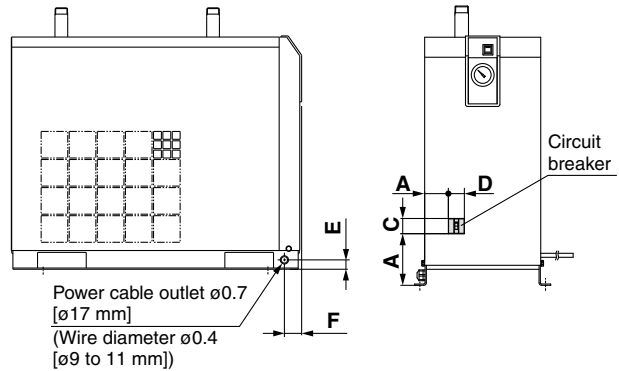
IDFB4E to 15E



Dimensions

Model	A	B	C	D	E
IDFB4E, 6E, 8E, 11E	1.3 [32]	9.0 [230]	3.8 [97]	1.3 [34]	0.6 [15]
IDFB15E	1.7 [43]	10.2 [258]	4.0 [102]	3.2 [82]	—

IDFB22E to 75E



Dimensions

Model	A	B	C	D	E	F
IDFB22E, 37E	4.9 [125]	2.3 [59]	2.4 [60]	1.6 [40]	1 [25]	1.8 [46]
IDFB55E, 75E	5.7 [145]	2.2 [56]	3.8 [96]	2.4 [60]	2 [50]	1.4 [36]

Breaker Capacity and Sensitivity Current

Model	Breaker capacity	Sensitivity current
IDFB4E to 37E	15 A	30 mA
IDFB55E, 75E	10 A	30 mA

Optional Specifications 2

Refer to “How to Order” pages 3 and 7 for optional models.

T Option symbol
With terminal block for power supply, run & alarm signal and remote operation IDFB4E to 75E

In addition to the terminals for the power supply, terminals for the operating signal and the error signal are also available. (No-voltage contact)

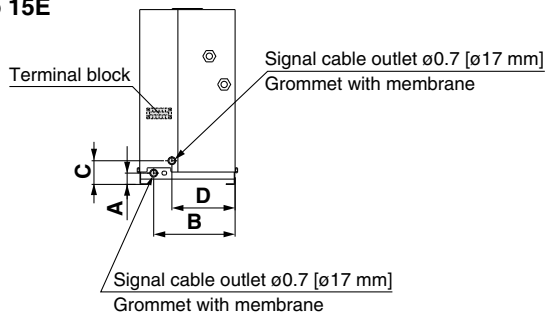
Also, in case of remote control, operate it from the power supply side while the air dryer switch remains ON.

Contact capacity: 230 VAC, 4 A 24 VDC, 5 A for operating and error signals.

Minimum current value: 20 V, 5 mA (AC/DC) for operating and error signals.

Note) Please be sure to confirm the electric circuits with the drawings or instruction manual before using the output signal.

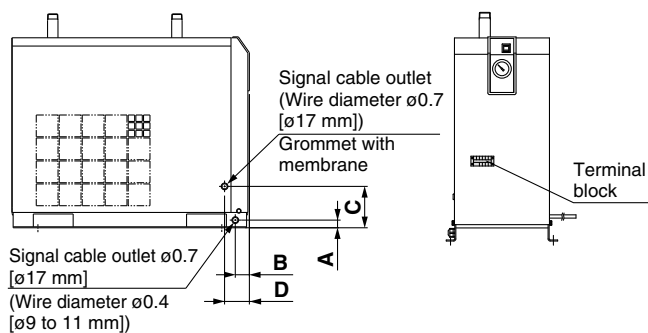
IDFB4E to 15E



Dimensions Unit: inch [mm]

Model	A	B	C	D
IDFB4E, 6E, 8E, 11E	1.3 [32]	9.0 [230]	2.6 [67]	7.0 [179]
IDFB15E	1.7 [43]	10.2 [258]	3.0 [77]	6.2 [158]

IDFB22E to 75E



Dimensions Unit: inch [mm]

Model	A	B	C	D
IDFB22E, 37E	1 [25]	1.8 [46]	5.3 [135]	3.2 [81]
IDFB55E, 75E	2 [50]	1.4 [36]	10.6 [270]	

V Option symbol
Timer type solenoid valve with auto drain (Suitable for medium air pressure) IDFB4E to 75E

Drainage is discharged by controlling a solenoid valve with a timer. A strainer for solenoid valve protection and stop valve are also included. (The external dimensions are identical with the standard product.)

Maximum operating pressure: 240 psi (1.6 MPa)

* The timer type solenoid valve actuates once (for 0.5 seconds) every 30 seconds.

Replacement Parts

Model	Part no.	Note
IDFB4E to 22E-11□	IDF-S0199	115 VAC
IDFB22E, 37E-23□	IDF-S0198	230 VAC
IDFB55E, 75E-46□	IDF-S0302	230 VAC