SMC

Refrigerated Air Dryer

Series IDFA■E

NEW Series IDFA

Air flow capacity

Increased up to the

max 40%

(SMC comparison)

Power consumption

Decreased up to the

max 40%

(SMC comparison)

Refrigerant

R134a (HFC)

R407C (HFC)

Coefficient of destruction for ozone is zero

Heat exchanger

Improved corrosion resistance with the use of stainless steel, plate type heat exchanger (IDFA4E to 75E)

Built-in auto drain

Previous IDF

External mounting auto drain

New IDFA

Built-in auto drain

For more information and details, please contact SMC :

Singapore
Email : sales@smcsing.com.sg
Tel: (65) 6861 0888
Fax: (65) 6861 5815

Malaysia
Email : sales@smcmy.com.my
Tel: (603) 5635 0590
Fax: (603) 5635 0601

Indonesia Distributor
PT. SINAR MUTIARA CEMERLANG
Email : sales@smcindonesia.com
Tel: (+62-21) 612 2888 / 649 8786
Fax: (+62-21) 649 8765

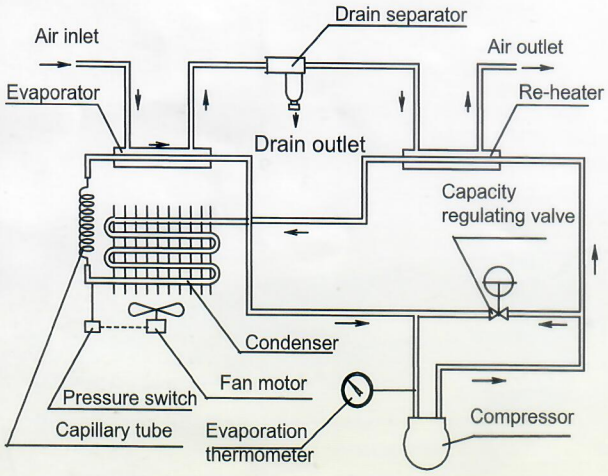
Standard Specifications

Specification	Model	IDFA3E -23	IDFA4E -23	IDFA6E -23	IDFA8E -23	IDFA11E -23	IDFA15E -23	IDFA22E -23	IDFA37E -23	IDFA55E -23	IDFA75E -23
Rated Condition	Air Flow Rate (ANR) (Note 1) ℓ/min At Outlet Pressure Dew Point of 10°C	283	566	833	1516	1866	2800	4233	6366	8500	13700
	Operating Pressure (Mpa)	0.7									
	Inlet Air Temperature (°C)	35									
	Ambient Temperature (°C)	25									
Operating Range	Working Fluid	Compressed Air									
	Inlet Air Temperature (°C)	5 to 50									
	Inlet Air Pressure (MPa)	0.15 to 1.0									
	Ambient Temperature (°C)	2 to 40 (Relative Humidity of 85% or less)									
Electric Specification	Power supply voltage	Single -phase 230VAC ±10% 50Hz									
	Operating Current (Note 2) (A)	1.2	1.2	1.2	1.4	2.7	3.0	4.3		5.4	7.9
	Power Consumption (Note 2) (W)	180	180	180	208	385	470	760		1130	1700
	Circuit Breaker (Note 3) (A)			5				10			20
Condenser		Air-cooled type									
Refrigerant		R134A (HFC)						R407C (HFC)			
Auto drain (Float type)		AD38 (normally closed)		AD48 (normally open)							
Port size		Rc 3/8	Rc ½	Rc 3/4			Rc 1	R 1	R 1½	R 2	
Accessory (kg)		Hexagon nipple						-			
Weight (kg)		18	22	23	27	28	46	54	62	100	116
Coating color		Body panel: White 1 Base : Gray 2									
Compliant standards		EU directive compliant (with CE marking)									
Applicable Compressor kW (Standard)		2.2	3.7	5.5	7.5	11	15	22	37	55	75

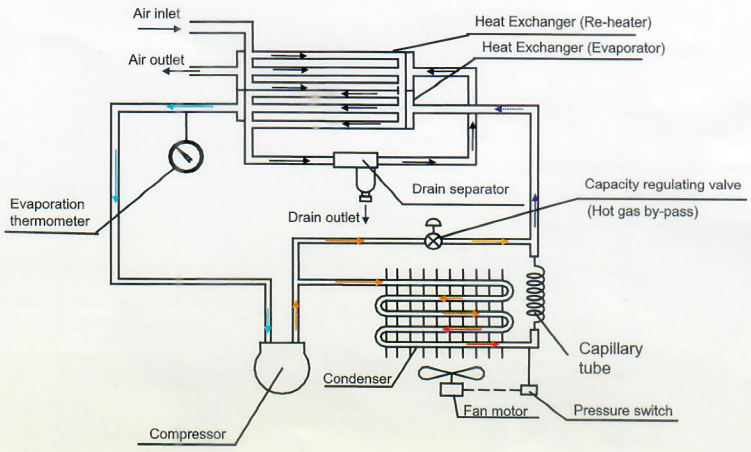
Note 1: The data for ℓ/min (ANR) is referring to the conditions of 20°C, 1atm. Pressure & relative humidity of 65%.
Note 2: the value is that of under specified condition.
Note 3: Install GFCI breaker that comes with sensivity of 30mA
Note 4: When short period power shortage (including instantly recovered shortage) is recovered.
It may take a longer starting period the un-usual starting or may not start due to the protective devices.

Construction Principle (Circuit for Air / Refrigerant)

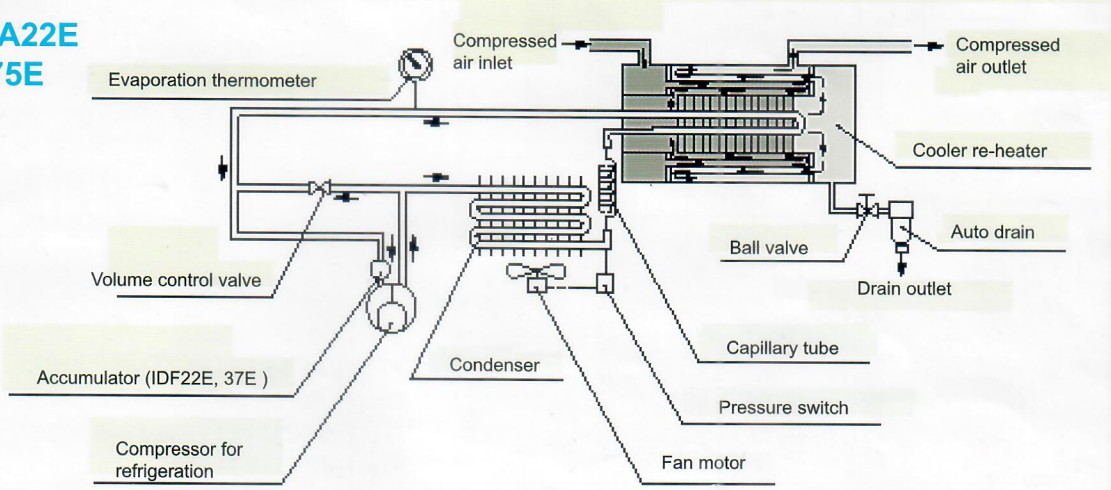
IDFA3E



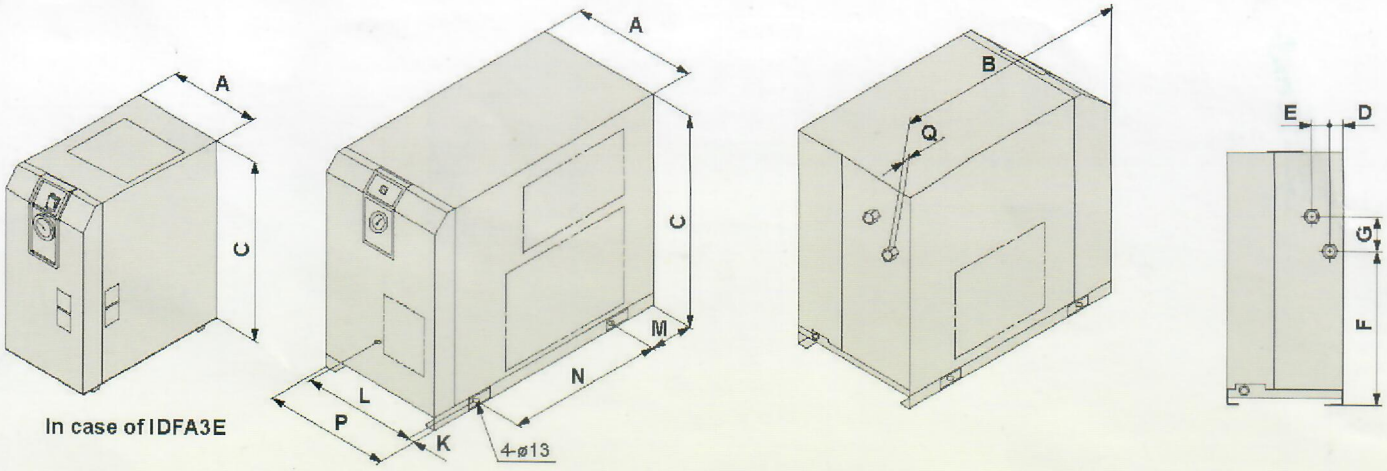
IDFA4E to 15E



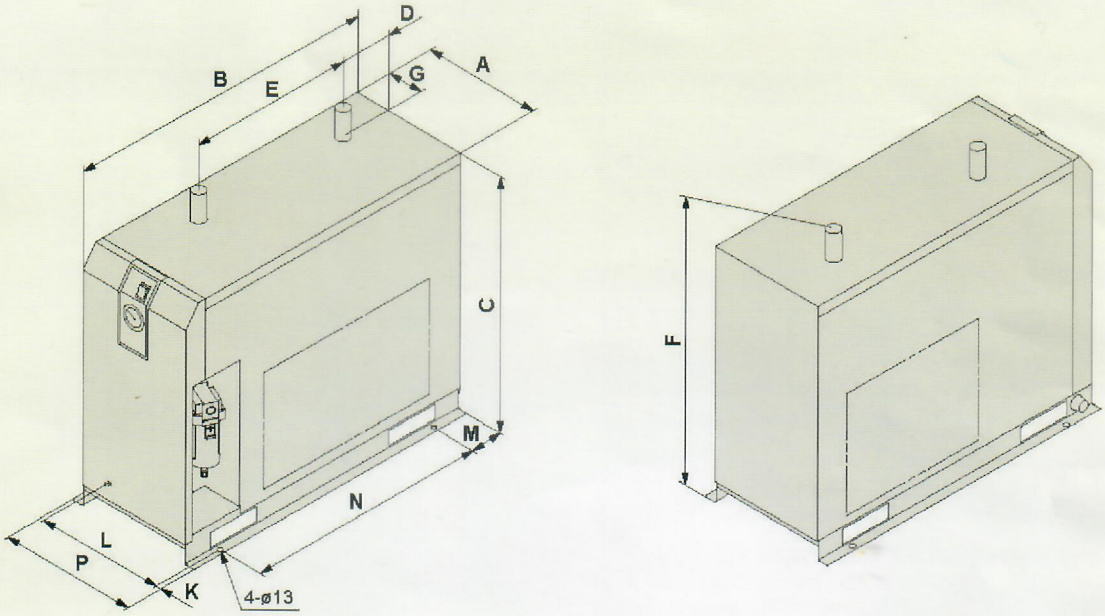
IDFA22E to 75E



IDFA3E to 15E



IDFA22E to 37E



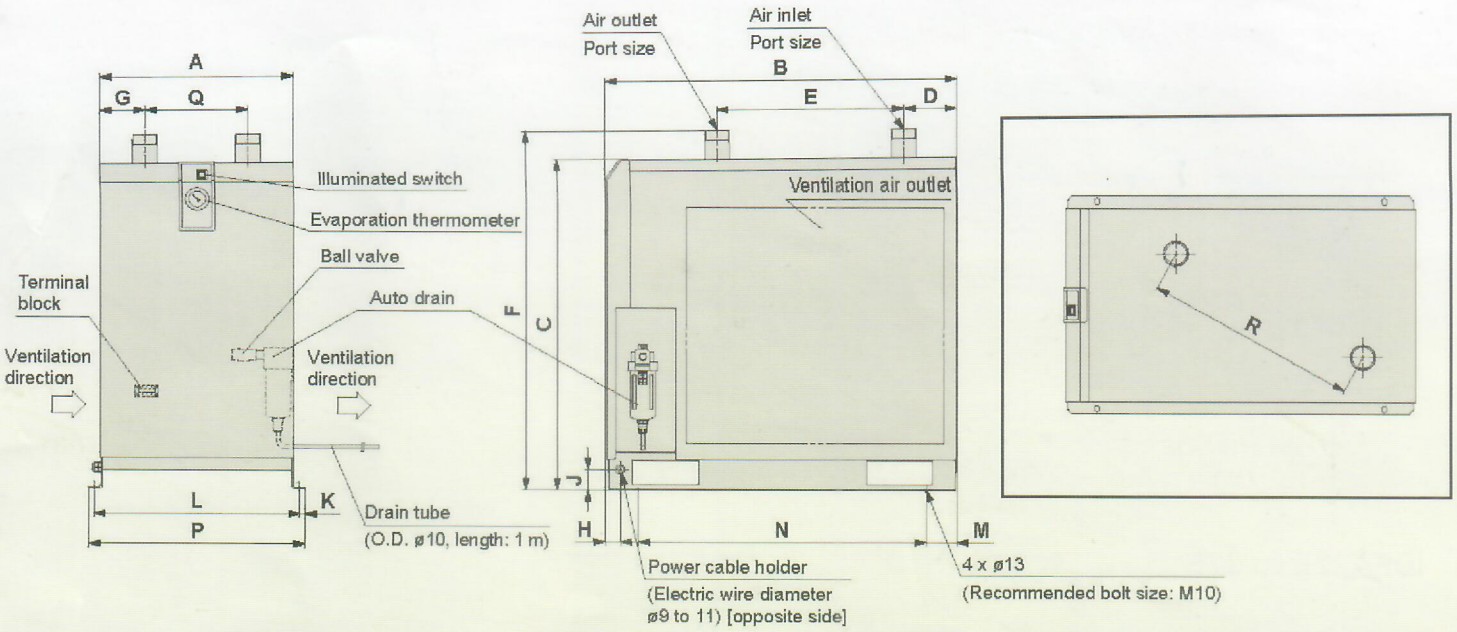
Dimensions

(mm)

Model	Port size	A	B	C	D	E	F	G	K*	L*	M*	N*	P	Q
IDFA3E	Rc 3/8	226	410	473	67	125	304	33	36	154	21	330	-	15
IDFA4E	Rc 1/2	270	453	498	31	42	283	80	15	240	80	275		13
IDFA6E	Rc 3/4		455											15
IDFA8E			485	568			355					300		
IDFA11E														
IDFA15E	Rc 1	300	603	578	41	54	396	87		270	101	380	314	16
IDFA22E	R 1	290	775	623	134	405	698	93	13	314	85	600	340	-
IDFA37E	R 1½		855									680		

* Meaning the foot dimensions for the IDFA3.

IDFA55E to 75E



Dimensions (mm)

Model	Port size	A	B	C	D	E	F	G	H	J	K	L	M	N	P	Q	R
IDFA55E	R 2	470	855	800	128	455	868	110	36	50	13	500	75	700	526	250	519
IDFA75E				900			968										

Model Selection Guide

The corrected air flow capacity, which considers the user's operating conditions, is required for selecting the air dryer. Please select using the following procedures.

1. **Read the correction factor.**
   Obtain the correction factor A to D suitable for your operating condition from the table below.
2. **Calculate the corrected air flow capacity.**
   Obtain the corrected air flow capacity from the following formula.
   Corrected air flow capacity = Air consumption ÷ (Correction factor A x B x C)
3. **Select the model**
   Select the model which air flow capacity exceeds the corrected air flow capacity using the specification table. For air flow capacity, refer to the data D below)

Data A: Inlet Air Temperature

Inlet air temperature (°C)	Correction factor
5 to 25	1.30
30	1.25
35	1
40	0.83
45	0.7
50	0.6

Data B: Ambient Temperature

Ambient temperature (°C)	Correction factor	
	IDFA3E~11E	IDFA15E~75E
20	1.1	1.1
25	1	1
30	0.91	0.97
35	0.83	0.89
40	0.79	0.77

Data C: Inlet Air Pressure

Inlet air pressure (MPa)	Correction factor	
	IDFA3E~11E	IDFA15E~75E
0.3	0.8	0.72
0.4	0.87	0.81
0.5	0.92	0.88
0.6	0.96	0.95
0.7	1.00	1.00
0.8	1.04	1.06
0.9	1.07	1.11
1.0	1.1	1.16
1.2	1.16	1.21
1.4	1.21	1.25
1.6	1.25	1.27

Data D: Air Flow Capacity

Model		Air flow capacity (ℓ/min) [ANR]									
		IDFA3E	IDFA4E	IDFA6E	IDFA8E	IDFA11E	IDFA15E	IDFA22E	IDFA37E	IDFA55E	IDFA75E
Outlet air pressure dew point	3°C	200	400	600	1083	1333	2000	3033	4550	6500	11000
	7°C	250	516	766	1383	1683	2533	3850	5783	7200	12000
	10°C	283	566	833	1516	1866	2800	4233	6366	8500	13700