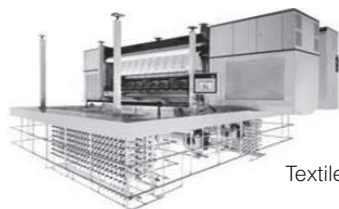


**Customer benefits:**

- Operational reliability by using high quality components (SUS heat exchanger)
- Improved efficiency thanks to a reduced pressure drop
- Compact dimensions contribute to a reduction of your overall machine size
- The technical and service support from a worldwide leader like SMC

Refrigerated Air Dryers IDFA series

Improve the performance and productivity of your machine



Textile machines

The importance of dry air in machines and systems:

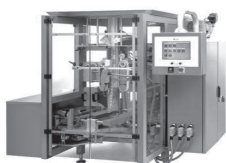
Excellent operational performance with high quality productivity and increased machine reliability are probably the three most requested attributes that modern machinery and systems using pneumatic components must meet today. However, water contained in compressed air systems (CAS) is the leading enemy in achieving this goal.

When water forms in a CAS, not only does it reduce the overall working life of the machine, it also affects the reliability of its pneumatic equipment. By installing a good quality air dryer in your CAS it effectively removes the build-up of water bringing improved performance and productivity.

| Industry | Application | Benefits from using a IDFA dryer |
|-----------------------------|--|--|
| Life science | Lens polishing machines | Good lens quality |
| Life science | Dental equipment | Optimal maintenance of the tools |
| Life science | Pharmaceutical production | Integrity and stability of the drugs during production |
| Food, life science, general | Ozone generators for cleaning and disinfection | Ozone generation in a greater proportion |
| Food, machinery | Food production and packaging machines | High quality, fine looking food products |
| Process, food | Stirring (cement and food processing equipment) | Clogging of the hopper avoided |
| Process | Industrial chemicals production | Integrity and stability of the chemicals during production |
| Machinery | Textile machines | Optimal maintenance of the equipment |
| Machinery | 3D measuring equipment, metrology machines, CMM machines | Optimal maintenance of the equipment |
| Printing | Printing machines | Optimal maintenance of the equipment |
| Machinery | Drilling machine/machining centre | Optimal maintenance of the equipment |
| Machinery | Sandblasting | Formation of sand clusters clogging the equipment is avoided |
| Car, general | Painting equipment | Paint is not repelled |
| General | Cooling | Overheating is prevented |
| General | Pneumatic tools | Optimal maintenance of the tools |



Ozone generators



Packaging machines



Lens polishing machines



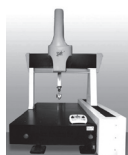
Pneumatic tools



Painting equipment



Printing machines



3D measuring equipment

Gain the competitive advantage by installing a good quality air dryer in your CAS:

Our Series IDFA range of air dryers will make you more competitive because the:

- high quality materials used in the IDFA's component parts guarantees the highest levels of operational reliability in your machine - unlike similar looking products on the market, the IDFA's internal heat exchanger is made of stainless steel thereby preventing the formation of rust
- design of our IDFA range ensures stable outlet-dew point performance with a minimum pressure drop across the dryer, helping to improve the efficiency of your machine
- compact size and the subsequent reduction in overall weight of our IDFA range, will help to make your machines smaller, easy to handle and more attractive

The benefits of a global one-stop-shop for all your dryer and pneumatic needs:

As the world's leading experts in pneumatics, with sales offices in over 78 countries around the world, we can provide you with the highest levels of technical and service support.

No matter where you're located, our experts are on-hand to help you.

We call it our "working closely approach", to help provide you with complete peace of mind and total customer satisfaction.

High performance, reliable and trouble free compressed air treatment from SMC

- State of the art design ensures a constant 3°C pressure dew point.
- High efficiency heat exchanger.
- Environmentally ozone friendly R134a and R407C refrigerant.
- Conforms to stringent ISO8573-1 standards (-,4,-).
- Simple control system, incorporating an easy to read evaporator gauge.
- Stainless steel heat exchanger providing long life and low pressure drops.
- Compact design for ease of installation.
- Ø10 mm One-touch condensate drain port.





Standard Specifications (Stocked models)

| Model | Operating range | | | Power supply voltage | Power consumption (W) | Air port connections | Refrigerant | Weight (kg) | Nominal Air Flow Rate [m³/h (ANR)] | | |
|--------------|--------------------------|----------------------------|---|---------------------------------|-----------------------|----------------------|----------------|-------------|------------------------------------|-------------------|--------------------|
| | Inlet air pressure (bar) | Inlet air temperature (°C) | Ambient temperature (°C) | | | | | | -4,- (3°C PDP) | -5,- (7°C PDP) | -6,- (10°C PDP) |
| IDFA3E-23 | 1.5 to 10 | 5 to 50 | 2 to 40 (Relative humidity of 85% or less) | Single phase 230 VAC 50Hz | 180 | Rc 3/8 | R134a (HFC) | 18 | 12 | 15 | 17 |
| IDFA4E-23 | | | | | | Rc1/2 | | 22 | 24 | 31 | 34 |
| IDFA6E-23-K | Rc 3/4 | | | | | 23 | | 36 | 46 | 50 | |
| IDFA8E-23-K | | | | | 27 | 65 | | 83 | 91 | | |
| IDFA11E-23-K | | | | | 28 | 80 | | 101 | 112 | | |
| IDFA15E-23-K | 470 | | | | Rc 1 | 46 | 120 | 152 | 168 | | |
| IDFA22E-23-K | 760 | | | | R1 | 54 | 182 | 231 | 254 | | |
| IDFA37E-23-K | | | | | R1 1/2 | 62 | 273 | 347 | 382 | | |
| IDFA55E-23-L | 1130 | | | | R2 | 100 | 390 | 432 | 510 | | |
| IDFA75E-23-L | 1700 | | | | | 116 | 660 | 720 | 822 | | |
| IDFA100F-40 | 1.5 to 10 | 5 to 60 | 2 to 45 (Relative humidity of 85% or less) | Three phase 400 VAC | 2500 | R2 | R407C (HFC) | 245 | 860 | 1040 | 1230 |
| IDFA125F-40 | | | | | 2700 | R2 1/2 | | 270 | 1100 | 1320 | 1550 |
| IDFA150F-40 | | | | | | DIN flange 80 | | 350 | 1340 | 1690 | 1920 |

Note 1) Thread adapters to convert Rc thread to R thread are included with IDFA3E to IDFA15E.

Note 2) The standard condition (ANR) is under the conditions of 20°C at atmospheric pressure and relative humidity of 65%.

Note 3) The performance data for pressure dew point is in accordance with the following operating conditions from ISO 7183: Inlet air pressure: 7 bar; Inlet air temperature: 35°C (saturated); Cooling air temperature: 25°C.

Additional options in stock (for other options please check the full catalogue)




| A | Cool compressed air output | IDFA3E 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 to the standard product)

| Model | IDFA3E | IDFA4E | IDFA6E | IDFA8E | IDFA11E |
|------------------------------|--------|--------|--------|--------|---------|
| Air flow capacity m³/h (ANR) | 18 | 23 | 29 | 32 | 39 |

Conditions: Inlet air pressure: 0.7 MPa, Inlet air temperature: 35°,
Outlet air temperature: 10°, Ambient temperature: 25°.

Optional accessories

| | | | | |
|-----------------------------------|---|---|---|----------------|
| Dust-protecting filter set |  | Prevents a reduction in the performance of the air dryer, even in dusty atmospheres | Max. ambient temperature 40°C | IDFA1E to 150F |
| Bypass piping set |  | Easy bypass piping (connect this set to the air dryer), allowing substantial reduction in the installation time | Max. operating pressure 1.0 MPa ^{Note 1)} Max. operating temperature IDF: 60°C IDU: 80°C | IDFA1E to 75E |
| Pre-filter |  | Prevents dust to enter air dryer. Extended life of dryer | Filtration rate 3 µm | IDFA3E to 75E |

Note 1) Not applicable to the moderate pressure specification. Prepare a bypass, conversion or conversion bypass piping set suitable for the specification.

How to order

[Dust-protecting filter set]

IDF — FL 201

Applicable air dryer

| Symbol | Applicable air dryer |
|----------------------|----------------------|
| 200 ^{Note)} | IDF1E, 2E |
| 201 ^{Note)} | IDF3E |
| 202 | IDF4E |
| 203 | IDF6E |
| 204 | IDF8E |
| 205 | IDF11E |
| 206 | IDF15E |
| 207 | IDF22E |
| 208 | IDF37E |
| 213 | IDF55E |
| 214 | IDF75E |
| 219 | IDF100F |
| 220 | IDF125F |
| 220 | IDF150F |

Note) In the case of the option S, model number will be different. Please consult with SMC separately.

[Bypass piping set (Rc, R thread)]

IDF — BP 302

Applicable air dryer

| Symbol | Applicable air dryer | Thread type |
|--------|----------------------|-------------|
| 300 | IDF1E | Rc |
| 301 | IDF2E | |
| 302 | IDF3E | |
| 303 | IDF4E | |
| 304 | IDF6E to 11E | |
| 316 | IDF15E | |
| 317 | IDF22E | |
| 318 | IDF37E | R |
| 325 | IDF55E | |
| 325 | IDF75E | |

Note) Not applicable to the moderate pressure specification (maximum operating pressure 1.6 MPa). Prepare a bypass piping set suitable for the specification by the customer.

[Pre-filter]

| Pre-filter model | Applicable air dryer | Pre-filter Nominal Air Flow Rate [m³/h (ANR)] | Pre-filter Air port connections |
|------------------|----------------------|---|---------------------------------|
| AFF4C-F03D-T | IDFA3E-23 | 750 | 3/8" |
| AFF8C-F04D-T | IDFA4E-23 | 1500 | 1/2" |
| AFF11C-F06D-HT | IDFA6E-23-K | 2200 | 3/4" |
| AFF11C-F06D-HT | IDFA8E-23-K | | |
| AFF11C-F06D-HT | IDFA11E-23-K | | |
| AFF22C-F10D-HT | IDFA15E-23-K | 3700 | 1" |
| AFF22C-F10D-HT | IDFA22E-23-K | | |
| AFF37B-F14D-T* | IDFA37E-23-K | 6000 | 1 1/2" |
| AFF75B-F20D-T* | IDFA55E-23-L | 12000 | 2" |
| AFF75B-F20D-T* | IDFA75E-23-L | | |

Note) Pre-filters with N.O. auto drain and with element service indicator.
* Maximum operating pressure 1.0 MPa.

Related products.....



Membrane air dryer: Series IDG



| Series | Atmospheric pressure dew point (C) | Outlet flow rate ℓ/min (ANR) | Port size |
|------------|------------------------------------|--|------------|
| IDG | -15, -20, -40, -60 | 10 to 1000 | 1/8 to 1/2 |



Water separator: Series AMG



| Series | Air flow rate ℓ/min (ANR) | Port size |
|------------|---------------------------------------|-----------|
| AMG | 300 to 12000 | 1/8 to 2 |



Main line filter: Series AFF



| Series | Nominal filtration degree (μm) | Rated flow ℓ/min (ANR) | Port size |
|------------|---|------------------------------------|-----------|
| AFF | 3 (95% filtered particle size) | 300 to 12000 | 1/8 to 2 |



Mist separator: Series AM



| Series | Nominal filtration degree (μm) | Rated flow ℓ/min (ANR) | Port size |
|-----------|---|------------------------------------|-----------|
| AM | 0.3 (95% filtered particle size) | 300 to 12000 | 1/8 to 2 |



Micro mist separator: Series AMD



| Series | Nominal filtration degree (μm) | Rated flow ℓ/min (ANR) | Port size |
|------------|---|------------------------------------|-----------|
| AMD | 0.01 (95% filtered particle size) | 200 to 12000 | 1/8 to 2 |



Micro mist separator with pre-filter: Series AMH



| Series | Nominal filtration degree (μm) | Rated flow ℓ/min (ANR) | Port size |
|------------|---|------------------------------------|-----------|
| AMH | 0.01 (95% filtered particle size) | 200 to 12000 | 1/8 to 2 |



Super mist separator: Series AME



| Series | Nominal filtration degree (μm) | Rated flow ℓ/min (ANR) | Port size |
|------------|---|------------------------------------|-----------|
| AME | 0.01 (95% filtered particle size) | 200 to 12000 | 1/8 to 2 |



Odour removal filter: Series AMF



| Series | Nominal filtration degree (μm) | Rated flow ℓ/min (ANR) | Port size |
|------------|---|------------------------------------|-----------|
| AMF | 0.01 (95% filtered particle size) | 200 to 12000 | 1/8 to 2 |



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