

DELFIN · II 3D EX H TC IIIC T80°C (INT)/T165°C (EXT) DC

# Delfin DG 50 EXP PN



The Delfin DG 50 EXP PN is the cartridge version of the DG 50 EXP: the same 4 kW side-channel blower and 100 L container, but with three self-cleaning antistatic class M cartridge filters (57,000 cm<sup>2</sup> total) and automatic pneumatic cleaning via compressed air during operation. The cabinet is 420 mm taller than the base model to accommodate the cleaning mechanism. Self-certified per EN 17348:2022 in category 3D and targeted at Zone 22 productions where continuous operation without manual filter stops outweighs compact build.

## APPLICATIONS

- Medium-sized ATEX Zone 22 productions running continuously with no time for manual filter cleaning
- Fine and abrasive dust types where pressure drop would make manual cleaning impractical
- Pharmaceutical and chemical process plants requiring stable airflow across the shift
- Central-vacuum setups where filter access is restricted after installation
- Wood, metal and composite industries where production cannot stop for filter service

# Technical specifications

|                                 |                                                                                                                                                               |
|---------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>ATEX marking</b>             | II 3D Ex h tc IIIC T80°C (Int)/T165°C (Ext) Dc                                                                                                                |
| <b>Internal / external zone</b> | 22 / 22                                                                                                                                                       |
| <b>Motor type</b>               | Sidekanalblæser, 3-faset (trifase)                                                                                                                            |
| <b>Airflow</b>                  | 420 m <sup>3</sup> /h                                                                                                                                         |
| <b>Vacuum</b>                   | 314 mbar (3200 mmH <sub>2</sub> O)                                                                                                                            |
| <b>Container</b>                | 100 L                                                                                                                                                         |
| <b>Sound pressure</b>           | 70 dB(A)                                                                                                                                                      |
| <b>Filter class</b>             | H class                                                                                                                                                       |
| <b>Filter type</b>              | Klasse H HEPA, 26.000 cm <sup>2</sup> filterflade, H14-efficiens (99,995 % MPPS, EN 1822-5)                                                                   |
| <b>Primary filter</b>           | Antistatisk polyester klasse M patronfilter (3 stk, Ø150 x 500 mm, i alt 57.000 cm <sup>2</sup> ) med automatisk pneumatisk rensning via trykluft under drift |
| <b>Collection system</b>        | Plastic bag                                                                                                                                                   |
| <b>Material</b>                 | Lakeret stål med ABS-tilbehørskurv                                                                                                                            |
| <b>IP class</b>                 | IP65                                                                                                                                                          |
| <b>Power</b>                    | 4.0 kW                                                                                                                                                        |
| <b>Current</b>                  | 8.4 A                                                                                                                                                         |
| <b>Voltage</b>                  | 400 V / 50 Hz / 3~                                                                                                                                            |
| <b>Inlet</b>                    | Diameter 80 mm                                                                                                                                                |
| <b>Dimensions (L x W x H)</b>   | 660 x 1180 x 1870 mm                                                                                                                                          |
| <b>Weight</b>                   | 145 kg                                                                                                                                                        |

# Questions and answers

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## Is it ATEX-certified or self-certified?

It is self-certified by Delfin per EN 17348:2022 in category 3D. For category 3, the ATEX Directive permits manufacturer self-certification, provided the requirements of the harmonised standard are met. The marking is II 3D Ex h tc IIIC T80°C (Int)/T165°C (Ext) Dc.

## Why are two vacuum values shown on the datasheet?

The model has a pressure relief valve fitted as standard. The valve admits false air at a set vacuum (2600 mmH<sup>2</sup>O) and thereby prevents the side-channel blower from being overloaded by blocked filters or a closed hose. The higher value (3200 mmH<sup>2</sup>O) is the theoretical maximum vacuum without valve activation. Both values are indicative and measured in new condition.

## How is the dust collected — is there a bag?

The dust is collected in an open antistatic plastic bag placed in the container. The bag is held in place by a vacuum kit fitted at commissioning, which uses the container vacuum to press the bag against the container wall. The automatic pneumatic cleaning of the cartridge filters only shakes accumulated dust off the filter medium into the container — the bag principle is unchanged from the base Delfin DG 50 EXP model.

## Is it certified for Zone 21 or Zone 20?

No. The model is categorised as 3D Dc, which only covers Zone 22. For Zone 21 or internal Zone 20, a 1/2D or 1/3D model must be used — for example the Delfin MTL 301 1/3D, MTL 201 1/2D or DM2 EL 1/2D LP. Contact Particulair if you are unsure which zone classification your production requires.

# Contact and advisory

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## PARTICULAIR

### Particulair

Højtoften 12

2690 Karlslunde, Denmark

CVR: 34129894

Phone: (+45) 70 23 12 03

E-mail: [sales@particulair.com](mailto:sales@particulair.com)

Web: [particulair.eu](http://particulair.eu)

**Product page:** [particulair.eu/ex-vac/en/atex-dust/dg-50-exp-pn/](http://particulair.eu/ex-vac/en/atex-dust/dg-50-exp-pn/)

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This datasheet is generated deterministically from Particulair product data. Prices and availability provided on request. All specifications subject to change without notice.