

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

Delfin ZFR EL MN (Zefiro EL Single-phase)



The Delfin ZFR EL MN (Zefiro EL Single-phase) is the single-phase variant of the Zefiro family: an ATEX-certified industrial vacuum with side-channel blower for Zone 22. The model is self-certified per EN 17348:2022 in category 3D and suits productions where three-phase power is not available but higher operational stability and longer runtime than common bypass motors are still required.

APPLICATIONS

- Single-phase production areas in Zone 22 without three-phase supply
- Smaller workshops and branch productions with ATEX requirements
- Mobile cleaning tasks in classified areas with varying power supply
- Technical rooms and process-pipe cabinets where only 230 V is available
- Smaller assembly halls in wood, metal or chemical industry with Zone 22

Technical specifications

ATEX marking	II 3D Ex h tc IIIC T80°C (Int)/T165°C (Ext) Dc
Internal / external zone	22 / 22
Motor type	Sidekanalblæser, 1-faset (monofase)
Airflow	318 m³/h
Vacuum	245 mbar (2500 mmH ₂ O)
Container	60 L
Sound pressure	76 dB(A)
Filter class	H class
Filter type	Klasse H HEPA, 26.000 cm² filterflade, H14-efficiens (99,995 % MPPS, EN 1822-5)
Primary filter	Stjerne/taske antistatisk polyester M, 30.000-500 cm²-mm
Collection system	Synthetic safebag
Material	Lakeret stålkonstruktion
IP class	IP65
Power	2.2 kW
Current	12.8 A
Voltage	230 V / 50 Hz / 1~
Inlet	Diameter 80 mm
Dimensions (L x W x H)	790 x 660 x 1700 mm
Weight	90 kg

Questions and answers

Can a side-channel blower really run on single-phase power?

Yes, but it is a rarity in industry. Delfin developed the ZFR EL MN specifically to combine side-channel stability with single-phase 230 V supply. Current draw is higher than on the equivalent three-phase variant (12.8 A vs 6.5 A), but for smaller productions without three-phase mains, it is a valuable solution.

Why are two vacuum values shown on the datasheet?

2500 mmH²O is the vacuum without HEPA filter fitted (primary filter only). With the HEPA filter in place, the vacuum drops to 1900 mmH²O due to the additional pressure-drop load. Both values are indicative and measured in new condition.

Is the ZFR EL MN 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.

What is the difference between the ZFR EL MN and ZFR EL TR?

They are two variants of the same platform: ZFR EL MN is single-phase (230 V, 2.2 kW, 2500 mmH²O) and ZFR EL TR is three-phase (400 V, 3 kW, 3000 mmH²O). The TR has higher power and vacuum; the MN is chosen when only single-phase supply is available.

Contact and advisory

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