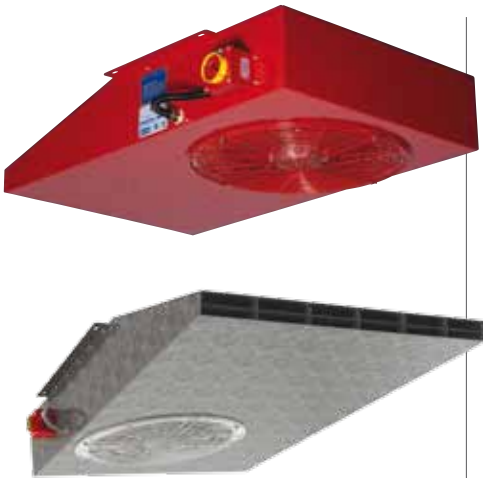


Guardian



Compact, high-power centrifugal fan for car parks

The centrifugal Guardian fan from Airvent is ideal for underground or enclosed structures, especially car parks. A high-powered, duct-free solution, using Guardian means lower installation, maintenance and running costs.

Its slim profile allows car park designers to overcome issues caused by obtrusive structural beams and low overall ceiling heights without compromising performance. The fan's outlet design ensures efficient uni-directional movement of the airflow into the designated area.

Given the high-power nature of the Guardian, it can produce a high-velocity jet which adds momentum to the air in front of the fan, imparting thrust to surrounding air through mixing and entrainment as it diffuses. The volume of air entrained is significantly greater than that passing through the fan.

Materials

The Guardian is independently tested to meet the exacting standards of EN 12101-3:2002, ensuring that in fire situations it can operate for up to two hours in 300°C conditions. Performance is tested to BS848-10:1999 Fans for general purposes. The slim-profile Guardian is supplied with a fitted IP55 terminal box as standard, with an optional IP65 lockable fire rated isolator if required.

Application

- > Underground car parks
- > Tunnels
- > Underground structures

Our range



Specification

The Guardian range comprises 50N or 100N thrust types, suitable for ambient temperature operation plus once only 300°C for 2 hour high temperature smoke conditions to European Standard EN12101-3:2002. The two speed motor is suitable for frequency inverter speed control on high speed.

Casing

The all metal fan casing provides a robust construction, assisted by the long lasting paint finish (optional) or standard galvanised steel.

The integral mounting flanges on the casing allow the unit to be mounted easily to the structure. All casing parts are manufactured from heavy gauge mild sheet steel powder coated as standard.

Impeller

Backward curved centrifugal impellers are used to ensure high aerodynamic efficiency. Impellers are manufactured from mild steel. Impeller assemblies are dynamically balanced to Grade G6.3.

Motors

Motors are totally enclosed airstream cooled, protected to IP55. Each motor is matched to the aerodynamic performance of the impeller.

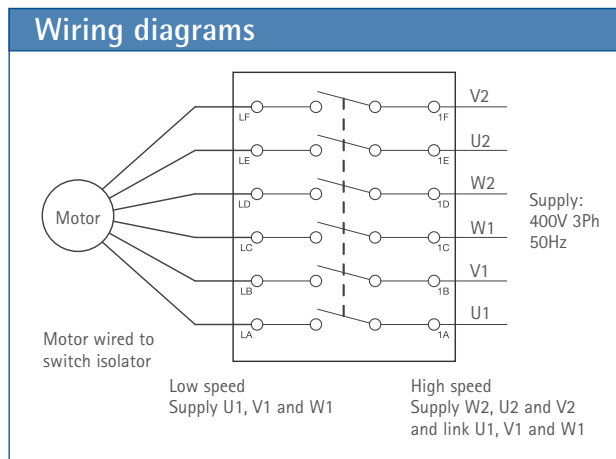
Motors are Class H insulation for normal continuous duty at 40°C, with effective operation during smoke conditions once only of 300°C for two hours.

The unit is supplied as standard with a fitted IP55 terminal box or an optional IP65 lockable fire rated isolator.

Quality management

Units are designed and manufactured with procedures as defined in BS EN ISO 9001: 2000.

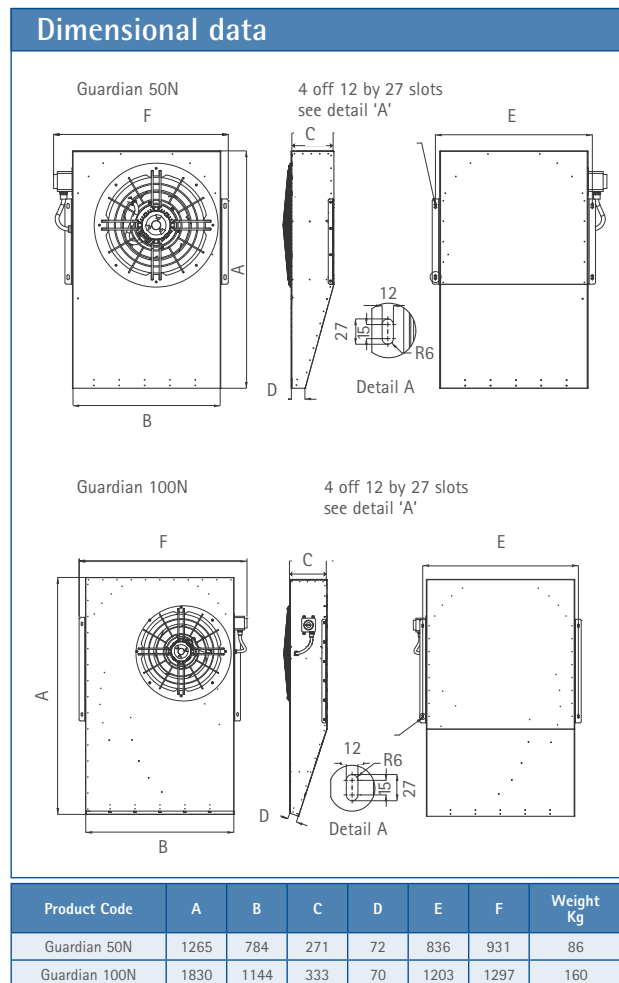
All Guardian units are tested at elevated temperatures in accordance with the requirements of the European standard EN12101-3:2002 and certified accordingly.



Product Code	Thrust Newtons	Volume Flow Rate m ³ /s	Velocity m/s	Sound Pressure dBA @ 1m
Guardian 50N	54/12	1.63/0.80	28.82/14.05	75/59
Guardian 100N	98/18	2.65/1.35	33.19/16.87	76/60

Product Code	Speed r/min	Motor Power kW	FLC Amps	SC Amps	Absorbed Power kW
Guardian 50N	1447/733	1.38/0.35	3.20/1.36	16.0/4.08	1.13/0.25
Guardian 100N	1423/729	2.42/0.61	5.42/2.12	30.4/7.21	2.38/0.45

- > General use at temperatures (ambient) +40°C
- > One off high temperature use of 300°C for 2 hours
- > 400Volt / 3 Phase / 50Hz Electrical Supply
- > All thrust figures are measured under test conditions
- > Volume flow and velocity figures shown may have been calculated in accordance with test requirements
- > All the test data shown has been prepared in accordance with ISO 13350 1999 / BS 848-10-1999
- > dBA figures are free field sound pressure levels at 45° to the outlet



Technical modifications reserved

T: +44 (0)29 2077 6160 www.airvent.co.uk



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