



AstroFan FFU

Self-contained Filter Fan Unit

- Low energy consumption
- Low operating cost
- High total static pressure at full air flow
- Easy installation into cleanroom grids



Application

The AAF AstroFan FFU is a self-contained ceiling filter fan unit for use in turbulent mixing and laminar air flow cleanroom areas. The unit is designed for use with the AAF 50 and 55 mm T-Bar ceiling grid, the AstroDry HD ceiling grid and compatible grids. When executed with a knife edge, the unit can also be utilized in the AstroGel ND liquid seal ceiling grid. The unit is light weight and easy to install.

Construction

The AstroFan unit comprises a mild galvanized steel housing with a high performance, encapsulated, direct driven backward curved fan/motor combination and a replaceable HEPA or ULPA AstroCel II filter. Large units and EC units are made from aluminium. Options include an epoxy coated white RAL 9010 housing, which because it can be decontaminated with disinfectant, is suitable for sterile applications.

Noise level

The unit, with a clean filter at full rated air flow has a single unit SPL of 52-56 dB(a) at 1m.



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Motors and controls

The unit is available with traditional high efficient AC motors, operating with single phase or 3 phase motors. Controls can be either with 5 step speed controller or stepless controller. This execution provides a simple and reliable economical solution for many applications.

Utilizing EC system (electrical commutated) external rotor motors greatly reduces the power consumption of the unit, because of reduced losses. Consequently the cooling requirement is also reduced.

Controls include the electronic commutation unit, standard single unit control, standard RFI suppression and PFC (power factor controller) and LON[®] bus interface. Two wire twisted cable installation to the bus makes installation easy. Mains supply is single phase 230-270V 50/60Hz.

AstroCel II HEPA and ULPA filters
The unit is equipped with HEPA filters in Class H14 to EN 1822 or ULPA filters Class U15, U16 or U17. All filters are factory scanned to the European Standard to ensure

leakfree operation. Selected low pressure drop of the AstroCel II provides, in combination with the high total static pressure of the fan, a free static pressure of 70-100 Pa at full rated airflow. This results in extended filter life or it can be utilized for external use on prefilters or cooling coils.

Options

- Room Side Change (RSC)
- Cooling coil
- Individual ceiling frames
- 60 Hz operation

Performance Data

Size	66	612	912	1212
Airflow (m ³ /h / m ³ /s?)	520 / 0.14	1060 / 0.3	1590 / 0.44	2120 / 0.6
Actual Dimensions L x W x H* (mm)	570 x 570 x 290	570 x 1170 x 290	870 x 1170 x 350	1170 x 1170 x 350
Nominal Motor Data				
230/1/50	0.26 kW - 1.2 A	0.29 kW - 1.3 A	0.52 kW - 2.2 A	0.68 kW - 3.0 A
400/3/50	0.21 kW - 0.5 A	0.23 kW - 0.55 A	0.43 kW - 0.88 A	0.61 kW - 1.18 A
EC 230/1/50/60	0.17 kW - 0.75 A	0.22 kW - 0.98 A	0.34 kW - 1.5 A	0.34 kW - 1.5 A
Approx. weight (kg)				
Galv. steel	32	45	-	-
aluminium	25	35	65	72

Other sizes upon request.

* Excluding filter.



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