Planet
Structure Cabling Systems

CABINET COOLING FAN UNIT

COOLING FAN UNIT







PLANET cabinet cooling fan units are designed for reliable forced-air ventilation in network and server cabinets. The premium EC series uses 120 × 120 × 38 mm ball-bearing axial fans with wide-range 100–240 VAC input, low power consumption and high airflow for continuous cabinet cooling.

Available as single-, dual- and quad-fan configurations for cabinet roof, top-panel or fan-tray integration, with protective finger guards and optional thermostat control.

100–240 VAC	109 CFM	33W	-25 to +70°C
Wide Input	Airflow / Fan	Power / Fan	Operating Range

“High-Efficiency Cabinet Airflow Management”

1. General Description

The PL-FAN1EC, PL-FAN2EC and PL-FAN4EC provide scalable cabinet ventilation using one, two or four premium EC axial fans. Each fan delivers up to 109 CFM (185 m³/h) of free-air flow while consuming only 33W, helping remove heat from network switches, patching zones, power equipment and other rack-mounted devices. The EC motor accepts 100–240 VAC at 50/60 Hz, allowing one platform to support both regional and international projects.

2. Construction

Parameter	Specification
Fan Type	High-efficiency EC axial fan
Nominal Fan Size	120 × 120 × 38 mm per fan
Bearing System	Dual ball bearing
Fan Frame	PBT engineering plastic, black
Tray / Panel Housing	Powder-coated steel, 1.0–1.2 mm recommended
Protective Guard	Steel finger guard on exposed fan face; dual-side guard optional
Mounting Pattern	4-point mounting, approx. 105 mm hole spacing per fan
Airflow Direction	Exhaust outward as standard; reversible by mounting orientation

3. Electrical & Performance Characteristics

Parameter	Specification
Rated Input Voltage	100–240 VAC, universal input
Frequency	50 / 60 Hz
Power Consumption	33W per fan
Fan Speed	Approx. 3500 RPM
Free-Air Flow	109 CFM / 185 m³/h per fan
Maximum Static Pressure	0.37 in-H_2O / 92 Pa
Sound Pressure Level	Approx. 44.9 dB(A) per fan
Motor Technology	Electronically Commutated (EC), energy-efficient

4. Product Configuration

Model	Fans	Total Airflow*	Total Power
PL-F010	1 × 120 mm	109 CFM / 185 m³/h	33W
PL-FP020	2 × 120 mm	218 CFM / 370 m³/h	66W
PL-FP040	4 × 120 mm	436 CFM / 740 m³/h	132W

5. Environmental & Protection Characteristics

Parameter	Specification
Operating Temperature	-25°C to +70°C
Relative Humidity	5% to 95% RH, non-condensing
Fan Protection	IP55 premium target; IP68 fan option available
Connection	24 AWG fan lead; IEC C14 input / terminal connection on tray assemblies
Control Option	Illuminated ON/OFF switch; adjustable thermostat controller optional

6. Compliance & Safety

Parameter	Specification
Assembly Compliance Target	CE and RoHS
Fan Component Safety	UL / cUL, TÜV and UKCA approved fan source where project required
Protection Note	Fan IP rating applies to the fan component only and does not change the cabinet enclosure IP rating

7. Key Product Features

- Premium EC motor: wide 100–240 VAC input with low power consumption
- 1-, 2- and 4-fan configurations for scalable cabinet cooling
- 109 CFM (185 m³/h) airflow per 120 mm fan
- Dual ball-bearing design for continuous-duty cabinet operation
- Protective metal finger guards and robust powder-coated tray construction
- Optional thermostat control for automatic temperature-based operation
- Suitable for wall-mount, floor-standing and server/network cabinet applications