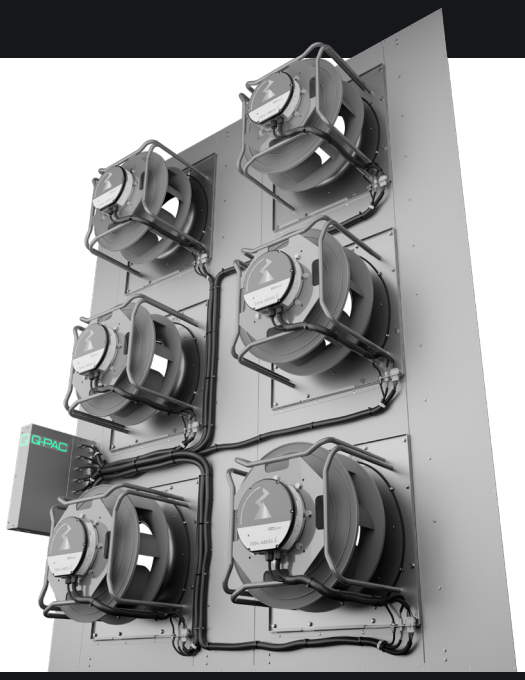
Q-PAC

Q-PAC FAN

MULTIMOTOR PLENUM FAN

The Q-PAC Multimotor Plenum Fan (MPF) is designed for new construction and retrofit applications as an alternative to conventional blowers and fan arrays in packaged and built-up commercial air handlers. It integrates multiple EC motorized impellers into a single fan assembly, combining the single-point connection of a traditional blower with the multiple-motor architecture of a fan array.

The fan is engineered around Q-PAC's patented controller, which distributes power and control signals to each motor while providing airflow measurement, alarms, and system communication through a single interface to the building automation system. Because motor coordination occurs within the fan, the MPF operates independently of an external control panel.



AIRFLOW UP TO
90K | 300K
CFM PER FAN OR MULTI-FAN SYSTEM

UP TO
9.0
INWC STATIC

SCALABLE DIMENSIONS FROM
26-150 | 25-140
INCHES, WIDTH | INCHES, HEIGHT

STANDARD FEATURES

PATENTED CONTROLLER

The fan's single point of wiring for power, control, and communication for up to nine motors. Airflow is reported via analog signal; individual motor status is available over Modbus.

RESILIENT OPERATION

If a motor fails, remaining motors can increase speed to compensate. A built-in bypass routes the analog signal directly to motors if the controller fails.

EC MOTOR TECHNOLOGY

Onboard electronics modulate each impeller directly. No separate VFDs required; IE4 motor efficiency.

FACTORY-BALANCED IMPELLERS

Impellers balanced to ISO 21940 Grade G6.3 (AMCA 204 BV-3) for rigid mounting without field balancing.

INTERCHANGEABLE COMPONENTS

Plug fans require no installation-specific addressing or custom harness lengths. A single spare can replace any failed motor of the same model.

STRUCTURAL STEEL FRAME

Galvanized G90 A36 panels with interlocking structural channels form a single rigid frame, doubling as the plenum's pressure wall.

AUTOMATED ADAPTIVE FRAME

Frame dimensions are generated per project, sized to fit the target air handler without field fabrication.

SIMPLIFIED ASSEMBLY AND SERVICING

Panels include plug fan mounting ledges, pre-punched holes for fasteners, and predetermined harness routes.

REPLACES CONVENTIONAL FAN TECHNOLOGY

The multimotor plenum fan combines the simplicity of a conventional blower with the redundancy of a fan array, often replacing:

CENTRIFUGAL BLOWERS ▪ PLENUM FANS ▪ AC/EC FAN ARRAYS ▪ SELECT AXIAL FANS

LEARN MORE ABOUT Q-PAC'S MULTIMOTOR PLENUM FAN

Q-PAC MPF COMPONENTS & CAPABILITIES

DOWNLOADABLE GUIDES & USER MANUALS

CONFIGURATION OPTIONS

CONTROLLER MOUNTING SIDE

The fan can be customized to have a left- or right-side mounted controller to minimize conduit runs.

VOLTAGE

Available in 208V, 480V, or 575V, three-phase, 60Hz configurations.

FULLY-ASSEMBLED OR KNOCKDOWN

Fan can be purchased alone or with an external panel. Alone, it connects using standard analog or Modbus communication.

SYSTEM ACCESSORIES

PERIMETER ANGLES

Galvanized steel adapters that mount the fan to air handler structure when no compatible flange is present. Included standard with every system.

BACKFLOW PREVENTION

Heavy-duty counterweighted dampers to prevent backflow if a motor fails or the fan shuts off. A blank-off plate is included standard.

EXTERNAL PANELS

Three optional panel available: fused disconnect only, Basic Controls, or Premium Controls.

CONTROL OPTIONS

Connect the Q-PAC Fan to a panel of your choice, wire it direct to your BMS, or add a Q-PAC Control Panel for local and advanced control. Every option gives you motor status and airflow; higher tiers add local control, protection, and BMS integration. Each Q-PAC Control Panel supports up to four fans.

			EXTERNAL CONTROL PANEL	
	MPF ONLY	EXTERNAL FUSED DISC.	BASIC CONTROLS	PREMIUM CONTROLS
SPEED CONTROL	0-10V + Modbus at fan controller	0-10V + Modbus at fan controller	0-10V at panel, Modbus at fan controller	0-10V, HMI, or BACnet at panel
MOTOR STATUS	Global via relay; indiv. via Modbus at fan controller	Global via relay; indiv. via Modbus at fan controller	Global via relay; indiv. via Modbus at fan controller	Global via relay; indiv. via Modbus, Bacnet, or HMI at panel
AIRFLOW REPORTING	Analog at fan controller	Analog at fan controller	Analog at fan controller	Analog, BACnet, or HMI at panel
LOCAL DISCONNECT	Not included	Fused disconnect	Fused disconnect + HOA switch	Fused disconnect + HOA switch
MOTOR BRANCH PROTECTION	Fused, in fan controller	Fused, in fan controller	Fused, in fan controller	Fused, in fan controller
MPF-LEVEL FUSE	---	Included	Included	Included
TOUCHSCREEN HMI	---	---	---	Included
BACNET MS/TP & IP	---	---	---	Included
INTERLOCK & FIREMAN OVERRIDE	---	---	---	Included
ENCLOSURE	Internal only	NEMA Type 1 or 3R	NEMA Type 1 or 4	NEMA Type 1 or 4

CERTIFICATIONS & COMPLIANCE

Q-PAC FAN
PRODUCT-LEVEL

- → UL 60335-2-40 RECOGNIZED
- → OSHPD CERTIFIED PER ICC-ES AC156

CONTROLLER
COMPONENT-LEVEL

- → UL 60730-2-15 RECOGNIZED
- → CFR TITLE 47

EXTERNAL Q-PAC PANEL
BASIC & PREMIUM ONLY

- → UL 508A LISTED