



Cooling simplified

Harsh and Potentially Explosive Environment Fans

Mechatronics ATEX Fan Solutions

Mechatronics offers a variety of fans for use in potentially hazardous applications and environments. ATEX Fans are intended for use in equipment or protective systems where potentially explosive atmospheres can occur (as defined by EU directive 2014/34/EU). Mechatronics ATEX Fans are EC Fans (electronically commutated AC fans) made with encapsulated motors rated to IP68. ATEX Rating levels for Mechatronics fans are listed in the table below. Only fans with the ATEX symbol and rating on the label are intended for ATEX applications.



Fan Series	Size	CFM	ATEX Option Rating
LPT60B99	60 x 60 x 25mm	19	EX II 3G Ex nA IIC Gc
LPH12A99	120 x 120 x 38mm	86-124	EX II 3G Ex ec IIC Gc
LPT12A99	120 x 120 x 38mm	106	EX II 3G Ex nA IIC Gc
LPT15P	172 x 150 x 51mm	220	EX II 3G Ex nA IIC Gc



MECHATRONICS ATEX CERTIFICATION & LABEL MARKINGS

Explosion Protection	EX
Equipment Group	Zone II
Equipment Category	3
Atmosphere	G
Equipment Protection	EX ec (increased safety) EX nA (non-sparking)
Gas Group	IIC
Equipment Protection	Gc

What is ATEX and where are ATEX rated fans used?

Special electric components are required for environments where explosive gasses, vapor-air mixture, or combustible dust is possible in concentrations high enough to cause explosions. ATEX directives were adopted to align the technical requirements for products intended for use in potentially explosive atmospheres. Mechatronics ATEX rated products comply with the directives. All Mechatronics ATEX rated fans are marked with ATEX symbols and markings that indicate protection level and conformity with the directive. The ATEX directives not only define product requirements, but also classify environment zones and equipment categories. For more information on ATEX Directives, Ratings, and certifications visit the European Commission website for [ATEX](#).



For more information about ATEX rated fans available from Mechatronics, contact your local sales representative or request information through our online [Engineering Contact Request Form](#) at www.mechatronics.com









What is an EC Fan and why is it used in applications requiring ATEX?

Mechatronics electronically commutated (EC) technology fans converts AC power to DC power internal to the fan, so Mechatronics EC fans can be installed anywhere a similar sized AC fan is used. Energy saving EC fan technology is used to make ATEX fans because the design allows for coating or complete encapsulation of internal electrical components connections and the fan motor winding. Mechatronics UL recognized EC fans with ATEX rating are available in frame sizes from 60mm-172mm, with models compatible with input voltages from 100-240VAC. Mechatronics EC fans come standard with terminal type plugs or lead wires for simple replacement of less efficient AC fans in existing applications.



What is Encapsulation, and why choose this type of ATEX fan?

Encapsulation is the process of injection molding an epoxy compound that completely fills all cavities around the entire PCB and motor assembly before installation of the bearings, shaft assembly, and impeller. Encapsulation is a superior method of environmental protection for ATEX applications because it is designed to completely prevent water or dust contact with the fans electrical components and motor assembly. Mechatronics 2nd generation encapsulated fans have been third party tested to both dust and water standards for ingress protection, to IP68.

EC LOW POWER CONSUMPTION AXIAL FANS				
OPTIONS	PART NO.	METRIC DIMENSION	INCH DIMENSION	AIRFLOW (CFM)
	LPH60B99	(60 x 60 x 25mm)	2.36 x 2.36 x 1.00 in.	12-17
 	LPT60B99	(60 x 60 x 25mm)	2.36 x 2.36 x 1.00 in.	19
	LPH80B99	(80 x 80 x 25mm)	3.15 x 3.15 x 1.00 in	26 - 39
	LPH80A99	(80 x 80 x 38mm)	3.15 x 3.15 x 1.50 in	31 - 41
	LPH92B99	(92 x 92 x 25mm)	3.62 x 3.62 x 1.00 in	39 - 56
	LPH92A99	(92 x 92 x 38mm)	3.62 x 3.62 x 1.50 in	48 - 68
	LPH12B99	(120 x 120 x 25mm)	4.72 x 4.72 x 1.00 in	58 - 79
 	LPT12A99	(120 x 120 x 38mm)	4.72 x 4.72 x 1.52 in	106
 	LPH12A99	(120 x 120 x 38mm)	4.72 x 4.72 x 1.52 in	86 - 124
	LPH15P99	(172 x 152 x 51mm)	6.77 x 5.98 x 2.03 in	181 - 228
 	LPT15P	(172 x 150 x 51mm)	6.77 x 5.91 x 2.00 in	220
	LPT200BMB	(250 x 76mm)	9.84 x 3.00 in	300 - 484

ATEX Fan Applications

- Commercial Refrigeration
- Air Conditioning
- Battery Compartments
- Food Processing Equipment
- Freezers & Ice makers
- Heat-Pump Dryers
- Water Heaters
- Industrial Refrigeration
- Chemical Storage
- Oil and gas equipment
- Propane and other flammable refrigerants