

Portable Ventilators for Hazardous Locations Rated:



Applicable Models:

UB20xx	EFi120xx
EFi75xx	EFi150xx



II 2 G Ex d e IIB T6 Gb
CE0539 Demko 09 ATEX 0926969X
IECEX UL 13.0062X

The Portable Ventilators described here in are intended for use in Explosive Atmospheres in accordance with the limitations of the rating. It is the user's responsibility to determine the suitability of equipment for the intended purpose.

TECHNICAL INFORMATION & INSTALLATION INSTRUCTIONS



UB20xx



EFi75xx



EFi120xx
EFi150xx

WARNING!

These units are intended for Explosive Atmospheres use in accordance with ATEX Directive 94/9/EC. It is the user's responsibility to determine the suitability of this equipment for the intended purpose.

CAUTION! THESE FANS ARE NOT INTENDED FOR USE IN MINES SUSCEPTIBLE TO FIREDAMP.

Explosion Proof Fan Rated: II 2 G Ex d e IIB T6 Gb

Euramco Safety hereby declares that the equipment listed in this manual conforms to the relevant Essential Health and Safety Requirements of the European Machinery Directive and standards listed below.

Council of European Communities Directives:

89/392/EEC as amended by 91/368/EEC and 93/44/EEC. Also EC Directives 93/68/EEC, 94/9/EC, and 76/117/EEC.

Standards to which conformity is declared: See Declaration of Conformity (last page).

Category, Group and Zone Classifications

* According to ATEX Directive (94/9/EC)



II 2 G Ex d e IIB T6 Gb
CE 0539 Demko 09 ATEX 0926969X
IECEX UL 13.0062X

Special Conditions for Safe Use

The letter "X" at the end of the ATEX, IECEX, and INMETRO certificate numbers indicates a special condition for safe use. This special condition of safe use refers to the fact that the Hazardous Locations Fans referenced herein are supplied without an AC power plug termination for the power cable.

The un-terminated power cable, (flying leads), must be terminated by the end user in the field according to installation standards, IEC/EN/ABNT NBR IEC 60079-14, to a suitable safe power location, or under one apparatus or enclosure in one of the protection concepts for use in hazardous locations.

T6 Temperature Classification

*According to IEC 60079-0:2007 / EN60079-0:2009 / ABNT NBR IEC60079-0:2008. 85°C T6

To ensure that there is no risk of ignition due to hot surfaces, the equipment is classified with regard to the maximum surface temperature of any part of the equipment while in operation based on the ambient temperature of 40°C. Equipment must be selected with a suitable temperature classification for the gases and vapors present where the equipment is to be installed. Ensure that the maximum surface temperature of any parts of the equipment are below the ignition temperature of the explosive atmosphere concerned.

This equipment is intended for use in ambient temperatures ranging between -20°C and +40°C.

Classification: Ex de

* According to IEC 60079-1:2007 / EN60079-1:2007 / ABNT NBR IEC60079-1:2009 Flame Proof Enclosures with Increased Safety Components.

Description of Apparatus

The Portable Ventilator assemblies represented herein consist of an Approved Explosion Proof Electric Motor Rated: **Ex d IIB** by Bluffton Motor Works (Formerly Franklin Electric) as listed below and are covered by Certificate No. DEMKO 03 ATEX134885U.

EURAMCO SAFETY VENTILATOR			BLUFFTON MOTOR	
MODEL #	INPUT VOLTAGE	EURAMCO PART #	IMPELLER	BLUFFTON PART #
UB20XX	115VAC, 60Hz	EF7002XX	PLASTIC	1933007415
UB20XX	240VAC, 50/60Hz	EF8002XX	PLASTIC	1933007419
EFi75XX	115/230VAC, 50/60Hz	EB7201XX	METAL	1133007405
		EB7201XX-230		
EFi120XX	110/240VAC, 50Hz	EA8120XX	PLASTIC	1223007401
		EA8120XX-110		
EFi150XX	115/230VAC, 50/60Hz	EG8200XX	PLASTIC	1133007417
		EG8200XX-230		

The Flame Proof Electric Motor

Power Requirements: See chart above.

Ambient Temperature Range: -20°C < T_{amb} < +40°C

Ingress Protection to IEC 529: IP55

Marked: ("Bluffton Motor Works") Electric Motor for Hazardous Locations.

Flame Proof Enclosure: Ex d IIB

The electric motor consists of one flameproof enclosure, which contains less than 6% magnesium by weight. The on/off switch is housed within the motor enclosure, and is operated by a shaft, extending out from the rear end bell to a lever. The lever is accessible via an attached push rod.

Motor connections are made through a non-detachable cable, secured to the motor with an approved Flame Proof cable gland from the company Hawke, Model 501/421/0/M20 and complies with International Standards EN 60079-0:2009, EN 60079-1:2007, EN 60079-7:2007.

The electric motor drives an aluminum or plastic fan blade containing less than 6% Magnesium by weight which is enclosed in a plastic, statically conductive housing with a conductivity rating of <1 giga ohms. Connection to the motor is facilitated by a Terminal Block mounted in an Increased Safety/Flame Proof Enclosure rated II 2 G Ex e II T6, from the company Rose Industries, Part No. 05080806, and covered under the certificate No. PTB 00ATEX1063. This box was designed to conform to International Standards EN 60079-0:2009, EN 60079-1:2007, EN 60079-7:2007, EN 61241-02006, EN 61241-1:2004. The enclosure features stainless steel grounding lugs, with a high heat silicon gasket.

The Flame Proof enclosure has attached, approved, explosion proof cable glands **Rated:** II GD Ex e II.

Type: Polyamide Ex metric conforms to International Standards EN 60079-0:2009, EN 60079-1:2007, EN 60079-7:2007, EN 61241-02006, EN 61241-1:2004.

Material: Polyamide

Color: Black/Blue

Grommet: NBR

Protection classification: IP68

Temperature range: -4°F to +212°F

Approval: PTB 00 ATEX 1063

The power cables are not terminated with power plugs. See Special Conditions for safe use.

The fans are assembled with both Inlet and Outlet Safety Guards that conform to the safety standards to prevent danger zones being reached by upper limbs in the BS EN 294:1992 Guards Standard.

INSTALLATION & START-UP

During the installation and start-up of the Euramco Safety blowers in areas where there is a risk of explosion:

- Design of the electrical installations must be in accordance with EN/IEC/ABNT NBR IEC 60079-14.
- Ensure power source is providing an electrical ground.
- Blowers must be integrated into a system in a way to support accessibility for regular maintenance.
- Perform careful inspection of each blower system to ensure ducting is securely attached to blower. All components of the blower system are made of electrically conductive material. It is very important to properly and securely attach each piece to maintain a ground path.
- Ensure set-up, installation, operation, and maintenance are performed only by properly trained personnel.
- Operation after a faulty installation or maintenance shall be considered as unintended use.

Before STARTING the FIRST Time

DO not start operation if there are signs of shipping damage to blade, guards, or housing. STOP, call your dealer. USE Ex-Rated receptacles for this equipment. IT IS NOT recommended to use extension cords for high amperage load. (See power rating label on limit.)

OPERATION

Always ensure the switch is in the OFF position prior to connecting a ventilator to a power source.

Stop the blower if mechanical noise, vibration, or other abnormal conditions occur. Any noise other than turbine-type pitch is not normal.

To protect the user, this unit is equipped with thermal overload protection with automatic reset. Motor will restart without warning after protector trips. If motor thermal protector trips, disconnect unit and determine cause.

Conductive RAMFAN Portable Ventilators are made with statically conductive materials. When ducting is required to remote the ventilator from the point of application in a potentially explosive environment, the available biodegradable cleaning solutions. Do not use solvents containing hydrocarbons (i.e. MEK, Acetone).

Clean fan periodically to remove accumulated dust or debris.

There are no user serviceable parts. Contact factory for replacement part applicability.

Do not change make or model number of motor for any reason!

MAINTENANCE

Disconnect power before disassembly or cleaning. Never immerse or directly spray motor with liquids. Clean ventilator with commercially

CAUTIONS

Do not move ventilator while fan is in operation. Use good lifting practices when moving ventilator to prevent bodily injury.

Blower should be operated and repaired by trained personnel only.

Do not operate if there is any physical damage to cord, plug or receptacle.

Keep fingers and hands clear of fan blade. Keep fan guard securely in place. Do not operate with damaged or missing fan guards.

Use properly grounded power receptacle in potentially explosive atmospheres, and for operation safety. Ensure continuity to the earth.

Fatal electrical shock may result if motor frame and adjacent metal are not grounded in compliance with electrical code.

Keep area clear of rock and debris.

Keep away from children.

WARRANTY

Positive Pressure Ventilators and Turbo Ventilators, excluding engine and wear items, are warranted for one year from date of original purchase, to be free of defects in material and workmanship. Electric motors are warranted by their respective manufacturers. Wear items include feet, fasteners, handles, wheels, and paint, and are not covered under the warranty. Fan impellers and shrouds are warranted to be free of defects in material and workmanship for five years. Components exposed to salt water service are warranted for a period of one year from date of original purchase.*

Portable Blowers:

Portable Blowers are warranted against defects in material and workmanship for a period of one year from the date of original purchase. Duct is not warranted due to its intended use.

***Authorization for warranty repairs must be obtained from the factory. There are no other warranties expressed or implied.**

ACCESSORIES FOR ATEX, IECEx, & INMETRO HAZARDOUS LOCATION FANS

Euramco Safety has a number of optional antistatic / conductive airflow duct accessories designed explicitly for use with our Hazardous Location Fans to support various end user applications as identified in the list below.

ACCESSORY LIST

FAN

Model	Accessory PN	Description
-------	--------------	-------------

UB20xx

EF7004CS		Quick-Couple Canister with 8" x 15' Duct, Antistatic
EF7004CL/DS		Quick-Couple Canister with 8" x 5' & 8" x 15' Duct, Antistatic
EF7004CL/DL		Quick-Couple Canister with 8" x 5' & 8" x 25' Duct, Antistatic
EF7004CL		Quick-Couple Canister with 8" x 25' Duct, Antistatic
FDT-0815CBB		Duct, 8" x 15', Antistatic with Belt and Belt
FDT-0825CBB		Duct, 8" x 25', Antistatic with Belt and Belt
EF0304X		Duct Adapter, 8" / 20cm
DC8		Duct Coupler, 8", Stainless Steel
MED189XX		Manhole Entry Device, Conductive
MED90XX		MED 90° Elbow, Conductive
MED5100XX		Manhole Entry Device (MED), Conductive, Assembly
MEDUM		MED Universal Mount

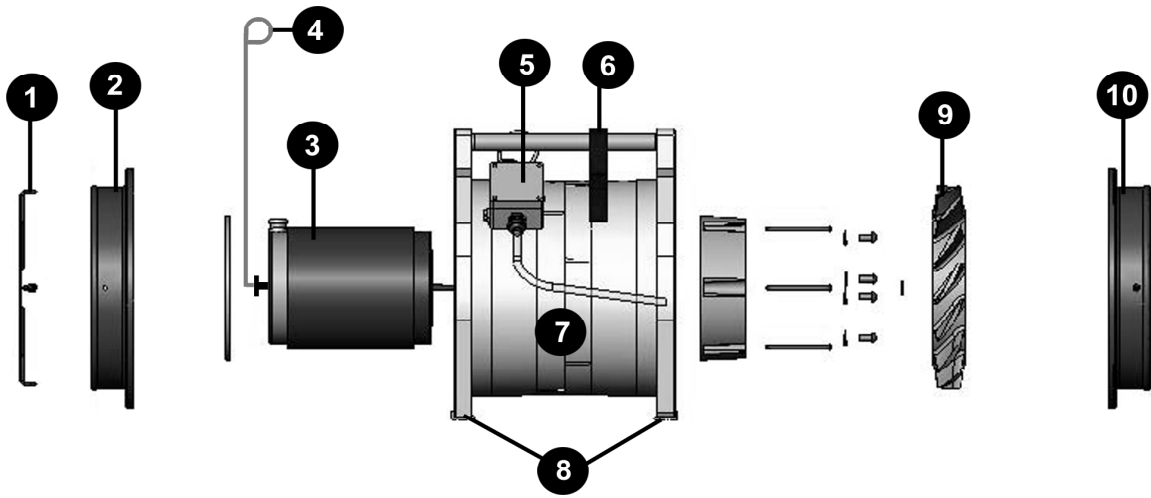
EFi75xx

FDT-1215CBB		Duct, 12" x 15', Antistatic with Belt and Belt
FDT-1225CBB		Duct, 12" x 25', Antistatic with Belt and Belt
EC0301		Duct Adapter, 12"/30cm to 8"/20cm
DC12		Duct Coupler, Stainless Steel

EFi120xx & EFi150xx

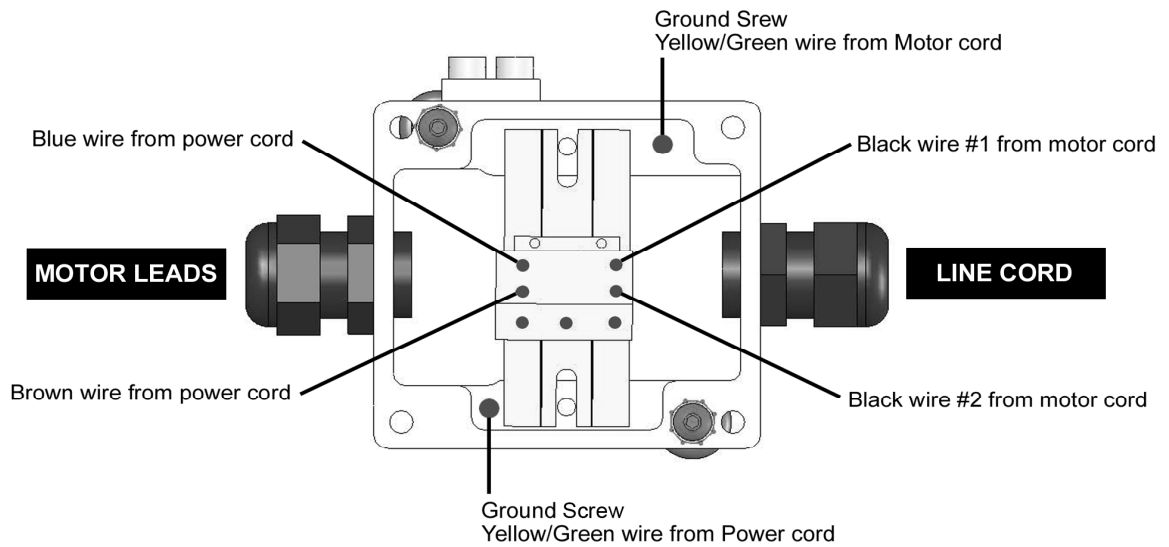
FDT-1615CBR		Duct, 16" x 15', Antistatic with Belt and Ring
FDT-1625CBR		Duct, 16" x 25', Antistatic with Belt and Ring
FDT-1625CBB		Duct, 16" x 25', Antistatic with Belt and Belt
EA7106		Duct Adapter, 16" / 40cm
DC16		Duct Coupler, Stainless Steel

Typical Ventilator



- | | |
|----------------------|------------------------------|
| 1. Discharge Guard | 6. Handle/Cord Strap |
| 2. Duct Adapter | 7. Housing |
| 3. Motor | 8. Housing Feet |
| 4. Switch Rod | 9. Impeller |
| 5. Junction Box/Cord | 10. Inlet Guard/Duct Adapter |

WIRING DIAGRAM



DECLARATION OF CONFORMITY
ATEX Certified Portable Fans
ATEX Directive 94/9/EC

This Declaration of Conformity is issued for ATEX certified, flame proof, increased safety, portable fans, intended for use in potentially explosive atmospheres, manufactured by Euramco Safety, Inc. as referenced herein.

Issue Date: April, 2014

Manufacturer: **Euramco Safety, Inc.**
2746 Via Orange Way
Spring Valley, CA 91978 USA

Equipment Descriptions:

UB20xx	8" / 20 cm ATEX Blower Exhauster, 0.33hp
EFi75xx	12" / 30 cm ATEX Blower Exhauster, 0.75hp
EFi120xx	16" / 40 cm ATEX Blower Exhauster, 1.2hp
EFi150xx	16" / 40 cm ATEX Blower Exhauster, 1.5hp

Hazardous Location Rating: **EX II 2 G Ex d e IIB T6 Gb**
T6, non-mining gases up to 85°C

Notified Body: **UL International DEMKO A/S**
CE 0539
Lyskaer 8,
P.O. Box 514,
DK-2730 Herlev, Denmark

EC-Type Exam. Cert. No.: **DEMKO 09 ATEX 0926969X Rev. 0**

Primary Standards: EN 60079-0:2009 EN 60079-1:2007 EN 60079-7:2007

Additional Standards:

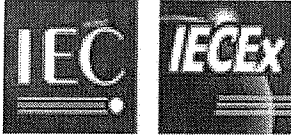
EN 294	Safety Distances
EN 953	Design & Construction of Fixed and Movable Guards
EN 14986	Design of Fans working in Potentially Explosive Atmospheres
EN 50081-2	Electromagnetic Compatibility - Industrial
EN 61000-6-2	Electromagnetic Compatibility - Immunity for Industrial Environments
89/336/EEC	EMC Directive
89/392/EEC	Machinery Directive as amended by 91/368/EEC, 93/44/EEC, & 93/68/EEC

Euramco Safety, Inc. hereby declares that equipment described above conforms with the protection requirements of ATEX Council Directive 94/9/EC on the approximation of the laws of the Member States Concerning Equipment and Protection Systems Intended for use in Potentially Explosive Atmospheres.



Jack Simmons
QA & Engineering Manager





IECEX Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification Scheme for Explosive Atmospheres

for rules and details of the IECEx Scheme visit www.iecex.com

Certificate No.: IECEx UL 13.0062X Issue No: 0 Certificate history:
Issue No. 0 (2013-09-26)

Status: **Current** Page 1 of 3

Date of Issue: **2013-09-26**

Applicant: **Euranco Safety Inc.**
2746 Via Orange Way
Spring Valley, CA 91978
United States of America

Electrical Apparatus: **Portable Fan, types UB20xx, EF175xx, EF1120xx and EF1150xx**
Optional accessory:

Type of Protection: **Flameproof Enclosures "d" and Increased Safety "e"**

Marking: **Ex d e IIB T6 Gb**

*Approved for issue on behalf of the IECEx
Certification Body:*

Paul T. Kelly

Position:

Principal Engineer, Global Hazardous Locations

*Signature:
(for printed version)*

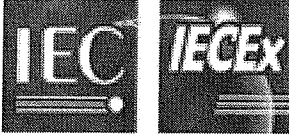
Date:

1. This certificate and schedule may only be reproduced in full.
2. This certificate is not transferable and remains the property of the issuing body.
3. The Status and authenticity of this certificate may be verified by visiting the Official IECEx Website.

Certificate issued by:

UL LLC
333 Pfingsten Road
Northbrook IL 60062-2096
United States of America





IECEX Certificate of Conformity

Certificate No: IECEX UL 13.0062X

Issue No: 0

Date of Issue: 2013-09-26

Page 2 of 3

Manufacturer: **Euramco Safety Inc.**
2746 Via Orange Way
Spring Valley, CA 91978
United States of America

Additional Manufacturing
location(s):

This certificate is issued as verification that a sample(s), representative of production, was assessed and tested and found to comply with the IEC Standard list below and that the manufacturer's quality system, relating to the Ex products covered by this certificate, was assessed and found to comply with the IECEX Quality system requirements. This certificate is granted subject to the conditions as set out in IECEX Scheme Rules, IECEX 02 and Operational Documents as amended.

STANDARDS:

The electrical apparatus and any acceptable variations to it specified in the schedule of this certificate and the identified documents, was found to comply with the following standards:

IEC 60079-0 : 2007-10 Edition:5	Explosive atmospheres - Part 0:Equipment - General requirements
IEC 60079-1 : 2007-04 Edition:6	Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"
IEC 60079-7 : 2006-07 Edition:4	Explosive atmospheres - Part 7: Equipment protection by increased safety "e"

*This Certificate **does not** indicate compliance with electrical safety and performance requirements other than those expressly included in the Standards listed above.*

TEST & ASSESSMENT REPORTS:

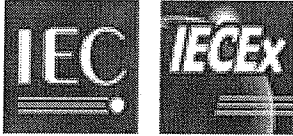
A sample(s) of the equipment listed has successfully met the examination and test requirements as recorded in

Test Report:

US/UL/ExTR13.0063/00

Quality Assessment Report:

US/UL/QAR12.0011/00



IECEX Certificate of Conformity

Certificate No: IECEX UL 13.0062X

Issue No: 0

Date of Issue: 2013-09-26

Page 3 of 3

Schedule

EQUIPMENT:

Equipment and systems covered by this certificate are as follows:

The fans are intended to be used for ventilation purposes and are constructed of an IECEx Ex d IIB Motor, a plastic cover, an IECEx Ex d e IIC junction box (including cable glands).

Models UB20xx, EFi75xx, EFi120xx and EFi150xx are similar in construction. The Model UB20xx uses separately approved increased safety cable glands rather than the ones that come with the outlet box.

<u>Model Number</u>	<u>Part Number</u>	<u>Series</u>
UB20xx	EF7002	
	EF8002	
EFi75xx	EB7201XX	
	EB7201XX-230	
EFi120xx	EA8120XX	
	EA8120XX-110	
EFi150xx	EG8200XX	
	EG8200XX-230	

CONDITIONS OF CERTIFICATION: YES as shown below:

- The equipment is provided with supply connection flying leads to be connected on the field. The connection of the flying leads must be done following installation instructions provided on installation standards such as IEC 60079-14 and the manufacturer's recommendation.