

CESI



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CERTIFICATE



[1] SUPPLEMENTARY TYPE EXAMINATION CERTIFICATE

[2] **Equipment intended for use
in potentially explosive atmospheres
Directive 2014/34/EU**

[3] Supplementary Type Examination Certificate number:

CESI 03 ATEX 250 X / 04

[4] **Product: Centrifugal fans series CB and CS**

[5] **Manufacturer: EP S.p.A.**

[6] **Address: Via del Commercio, 1
25039 Travagliato (BS)
Italia**

[7] This supplementary certificate extends Type Examination Certificate CESI 03 ATEX 250 X to apply to products designed and constructed in accordance with the specification set out in the Schedule of the said certificate but having any variations specified in the Schedule attached to this certificate and the documents therein referred to.

[8] CESI certifies that this equipment has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment and protective systems intended for use in potentially explosive atmospheres given in Annex II to the European Union Directive 2014/34/EU of the European Parliament and Council of 26 February 2014.

The examination and test results are recorded in confidential report n. EX-B8001893.

[9] In accordance with Article 41 of Directive 2014/34/EU, Type Examination Certificates referring to 94/9/EC that were in existence prior to the date of application of 2014/34/EU (20 April 2016) may be referenced as if they were issued in accordance with Directive 2014/34/EU. Supplementary certificates to such Type Examination Certificates, and new issues of such certificates, may continue to bear the original certificate number issued prior to 20 April 2016.

[10] If the sign "X" is placed after the certificate number, it indicates that the equipment or protective system is subject to special conditions for safe use specified in the schedule to this certificate.

[11] This EU-TYPE EXAMINATION CERTIFICATE relates only to the design, examination and tests of the specified equipment or protective system in accordance to the Directive 2014/34/EU. Further requirements of the Directive apply to the manufacturing process and supply of this equipment or protective system. These are not covered by this certificate.

[12] The marking of the equipment or protective system shall include the following:

II 2G c IIB T6, T5, T4
or
II 2G c IIB+H₂ T6, T5, T4

This certificate may only be reproduced in its entirety and without any change, schedule included.

Date 2018/01/18 – translation issued the 2018/01/18

Prepared
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Verified
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Approved
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CESI-ATEX

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Schedule

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SUPPLEMENTARY TYPE EXAMINATION CERTIFICATE n. CESI 03 ATEX 250 X / 04

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Description of the variation to the product

With this supplementary certificate it is changed the manufacturer's company name:

from: **O.ERRE SpA**

to: **EP SpA**

On the contrary there is no variation of the address and no variation has been applied to the project. The standards used, as well, have not been updated.

It has been kept the trade mark O.ERRE affixed on the marking plate and on the declaration of conformity close to the new company name of the manufacturer.

Description of the product

Centrifugal fans series CB and CS are assemblies consisting of a centrifugal impeller, aluminium made, enclosed in a painted sheet steel casing with aluminium inlet nozzle; the impeller is keyed to the shaft of an electric motor (having an independent ATEX certification for the protection type Ex d) and the casing is fixed to the motor flange. Air flow has axial inlet and tangential outlet.

The aspirated fluid shall have a temperature not exceeding 60 °C and inlet and outlet ducts shall be canalized by the end user in order to guarantee IP20 protection of the impeller.

Series CS (*Silenced*) differs from series CB (*Standard*) mainly because of the different selection of the electric motor and the lower speed of the fan.

Equipment subject of this certificate are identified by the following code:

Cx nnn p f EX-ATEX cW

x: identifies the series (**S**= silenced series, **B**= standard series);

nnn: identifies the model (**230, 240, 310, 320, 330, 340, 350, 360, 370, 380**);

p: identifies the number of poles of the motor (**2, 4**);

f: type of power supply of the motor (**M**= single-phase, **T**= three-phase);

c: casing orientation (**C**= clockwise, **CC**= counter clockwise).

Electrical characteristics

Rated voltage	three-phase:	400V (Y), 230V (Δ)
	Single-phase:	230V
Rated frequency	50Hz or 60Hz	
Rated power	200 ÷ 4500 W	
Rotation speed	1400 ÷ 2800 rpm	
ATEX marking	II 2G	
Protection type	c	(non-electric constructional safety)
Gas group	IIB	(with electric motor suitable for gas group IIB)
	IIB+H ₂	(with electric motor suitable for gas group IIC or IIB +H ₂)
Temperature class	T4, T5, T6	(coincides with that one of the electric motor used [*])
[*] temperature class depends on the intervention temperature of the thermal protection on the motor		
Fluid max temperature	60°C	
Ambient temperature	-20°C ≤ T _{amb} ≤ 40°C	

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The following table collects all the model of the fans:

	Model	Voltage [V]	Power [W]	Current [A]		Speed [rpm]	Pressure [Pa]	Flow-rate [m³/h]
				230 V	400 V			
Base	CB 230 2M ...	230	450	2.50	-	2750	677	1000
	CB 230 2T ...	230 / 400	400	1.40	0.80	2750	677	1000
	CB 240 2M ...	230	850	3.80	-	2800	883	1450
	CB 240 2T ...	230 / 400	800	2.30	1.30	2800	883	1450
Silenced	CS 310 4M ...	230	200	1.00	-	1400	157	500
	CS 310 4T ...	230 / 400	200	1.00	0.59	1400	157	500
	CS 320 4M ...	230	250	1.50	-	1400	206	720
	CS 320 4T ...	230 / 400	250	1.75	1.00	1400	206	720
	CS 330 4T ...	230 / 400	400	1.90	1.10	1400	373	1500
	CS 340 4T ...	230 / 400	1000	3.50	2.00	1400	461	1900
	CS 350 4T ...	230 / 400	1400	4.00	2.31	1400	490	2900
	CS 360 4T ...	230 / 400	1900	5.70	3.30	1400	589	4100
	CS 370 4T ...	230 / 400	2500	8.70	5.00	1400	716	5600
	CS 380 4T ...	230 / 400	4500	15.60	9.00	1400	1030	9100

Cable entries

The electrical connections of the fan shall be carried out according to the instructions of the motor manufacturer, they shall be annexed to the instruction manual issued by EP. The accessories used for cable entries and for closing unused holes of the terminal box shall be certified according to the standards: EN 60079-0 and EN 60079-1.

[16]

Report n. EX-B8001893

Routine tests

None.

[17]

Special conditions for safe use (X)

- Inlet and outlet flanges of the fans shall be connected, by the user, to the ventilation ducts able to guarantee the protection IP20 of the impeller.

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Essential Health and Safety Requirements

The Essential Health and Safety Requirements (EHSR) are fulfilled by the harmonized standards:

- EN 13463-1: 2009 Non-electrical equipment for use in potentially explosive atmospheres
Part 1: Basic method and requirements;
- EN 13463-5: 2011 Non-electrical equipment for use in potentially explosive atmospheres
Part 5: Protection by constructional safety "c";
- EN 14986: 2007 Design of fans working in potentially explosive atmospheres..

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Descriptive documents prot. EX-B8001894

- Technical note CB CS doc. J09004000 rev. 00 (2 pages) dated 2018/01/15
- Drawing of the marking plate doc. J08578000 rev. 0 dated 2018/01/15
- chamber of commerce registration of EP S.p.A. (18 pages) dated 2017/01/26
- Safety instructions doc. P06146000 (2 pages)
- Facsimile EU declaration of conformity

One copy of all documents is kept in CESI files.

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Schedule

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Certificate history

Issue N°	Issue Date	Summary description of variation
04	2018/01/18	Issue 4 current: changing of the company name from O.ERRE SpA to EP SpA
03	2014/11/26	Extension 03/14: standards updating, changing of the company name, constructive changes, addition of special condition for safe use (X)
02	2008/08/28	Extension 02/08: Changing of the manufacturer address, standards updating, Tmax fluid 60°C
01	2006/10/04	Extension 01/06: new models of the electric motors IIC and new impellers
00	2003/11/21	First issue of the certificate

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