[1] # EC-TYPE EXAMINATION CERTIFICATE

[2] **Equipment or Protective System intended for use in potentially explosive atmospheres Directive 94/9/EC**

[3] EC-Type Examination Certificate number:

CESI 01 ATEX 096

[4] Equipment: Three-phase asynchronous motors series T . 90 .; T . 100 L supplied by mains or inverter

[5] Manufacturer: **WEG MOTORES Ltda**

[6] Address: Rua Joinville 3000 – Jaraguà do sul, BRAZIL -

[7] This equipment or protective system and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.

[8] CESI, notified body n. 0722 in accordance with Article 9 of the Council Directive 94/9/EC of 23 March 1994, certifies that this equipment or protective system 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 Directive.

The examination and test results are recorded in confidential report n. EX-A1/039417.

[9] Compliance with the Essential Health and Safety Requirements has been assured by compliance with:

EN 50014: 1997 + A1..A2 EN 50018: 2000 EN 50019: 2000

[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 EC-TYPE EXAMINATION CERTIFICATE relates only to the design, examination and tests of the specified equipment or protective system in accordance to the Directive 94/9/EC. 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 2 G EEx d IIB T4, T3 **II 2 G EEx de IIB T4, T3**

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

date December 21, 2001 - translation issued on September 11, 2002

prepared CERT - D. Parazzoli

verified CERT - M. Balaz

approved CERT - U. Colombo

CESI
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iscrizione CCIAA 00793580150
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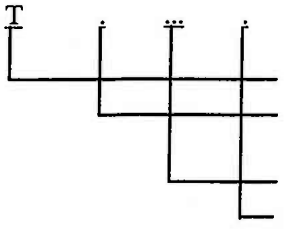
Sezione Ordinaria
N. R.E.A. 429222
P.I. IT00793580150

[13] **Schedule**

[14] **EC-TYPE EXAMINATION CERTIFICATE n. CESI 01 ATEX 096**

[15] **Description of equipment**



The accessories used for cable entries and for closing unused holes shall guarantee a minimum degree of protection IP 55 according to EN 60034-5 standard, shall be certified according to EN 50014 and EN 50018 standards for the EEx d terminal box and according to EN 50014 and EN 50019 standards for the EEx e terminal box .

If cylindrical threads are used, the coupling between the cable entry and the terminal box shall be made according to the requirements indicated in the documents annexed to this certificate.

Electrical characteristics

-	Maximum rated voltage:	690	V
-	Maximum rated power:	3	kW
-	Rated current (at 400 V):	6,24	A
-	Rated frequency:	50 / 60	Hz
-	Rated speed (at 50 Hz):	750 ÷ 3000	rpm
-	Duty:	S1 ÷ S9	
-	Ambient temperature:	-20 ÷ +60	°C

- Insulation class: F with the temperature limit specified for insulation class B

The anticondensate heaters installed inside the motor can have a maximum power of 8 W for motors with center height 90 and 16 W for motor with center height 100.

Motors supplied by inverter:

Type of protection: EEx d IIB T3 and EEx de IIB T3

- In alternative, the three-phase asynchronous motors can be supplied by inverter. In this case the electrical characteristics are indicated on a suitable label. For the other electrical characteristics see the documents annexed to this certificate.
- The motors supplied by inverter shall be provided, inside the stator winding, with PTC or PT 100 thermal detectors.
- The PTC thermal detectors are calibrated for an operation temperature of 155 °C. The protection circuit connected with the PT 100 thermal detectors shall be calibrated for an operation temperature of 155 °C according to IEC 61508.
- The operation of the thermal detector shall guarantee the disconnection of the supply; the resetting of the supply shall not be automatic.

[13] # Schedule

[14] **EC-TYPE EXAMINATION CERTIFICATE n. CESI 01 ATEX 096**

[15] **Description of equipment** (*follows*)

Warning label

"Use screws quality 12.9 ISO/R 898/I and R 898/II"

For temperature class T3:

"The supply cable must be suitable for an operating temperature not less than 80 ° C"

For motor supply by inverter:

"Winding protected with PTC thermistors"

or

"Winding protected with PT 100 detectors. Calibrate at 155 °C"

In case of use of anticondensate heaters:

"Attention – energized resistors".

[16] **Report n.** EX-A1/039417

Verification of the degree of protection

The three-phase asynchronous motors treated with silicone grease on the flameproof joints and with bearings grease inside seal gasket or inside external labyrinth, as indicated on the documents annexed to this certificate, have been tested in accordance EN 60034-5standard for the degree of protection IP 55.
The test results prove that the motors above mentioned comply with the EN 60034-5 specification for the degree of protection IP 55.

Individual tests

The manufacturer shall carry out the routine tests prescribed at paragraph 24 of the EN 50014 standard, at paragraph 16 of the EN 50018 standard and at paragraph 7 of EN 50019 standard.

The routine overpressure test shall be carried out with the static method at 7 bar on the motor enclosure and at 8,5 bar on the EEx d terminal box (paragraph 15.1.3.1 of EN 50018 standard).

The dielectric test with applied voltage shall be performed at 2U + 1000 V with a minimum value of 1500 V between the supply terminals and earth (U = rated voltage) on the EEx e terminal box .

[13] # Schedule

[14] **EC-TYPE EXAMINATION CERTIFICATE n. CESI 01 ATEX 096**

[16] **Report n.** EX-A1/039417 (*follows*)

Descriptive documents (prot. EX-A1/039426)

- n. TB-0286 Rev. 5	dated	30.10.2001
- n. TB-0831	dated	09.04.2001
- n. TB-0834	dated	20.04.2001
- n. TB-0836	dated	23.04.2001
- n. TB-0839	dated	23.04.2001
- n. TB-0079 Rev. 03	dated	15.05.2001
- n. TB-0080 Rev. 05	dated	08.11.2001
- n. TB-0082 Rev. 02	dated	17.04.2001
- n. TB-0083 Rev. 04	dated	30.10.2001
- n. TB-01 Rev. 07	dated	25.09.2001
- n. TB-02 Rev. 07	dated	25.09.2001
- n. TB-03 Rev. 07	dated	25.09.2001
- n. TB-04 Rev. 07	dated	25.09.2001
- n. TB-05 Rev. 07	dated	25.09.2001
- Instructions for the installation (11 sheets)	dated	04.2001
- declaration of conformity	dated	30.10.2001

One copy of all documents is kept in CESI files.

[17] **Special conditions for safe use**
None.

[18] **Essential Health and Safety Requirements**
Covered by standard indicated at page 1.

[1] # EC-TYPE EXAMINATION CERTIFICATE

[2] **Equipment or Protective System intended for use in potentially explosive atmospheres Directive 94/9/EC**

[3] EC-Type Examination Certificate number:

CESI 01 ATEX 097

[4] Equipment: Three-phase asynchronous motors series T . 112 .; T . 132 L supplied by mains or inverter

[5] Manufacturer: **WEG MOTORES Ltda**

[6] Address: Rua Joinville 3000 – Jaraguà do sul, BRAZIL -

[7] This equipment or protective system and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.

[8] CESI, notified body n. 0722 in accordance with Article 9 of the Council Directive 94/9/EC of 23 March 1994, certifies that this equipment or protective system 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 Directive.

The examination and test results are recorded in confidential report n. EX-A1/039417.

[9] Compliance with the Essential Health and Safety Requirements has been assured by compliance with:

EN 50014: 1997 + A1..A2 EN 50018: 2000 EN 50019: 2000

[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 EC-TYPE EXAMINATION CERTIFICATE relates only to the design, examination and tests of the specified equipment or protective system in accordance to the Directive 94/9/EC. 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 2 G EEx d IIB T4, T3 **II 2 G EEx de IIB T4, T3**

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

date December 21, 2001 - translation issued on September 12, 2002

prepared CERT - D. Parazzoli

verified CERT - M. Balaz

approved CERT - U. Colombo

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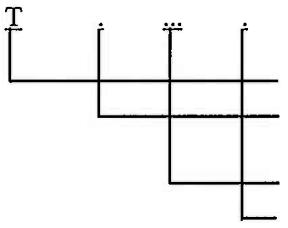
N. R.E.A. 429222
P.I. IT00793580150

[13] **Schedule**

[14] **EC-TYPE EXAMINATION CERTIFICATE n. CESI 01 ATEX 097**

[15] **Description of equipment**



Three-phase asynchronous motor
EX: motor and terminal box with type of protection "EEx d"
EXe: motor with type of protection "EEx d" and terminal box "EEx e"
center height : 112, 132
winding length: M for center height 112
S, M for center height 132

The accessories used for cable entries and for closing unused holes shall guarantee a minimum degree of protection IP 55 according to EN 60034-5 standard, shall be certified according to EN 50014 and EN 50018 standards for the EEx d terminal box and according to EN 50014 and EN 50019 standards for the EEx e terminal box .

If cylindrical threads are used, the coupling between the cable entry and the terminal box shall be made according to the requirements indicated in the documents annexed to this certificate.

Electrical characteristics

-	Maximum rated voltage:	690	V
-	Maximum rated power:	7,5	kW
-	Rated current (at 400 V):	14,2	A
-	Rated frequency:	50 / 60	Hz
-	Rated speed (at 50 Hz):	710 ÷ 2935	rpm
-	Duty:	S1 ÷ S9	
-	Ambient temperature:	-20 ÷ +60	°C

- Insulation class: **F with the temperature limit specified for insulation class B**

The anticondensate heaters installed inside the motor can have a maximum power of 16 W for motors with center height 112 and 24 W for motor with center height 132.

Motors supplied by inverter:

Type of protection: **EEx d IIB T3 and EEx de IIB T3**

- In alternative, the three-phase asynchronous motors can be supplied by inverter. In this case the electrical characteristics are indicated on a suitable label. For the other electrical characteristics see the documents annexed to this certificate.
- The motors supplied by inverter shall be provided, inside the stator winding, with PTC or PT 100 thermal detectors.
- The PTC thermal detectors are calibrated for an operation temperature of 155 °C. The protection circuit connected with the PT 100 thermal detectors shall be calibrated for an operation temperature of 155 °C according to IEC 61508.
- The operation of the thermal detector shall guarantee the disconnection of the supply; the resetting of the supply shall not be automatic.

Prot. A2/028555 P: 4
Keywords 13010R 22853N 48010M 54250O 66540E

[13] # Schedule

[14] **EC-TYPE EXAMINATION CERTIFICATE n. CESI 01 ATEX 097**

[15] **Description of equipment** (*follows*)

Warning label

"Use screws quality 12.9 ISO/R 898/I and R 898/II"

For temperature class T3:

"The supply cable must be suitable for an operating temperature not less than 80 ° C"

For motor supply by inverter:

"Winding protected with PTC thermistors"

or

"Winding protected with PT 100 detectors. Calibrate at 155 °C"

In case of use of anticondensate heaters:

"Attention – energized resistors".

[16] **Report n.** EX-A1/039417

Verification of the degree of protection

The three-phase asynchronous motors treated with silicone grease on the flameproof joints and with bearings grease inside seal gasket or inside external labyrinth, as indicated on the documents annexed to this certificate, have been tested in accordance EN 60034-5standard for the degree of protection IP 55.
The test results prove that the motors above mentioned comply with the EN 60034-5 specification for the degree of protection IP 55.

Individual tests

The manufacturer shall carry out the routine tests prescribed at paragraph 24 of the EN 50014 standard, at paragraph 16 of the EN 50018 standard and at paragraph 7 of EN 50019 standard.

The routine overpressure test shall be carried out with the static method at 7 bar on the motor enclosure and at 8,5 bar on the EEx d terminal box (paragraph 15.1.3.1 of EN 50018 standard).

The dielectric test with applied voltage shall be performed at 2U + 1000 V with a minimum value of 1500 V between the supply terminals and earth (U = rated voltage) on the EEx e terminal box .

[13] # Schedule

[14] **EC-TYPE EXAMINATION CERTIFICATE n. CESI 01 ATEX 097**

[16] **Report n.** EX-A1/039417 (*follows*)

Descriptive documents (prot. EX-A1/039427)

- n. TB-0286 Rev. 5	dated	30.10.2001
- n. TB-0831	dated	09.04.2001
- n. TB-0834	dated	20.04.2001
- n. TB-0836	dated	23.04.2001
- n. TB-0839	dated	23.04.2001
- n. TB-0079 Rev. 03	dated	15.05.2001
- n. TB-0080 Rev. 05	dated	08.11.2001
- n. TB-0082 Rev. 02	dated	17.04.2001
- n. TB-0083 Rev. 04	dated	30.10.2001
- n. TB-01 Rev. 07	dated	25.09.2001
- n. TB-02 Rev. 07	dated	25.09.2001
- n. TB-03 Rev. 07	dated	25.09.2001
- n. TB-04 Rev. 07	dated	25.09.2001
- n. TB-05 Rev. 07	dated	25.09.2001
- Instructions for the installation (11 sheets)	dated	04.2001
- declaration of conformity	dated	30.10.2001

One copy of all documents is kept in CESI files.

[17] **Special conditions for safe use**
None.

[18] **Essential Health and Safety Requirements**
Covered by standard indicated at page 1.

[1] # EC-TYPE EXAMINATION CERTIFICATE

[2] **Equipment or Protective System intended for use in potentially explosive atmospheres Directive 94/9/EC**

[3] EC-Type Examination Certificate number:

CESI 01 ATEX 098

[4] Equipment: Three-phase asynchronous motors series T . 160 .; T . 180 .; T . 200 L supplied by mains or inverter

[5] Manufacturer: **WEG MOTORES Ltda**

[6] Address: Rua Joinville 3000 – Jaraguà do sul, BRAZIL -

[7] This equipment or protective system and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.

[8] CESI, notified body n. 0722 in accordance with Article 9 of the Council Directive 94/9/EC of 23 March 1994, certifies that this equipment or protective system 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 Directive.

The examination and test results are recorded in confidential report n. EX-A1/039417.

[9] Compliance with the Essential Health and Safety Requirements has been assured by compliance with:

EN 50014: 1997 + A1..A2 EN 50018: 2000 EN 50019: 2000

[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 EC-TYPE EXAMINATION CERTIFICATE relates only to the design, examination and tests of the specified equipment or protective system in accordance to the Directive 94/9/EC. 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 2 G EEx d IIB T4, T3 **II 2 G EEx de IIB T4, T3**

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date December 21, 2001 - translation issued on September 12, 2002

prepared CERT - D. Parazzoli

verified CERT - M. Balaz

approved CERT - U. Colombo

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Business Unit Certificazione
Il Responsabile

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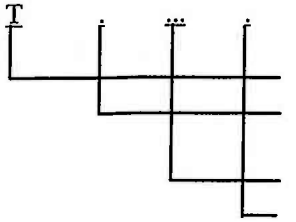
Sezione Ordinaria
N. R.E.A. 429222
P.I. IT00793580150

[13] **Schedule**

[14] **EC-TYPE EXAMINATION CERTIFICATE n. CESI 01 ATEX 098**

[15] **Description of equipment**



Three-phase asynchronous motor
EX: motor and terminal box with type of protection "EEx d"
EXe: motor with type of protection "EEx d" and terminal box "EEx e"
center height : 160, 180, 200
winding length: M, L for center height 160
M, L for center height 180
L for center height 200

The accessories used for cable entries and for closing unused holes shall guarantee a minimum degree of protection IP 55 according to EN 60034-5 standard, shall be certified according to EN 50014 and EN 50018 standards for the EEx d terminal box and according to EN 50014 and EN 50019 standards for the EEx e terminal box .

If cylindrical threads are used, the coupling between the cable entry and the terminal box shall be made according to the requirements indicated in the documents annexed to this certificate.

Electrical characteristics

-	Maximum rated voltage:	690	V
-	Maximum rated power:	37	kW
-	Rated current (at 400 V):	63,8	A
-	Rated frequency:	50 / 60	Hz
-	Rated speed (at 50 Hz):	875 ÷ 2960	rpm
-	Duty:	S1 ÷ S9	
-	Ambient temperature:	-20 ÷ +60	°C

- Insulation class: F with the temperature limit specified for insulation class B

The anticondensate heaters installed inside the motor can have a maximum power of 48 W

Motors supplied by inverter:

Type of protection: EEx d IIB T3 and EEx de IIB T3

- In alternative, the three-phase asynchronous motors can be supplied by inverter. In this case the electrical characteristics are indicated on a suitable label. For the other electrical characteristics see the documents annexed to this certificate.
- The motors supplied by inverter shall be provided, inside the stator winding, with PTC or PT 100 thermal detectors.
- The PTC thermal detectors are calibrated for an operation temperature of 155 °C. The protection circuit connected with the PT 100 thermal detectors shall be calibrated for an operation temperature of 155 °C according to IEC 61508.
- The operation of the thermal detector shall guarantee the disconnection of the supply; the resetting of the supply shall not be automatic.

[13] # Schedule

[14] **EC-TYPE EXAMINATION CERTIFICATE n. CESI 01 ATEX 098**

[15] **Description of equipment** (*follows*)

Warning label

"Use screws quality 12.9 ISO/R 898/I and R 898/II"

For temperature class T3:

"The supply cable must be suitable for an operating temperature not less than 80 ° C"

For motor supply by inverter:

"Winding protected with PTC thermistors"

or

"Winding protected with PT 100 detectors. Calibrate at 155 °C"

In case of use of anticondensate heaters:

"Attention – energized resistors".

[16] **Report n.** EX-A1/039417

Verification of the degree of protection

The three-phase asynchronous motors treated with silicone grease on the flameproof joints and with bearings grease inside seal gasket or inside external labyrinth, as indicated on the documents annexed to this certificate, have been tested in accordance EN 60034-5standard for the degree of protection IP 55.
The test results prove that the motors above mentioned comply with the EN 60034-5 specification for the degree of protection IP 55.

Individual tests

The manufacturer shall carry out the routine tests prescribed at paragraph 24 of the EN 50014 standard, at paragraph 16 of the EN 50018 standard and at paragraph 7 of EN 50019 standard.

The routine overpressure test shall be carried out at:

- 7,5 bar on the motor enclosure and at 9 bar on the EEx d terminal box for the motors whit center height 160
- 8,5 bar both on the motor enclosure and on the EEx d terminal box for the motors whit center height 180 and 200

with the static method (paragraph 15.1.3.1 of EN 50018 standard).

The dielectric test with applied voltage shall be performed at 2U + 1000 V with a minimum value of 1500 V between the supply terminals and earth (U = rated voltage) on the EEx e terminal box .

[13] # Schedule

[14] **EC-TYPE EXAMINATION CERTIFICATE n. CESI 01 ATEX 098**

[16] **Report n.** EX-A1/039417 (*follows*)

Descriptive documents (prot. EX-A1/039428)

- n. TB-0286 Rev. 5	dated	30.10.2001
- n. TB-0831	dated	09.04.2001
- n. TB-0834	dated	20.04.2001
- n. TB-0836	dated	23.04.2001
- n. TB-0839	dated	23.04.2001
- n. TB-0079 Rev. 03	dated	15.05.2001
- n. TB-0080 Rev. 05	dated	08.11.2001
- n. TB-0082 Rev. 02	dated	17.04.2001
- n. TB-0083 Rev. 04	dated	30.10.2001
- n. TB-01 Rev. 07	dated	25.09.2001
- n. TB-02 Rev. 07	dated	25.09.2001
- n. TB-03 Rev. 07	dated	25.09.2001
- n. TB-04 Rev. 07	dated	25.09.2001
- n. TB-05 Rev. 07	dated	25.09.2001
- Instructions for the installation (11 sheets)	dated	04.2001
- declaration of conformity	dated	30.10.2001

One copy of all documents is kept in CESI files.

[17] **Special conditions for safe use**
None.

[18] **Essential Health and Safety Requirements**
Covered by standard indicated at page 1.

[1] # EC-TYPE EXAMINATION CERTIFICATE

[2] **Equipment or Protective System intended for use in potentially explosive atmospheres Directive 94/9/EC**

[3] EC-Type Examination Certificate number:

CESI 01 ATEX 099

[4] Equipment: Three-phase asynchronous motors series T . 225 S/M; T . 250 S/M supplied by mains or inverter

[5] Manufacturer: **WEG MOTORES Ltda**

[6] Address: Rua Joinville 3000 – Jaraguà do sul, BRAZIL -

[7] This equipment or protective system and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.

[8] CESI, notified body n. 0722 in accordance with Article 9 of the Council Directive 94/9/EC of 23 March 1994, certifies that this equipment or protective system 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 Directive.

The examination and test results are recorded in confidential report n. EX-A1/039417.

[9] Compliance with the Essential Health and Safety Requirements has been assured by compliance with:

EN 50014: 1997 + A1..A2 EN 50018: 2000 EN 50019: 2000

[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 EC-TYPE EXAMINATION CERTIFICATE relates only to the design, examination and tests of the specified equipment or protective system in accordance to the Directive 94/9/EC. 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 2 G EEx d IIB T4, T3 **II 2 G EEx de IIB T4, T3**

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

date December 21, 2001 - translation issued on September 13, 2002

prepared CERT - D. Parazzoli

verified CERT - M. Balaz

approved CERT - U. Colombo

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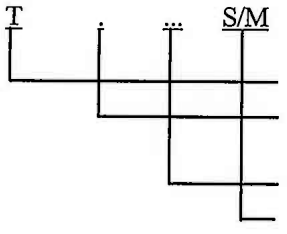
Sezione Ordinaria
N. R.E.A. 429222
P.I. IT00793580150

[13] **Schedule**

[14] **EC-TYPE EXAMINATION CERTIFICATE n. CESI 01 ATEX 099**

[15] **Description of equipment**



Three-phase asynchronous motor
EX: motor and terminal box with type of protection "EEx d"
EXe: motor with type of protection "EEx d" and terminal box "EEx e"
center height : 225, 250
winding length

The accessories used for cable entries and for closing unused holes shall guarantee a minimum degree of protection IP 55 according to EN 60034-5 standard, shall be certified according to EN 50014 and EN 50018 standards for the EEx d terminal box and according to EN 50014 and EN 50019 standards for the EEx e terminal box .

If cylindrical threads are used, the coupling between the cable entry and the terminal box shall be made according to the requirements indicated in the documents annexed to this certificate.

Electrical characteristics

-	Maximum rated voltage:	690	V
-	Maximum rated power:	75	kW
-	Rated current (at 400 V):	131	A
-	Rated frequency:	50 / 60	Hz
-	Rated speed (at 50 Hz):	730 ÷ 2965	rpm
-	Duty:	S1 ÷ S9	
-	Ambient temperature:	-20 ÷ +60	°C

- Insulation class: **F with the temperature limit specified for insulation class B**

The anticondensate heaters installed inside the motor can have a maximum power of 90 W.

Motors supplied by inverter:

Type of protection: **EEx d IIB T3 and EEx de IIB T3**

- In alternative, the three-phase asynchronous motors can be supplied by inverter. In this case the electrical characteristics are indicated on a suitable label. For the other electrical characteristics see the documents annexed to this certificate.
- The motors supplied by inverter shall be provided, inside the stator winding, with PTC or PT 100 thermal detectors.
- The PTC thermal detectors are calibrated for an operation temperature of 155 °C. The protection circuit connected with the PT 100 thermal detectors shall be calibrated for an operation temperature of 155 °C according to IEC 61508.
- The operation of the thermal detector shall guarantee the disconnection of the supply; the resetting of the supply shall not be automatic.

Prot. A2/028649 P: 4
Keywords 13010R 22853N 48010M 54250O 66540F

[13] # Schedule

[14] **EC-TYPE EXAMINATION CERTIFICATE n. CESI 01 ATEX 099**

[15] **Description of equipment** (*follows*)

Warning label

"Use screws quality 12.9 ISO/R 898/I and R 898/II"

For temperature class T3:

"The supply cable must be suitable for an operating temperature not less than 80 ° C"

For motor supply by inverter:

"Winding protected with PTC thermistors"

or

"Winding protected with PT 100 detectors. Calibrate at 155 °C"

In case of use of anticondensate heaters:

"Attention – energized resistors".

[16] **Report n.** EX-A1/039417

Verification of the degree of protection

The three-phase asynchronous motors treated with silicone grease on the flameproof joints and with bearings grease inside seal gasket or inside external labyrinth, as indicated on the documents annexed to this certificate, have been tested in accordance EN 60034-5standard for the degree of protection IP 55.
The test results prove that the motors above mentioned comply with the EN 60034-5 specification for the degree of protection IP 55.

Individual tests

The manufacturer shall carry out the routine tests prescribed at paragraph 24 of the EN 50014 standard, at paragraph 16 of the EN 50018 standard and at paragraph 7 of EN 50019 standard.

The routine overpressure test shall be carried out with the static method at 20 bar on the motor enclosure and at 10,5 bar on the EEx d terminal box (paragraph 15.1.3.1 of EN 50018 standard).

The dielectric test with applied voltage shall be performed at 2U + 1000 V with a minimum value of 1500 V between the supply terminals and earth (U = rated voltage) on the EEx e terminal box .

[13] # Schedule

[14] **EC-TYPE EXAMINATION CERTIFICATE n. CESI 01 ATEX 099**

[16] **Report n.** EX-A1/039417 (*follows*)

Descriptive documents (prot. EX-A1/039429)

- n. TB-0286 Rev. 5	dated	30.10.2001
- n. TB-0832	dated	11.04.2001
- n. TB-0835	dated	20.04.2001
- n. TB-0837	dated	23.04.2001
- n. TB-0838	dated	23.04.2001
- n. TB-0090 Rev. 04	dated	01.11.2001
- n. TB-0091 Rev. 06	dated	12.09.2001
- n. TB-0092 Rev. 02	dated	18.07.2000
- n. TB-0093 Rev. 02	dated	17.04.2001
- n. TB-0094 Rev. 01	dated	21.08.1991
- n. TB-0095 Rev. 04	dated	15.05.2001
- n. TB-0287	dated	07.06.1993
- n. TB-0288 Rev. 01	dated	05.04.1994
- n. TB-01 Rev. 07	dated	25.09.2001
- n. TB-02 Rev. 07	dated	25.09.2001
- n. TB-03 Rev. 07	dated	25.09.2001
- n. TB-04 Rev. 07	dated	25.09.2001
- n. TB-05 Rev. 07	dated	25.09.2001
- Instructions for the installation (11 sheets)	dated	04.2001
- declaration of conformity	dated	30.10.2001

One copy of all documents is kept in CESI files.

[17] **Special conditions for safe use**
None.

[18] **Essential Health and Safety Requirements**
Covered by standard indicated at page 1.

[1] # EC-TYPE EXAMINATION CERTIFICATE

[2] **Equipment or Protective System intended for use in potentially explosive atmospheres Directive 94/9/EC**

[3] EC-Type Examination Certificate number:

CESI 01 ATEX 100

[4] Equipment: Three-phase asynchronous motors series T . 280 S/M; T . 315 S/M supplied by mains or inverter

[5] Manufacturer: **WEG MOTORES Ltda**

[6] Address: Rua Joinville 3000 – Jaraguà do sul, BRAZIL -

[7] This equipment or protective system and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.

[8] CESI, notified body n. 0722 in accordance with Article 9 of the Council Directive 94/9/EC of 23 March 1994, certifies that this equipment or protective system 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 Directive.

The examination and test results are recorded in confidential report n. EX-A1/039417.

[9] Compliance with the Essential Health and Safety Requirements has been assured by compliance with:

EN 50014: 1997 + A1..A2 EN 50018: 2000 EN 50019: 2000

[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 EC-TYPE EXAMINATION CERTIFICATE relates only to the design, examination and tests of the specified equipment or protective system in accordance to the Directive 94/9/EC. 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 2 G EEx d IIB T4, T3 **II 2 G EEx de IIB T4, T3**

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

date December 21, 2001 - translation issued on September 13, 2002

prepared CERT - D. Parazzoli

verified CERT - M. Balaz

approved CERT - U. Colombo

CESI
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Business Unit Certificazione
Il Responsabile

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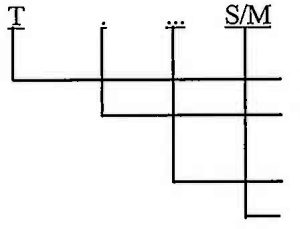
Capitale sociale 8 550 000 Euro
interamente versato
Codice fiscale e numero
iscrizione CCIAA 00793580150

Registro Imprese di Milano
Sezione Ordinaria
N. R.E.A. 429222
P.I. IT00793580150

[13] **Schedule**

[14] **EC-TYPE EXAMINATION CERTIFICATE n. CESI 01 ATEX 100**

[15] **Description of equipment**



Three-phase asynchronous motor
EX: motor and terminal box with type of protection "EEx d"
EXe: motor with type of protection "EEx d" and terminal box "EEx e"
center height : 280, 315
winding length

The accessories used for cable entries and for closing unused holes shall guarantee a minimum degree of protection IP 55 according to EN 60034-5 standard, shall be certified according to EN 50014 and EN 50018 standards for the EEx d terminal box and according to EN 50014 and EN 50019 standards for the EEx e terminal box .

If cylindrical threads are used, the coupling between the cable entry and the terminal box shall be made according to the requirements indicated in the documents annexed to this certificate.

Electrical characteristics

-	Maximum rated voltage:	690	V
-	Maximum rated power:	160	kW
-	Rated current (at 400 V):	285	A
-	Rated frequency:	50 / 60	Hz
-	Rated speed (at 50 Hz):	735 ÷ 2975	rpm
-	Duty:	S1 ÷ S9	
-	Ambient temperature:	-20 ÷ +60	°C

- Insulation class: **F with the temperature limit specified for insulation class B**

The anticondensate heaters installed inside the motor can have a maximum power of 180 W.

Motors supplied by inverter:

Type of protection: **EEx d IIB T3 and EEx de IIB T3**

- In alternative, the three-phase asynchronous motors can be supplied by inverter. In this case the electrical characteristics are indicated on a suitable label. For the other electrical characteristics see the documents annexed to this certificate.
- The motors supplied by inverter shall be provided, inside the stator winding, with PTC or PT 100 thermal detectors.
- The PTC thermal detectors are calibrated for an operation temperature of 155 °C. The protection circuit connected with the PT 100 thermal detectors shall be calibrated for an operation temperature of 155 °C according to IEC 61508.
- The operation of the thermal detector shall guarantee the disconnection of the supply; the resetting of the supply shall not be automatic.

[13] **Schedule**

[14] **EC-TYPE EXAMINATION CERTIFICATE n. CESI 01 ATEX 100**

[15] **Description of equipment** (*follows*)

Warning label

"Use screws quality 12.9 ISO/R 898/I and R 898/II"

For temperature class T3:

"The supply cable must be suitable for an operating temperature not less than 80 ° C"

For motor supply by inverter:

"Winding protected with PTC thermistors"

or

"Winding protected with PT 100 detectors. Calibrate at 155 °C"

In case of use of anticondensate heaters:

"Attention – energized resistors".

[16] **Report n.** EX-A1/039417

Verification of the degree of protection

The three-phase asynchronous motors treated with silicone grease on the flameproof joints and with bearings grease inside seal gasket or inside external labyrinth, as indicated on the documents annexed to this certificate, have been tested in accordance EN 60034-5standard for the degree of protection IP 55.
The test results prove that the motors above mentioned comply with the EN 60034-5 specification for the degree of protection IP 55.

Individual tests

The manufacturer shall carry out the routine tests prescribed at paragraph 24 of the EN 50014 standard, at paragraph 16 of the EN 50018 standard and at paragraph 7 of EN 50019 standard.

The routine overpressure test shall be carried out with the static method at 20 bar on the motor enclosure and at 11,5 bar on the EEx d terminal box (paragraph 15.1.3.1 of EN 50018 standard).

The dielectric test with applied voltage shall be performed at 2U + 1000 V with a minimum value of 1500 V between the supply terminals and earth (U = rated voltage) on the EEx e terminal box .

[13] # Schedule

[14] **EC-TYPE EXAMINATION CERTIFICATE n. CESI 01 ATEX 100**

[16] **Report n.** EX-A1/039417 *(follows)*

Descriptive documents (prot. EX-A1/039429)

- n. TB-0286 Rev. 5	dated	30.10.2001
- n. TB-0832	dated	11.04.2001
- n. TB-0835	dated	20.04.2001
- n. TB-0837	dated	23.04.2001
- n. TB-0838	dated	23.04.2001
- n. TB-0090 Rev. 04	dated	01.11.2001
- n. TB-0091 Rev. 06	dated	12.09.2001
- n. TB-0092 Rev. 02	dated	18.07.2000
- n. TB-0093 Rev. 02	dated	17.04.2001
- n. TB-0094 Rev. 01	dated	21.08.1991
- n. TB-0095 Rev. 04	dated	15.05.2001
- n. TB-0287	dated	07.06.1993
- n. TB-0288 Rev. 01	dated	05.04.1994
- n. TB-01 Rev. 07	dated	25.09.2001
- n. TB-02 Rev. 07	dated	25.09.2001
- n. TB-03 Rev. 07	dated	25.09.2001
- n. TB-04 Rev. 07	dated	25.09.2001
- n. TB-05 Rev. 07	dated	25.09.2001
- Instructions for the installation (11 sheets)	dated	04.2001
- declaration of conformity	dated	30.10.2001

One copy of all documents is kept in CESI files.

[17] **Special conditions for safe use**
None.

[18] **Essential Health and Safety Requirements**
Covered by standard indicated at page 1.

[1] # EC-TYPE EXAMINATION CERTIFICATE

[2] **Equipment or Protective System intended for use in potentially explosive atmospheres Directive 94/9/EC**

[3] EC-Type Examination Certificate number:

CESI 01 ATEX 101

[4] Equipment: Three-phase asynchronous motors series T . 355 M/L supplied by mains or inverter

[5] Manufacturer: **WEG MOTORES Ltda**

[6] Address: Rua Joinville 3000 – Jaraguà do sul, BRAZIL -

[7] This equipment or protective system and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.

[8] CESI, notified body n. 0722 in accordance with Article 9 of the Council Directive 94/9/EC of 23 March 1994, certifies that this equipment or protective system 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 Directive.

The examination and test results are recorded in confidential report n. EX-A1/039417.

[9] Compliance with the Essential Health and Safety Requirements has been assured by compliance with:

EN 50014: 1997 + A1..A2 EN 50018: 2000 EN 50019: 2000

[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 EC-TYPE EXAMINATION CERTIFICATE relates only to the design, examination and tests of the specified equipment or protective system in accordance to the Directive 94/9/EC. 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 2 G EEx d IIB T4, T3 **II 2 G EEx de IIB T4, T3**

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

date December 21, 2001 - translation issued on September 13, 2002

prepared CERT - D. Parazzoli

verified CERT - M. Balaz

approved CERT - U. Colombo

CESI
CENTRO ELETTROTECNICO SPERIMENTALE ITALIANO
Business Unit Certificazione
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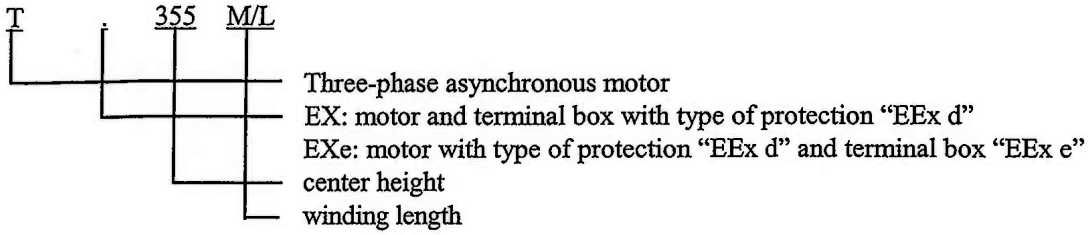
Codice fiscale e numero
iscrizione CCIAA 00793580150

Registro Imprese di Milano
Sezione Ordinaria
N. R.E.A. 429222
P.I. IT00793580150

[13] **Schedule**

[14] **EC-TYPE EXAMINATION CERTIFICATE n. CESI 01 ATEX 101**

[15] **Description of equipment**



The accessories used for cable entries and for closing unused holes shall guarantee a minimum degree of protection IP 55 according to EN 60034-5 standard, shall be certified according to EN 50014 and EN 50018 standards for the EEx d terminal box and according to EN 50014 and EN 50019 standards for the EEx e terminal box .

If cylindrical threads are used, the coupling between the cable entry and the terminal box shall be made according to the requirements indicated in the documents annexed to this certificate.

Electrical characteristics

-	Maximum rated voltage:	690	V
-	Maximum rated power:	315	kW
-	Rated current (at 400 V):	538	A
-	Rated frequency:	50 / 60	Hz
-	Rated speed (at 50 Hz):	735 ÷ 2985	rpm
-	Duty:	S1 ÷ S9	
-	Ambient temperature:	-20 ÷ +60	°C

- Insulation class: **F with the temperature limit specified for insulation class B**

The anticondensate heaters installed inside the motor can have a maximum power of 180 W.

Motors supplied by inverter:

Type of protection: **EEx d IIB T3 and EEx de IIB T3**

- In alternative, the three-phase asynchronous motors can be supplied by inverter. In this case the electrical characteristics are indicated on a suitable label. For the other electrical characteristics see the documents annexed to this certificate.
- The motors supplied by inverter shall be provided, inside the stator winding, with PTC or PT 100 thermal detectors.
- The PTC thermal detectors are calibrated for an operation temperature of 155 °C. The protection circuit connected with the PT 100 thermal detectors shall be calibrated for an operation temperature of 155 °C according to IEC 61508.
- The operation of the thermal detector shall guarantee the disconnection of the supply; the resetting of the supply shall not be automatic.

[13] **Schedule**

[14] **EC-TYPE EXAMINATION CERTIFICATE n. CESI 01 ATEX 101**

[15] **Description of equipment** (*follows*)

Warning label

"Use screws quality 12.9 ISO/R 898/I and R 898/II"

For temperature class T3:

"The supply cable must be suitable for an operating temperature not less than 80 ° C"

For motor supply by inverter:

"Winding protected with PTC thermistors"

or

"Winding protected with PT 100 detectors. Calibrate at 155 °C"

In case of use of anticondensate heaters:

"Attention – energized resistors".

[16] **Report n.** EX-A1/039417

Verification of the degree of protection

The three-phase asynchronous motors treated with silicone grease on the flameproof joints and with bearings grease inside seal gasket or inside external labyrinth, as indicated on the documents annexed to this certificate, have been tested in accordance EN 60034-5standard for the degree of protection IP 55.
The test results prove that the motors above mentioned comply with the EN 60034-5 specification for the degree of protection IP 55.

Individual tests

The manufacturer shall carry out the routine tests prescribed at paragraph 24 of the EN 50014 standard, at paragraph 16 of the EN 50018 standard and at paragraph 7 of EN 50019 standard.

The routine overpressure test shall be carried out with the static method at 20 bar on the motor enclosure and at 11,5 bar on the EEx d terminal box (paragraph 15.1.3.1 of EN 50018 standard).

The dielectric test with applied voltage shall be performed at 2U + 1000 V with a minimum value of 1500 V between the supply terminals and earth (U = rated voltage) on the EEx e terminal box .

[13] # Schedule

[14] **EC-TYPE EXAMINATION CERTIFICATE n. CESI 01 ATEX 101**

[16] **Report n.** EX-A1/039417 (*follows*)

Descriptive documents (prot. EX-A1/039431)

- n. TB-0286 Rev. 5	dated	30.10.2001
- n. TB-0832	dated	11.04.2001
- n. TB-0835	dated	20.04.2001
- n. TB-0837	dated	23.04.2001
- n. TB-0838	dated	23.04.2001
- n. TB-0090 Rev. 04	dated	01.11.2001
- n. TB-0091 Rev. 06	dated	12.09.2001
- n. TB-0092 Rev. 02	dated	18.07.2000
- n. TB-0093 Rev. 02	dated	17.04.2001
- n. TB-0094 Rev. 01	dated	21.08.1991
- n. TB-0095 Rev. 04	dated	15.05.2001
- n. TB-0287	dated	07.06.1993
- n. TB-0288 Rev. 01	dated	05.04.1994
- n. TB-01 Rev. 07	dated	25.09.2001
- n. TB-02 Rev. 07	dated	25.09.2001
- n. TB-03 Rev. 07	dated	25.09.2001
- n. TB-04 Rev. 07	dated	25.09.2001
- n. TB-05 Rev. 07	dated	25.09.2001
- Instructions for the installation (11 sheets)	dated	04.2001
- declaration of conformity	dated	30.10.2001

One copy of all documents is kept in CESI files.

[17] **Special conditions for safe use**
None.

[18] **Essential Health and Safety Requirements**
Covered by standard indicated at page 1.