

[1]

TYPE EXAMINATION CERTIFICATE



[2]

Category 3 Equipment intended for use
in potentially explosive atmospheres
Directive 94/9/EC

[3] Type Examination Certificate number:

CESI 01 ATEX 070

[4] Equipment: Luminaires series AVN-... for tubular fluorescent lamps

[5] Manufacturer: COR.TEM S.p.A.

[6] Address: Via Aquileia 6, Villesse, Gorizia (Italy)

[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 certifies that this equipment has been found to comply with the Essential Health and Safety Requirements relating to the design of category 3 equipment intended for use in potentially explosive atmospheres. These Essential Health and Safety Requirements are given in Annex II to European Union Directive 94/9/EC of 23 March 1994.

The examination and test results are recorded in the confidential report n. EX-A1/030232.



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

EN 50021: 1999 EN 50281-1-1: 1999

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

[11] This Type Examination Certificate relates only to the design, examination and tests of the specified equipment in accordance to the Directive 94/9/EC. Further requirements of the Directive apply to the manufacturing process and supply of this equipment. These are not covered by this certificate.

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

 II 3 G D EEx nA II T3,T4,T5 IP 65 T105 ÷ T65 °C
 II 3 D IP 65 T105 ÷ T65 °C

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

date October 12th, 2001 - translation issued on October 12th, 2001

prepared CERT - M. Balaz

approved CERT - U. Colombo

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Business Unit Certificazione

Il Responsabile

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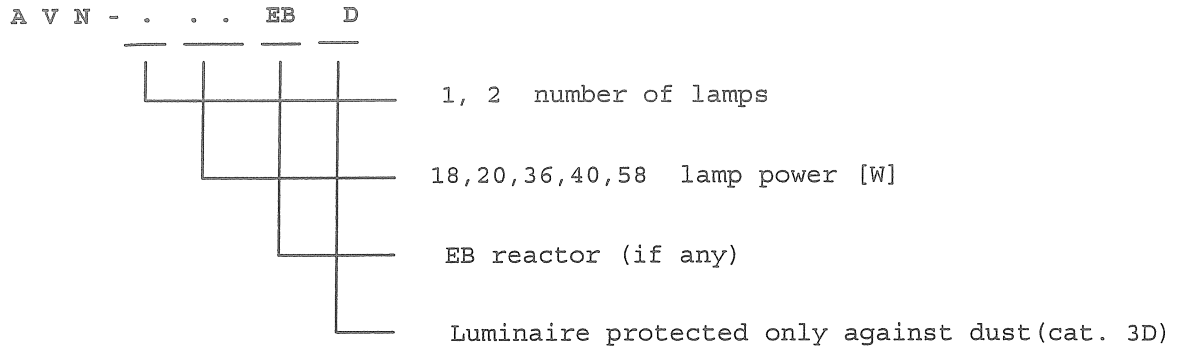
[13]

Schedule

[14] TYPE EXAMINATION CERTIFICATE N. CESI 01 ATEX 070

[15] Description of equipment

The luminaires series AVN-... for tubular fluorescent lamps are identified by a code as follows:



The luminaires series AVN...and AVN...EB are of category 3 GD or 3 D.
The luminaires series AVN...EBD are only of category 3 D.

The luminaires series ANV... are equipped with inductive reactors manufactured by MAGNETEK or AROS.
The luminaires series AVN-...EB are equipped with electronic reactor COR.TEM type EB.

The luminaires of category 3 G D comply with the requirements of the standards EN 50021 (1999) and EN 50281-1-1 (1999).
The luminaires of category 3 D comply with the requirements of the standard EN 50281-1-1 (1999)

Electrical characteristics

Luminaires series AVN-...

Rated voltage	230 [V]
Rated frequency	50 ÷ 60 Hz
Rated power	1x18, 1x20, 1x36, 1x40, 1x58 2x18, 2x20, 2x36, 2x40, 2x58 [W]
Degree of protection	IP 65
Temperature class for luminaires category 3 GD:	
- for all types	T3 with ambient temperature - 25 ÷ + 45 °C
- for types AVN-118, 218, 136, 236	T4 with ambient temperature - 25 ÷ + 40 °C
Maximum surface temperature of the enclosure for luminaires category 3 GD and 3 D:	
- for all types	T90 °C with ambient temperature - 25 ÷ + 40 °C T105 °C with ambient temperature - 25 ÷ + 55 °C
Degree of protection	IP 65

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Schedule

[14] TYPE EXAMINATION CERTIFICATE N. CESI 01 ATEX 070

Luminaires series AVN-...EB

Rated voltage	100-254 [Va.c.]	100-270 [Vd.c.]
Rated frequency	50 ÷ 60 Hz	---
Rated power	2x18, 2x36, 2x58 [W]	
Temperature class for category 3 GD luminaires:	T5 with ambient temperature - 25 ÷ + 40 °C T4 with ambient temperature - 25 ÷ + 55 °C	
Maximum surface temperature of the enclosure for category 3 GD and 3 D luminaires:	T65°C with ambient temperature - 25 ÷ + 40 °C T80°C with ambient temperature - 25 ÷ + 55 °C	
Degree of protection	IP 65	

Luminaires series AVN-...EBD

Rated voltage	100-254 [Va.c.]	100-270 [Vd.c.]
Rated frequency	50 ÷ 60 Hz	---
Rated power	1x18; 1x36; 1x58; 2x18; 2x36, 2x58 [W]	
Maximum surface temperature of the enclosure :	T65°C with ambient temperature - 25 ÷ + 40 °C T80°C with ambient temperature - 25 ÷ + 55 °C	
Degree of protection	IP 65	

The accessories used for cable entry shall guarantee a degree of protection at least IP 65 and be certified according to the standard EN 50281-1-1.

The mounting and/or substitution of tubular fluorescent lamps shall be made with de-energized circuits.

Warning label

“ATTENTION TO ELECTROSTATIC CHARGES”
Clean only with wet cloth or antistatic product.

[16] Report n. EX-A1/030232

Routine tests

The routine overvoltage test shall be carried out at 1500 V.

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Schedule

[14] TYPE EXAMINATION CERTIFICATE N. CESI 01 ATEX 070

Descriptive documents (prot. EX-A1/030250)

- n ^o A4-4156 Rev. 1 (3 p.)	dated 14.06.2001
- n ^o A1-4155 Rev. 0	dated 07.03.2001
- n ^o A1-4171 Rev. 0	dated 14.06.2001
- n ^o A4-4157 Rev. 0	dated 07.03.2001
- n ^o A4-3780 Rev. 0	dated 08.07.1997
- n ^o A4-3781 Rev. 0	dated 08.07.1997
- n ^o A4-3783 Rev. 0	dated 08.07.1997
- n ^o A4-3784 Rev. 0	dated 08.07.1997
- n ^o A4-4129 Rev. 0	dated 26.06.2000
- declaration CORTEM n° 302/99	dated 25.05.1999
- safety instructions n° F-260 Rev. 0 (7 p.)	dated 07.03.2001
- EC declaration of conformity n° CE/0025	dated 07.03.2001

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 standards.

EXTENSION n. 01/03



to Type Examination Certificate CESI 01ATEX070

Equipment: Luminaires series AVN- for tubular fluorescent lamps

Manufacturer: COR.TEM S.p.A.

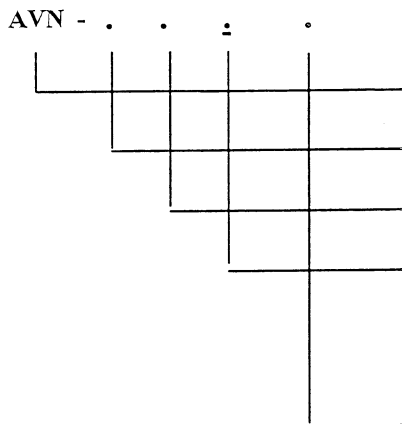
Address: Via Aquileia 10, Villesse (Gorizia – Italy)

Admitted variation

- New codification of Luminaires series AVN
- New model of Luminaires series AVN-... with new electronic ballast and emergency luminaires series AVN-...E.

Identification and description of equipment

The luminaires series AVN are identified by a code as follows:



code of the series

1, 2 (number of lamps)

18, 36, 58 (lamp power [W])

- code omitted (luminaires for normal service with electronic ballast)

EE (luminaires for emergency service only)

EF (luminaires for normal + emergency service)

4, 7 (capacity of the battery in Ah)

This extension and annexed descriptive documents must be annexed to the Type Examination Certificate CESI 01ATEX070.

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date 5 November, 2003 - translation issued the 5th November, 2003

prepared

CERT – M. Balaz

approved

CERT – U. Colombo

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EXTENSION n. 01/03

to Type Examination Certificate CESI 01ATEX070

Identification and description of the equipment (follows)

According to the protection adopted and the model, the luminaires series AVN- can have the following marking :

 II 3 G D EEx nA II T4,T5 IP 65 T80 ÷ T65 °C
 II 3 D IP 65 T80 ÷ T65 °C

Electrical characteristics

Luminaires series AVN-... for normal service

1 - equipped with electronic ballast type BBT-...	
Rated voltage	230 V (207-254 V.a.c.; 190-276 V.d.c.)
Rated power	18 W; 36 W; 58 W; 2x18 W; 2x36 W; 2x58 W
2 - equipped with electronic ballast type BTS-...	
Rated voltage	120/230 V (108-254 V.a.c.; 108-254 V.d.c.)
Rated power	18 W; 36 W; 2x18 W; 2x36 W
Rated frequency	50/60 Hz or d.c.
Degree of protection	IP 65 (EN 60529-1991)
Temperature class for category 3 GD luminaires:	
	T5 with ambient temperature - 25 ÷ + 40 °C
	T4 with ambient temperature - 25 ÷ + 50 °C
Maximum surface temperature of the enclosure for category 3 GD and 3 D luminaires:	
	T65°C with ambient temperature - 25 ÷ + 40 °C
	T80°C with ambient temperature - 25 ÷ + 50 °C

Luminaires series AVN-...EF. and AVN-...EE. for normal + emergency service or for emergency service only

1 - equipped with electronic ballast type BBT-...	
Rated voltage	230 V (207-254 V.a.c.; 190-276 V.d.c.)
Rated power	18 W; 36 W; 58 W; 2x18 W; 2x36 W; 2x58 W
2 - equipped with electronic ballast type BTS-...	
Rated voltage	120/230 V (108-254 V.a.c.; 108-254 V.d.c.)
Rated power	18 W; 36 W; 2x18 W; 2x36 W
Rated frequency	50/60 Hz or d.c.
Degree of protection	IP 65 (EN 60529-1991)

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EXTENSION n. 01/03

to Type Examination Certificate CESI 01ATEX070

Electrical characteristics (follows)

NiCd battery:

- rated voltage 6 V
- capacity 4 or 7 Ah

Temperature class for category 3 GD luminaires:

T5 with ambient temperature - 25 ÷ + 40 °C

Maximum surface temperature of the enclosure for category 3 GD and 3 D luminaires:

T65°C with ambient temperature - 25 ÷ + 40 °C

Warning label – refer to emergency lighting

“DO NOT OPEN WHEN AN EXPLOSIVE GAS ATMOSPHERE MAY BE PRESENT”

Report n. EX-A3/042643

Descriptive documents (prot. EX-A3/042645)

- | | | |
|--|-------|------------|
| - n. A1-4545 Rev. 0 | dated | 01.10.2003 |
| - n. A4-4572 Rev. 0 (2 p.) | dated | 01.10.2003 |
| - n. A4-4290 Rev. 2 | dated | 01.10.2003 |
| - Technical description MAGNETEK (5 p.) | dated | 01.10.2003 |
| - Technical description Peters (6 p.) | dated | 01.10.2003 |
| - Technical description TELETRONICS (7 p.) | dated | 01.10.2003 |
| - Technical description VARTA (24 p.) | dated | 01.10.2003 |

One copy of all documents is kept in CESI files.