



Ref. Certif. No.

**ES1815-M1**

**IEC SYSTEM FOR MUTUAL RECOGNITION OF TEST CERTIFICATES FOR ELECTRICAL EQUIPMENT (IECEE) CB SCHEME**

**CB TEST CERTIFICATE**

Product

BALLAST FOR DISCHARGE LAMPS

Name and address of the applicant

ESPECIALIDADES LUMINOTÉCNICAS, S.A.U.  
PI MALPICA, CL E, 11  
50016 ZARAGOZA (España)

Name and address of the manufacturer

ESPECIALIDADES LUMINOTÉCNICAS, S.A.U.  
PI MALPICA, CL E NAVE 11  
50016 ZARAGOZA (España)

Name and address of the factory

SAME AS ABOVE

Note: When more than one factory, please report on page 2

Additional Information on page 2

Ratings and principal characteristics

See Annex

Trademark (if any)

ELT

Customer's Testing Facility (CTF) Stage used

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Model / Type Ref.

See references on the Annex

Additional information (if necessary may also be reported on page 2)

Additional Information on page 2

A sample of the product was tested and found to be in conformity with

IEC 61347-2-9:2012  
IEC 61347-1:2015  
IEC 60923:2005 + AMD1:2006

As shown in the Test Report Ref. No. which forms part of this Certificate

2016110671B1-M1, 2016110670B1-M1

This CB Test Certificate is issued by the National Certification Body

AENOR INTERNACIONAL S.A.U.  
CI Génova, 6  
ES-28004 MADRID (SPAIN)

Date: 2018-06-20

Signature:   
Rafael GARCÍA MEIRO  
Chief Executive Officer

# ANNEX TO CB CERTIFICATE N° ES1815-M1

## CERTIFIED REFERENCES AND THEIR PRINCIPAL CHARACTERISTICS

**Product: BALLAST FOR DISCHARGE LAMPS**

**Trade Mark: ELT**

Reference	Rated voltage and frequency	Lamps type and quantity and rated power	Rated winding temperature (tw)	Rated winding temperature rise	Classification of the ballast	General features
VSI 10/21-22-24-BP	210-220-240 V~; 60 Hz	HPSV, MH; 1 x 100 W	130 °C	60 °C	To build-in	1,2 A (HPSV) and 1,2 A (MH); PF: 0,42
VSI 10/21-22-24-BP-P	210-220-240 V~; 60 Hz	HPSV, MH; 1 x 100 W	130 °C	60 °C	To build-in	1,2 A (HPSV) and 1,2 A (MH); PF: 0,42; thermal protection without stated temperature
VSI 15/20-24-2P-CA-400-SM	208-240 V~; 60 Hz	HPSV; 1 x 150 W	130 °C	70 °C	To build-in	1,8 A; PF: 0,45/0,40
VSI 15/20-24-2P-CA-400-SM-P	208-240 V~; 60 Hz	HPSV; 1 x 150 W	130 °C	70 °C	To build-in	1,8 A; PF: 0,45/0,40; thermal protection without stated temperature
VSI 15/20-24-2P	208-240 V~; 60 Hz	HPSV; 1 x 150 W	130 °C	70 °C	To build-in	1,8 A; PF: 0,45/0,40
VSI 15/20-24-2P-P	208-240 V~; 60 Hz	HPSV; 1 x 150 W	130 °C	70 °C	To build-in	1,8 A; PF: 0,45/0,40; thermal protection without stated temperature
VSI 15/21-22-24-BP	210-220-240 V~; 60 Hz	HPSV, MH; 1 x 150 W	130 °C	65 °C	To build-in	1,8 A (HPSV) and 1,8 A (MH); PF: 0,40
VSI 15/21-22-24-BP-P	210-220-240 V~; 60 Hz	HPSV, MH; 1 x 150 W	130 °C	65 °C	To build-in	1,8 A (HPSV) and 1,8 A (MH); PF: 0,40; thermal protection without stated temperature
VSI 15/22-24-2P-CA-400-SM	220-240 V~; 60 Hz	HPSV; 1 x 150 W	130 °C	70 °C	To build-in	1,8 A; PF: 0,44/0,40
VSI 15/22-24-2P-CA-400-SM-P	220-240 V~; 60 Hz	HPSV; 1 x 150 W	130 °C	70 °C	To build-in	1,8 A; PF: 0,44/0,40; thermal protection without stated temperature
VSI 15/22-24-2P	220-240 V~; 60 Hz	HPSV; 1 x 150 W	130 °C	70 °C	To build-in	1,8 A; PF: 0,44/0,40
VSI 15/22-24-2P-P	220-240 V~; 60 Hz	HPSV; 1 x 150 W	130 °C	70 °C	To build-in	1,8 A; PF: 0,44/0,40; thermal protection without stated temperature
VSI 25/20-24-2P-CA-400-SM	208-240 V~; 60 Hz	HPSV; 1 x 250 W	130 °C	75 °C	To build-in	3 A; PF: 0,44/0,39
VSI 25/20-24-2P-CA-400-SM-P	208-240 V~; 60 Hz	HPSV; 1 x 250 W	130 °C	75 °C	To build-in	3 A; PF: 0,44/0,39; thermal protection without stated temperature
VSI 25/20-24-2P	208-240 V~; 60 Hz	HPSV; 1 x 250 W	130 °C	75 °C	To build-in	3 A; PF: 0,44/0,39
VSI 25/20-24-2P-P	208-240 V~; 60 Hz	HPSV; 1 x 250 W	130 °C	75 °C	To build-in	3 A; PF: 0,44/0,39; thermal protection without stated temperature
VSI 25/21-22-24-BP	210-220-240 V~; 60 Hz	HPSV, MH; 1 x 250 W	130 °C	70 °C	To build-in	3 A (HPSV) and 3 A (MH); PF: 0,40

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## CERTIFIED REFERENCES AND THEIR PRINCIPAL CHARACTERISTICS

Reference	Rated voltage and frequency	Lamps type and quantity and rated power	Rated winding temperature (tw)	Rated winding temperature rise	Classification of the ballast	General features
VSI 25/21-22-24-BP-P	210-220-240 V~; 60 Hz	HPSV, MH; 1 x 250 W	130 °C	70 °C	To build-in	3 A (HPSV) and 3 A (MH); PF: 0,40; thermal protection without stated temperature
VSI 25/22-24-2P-CA-400-SM	220-240 V~; 60 Hz	HPSV; 1 x 250 W	130 °C	75 °C	To build-in	3 A; PF: 0,42/0,39
VSI 25/22-24-2P-CA-400-SM-P	220-240 V~; 60 Hz	HPSV; 1 x 250 W	130 °C	75 °C	To build-in	3 A; PF: 0,42/0,39; thermal protection without stated temperature
VSI 25/22-24-2P	220-240 V~; 60 Hz	HPSV; 1 x 250 W	130 °C	75 °C	To build-in	3 A; PF: 0,42/0,39
VSI 25/22-24-2P-P	220-240 V~; 60 Hz	HPSV; 1 x 250 W	130 °C	75 °C	To build-in	3 A; PF: 0,42/0,39; thermal protection without stated temperature
VSI 40/20-24-2P-CA-400-SM	208-240 V~; 60 Hz	HPSV; 1 x 400 W	130 °C	75 °C	To build-in	4,45 A; PF: 0,46/0,41
VSI 40/20-24-2P-CA-400-SM-P	208-240 V~; 60 Hz	HPSV; 1 x 400 W	130 °C	75 °C	To build-in	4,45 A; PF: 0,46/0,41; thermal protection without stated temperature
VSI 40/20-24-2P	208-240 V~; 60 Hz	HPSV; 1 x 400 W	130 °C	75 °C	To build-in	4,45 A; PF: 0,46/0,41
VSI 40/20-24-2P-P	208-240 V~; 60 Hz	HPSV; 1 x 400 W	130 °C	75 °C	To build-in	4,45 A; PF: 0,46/0,41; thermal protection without stated temperature
VSI 40/21-22-23-BP	210-220-240 V~; 60 Hz	HPSV, MH; 1 x 400 W	130 °C	70 °C	To build-in	4,45 A (HPSV) and 4 A (MH); PF: 0,40
VSI 40/21-22-23-BP-P	210-220-240 V~; 60 Hz	HPSV, MH; 1 x 400 W	130 °C	70 °C	To build-in	4,45 A (HPSV) and 4 A (MH); PF: 0,40; thermal protection without stated temperature
VSI 40/22-24-2P-CA-400-SM	220-240 V~; 60 Hz	HPSV; 1 x 400 W	130 °C	75 °C	To build-in	4,45 A; PF: 0,44/0,41
VSI 40/22-24-2P-CA-400-SM-P	220-240 V~; 60 Hz	HPSV; 1 x 400 W	130 °C	75 °C	To build-in	4,45 A; PF: 0,44/0,41; thermal protection without stated temperature
VSI 40/22-24-2P	220-240 V~; 60 Hz	HPSV; 1 x 400 W	130 °C	75 °C	To build-in	4,45 A; PF: 0,44/0,41
VSI 40/22-24-2P-P	220-240 V~; 60 Hz	HPSV; 1 x 400 W	130 °C	75 °C	To build-in	4,45 A; PF: 0,44/0,41; thermal protection without stated temperature