

Licence for the use of ENEC certification mark of conformity

Number

SI-ENEC 030/006 M1

Product and type(s) / model(s)

A.C. supplied electronic ballasts for discharge lamps

VGBxxxS01; VGBxxxD01; VGBxxxS02; VGBxxxD02; VGBxxxDP2; VGBxxxSP2; VGPxxxS01; VGPxxxD01; VGPxxxS02;
VGPxxxD02; VSB250P01; VSB250S01; VSB250D01; VSB250DP2 (where xxx denotes rated output power)

Trade mark

Ventronic

Applicant / Licensee

Venture Lighting Europe Ltd.

Unit 11, Willow Farm Business Park, Castle Donington DE74 2US, United Kingdom

Manufacturer

ECDS - Electronic Controls and Discharge System Private Ltd.

Plot No. 16-A, Garment Complex, A Block, CSEZ Kakkand, Kochi 682 037, India

Reference to the European standards

EN 61347-1:2008 + A1:2011; EN 61347-2-12:2005 + A1:2010

Test Report - No. and date of issue

ECS T211-0121/14, dated 2014-03-12

This licence is based on the licence agreement No. 030 signed on 2009-03-30. The ENEC certification mark of conformity may be applied to the product(s) as specified in this document for the duration of the ENEC licence agreement.

Only the integral publication of this licence (together with the Annex) is allowed.

Certification mark of conformity

SIQ hereby grants the right to use the ENEC certification mark of conformity on the products specified in the Annex to this document. The ENEC certification mark of conformity signifies the compliance of the products with requirements of cited standard(s).



Ljubljana, 2014-03-17

Authorized signature
Alja Pregl

A handwritten signature in blue ink, appearing to read 'Alja Pregl'.

**ANNEX to ENEC Licence on the use of certification mark of conformity
No. SI-ENEC 030/006 M1**

**This ENEC Licence replaces previously issued licence No. SI-ENEC 030/006, issued on 2013-07-26.
New types of ballasts model VSB250xxx were added to ENEC Licence.**

1. Specification of the certified product

Product data	
Product:	A.C. supplied electronic ballasts for discharge lamps
Trade name:	Ventronic
Model / Type reference	VGBxxxS01; VGBxxxD01; VGBxxxS02; VGBxxxD02; VGBxxxDP2; VGBxxxSP2; VGPxxxS01; VGPxxxD01; VGPxxxS02; VGPxxxD02; VSB250P01; VSB250S01; VSB250D01; VSB250DP2 (where xxx denotes rated output power) See table below
Nature of supply:	a.c.
Rated supply voltage:	220-240 V
Rated supply frequency:	50/60 Hz
Rated input power:	See table below
Rated input current:	See table below
tc:	85°C
ta:	50°C
Classification:	Built-in / Independent
Class:	I
Degree of protection:	IP 20 / IP30 / IP40
Supply connection:	Screwless terminals, connecting leads

2. Type range

Model	Current (A)	Ignition voltage (kV)	U-OUT (V)	Power (W)	IP	Classification
VGB200S01	1,6 A	4,5 kV	200 V	200 W	IP20	Built-in
VGB200D01	1,6 A	4,5 kV	200 V	200 W	IP20	Built-in
VGB200S02	1,6 A	4,5 kV	200 V	200 W	IP20	Built-in
VGB200D02	1,6 A	4,5 kV	200 V	200 W	IP20	Built-in
VGB200SP2	1,6 A	4,5 kV	200 V	200 W	IP30	Built-in
VGB200DP2	1,6 A	4,5 kV	200 V	200 W	IP30	Built-in
VGB250S01	2,1 A	4,5 kV	200 V	250 W	IP20	Built-in
VGB250D01	2,1 A	4,5 kV	200 V	250 W	IP20	Built-in
VGB250S02	2,1 A	4,5 kV	200 V	250 W	IP20	Built-in
VGB250D02	2,1 A	4,5 kV	200 V	250 W	IP20	Built-in
VGB250SP2	2,1 A	4,5 kV	200 V	250 W	IP30	Built-in
VGB250DP2	2,1 A	4,5 kV	200 V	250 W	IP30	Built-in
VGB320S01	2,6 A	4,5 kV	200 V	320 W	IP20	Built-in
VGB320D01	2,6 A	4,5 kV	200 V	320 W	IP20	Built-in

VGB320S02	2,6 A	4,5 kV	200 V	320 W	IP20	Built-in
VGB320D02	2,6 A	4,5 kV	200 V	320 W	IP20	Built-in
VGB320SP2	2,6 A	4,5 kV	200 V	320 W	IP30	Built-in
VGB320DP2	2,6 A	4,5 kV	200 V	320 W	IP30	Built-in
VGB350S01	2,8 A	4,5 kV	200 V	350 W	IP20	Built-in
VGB350D01	2,8 A	4,5 kV	200 V	350 W	IP20	Built-in
VGB350S02	2,8 A	4,5 kV	200 V	350 W	IP20	Built-in
VGB350D02	2,8 A	4,5 kV	200 V	350 W	IP20	Built-in
VGB350SP2	2,8 A	4,5 kV	200 V	350 W	IP30	Built-in
VGB350DP2	2,8 A	4,5 kV	200 V	350 W	IP30	Built-in
VGB400S01	3,2 A	4,5 kV	200 V	400 W	IP20	Built-in
VGB400D01	3,2 A	4,5 kV	200 V	400 W	IP20	Built-in
VGB400S02	3,2 A	4,5 kV	200 V	400 W	IP20	Built-in
VGB400D02	3,2 A	4,5 kV	200 V	400 W	IP20	Built-in
VGB400SP2	3,2 A	4,5 kV	200 V	400 W	IP30	Built-in
VGB400DP2	3,2 A	4,5 kV	200 V	400 W	IP30	Built-in
VGB450S01	3,7 A	4,5 kV	200 V	450 W	IP20	Built-in
VGB450D01	3,7 A	4,5 kV	200 V	450 W	IP20	Built-in
VGB450S02	3,7 A	4,5 kV	200 V	450 W	IP20	Built-in
VGB450D02	3,7 A	4,5 kV	200 V	450 W	IP20	Built-in
VGB450SP2	3,7 A	4,5 kV	200 V	450 W	IP30	Built-in
VGB450DP2	3,7 A	4,5 kV	200 V	450 W	IP30	Built-in

Model	Current (A)	Ignition voltage (kV)	U-OUT (V)	Power (W)	IP	Classification
VGP200S01	1,6 A	4,5 kV	200 V	200 W	IP40	Independent
VGP200D01	1,6 A	4,5 kV	200 V	200 W	IP40	Independent
VGP200S02	1,6 A	4,5 kV	200 V	200 W	IP40	Independent
VGP200D02	1,6 A	4,5 kV	200 V	200 W	IP40	Independent
VGP250S01	2,1 A	4,5 kV	200 V	250 W	IP40	Independent
VGP250D01	2,1 A	4,5 kV	200 V	250 W	IP40	Independent
VGP250S02	2,1 A	4,5 kV	200 V	250 W	IP40	Independent
VGP250D02	2,1 A	4,5 kV	200 V	250 W	IP40	Independent
VGP320S01	2,6 A	4,5 kV	200 V	320 W	IP40	Independent
VGP320D01	2,6 A	4,5 kV	200 V	320 W	IP40	Independent
VGP320S02	2,6 A	4,5 kV	200 V	320 W	IP40	Independent
VGP320D02	2,6 A	4,5 kV	200 V	320 W	IP40	Independent
VGP350S01	2,8 A	4,5 kV	200 V	350 W	IP40	Independent
VGP350D01	2,8 A	4,5 kV	200 V	350 W	IP40	Independent
VGP350S02	2,8 A	4,5 kV	200 V	350 W	IP40	Independent
VGP350D02	2,8 A	4,5 kV	200 V	350 W	IP40	Independent
VGP400S01	3,2 A	4,5 kV	200 V	400 W	IP40	Independent
VGP400D01	3,2 A	4,5 kV	200 V	400 W	IP40	Independent
VGP400S02	3,2 A	4,5 kV	200 V	400 W	IP40	Independent
VGP400D02	3,2 A	4,5 kV	200 V	400 W	IP40	Independent
VGP450S01	3,7 A	4,5 kV	200 V	450 W	IP40	Independent

VGP450D01	3,7 A	4,5 kV	200 V	450 W	IP40	Independent
VGP450S02	3,7 A	4,5 kV	200 V	450 W	IP40	Independent
VGP450D02	3,7 A	4,5 kV	200 V	450 W	IP40	Independent

Model	Current (A)	Ignition voltage (kV)	U-OUT (V)	Power (W)	IP	Classification
VSB250S01	2,1 A	4,5 kV	200 V	250 W	IP20	Built-in
VSB250D01	2,1 A	4,5 kV	200 V	250 W	IP20	Built-in
VSB250P01	2,1 A	4,5 kV	200 V	250 W	IP20	Built-in
VSB250DP2	2,1 A	4,5 kV	200 V	250 W	IP30	Built-in

Type designation (e.g. VGB400D02)

type	rated power	suffix	description
VGB; (standard) VSB <hr/> VGP (ballast within a pod) <hr/> V= Ventronic G= Global Metal Halide S= HPS B= Ballast P= POD	400 (400 W)	S01	S = standard→1-10 V control and switch dimming 01 = end mounting with terminal blocks*
		S02	S = standard→1-10 V control and switch dimming 02 = side mounting with leads
		D01	D = DALI dimming 01 = end mounting with terminal blocks*
		D02	D = DALI dimming 02 = side mounting with leads
		SP2	S = standard→1-10 V control and switch dimming P2 = extruded case IP30, side mounting with leads
		DP2	D = DALI dimming P2 = extruded case IP30, side mounting with leads
		P01	P = Part Night (programmable and able to dim) 01 = end mounting with terminal blocks*

* Remark: VGP ballasts supplied with leads only (01→ 2.25 m leads; 02→ 6.50 m leads)

3. Information regarding test results and product documentation

Test report(s): T211-0121/14, issued on 2014-03-12

Product documentation: C20131340; C20140487

4. Limitations

No limitations.

5. Factory locations

ECDS – Electronic Controls and Discharge Systems Private Ltd.

Plot No. 16A, Gament Complex, A Block, CSEZ Kakkand, 682 037 Kochi, India

6. List of critical components

object/part No.	Manufacturer/ trademark	type/model	Technical data	standard	mark(s) of conformity
Supply terminal J1, J4	Degson	DG235-5.0	250 V; 10A; 105°C, PA66	EN 60998	VDE
Terminal J14	Degson	DG235-3.8	250 V; 10A; 105°C, PA66	EN 60998	VDE
Fuse F1	Bel Fuse	RST type	250 V; T6,3A	EN 60127-3	VDE
Capacitors C1, C6	Walsin	AH series	250 V; 1000 pF; 125°C	EN 60384-14	VDE
Spark gap GAP1	Epcos	EM2500XS	2500 V	EN 61643	VDE
Varistor RV2	Panasonic	ZNR V20621U	620 V; 85°C	EN 61051	UL, VDE
Varistors RV1, RV3	Centra Science	CNR 14D511K	510 V; 85°C	EN 61051	VDE
Capacitor C33	Vishay	MKT F1772	X2; 330 nF; 310 V; 110°C	EN 60384-14	ENEC 10
Capacitors C32, C22	Vishay	MMKP 383	4,7 nF; 2500 Vdc; 105°C	EN 61347-2-12	tested with appliance
Capacitor C2	Vishay	MKP 3362	X2; 470 nF; 310 V;	EN 60384-14	ENEC 16
Capacitors C4, C5	Panasonic	ECWFA2J155J	1,5 µF; 630 V; 105°C	EN 61347-2-12	tested with appliance
Capacitor C18	Panasonic	WHV 223J	22 nF; 1,6 kVdc; 105°C	EN 61347-2-12	tested with appliance
Optocoupler ISO1	Vishay	SFH6106	5300 Vac; 100°C	EN 60950	VDE
Common mode choke T1	ECDS Cochin	S-WE509000	Wire: Essex, Soderon FS/155; 155°C Separator: RTP, RTP205FR, V-0, 155°C Mounting base: Loadstone Pacific, VTM160-4, 18,7 kV, V-0, 155°C Insulation tape: 3M, type 79, 0,177 mm, 3000 V, 150°C	EN 61347-2-12	UL, tested with appliance
Inductor L1	ECDS Cochin	S- WIND150UH	Wire: Essex, Soderon FS/155; 155°C Insulation tube: HongShang, H-2(Z), 600 V, 125°C, VW-1 Core insulating coating: PA11, V-2, 160°C	EN 61347-2-12	UL, tested with appliance
Winding L2	ECDS Cochin	S-FWVG400	Wire: New England, LITZ 66-38, MW-80C, 155°C Bobbin: EPCOS, B66362X1014T001, GFR, V-0, 180°C Varnish: BC-359, Dolph, 155°C, 3000V/mil Insulation tape: 3M, type 79, 0,177 mm, 3000 V, 150°C	EN 61347-2-12	UL, tested with appliance

object/part No.	Manufacturer/ trademark	type/model	Technical data	standard	mark(s) of conformity
Inductor L4	ECDS Cochin	S-FWVG200	Wire: New England, LITZ 7x28AWG, MW- 80C, 155°C Bobbin: GFR, V-0, 180°C Varnish: BC-359, Dolph, 155°C, 3000V/mil Insulation tape: 3M, type 79, 0,177 mm, 3000 V, 150°C	EN 61347-2-12	UL, tested with appliance
Insulation sheet	Garware Polyester Limited	EM6	Thickness 0,25 mm; 150°C; 19,5 kV	EN 61347-2-12	tested with appliance
El. capacitors C11, C20, C21, C12	Nichicon	H1122	220 µF; 250V; 105°C	EN 61347-2-12	tested with appliance
El. capacitor C50	Nover	(M)1485	47 µF; 50V; 105°C	EN 61347-2-12	tested with appliance
El. capacitor C42	Vishay	BC 13 045	10 µF; 50V; 105°C	EN 61347-2-12	tested with appliance
Plastic support under terminals	Sabic Inovative Plastics	Noryl N225X	V-0, 95°C	EN 61347-2-12	tested with appliance
Supply wiring	LSF Conduit Wiring	H05Z-K	1,0 mm ² ;	HD21	IMQ
Wiring	LTK Electric Wire	Style 3321	150°C, XLPE; 0,8 mm ²	UL758	UL
PCB	various	FR4	V0	UL94-0	UL
Housing	various	/	aluminium	/	/

7. Conclusion

The examination proved that all test requirements were met.

Tested by: Igor Smrke



Checked by: Edo Venek

