

Tender documents for electronic control gears from OSRAM

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Electronic control gears for fluorescent and compact fluorescent lamps:

Dimmable electronic control gears with digital interface (DALI):

QUICKTRONIC® INTELLIGENT DALI DIM for compact fluorescent lamps

Reference:

QTi DALI-T/E...DIM

- Intelligent electronic control gears with DALI acc. to 62386-101/-102/-201 and IEC 60929
- Compact fluorescent lamps DULUX®-T/E 26, 32, 42 W (CONSTANT), (FSMH-57/30/1B-GX24q = 5, FSMH-57/40/1B-GX24q = 5) can be dimmed from 3 % to 100 % without any restrictions
- Pre-heated lamp start within 0.6 seconds without ignition flash
- Manual dimming function (Touch DIM) without controller and with standard switches, incl. memory-function (double-click) and soft start
- Up to 100.000 hours lifetime and more with max. 10 % failure rate, when the temperature at the t_c -point does not rise above t_c minus 10 °C during operation
- Very low stand-by losses:
 - 1- and 2 lamp DALI ECGs ≤ 0.2 W (AC and DC operation)
 - 3- and 4 lamp DALI ECGs < 0.5 W (AC and DC operation)
- ECG overheating protection by intelligent power reduction at high t_c -temperatures
- 5-year system⁺ guarantee:
A failed ECG will be refunded according to the terms and conditions of the guarantee
- CELMA energy classification A1 BAT
- Highest energy efficiency thanks to cut-off-technology
- EoL – shut-down acc. EN/IEC 61347-2-3 chapter 17
- Can be used in emergency installations acc. EN 50172 / EDIN VDE 0108-100
- Configuration in emergency mode possible:
Light level can be adjusted without control signal from 100 % to 3 % light output
- Approvals: ENEC, VDE, EMC
- Complies with: EN 60929, EN 61347-2-3, EN 55015, EN 61000-3-2, EN 61547, EN 61000-3-3

QUICKTRONIC® INTELLIGENT DALI DIM for T5/Ø 16 mm fluorescent lamps

References:

QTi DALI...DIM

- Intelligent electronic control gears with DALI acc. to 62386-101/-102/-201 and IEC 60929
- Enables T5/Ø16 mm fluorescent mercury and amalgam lamps of the same length to be operated within a luminaire giving flexibility when setting the light level
- Dimming range of 1 % to 100 % without any restrictions
- Maximum dimming frequency in steady state for dynamic RGB-colored light applications 5 ms, from 1% to 100 %, due to optimized pre-heating of the electrode
- Pre-heated lamp start within 0.5 seconds without ignition flash
- Manual Dimming operation (Touch DIM) without the need for a controller and with standard switches, incl. memory-function (double-click) and soft start
- Up to 100.000 hours lifetime and more with max. 10 % failure rate, when the temperature at the t_c -point does not rise above t_c minus 10 °C during operation
- Very low stand-by losses:
 - 1- and 2 lamp DALI ECGs ≤ 0.2 W (AC and DC operation)
 - 3- and 4 lamp DALI ECGs < 0.5 W (AC and DC operation)
- ECG-over heating-protection by intelligent power reduction at high t_c -temperatures
- 5-year system⁺ guarantee:
A failed ECG will be refunded according to the terms and conditions of the guarantee
- CELMA energy classification A1 BAT
- Highest energy efficiency thanks to cut-off technology
- EoL – shut-down acc. EN/ICE 61347-2-3 chapter 17
- Can be used in emergency installations acc. EN 50172 / EDIN VDE 0108-100
- Configuration in emergency mode possible:
Light level can be adjusted without control signal from 100 % to 1 % light output
- Approvals: ENEC, VDE, EMC
- Complies with: EN 60929, EN 61347-2-3, EN 55015, EN 61000-3-2, EN 61547, EN 61000-3-3

QUICKTRONIC® INTELLIGENT DALI DIM for T8/Ø 26 mm fluorescent lamps

References:

QTi DALI...DIM

- Intelligent electronic control gears with DALI acc. to 62386-101/-102/-201 and IEC 60929
- For operating commercial T8/Ø26mm fluorescent lamps with a dimming range from 1 % to 100 % without any restrictions
- Maximum dimming frequency in steady state for dynamic RGB-colored light applications 5 ms, from 1 % to 100 % due to optimized pre-heating of the electrode
- Pre-heated lamp start within 0.5 seconds without starting flash
- Manual dimming operation (Touch DIM) without the need for a controller and with standard switches, incl. memory-function (double-click) and soft start
- Up to 100.000 hours lifetime and more with max. 10 % failure rate, when the temperature at the t_c -point does not rise above t_c minus 10 °C during operation
- Very low stand-by losses:
 - 1- and 2 lamp DALI ECGs ≤ 0.2 W (AC and DC operation)
 - 3- and 4 lamp DALI ECGs < 0.5 W (AC and DC operation)
- ECG-overheating-protection by intelligent power reduction at high t_c -temperatures
- 5-year system⁺ guarantee:
A failed ECG will be refunded according to the terms and conditions of the guarantee
- CELMA energy classification A1 BAT
- Highest energy efficiency thanks to cut-off technology
- EoL – shut-down acc. EN/ICE 61347-2-3 chapter 17
- For use in emergency installations acc. EN 50172 / EDIN VDE 0108-100
- Configuration in emergency mode possible:
Light level can be adjusted without control signal from 100 % to 1 % light output
- Approvals: ENEC, VDE, EMC
Complies with: EN 60929, EN 61347-2-3, EN 55015, EN 61000-3-2, EN 61547, EN 61000-3-3

Dimmable electronic control gears with analog interface (1...10 V):

QUICKTRONIC® INTELLIGENT DIM (1...10 V) for compact fluorescent lamps

References:

QTi-T/E...DIM

- Intelligent electronic control gears with 1...10 V interface acc. to IEC 60929
- For operating compact fluorescent lamps DULUX®-T/E 26, 32, 42 W (CONSTANT), (FSMH-57/30/1B-GX24q = 5, FSMH-57/40/1B-GX24q = 5) with a dimming range from 3 % to 100 % without any restrictions
- Pre-heated lamp start within 0.6 seconds without starting flash
- Up to 100.000 hours lifetime and more with max. 10 % failure rate, when the temperature at the t_c -point does not rise above t_c minus 10 °C during operation
- ECG-overheating-protection by intelligent power reduction at high t_c -temperatures
- 5-year system⁺ guarantee:
A failed ECG will be refunded according to the terms and conditions of the guarantee
- CELMA energy classification A1 BAT
- Highest energy efficiency thanks to cut-off technology
- EoL – shut-down acc. IC 61347-2-3 chapter 17
- For use in emergency installations acc. EN 50172 / EDIN VDE 0108-100
- Approvals: ENEC, VDE, EMC
- Complies with: EN 60929, EN 61347-2-3, EN 55015, EN 61000-3-2, EN 61547, EN 61000-3-3

QUICKTRONIC® INTELLIGENT DIM (1...10 V) for T5/Ø 16 mm fluorescent lamps

References:

QTi...DIM

- Intelligent electronic control gears with 1...10 V interface acc. to IEC 60929
- Enables T5 fluorescent mercury and amalgam lamps of the same length to be operated within a luminaire giving flexibility when setting the light level
- Dimming range 1 % to 100 % without any restrictions
- Maximum dimming frequency in steady state for dynamic RGB-colored light applications 5 ms, from 1 % to 100 % due to optimized pre-heating of the electrode
- Pre-heated lamp start within 0.5 seconds without starting flash
- Up to 100.000 hours lifetime and more with max. 10 % failure rate, when the temperature at the t_c -point does not rise above t_c minus 10 °C during operation
- 5-year system⁺ guarantee:
A failed ECG will be refunded according to the terms and conditions of the guarantee
- CELMA energy classification A1 BAT
- Highest energy efficiency thanks to cut-off technology
- EoL – shut-down acc. EN/ICE 61347-2-3 chapter 17
- For use in emergency installations acc. EN 50172 / EDIN VDE 0108-100
- Approvals: ENEC, VDE, EMC
- Complies with: EN 60929, EN 61347-2-3, EN 55015, EN 61000-3-2, EN 61547, EN 61000-3-3

QUICKTRONIC® INTELLIGENT DIM (1...10 V) for T8/Ø 26 mm fluorescent lamps

References:

QTi...DIM

- Intelligent electronic control gears with 1...10 V interface acc. to IEC 60929
- For operating commercial T8/Ø26mm fluorescent lamps with a dimming range from 1 % to 100 % without any restrictions
- Maximum dimming frequency in steady state for dynamic RGB-colored light applications 5 ms, from 1 % to 100 % due to optimized pre-heating of the electrode
- Pre-heated lamp start within 0.5 seconds without starting flash
- Up to 100.000 hours lifetime and more with max. 10% failure rate, when the temperature at the t_c -point does not rise above t_c minus 10 °C during operation
- 5-year system⁺ guarantee:
A failed ECG will be refunded according to the terms and conditions of the guarantee
- CELMA energy classification A1 BAT
- Highest energy efficiency thanks to cut-off technology
- EoL – shut-down acc. EN/ICE 61347-2-3 chapter 17
- For use in emergency installations acc. EN 50172 / EDIN VDE 0108-100
- Approvals: ENEC, VDE, EMC
- Complies with: EN 60929, EN 61347-2-3, EN 55015, EN 61000-3-2, EN 61547, EN 61000-3-3

Non dimmable electronic control gears:

QUICKTRONIC® PROFESSIONAL for compact fluorescent lamps

References:

QTP-D/E...220-240, QTP-T/E ...220-240

- Electronic control gears to operate compact fluorescent lamps OSRAM DULUX® S/E 9 W, -11 W, -D/E 10 W, -13 W, -T/E 13 W or OSRAM DULUX® D/E 18 W, -T/E 18 W respectively
- Temperature range: -20 °C to +50 °C
- For luminaires of protection classes I and II
- ECG lifetime: 50,000 h ($t=75$ °C at t_c , max. 10 % failure rate)
- 5-year system+ guarantee:
A failed ECG will be refunded according to the terms and conditions of the guarantee
- CELMA energy classification A2
- Highest energy efficiency thanks to cut-off technology
- EoL – shut-down acc. EN/ICE 61347-2-3 chapter 17
- Use in emergency installations acc. EN 50172 / EDIN VDE 0108-100
- Approvals: ENEC, VDE, EMC
- Complies with: EN 60929, EN 61347-2-3, EN 55015: 2006 + A1:2007, EN 61000-3-2, EN 61547, EN 61000-3-3

QUICKTRONIC® PROFESSIONAL for T5/Ø 16 mm fluorescent lamps

References:

QTP5...220-240

- Electronic control gears to operate T5/Ø 16 mm fluorescent lamps acc. to IEC 60929
- Pre-heated lamp start is ideal for applications using presence detectors
- For luminaires of protection classes I and II
- Up to 100.000 hours lifetime and more with max. 10 % failure rate, when the temperature at the t_c -point does not rise above t_c minus 10 °C during operation
- 5-year system+ guarantee:
A failed ECG will be refunded according to the terms and conditions of the guarantee
- CELMA energy classification A2
- Highest energy efficiency thanks to cut-off technology
- EoL – shut-down acc. EN/ICE 61347-2-3 chapter 17
- For use in emergency installations acc. EN 50172 / EDIN VDE 0108-100
- Approvals: ENEC, VDE, EMC
- Complies with: EN 60929, EN 61347-2-3, EN 55015: 2006 + A1:2007, EN 61000-3-2, EN 61547, EN 61000-3-3

QUICKTRONIC® PROFESSIONAL for T8/Ø 26 mm fluorescent lamps

References:

QTP8...230-240

- Electronic control gears for T8/Ø26 mm fluorescent lamps acc. to IEC 60929
- Pre-heated lamp start within 2 seconds
- Temperature range: -25 °C to +55 °C
- Up to 100.000 hours lifetime and more with max. 10 % failure rate, when the temperature at the t_c -point does not rise above t_c minus 10 °C during operation
- 5-year system+ guarantee:
A failed ECG will be refunded according to the terms and conditions of the guarantee
- CELMA energy classification A2
- For use in emergency installations acc. EN 50172 / EDIN VDE 0108-100
- Approvals: ENEC, VDE, EMC
- Complies with: EN 60929, EN 61347-2-3, EN 55015: 2006 + A1:2007, EN 61000-3-2, EN 61547, EN 61000-3-3, EN 55022

QUICKTRONIC® FIT for T8/Ø 26 mm fluorescent lamps

References:

QT-FIT8...220-240

- Electronic control gears for T8/Ø26 mm fluorescent lamps acc. to IEC 60929
- Pre-heated lamp start within 2 seconds is ideal for applications using presence detectors
- Temperature range: -15 °C to +50 °C
- ECG lifetime: 50,000 h ($t=70$ °C at t_c ; max. 10 % failure rate)
- 5-year system+ guarantee:
A failed ECG will be refunded according to the terms and conditions of the guarantee
- CELMA energy classification A2
- For use in emergency installations acc. EN 50172 / EDIN VDE 0108-100
- Approvals: ENEC, VDE, EMC
- Complies with: EN 60929, EN 61347-2-3, EN 55015: 2006 + A1:2007, EN 61000-3-2, EN 61547, EN 61000-3-3
- Low harmonic content, THD < 10 %

QUICKTRONIC® INTELLIGENT for T5/Ø 16 mm fluorescent lamps

References:

QTi...

- Intelligent electronic control gears enables T5 fluorescent lamps of the same length to be operated within a luminaire giving flexibility when setting the light level
- Pre-heated lamp start is ideal for applications using presence detectors
- Up to 100.000 hours lifetime and more with max. 10 % failure rate, when the temperature at the t_c -point does not rise above t_c minus 10 °C during operation
- 5-year system⁺ guarantee:
A failed ECG will be refunded according to the terms and conditions of the guarantee
- CELMA energy classification A2 BAT
- Highest energy efficiency thanks to cut-off technology
- EoL – shut-down acc. EN/ICE 61347-2-3 chapter 17
- For use in emergency installations acc. EN 50172 / EDIN VDE 0108-100
- Approvals: ENEC, VDE, EMC
Complies with: EN60929, EN 61347-2-3, EN 55015, EN 61000-3-2, EN 61547, EN 61000-3-3, EN 50022

QUICKTRONIC® PROFESSIONAL MULTIWATT for compact fluorescent lamps

References:

QTP-M...

- Electronic control gears to operate compact fluorescent lamps DULUX®-T/E 26, 32, 42 W (CONSTANT), (FSMH-57/30/1B-GX24q = 5, FSMH-57/40/1B-GX24q = 5), OSRAM DULUX® L 18, 26, 36 W, OSRAM DULUX® L 40 W (CONSTANT), DULUX® F 18, 24, 36 W, L 18, (36) W, HO 24, (39) W
- Pre-heated lamp start is ideal for applications using presence detectors
- Temperature range: -20 °C to +50 °C
- ECG lifetime: 50,000 h at max. temperature (at t_c , max.10 % failure rate)
- 5-year system⁺ guarantee:
A failed ECG will be refunded according to the terms and conditions of the guarantee
- CELMA energy classification A2
- Highest energy efficiency thanks to cut-off technology
- EoL – shut-down acc. EN/ICE 61347-2-3 chapter 17
- Use in emergency installations acc. EN 50172 / EDIN VDE 0108-100
- Approvals: ENEC, VDE, EMC
Complies with: EN60929, EN 61347-2-3, EN 55015, EN 61000-3-2, EN 61547, EN 61000-3-3

QUICKTRONIC® for FM (T2/Ø7 mm) miniature fluorescent lamps

References:

QT-FM...L

- Electronic control gears for OSRAM FM-lamps 6, 8, 11, 13 W
- Optimized pre-heated lamp start
- Integrated safety shutdown of defective lamps if:
 - o the lamp electrodes cease to function
 - o there is an unusual temperature rise at the lamp electrodes
 - o the lamp output increases
- For AC-voltage only
- Approvals: VDE, ENEC, EMC
Complies with: EN60929, EN 61347-2-3, EN 55015, EN 61000-3-2, EN 61547, EN 61000-3-3
- ECG lifetime: 50,000 h max. temperature (at t_c , max. 10 % failure rate)

DULUXTRONIC®

References depending on ECG-geometry and lamp-type: DT...230-240

- Electronic control gears with integrated lamp-holder for OSRAM DULUX® S/E, - D/E, - T/E
- Pre-heated lamp start
- Temperature range: -15 °C to +50 °C
- For luminaires of protection classes I and II
- ECG-lifetime: 30,000 h at max. temperature ($t=70$ °C at t_c , max. 10 % failure rate)
- CELMA energy classification A3
- Power factor: > 0.6
- Maximum of 25 W per luminaire
- EoL – shut-down acc. EN/ICE 61347-2-3 chapter 17
- Use in emergency installations acc. EN 50172 / EDIN VDE 0108-100
- Approvals: ENEC, VDE, EMC
- Complies with: EN60929, EN 61347-2-3, EN 55015, EN 61000-3-2, EN 61547, EN 61000-3-3

QUICKTRONIC® ENDURA®

References:

QT-ENDURA 70-100/120-240 S

QT-ENDURA 100-150/120-240 S

- Electronic control gears for electronic high-performance fluorescent lamps
OSRAM ENDURA 70, 100, 150 W
- Lamp start within 0.5 seconds
- Switchable without limits
- Temperature range: -40 °C to +50 °C (-25 °C for 70 W lamp)
- Can be used in emergency installations acc. EN 50172 / EDIN VDE 0108-100
- Voltage range: 120 V to 240 V AC
- Safety shutdown in the event of overvoltage
- Approvals: VDE, EMC
- Complies with: EN 61347-2-3, EN 55015, EN 61000-3-2, EN 61547, EN 61000-3-3
- Separation between lamp and ECG
20 m maximum load capacity of extension cable 500 pF
- Automatic restart after lamp replacement
- Integrated safety shutdown of defective lamps
- ECG lifetime: 60,000 h ($t=70$ °C at t_c , max. 12 % failure rate)
- 5-year system⁺ guarantee:
A failed ECG will be refunded according to the terms and conditions of the guarantee

Electronic transformers for low-voltage halogen lamps: HALOTRONIC®

References:

HT...

- Electronic transformers for low-voltage halogen lamps 12 V
- Partial-load operation possible
- Output voltage ≤ 12.0 V in the entire partial-load range
- Safety shutdown to protect against defects in the unit
- Safety isolating transformer:
 - o SELV for independent transformers (standalone installation)
 - o SELV equivalent for transformers for installation in luminaires
- Mains harmonic content limits as defined in EN 61000-3-2
- HTL: suitable for emergency installations (battery voltage range 176-275 V)
- Approvals: ENEC, VDE, EMC
- Comply with: EN 61347-2-2, EN 61047, EN 55015, EN 61000-3-2, EN 61547, EN 61000-3-3
- Can be used with leading-edge phase dimmers (for HTM 70/105/150 and HT L 150/225) or with trailing-edge phase dimmers (for HTN, HTM 70, HTL 105, HTM 105, HT 120 LF, HTM 150, HT L 225)
- Lifetime: HTL, LF: 50,000 h at max. temperature (at t_c , max. 10 % failure rate)
HTM and HTN: 30,000 h at max. temperature (at t_c , max. 10 % failure rate)
- 5-year system⁺ guarantee:
A failed ECG will be refunded according to the terms and conditions of the guarantee

HALOTRONIC® INTELLIGENT DALI 315 DIM

References:

HTi DALI 315 DIM

- Trailing edge phase cut dimmer with DALI for independent mounting
- μ -processor controlled power output with line voltage trailing edge signal, simplified load connection via two pairs of connectors.
- Polarity insensitive line voltage proof DALI control interface according EN/IEC 62386
- DALI backchannel feedback for idle state, thermal shutdown and overload shutdown.
- Separate connector for push button control.
- Over temperature protection: two stage electronic and mechanic protection, reversible
- Short circuit protection: electronic, reversible
- Overload protection: electronic, reversible
- Flame resistant polyamide housing with reinforced isolation and cable clamp, optimized for ceiling integration.
- Furniture integration and mounting on materials with normal flammability allowed.
- Dimensions: 153 x 54 x 36 mm (l x w x h)
- Connection: Screw terminals
- Supply voltage: AC 230 – 240V 50Hz
- Load capacity at 0...50 °C ambient temperature: 20...315 VA
- Load capacity at 0...50 °C ambient temperature: 20...420 VA
- Stand-by power: < 0.5 W
- Power loss: max. 4 W
- Cable length secondary side: max. 100 m
- Type of protection: IP 20
- Protection type: II
- EMC fulfilled according EN61547/EN55015
- Safety fulfilled according EN60669-1/-2-1

Electronic control gears for metal halide lamps: POWERTRONIC®

POWERTRONIC® INTELLIGENT:

References: PTi.../230-240 S, for installation in luminaires, or PTi.../230-240 I with cable clamp for stand-alone installation

- Electronic control gears for operating metal halide lamps 20, 35, 70, 100, 150 W
- Excellent lamp operation: lamp lifetime up to 30 % higher compared to operation on conventional control gear
- Flicker free lamp operation
- Constant lamp power which is independent from mains voltage fluctuations, ambient temperatures and age of the lamps
- Reliable lamp start: max. distance between lamps and ECG 150 cm (120 pF), ignition voltage max. 4.5 kV
- No flashing of faulty lamps (restriction of ignition time to max. 20 minutes)
- ECG-efficiency > 90 %
- Excellent thermal behavior within a wide temperature range: -25 °C to +55 °C/65 °C
Lifetime: 40,000 h at max. temperature t_a (max. 10 % failure rate)
- ECG-overheating protection by intelligent power reduction at high t_c -temperatures
- 5-year system⁺ guarantee:
A failed ECG will be refunded according to the terms and conditions of the guarantee
- Power factor ≥ 0.95 , no need for additional compensation
- DC voltage not permitted
- Indoor use only
- For luminaires of protection classes I and II
- Reliable and safe shut-down at the end of the lamp's life
- No automatic restart after lamp replacement
- Approvals: ENEC, VDE, EMC, C-tick
- Complies with: EN 61347-2-3, EN 55015, EN 61000-3-2, EN 61547, EN 61000-3-3

POWERTRONIC® OUTDOOR PTo:

References: PTo 35/220-240, for installation in luminaires

- Electronic control gear for ceramic operating metal halide (POWERSTAR® HCl®) and high-pressure sodium lamps (VIALOX® NAV®) 35 W
- Excellent lamp operation: lamp lifetime up to 30 % higher compared to operation on conventional control gear
- Flicker free lamp operation
- Constant lamp power which is independent from mains voltage fluctuations, ambient temperatures and age of the lamps
- Proof voltage according IEC 61547 : 4kV: L/N – Equi; 3kV (Norm: 2kV): L-N
- Lightning protection: with connected clamp for potential compensation up to 10 surge voltage with 10kV surge (derived from IEC 61000-4-5)
- ECG moisture protection by completely potted plastic housing
- Excellent thermal behavior within a wide temperature range: $t_a = -25$ °C to +55 °C and $t = 75$ °C on t_c
- Lifetime: 60,000 h, at $t = 75$ °C on t_c :(max. 10 % failure rate)
- ECG efficiency ~ 91 %
- System performance 80 W; power loss 7 W
- Power factor ≥ 0.95 , no need for additional compensation
- For luminaires of protection classes I and II
- Reliable and safe shut-down at the end of the lamp's life
- No automatic restart by lamp replacement
- No immediate restart of hot lamps
- ECG-overheating protection by intelligent power reduction at high t_c -temperatures
- 5-year system⁺ guarantee:
A failed ECG will be refunded according to the terms and conditions of the guarantee
- Approvals: ENEC, VDE, EMC, C-tick
- Complies with: EN 61347-1-12, EN 55015, EN 61000-3-2, EN 61547

POWERTRONIC® OUTDOOR PTo...3DIM:

References: PTo.../220-240 3DIM, for installation in luminaires

- Electronic control gears for operating metal halide (POWERSTAR® HCl®, POWERSTAR® HQI®) and high-pressure sodium lamps (VIALOX® NAV®) 50 W, 70 W
 - Excellent lamp operation: lamp lifetime up to 30 % higher compared to operation on conventional control gear
 - Flicker free lamp operation
 - Constant lamp power which is independent from mains voltage fluctuations, ambient temperatures and age of the lamps
 - Dimming function for ceramic metal halide lamps (POWERSTAR® HCl®) and high-pressure sodium lamps (VIALOX® NAV®) by choosing from three operation modes DALI, StepDIM or AstroDIM (3DIM feature):
 - DALI for bidirectional data exchange and continuous dimming within dimming range
 - StepDIM for switching between two power levels (operation on factory settings possible; changeable via programming at the DALI)
 - AstroDIM for dimming without an external control, (operation on factory settings possible; changeable via programming at the DALI)
 - Dimming range 70 % up to 100 % (PTo 50/220-240 3DIM)
→ Energy saving up to 30 % in comparison to non-dimmable ECGs
 - Dimming range 60 % up to 100 % (PTo 70/220-240 3DIM)
→ Energy saving up to 40 % in comparison to non-dimmable ECGs
 - Proof voltage according IEC 61547 : 4kV: L/N – Equi; 3 kV (Standard: 2 kV): L-N
 - Lightning protection: with connected clamp for potential compensation of up to 10 surges of 10 kV each (derived from IEC 61000-4-5)
 - ECG moisture protection by completely potted plastic housing
 - Excellent thermal behavior within a wide temperature range: $t_a = -25\text{ °C}$ to $+55\text{ °C}$ and $t = 75\text{ °C}$ on t_c
 - Lifetime: 60,000 h, at $t = 75\text{ °C}$ on t_c : (max. 8 % failure rate)
 - ECG efficiency ~ 91 %
 - System performance 80 W; power loss 7 W
 - Power factor ≥ 0.95 , no need for additional compensation
 - For luminaires of protection classes I and II
 - Reliable and safe shut-down at the end of the lamp's life
 - No automatic restart by lamp replacement
 - No immediate restart of hot lamps
 - ECG-overheating protection by intelligent power reduction at high t_c -temperatures
- 5-year system⁺ guarantee:
A failed ECG will be refunded according to the terms and conditions of the guarantee
- Approvals: ENEC, VDE, EMC, C-tick
 - Complies with: EN 61347-1-12, EN 55015, EN 61000-3-2, EN 61547