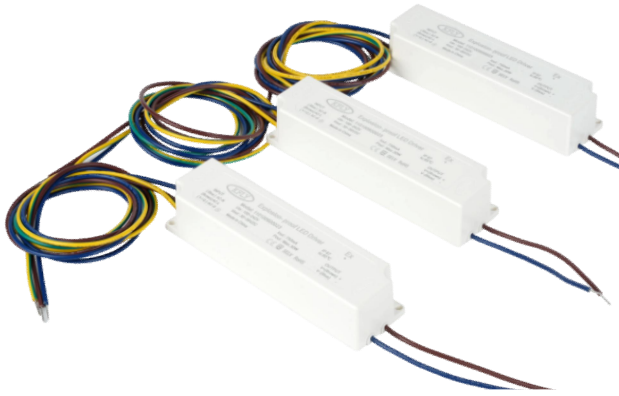


Explosion-proof Potting-Type LED Control Gear

1101006 Series

Highlights & Features



- DC30–36V voltage output, constant current output design
- Isolated high power factor architecture
- Suitable for use in explosion-proof luminaire locations
- Obtained electrical safety certification
- Suitable for workplaces operating at minus 50°C (-50°C)
- Suitable for Class I luminaires.
- Five-year warranty.

Safety Standards

CE Ex SELV  RoHS

Description

The 20–30W series fixed output current LED drivers from KFLY are suitable for explosion-proof luminaire lighting and general luminaire lighting applications.

The drivers comply with global certification requirements and feature SELV voltage output, ensuring safety even if wiring or the LED board is damaged; they are designed in accordance with the Class I standard for luminaires and are easy to install. In addition, their high efficiency meets energy-saving requirements, and optimal EMC performance has been fully taken into account during product development. They have been carefully designed and rigorously tested to operate under various lighting conditions. Their excellent ruggedness provides customers with peace of mind and reduces maintenance costs.

Model Information

Model No.	Input Voltage Range	Rated Output Voltage	Rated Output Current
110100600015	100–242Vac	30–36Vdc	0.55 A
110100600023			0.75 A

Input Ratings / Characteristics

Model No.		110100600015	110100600023
Nominal Input Voltage		100–242 Vac	
Input Voltage Range		90–277 Vac	
Nominal Input Frequency		50–60 Hz	
Input Frequency Range		47–63 Hz	
Input Current (Typical)		0.1 typ.	0.15 typ.
Efficiency ¹⁾ @ 230Vac		83% typ.	84% typ.
Inrush Current Peak >50% Duration		17.6A / 100us	20.8A / 100us
Max. Number of Drivers Connected to a Circuit Breaker	B16	70 ↑	46 ↑
	C16	88 ↑	58 ↑
Power Factor @ Full Load		> 0.95	
Total Harmonic Distortion @ Full Load		Complies with IEC 61000-3-2 Class C	
Leakage Current		< 0.7mA @ 230Vac	

1) At 100% load (typical), tested after 30 minutes of warm-up.

Output Ratings / Characteristics

Model No.	110100600015	110100600023
Nominal Output Voltage	30–36 Vdc	
Output Current Range	0.55A	0.75A
Max. No-load Output Voltage	60Vdc	
Max. Output Power	20W	30W
Output Voltage Tolerance	± 3%	
Line Regulation	± 1%	
Load Regulation	± 3%	
Output Ripple	900mV	
Rise Time	< 50ms	
Start-up Time	< 1.0s	

Mechanical Specifications

Model No.	110100600015	110100600023
Housing	PC94V0	
Unit Weight		
[kg]	0.3	
[lb]	0.7	
Cooling System	Natural convection cooling	
Commercial Carton: Qty. per Carton	40 个	
Commercial Carton: Weight/Carton		
[kg]	12.55	
[lb]	27.7	
Input Terminal	Live wire: blue, Neutral wire: brown	
Output Terminal	Positive pole: brown, Negative pole: blue	
Noise (at 30 cm distance)	Sound pressure level (SPL) < 24 dBA	

Environmental Specifications

Model No.		110100600015	110100600023
Ambient Temperature	Operating Temperature	-50°C to +55°C	
	Storage Temperature	-50°C to +75°C	
Max. Case Temperature (Tc)		+75°C	
Life Test Case Temperature (Tc)		+80°C	
Relative Humidity	Operating Humidity	10 to 90% RH (non-condensing)	
	Storage Humidity	5 to 95% RH (non-condensing)	
Environmental Rating		IP54; suitable for dry and humid environments	
Operating Altitude		Up to 5000 m	

Protection Functions

Model No.	110100600015	110100600023
Overvoltage Protection	Auto recovery after fault removal	
Overload/Overcurrent Protection	Auto recovery after fault removal	
Short-circuit Protection	Auto recovery after fault removal	
Overtemperature Protection	Auto recovery after fault removal	
Applicable Luminaire Class	Class I, insulation class per IEC 60598	

Reliability Data

Model No.	110100600015	110100600023
Lifetime	50,000 hours at life test case temperature	
MTTF	850,000 hours @ ambient temperature +45°C (according to Telcordia SR-332, total failure rate below 10%)	

Safety Standards / Directives

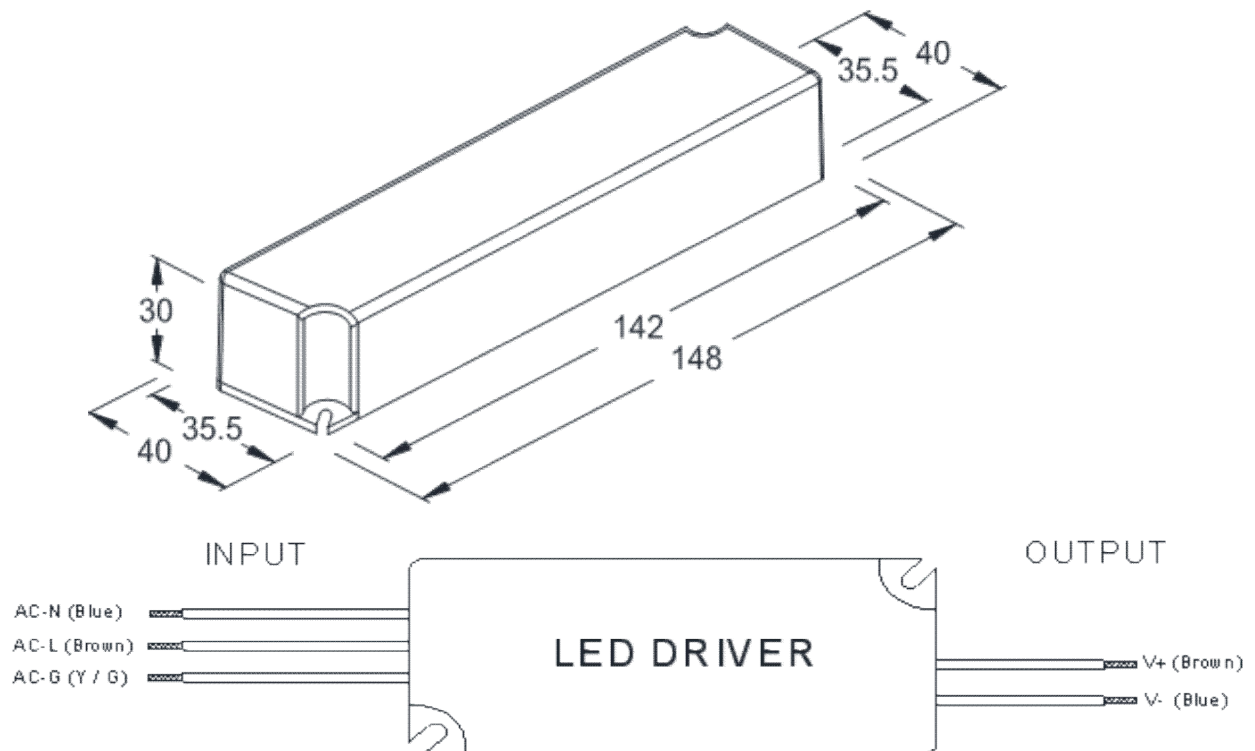
Model No.		110100600015		110100600023	
Electric al Safety	UL	UL 8750, Class P, Type "HL". Class 2 output			
	CSA	CAN/CSA C22.2 No.250.13			
	CB scheme	IEC 61347-1, IEC 61347-2-13, SELV output IEC 60335-1, IEC 60335-2-89 and Annex BB, IEC 60335-2-24 and Annex CC			
	CCC	GB 17625.1-2012, GB/T 17743-2021; GB 19510.1-2009, GB 19510.14-2009			
	RCM	AS 61347.2.13:2018 AS/NZS 61347.1:2016 including Amendment A1			
CE		Complies with the following directives: Low Voltage Directive 2014/35/EU; EMC Directive 2014/30/EU; RoHS Directive 2011/65/EU + (EU) 2015/863; ErP Directive 2009/125/EC implementing measure Commission Regulation (EU) 2019/2020.			
Ex		Complies with the following regulations: GB/T 3836.1-2021 Explosive atmospheres — Part 1: Equipment — General requirements; GB/T 3836.2-2021 Explosive atmospheres — Part 2: Equipment protected by flameproof enclosures "d"			
Isolation		Input	Output		Enclosure
	Input	N/A	3000Vac		N/A
	Output	3000Vac	N/A		N/A
	Enclosure	N/A	N/A		N/A

EMC

Model No.	110100600015	110100600023
Radiated / Conducted Emission	Complies with BS EN / IEC 55015 Complies with FCC Part 15 Class A	
Immunity	Complies with BS EN / IEC 61547	
Electrostatic Discharge (ESD)	IEC 61000-4-2	ESD, Criteria A ¹) or B ²) Air discharge: 8 kV; Contact discharge: 4 kV
Radiated Immunity (RS)	IEC 61000-4-3	RS, Criteria A ¹)80 MHz–1 GHz, 3 V/m, 1 kHz sine wave / 80% AM modulation
Electrical Fast Transient / Burst (EFT/Burst)	IEC 61000-4-4	1kV, Criterion A ¹) or B ²)
Surge	IEC 61000-4-5 ANSI C62.41	Criterion A ¹) or B ²)Common mode: 4kV; Differential mode: 2kV1.2/50μs, 8/20μs combination wave, source impedance 2Ω (L-N), 12Ω (L-PE & N-PE) Meets Category A1, with 2.5kV/100kA ring wave, Criterion A ¹)
Conducted Immunity (CS)	IEC 61000-4-6	150kHz-80MHz, 3Vrms, Criterion A ¹)
Power Frequency Magnetic Field (PFMF)	IEC 61000-4-8	3A/m, Criterion A ¹)
Voltage Dips / Interrupts (Dips)	IEC 61000-4-11	Criterion A ¹) or B ²); 100% dip; 0.5 cycle; self-recoverable; 30% dip; 10 cycles; self-recoverable
Harmonic Current Emission	IEC 61000-3-2	Class C (230Vac @ 100% load)
Voltage Fluctuation and Flicker	IEC 61000-3-3	Pst ≤ 1.0; dmax ≤ 4% ; Plt ≤ 0.65 ; dc ≤ 3.3% ; Tmax ≤ 500ms

1. Criterion A: Normal operation within specification limits.
2. Criterion B: Temporary degradation or loss of function, self-recoverable.

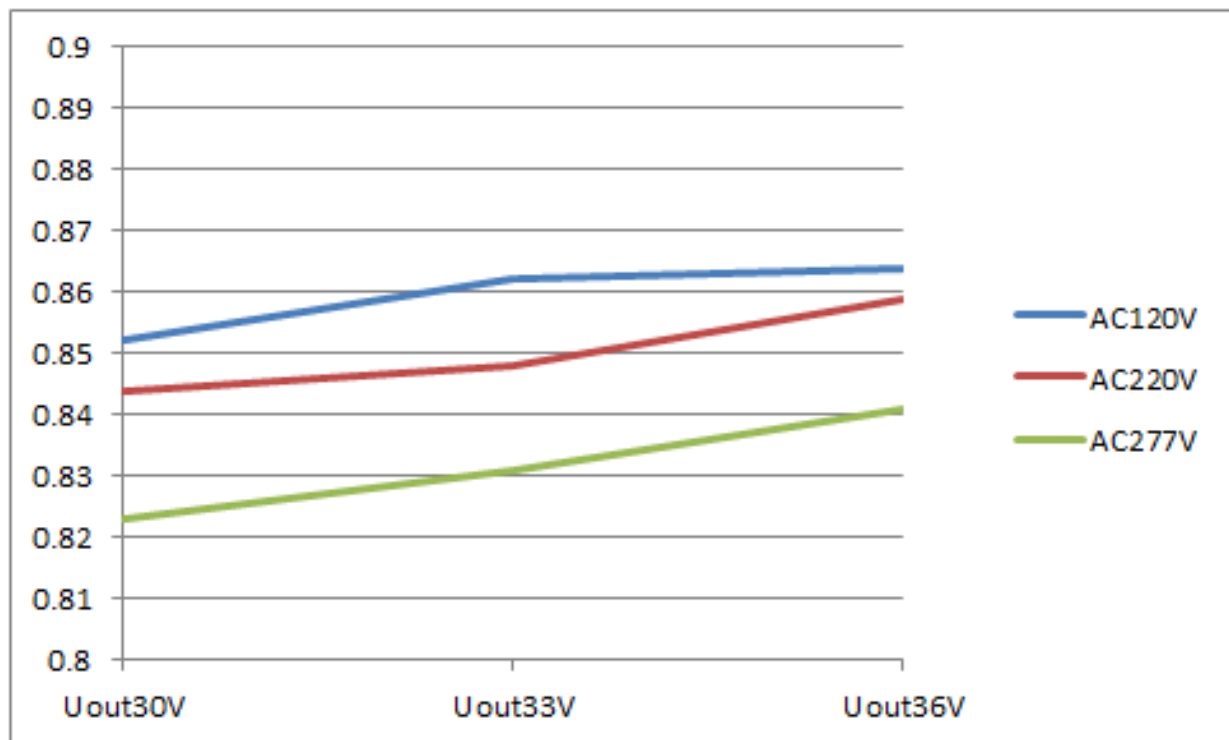
Dimension Drawing



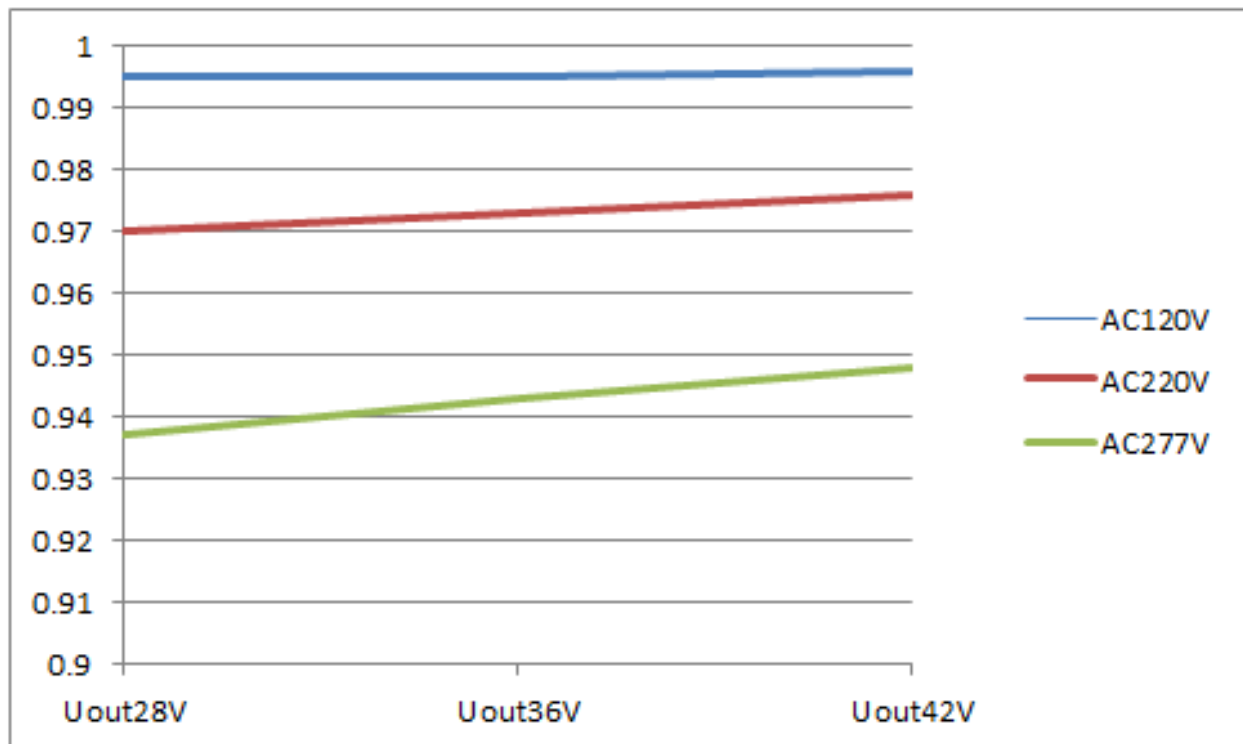
Dimensions (L × W × H)

110100600015	148 x 40 x 30 mm
110100600023	148 x 40 x 30 mm

Efficiency vs. Output Power Curve



Power Factor vs. Output Power Curve



Total Harmonic Distortion (THD) vs. Output Power Curve

