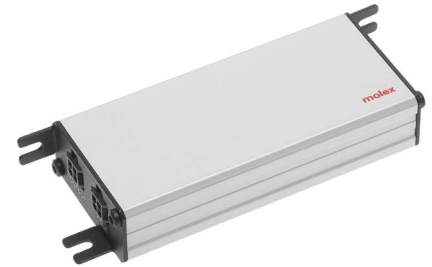


CoreSync Smart LED Driver Series



The Molex CoreSync Smart LED Driver is a compact DC/DC LED driver family designed to drive LED engines for a large variety of lighting fixtures, powered and controlled by a Molex CoreSync PoE Gateway.



Features and Benefits

Integrated Power Monitoring	Provides individual energy consumption feedback for each luminaire
On-board thermistor	Assures thermal protection
Individually addressable	Allows control of up to 8 devices per gateway*
Optimized for tunable white LED engines	Allows color temperature adjustment, biodynamic scenes such as circadian, etc.
Dual input/output connector	Allows daisy-chaining, connection of devices in any order
IC (Insulation Contact) rated	Suitable for mounting in plenum and insulated ceiling remote from the luminaire

* Not to exceed total gateway power

Usage

Each driver can be embedded in the fixture, mounted directly to it, or placed remotely. The driver is powered and physically connected by the Molex CoreSync PoE Gateway with a rugged and reliable Molex CoreSync harness cable using a Molex Micro-Fit[†] 4-pin connection. If the power requirement for a group of devices is below 50W, a single Molex CoreSync PoE Gateway can power and control multiple drivers in a daisy-chain configuration, with the easy-to-use input and output connector scheme.

Input

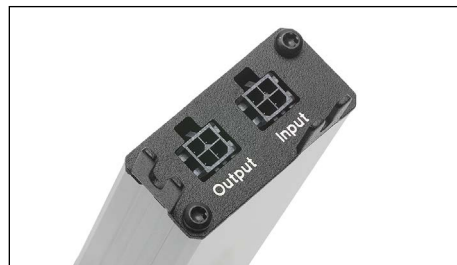
PoE/PoE+/UPOE voltage range of 42V to 57V
 Connection to the Molex CoreSync PoE Gateway for data and power
 Molex Micro-Fit[†] 4-pin Connectors

Output

Constant current outputs for LED loads from 12V DC to 42V DC
 Poke-in connector for LED load monitoring and an off-board thermistor
 Single and dual channel versions available
 Extended Voltage and Current range
 Daisy-chain capability



Molex CoreSync daisy chain driver capability using harnesses with Molex Micro-Fit connectors



Reliable Molex Micro-Fit connections for daisy-chaining



Single- and dual-channel outputs to fixtures, using poke-in connectors

CoreSync Smart LED Driver Series



Specifications

GENERAL

Drive Mode: Constant current
 Topology: DC/DC low voltage
 Output Power (max.): 50W
 Input Voltage: IEEE802.3x standard 42V DC to 57V DC
 Number of Outputs: Single or dual
 Output Voltages: 12V DC to 42V DC
 Output Currents: 350mA to 1050mA

ENVIRONMENTAL

Operating Temperatures: 0 to 40°C ambient
 Storage Temperatures: -40 to +85°C
 Humidity (non-condensing): 5% to 95% RH
 Cooling: Convection

SAFETY AND COMPLIANCE

Conforms to UL2108
 Certified to CSA22.2
 Complies with FCC, 47 CFR Part 15 Subpart B (pending)
 Complies with CE directives
 Output over-current and over-voltage protection
 Internal thermal programmable protection
 External temperature input

MECHANICAL

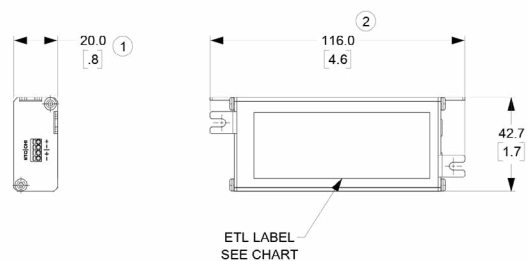
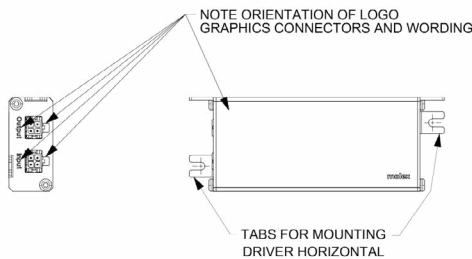
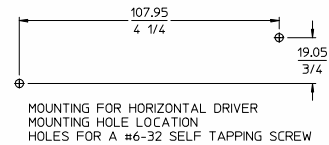
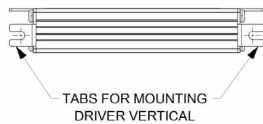
Material: Aluminum (Au)
 Color: Silver anodized
 Weight: 98g (typical)
 Dimensions: 95.10 by 42.00 by 18.80 mm

ELECTRICAL SPECIFICATION AT 25°C

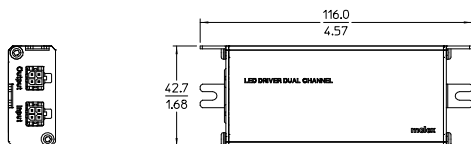
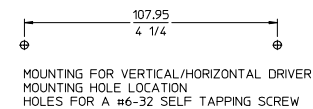
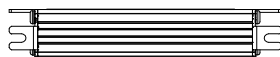
IC (Insulated Ceiling) type rated
 Input Voltage Range: 42V to 57V
 In-rush Current: <10A, 52V DC input, cold start, full load
 Input Current: 1.5A@52V DC full load
 Efficiency: 95% (typical) at 52V DC input, full load
 Output Power (max.): 50W
 Constant Current Regulation:
 3% over-voltage input variation
 Constant Current Accuracy: 3%
 Ripple and Noise (max.): 700mV, 20 MHz B.V.

Dimensions

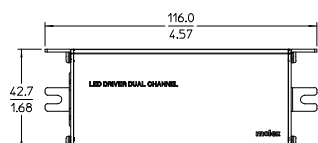
OFFSET MOUNTING



CENTER MOUNTING



SINGLE CHANNEL



DUAL CHANNEL

CoreSync Smart LED Driver Series



Ordering Information

Offset Mounting	Center Mounting	Model	Output Channels	Output Voltage	Output Current ^(mA)	Max Output Power ^(W)	Output Current Accuracy	Typ Efficiency ^(%)	Daisy-chain
180996-1001	180996-3101	CoreSync Smart LED Driver Single Channel	1	12-42	350	15	(+/-)3%	94	Yes
180996-1002	180996-3102			12-42	500	20	(+/-)3%	95	Yes
180996-1003	180996-3103			12-42	700	30	(+/-)3%	95	Yes
180996-1004	180996-3104			12-42	1050	45	(+/-)3%	95	Yes
180996-1006	180996-3106			12-42	880	37	(+/-)3%	95	Yes
180996-2001	180996-4101	CoreSync Smart LED Driver Dual Channel	2	12-42	350	15	(+/-)3%	94	Yes
180996-2002	180996-4102			12-42	500	20	(+/-)3%	95	Yes
180996-2003	180996-4103			12-42	700	30	(+/-)3%	95	Yes
180996-2004	180996-4104			12-42	1050	45	(+/-)3%	95	Yes
180996-2006	180996-4106			12-42	880	37	(+/-)3%	95	Yes

¹ At full load

www.CoreSync.molex.com

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