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CoreSync
Constant Voltage Driver ❯

The CoreSync Constant Voltage Driver is a low voltage, DC/DC LED driver for driving Constant Voltage LED engines in a wide variety of light fixtures. Controlled and powered by a Molex CoreSync Gateway.

The CoreSync Constant Voltage Driver can be embedded in a fixture or placed remotely. The Driver is connected to the CoreSync Gateway using rugged and reliable CoreSync Harness.
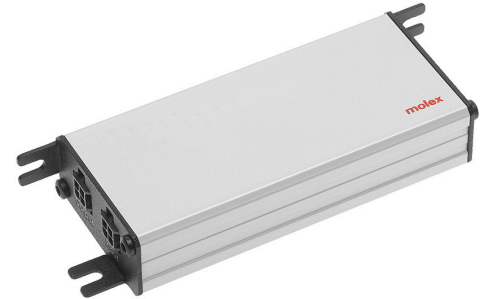
FEATURES AND ADVANTAGES

4 Channel Constant Voltage	Independently controllable, providing a solution for RGBW, CV color tuning, and 4 individual lights
Individually addressable	Allows easy discovery, commissioning and control of each driver
Integrated power monitoring	Provides valuable energy-use information
Thermal Foldback	Driver will decrease LED brightness output if temp too high
Dual CoreSync IO connectors	Daisy chain capable, easy connection to all CoreSync devices
Euro-Style Detachable Terminal Block	Connector that supports 16-24 AWG wires secured by a screw terminal
UL2108 Listed	Safe operation and industry standard compliance

SPECIFICATIONS

Electrical
LED Output voltage:	24V +/-3%
Max Output Current:	1.8A
Standby Power:	0.7W

Efficiency:
  92% (Typical) at 48V DC input full load

Dimming:	PWM
Dimming type:	
Linear Dimming	
Frequency:	20 kHz
Dimming range:	1-100%

Product Safety
Output over-current protection
Output over-voltage protection
Internal over-temperature protection
DO NOT hot swap

Commercial Standards
Class 2 electrical device
UL2108 Listed, CSA22.2 No.9.0
FCC Part 15 Subpart B
CE

Mechanical
Housing material:	Extruded aluminum
Color:	Silver-gray
Length:	95.10 mm / 3.74 in
Width:	42.00 mm / 1.65 in
Depth:	18.80 mm / 0.74 in
Weight:	98g / 3.46 oz

Environmental
Ambient temperature:
  0 to 40°C (32 to 104°F)

Storage temperature:
  -40 to 85°C (-40 to 185°F)

Max case temperature:
  75°C (167°F)

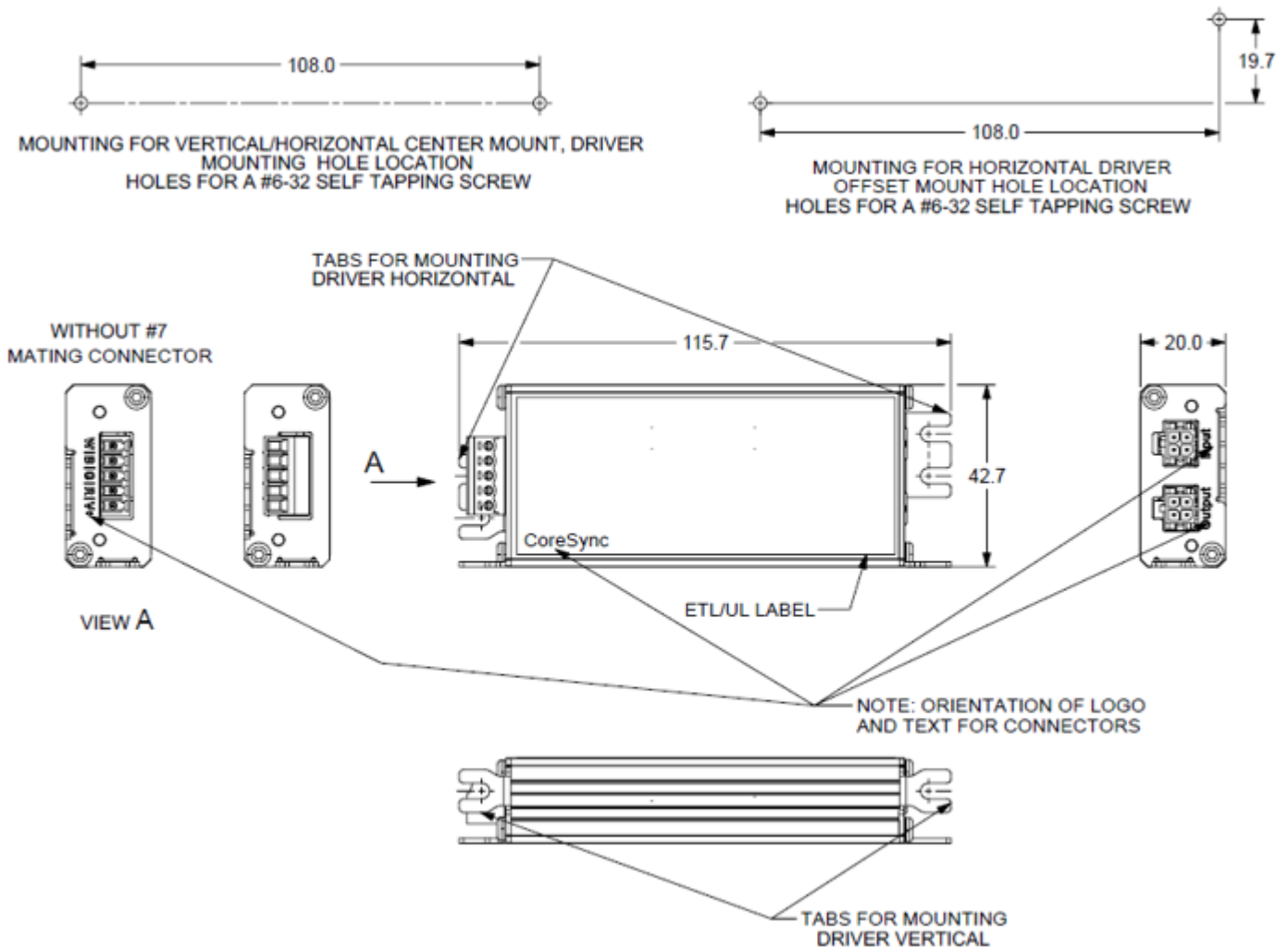**Relative humidity:**
  10-80% non-condensing

Environmental rating: Indoor

CE FCC

UKCA c(UL)us LISTED

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DIMENSIONS

108.0

MOUNTING FOR VERTICAL/HORIZONTAL CENTER MOUNT, DRIVER
MOUNTING HOLE LOCATION
HOLES FOR A #6-32 SELF TAPPING SCREW

19.7

108.0

MOUNTING FOR HORIZONTAL DRIVER
OFFSET MOUNT HOLE LOCATION
HOLES FOR A #6-32 SELF TAPPING SCREW

TABS FOR MOUNTING
DRIVER HORIZONTAL

WITHOUT #7
MATING CONNECTOR

A

115.7

20.0

42.7

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VIEW A

ETL/UL LABEL

NOTE: ORIENTATION OF LOGO
AND TEXT FOR CONNECTORS

TABS FOR MOUNTING
DRIVER VERTICAL

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CONNECTION INTERFACES

Connection	Connection Specifications
CoreSync Input	4-Pin Micro-fit 3.0 connector for CoreSync harness
CoreSync Output	4-Pin Micro-fit 3.0 connector for CoreSync harness
LED Output	5-Position Pluggable Terminal Block (Included)

CORESYNC IO

LED OUTPUT

DAISY CHAIN

CONNECTION DIAGRAM

CoreSync Out

CoreSync In

CoreSync

24V, LED+ [V+]
Red Return [R]
Green Return [G]
Blue Return [B]
White Return [W]

ORDERING INFORMATION

Order Number	Description
1809969004	CoreSync Compact Driver, Quad, 24V CV
395000005	3.50 Pitch Eurostyle Horizontal Plug, 5 Circuits **(Included)**

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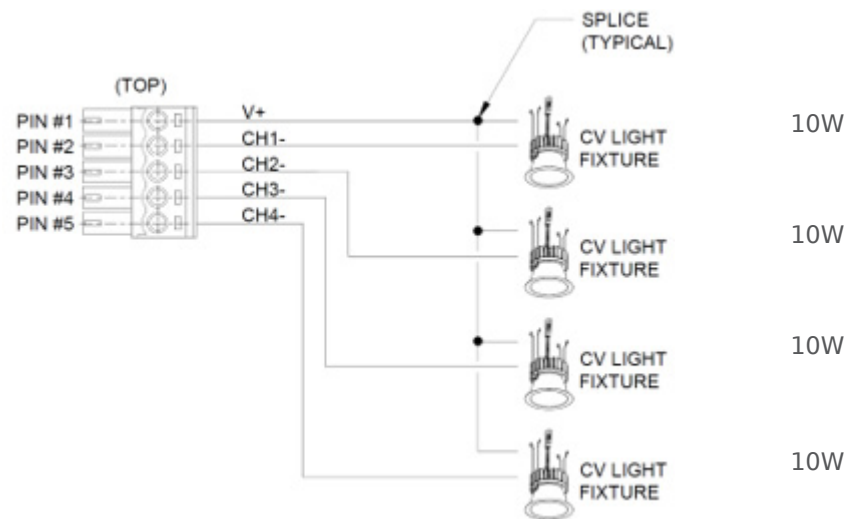# CoreSync
Constant Voltage Driver ❯

MONO-LIGHT WIRING

Single 40W:
CH1: 1.8A

PIN #1	V+
PIN #2	CH1-
PIN #3	
PIN #4	
PIN #5	

CV LIGHT FIXTURE — 40W

Mono-Lights Combination:
CH1: 1.25A
CH2: 0.42A

SPLICE (TYPICAL)

(TOP)

PIN #1	V+
PIN #2	CH1-
PIN #3	CH2-
PIN #4	
PIN #5	

CV LIGHT FIXTURE — 30W

CV LIGHT FIXTURE — 10W

Quad-Mono Light:
CHs: 0.42A

SPLICE (TYPICAL)

(TOP)

PIN #1	V+
PIN #2	CH1-
PIN #3	CH2-
PIN #4	CH3-
PIN #5	CH4-

CV LIGHT FIXTURE — 10W

CV LIGHT FIXTURE — 10W

CV LIGHT FIXTURE — 10W

CV LIGHT FIXTURE — 10W
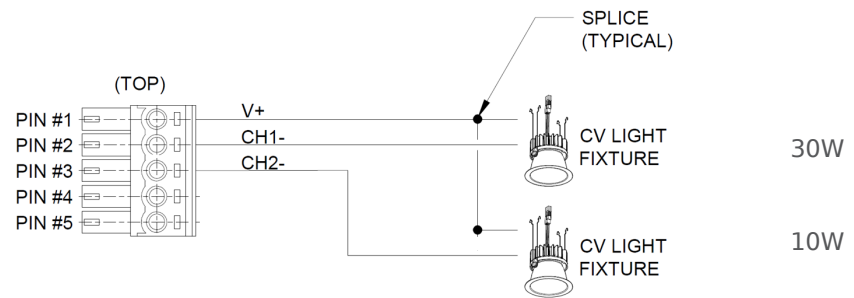
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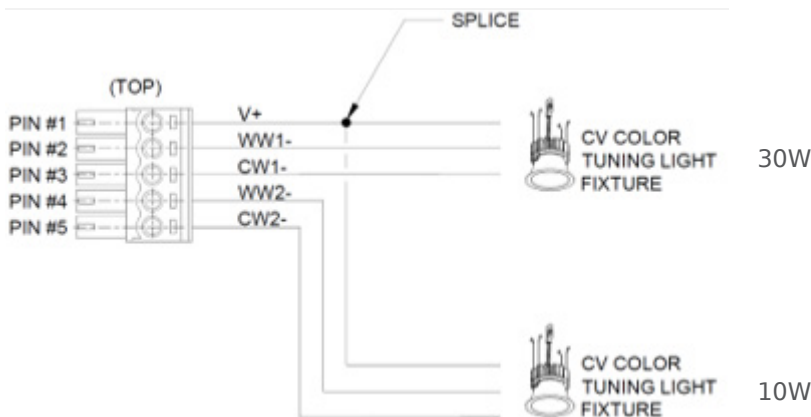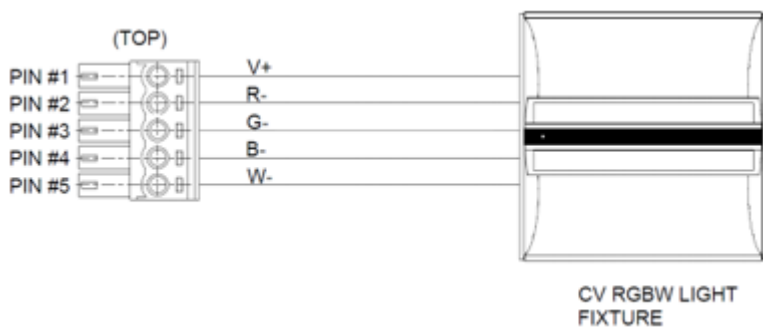
TUNABLE-LIGHT WIRING

Single 40W:
CHs: 1.8A
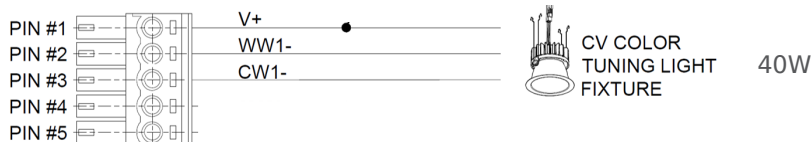
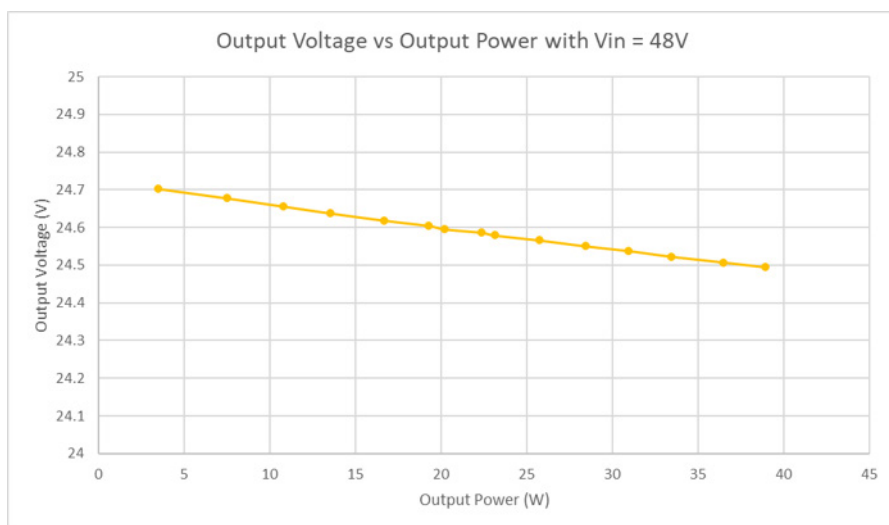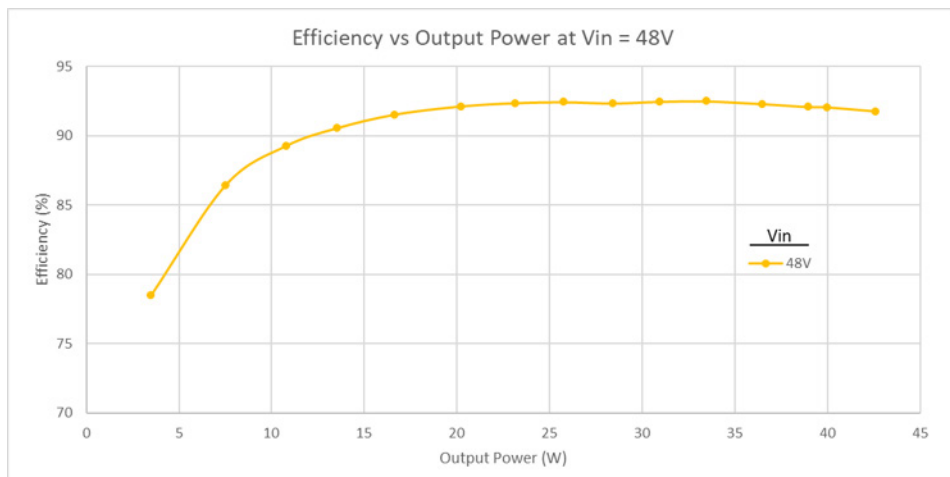Dual Tunable:
CHs: 0.8A
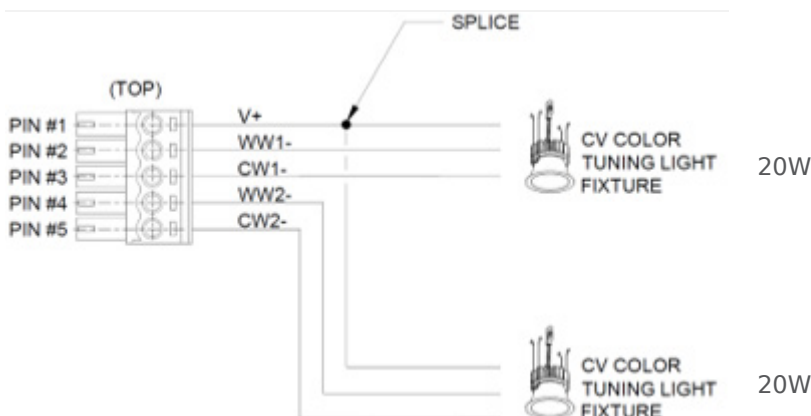
Combination:
CH1: 1.25A
CH2: 0.42A

RGBW LIGHT WIRING

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PERFORMANCE

Efficiency vs Output Power at Vin = 48V

Relative Output Current vs Dimming Percent

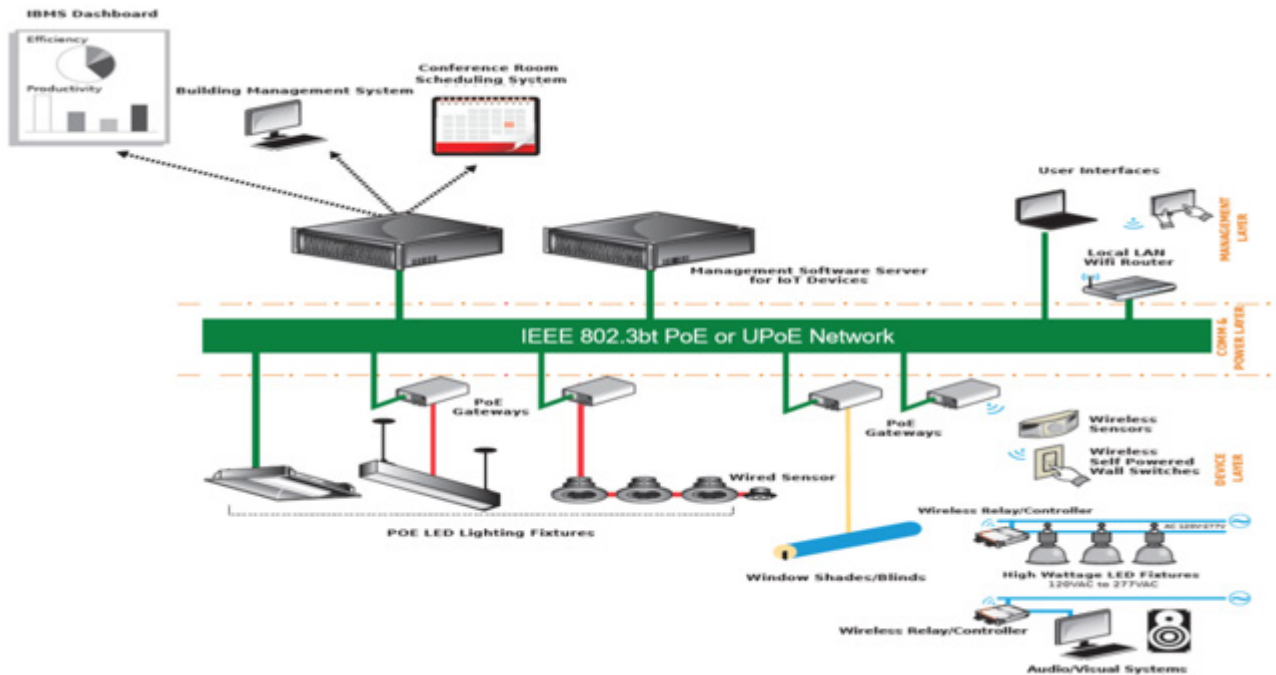Output Voltage vs Output Power with Vin = 48V

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TYPICAL APPLICATION

DAISY-CHAINING

The CoreSync PoE Gateway 90W receives power and data from a PoE Network Switch via Category cable. From the PoE switch, the minimum guaranteed power at the input of the PoE Gateway 90W is 71.3W. If the total power requirement on the Gateway is below 71.3W for the IEEE 802.3bt 90W Standard, single PoE Gateway 90W can power and control multiple LED Drivers, sensors and other CoreSync devices in Daisy-Chain configuration, with the easy-to-use input and output connector scheme. Each CoreSync Daisy-Chain device can be powered and phyically connected to a CoreSync PoE gateway 90W with a rugged and reliable Molex CoreSync Harness cable, using a Molex Micro-Fit 3.0 4-pin connection.

The total power budget on the Gateway must comply with the IEEE 802.3bt Standard, and considers the load power, power drop on CoreSync devices in the Daisy-Chain - including the Gateway, and interconnect losses. The pverall voltage drop and power drop can be calculated prior to the design. Please refer to the CoreSync Harness Length Calculator to calculate the maximum run distance.

For further details please refer to the user guide for this product: UG-1809969004.

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