

### Features

VENTO LED Drivers are high efficiency off-line LED drivers that include an auxiliary 5V output for powering SynJet<sup>®</sup> LED coolers. The features, size and performance of these products make them the ideal turn key solution for high power LED lighting applications with active cooling.

- AC Input (120/240/277 VAC)
- Constant Current Output for Powering LEDs Directly
- High Efficiency
- Dimmable with (0-10VDC) Input
- Temperature Protection for LEDs
- Convection Cooled
- 5V, 3W Auxiliary output
- Long Life
- Wide Temperature Range
- CFL Down light ballast style packaging
- ROHS Compliant



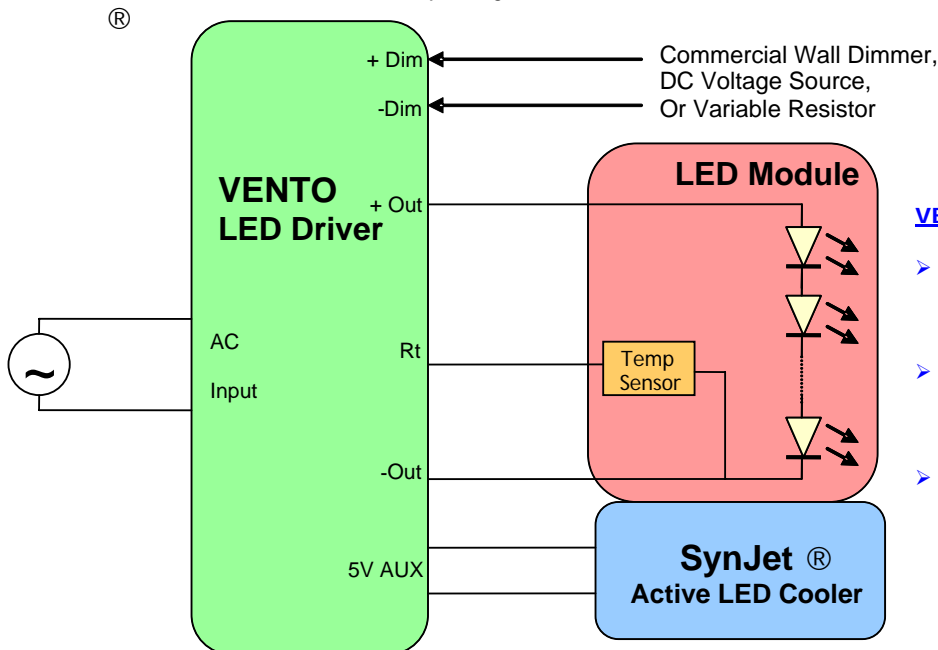
Compatible with SynJet<sup>®</sup> LED Coolers from



VENTO is designed for directly powering LEDs in commercial lighting applications.

A host of integrated **control features:**

- Simplify Light Fixture Design
- Ease Safety Approval Cycles
- Lower Fixture Complexity and Cost



#### VENTO's versatile control features:

- A Temperature sensor (NTC thermistor) protects the LED from over-temperature.
- A 2 wire Dimming input provides both output trimming, and 10-100% Iout Dimming function.
- A 5V Aux output powers the SynJet<sup>®</sup>



### Input and Output Specification

Input Voltage: 120 / 240 / 277 VAC nominal  
47-63 Hz Frequency Range

Efficiency: 90% typical for @ Vin Nominal  
and >80% of Rated Output Power

Isolation: Meets UL60950-1 Reinforced/double  
insulation  
NEC (Class 2)  
EN60598-1 Class II

Input Power Factor: >0.90 Vin Nominal  
above 80% of rated Output  
Power

Input Harmonics: Meets EN61000-3-2, -3

Output Voltage: See Model Table for details

Output Current: See Model Table for details

Output Current Regulation: +/- 3% of max rating

Ripple Current: <45% (P-P) of maximum Output  
Current

Output Over-voltage, Over-Current and Short-Circuit  
Protection (hiccup), and over-temperature protection  
w/ Auto recovery

#### Output Controls:

**Dim:** A dimming input can be used to adjust the output setting via a standard commercial wall dimmer, an external control voltage source (1 to 10VDC), or a variable resistor when using the recommended number of LEDs. The input permits 100% to 80% trimming and 100% to 10% dimming. This permits active control of the driver and may be used for trimming and dimming purposes. See Application Notes for details on functionality and compatibility with standard industry practices.

**Rt:** The Temperature input may be connected to a 100k NTC thermistor. The thermistor should be located on the LED assembly to monitor its temperature. If the temperature exceeds a predetermined set point, the output current of the module is automatically reduced to regulate the temperature of the LED at a safe level. See Application Notes for details.

**Auxiliary Output:** A single 5V auxiliary output provides power for active LED cooling.

Vout: 4.75 to 5.25 VDC                      Output Ripple: 150 mVpk-pk  
Pout: 3.75W max                              Protected against overload and over voltage

**Compatible with Nuventix MR16, PAR20, PAR25, PAR30, and PAR38 SynJet® Coolers**

#### EMI and EMC:

Conducted and Radiated EMI: EN55015 Class B, FCC 47CFR Part 15 Class B

Susceptibility: EN61000-4-2, -3, -4, -5, -6, and -11  
ANSI c62.41-1991 Category A1, 2.5kV Ringwave

**Life Expectancy:** 50,000 hrs

#### Eu and RoW

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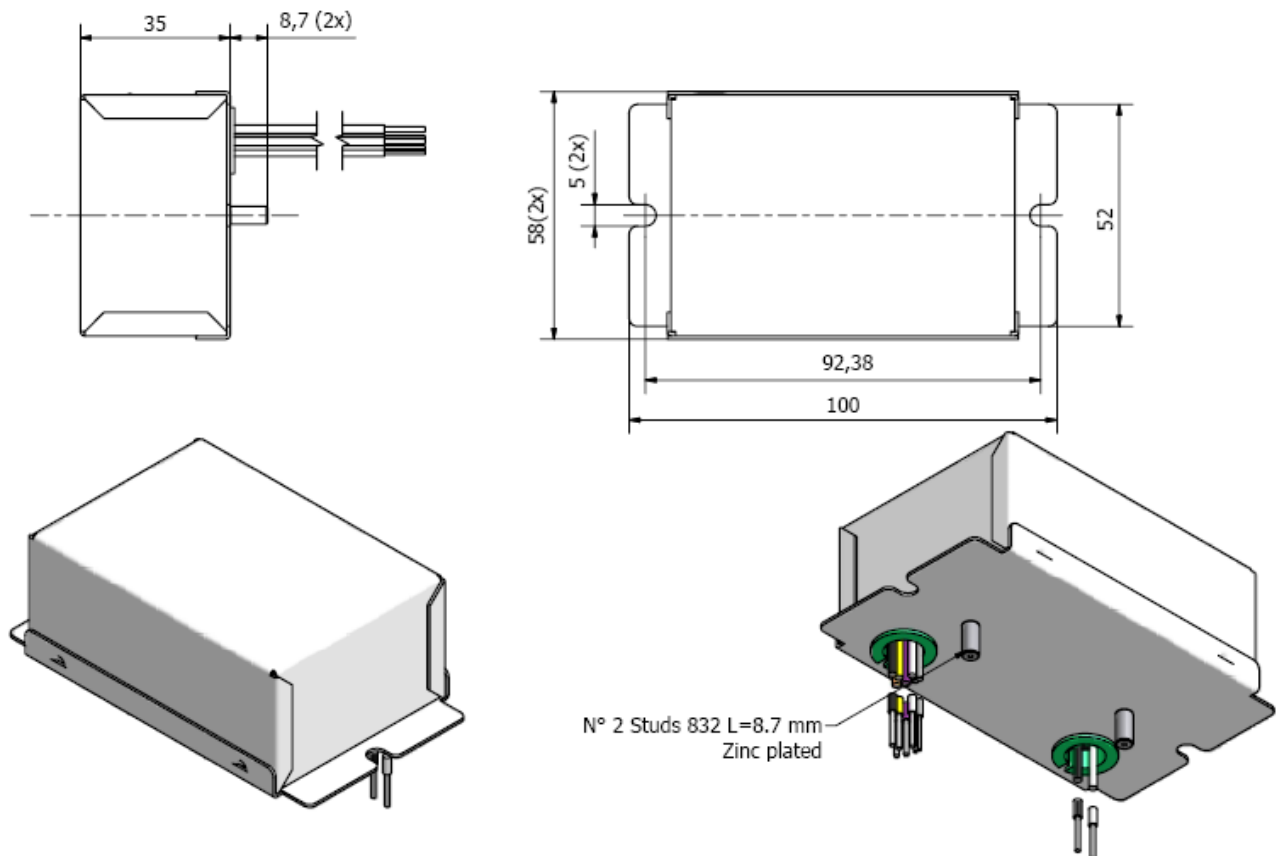
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### Mechanical Details

Packaging:	Partially encapsulated with metal box construction. Designed to be mounted to an electrical junction box
I/O Connections:	Flying leads, 18AWG on power leads, 20AWG on control leads, 152mm long, 105C Rated, Stranded, Stripped by approximately 9.5mm and tinned
Mounting Details:	Universal mounting locations including two 8-32 studs at 2" (50.8mm) centers or via flanged mounting locations
Ingress Protection:	IP20 Rated, protected from dust
Max Dimensions:	100mm x 58mm x 35mm, 3.93" x 2.28" x 1.38"



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## Environmental

Operating Temperature: -30 to +90C case temperature without derating  
 Operating Relative Humidity: 5% to 95%, non condensing  
 Storage Temperature: -40°C to +85°C  
 Surface Temperature: Exposed surfaces <90°C under all operating conditions  
 Cooling: Convection cooled

## Safety Agency Approvals (pending)

UL60950-1 Listed, UL8750 recognized Class 2 Output CE Mark

## Model Table

Model number		Vout min	Vout max	Iout Max	Recommended #
Package	suffix	vdc	vdc	mA	LEDs in Series
RSLV035	-16-AUX1	40	56	700	16
RSLV035	-6A-AUX1	14.5	21	1240	6
RSLV035	-05-AUX1	12.5	17.5	1750	5

Recommended number of LEDs is based on a typical Vf of 2.5 to 3.5V during normal operation and temperature. Operation outside of the voltage window is not guaranteed. Care should be taken during the design phase to assure good alignment between LED string voltage and the dynamic output range for the driver. See application notes.

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