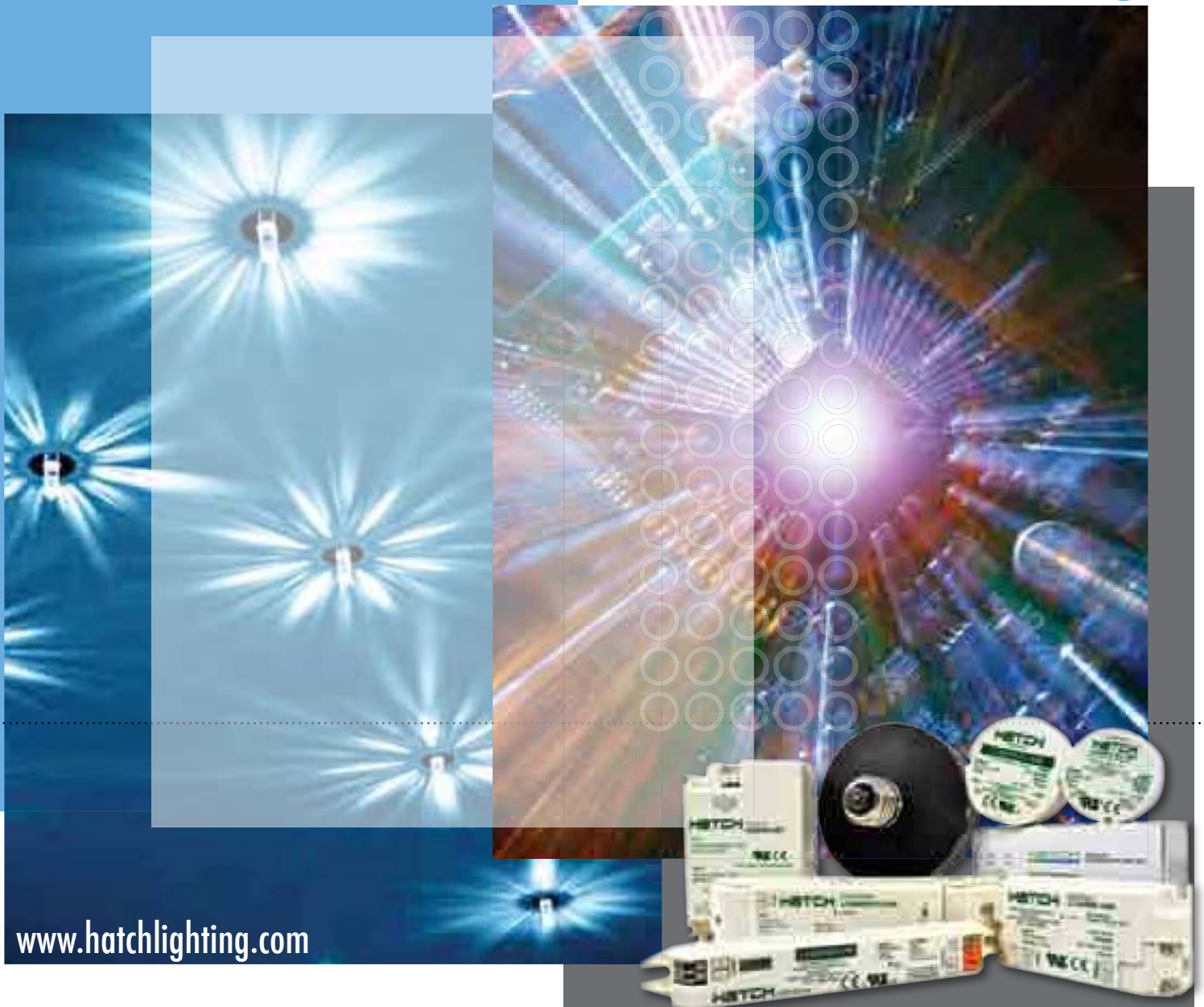


ELECTRONIC LED DRIVERS

CONSTANT CURRENT • CONSTANT VOLTAGE • A/C LED

hatch

Precision Power. Perfect Light.



www.hatchlighting.com

BALLASTS, DRIVERS, TRANSFORMERS & LAMPS FOR ALL LIGHTING APPLICATIONS

About Hatch LED Drivers

Since 1985 Hatch has been at the cutting edge of power supply design and technology. Drawing on over three decades of engineering expertise, Hatch is proud to introduce a full line of electronic LED drivers for D/C and A/C systems. At Hatch our engineering team is fluent in the technical design of LED lighting systems and is always available to aid our customers in selecting the right driver for any application.

Product Family Features

- Constant current, constant voltage and A/C driver models
- Models available from 1 watt up to 100 watts
- Compact and unique case sizes to fit a wide variety of LED fixtures
- European universal (90-264 VAC), wide range universal (120-277 VAC) and dedicated input voltage models
- Fully UL compliant and RoHS compliant
- Models available with wire leads, terminal blocks, E26 or GU24 mounting
- Unique A/C driver models with full range dimming capabilities - **Exclusively available with Hatch**
- Custom driver design and engineering services available for unique LED projects and fixtures
- **Advanced LED driver engineering program launched in 2011 to develop next generation drivers using patented Hatch Technology**

Certifications    

Electrical data and product specifications in this catalog are subject to change without notice

D/C LED Drivers vs. A/C LED Drivers

Two Unique Solutions For Solid State Lighting Design

Currently in the world of LED lighting there are two methods that can be used to drive an LED using either direct current or alternating current. The majority of commercially available LED's are D/C driven (constant current or constant voltage). A/C driven systems, however, are growing in popularity due to several unique advantages that they offer. **Hatch currently offers drivers for both D/C and A/C applications.** Below are a few benefits and drawbacks of each system:

D/C LED Drivers

Benefits

- Ability to drive most commercially available LED's
- D/C LED's are at the cutting edge of LED technology and possess the highest efficacies and lumen outputs compared to A/C LED's
- Available in a wide range of wattages
- Available in a wide range of case sizes

Drawbacks

- Large driver case sizes, even for low wattage LED's
- Very limited and expensive options for dimming
- High system cost relative to A/C LED's

A/C LED Drivers

Benefits

- Very small driver case sizes for high wattage LED's
- Lower per unit cost than D/C drivers
- Lower system costs over D/C fixtures and greater ease of use in retrofit applications (i.e. MR16 LEDs)
- Step-less, full range dimming with no minimum load (Unique Hatch technology)

Drawbacks

- Can only run A/C LED's
- A/C LED's are complex systems and currently do not match the efficacies and lumen outputs of D/C systems
- Available in limited wattages and case styles

LED Driver Product Family Guide

Constant Current Drivers

Example Part Number

LCA

Driver Type

LCA - 350mA CC
LCB - 700mA CC

009

Wattage

3W 12W
4W 15W
6W 18W
8W 30W
9W 85W

RL

†Case Style

**Blank - Rectangular
L - Flat Rectangular
Q - Mini Rectangular
RL - Round
S - Slim Linear
WJ - Rectangular Bottom Feed
E - Edison Screw Base
J - Round Bottom Feed
G - GU24 Base

UNI

Input Voltage

UNI - 90-264VAC
UNV - 120-277VAC
120 - 120VAC



CC Driver Features

- Circuitry optimized for constant current LED's
- Used to drive LED's wired in series
- Unique case styles with terminal blocks or wire leads with mounting feet
- Lightweight, thermally robust construction
- Available in 350mA and 700mA models
- TRIAC dimming available with 9, 12 & 18W models in E, J & G case styles

Constant Voltage Drivers

Example Part Number

LV

Driver Type

LV - Constant Voltage

003

Wattage

3W
6W
10W
20W
60W

W

†Case Style

W - Rectangular

12

Output Voltage

12 Volts
24 Volts

UNI

Input Voltage

UNI - 90-264VAC
120 - 120VAC



CV Driver Features

- Circuitry optimized for constant voltage LED's
- Used to drive LED's wired in parallel
- Unique case styles with terminal blocks and mounting feet
- Lightweight, thermally robust construction
- Available in 12V and 24V output models

A/C Drivers

Example Part Number

RS

Product Series

RS - A/C Transformer

12

Output Voltage

12 Volts
*24 Volts

60

Wattage

15W
30W
60W

M

Case Material

M - Metal

LED

Lamp Type

LED - LED
**Blank - Halogen

IDEAL FOR MR16 LED RETROFITTING



A/C Driver Features

- Based on RS-Series Hatch transformers
- Circuitry optimized for LED loads
- **No minimum load, full range dimming - Industry Exclusive**
- Ideal for halogen track MR16 LED retrofitting
- Approved for use with most major A/C LED's
- Available in 120V & 230V input
- The most advanced A/C driver in the industry

* 24 Volt output models currently in development. Contact Hatch for more information.

** Blank indicates that no letter or number appears in this slot in a part number.

† Case style only indicates the general shape of the case. Actual dimensions vary by model. Please see individual specifications on our website for exact dimensions.



Constant Current Drivers

Part Number	Wattage	Input Volts	Output Volts	Input Current	Output Current	†Case Style	Dimmable
LCA003-UNI	3 Watt	90-264 VAC	3-9 VDC	40mA@230 VAC	350mA	Blank - Rectangular	No
LCB003-UNI	3 Watt	90-264 VAC	4-5 VDC	40mA@230 VAC	700mA	Blank - Rectangular	No
LCA003-RL-UNI	3 Watt	90-264 VAC	3-9 VDC	40mA@230 VAC	350mA	RL - Round	No
LCA004-UNI	4 Watt	90-264 VAC	2-13.2 VDC	55mA@230 VAC	350mA	Blank - Rectangular	No
LCB004-UNI	4 Watt	90-264 VAC	4-7 VDC	55mA@230 VAC	700mA	Blank - Rectangular	No
LCB006-UNI	6 Watt	90-264 VAC	4-10 VDC	110mA@230 VAC	700mA	Blank - Rectangular	No
LCA006Q-UNI	6 Watt	90-264 VAC	2-19.8 VDC	65mA@230 VAC	350mA	Q - Mini Rectangular	No
LCB006-RL-UNI	6 Watt	90-264 VAC	3-13.4 VDC	110mA@230 VAC	700mA	RL - Round	No
LCA008-UNI	8 Watt	90-264 VAC	2-26.4 VDC	80mA@230 VAC	350mA	Blank - Rectangular	No
LCA009-RL-UNI	9 Watt	90-264 VAC	3-27 VDC	130mA@230 VAC	350mA	RL - Round	No
LCB009-RL-UNI	9 Watt	90-264 VAC	3-13.4 VDC	110mA@230 VAC	700mA	RL - Round	No
*LCA009-E-D-120	9 Watt	120 VAC	19-31 VDC	200mA@120 VAC	350mA	*E, D & J - Round	Yes - TRIAC
*LCB009-E-D-120	9 Watt	120 VAC	6-12 VDC	200mA@120 VAC	700mA	*E, D & J - Round	Yes - TRIAC
LCA012-L-UNI	12 Watt	90-264 VAC	3-36 VDC	70mA@230 VAC	350mA	L - Flat Rectangular	No
LCB012-L-UNI	12 Watt	90-264 VAC	4-18 VDC	70mA@230 VAC	700mA	L - Flat Rectangular	No
LCA012-S-UNI	12 Watt	90-264 VAC	3-36 VDC	70mA@230 VAC	350mA	S - Slim Linear	No
*LCA012-E-D-120	12 Watt	120 VAC	28-42.5 VDC	200mA@120 VAC	350mA	*E, D & J - Round	Yes - TRIAC
LCBDE015-L-UNI	15 Watt	90-264 VAC	2.5-16 VDC	75mA@230 VAC	700mA	L - Flat Rectangular	No
LCA018-UNI	18 Watt	90-264 VAC	2-59.5 VDC	100mA@230 VAC	350mA	Blank - Rectangular	No
LCB018-UNI	18 Watt	90-264 VAC	3-27 VDC	100mA@230 VAC	700mA	Blank - Rectangular	No
LCAP018-RL-UNV	18 Watt	120-277 VAC	3-54 VDC	200mA@120 VAC	350mA	RL - Round	No
LCBP018-RL-UNV	18 Watt	120-277 VAC	4-27 VDC	200mA@120 VAC	700mA	RL - Round	No
LCAP018-WJ-UNV	18 Watt	90-300 VAC	3-54 VDC	200mA@120 VAC	350mA	WJ - Rectangular Bottom Feed	No
LCBP018-WJ-UNV	18 Watt	90-300 VAC	3-27 VDC	200mA@120 VAC	700mA	WJ - Rectangular Bottom Feed	No
LCA018-S-UNI	18 Watt	90-264 VAC	3-54 VDC	100mA@230 VAC	350mA	S - Slim Linear	No
*LCA018-E-D-120	18 Watt	120 VAC	38-50 VDC	200mA@120 VAC	350mA	*E, D & J - Round	Yes - TRIAC
*LCB018-E-D-120	18 Watt	120 VAC	10-24 VDC	200mA@120 VAC	700mA	*E, D & J - Round	Yes - TRIAC
LCBDE030-UNI	30 Watt	90-264 VAC	45-55 VDC	300mA@100 VAC	700mA	Blank - Rectangular	Yes - 0-10VDC
LCBDE085-UNI	85 Watt	90-264 VAC	48-60 VDC	860mA@100 VAC	700mA	Blank - Rectangular	Yes - 0-10VDC

* This model is available with E-Edison screw base, G-GU24 base or J-Wire leads with mounting feet.

† Case style only indicates the general shape of the case. Actual dimensions vary by model. Please see individual specifications on our website for exact dimensions.

Constant Voltage Drivers (Part numbers in orange are available in 12 & 24 volt output)

Part Number	Wattage	Input Volts	Output Volts	Input Current	Output Current	†Case Style	Dimmable
LV003W-12-UNI	3 Watt	90-264 VAC	12 or 24 VDC	40mA@230 VAC	250mA	W - Rectangular	No
LV006W-12-UNI	6 Watt	90-264 VAC	12 or 24 VDC	65mA@230 VAC	500mA	W - Rectangular	No
LV010W-12-UNI	10 Watt	90-264 VAC	12 or 24 VDC	100mA@230 VAC	40-833mA	W - Rectangular	No
LV012W-12-UNI	12 Watt	90-264 VAC	12 or 24 VDC	110mA@230 VAC	80-1000mA	W - Rectangular	No
LV012W-12-230	12 Watt	230 VAC	12 or 24 VDC	110mA@230 VAC	1000mA	W - Rectangular	No
LV020W-12-UNI	20 Watt	100-240 VAC	12 VDC	110mA@230 VAC	166mA	W - Rectangular	No
LV020W-12-F-UNI	20 Watt	90-264 VAC	12 or 24 VDC	235mA@230 VAC	166mA	W - Rectangular	No
LV020W-12-L-UNI	20 Watt	90-264 VAC	12 VDC	110mA@230 VAC	166mA	W - Rectangular	No
LV060W-12-120	60 Watt	120 VAC	24 VDC	650mA	250mA	W - Rectangular	No
LV100W-12-120	100 Watt	120 VAC	12 or 24 VDC	300mA	250mA	W - Rectangular	No

† Case style only indicates the general shape of the case. Actual dimensions vary by model. Please see individual specifications on our website for exact dimensions.

A/C Drivers

Part Number	Wattage	Input Volts	**Output Volts	Input Current	Output Current	Case Dimensions	*Dimmable
RS12-15M-LED	15 Watts	120 VAC	12 VAC	130mA	1300mA	2.20"L x 1.23"W x .75"H	Yes
RS12-15M-230-LED	15 Watts	230 VAC	12 VAC	70mA	1300mA	2.20"L x 1.23"W x .75"H	*No
RS12-30M-LED	30 Watts	120 VAC	12 VAC	250mA	2600mA	2.20"L x 1.23"W x .75"H	Yes
RS12-30M-230-LED	30 Watts	230 VAC	12 VAC	130mA	2600mA	2.20"L x 1.23"W x .75"H	*No
RS12-60M-LED	60 Watts	120 VAC	12 VAC	500mA	5200mA	2.20"L x 1.23"W x .75"H	Yes
RS12-60M-230-LED	60 Watts	230 VAC	12 VAC	260mA	5200mA	2.20"L x 1.23"W x .75"H	*No
RS12-60BF-LED	60 Watts	120 VAC	12 VAC	500mA	5200mA	2.72"L x 1.30"W x .80"H	Yes
RS12-60BF-230-LED	60 Watts	230 VAC	12 VAC	260mA	5200mA	2.72"L x 1.30"W x .80"H	*No

* Full dimming capabilities are currently only available in 120 volt input models. Hatch is currently developing full range dimming for all input voltages. Please contact Hatch for the latest updates on LED driver development.

** 24 Volt output models currently in development. Contact Hatch for more information.

HATCH OFFERS CUSTOM LED DRIVER SOLUTIONS FOR UNIQUE PROJECTS AND FIXTURES