

Sager Power Systems Product Showcase – October 2020

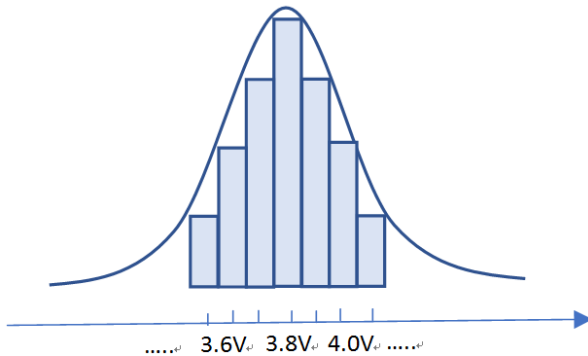


Fig 3 LED forward voltage distribution from production

Selecting the Right Constant Current Driver is Not as Straight *Forward* as it Seems

Selecting an LED driver with a proper voltage operating range (Constant Current region) may look fairly easy, but LED forward voltages may not be identical from die to die, and can vary as the junction temperature varies. It is crucial to the functionality and reliability of the lamp that the driver work properly. The design of an LED lamp is multidimensional engineering work involving optical, thermal and electrical design concerns.

MEAN WELL explains the typical concerns of LED forward voltages and how to properly determine the needed margin for the LED driver voltage - [click here](#) to continue reading, or contact a [Sager Power Systems Sales Engineer](#) to find out how our team can help.

New and Featured Products from [Sager Power Systems](#)



RECOM

RECOM RACM230-G 230 Watt AC/DC Medical-Grade Converter

RACM230-G AC/DC Converters feature a low standby power consumption, and a high efficiency rating of 90%. The series supports up to 160W with conduction cooling and up to 230W peak power or with forced air cooling, making the RACM230-G ideal for dynamic loads that require bursts of peak power. Ideal for medical, household, and

CINCON

Cincon CQB100W-110S 100W Railway DC-DC Converters

The CQB100W-110S series are chassis-mount railway DC-DC converters featuring 100W isolated output and a 4:1 input range. The series features a 43VDC to 160VDC input voltage range and 15mA no load input current. These quarter brick DC-DC converters meet UL60950-1, EN60950-1, and IEC60950-1 safety standards. Open or enclosed frame options.

CALEX

Calex CEV Series 300 Watt AC-DC Battery Charger

Intended for harsh environments, the CEV series is a ruggedized IP67 rated convection cooled AC-DC battery charger. The CEV series provides a single regulated Constant Voltage (CV) or Constant Current (CC) mode output. The power module transfers internal heat into the extruded aluminum chassis for environmental management. Typical applications: e-mobility,

TRACO POWER

TRACO Power Ultra-Compact 5-50W AC/DC Power Supply Series

The TMPW series is an encapsulated AC/DC power supply offering four power levels from 5W to 50W, an input range of 90VAC to 305VAC, and up to 89% efficiency. An internal EN 55032 class B filter saves valuable board space by potentially eliminating an additional external filter setup. Suitable for industrial, household/building automation, and IoT applications.

industrial ITE applications. Open or enclosed frame options.

Features:

- 160W baseplate-cooled
- 230W peak power or forced air rating
- 80VAC to 264VAC universal AC input range
- <0.5W standby power consumption
- -40°C to 80°C operating temperature range (with derating)
- Capable of operating up to 5000m (~16,000ft)
- 4" x 2" footprint
- 2MOPP certified

[More info...](#)

electric scooters and electric utility carts.

Features:

- 100W isolated output
- Efficiency to 91%
- Fixed switching frequency
- Regulated outputs
- Remote On/Off
- Low no-load power consumption
- Over-temperature protection
- Overvoltage/current protection
- Continuous short circuit protection
- Built-in EMI filter

[More info...](#)

Features:

- 57.5Vdc & 28.5Vdc continuous constant current models for battery charging applications
- Universal AC input with active PFC
- High efficiency 93% nominal, 100% load
- True zero load operation
- 6.29" x 3.90" x 2.24" footprint
- RoHS2 & REACH compliant

[More info...](#)

Features:

- Available in PCB or Chassis mount versions
- I/O-Isolation
- 4000VAC IEC/EN/UL 62368-1 and EN 60335-1 certifications
- <0.1W No load input power
- Internal EN 55032 class B filter
- 90VAC to 305VAC inout voltage range
- Protection class II prepared
- -40°C to 70°C operating temperature range

[More info...](#)



Showcase Standouts

This month, we're showcasing five of our favorite High Density DC-DC Converters. The picks include converters from ABB Embedded Power, Artesyn, Murata Power Solutions, RECOM Power, and TDK-Lambda:

- [ABB – CP2500DC54PEZ-F](#), 22.3W/in³, isolated rack mount
- [Artesyn – BDQ1300-48S12B-4L](#), 708W/in³, isolated ¼ brick
- [Murata – DAE0133V2NBC](#), 350W/in³, isolated 1/8 brick
- [RECOM – RBBA3000-50](#), 987W/in³, non-isolated ½ brick
- [TDK-Lambda – i6A24014A033V-001-R](#), 450W/in³, non-isolated 1/16 brick



Technical Team Corner

Meet Sager Power Systems Sales Engineer (PSE) Matt Haga. Matt has been selling power products for the past four years.

Sales Territory: South Central - Oklahoma, Arkansas, Louisiana, Texas, NE Mexico

Education: B.S. in Electrical Engineering from The University of Texas at Austin
MBA from Concordia University Texas



Power sales allows me to engage with a wide-array of applications and people. This presents many opportunities to learn and help solve challenges in a team environment, which keeps the job interesting.

Fun fact: I grew up in a military family and spent much of my childhood living abroad in places like Germany and Turkey. I still love to travel "off the beaten path" and experience different places and cultures.

Contact a Sager Power Systems representative for more information: (866) 588-1750 or power@sager.com.



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