

FOR IMMEDIATE RELEASE

CCS Releases CD-VA Series Compact Power Supplies with a Maximum Output of 200 W*1 24 VDC input power supply with a full range of control functions

Kyoto, Japan, November 10, 2023 –CCS Inc. (CCS) will release the CD-VA Series LED lighting digital power supply for image processing on November 13, 2023. The CD-VA power supply is designed for ease of use at manufacturing sites, with a total channel output of 200 W, compared to the maximum 46 W output of conventional DC power supplies.

Overview

When dedicated power supplies are required to precisely set light emission time, intensity, ON/OFF switching timing, etc., they must be easy-to-use and offer multiple functions, all in a compact design to save space for installation in manufacturing equipment or control panels. The CD-VA Series released by CCS has the following features to meet these requirements.



CD-VA20024-4PE



Size comparison with our conventional PD3 power supply*2
*2 4-channel model with 24 VDC input, total output capacity of 46 W

Two high-capacity models (100W/200W) in a compact housing

The CD-VA offers a total output of 100 W for the 2-channel model and 200 W for the 4-channel model. It has a higher output capacity than conventional 24 VDC power supplies while taking up less space, expanding the opportunities to use multiple lights with larger power consumption.

Three types of light control: PWM control*3, variable voltage control, and strobe overdrive*4

PWM control is commonly used to control LED lighting for area scan cameras, while variable voltage control is suitable for line scan. The CD-VA Series also has a strobe overdrive function for high-intensity illumination, so users can select the light control most suitable for the inspection environment.

- *3 Pulse Width Modulation: controls LED brightness by changing the pulse width while keeping the period and amplitude constant.
- *4 Strobing emits light for a predetermined period in synchronization with an external trigger signal.

Overdrive applies a current that exceeds the light's normal operating current level for a certain period to momentarily flash the light at a higher intensity.

^{*1} For 4-channel models, when all 4 channels are used.

Linked control function

A maximum of four units can be connected and controlled by infrared communication to set parameters for up to 16 channels of lighting (when four units of the 4-channel model are connected). External control cables for each unit are unnecessary as the parent unit can control settings on the connected units. In addition, the setting copy function applies the same settings to each channel, reducing man-hours.

Sequence control function

Register up to 16 steps of ON/OFF settings for any lighting pattern. For example, when using 4-quadrant bar lights or segmented ring lights, the light emission pattern for each channel can be set to switch the lights on and off by trigger input (external light command). Sequencing is ideal for multi-surface inspections, inspections looking at multiple types of defects, and inspections using photometric stereo, where light is emitted from multiple directions onto the workpiece and the difference between images is used to extract information on irregularities and patterns.

Common Specifications

Model name	CD-VA10024-2P	CD-VA20024-4P	CD-VA10024-2PE	CD-VA20024-4PE
Applicable light unit	24 VDC lighting 2 channel total: 100 W (1 channel 50 W or less)	24 VDC lighting 4 channel total: 200 W (1 channel 50 W or less)	24 VDC lighting 2 channel total: 100 W (1 channel 50 W or less)	24 VDC lighting 4 channel total: 200 W (1 channel 50 W or less)
Lighting method	Continuous / Strobe lighting (with overdrive)			
Drive method	Constant-voltage system			
Intensity control method	PWM control, Variable voltage control			
No. of channels	2 channels	4 channels	2 channels	4 channels
Output voltage	PWM mode: 24 VDC Variable voltage mode: LOW: 12 to 24 V, HIGH: 18 to 24 V Strobe mode: 48 VDC (24 VDC drive when strobe emission time exceeds 1 ms)			
External control	USB communication, Parallel communication, RS-232C communication		Ethernet communication, USB communication, Parallel communication, RS-232C communication	
PWM frequency	100 kHz, 130 kHz			
Cooling method	Natural air cooling			
Dimensions	W 80 mm × H 98 mm × D 116 mm			
Weight	260 g	360 g	260 g	360 g

From 1993, CCS advanced the machine vision industry by developing LED lighting for inspection that Created Customer Satisfaction for both manufacturers and their consumers, who demanded safe, high-quality goods. Today, CCS leads the machine vision world in innovation with thousands of products including lights, controllers, and accessories. CCS's global network of employees is dedicated to helping manufacturers capture the most important details in an inspection so that their customers never receive anything less than their highest quality.

Press Contact:

Sayoko Takahashi – Marketing Communications Tel. +81-75-415-8277 sy-takahashi@ccs-inc.co.jp

CCS Inc.

38 Konoecho, Demizu-Agaru, Muromachi-dori, Kamigyo-ku, Kyoto, 602-8019 Japan

TEL: +81-75-415-8277 <u>sales@ccs-inc.co.jp</u> <u>www.ccs-grp.com</u>