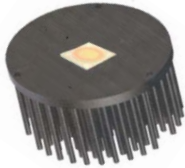

DeltaBrite™ Variable-CCT Controller...A Technology Breakthrough ! ---For high power dual-CCT COB's---



The most cost effective, compact, plug-and-play, easy-to-use, dimmable, flicker-free, color-tunable, light engine in the industry!

- **Knob-adjustable color temperature from 3000K to 6000K**
- **20-60 watts of powerful, collimated light, with single or multiple-COB configurations [\(note1\)](#)**

Applications – wherever color temperature affects perception, such as---

Museums... Professional Studio Lighting –Photography/TV /Motion Picture... Artists ...Fabric/Clothing/Food Retail... Commercial Color-Viewing Light Booths... Interior Decorators ... Auto Paint Shops...Cosmetic Product Marketing...Landscape/Building Enhancement

- **Easy, quick design implementation----**

No need for wireless issues or special software app debugging

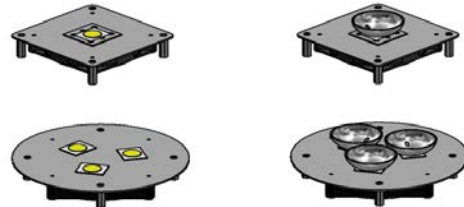
TYPICAL APPLICATIONS-- COB'S ON HEAT SINK PLATES

upper-left to right

up to 20 watts single with and without reflector

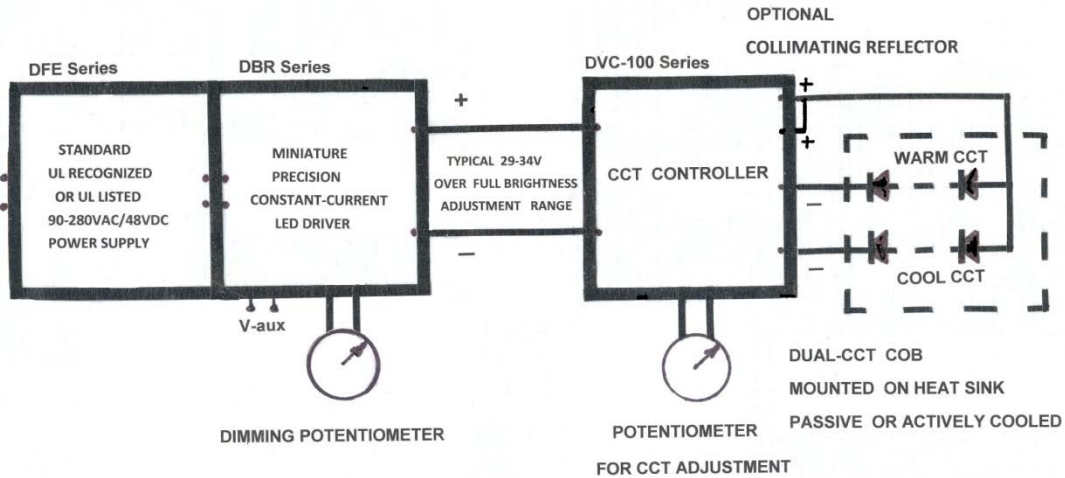
lower-left to right—

triple- up to 60 watts) with and without reflectors



Note 1 *For higher power, three or more COBs, with or without optics, can be positioned symmetrically on same light-engine heat sink and perform as single point source of LED light*

Figure 1 TYPICAL BLOCK DIAGRAM Using DVC- 100 Variable CCT controller and dual-CCT COB



SPECIFICATIONS-DVC-100

	MIN	MAX	UNITS
TOTAL LED DUAL- STRING OPERATING POWER	0	75	Watts
LED STRING OPERATING VOLTAGE	10	50	VDC
BRIGHTNESS RANGE (each string)	1%	99%	
TOTAL POWER VARIATION OVER CCT-ADJUST RANGE		-/-5%	
CONTROLLER INTERNAL EFFICIENCY	95%		
AMBIENT OPERATING TEMPERATURE	minus 10 C		+ 50 C
AUXILIARY NOMINAL OUTPUT CURRENT			0.150 A
AUXILIARY VOLTAGE ADJUSTMENT RANGE (NOTE 1)	12		24 V

NOTE 1—FACTORY SET AT 16V

THERMAL MANAGEMENT

Deltabrite COBs (See DBL-209 data sheet) can be mounted on a simple square or round aluminum plate which is “actively” cooled by a low-speed, quiet fan blowing air perpendicularly onto the back side of plate . Figures 1 A and 1B show a triple COB/60 watt arrangement with square 80mm DC fan on under side.



Figure 2 A



Figure 2 B

That approach can create the necessary low thermal resistance to support 20 watts. If “passive” cooling is desired, that plate can be replaced by an extruded-fin or forged-pin fin heat sink specified for appropriate thermal resistance without a fan .

For higher power, with three or more COBs mounted on same surface, the same basic approach can be taken: a) simple plate, with rear-side air cooling b) larger pin-heat sink for passive cooling. or c) smaller pin fin heat sink with active cooling Figure 1 shows a typical arrangement. This approach is readily applicable for up to eight COBs and 160 watts

FIGURE 3 MECHANICAL OUTLINE

