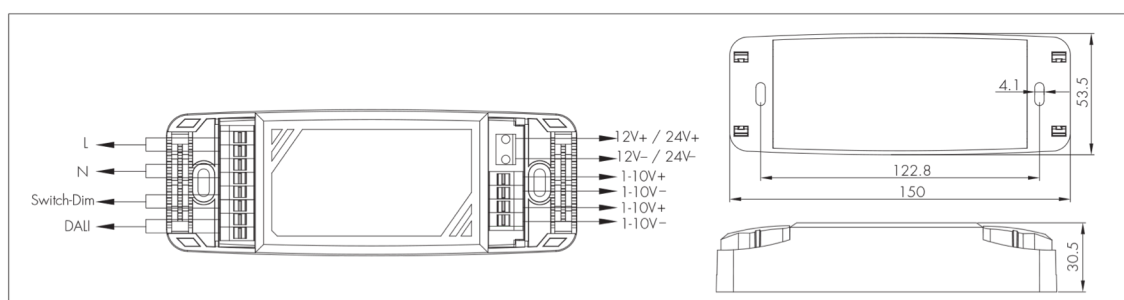


# FDV DOKUMENT



Cobra CV 24V 30W DALI/1-10V/Switch DIM  
32 173 30 / 396130



Art nr	El nr	Produktnavn	Å	Lysytelse	DIM	System eff	CRI	Lys farge	IP	Farge
396130	32 173 30	Cobra CV 24V 30W DALI/Push DIM				30W			20	Hvit

Input	Mains Voltage	220~240VAC 50/60Hz
	Mains Current	0.165~0.15A
	Power Factor	≥0.95
	Max. Efficiency	88%
	Dielectric Strength	Input→Output : 3000VAC
	Leakage Current	<0.25mA
Output	Power (Max.)	30W
	Uout Max.	24V
	Turn-on Time	< 0.5s
	Dimming Interface	DALI, Switch-Dim, 1-10V
Environment	Operation Temp.	Ta: -20~+45°C
	Case Temp. (Max.)	75°C
	IP Rating	IP20
Safety and EMC	EMC Standard	EN55015, EN61547, EN61000-3-2, EN61000-3-3
	Safety Standard	EN61347-1, EN62493, EN61347-2-13
	DALI Standard	IEC62386-101; IEC62386-102; IEC62386-207
	Certifications	Semko, CB, RCM, CE, EMC



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Tlf 40 00 15 59.

V.28.10.2019

# DALI LED Drivers (With System Feedback)

Constant Voltage Version - DALI/1-10V/Switch-Dim



SELV IP20



## Applications

Ideal for use with 'plug n' play' or DALI broadcast master.

Fully addressable DALI systems

Switch-Dim

1-10V Dimming Systems

Suitable for LED strip and low voltage spot lamps - insulated terminal cover with cord restraint:

■ Office / Commercial Lighting

■ Domestic / Decorative

■ Retail & Display

■ Hotels

Use for retrofit upgrades & new luminaire designs.



## Features



with DALI feedback



1-10V



Switch-Dim with Synchronization



Active PFC Design



Hybrid Flicker-free Dimming (HED2075-A only)



Configurable Constant Voltage (CV) Output



Logarithmic Dimming Curve



Linear Dimming



Thermal Cut-out Protection



Short Circuit Protection



Over-load Protection

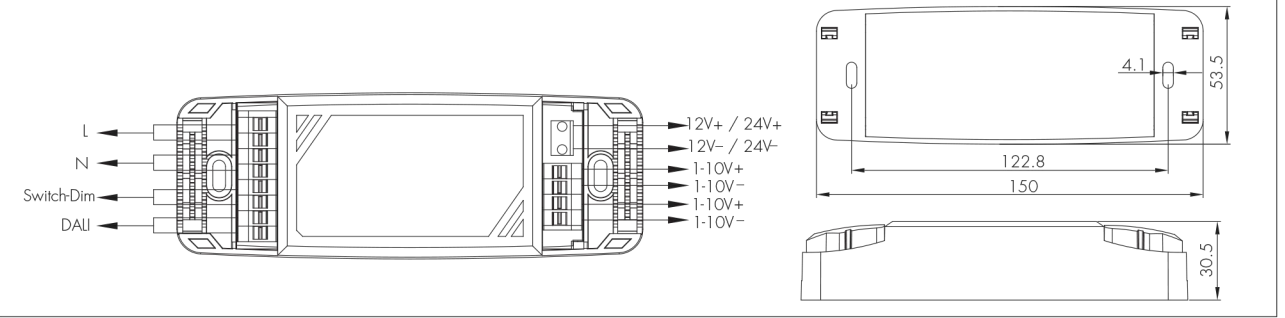
} All with Auto-restart



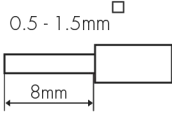
Permanent Settings Memory, Protected against Loss of Power



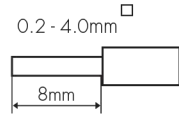
5 Year, 50,000hr Warranty



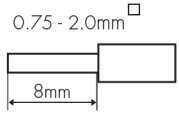
## Wire Preparation



Terminals	Model
L, N	HED4030-A
DALI	HED6030-A
Switch-Dim	HED2075-A
1-10V	HED3075-A



LED output  
HED2075-A  
HED3075-A



LED output  
HED4030-A  
HED6030-A

To make or release the wire from the terminal, use a screwdriver to push down the button.

## Loading and In-rush Current

Model	HED6030-A
In-rush Current (I <sub>max</sub> )	2.8 A
Pulse Time	70 $\mu$ s

## Number of Drivers Based upon 16A Circuit Breaker

Cct Breaker Type	HED6030-A
Type B	60

## Conversion table for max. quantities of drivers on other types of Miniature Circuit Breaker

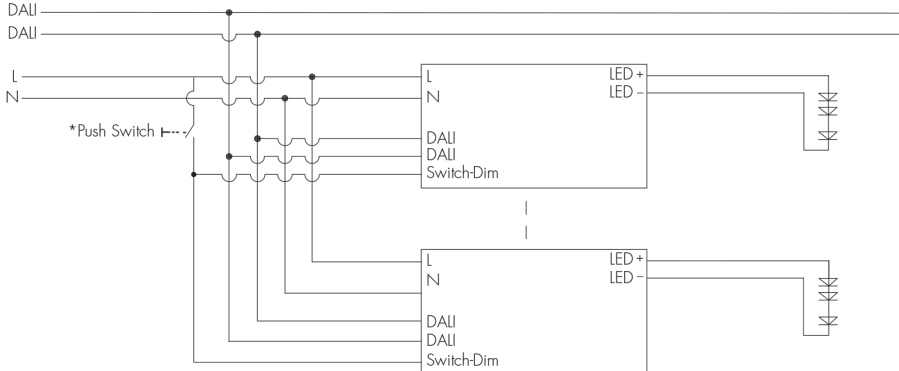
MCB Type	Rating	Relative number of drivers
B	16A	100% (see table above)
B	10A	63%
B	13A	81%
B	20A	125%
B	25A	156%

MCB Type	Rating	Relative number of drivers
C	10A	104%
C	13A	135%
C	16A	170%
C	20A	208%
C	25A	260%

\* Environmental factors (such as temperature) will also influence the maximum number of the drivers. Please refer to the MCB manufactures datasheet for loading and derating factors.

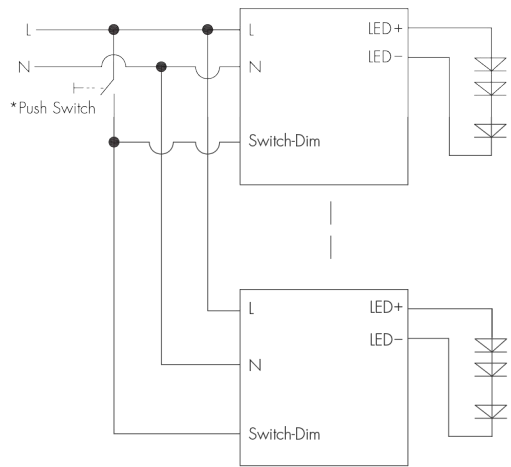
## Wiring Diagrams

### DALI Connections



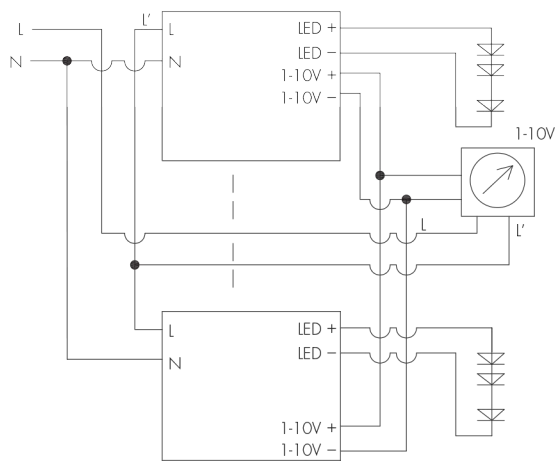
- \* Optional Switch-Dim for manual over-ride of DALI 1-10V is disabled upon DALI connection
- \* Unused terminals have been omitted for clarity.

Switch-Dim Connections



\* Unused terminals have been omitted for clarity.

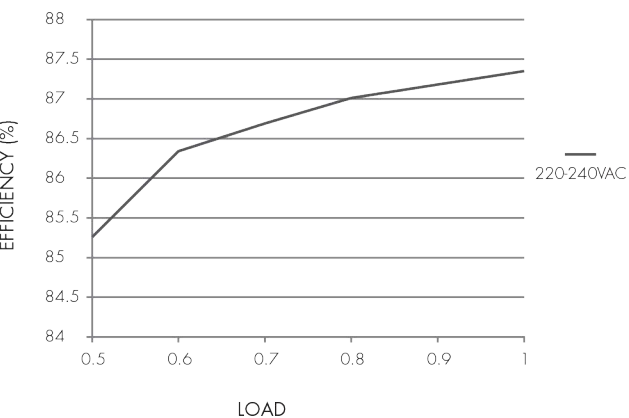
1-10V Connections



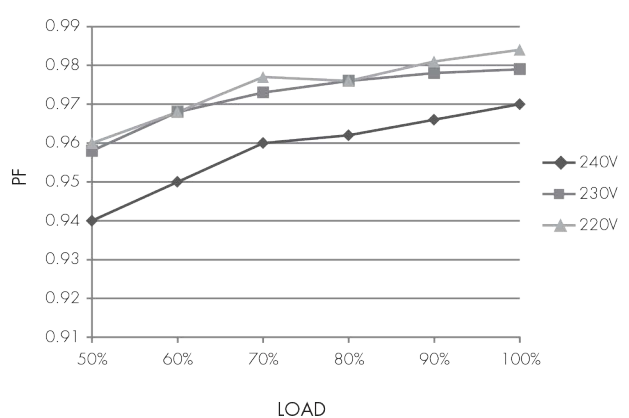
\* Unused terminals have been omitted for clarity.

Performance Characteristics

HED6030-A



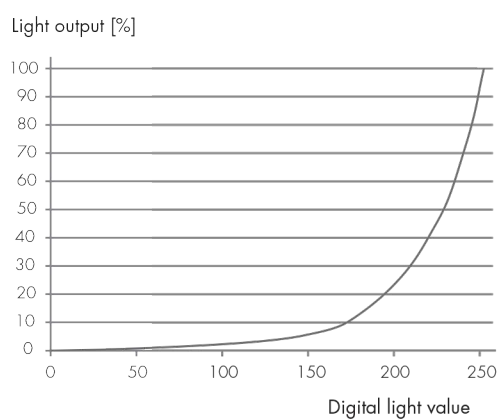
\* Typical Efficiency vs Load



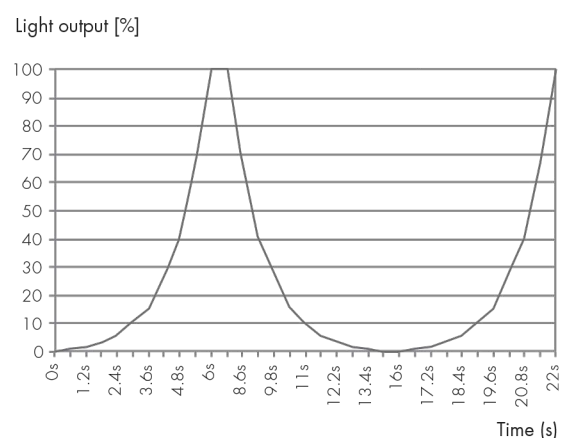
\* Typical Power Factor vs Load

Dimming Characteristics

DALI Dimming Curve

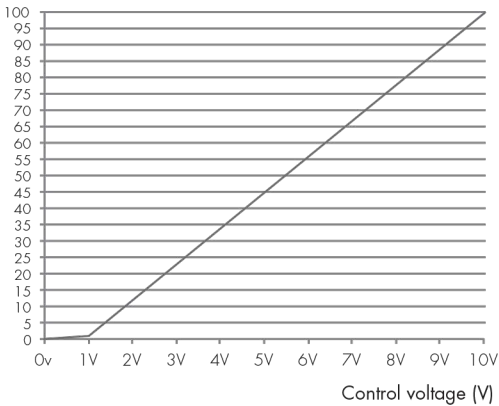


Switch-Dim Dimming Curve



1-10V Dimming Curve

Light output [%]



Dimming Interface Operation Notes

DALI

This series of products are supplied as DALI default group 0 and are ‘plug n’play DALI’ or ‘independent DALI’ system ready. These models are also fully DALI addressable and may be assigned to groups within the limits specified by the DALI protocol or supporting DALI controllers by using a DALI programming tool.

Switch-Dim

The provided Switch-Dim interface allows a simple dimming method using commercially available non-latching (momentary) wall switches. Up to 64 LED drivers maybe connected to one switch. The Switch-Dim interface may also be used at the same time as DALI to serve as a manual over-ride.

Switch Action	Response
Short press (<0.4 second)	Toggle light on / off
Note: short press has to be longer than 0.1s, or it will be invalid.	
Long press (>0.4 second)	Toggle dim light / increase brightness
Synchronization	
Switch Action	Response
Long press (>15 seconds)	All lights will dim down to minimum then return to 50% brightness

\* We recommend the number of drivers connected to a switch does not exceed 25 pieces. The maximum length of the wires from push to driver should be no more than 20 meters.

1-10V

The 1-10V input is operable via commercially available simple rotary wall switches designed for 1-10V dimming equipment or from dedicated system central dimming controllers. Note: In the unlikely event that the LED driver be used with the Switch-Dim or DALI interface prior to using the 1-10V interface, the 1-10V interface may need to be re-set. This is achieved by placing a short circuit across the 1-10V terminals until the light returns to full brightness (approx. 3-5 seconds).