

# R45 8W - MDD1



PREMIUM indoor LED driver with Phase Dimming. Compact output up to 8 Watts. Eye response dimming curve with low optical flicker percentage, deep & smooth down to 1%. Smooth ON/OFF.

## PRODUCT FEATURES

- Phase Dimming
- 8 Watts
- Optical flicker %, <5%
- Perfect Dimming to 1%
- Smooth On/Off
- Eye response dimming
- High Power factor (>0.95)
- MTBF >100K hours
- IP20

## FUNCTIONS

- Configurable Output Power (Factory level only)
- Overload protection
- Short-circuit protection
- No-load protection
- Internal Thermal Protection
- LED engine NTC thermal protection
- Hot-pluggable

## TECHNOLOGY BENEFITS

- NTC thermal fold back algorithm protects LED array, COBs from over-temperature while providing regulated reduced light output.
- Our driver allow eight power settings using selectable switch. At each setting, the constant current will be regulated automatically to match the LED Vf strings, make it versatile to driver COB package or a multiple discrete LED arrays at the rated power.

For e.g. a 8 Watts driver with 2 different Vf setup:

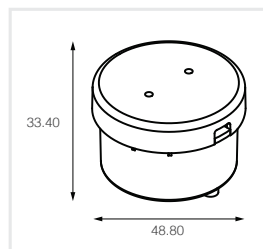
8W COB with 36V forward voltage, Current will be 0.22 A

8W LED strings with 28V forward voltage, Current will be 0.29 A

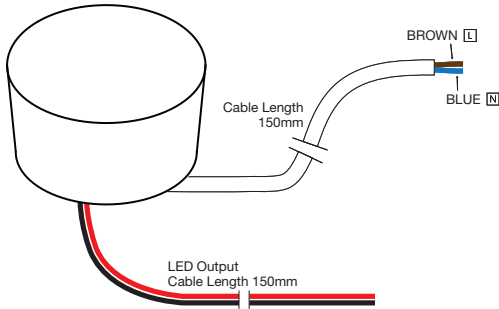
## APPLICATION

- For linear, track light, down light and custom made lighting for indoor retail and hospitality applications

## DIMENSIONS (MM)



**MDD1**  
PHASE DIM DRIVER



### INPUT/OUTPUT WIRES

Type	Terminal Colour	Specification	Length
Live	Brown	UL1015 AWG18	150mm
Neutral	Blue	UL1015 AWG18	150mm
Vout+	Red	UI1569 AWG22	150mm
Vout-	Black	UI1569 AWG22	150mm

### CONFIGURABLE TABLE

Configurable on order		LED @38V	LED @36V	LED @34V	LED @30V	LED @28V
Power (W)	Efficiency @ 230V	Current (mA)	Current (mA)	Current (mA)	Current (mA)	Current (mA)
5.4	78%	0.14	0.15	0.16	0.18	0.19
7.2	79%	0.19	0.20	0.21	0.24	0.26
8.0	80%	0.21	0.22	0.24	0.27	0.29
Support LED Module		LUCENT Module	CREE COB	ELR Module	SORAA lamp / light engine	SORAA lamp / light engine
			LUMINUS CXM 6			
		CITIZEN CRI>90 COB	LUMILEDS COB	CITIZEN COB		LUMINUS CLM-6 27V
			OSRAM COB			

### MAXIMUM LOADING OF CIRCUIT BREAKERS

Automatic Circuit Breaker Type	B10	B13	B16	C10	C13	C16
Amount of LED Drives	27	35	43	40	52	64



## DETAILS SPECIFICATIONS

Input	Rated supply Voltage	220 - 260Vac	Protection	Over Load Protection	Yes	
	Input voltage AC	198 - 277Vac		Over Temperature Protection	Yes	
	Input Current	0.05A @ 220Vac		Short circuit Protection	Yes	
	Inrush current	1.5A 350uS @ 230V/50Hz		Self Recover after Protection	Yes	
	Leakage Current	<0.21 mA @ 230Vac Full Load		Standard & Certifications	Safety	EN 55015
	Input No Load Power	<0.5 W				EN 61547
	THD (at 230V, 50Hz)	<6.2%				EN 61000-3-2
	Power factor	>0.95 @ 230Vac Full Load				EN 61000-3-3
	Input Capacitance	~32nF				EN 61347-1, EN 61347-2-13
	Mains frequency	50Hz/60Hz		EMC	CISPR15	
	LED Output Power	5.4W - 8W (Configurable on order)		RoHS	Yes	
Output	Output Voltage	28V - 40V	Dimension	Weight	80g	
	Current Range	140mA - 300mA (Configurable on order)		L x W x H	D48.8 x H33.4mm	
	Tolerance	+/- 5%	Environment	Ambient Temperature	-20°C - +50°C	
	Ripple	<5%		Working Humidity	0% - 95%	
	Optical flicker %	<5%		Storage Temp/Humidity	-20°C ~ +85°C, 0 ~ 85% RH	
Turn On Time	0.5s	Lifetime	>50,000 hours at Tc, 60°C			
Control	Dimming Protocol	Phase	Warranty Period	5 years		
	PHASE Dimming Range	<1%-100% *Depend on dimmer				

## MODEL DATA

Type	Rated power	Output Forward Voltage Ranges	Output Current Ranges	Output Power Ranges
R45 MDD1 8W 28-36V CP	10W	28 - 40V	140mA - 300mA	5.4W - 8W

Current Ripple	Optical Flicker %	Max. Tc, Case Temperature	Dimming Options	Dimming Ranges
<5%	<5%	75°C	Phase	<1% - 100%

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## ORDERING MATRIX CHART

Type	Part number	Unit/carton	Dimension/carton	Weight/carton
R45 MDD1 8W 28-36V CP	R45M1V2836CP	40	28 X 22 X 9 CM	5.5 KG

example: R45M1V2836CP.50