

Electrical Specification for **LNDC10WxxxLRP**

DALI LED Driver



Approval Marks



	Item	Value	Remark
	Nominal voltage	220–240V	
	Nominal frequency	50–60Hz	
	AC voltage range	198–264V	
	DC voltage range (start)	NA	
	DC voltage range (operation)	NA	
	Nominal current		
Input	LNDC10W200LRP	40mA	
	LNDC10W400LRP	50mA	
	LNDC10W300LRP	55mA	
	LNDC10W450LRP	60mA	
	LNDC10W350/500LRP	65mA	
	Total Harmonic Distortion (THD)	< 25%	Full load @230VAC
Power factor	0.9C	Full load @230VAC	
Efficiency	78%(Typ.)	Full load @230VAC	
No-load power	NA		
Stand-by power	<0.5W		
Protection class	NA		
Inrush current	3.5 A / 25 us		
Earth leakage current	NA		
	Nominal voltage range		
Output	LNDC10W200/300/350LRP	20-29Vdc	
	LNDC10W400/450/500LRP	14-20Vdc	
	Maximum voltage		
	LNDC10W200/300/350LRP	40Vdc	
	LNDC10W400/450/500LRP	30Vdc	
	Nominal current range		
	LNDC10W200LRP	200mA	
	LNDC10W300LRP	300mA	
	LNDC10W350LRP	350mA	
	LNDC10W400LRP	400mA	
	LNDC10W450LRP	450mA	
	LNDC10W500LRP	500mA	

	Item	Value	Remark	
	Current accuracy			
	LNDC10W350/400/450/500LRP	± 5%		
	LNDC10W200/300LRP	± 8%		
	Typical output LF current ripple	12%	Low Frequency<120Hz	
Output	Nominal power range			
	LNDC10W200LRP	4-5.8W		
	LNDC10W300LRP	6-8.7W		
	LNDC10W350LRP	7-10.1W		
	LNDC10W400LRP	5.6-8W		
	LNDC10W450LRP	6.3-9W		
	LNDC10W500LRP	7-10W		
	Maximum power	10W		
Dimming	Dimming control	DALI/Touch Dim		
	Dimming technique	Amplitude		
	PWM frequency	NA		
	Dimming range	5-100%		
	Lowest dimming current	1-8%		
	Galvanic isolation	Basic insulated to PRI and double insulated to SEC		
Environment	Ambient temperature range t_a	-20°C...+50°C		
	Maximum case temperature t_c	75°C		
	Max. case temp. in fault condition	110°C	When operating under fault conditions, the temperature of the enclosure at any location should not exceed 110 °C	
	Storage temperature range	-40°C...+85°C		
	Relative humidity	10%...95%		
	Surge transient protection	1 KV	L/N	
	Environmental rating	Indoor		
	IP rating	IP20		
	Mains switching cycles	> 100,000		
	Expected lifetime	> 50,000 h, t_c 75 °C @ t_a 50 °C	0.2 % / 1,000 h failure rate @ t_c 75 °C	
		> 100000 h, t_c 65 °C @ t_a 40 °C	0.1 % / 1,000 h failure rate @ t_c 65 °C	
	Packing	Gross weight/Carton	10.1 Kg	
Net weight/Carton		9.2 Kg		
Pcs/Carton		96 PCS		
Dimension/Carton		395(L)*350(W)*215(H)mm		
Protections				
Short- & open circuit proof, Auto. overheat regulation or cut off, Overload protection				
Conformity & Standards				
Safety standard:	EN 61347-1, EN 61347-2-13, EN 62493			
Performance:	EN 62384			
SAA standard:	AS/NZS 61347.1, AS/NZS IEC 61347.2.13			
EMC standard:	EN 55015, EN 61000-3-2, EN 61000-3-3, EN 61547			
DALI protocol standard:	EN 62386-101, EN 62386-102, EN 62386-207			

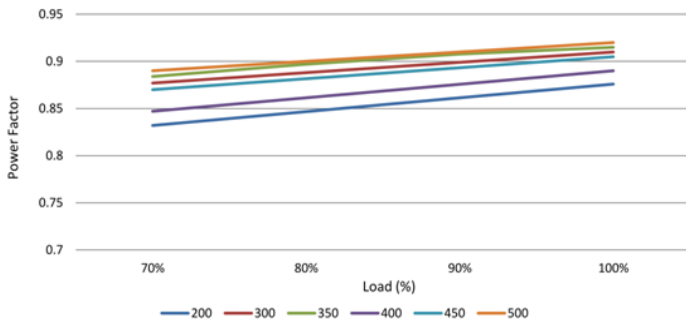
Cable information

PRI Connection	L	N
Color	Brown	Blue
Wire type	7022	7022
Wire diameter	AWG18	AWG18
Wire length	138mm	141mm
Stripping	6mm	6mm

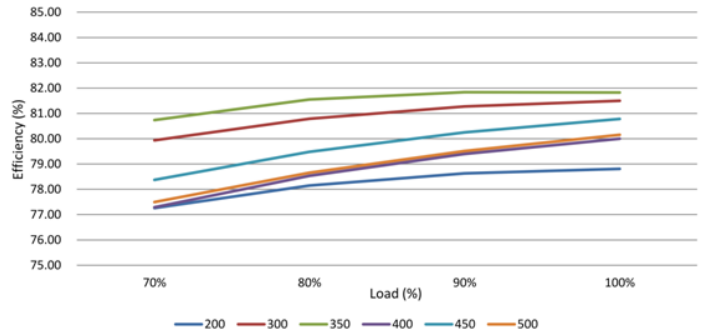
Sec Connection	+	-
Color	Red	Black
Wire type	1332	1332
Wire diameter	AWG22	AWG22
Wire length	140mm	141mm
Stripping	6mm	6mm

DALI/Touch Dim Connection	DA	DA
Color	Purple	Gray
Wire type	7022	7022
Wire diameter	AWG20	AWG20
Wire length	131mm	134mm
Stripping	10mm	10mm

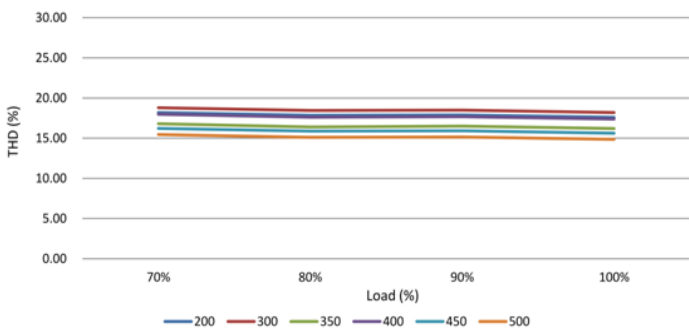
Power Factor vs Load



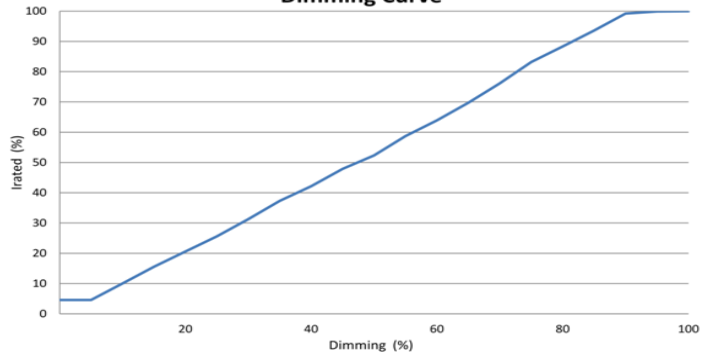
Efficiency vs Load



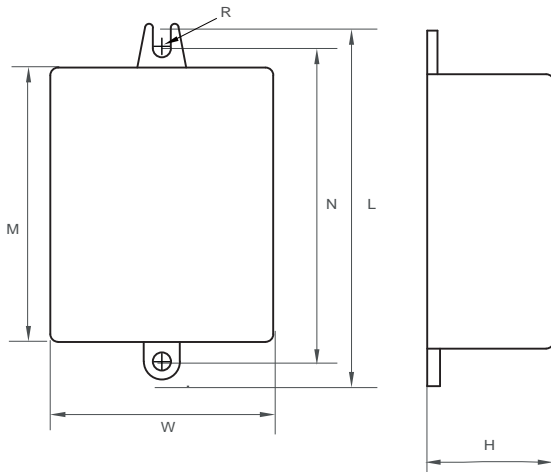
THD vs Load



Dimming Curve



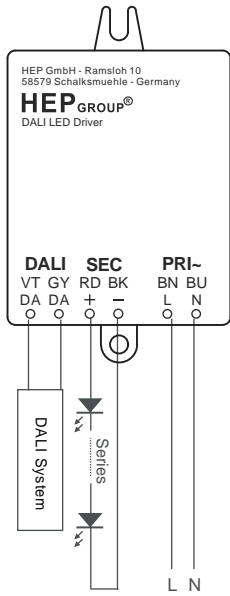
Physical Parameter



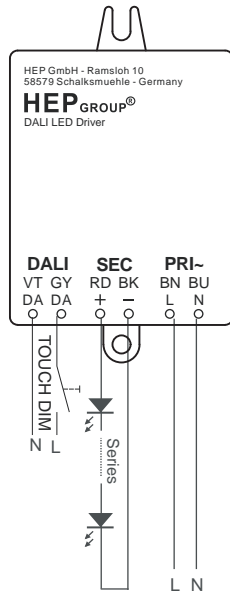
L : 69.3 mm W: 43.5 mm
M : 53.5 mm H: 24.6 mm
N : 61 mm R : 1.75 mm
Tolerance : +/-1 mm , R : +/-0.5 mm
Housing Material : Polycarbonate
Soldering : Lead-Free, Comply With RoHS
Label : Surface Print

Wiring Diagram

DALI



TOUCH DIM



*** Touch Dim**

Short push (<0.6sec.) Push to turn ON-OFF
Long push (>0.6sec.) Dimming up or down

Synchronization of Touch DIM

If a large number of driver with Touch Dim is operated in a system there is a chance that an driver will operate out of synchronization with the others(= different dimming level setting or different switching state).

Synchronism can be restored as follows:

- 1.Step: Long push all the lamps are switched on
- 2.Step: Short push all the lamps are switched off
- 3.Step: Long push all the lamps are switched on the minimum dimming setting of the drivers and continuously fade up to the desired dimming level, then release push bottom.

Max. lead length : 20 M
Max. parallel units : 15 pcs