Electrical Specification for **LNDC10WxxxLRP**

DALI-2 LED Driver

Approval Marks

GMA-503783

	Item		Value	Remark
Input	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			
	LNDC10W400LRP		50mA	
	LNDC10W300LRP		55mA	
	LNDC10W450LRP		60mA	
	LNDC10W350/500LRP		65mA	
	Total Harmonic Distortion (THD)		< 25%	Full load @ 230VAC
	Power factor		0.9C	Full load @ 230VAC
	Displacement 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	
	Max.units per circuit breaker	Type B , 10A MCB	62	
		Type B , 16A MCB	98	
		Type C , 10A MCB	77	
		Type C , 16A MCB	123	
	Earth leakage current		NA	
Output	Nominal voltage range			
	LNDC10W300/350LRP		20-29Vdc	
	LNDC10W400/450/500LRP		14-20Vdc	
	Maximum voltage			
	LNDC10W300/350LRP		40Vdc	
	LNDC10W400/450/500LRP		30Vdc	
	Nominal current range			
	LNDC10W300LRP		300mA	

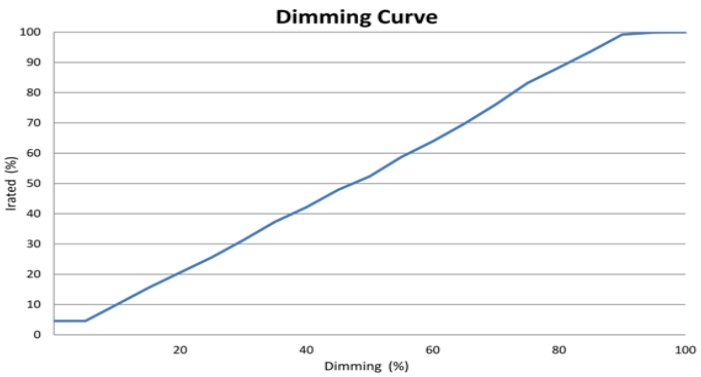
	Item	Value	Remark
Output	LNDC10W350LRP	350mA	
	LNDC10W400LRP	400mA	
	LNDC10W450LRP	450mA	
	LNDC10W500LRP	500mA	
	Current accuracy		
	LNDC10W350/400/450/500LRP	± 5%	
	LNDC10W300LRP	± 8%	
	Typical output LF current ripple	± 6%	Low Frequency < 120Hz Full load @ 230VAC
	Starting time	< 0.5 S	Full load @ 230VAC
	Nominal power range		
	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, tc 75 °C @ ta 50 °C > 100000 h, tc 65 °C @ ta 40 °C	0.2 % / 1,000 h failure rate @ tc 75 °C 0.1 % / 1,000 h failure rate @ tc 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-circuit Protection		Auto recovery	
Open-circuit Protection		Auto recovery	
Overload Protection		Auto recovery	

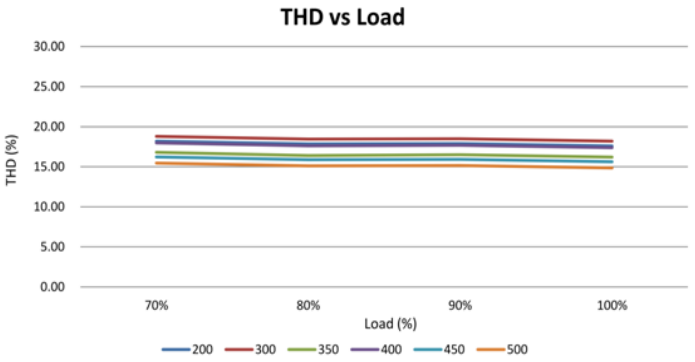
Conformity & Standards		
Safety standard:	EN 61347-1, EN 61347-2-13, EN 62493	
Performance:	EN 62384	
SAA standard:	AS/NZS 61347.1, AS/NZS IEC 61347.2.13	
CCC standard:	GB17625.1,GB/T17743,GB19510.1,GB19510.14	
EMC standard:	EN 55015, EN 61000-3-2, EN 61000-3-3, EN 61547	
DALI protocol standard:	EN 62386-101, 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
Tolerance	±5mm	±5mm
Sec Connection	+	-
Color	Red	Black
Wire type	1332	1332
Wire diameter	AWG22	AWG22
Wire length	140mm	141mm
Stripping	6mm	6mm
Tolerance	±5mm	±5mm
DALI/Touch Dim Connection	DA	DA
Color	Purple	Gray
Wire type	7022	7022
Wire diameter	AWG20	AWG20
Wire length	146mm	150mm
Stripping	10mm	10mm
Tolerance	±5mm	±5mm

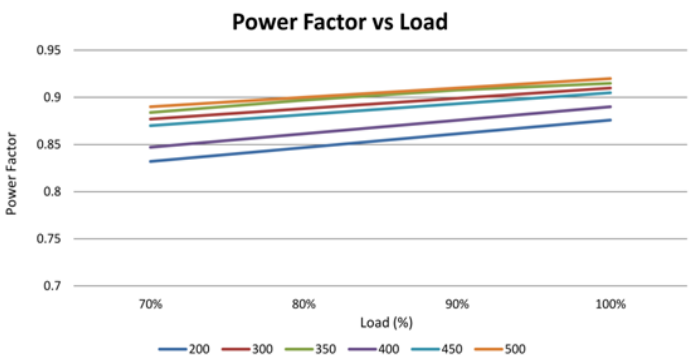
Subject to change without notice, HEP guarantees all products perform functionally well

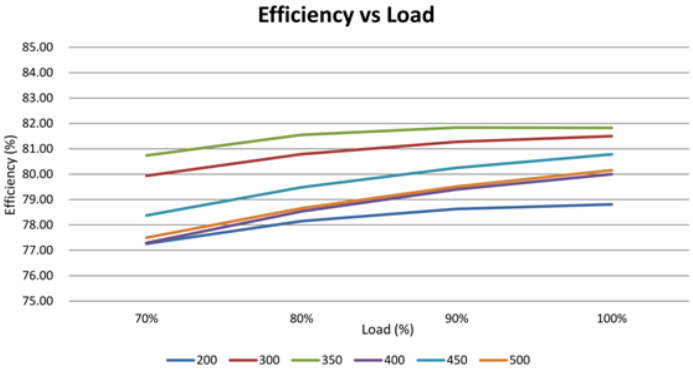
* If not mentioned, all the test conditions are based on full load at 230VAC input (for 220-240 VAC input).

Electrical Values

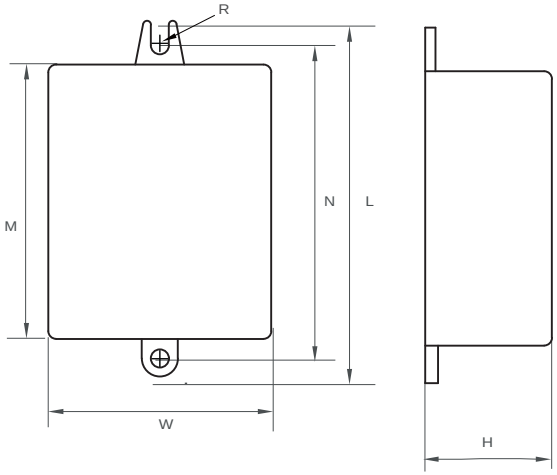








Physical
Parameter



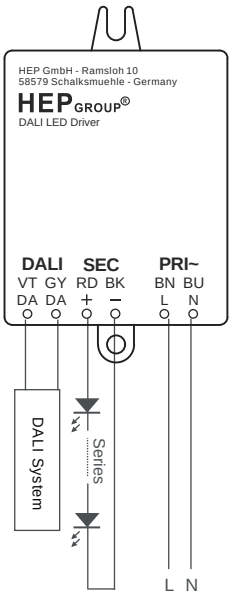
L :	69.3	mm	W :	43.5	mm
M :	53.5	mm	H :	24.6	mm
N :	61	mm	R :	1.75	mm

Tolerance : +/-1 mm , R : +/-0.5 mm

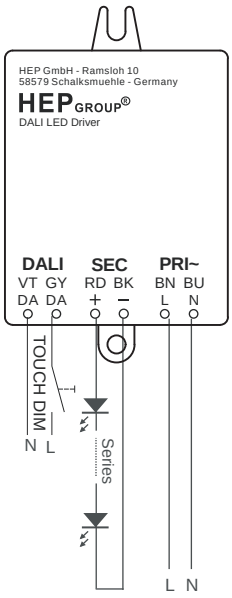
Housing Material : Polycarbonate
Soldering : Lead-Free, Comply With RoHS
Label : Surface Print

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