

## MEAN WELL DALI LED Panel Light

### DALI OHJATTAVAT LED PANEELIT

300 x 300 mm  
300 x 600 mm  
600 x 600 mm  
300 x 1200 mm  
600 x 1200 mm



**Tehoalueelle 42-60 W**



### Features

1. 180~295VAC input only.
2. Built-in active PFC.
3. Output current level selectable by OIP switch.
4. Built-in DALI interface and push dimming function(DA version).
5. Built-in 0~10Vdc and PWM signal dimming function(Non-DA version).
6. Power supply synchronization function up to 10 units.
7. Temperature compensation function by external NTC.
8. Class II power unit,ungrounded.
9. Built-in 12V/50mA auxiliary output(Non-DA version).
10. Full plastic case enclosed.
11. No load power consumption < 1W(0.5W for DA version).
12. Protections: Short circuit / Over voltage / Over temperature.
13. Suitable for intelligent LED lighting.

### Applications



- Hotels
- Conference / Meeting rooms
- Factories & Offices
- Commercial Purposes.
- Residential / Institution Buildings
- Schools, Colleges & Universities
- Hospitals
- Places where energy saving and high color rendering index lighting are needed.

## SPECIFICATION

MODEL	LCM-60DA							
OUTPUT	SELECTABLE CURRENT <small>Note.3</small>	500mA	600mA	700mA	900mA	1050mA	1400mA	
	DC VOLTAGE RANGE	2 ~ 90V	2 ~ 90V	2 ~ 86V	2 ~ 67V	2 ~ 57V	2 ~ 42V	
	RATED POWER	60.3W						
	RIPPLE CURRENT	±5%						
	RIPPLE & NOISE (max.) <small>Note.2</small>	700mVp-p						
	NO LOAD OUTPUT VOLTAGE (max.)	95V			73V			
	CURRENT ACCURACY	±5.0%						
	SETUP, RISE TIME <small>Note.5</small>	500ms, 80ms / 230VAC at rated power						
	HOLD UP TIME (Typ.)	16ms/230VAC at rated power						
INPUT	VOLTAGE RANGE <small>Note.4</small>	180 ~ 295VAC		254 ~ 417VDC				
	FREQUENCY RANGE	47 ~ 63Hz						
	POWER FACTOR (Typ.)	PF ≥ 0.975/230VAC, PF ≥ 0.96/277VAC at rated power (Please refer to "Power Factor Characteristic" curve)						
	TOTAL HARMONIC DISTORTION	Total harmonic distortion will be lower than 20% when output loading is 75% or higher						
	EFFICIENCY (Typ.) <small>Note.6</small>	92%						
	AC CURRENT (Typ.)	0.32A/230VAC		0.27A/277VAC				
	INRUSH CURRENT (Typ.)	COLD START 20A(t <sub>width</sub> =270μs measured at 50% I <sub>peak</sub> ) at 230VAC						
	LEAKAGE CURRENT	<0.5mA / 240VAC						
PROTECTION	SHORT CIRCUIT	Constant current limiting, recovers automatically after fault condition is removed						
	OVER VOLTAGE	105 ~ 125V Protection type : Shutdown o/p voltage, re-power on to recover						
	OVER TEMPERATURE	Shut down o/p voltage, re-power on to recover						
FUNCTION	AUXILIARY POWER (optional)	12V @ 50mA for driving fan; Tolerance±5%						
	TEMP. COMPENSATION	By external NTC(not provide with the power supply), please see "Temperature compensation operation"						
	DIMMING	Please see "Dimming Operation"						
	SYNCHRONIZATION	Please see "Synchronization Operation"						
ENVIRONMENT	WORKING TEMP.	-30 ~ +60°C (Refer to "Derating Curve")						
	WORKING HUMIDITY	20 ~ 90% RH non-condensing						
	STORAGE TEMP., HUMIDITY	-40 ~ +80°C, 10 ~ 95% RH						
	TEMP. COEFFICIENT	±0.03%/°C (0 ~ 50°C)						
	VIBRATION	10 ~ 500Hz, 2G 10min./1cycle, period for 60min. each along X, Y, Z axes						
SAFETY & EMC	SAFETY STANDARDS	UL8750, ENEC EN61347-1, EN61347-2-13, EN62384 independent, GB19510.14,GB19510.1 approved						
	DALI STANDARDS	Comply with IEC62386-101, 102, 207						
	WITHSTAND VOLTAGE	I/P-O/P:3.75KVAC						
	ISOLATION RESISTANCE	I/P-O/P:>100M Ohms / 500VDC / 25°C / 70% RH						
	EMC EMISSION	Compliance to EN55015, EN61000-3-2 Class C(≥ 40% rated power) ; EN61000-3-3; GB17625.1,GB17743						
OTHERS	EMC IMMUNITY	Compliance to EN61000-4-2,3,4,5,6,8,11, EN55024, EN61547 light industry level (surge 2KV), criteria A						
	DIMENSION	123.5*81.5*23mm (L*W*H)						

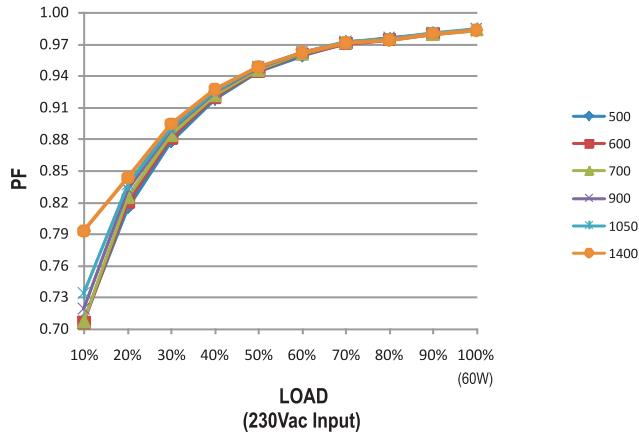
## DIP Switch Table

LCM-60DA is a multiple-stage output current supply, selection of output current through DIP switch as table below.

lo \ DIP S.W.	1	2	3	4	5	6
500mA	----	----	----	----	----	----
600mA	ON	----	----	----	----	----
700mA(Factory Setting)	ON	ON	----	----	----	----
900mA	ON	ON	ON	----	----	ON
1050mA	ON	ON	ON	ON	----	ON
1400mA	ON	ON	ON	ON	ON	ON

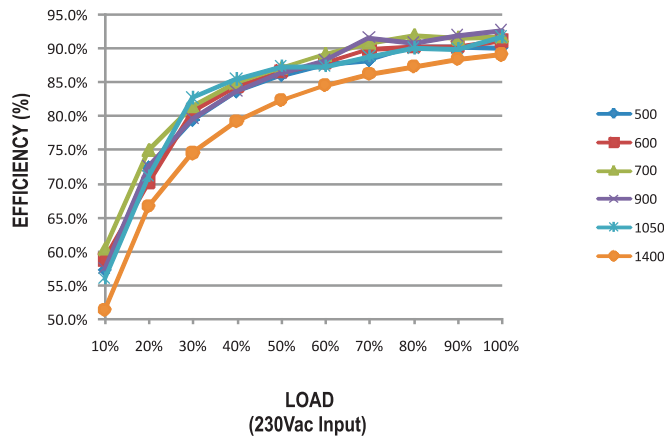
## Power Factor Characteristic

Constant Current Mode



## EFFICIENCY vs LOAD

LCM-60DA series possess superior working efficiency that up to 92% can be reached in field applications.



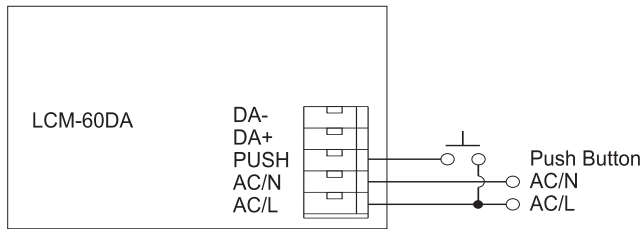
## DIMMING OPERATION

### ※PUSH dim(primary side)

Ignore	To avoid reaction on AC spike	<0.05 sec.
Short push	Push to turn ON-OFF	0.1~1 sec.
Long push	Dimming up or down	1.5~10 sec.
Reset push	Setting light to 100%	>11 sec.

- Maximum number of drivers up to 10 pcs.
- Maximum length of the cable, from push button to last driver is 20 meter.
- Factory setting at 100%.
- When the light is lower than 10% it will always dim up, or when the light output is higher than 90% it will always dim down.

## DIMMING OPERATION



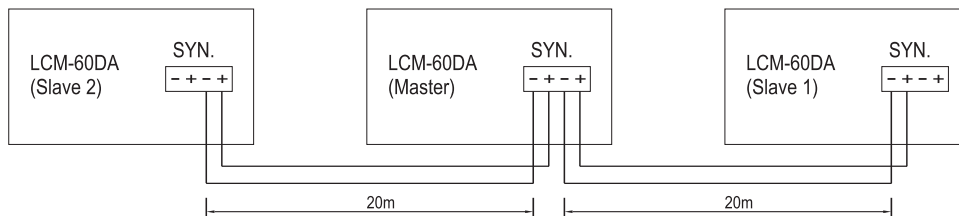
Warning: The pushbutton can only be connected in between the PUSH terminal of LCM-60DA and AC/L (brown or black color). It would cause short circuit if it is connected to AC/N.

### ※DALI interface(primary side)

- DALI protocol including 16 groups and 64 addresses.
- First step is fixed at 6% of output.

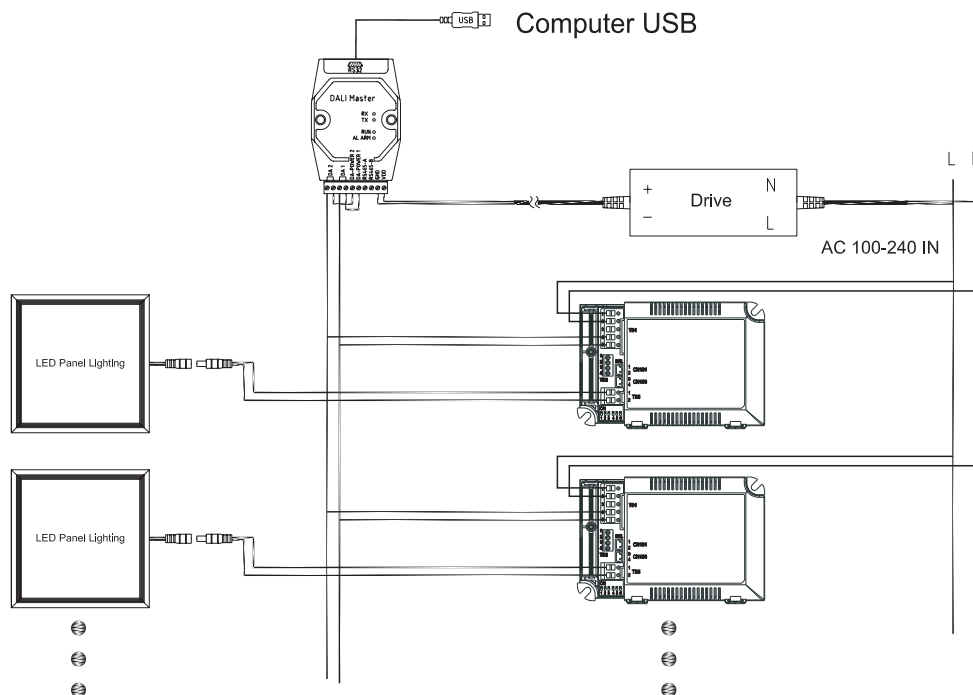
## SYNCHRONIZATION OPERATION

- 10 drivers(max.) synchronization (1 master + 9 slaves)
- Maximum cable length between each units : 20 meter.

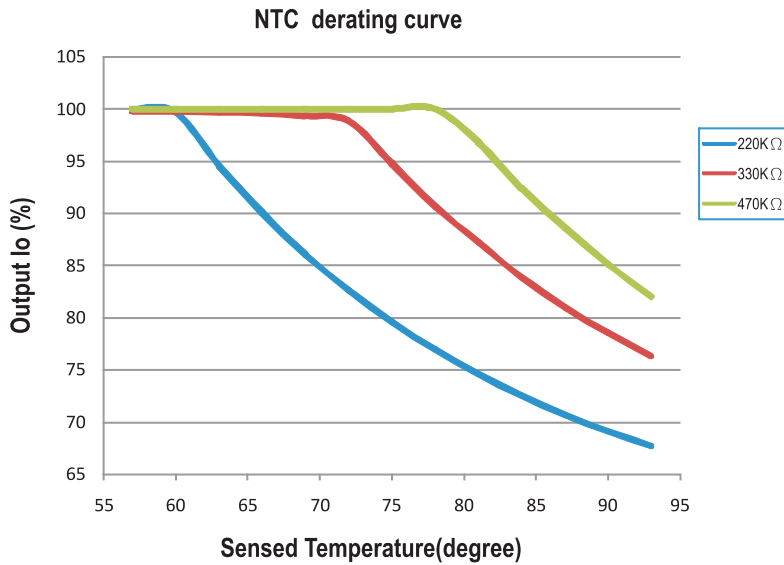


NOTE: Please make sure all units are set to 100% dimming setting(factory default) before synchronizing.

## Electrical Connection



## DIMMING OPERATION



LCM-60DA have the built-in temperature compensation function ( $T \uparrow, I_o \downarrow$ ). By connecting a temperature sensor (NTC resistor) between the NTC +/- terminal of LCM-60DA and the detecting point on the lighting system or the surrounding environment, output current of LCM-60DA could be correspondingly changed to ensure the long life of LED.

- 1.LCM-60DA can still be operated well when the NTC resistor is not connected and the value of output current will be the current level that you set through the DIP switch.
- 2.

NTC resistance	Output Current
220K	< 60°C , 100% of the rated current (corresponds to the setting current level) > 60°C , output current begin to reduce, details please refer to the curve.
330K	< 70°C , 100% of the rated current (corresponds to the setting current level) > 70°C , output current begin to reduce, details please refer to the curve.
470K	< 80°C , 100% of the rated current (corresponds to the setting current level) > 80°C , output current begin to reduce, details please refer to the curve.

- Notes: 1. MW does not offer the NTC resistor and all the data above are measured by using THINKING TTC03 series.
2. If other brands of NTC resistor is applied,please check the temperature curve first.
  3. Synchronization function of the power supply will be invalid when the "temperature compensation" function is in use.