



25W Constant Current Mode LED Driver

**IDLC-25 series**



**■ Features**

- Constant Current mode output
- Flicker free design
- Plastic housing with class II design
- Built-in active PFC function
- No load power consumption<0.5W(Blank-Type)
- Function options: 2 in 1 dimming (dim-to-off); Auxiliary DC output
- 3 years warranty

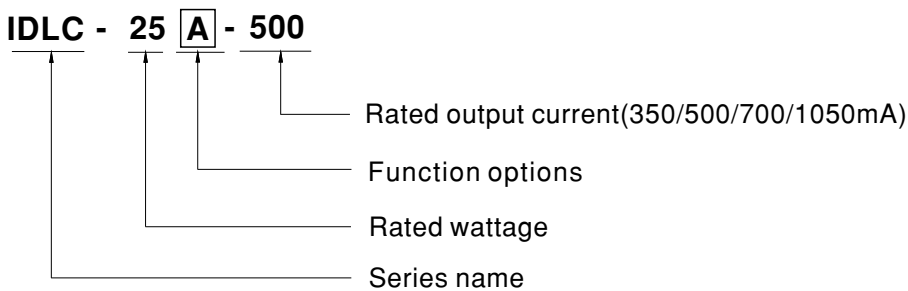
**■ Applications**

- LED panel lighting
- LED flood lighting
- Indoor LED lighting

**■ Description**

IDLC-25 series is a 25W LED AC/DC driver featuring the constant current mode output with flicker free design. IDLC-25 operates from 90~295VAC and offers models with different rated current ranging between 350mA and 1050mA. Thanks to the efficiency up to 82%, with the fanless design, the entire series is able to operate for -20°C~+90°C case temperature under free air convection. IDLC-25 is equipped with various function options, such as dimming methodologies, so as to provide the optimal design flexibility for lighting system.

**■ Model Encoding**



Type	Function	Note
Blank	2 in 1 dimming (0~10VDC and 10V PWM)	In Stock
A	2 in 1 dimming and Auxiliary DC output	In Stock



## SPECIFICATION

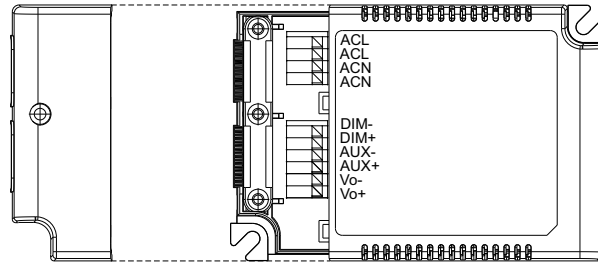
MODEL		IDLC-25□-350	IDLC-25□-500	IDLC-25□-700	IDLC-25□-1050
OUTPUT	RATED CURRENT	350mA	500mA	700mA	1050mA
	RATED POWER	24.5W	25W	25.2W	25.2W
	CONSTANT CURRENT REGION <small>Note.2</small>	49 ~ 70V	35 ~ 50V	25.2 ~ 36V	16.8 ~ 24V
	OPEN CIRCUIT VOLTAGE <sub>(max.)</sub>	100V	75V	63V	36V
	CURRENT RIPPLE	5.0% max. @rated current			
	CURRENT TOLERANCE	±7.0%			
	SETUP TIME <small>Note.4</small>	500ms / 230VAC 1200ms/115VAC			
	AUXILIARY DC OUTPUT <small>Note.5</small>	Nominal 12V(deviation 11.4~12.6)@50mA for A-Type only			
INPUT	VOLTAGE RANGE <small>Note.3</small>	90 ~ 295VAC (Please refer to "STATIC CHARACTERISTIC" section)			
	FREQUENCY RANGE	47 ~ 63Hz			
	POWER FACTOR (Typ.)	PF>0.95/115VAC, PF>0.92/230VAC, PF>0.9/277VAC@full load (Please refer to "POWER FACTOR (PF) CHARACTERISTIC" section)			
	TOTAL HARMONIC DISTORTION	THD< 20%(@load≥70%/115VAC,230VAC; @load≥75%/277VAC) (Please refer to "TOTAL HARMONIC DISTORTION" section)			
	EFFICIENCY (Typ.)	82%	81.5%	81.5%	80%
	AC CURRENT	0.4A/115VAC 0.16A/230VAC 0.13A/277VAC			
	INRUSH CURRENT (Typ.)	COLD START 30A(twidth=100μs measured at 50% Ipeak) at 230VAC; Per NEMA 410			
	MAX. No. of PSUs on 16A CIRCUIT BREAKER	32 units (circuit breaker of type B) / 32 units (circuit breaker of type C) at 230VAC			
	LEAKAGE CURRENT	<0.75mA / 277VAC			
	NO LOAD POWER CONSUMPTION	<0.5W for Blank-Type, <1.2W for A-Type			
PROTECTION	SHORT CIRCUIT	Hiccup mode, recovers automatically after fault condition is removed			
ENVIRONMENT	WORKING TEMP.	Tcase=-20 ~ +90°C (Please refer to " OUTPUT LOAD vs TEMPERATURE" section)			
	MAX. CASE TEMP.	Tcase=+90°C			
	WORKING HUMIDITY	20 ~ 90% RH non-condensing			
	STORAGE TEMP., HUMIDITY	-40 ~ +80°C, 10 ~ 95% RH			
	TEMP. COEFFICIENT	±0.03%/°C (0 ~ 45°C)			
	VIBRATION	10 ~ 500Hz, 2G 10min./1cycle, period for 60min. each along X, Y, Z axes			
SAFETY & EMC	SAFETY STANDARDS	UL8750, CSA C22.2 NO.250.13-12;EN/AS/NZS 61347-1 & EN/AS/NZS 61347-2-13 independent, EN62384, GB19510.1, GB19510.14, BIS IS15885(for IDLC-25-700 only), EAC TP TC 004 approved			
	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 (@load ≥ 70%) ; EN61000-3-3, GB17743, GB17625.1, EAC TP TC 020			
	EMC IMMUNITY	Compliance to EN61000-4-2, 3, 4, 5, 6, 8, 11; EN61547, light industry level(surge immunity:Line-Line:1KV), EAC TP TC 020			
OTHERS	MTBF	418.9Khrs min. MIL-HDBK-217F (25°C)			
	DIMENSION	110*75*22mm(L*W*H)			
	PACKING	0.196Kg; 63pcs / 13.348Kg / 0.88CUFT			
NOTE	<p>1. All parameters NOT specially mentioned are measured at 230VAC input, rated current and 25°C of ambient temperature.</p> <p>2. Please refer to "DRIVING METHODS OF LED MODULE".</p> <p>3. De-rating may be needed under low input voltages. Please refer to "STATIC CHARACTERISTIC" sections for details.</p> <p>4. Length of set up time is measured at cold first start. Turning ON/OFF the driver may lead to increase of the set up time.</p> <p>5. Aux. 12V will be damaged with short circuit; It will not be available when output voltage is not in constant current region or output no load condition.</p> <p>6. The driver is considered as a component that will be operated in combination with final equipment. Since EMC performance will be affected by the complete installation, the final equipment manufacturers must re-qualify EMC Directive on the complete installation again.</p> <p>7. The ambient temperature derating of 3.5°C/1000m with fanless models and of 5°C/1000m with fan models for operating altitude higher than 2000m(6500ft).</p> <p>※ Product Liability Disclaimer : For detailed information, please refer to <a href="https://www.meanwell.com/serviceDisclaimer.aspx">https://www.meanwell.com/serviceDisclaimer.aspx</a></p>				





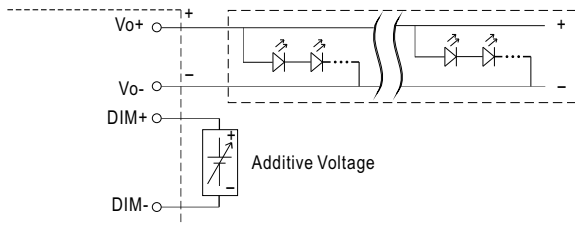
**■ DIMMING OPERATION**

※ 2 in 1 dimming function

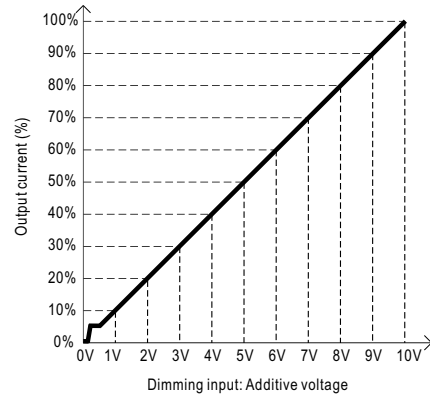


- Output constant current level can be adjusted by applying one of the two methodologies between DIM+ and DIM-: 0 ~ 10VDC, or 10V PWM signal.
- Direct connecting to LEDs is suggested. It is not suitable to be used with additional drivers.

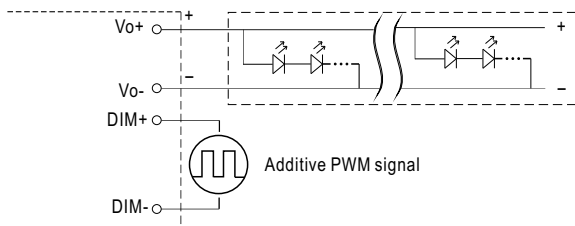
◎ Applying additive 0 ~ 10VDC



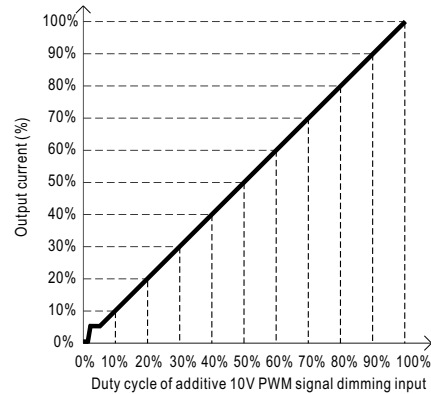
"DO NOT connect "DIM- to Vo-"



◎ Applying additive 10V PWM signal (frequency range 300Hz ~ 3KHz):



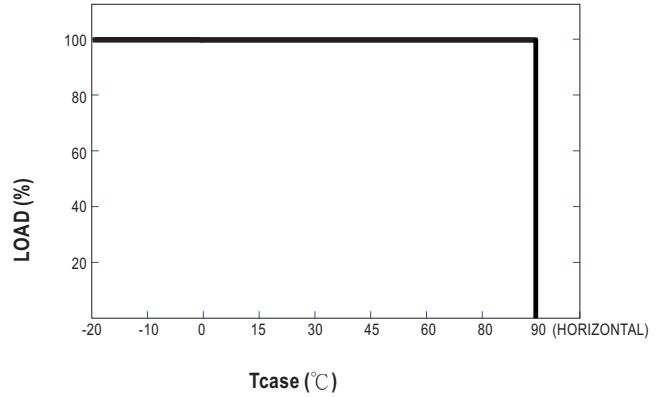
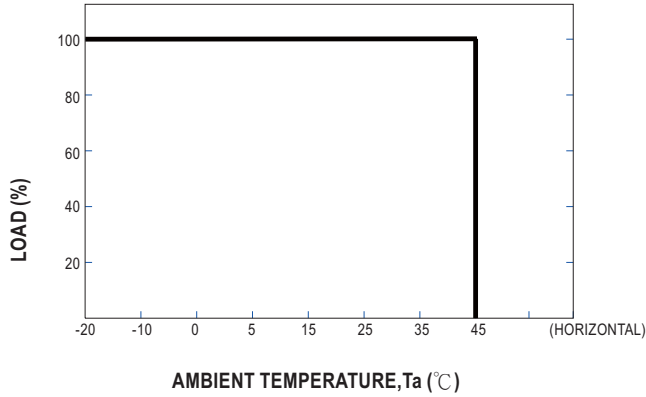
"DO NOT connect "DIM- to Vo-"



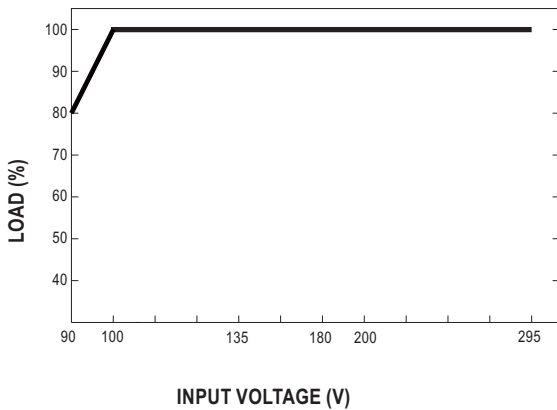
- Note : 1. Min. dimming level is about 8% and the output current is not defined when  $0\% < I_{out} < 8\%$ .  
 2. The output current could drop down to 0% when dimming input is about 0Vdc or 10V PWM signal with 0% duty cycle.



**OUTPUT LOAD vs TEMPERATURE**



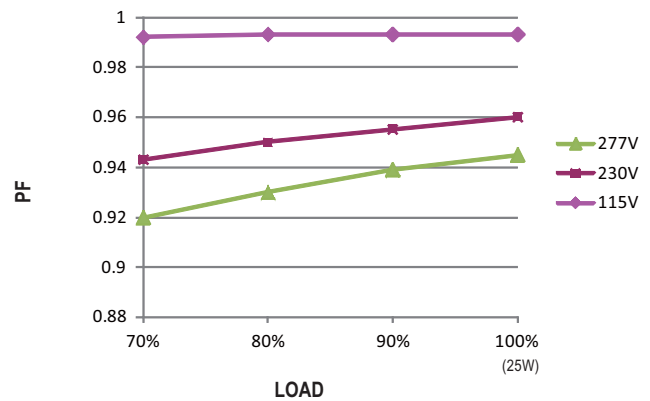
**STATIC CHARACTERISTIC**



※ De-rating is needed under low input voltage.

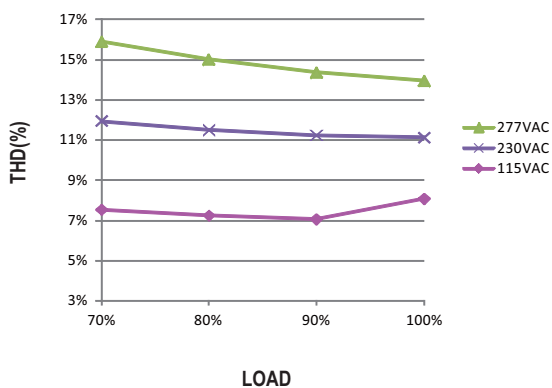
**POWER FACTOR (PF) CHARACTERISTIC**

※ Tcase at 75°C



**TOTAL HARMONIC DISTORTION (THD)**

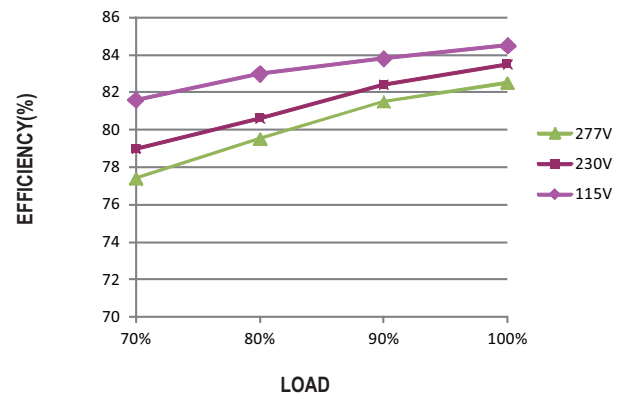
※ 350mA Model, Tcase at 75°C



**EFFICIENCY vs LOAD**

IDLC-25 series possess superior working efficiency that up to 82% can be reached in field applications.

※ 350mA Model, Tcase at 75°C

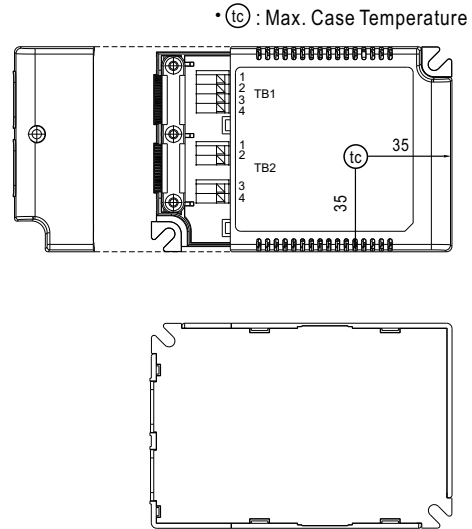
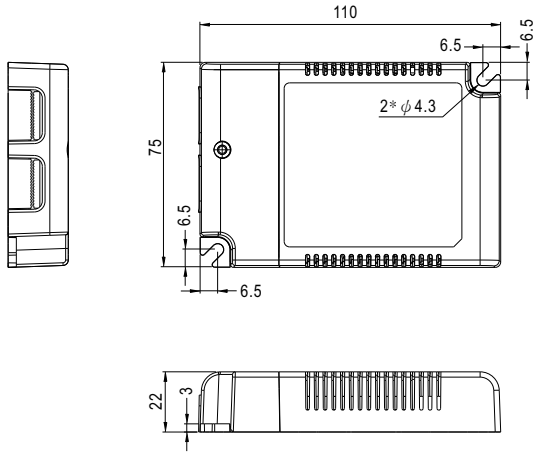




MECHANICAL SPECIFICATION

Case No. IDLC-25A Unit:mm

※ Blank-Type



NOTE: Please use wires with a cross section of 0.75~1.5mm<sup>2</sup> for TB1 and wires with a cross section of 0.5~1.5mm<sup>2</sup> for TB2.

Terminal Pin No. Assignment(TB1)

Pin No.	Assignment
1	ACL
2	ACL
3	ACN
4	ACN

Terminal Pin No. Assignment(TB2)

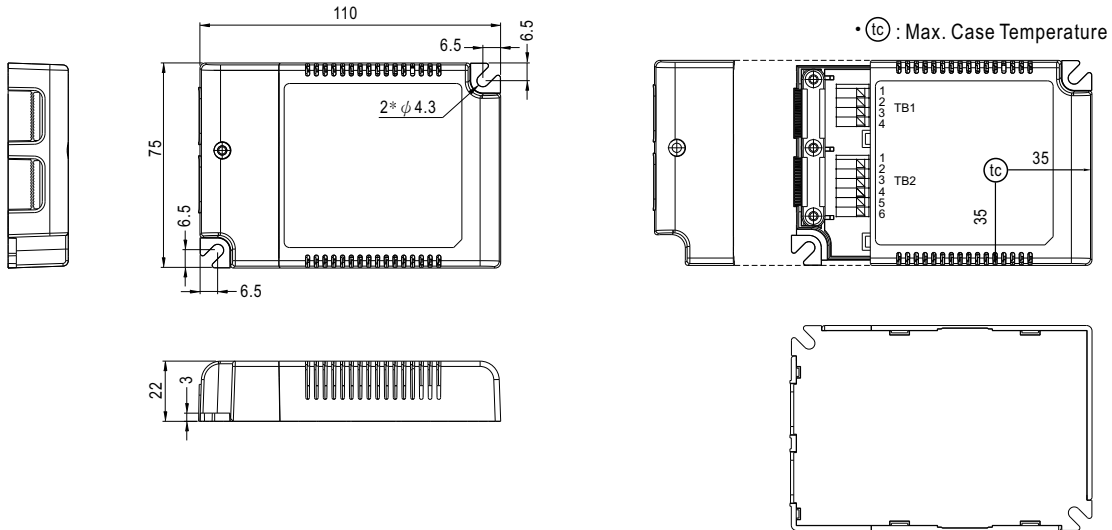
Pin No.	Assignment
1	DIM-
2	DIM+
3	Vo-
4	Vo+



25W Constant Current Mode LED Driver

IDLC-25 series

※ A-Type



NOTE: Please use wires with a cross section of 0.75~1.5mm<sup>2</sup> for TB1 and wires with a cross section of 0.5~1.5mm<sup>2</sup> for TB2.

Terminal Pin No. Assignment(TB1)

Pin No.	Assignment
1	ACL
2	ACL
3	ACN
4	ACN

Terminal Pin No. Assignment(TB2)

Pin No.	Assignment	Pin No.	Assignment
1	DIM-	4	AUX+
2	DIM+	5	Vo-
3	AUX-	6	Vo+

■ Installation Manual

Please refer to : <http://www.meanwell.com/manual.html>