# 20W multi-current with dip switch Triac Dimmable CC LED driver <br> (Multi-output current with DIP switch adjustable) (10W, 20W, 40W, 60W available) 

## - Features:

- Output constant current
-Range AC input :100-277VAC
Efficiency up to 78\%
-Built-in active PFC function
-Protections: short circuit/over current
-Full protection plastic housing easy installation -IP20 design for installation at dry\&damp location
-Cooling by free air convection
-Dimming function: Triac/phase cut dimming
Work with leading or trailing edge Triac dimmer
(ON key: leading edge; 1 key: trailing edge)
-Strong compatibility, flicker-free dimming

-Suitable for LED lighting and moving sign applications
-UL Listed Class 2, Class P
.7 years warranty
Specification:


| Model |  | SMT-M-020CT |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Output | Rated current (mA) |  | 600 mA <br> -17 | 550 mA <br> TH7 | 500 mA <br> TT1 | 450mA <br> -17 | 400 mA <br> 山甲 |  |  |
|  | Current Tolerance | $\pm 5 \%$ |  |  |  |  |  |  |  |
|  | DC Voltage | 3-29V | $3-33 \mathrm{~V}$ | 3-36V | $3-40 \mathrm{~V}$ | $3-42 \mathrm{~V}$ | 3-42V | $3-42 \mathrm{~V}$ | $3-42 \mathrm{~V}$ |
|  | Rated power | 20.3W | 19.8W | 19.8W | 20W | 18.9W | 16.8W | 14.7W | 10.5W |
| Input | Rated Input Voltage | 100-277VAC |  |  |  |  |  |  |  |
|  | Rated Frequency | 47-63HZ |  |  |  |  |  |  |  |
|  | Power Factor | Full loading $\geq 0.9 @ 110 \mathrm{VAC}, \geq 0.93 @ 277 \mathrm{VAC}$ |  |  |  |  |  |  |  |
|  | Efficiency (Typ.) | Full loading $\geq 78 \%$ @110VAC, $\geq 80 \%$ @ 277 VAC |  |  |  |  |  |  |  |
|  | AC Current (Max.) | 0.15A |  |  |  |  |  |  |  |
|  | Inrush Current (Typ.) | 2.96A, 7.6us @ 50\%lpeak at 100-277VAC |  |  |  |  |  |  |  |
|  | Leakage current | $<0.50 \mathrm{~mA}$ |  |  |  |  |  |  |  |
| Protection | Short Circuit | Constant current mode, recovers automatically after fault condition is removed |  |  |  |  |  |  |  |
|  | Output No-Load Voltage | 52 V max. |  |  |  |  |  |  |  |
|  | Over temperature | Ambient temp. over $50 \pm 5^{\circ} \mathrm{C}$, output current will be reduced to $50 \%$; <br> Ambient temp. over $60 \pm 5^{\circ} \mathrm{C}$, output will be off; recovers automatically after temp. drops. |  |  |  |  |  |  |  |
|  | Protection Class: | II |  |  |  |  |  |  |  |
| Environment | Working TEMP. | $-30-+60^{\circ} \mathrm{C}$ |  |  |  |  |  |  |  |
|  | Working Humidity | 20-90\%RH, non-condensing |  |  |  |  |  |  |  |
|  | Storage TEMP. Humidity | $-30-+80^{\circ} \mathrm{C}, 10-95 \% \mathrm{RH}$ |  |  |  |  |  |  |  |
|  | TEMP. coefficient | $\pm 0.03 \% /{ }^{\circ} \mathrm{C}\left(0-50^{\circ} \mathrm{C}\right)$ |  |  |  |  |  |  |  |
|  | Vibration | $10-500 \mathrm{~Hz}$, 2G $10 \mathrm{~min} . / 1$ cycle,period for 60 min.each along $X, Y, Z$ axes |  |  |  |  |  |  |  |

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| Safety | Safety standards | EN61347-1 EN61347-2-13 UL8750 |
| :--- | :--- | :--- |
|  | Withstand voltage | I/P-O/P:3.75KVAC |
|  | Isolation resistance | $\mathrm{I} / \mathrm{P}-\mathrm{O} / \mathrm{P}: 100 \mathrm{M} \Omega / 500 \mathrm{VDC} / 25^{\circ} \mathrm{C} / 70 \% \mathrm{RH}$ |
| Others | Weight | 0.115 Kg |
|  | Size | $159.5^{*} 43^{*} 20 \mathrm{~mm}\left(\mathrm{~L}^{*} \mathrm{~W} * \mathrm{H}\right)$ |
|  | packing | $340^{*} 250^{*} 135 \mathrm{~mm}(50 \mathrm{PCS} / \mathrm{CTN})$ for outer carton $6.52 \mathrm{KG} / \mathrm{CTN}$ |
| Notes | 1. All parameters NOT specially mentioned are measured at $110 \mathrm{~V}, 277 \mathrm{VAC}$ input, rated load and $25^{\circ} \mathrm{C}$ of ambient | temperature. |

## Mechanical Specification:


> Input with DG126 terminals 3P: Live Wire AC (L), Neutral Wire AC(N)
> Output LED SEC with DG126 terminals 2P: output Positive (LED+), output negative (LED-). Connected to LED Lamps.
$>$ Suggested wire diameter: Input $0.75-2 \mathrm{~mm}^{2}$; Output:0.5-2 $\mathrm{mm}^{2}$.

Note: Please make sure you connect these correctly otherwise your product will not function correctly and could be damaged.

Derating Curve

> To extend their life, please refer to the Derating Curve and derate according to the temperature.

## -Dimming Operation

$>$ Output constant current level can be adjusted through input terminal of the AC phase line(L) by connection a Triac dimmer.
> Usually matching with leading edge and trailing edge dimmer both.
At the input area, you will find dip switch on the terminal.
ON key for leading edge; 1 key for trailing edge. (see right picture)

$>$ please try to use the small power dimmer, have access to a wider dimming range,
high-power dimmer is difficult to achieve the output current to zero
> please try to use dimmers with power at least 2 times as the output power of the driver.

## - Connecting Diagram in Single (I)



## ■ Connecting Diagram Multiple (II)



## - Instruction:

- This driver should be installed by qualified and professional person;
- Please make sure the driver is installed with adequate ventilation around it to allow for heat dissipation.
- Ensure that wiring is correct before test in order to avoid light and power supply damage;

