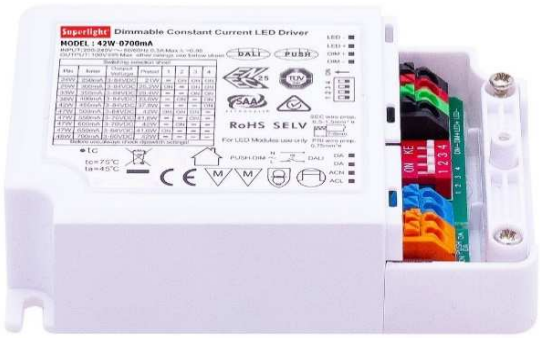
Dimmable Constant Current LED Driver - MODEL: 42W-0700mA (DALI 2.0)



FEATURES

1. 180-264VAC input
2. Flicker free
3. Built in active PFC function, high PF, low THD
4. Stanby power consumption <0.5W to turn off dimmable port
5. Built in DALI dimming function
6. Constant current mode output with mulitiple levels selectable by DIP switch
7. Supporting multi-power supplys synchronous dimming connected in parallel
8. Cooling by free air convection
9. Suitable for indoor LED lighting applications
10. 3 years warranty

APPLICATION

1. LED indoor lighting
2. LED office lighting
3. LED architectural lighting

ELECTRICAL SPECIFICATIONS

INPUT

- **Rated voltage:** 200-240VAC / 200-240VDC
- **Input AC voltage range:** 180-264VAC
- **Input DC voltage range:** 180-264VDC
- **Frequency range:** 47-63Hz
- **Power factor:** PF>0.95 @ 230VAC/full load, PF>0.90 @ 230VAC/>50% load
- **Total harmonic distortion:** THD<15% @ 230VAC/full load, THD<20% @ 230VAC/>50% load
- **Efficiency (Typ.):** 89%
- **Standby power (note.3):** <0.5W @ 230Vac
- **Input current:** <0.3A @ 230Vac
- **Inrush current(Typ.):** Cold start <30A (Twidth=120us measured at 50% Ipeak) @ 230Vac
- **Max. No. of PSUs on 16A circuit breaker:** 23 units (Type B) / 40 units (Type C)
- **Turn on delay:** <0.5s @ 230Vac

OUTPUT

- **DC current:** 0.25-0.7A
- **DC voltage range:** 3-84V
- **Rated power:** 42W Max
- **Voltage ripple & noise (note.2):** ≤200mV (Vpp)
- **Current ripple & noise:** ≤30mA (RMS)
- **Constsnt current ADJ. Range:** DIP switch
- **Constant current accuracy:** ±20mA
- **Line regulation:** ±20mA
- **Load regulation:** ±20mA
- **DALI port input current:** ≤2mA
- **External PWM interface:** N/A

ENVIRONMENT

- **Operation temperature:** -20-45℃
- **Operation humidity:** 10-90% RH, non-condensing
- **Storage temperature/humidity:** -40-80℃, 5-95% RH
- **IP class:** IP20
- **Tc:** 75℃ (Ta=45℃)
- **MTBF:** 50000H, MIL-HDBK-217F (25℃)
- **LIFETIME:** See life curve for details

PROTECTION

- **Short circuit:** Hiccup, recovers automatically after environment temperature declines
- **Max output voltage:** 100V
- **Over temperature:** Hiccup, recovers automatically after fault condition is removed

ELECTRICAL SPECIFICATIONS

EMC

- **EMC emisson (note.4):** Compliance to EN55015, GB17743, EN61000-3-2 Class C (≥30% load), EN61000-3-3
- **EMC immunity:** Compliance to EN61000-4-2,3,4,5,6,8,1, EN61547 ,surge:DM 2KV

SAFETY

- **Safety standards:** EN61347-1/2-13, GB19510.1/14, EN62384, IEEE1789
- **DALI standards:** IEC62386-101,102,207
- **Certificate:** CE-SUD ENEC CCC SAA RCM
- **Withstand voltage:** I/P - O/P: 3750VAC
- **Leakage current:** <0.7mA @ 240Vac
- **Isolation resistance:** I/P - O/P: 100MΩ / 500Vdc / 25℃ / 70% RH

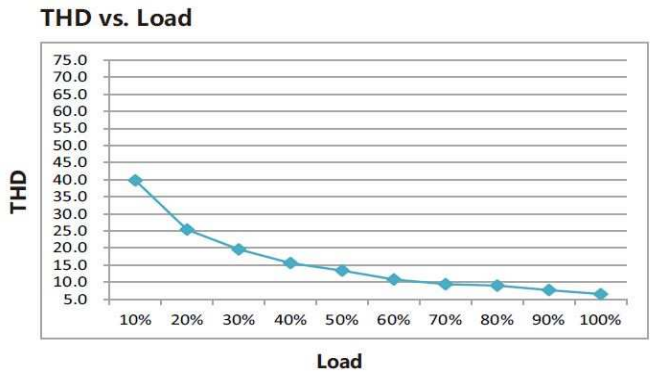
CONNECTOR

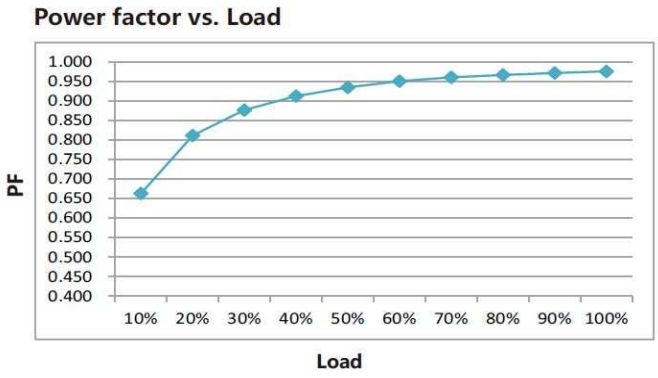
- **Environmental protection:** RoHS
- **Input connection:** PCB connector / 4PINs / orange+orange+blue+blue / 0.75-1.5mm^2
- **Output connection:** PCB connector / 2PINs / red+black / 0.5-1.5mm^2

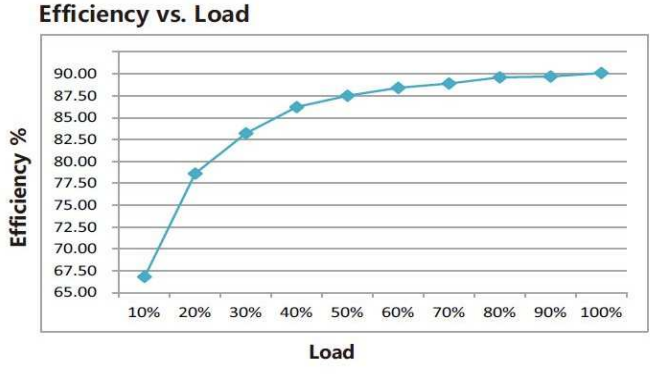
NOTE

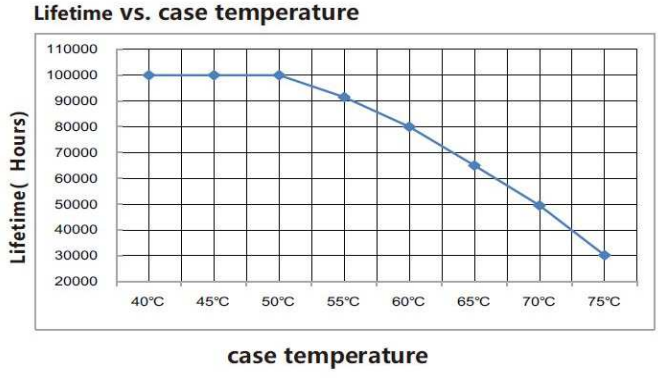
1. All parameters are measured at 230VAC input, rated load and 25℃ of ambient temperature.
2. Ripple & Noise are measured at 20MHz of bandwith by using a 12" twised pair-wire terminated with a 0.1uF & 47uF paralled capacitor.
3. Stand-by power consumption is measured at dimmable off condition.
4. The power supply is considers as a compent that wil be operated in combination with final equipment. Since EMC performance will be affected by the complete installation the final equipment mancfactures must re-quality EMC directive on the complete installation again.
5. If this driver used for led lighting, the Tc should not higher than Tc showed on the driver when the lighting working on the highest rated working tempreture.

ELECTRICAL CHARACTERISTICS (84V/0.5A)

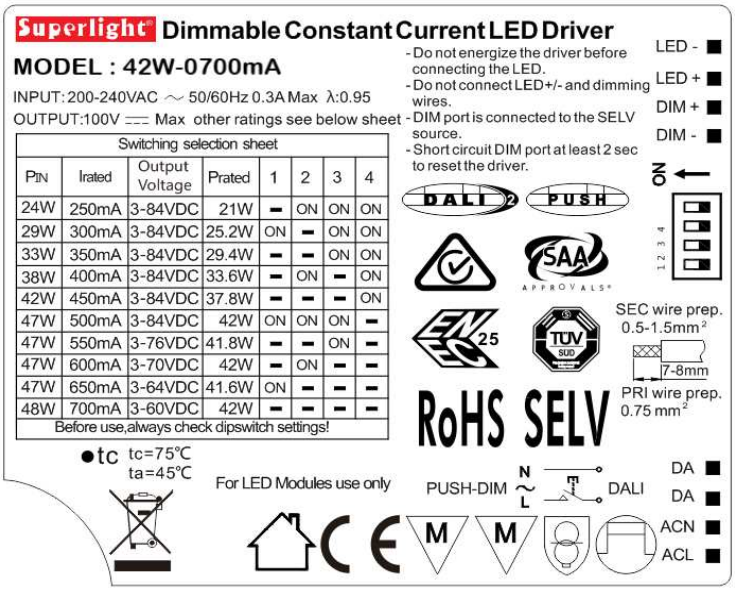








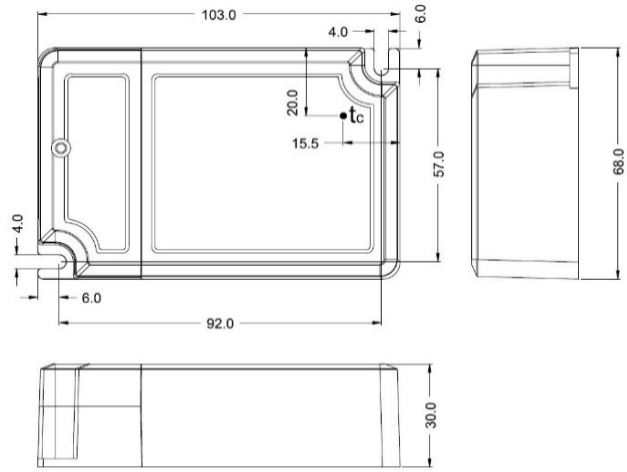
LABLE & MECHANICAL SPECIFICATION



Switching selection sheet

PIN	Irated	Output Voltage	Prated	1	2	3	4
24W	250mA	3-84VDC	21W	-	ON	ON	ON
29W	300mA	3-84VDC	25.2W	ON	-	ON	ON
33W	350mA	3-84VDC	29.4W	-	-	ON	ON
38W	400mA	3-84VDC	33.6W	-	ON	-	ON
42W	450mA	3-84VDC	37.8W	-	-	-	ON
47W	500mA	3-84VDC	42W	ON	ON	ON	-
47W	550mA	3-76VDC	41.8W	-	-	ON	-
47W	600mA	3-70VDC	42W	-	ON	-	-
47W	650mA	3-64VDC	41.6W	ON	-	-	-
48W	700mA	3-60VDC	42W	-	-	-	-

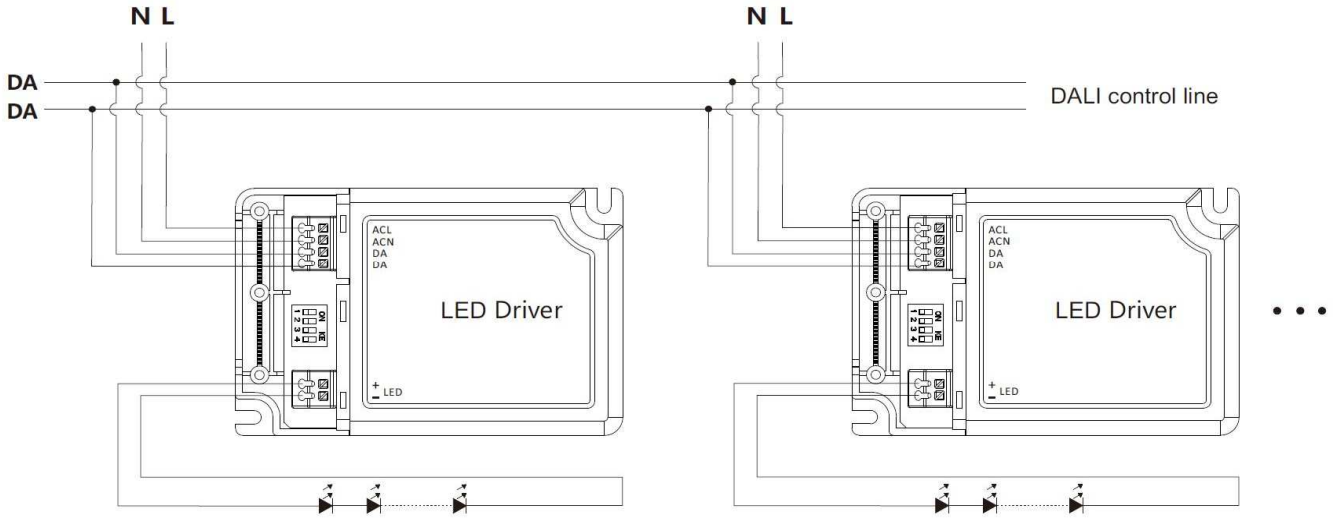
Before use,always check dipswitch settings!



Unit:mm

DALI DIMMING

Wiring diagram



Note

- Standard DALI control line voltage range: 9.5 V to 22.5 V, type 16V.
- The two DALI control lines are polarity-reversible.
- Max. 64 DALI drivers per DALI control line.
- The maximum Distance length of the DALI control line is 300m at 2 x1.5mm².
- DALI bus can be wired together with any mains voltage cables, but separate wiring is recommended.

HOT PLUG-IN PROTECTION FUNCTION

In the following two cases, the LED driver will automatically turn off the output to protect the LED:

1. When the driver is powered on first and the LED is connected later.

2. When the driver is powered on, disconnected and connecred again.

The LED can be activated in two ways:

1. Through the AC input port: disconnect the AC of the drive and power it again.

2. Through DALI interface: send “OFF” command first, then send “MAX” command.