

Constant Current Dimmable Driver

- The housing is made from V0 flame retardant PC materials from COVESTRO.
- Small size and light weight. Wide range of applicable lamps.
- Class 1 LED driver, Safety Extra Low Voltage (SELV).
- Innovative thermal management technology intelligently protects the life of the LED driver.
- Overheat, overload, short circuit protection and automatic recovery.
- Up to 50,000-hour life time.
- 5-year warranty (AiSHi capacitor).



The certification icon represents on-going certification applications only, and final certification qualification is subject to actual products.



Model	Output Current	Input Current	Input Power	Output Power Range	PF	Typical Efficiency	Output Voltage	No load Voltage
S-280-C35W150-700 DALI	150mA	0.13A	8.72W	3.00-7.50W	0.81	86.0%	20-50V	60V
	200mA	0.14A	11.49W	4.00-10.00W	0.87	86.0%	20-50V	60V
	250mA	0.15A	14.37W	5.00-12.50W	0.89	86.0%	20-50V	60V
	300mA	0.16A	17.05W	6.00-15.00W	0.90	86.0%	20-50V	60V
	350mA	0.17A	19.89W	7.00-17.50W	0.91	87.0%	20-50V	60V
	400mA	0.18A	22.73W	8.00-20.00W	0.92	87.0%	20-50V	60V
	450mA	0.19A	25.57W	9.00-22.50W	0.93	88.0%	20-50V	60V
	500mA	0.20A	28.41W	10.00-25.00W	0.94	88.0%	20-50V	60V
	550mA	0.21A	31.25W	11.00-27.50W	0.94	88.0%	20-50V	60V
	600mA	0.22A	34.09W	12.00-30.00W	0.94	89.0%	20-50V	60V
	650mA	0.23A	36.52W	13.00-32.50W	0.95	89.0%	20-50V	60V
700mA	0.24A	39.33W	14.00-35.00W	0.95	89.0%	20-50V	60V	

* Test result @230V, 50Hz, Full Load

Parameters

Category	Item	Technical Norm
Features	Output Type	Constant Current
	Dimming Type	DALI 2/ Touch DIM
	Output Features	Isolation
	IP Grade	IP20
	Insulation Class	Class I
	Rated Input Voltage	220-240VAC
	Range of Input Voltage	198-264VAC
	Range of DC Input Voltage	180-280VDC
	Frequency	0/50/60Hz, Range:0/47-63Hz
	Overvoltage protection	2h@380VAC, 48h@320VAC

Input	Input Current	≤0.24A max
	Input Power	≤39.3W max
	Power Factor	≥0.95 (230VAC, full load)
	THD	≤8.5% (230VAC, full load)
	Standby Power Consumption	≤0.45W @230VAC(DIM to off)
	Inrush Current	≤18A/15us (230VAC, full load)
	Connected quantity of 10A Breaker Connected quantity of 13A Breaker Connected quantity of 16A Breaker Connected quantity of 20A Breaker	11pcs/type A; 17pcs/type B; 28pcs/type C @ 230Vac 13pcs/type A; 22pcs/type B; 36pcs/type C @ 230Vac 17pcs/type A; 28pcs/type B; 44pcs/type C @ 230Vac 22pcs/type A; 35pcs/type B; 56pcs/type C @ 230Vac
	Output Voltage	20-50VDC@150-700mA
	No Load Voltage (Uout)	60VDC Max.
	Output Current	150mA-700mA (Factory set current of 150mA)
Output	Max. Output Power	35W
	Efficiency	≥89% (230VAC, full load@max current)
	Output LF current ripple (< 120 Hz)	±3% (Imax-Imin) / (Imax+Imin)
	Current Accuracy	±5%
	PstLM	≤1
	SVM	≤0.4
	Starting Time (AC mode)	≤0.8S (230VAC, full load,by DALI system)
	Starting Time (DC mode)	≤0.4S
	Switching over time (AC/DC)	≤0.4S
Control Method	Secondary PUSH dimming	Secondary PUSH dimming (Max. lead wire length:20m,same port of DALI)
	DALI function	DALI dimming (Max. lead wire length:300m) logarithm or linear dimming curve selectable
	Dimming range	DALI dimming: 1%-100%
	PUSH-button	Max parallel connections qty for Push-dim 15
Protection	Short Circuit Protection	Auto Recovery
	Overload Protection	Auto Recovery (not be hot swap)
	No-load Protection	Auto Recovery
	Insulation voltage	3000V 5mA 60S between P-S, 1500V 5mA 60S between P-E
	Insulation resistance	>100M ohm @ 500VDC L/N to PE
	Leakage current	< 700μA, I/P to O/P or I/P to PE @230V input
Environment	Ta/Operation Temperature	-25.....+50 ℃
	Ts/Storage Temperature	-25.....+80 ℃
	Tc/Enclosure Temperature	80 ℃
	Humidity	10%.....90%RH
	Atmosphere pressure	86-108KPa
Construction	Connection Method	Push-in Terminal
	Installation	Built-in
	Dimension	280*29.4*21mm (L*W*H)
	SEC Wire preparation	0.5-1.5 [□] / 8-9mm
	PRI Wire preparation	0.5-1.5 [□] / 8-9mm
	DALI Wire preparation	0.5-1.5 [□] / 8-9mm
Standards	Certification	CE
	Safety Standards	EN61347-1:2015/A1:2021; EN61347-2-13:2014/A1:2017;
	DALI performance	EN 62386-101 (DALI-2),EN 62386-102 (DALI-2) EN 62386-207 (DALI-2, including part 251, 252, 253)

	Performance	EN 62384
	Surge	L-N/1KV (L/N)-PE/2KV
Others	RoHs	2011/65/EU
	Life Time	50000h Tc=80 C
		75000h Tc=75 C
		100000h Tc=70 C
Warranty	5years , F.R. < 10000ppm	
Remark: 1.All Parameters, if not specified, are measured at 230VAC/50Hz and 25 C ambient temperature. 2.LED Driver is a component of the luminaires, Luminaires and wire layout will affect the EMC, please check the EMC with end products again. 3.During the PUSH DIM test,the number of parallel connections must be less than 15PCS.		

Distance	15m	30m	50m
Cable selection	0.5mm ²	0.75mm ²	1.0mm ²

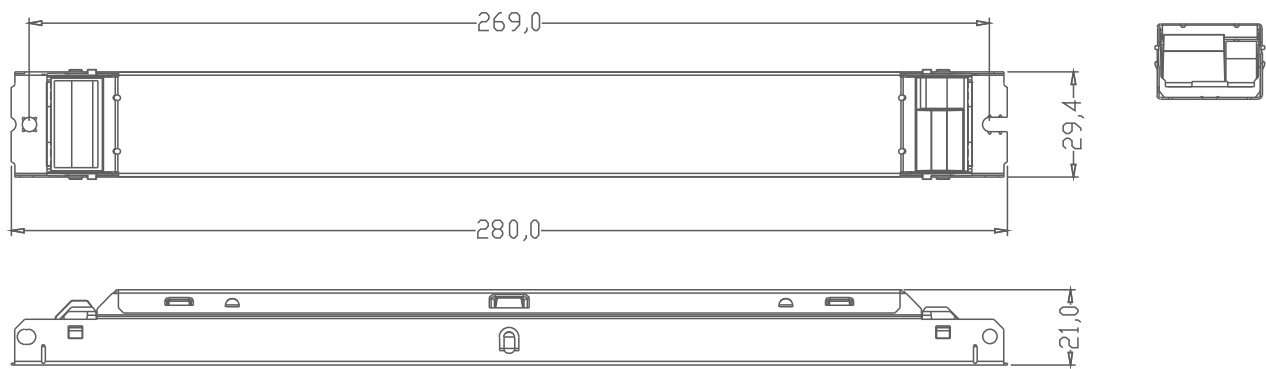
Output Current Setting

Output Current	1	2	3	4
150mA	-	-	-	-
200mA	-	-	-	ON
250mA	-	-	ON	-
300mA	-	-	ON	ON
350mA	-	ON	-	-
400mA	-	ON	-	ON
450mA	-	ON	ON	-
500mA	-	ON	ON	ON
550mA	ON	-	-	-
600mA	ON	-	-	ON
650mA	ON	-	ON	-
700mA	ON	-	ON	ON
750mA	ON	ON	-	-

Label

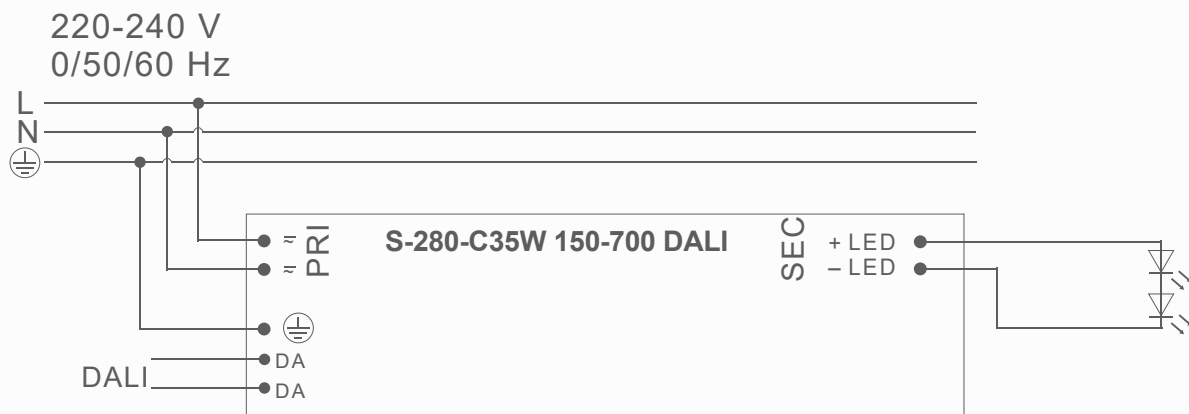
<input type="checkbox"/> L <input type="checkbox"/> N <input type="checkbox"/> DA <input type="checkbox"/> DA	 S-280-C35W150-700 DALI Constant Current Type for operation with LED modules only Input Voltage:220-240VAC Input Frequency:0/50-60Hz SEC:150-700mA 20-50VDC Range of application: DC 180-280V	 DALI CE SELV Iin:≤0.24A Prange=3-35W Uout:60VDC Max.35W Tc:80C Ta:50C	<table border="1"> <thead> <tr> <th>Pout [W]</th> <th>Iout [mA]</th> <th>PF</th> <th>1</th> <th>2</th> <th>3</th> <th>4</th> <th>Pout [W]</th> <th>Iout [mA]</th> <th>PF</th> <th>1</th> <th>2</th> <th>3</th> <th>4</th> </tr> </thead> <tbody> <tr><td>7.5</td><td>150</td><td>0.81C</td><td>-</td><td>-</td><td>-</td><td>-</td><td>22.5</td><td>450</td><td>0.94</td><td>-</td><td>ON</td><td>ON</td><td>-</td></tr> <tr><td>10.0</td><td>200</td><td>0.87C</td><td>-</td><td>-</td><td>ON</td><td>-</td><td>25.0</td><td>500</td><td>0.94</td><td>-</td><td>ON</td><td>ON</td><td>ON</td></tr> <tr><td>12.5</td><td>250</td><td>0.89C</td><td>-</td><td>-</td><td>ON</td><td>-</td><td>27.5</td><td>550</td><td>0.94</td><td>ON</td><td>-</td><td>-</td><td>-</td></tr> <tr><td>15.0</td><td>300</td><td>0.90C</td><td>-</td><td>-</td><td>ON</td><td>ON</td><td>30.0</td><td>600</td><td>0.94</td><td>ON</td><td>-</td><td>-</td><td>ON</td></tr> <tr><td>17.5</td><td>350</td><td>0.91C</td><td>-</td><td>ON</td><td>-</td><td>-</td><td>32.5</td><td>650</td><td>0.95</td><td>ON</td><td>-</td><td>ON</td><td>-</td></tr> <tr><td>20.0</td><td>400</td><td>0.92C</td><td>-</td><td>ON</td><td>-</td><td>ON</td><td>35.0</td><td>700</td><td>0.95</td><td>ON</td><td>-</td><td>ON</td><td>ON</td></tr> </tbody> </table>	Pout [W]	Iout [mA]	PF	1	2	3	4	Pout [W]	Iout [mA]	PF	1	2	3	4	7.5	150	0.81C	-	-	-	-	22.5	450	0.94	-	ON	ON	-	10.0	200	0.87C	-	-	ON	-	25.0	500	0.94	-	ON	ON	ON	12.5	250	0.89C	-	-	ON	-	27.5	550	0.94	ON	-	-	-	15.0	300	0.90C	-	-	ON	ON	30.0	600	0.94	ON	-	-	ON	17.5	350	0.91C	-	ON	-	-	32.5	650	0.95	ON	-	ON	-	20.0	400	0.92C	-	ON	-	ON	35.0	700	0.95	ON	-	ON	ON
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Dimension

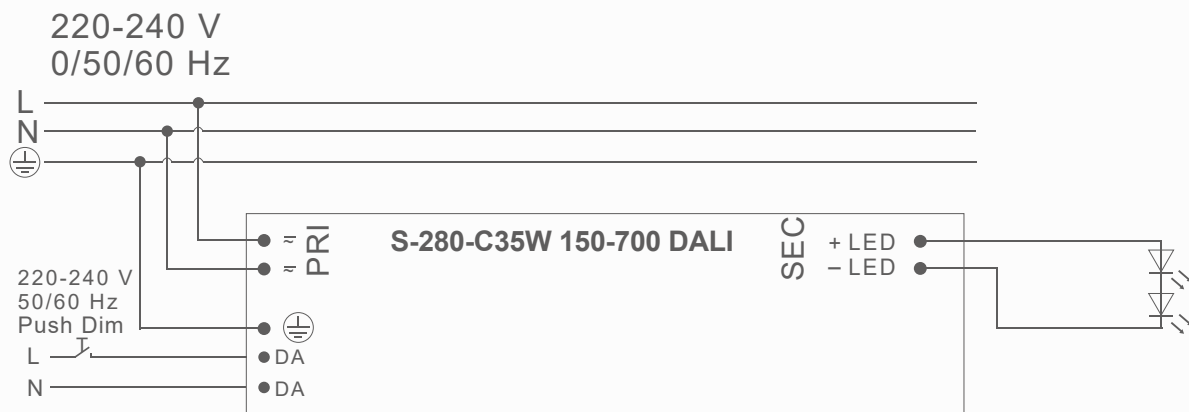


Wiring Diagram

Circuit diagram

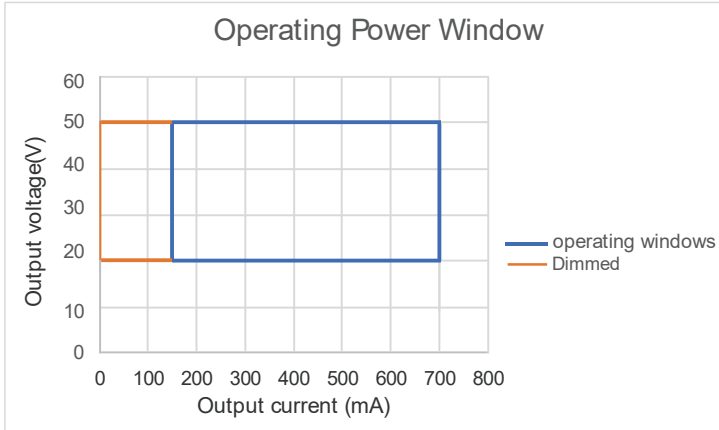


Push Dimming



Electrical values

1. Operating power windows



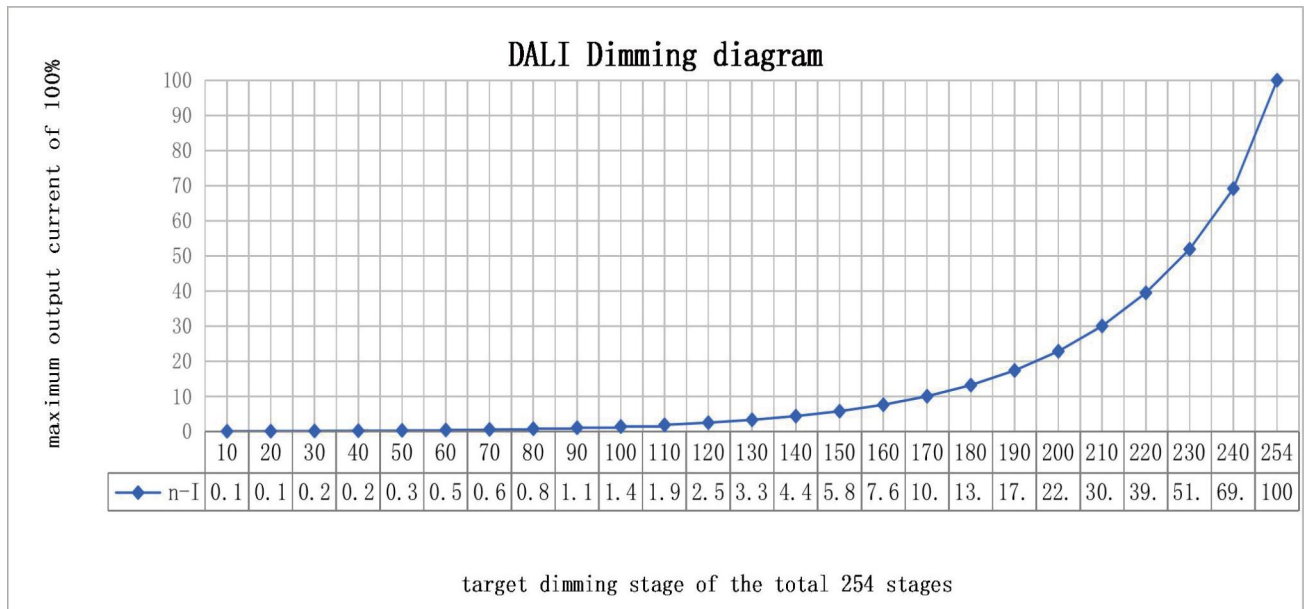
DALI dimming curve

formula for DALI dimming.

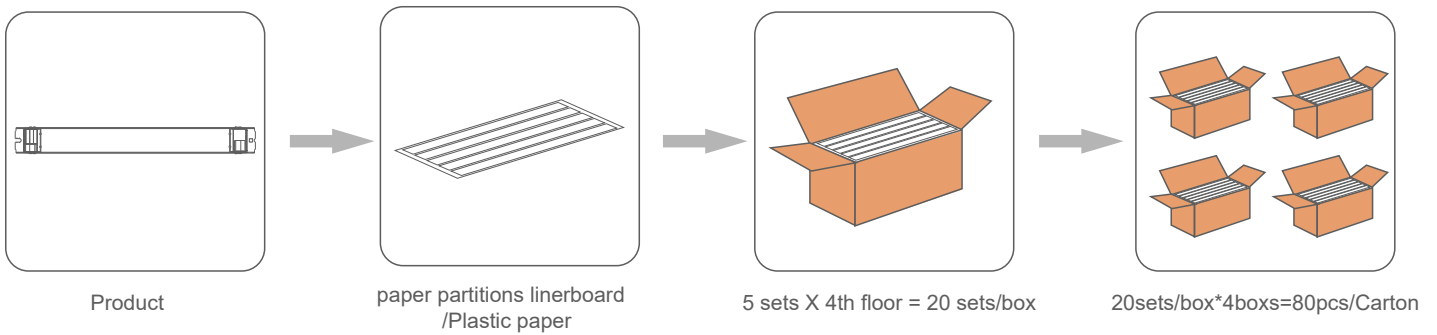
$$X(n) = 10^{\frac{(n-1)}{253/3} - 1}$$

Here, n means the target dimming stage of the total 254 stages.

X(n) means the percent of the maximum output current



Packing information



Model	Carton L*W*H(mm)	Pcs/- Carton	Net weight/ Pcs(kg)	Net weight/ Carton(kg)	Cross weight/- Carton(kg)
S-280-C35W150-700 DALI	325*303*240	80	0.164	13.12	14.08

Push Dim :

1.On / off:

Short push (120ms-600ms) on the switch, Stepless dimming: long push (> 0.6sec) on the switch.

2.Power-on memory function

When the LED driver is powered on, it will restore the memory before the LED driver is powered off.

(brightness remembers the brightness after the last dimming is stable, and the brightness during dimming is not memorized)

3.Light on/off

If the light is on, the light will be off after a short press. If the light is off, the light will be on after a short press.

The time range of short press is 120-600mS.

4.PUSH Dimming

Press and hold the push switch for a long time, the light will enter the dimming state, if the previous time is dimming, it will automatically turn to dimming the next time. After releasing the reset button, the dimming stops and the current illuminance is maintained. The dimming range is 1%-100%. The default is to dim when the power is first long-press. If the brightness of the power-on is the maximum brightness, the first long-press is to dim. (Long press 0.6-3S to start dimming.)

5.Forced synchronization

Long press for 10 seconds to turn on all the lights and turn on the same brightness (50%), and continue to quickly short press will not change. After a short period of time without short press operation, the module exits the synchronization mode, and the short press restores the switch function.

6.PUSH Dimming rate

Long press the push switch 10S to switch the dimming rate to 3S, Long press the push switch 20S to switch the dimming rate to 6S.

REVISION HISTORY

Date	Revision	Remark