

COMPACT LED DRIVER / DALI-2

ARVIK MINI 15 DALI

Technical model: AR-15-500-MI-DALI-AS-SS



POWER

15 W

OUTPUT CURRENT

150-500 mA

OUTPUT VOLTAGE

10-42 VDC*

CONTROL

DALI-2 / PUSH
KEY FEATURES

-  Isolated
-  Flicker-free
-  DIP current setting
-  5-year warranty

Efficiency	up to 87%
Dimensions	75 x 40 x 21 mm
Installation	Built-in / independent
Protection	IP20 / Class II / SELV
Input	220-240 VAC / 50-60 Hz

Technical specifications apply to the stated ARVIK model. Before implementation, confirm the selected variant, operating conditions and document revision.

* The voltage range depends on the selected output current.

PRODUCT DATASHEET

AR-15-500-MI-DALI-AS-SS



ARVIK | TECHNICAL DOCUMENTATION



Feature

- Isolated Led Driver
- Flick free
- Complete protections: OSP / OVP /OPP
- Standby power consumption $\leq 0.45W$
- Class 2 LED driver, Safety Extra Low Voltage (SELV)
- 5 year warranty (TOPAZCON, HUAWEI, KINLS SAPPHIRE, MAN YUE, Aihua capacitor).



Model	Output Current	Input Current	Input Power	Output Power Range	PF	Efficiency Typical	Output Voltage	No load Voltage
AR-15-500-MI-DALI-AS-SS	150mA	0.04A	7.8W	1.50-6.30W	0.77	81%	10-42V	60Vdc
	200mA	0.05A	10.1W	2.00-8.40W	0.83	83%	10-42V	
	250mA	0.06A	12.4W	2.50-10.50W	0.87	85%	10-42V	
	300mA	0.07A	14.7W	3.00-12.60W	0.89	86%	10-42V	
	350mA	0.08A	16.9W	3.50-14.70W	0.91	87%	10-42V	
	400mA	0.08A	17.2W	4.00-14.80W	0.92	86%	10-37V	
	450mA	0.08A	17.3W	4.50-14.85W	0.93	86%	10-33V	
	500mA	0.08A	17.7W	5.00-15.00W	0.93	85%	10-30V	

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

1. Parameters

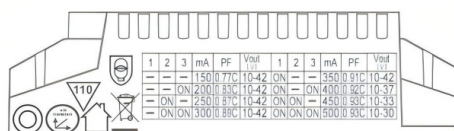
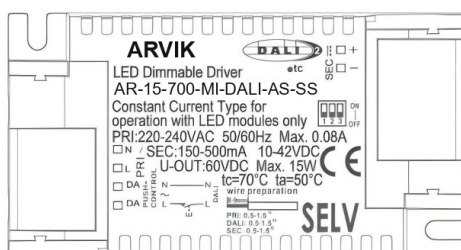
Category	Item	Technical Norm
Features	Output Type	Constant Current
	Dimming Type	Amplitude (DALI-2)
	Output Features	Isolation
	IP Grade	IP20
	Insulation Class	Class II (compatible Class I)
Input	Rated Input Voltage	220-240VAC
	Range of Input Voltage	198-264VAC

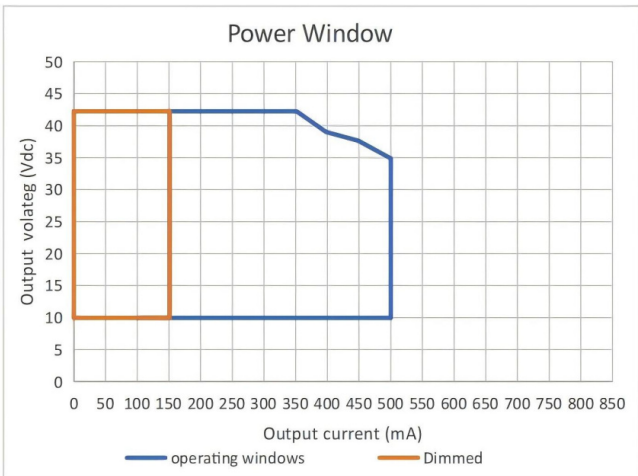
	Range of DC Input Voltage	180-280VDC
	Frequency	50/60Hz
	Overvoltage protection	2h@380VAC, 48h@320VAC
	Input Current	≤0.08A max
	Input Power	≤17.7W max
	Power Factor	≥0.93 (230VAC, full load)
	THD	≤12% (230VAC, full load)
	No-load Power Consumption	≤0.3W @230VAC (DIM to off)
	Inrush Current	≤28.2A/36us (230VAC, full load)
	Connected quantity of 10A Breaker Connected quantity of 13A Breaker Connected quantity of 16A Breaker Connected quantity of 20A Breaker	6pcs/type A ; 10pcs/type B ; 17pcs/type C @ 230Vac 8pcs/type A ; 14pcs/type B ; 23pcs/type C @ 230Vac 10pcs/type A ; 17pcs/type B ; 28pcs/type C @ 230Vac 13pcs/type A ; 21pcs/type B ; 35pcs/type C @ 230Vac
Output	Output Voltage Range	10-42VDC@150-350mA; 10-37VDC@400mA 10-33VDC@450mA; 10-30VDC@500mA
	Output Current:	150mA-500mA , Factory set current of 150mA
	Efficiency	≥87% (230VAC, full load)
	Max. Output Power:	15W
	LF Current Ripple (< 120 Hz)	±3% (Imax-Imin)/(Imax+Imin) MAX
	Current Accuracy	±5%
	Starting Time	≤0.8S (230VAC, full load, by DALI system)
	PstLM	≤1
	SVM	≤0.4
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
	Insulation resistance	>100M ohm @ 500VDC
	Leakage current	< 700μA, I/P to O/P @230V input
Environment	Ta/Operation Temperature	-20....+50℃
	Ts/Storage Temperature	-20....+70℃
	Tc/Enclosure Temperature	70℃
	Humidity	10%....90%RH
	Atmosphere	86-108KPa
Construction	Connection Method	Push-in Terminal
	Installation	Built-in/Independent
	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
	Dimension	75*40*21mm (L*W*H)
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	EN62384
	Surge	L-N:1kV
	RoHS	complied to 2011/65/EU
Others	Life Time	30000h Tc=70℃
		45000h Tc=65℃
		60000h Tc=60℃
	Warranty	5years , F.R. < 10000ppm
Remark: 1.All Parameters, if not specified, are measured at 230VAC/50Hz and 25℃ 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.Please make sure Tc under Lifetime condition when long term operate under DC input. 4.DC emergency (DCemDim):Default 15%, EOFx range = 1 .. 100% (EOFx = DCemDIM level). 5.During the PUSH DIM test,the number of parallel connections must be less than 15PCS.		

2. Output Current Setting

Output Current	1	2	3
150mA	-	-	-
200mA	-	-	ON
250mA	-	ON	-
300mA	-	ON	ON
350mA	ON	-	-
400mA	ON	-	ON
450mA	ON	ON	-
500mA	ON	ON	ON

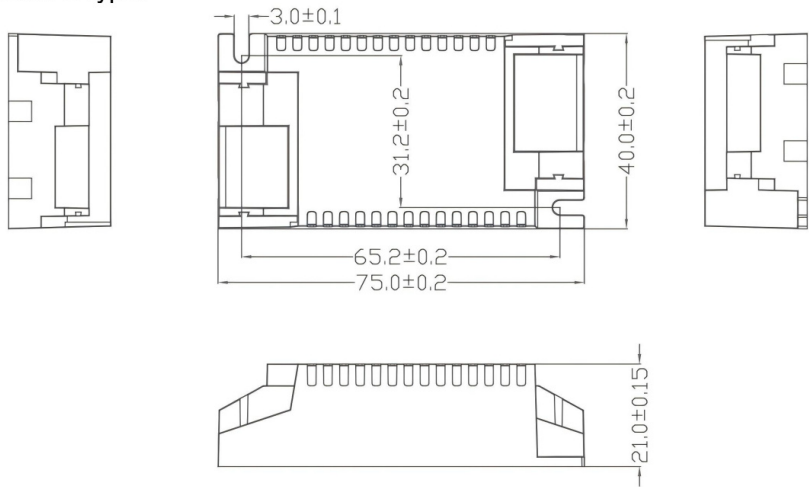


Operating power windows  The graph, titled 'Power Window', plots Output voltage (Vdc) on the y-axis (0 to 50) against Output current (mA) on the x-axis (0 to 850). It features two operating regions: a 'Dimmed' region (orange line) and an 'operating windows' region (blue line). The dimmed region is a rectangle from 0 to 150 mA and 10 to 42 Vdc. The operating windows region starts at 150 mA and 42 Vdc, extends to 350 mA at 42 Vdc, then slopes down to 500 mA at 35 Vdc, and finally drops vertically to 10 Vdc at 500 mA.	Efficiency v.s. Load TBD
PF v.s. Load TBD	THD v.s. Load TBD

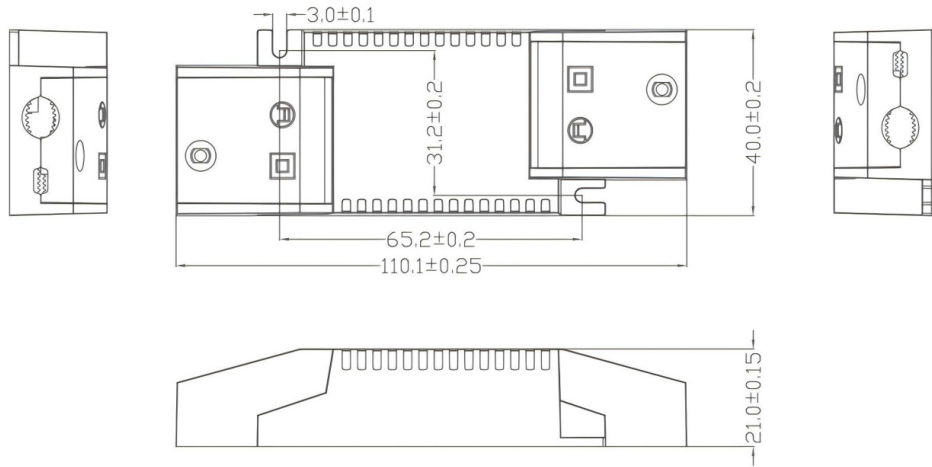
Life time	Derating
TBD	TBD

5. Dimension (Unit: mm)

Built in type:



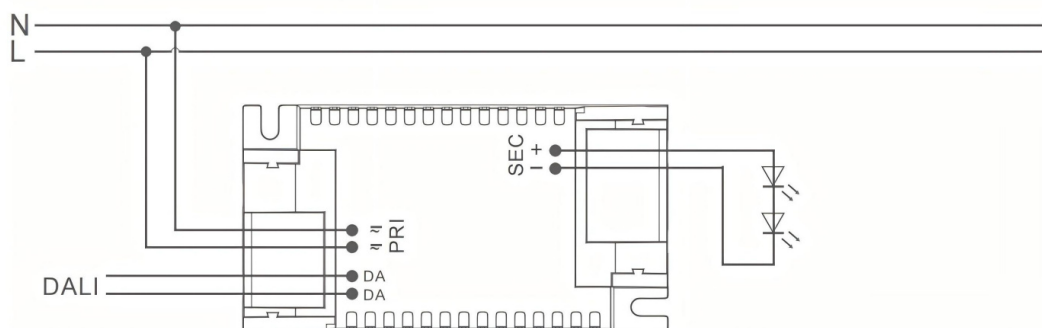
Small side cover



6. Wiring Diagram

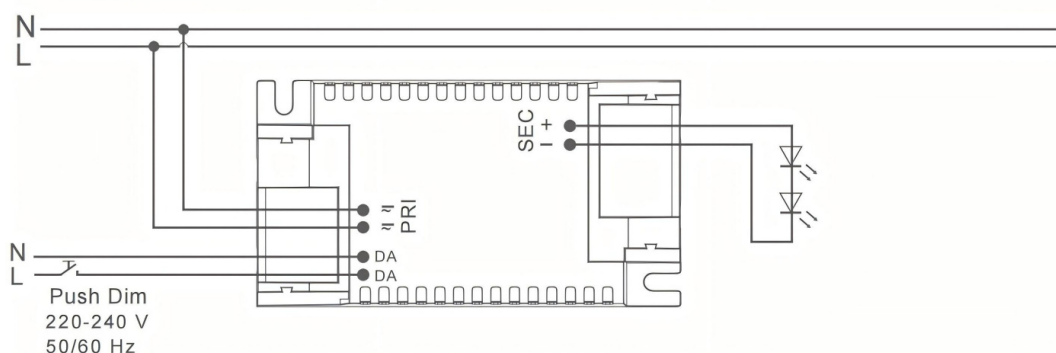
DALI Dimming

220-240 V
0/50/60 Hz



Push Dimming

220-240 V
0/50/60 Hz



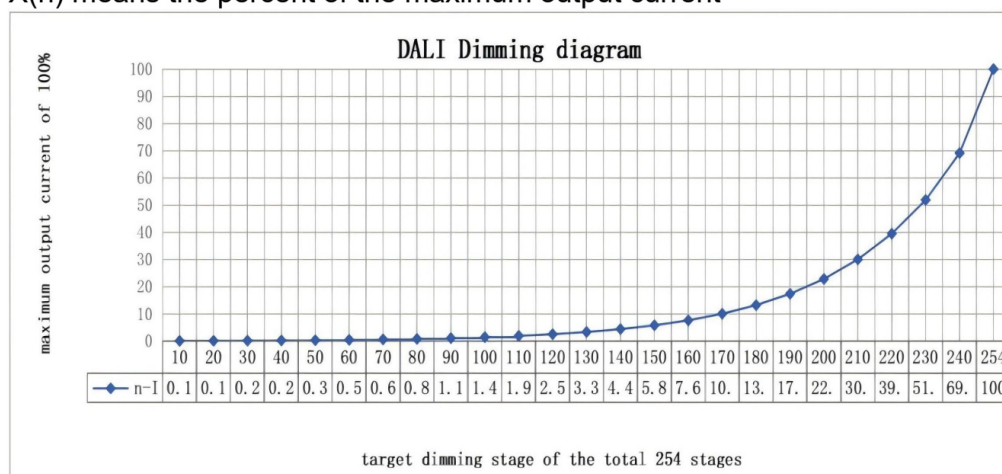
7. DALI dimming Curve

formula for DALI dimming.

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

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

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



8. Push Dim

1. On / off:

Short push (120ms-600ms) on the switch, Step less 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 bright ness 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.

9. Packing information (Built in type)

Carton L*W*H(mm)	Pcs/Carton	Net weight/ Pcs(kg)	Net weight/ Carton(kg)	Gross weight / Carton(kg)
315*255*150	144	0.08	12.09	12.58

10. REVISION HISTORY

DATE	VER	REMARK
2026/05/09	V1.0	Initial release.