

ANS80AS-1B*

Product Feature

- Input voltage range: 108-380Vac
- Supports isolated dimming (0-10V active signal, PWM signal, resistor)
- Adjustable Output Current (AOC) with Potentiometer
- High Efficiency up to 96.0%
- Auxiliary Power: 12VDC, 200mA(AS Version)
- Support for external DIP switches to adjust power
- Support for external light control switch
- Protection: IUVP,SCP,OVP, OTP
- Input surge protection: Differential mode: 6kV, Common mode: 6kV(ANSI/C82 .77-5-2017)
- 5-year warranty
- Safety according to UL8750

Caution/prudence

- Keep away from heat flammable materials
- Install properly for better heat dissipation
- Please do not touch during operation
- Tenir à l'écart des matériaux inflammables sous forme de chaleur
- Installer correctement pour une meilleure dissipation de la chaleur
- S'il vous plaît ne pas toucher pendant le fonctionnement



Models

Model Number	Input Voltage Range	Max. Output Power	Output Voltage Range	Output Current Range	Default Current	Efficiency [Typ.]	PF [Typ.]	THD [Typ.]
ANS80AS-1B*	108-380Vac	80W	180-260Vdc	0.20-0.40A	0.37A	96.0%	0.98	7%

Note:

[1]. All specifications are measured at 25°C ambient temperature, input voltage 277Vac, and the typical value tested by full load

[2]. AS means 0-10V/PWM/res dimming and 12V auxiliary source.

* Means Additional Function

Models	0-10V/PWM/Res dimming	Auxiliary 12V/200mA	DIP switch	Light control switch
ANS80AS-1B	√	√		
ANS80AS-1BMC	√	√	√	
ANS80AS-1B-OP	√	√		√
ANS80AS-1BMC-OP	√	√	√	√

Technical Parameters

Model		ANS80AS-1B*				
Parameter		Min.	Typ.	Max.	Remark	
Input	Rated Input AC Voltage	120Vac	-	347Vac		
	Input AC Voltage Range	108Vac	-	380Vac	Reference derating curve	
	Frequency Range	47Hz	50/60Hz	63Hz		
	Input AC Current	-	-	1.0A	At 120Vac input and 100% load	
	Input AC Power	-	-	95W	At 120Vac input and 100% load	
	Leakage Current	-	-	0.75mIU	UL 8750; 277Vac/ 60Hz	
		-	-	0.70mA	IEC 60598-1; 240Vac/ 60Hz,	
	Inrush Current	-	-	30A	At 120Vac input and 100% load, 25°C Cold Start	
		-	-	65A	At 277Vac input and 100% load, 25°C Cold Start	
		-	-	85A	At 347Vac input and 100% load, 25°C Cold Start	
	Standby Power	-	-	0.5W	At 220Vac input and Aux. power without load	
	Power Factor		0.95	0.98	-	At 277Vac , 50-60Hz, 100% load
			0.90	-	-	At 120-347Vac , 50-60Hz, 70%-100% load
	THD		-	7%	10%	At 277Vac , 50-60Hz, 100% load
		-	-	20%	At 120-347Vac , 50-60Hz, 70%-100% load	

	Parameter	Min.	Typ.	Max.	Remark
Output	Output Voltage Range	180V	-	260V	
	Open Circuit Voltage	-	-	310V	
	Output Current Range	0.20A	-	0.40A	Adjustable Output Current with Potentiometer;
	Efficiency @120Vac	92.5%	94.0%	-	At 100% load and Io=0.31A
	Efficiency @277Vac	94.5%	96.0%	-	At 100% load and Io=0.31A
	Efficiency @347Vac	94.5%	96.0%	-	At 100% load and Io=0.31A
	Output Current Tolerance	-5%	-	+5%	At 100% load
	Output Current Ripple(PK-AV)	-	5%	10%	At 100% load, 20 MHz BW
	Startup Overshoot Current	-	-	10%	At 100% load
	Turn-on Delay Time	-	-	1.0s	At 120-347Vac input and 100% load
	Line Regulation	-5%	-	+5%	At 25°C ambient temperature, input voltage changes from 120Vac to 347Vac.
	Load Regulation	-5%	-	+5%	At 25°C ambient temperature, Input Voltage 240Vac, load changes from 70% to 100%.
	12V Auxiliary Output Voltage	10.8V	12V	13.2V	
	12V Auxiliary Output Current	-	-	200mA	Return terminal is "Dim-"

	Parameter	Min.	Typ.	Max.	Remark
0-10V Dimming	Absolute Maximum Voltage	0V	-	12V	On Dim+ Pin
	Source Current on Dim+ Pin	90uA	110uA	120uA	
	Dimming Output Range	10%loset	-	100%loset	loset<0.31A, Dimming Min. is 0.031A
	Recommended Dimming Range for 0-10V	0V	-	10V	Dimming prohibits reverse connection
	Dim Off	0.7V	0.8V	0.9V	With afterglow (standard) Without afterglow (optional)
	Dim On	0.9V	1.0V	1.1V	
PWM Dimming	PWM_in High Level	9.8V	10V	10.2V	
	PWM_in Low Level	0V	-	0.3V	
	PWM_in Frequency Range	1KHz	-	2KHz	
	PWM_in Duty Cycle	0%	-	100%	
Resistor Dimming	Resistance	0Kohm	-	100Kohm	DIM+ source current 110uA.
	Dimming Output Range	10%loset	-	100%loset	
Other Characteristics	Operating Temperature For safety(Tc)	-40°C	25°C	+90°C	
	Operating Temperature For warranty(Tc)	-40°C	25°C	+85°C	Case temperature for 5 years warranty Humidity: 10% RH to 95% RH;
	Storage Temperature(Ta)	-40°C	25°C	+85°C	
	Storage Humidity	5%RH	-	95%RH	
	Altitude	-65m	-	4000m	
	Temperature Coefficient	-0.06%/°C	-	+0.06%/°C	Tc:0 °C-90°C
	Input under voltage protection	-	85Vac	100Vac	Self-recovery
	Over temperature protection	90°C	95°C	100°C	Drop current when OTP, and it can be self-recovery after the abnormality is removed.
	Short Circuit Protection	-	-	-	Self-recovery, short circuit without damage
	Lifetime(Tc≤90°C)		≥50,000 hours		At 100% load, please refer to lifetime vs. case temperature curve
	MTBF		200,000 hours		At 220Vac,80% load,Ta=25 °C (MIL-HDBK-217F)
	Warranty		5 years		Tc ≤ 90°C
	Net Weight		420g		
Dimension		138mm*52.5mm*33.5mm		L x W x H	

Note: All the parameters above are tested Ta 25°C and LED load, unless specified.

Safety and EMI/EMS Standards

Safety Certification	Standard	Status	Remark
UL/cUL	UL8750, CSA C22.2 No.250.13	√	
CB	IEC61347-1, IEC61347-2-13		
CE	EN 61347-1, EN 61347-2-13, EN62493		
ENEC	EN 61347-1, EN 61347-2-13, EN IEC 62384		
CCC	GB/T 19510.213, GB/T 19510.1		
SAA	AS/NZS 61347.1, AS/NZS61347.2.13		
BIS	IS15885:2012 Part 2 Sec 13		

EMC Category	Standard	Status	Remark
FCC	FCC Part15: Subpart A ANSI 63.4:2014	√	
CE	EN 55015, EN 61000-3-2, EN 61000-3-3, EN 61547		
CE	EN61000-4-2,3,4,5,6,11		
Surge	ANSI/C82 .77-5-2017		Criterion B
Ring Wave	ANSI/C82 .77-5-2017		Criterion B

Safety Test Items:

Safety Test Items	Technical Indicators		Remark
	UL Insulation Requirements	CE/ENEC Insulation Requirements	
Insulation Requirements	UL Insulation Requirements	CE/ENEC Insulation Requirements	
Input-Case	2U+1000Vac	/	Basic insulation
Input-Dim	2U+1000Vac	/	Reinforced insulation
Dim-Case	500Vac	/	Basic insulation
Insulation Resistance	≥10MΩ		Input-Dim, Test voltage:500Vdc
Ground Resistance	≤0.1Ω		25A/1min

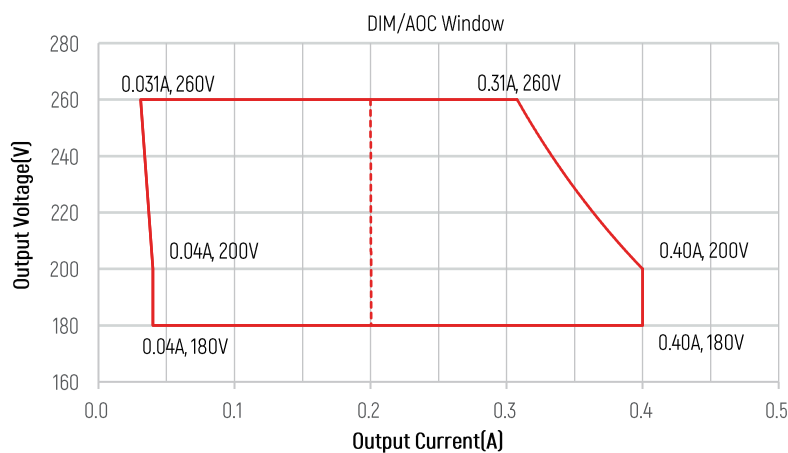
Note:

- LED Driver itself complies with EMC standard. However, LED Driver 's EMC should be re-checked when integrated into lighting systems due to unexpected interference of components.
- Please short L and N, LED+ and LED-, Dim+ and Dim - and Vaux+ and Vaux- when Hi-pot test.

RoHS

Our products comply with RoHS Directive (EU) 2015/863 amending Annex II to Directive 2011/65/EU.

I-V Operation Area



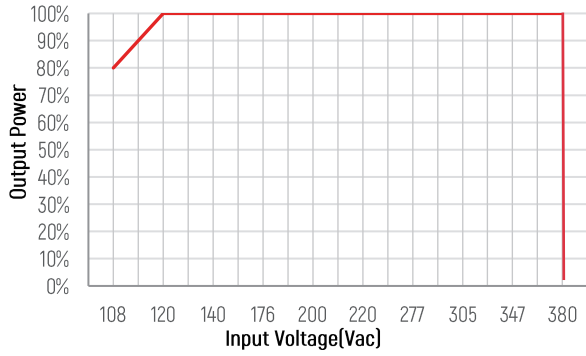
Adjustable output current

The current can be adjusted through build-in potentiometer

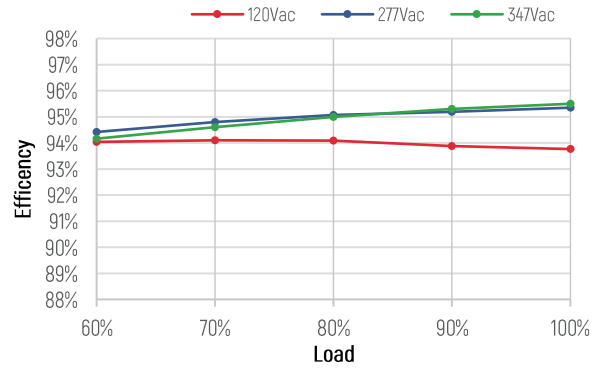
The table provides examples of partial currents:

Output Voltage	180Vdc	190Vdc	200Vdc	210Vdc	220Vdc	230Vdc	240Vdc	250Vdc	260Vdc
Output Current	0.50A	0.50A	0.50A	0.48A	0.45A	0.43A	0.42A	0.40A	0.38A
Output Power	90W	95W	80W	80W	80W	80W	80W	80W	80W

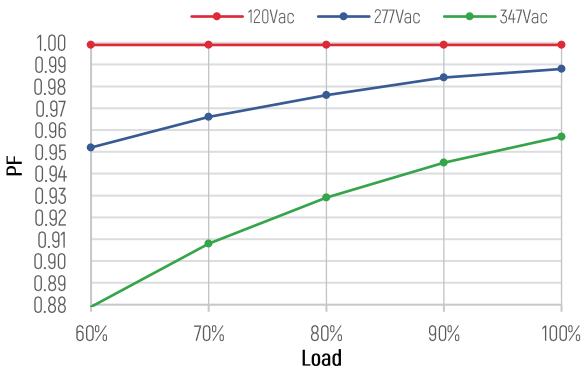
Derating



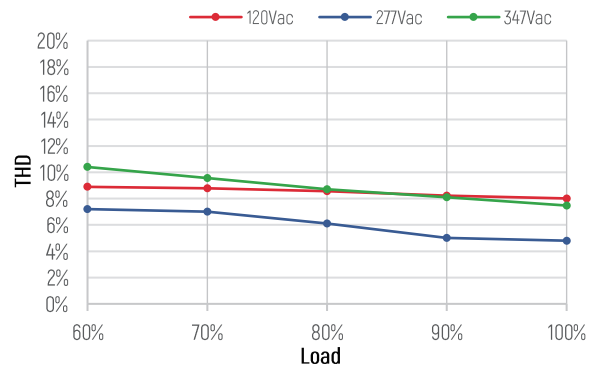
Efficiency vs. Load



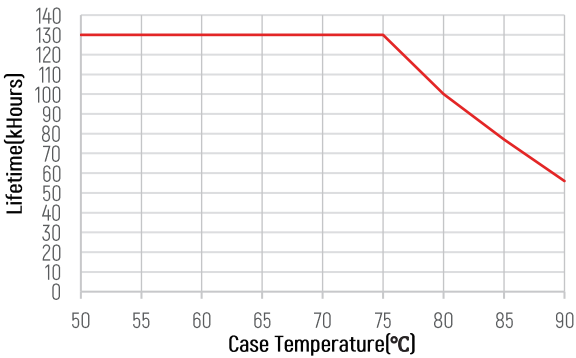
PF vs. Load



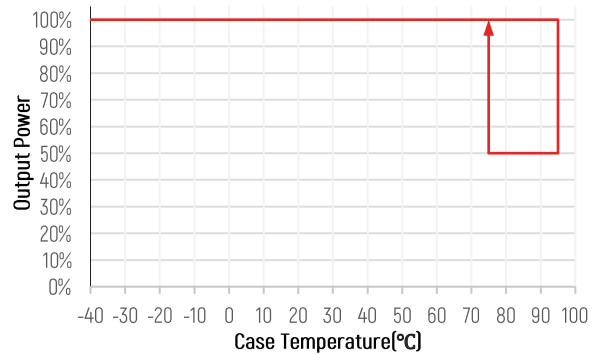
THD vs. Load



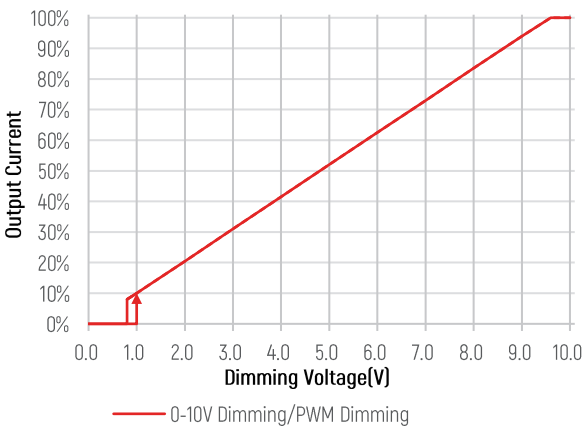
Lifetime vs. Case Temperature(Tc)



Output Power vs. Case Temperature(Tc)

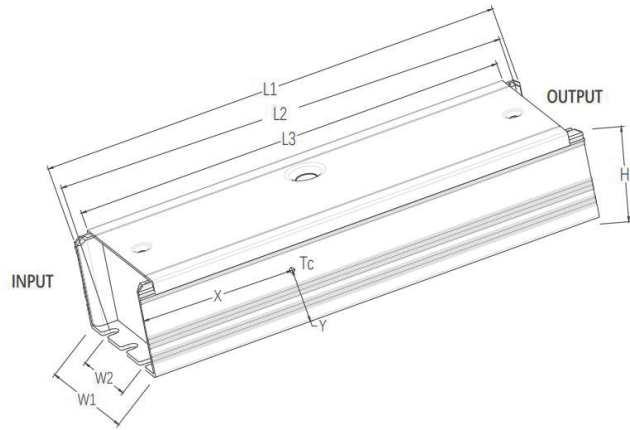


Dimming Curve



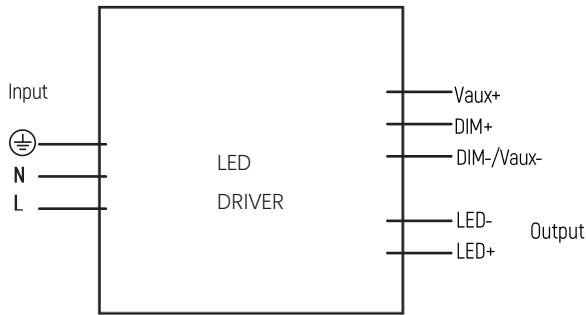
Dimension: mm (Inch)

Name Description	Standard Code	mm(In.)
Case Length	L3	130.5(5.138)
Case Width	W1	52.5(2.065)
Case Height	H	33.5(1.319)
Overall Length	L1	138(5.433)
Mounting Hole Length	L2	132(5.197)
Mounting Hole Width	W2	30(1.181)
TC Point Position	X	63.5(2.5)
TC Point Position	Y	20(0.787)

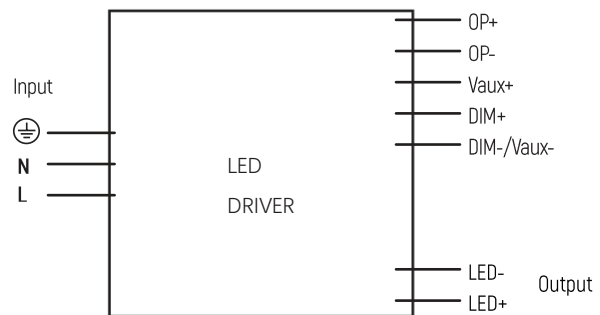


Wiring Diagram

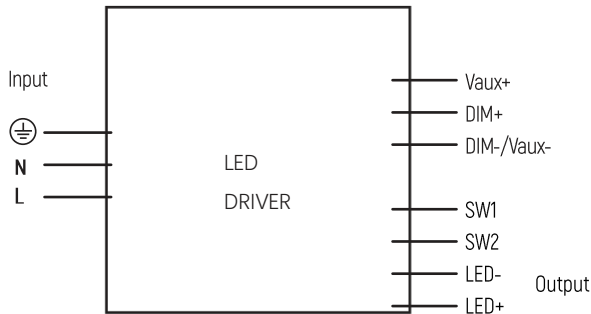
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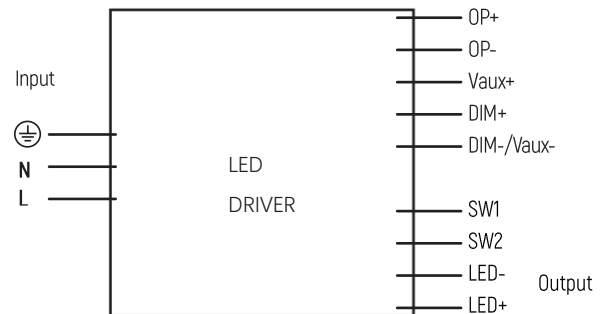
ANS80AS-1B-OP



ANS80AS-1BMC



ANS80AS-1BMC-OP



AC input wire (Exposed Wire Length: 300 ±10mm)

US Standard: UL1015 18AWG 105°C 600V, Black: L, White: N, Green: ⊕

DC output wire (Exposed Wire Length: 300 ±10mm)

US Standard: UL1569 18AWG 105°C 300V, Red: LED+, Black: LED-

DIP switch to adjust power wire

US Standard: UL1569 22AWG 105°C 300V, Orange: SW1, SW2

Light control wire with terminals

US Standard: UL3239 24AWG 200°C 3KV-DC, Red: OP+, Black: OP-

DIM signal/Aux power wire(Exposed Wire Length: 240±10mm)

US Standard: UL1569 22AWG 105°C 300V, Purple: DIM+, Black: Vaux+, Pink: DIM-/Vaux-

External DIP switch

PARAMETER	Min.	Typ.	Max.	Remark
Potentiometer adjustment range	0.20A	0.37A	0.40A	
Dial Resistance	Percentage of output current			Current after potentiometer setting
120K	50%			
180K	60%			
270K	70%			
510K	80%			
1.2M	90%			

Note

1. Recommended design within the dialling resistance range.