



Size: 8.62in x 2.64in x 1.57in (219mm x 67mm x 40mm)

**FEATURES**

- 90~305VAC Full Range Input
- Aluminum Case IP65/IP67 Waterproof
- Active PFC
- Output Voltage Automatic Tracing & Fixing Function
- Outdoor LED Luminary Rugged Driver Solutions
- Over Voltage, Over Temperature, and Short Circuit Protection
- Built-In 3 in 1 Output Current Dimming Function
- Optional Timer Dimming Function
- Built-In 10KV Lightning Surge Protection
- UL8750, EN61347-1, EN61347-2-13, GB 19510.1, and GB 19510.14 Safety Standards

**DESCRIPTION**

The PSMDC185 series of LED drivers offers 183~200 watts of output power in an 8.62" x 2.64" x 1.57" aluminum package. This series consists of single output models with a 90~305VAC full range input. Each model in this series features active PFC, built-in 3 in 1 output current dimming and 10KV lightning surge protection, and the option for timer dimming function. This series has UL8750, EN61347-1, EN61347-2-13, GB 19510.1 and GB 19510.14 safety standards.

**MODEL SELECTION TABLE**

Model Number	Input Voltage Range	Rated Output Current	Output Current <sup>(2)</sup>		Output Voltage Range	Output Voltage @No Load <sup>(3)</sup>	Output Power	Ripple & Noise	OVP Level	Efficiency <sup>(4)</sup>
			Min Load	Max Load						
PSMDC185-0500x	90~305VAC (127~431VDC)	500mA	300mA	500mA	200~400V	412V	200W	2Vp-p	420~450V	92%
PSMDC185-0700x		700mA	360mA	700mA	143~286V	305V	200W	1.5Vp-p	320~350V	92%
PSMDC185-1050x		1050mA	600mA	1050mA	95~190V	203V	200W	1Vp-p	210~240V	92%
PSMDC185-1400x		1400mA	750mA	1400mA	71~143V	151V	200W	1Vp-p	160~170V	92%
PSMDC185-3150x		3150mA	1650mA	3150mA	29~58V	64V	183W	0.2Vp-p	64~80V	91%
PSMDC185-3850x		3850mA	2000mA	3850mA	32~49V	56V	189W	0.2Vp-p	56~73V	91%
PSMDC185-4200x		4200mA	2200mA	4200mA	27~42V	49V	177W	0.2Vp-p	49~65V	91%
PSMDC185-5250x		5250mA	2750mA	5250mA	25~35V	41V	183W	0.2Vp-p	41~55V	91%

**SPECIFICATIONS**

All specifications are based on 25°C, Nominal Input Voltage, and Maximum Output Current unless otherwise noted. We reserve the right to change specifications based on technological advances.

SPECIFICATION	TEST CONDITIONS	Min	Typ	Max	Unit
<b>INPUT SPECIFICATIONS</b>					
Input Voltage Range <sup>(5)</sup>		90		305	VAC
		127		431	VDC
Input Frequency		47		63	Hz
Input Current	@115VAC		2.0		A
	@230VAC		1.0		
	@277VAC		0.85		
Inrush Current	@230VAC, Cold Start			75	A
Leakage Current	@277VAC			0.75	mA
Power Factor <sup>(6)</sup>	@115VAC, Full Load	0.98			
	@230VAC, Full Load	0.95			
	@264VAC, Full Load	0.93			
Total Harmonic Distortion	@230VAC/50Hz, Full Load			10	%
<b>OUTPUT SPECIFICATIONS</b>					
Output Voltage		See Table			
Output Current Tolerance			±5		%
Line Regulation			±1		%
Output Power		See Table			
Output Current		See Table			
Ripple & Noise <sup>(7)</sup>		See Table			
Output Ripple Current	Output Below 58VDC		±5		%
	Output Above 71VDC		±10		
Turn-On Time	@115VAC, Full Load			1.5	S
	@230VAC, Full Load		0.5		
Hold Up Time	@115VAC, Full Load	12			mS

**SPECIFICATIONS**

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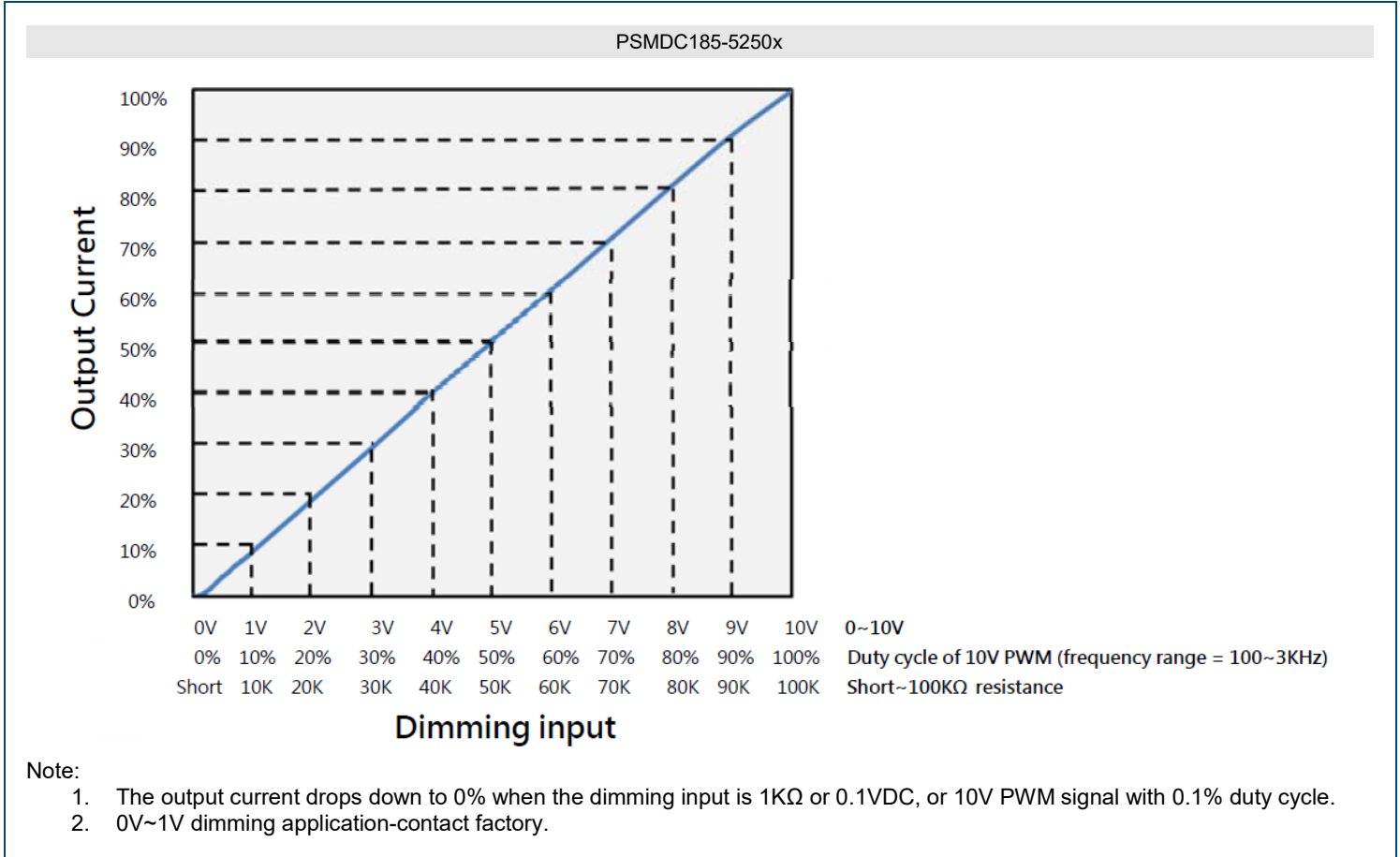
SPECIFICATION	TEST CONDITIONS	Min	Typ	Max	Unit
<b>PROTECTION</b>					
Short Circuit Protection				Automatic Recovery	
Over Voltage Protection				Automatic Recovery	
Over Temperature Protection <sup>(6)</sup>		75	85	95	°C
Over Temperature Derated <sup>(6)</sup>	Automatic derating to 75% of rated load current	70			°C
<b>ENVIRONMENTAL SPECIFICATIONS</b>					
Operating Temperature <sup>(6)</sup>		-40		70	°C
Operating Humidity <sup>(6)</sup>	Non-Condensing	10		95	%RH
Storage Temperature		-40		85	°C
Vibration	IEC 68-2-2-1995/CNS-3629-C6016/GB/T 2423.10-2008; 5-500Hz, 1.0G, 1 Oct/min, 2 cycle X, Y, Z, 75 minutes				
Life Time	@230VAC, 100% Load, T-Case 70°C	50,000			Hours
MTBF	MIL-HDBK-217F, 25°C	220			Khrs
<b>GENERAL SPECIFICATIONS</b>					
Efficiency				See Table	
Insulation Resistance	I/P-O/P, I/P-PE, O/P-PE			>100MΩ/500VDC/25°C/70%RH	
Hi-Pot	I/P-O/P			3.75KVAC	
	I/P-PE			2KVAC	
	O/P-PE			0.5KVAC	
<b>PHYSICAL SPECIFICATIONS</b>					
Weight				2.16lbs (980g)	
Dimensions (L x W x H)				8.62in x 2.64in x 1.57in (219mm x 67mm x 40mm)	
<b>SAFETY CHARACTERISTICS</b>					
Safety Approvals		UL 8750 EN 61347-1 EN 61347-2-13 GB 19510.1 GB 19510.14			
EMI		EN 55015 EN 61000-3-2 EN 61000-3-3 FCC Part18 CNS 14115			
EMS		EN 61547 EN 61000-4-2 EN 61000-4-3 EN 61000-4-4 EN 61000-4-5 EN 61000-4-6 EN 61000-4-8 EN 61000-4-11			
Surge		10KV (L/N-PE) & 5KV (L-N)/1.2*50µ sec			

**NOTES**

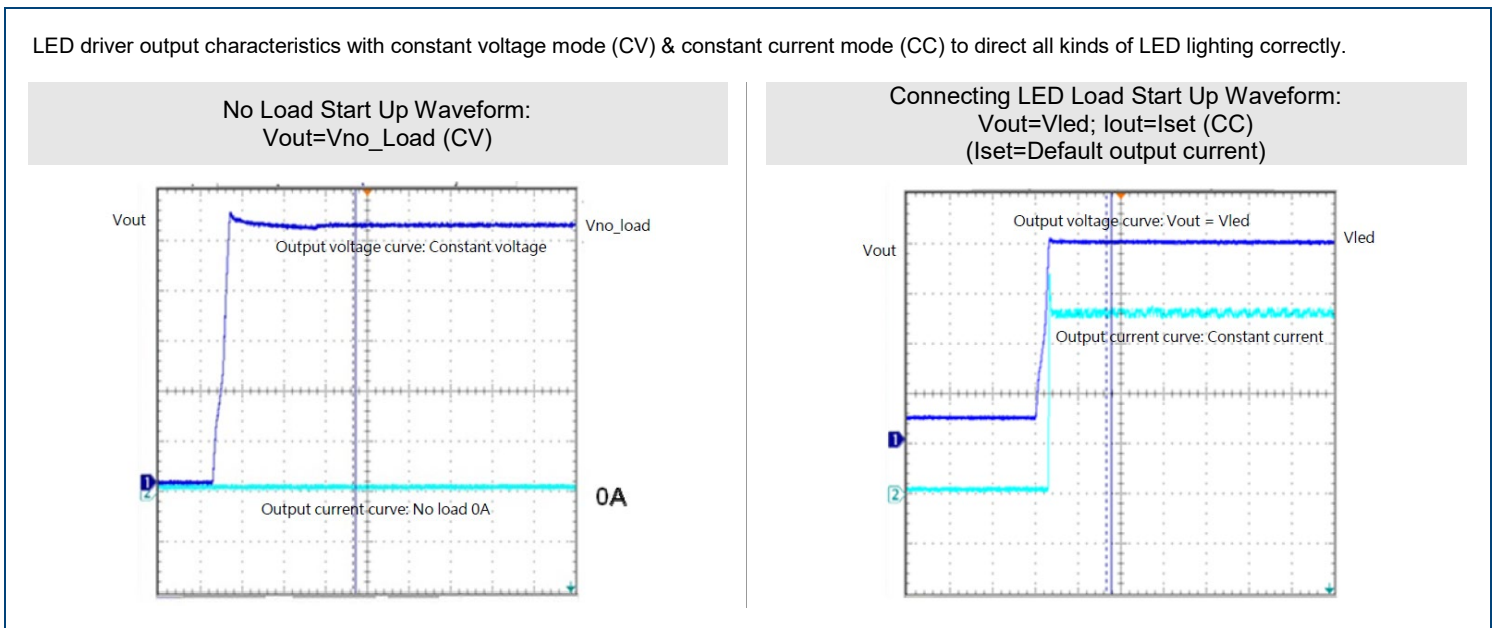
1. "X" in model number indicates IP rating. "X" can be "A" for IP65 grade (adjust current by variable resistor internal) or "B" for IP67 grade (output current dimming by 0~10V/10V PWM signal/resistor).
2. For A type only.
3. Refer to "LED Driver Output Mode" chart.
4. For efficiency test condition, see "Efficiency vs. Load" chart.
5. Refer to "Input Voltage vs Derating Curve" chart.
6. Refer to "PFC vs Load Curve" chart.
7. Ripple current is measured at 20MHz of bandwidth. The measured terminal is paralleled with a 22uF E-cap and a 0.1uF ceramic cap.
8. Refer to "Temperature vs Derating Curve" chart.
9. This product is listed to applicable standards and requirements by UL.

*\*Due to advances in technology, specifications subject to change without notice.*

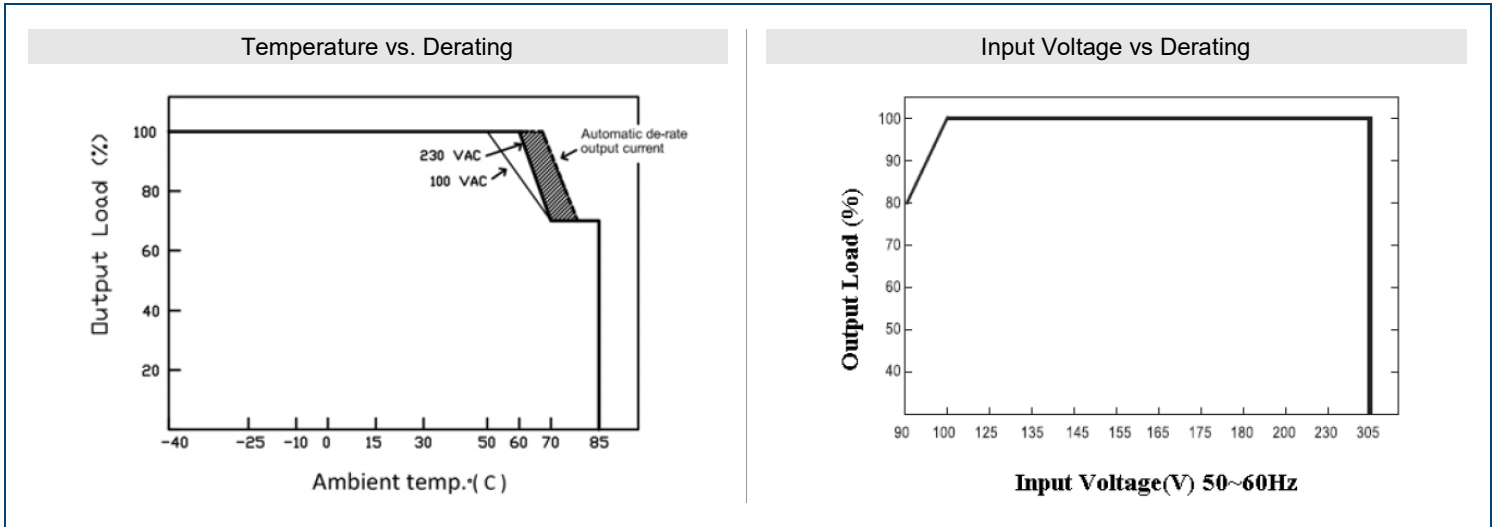
**DIMMING CURVE**



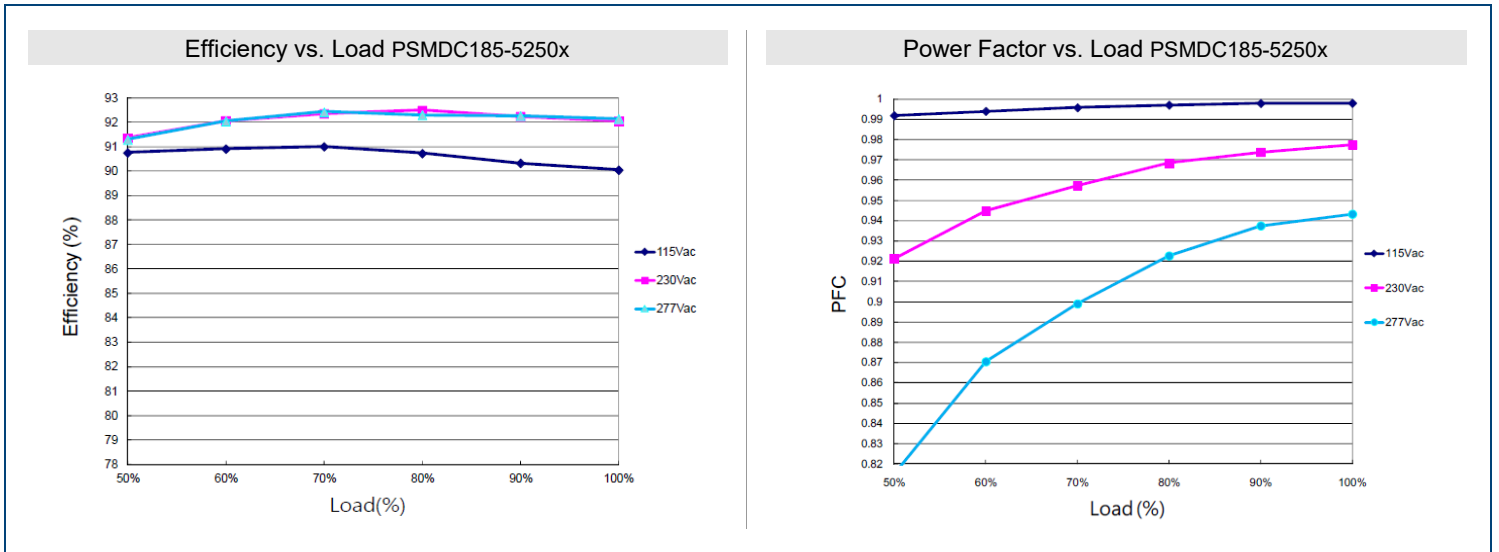
**LED DRIVING OUTPUT MODE**



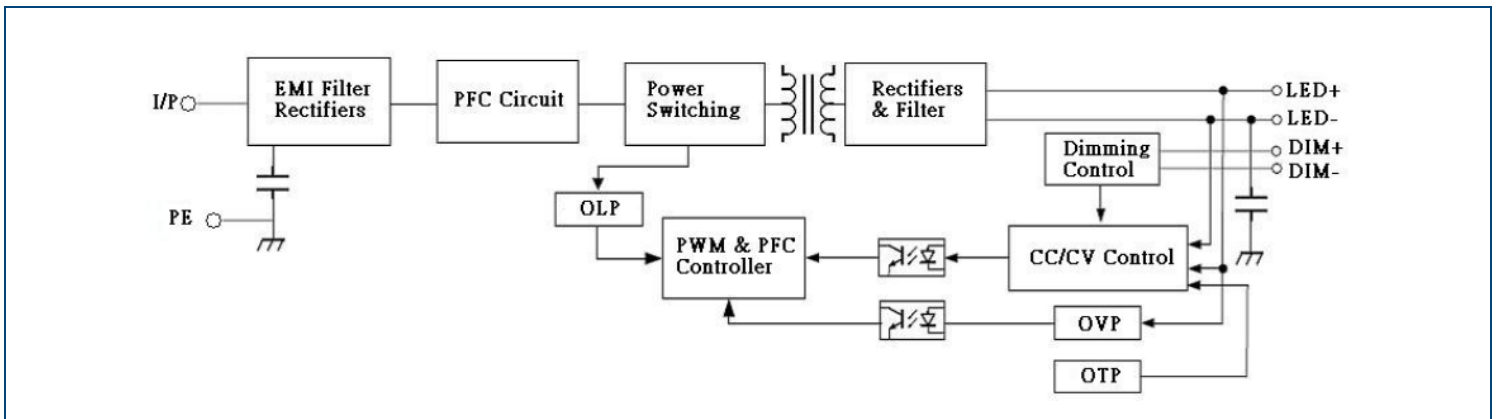
DERATING CURVES



EFFICIENCY CURVES



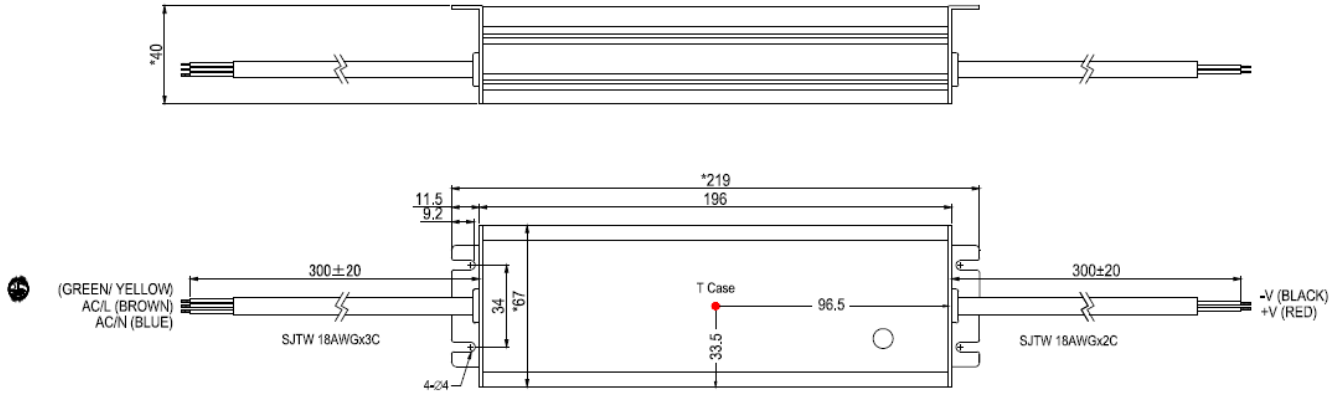
FUNCTION BLOCK



MECHANICAL DRAWINGS

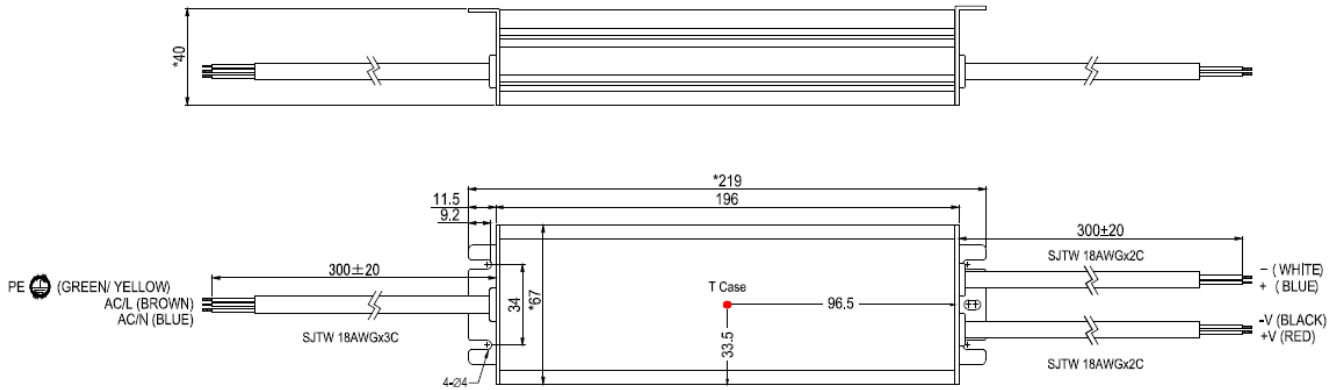
Type A

※ T Case: Maximum temperature of chassis

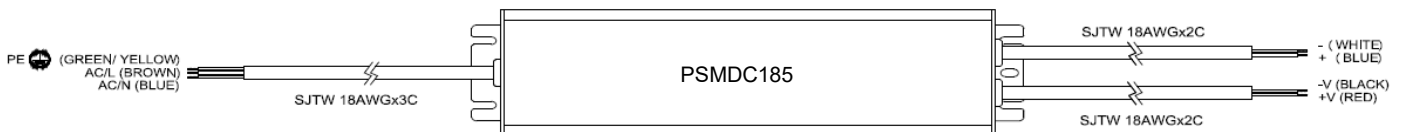


Type B

※ T Case: Maximum temperature of chassis



Dimming Mode (Type B Only)



Do not put "-V (BLACK)" & "-(WHITE)" in connection

**OUTPUT CURRENT ADJUSTMENTS**

Short~100KΩ Adjustment Output Current (PSMDC185-5250x)

Resistor Value	Short	10KΩ	20KΩ	30KΩ	40KΩ	50KΩ	60KΩ	70KΩ	80KΩ	90KΩ	100KΩ	OPEN
Rated Current Rate	0%	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%	95~105%

0~10VDC Adjustment Output Current (PSMDC185-5250x)

VDC	0V	1V	2V	3V	4V	5V	6V	7V	8V	9V	10V	OPEN
Rated Current Rate	0%	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%	95~105%

10V PWM Adjustment Output Current; Frequency Range 100Hz~3KHz (PSMDC185-5250x)

Duty	0 %	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%	OPEN
Rated Current Rate	0%	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%	95~105%

**MODEL NUMBER SETUP**

PSMDC	185	-	5250	X
Series Name	Output Power		Input Voltage	Output Quantity
			<b>0500:</b> 500mA <b>0700:</b> 700mA <b>1050:</b> 1050mA <b>1400:</b> 1400mA <b>3150:</b> 3150mA <b>3850:</b> 3850mA <b>4200:</b> 4200mA <b>5250:</b> 5250mA	<b>A:</b> IP65 Grade, Adjust Current by Variable Resistor Internal <b>B:</b> IP67 Grade, Output Current dimming by 0~10V PWM signal/Resistor

**COMPANY INFORMATION**

Wall Industries, Inc. has created custom and modified units for over 50 years. Our in-house research and development engineers will provide a solution that exceeds your performance requirements on-time and on budget. Our ISO9001: 2015 certification is just one example of our commitment to producing a high quality, well-documented product for our customers.

Our past projects demonstrate our commitment to you, our customer. Wall Industries, Inc. has a reputation for working closely with its customers to ensure each solution meets or exceeds form, fit and function requirements. We will continue to provide ongoing support for your project above and beyond the design and production phases. Give us a call today to discuss your future projects.

Contact **Wall Industries** for further information:

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