

■ Features

- Power rating: 160W
- Input Voltage: 100-277Vac
- Constant Current Design
- Output Current (1700mA-5000mA)
- Selectable output current through POT switch
- Efficiency up to 93%
- 3-1 Dimming, 0-10V/PWM/Resistor
- Isolated Dimming(Contact Autec Sales)
- UL/cUL/CE
- Protections: SCP, OTP, OVP
- IP65
- 5-year warranty
- Surge Protection: L/N-PE: 4KV, L-N 4KV

RoHS
Compliant



*Product images are for illustrative purposes only and may vary from actual design.

■ Application

- High bay lights

■ Model List

Model Number	Input Voltage Range	Output Power	Output Voltage	Output Current Min.	Output Current Max.	Efficiency	Certification
L3WCD160S500STR	100-277Vac	160W	24-38V	2900mA	5000mA	92%	UL/cUL/CE
L3WCD160S380STR	100-277Vac	160W	27-54V	2100mA	3800mA	93%	UL/cUL/CE
L3WCD160S285STR	100-277Vac	160W	40-68V	1700mA	2850mA	93%	UL/cUL/CE

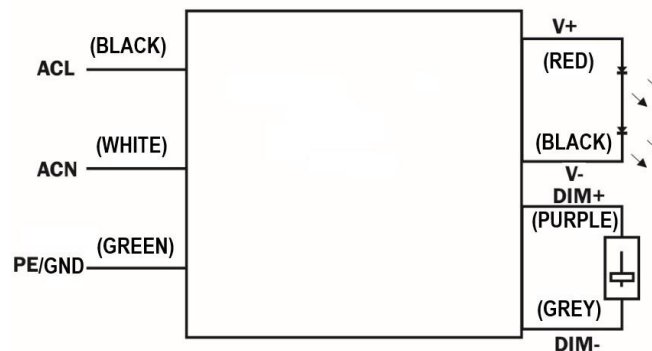
*Timer dimming option available, contact Autec Sales.

Autec power supplies are designed to meet and comply with the safety standards listed above. Contact Autec Sales to confirm available safety approvals for your specific power supply application.

Notes:

1. Output current selectable by POT switch
2. Torque: 0.98 to 19.6mN-m (10 to 200gf-cm) max.
3. Stop strength: 49.0mN-m (500gf-cm) min

■ Wiring Diagram / Dimming



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■ Input Characteristics

Parameter	Min	Typ.	Max	Remarks
Rated AC input range	100Vac		277Vac	
AC input range	90Vac		305Vac	
Input frequency range	47Hz		63Hz	
Max input current			2.1A	90Vac, full load
Inrush current			60A	cold start, 230Vac/50Hz, Twidth=650us measured at 50% Ipeak
No load power		3W	5W	277Vac/50Hz, No load
Power factor	0.92	0.95		230Vac/50Hz, full load
	0.9			100-277Vac/50Hz, 70-100% Load
THD		7%	10%	230Vac/50Hz, full load
			20%	100-277Vac/50Hz, 70-100% Load

■ Output Characteristics

Parameter	Min	Typ.	Max.	Remarks
Output voltage range	L3WCD160S500STR	24V	38V	Power derated@24-32Vdc
	L3WCD160S380STR	27V	54V	Power derated@27-42Vdc
	L3WCD160S285STR	40V	68V	Power derated@40-56Vdc
Rated Output Voltage	L3WCD160S500STR	32V	38V	Po=Vo*Io=160W, full load
	L3WCD160S380STR	42V	54V	
	L3WCD160S285STR	56V	68V	
Rated Output Current	L3WCD160S500STR	4.2A	5A	5A for 32V, 4.2A for 38V
	L3WCD160S380STR	3A	3.8A	3.8A for 42V, 2.85A for 42V
	L3WCD160S285STR	2.35A	2.85A	2.85A for 56V, 2.85A for 42V
Current Adjustable range	L3WCD160S500STR	2.9A	5A	Rated Io 70%-100% adjustable
	L3WCD160S380STR	2.1A	3.8A	
	L3WCD160S285STR	1.7A	2.85A	
No load Voltage	L3WCD160S500STR	38.5V	39.5V	40V
	L3WCD160S380STR	54.5V	55.5V	56V
	L3WCD160S285STR	68.5V	69.5V	70V
Efficiency@230Vac	L3WCD160S500STR	90%	92%	Output 38V/4.2A
	L3WCD160S380STR	91%	93%	Output 54V/2.9A
	L3WCD160S285STR	91%	93%	Output 68V/2.35A
Output current tolerance	-5%		+5%	
Output Voltage Ripple (pk-pk)		1%	2%	Full load
Output Current Ripple (pk-pk)		5%	10%	Full load
Start-up Current Overshoot			10%	
Start-up Time		0.6S	1S	115Vac
		0.4S	0.5S	230Vac
Line Regulation	-1%		+1%	Full load
Load Regulation	-2%		+2%	

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■ Other Characteristics

Parameter		Min	Typ.	Max	Remarks
0-10V Dimming (optional)	Dim Vmax	0V		14V	3 in 1 Dimming; 0-5V Dimming optional; Negative Logic Dim Optional; Dim-off optional
	Dim Range	10% Io max		100% Io set	
	Voltage	1V		10V	
PWM Dimming (Optional)	High	5V		10V	
	Low	-0.3V		-0.6V	
	Frequency	200Hz		2KHz	
	PWM Duty	1%		99%	
Resistor Dimming (optional)	Resistance	10K Ohm		100K Ohm	
	Dimming	10% Io max		100% Io Set	
Timing Curve (optional)	IC Control	By Programming			Typically, 3-4 sections
	Timing	5H/6H/7H/8H per section			DefaultMode:24 Hour/Circle with 50% load
Protection	OTP	90°C	100 °C	110 °C	Tc, Self-recovery
	Short Circuit Protection	Driver will not damage with short-circuit power <10W			Hiccup mode
Life Time		55,000hrs			230Vac full load, Tc 75°C
MTBF		200,000hrs			230Vac full load, (MIL-HDBK-217F)
Temperature Coefficient		-0.03%/°C			+0.03%/°C
Tc					90°C
Warranty		5 years			Tc 75°C
Net Weight		1500g			
Dimension		φ151x71mm			DxH

■ Environmental Data

Parameter	Min	Typ.	Max	Remarks
Operating Temperature	-40°C	25°C	+60°C	
Storage Temperature	-40°C	25°C	+85°C	
Operation Humidity	10%RH		90%RH	
Storage Humidity	5%RH		95%RH	
Altitude	-65m		4,000m	
Cooling Method	Air Cooling			
Packing	10pcs/carton, Carton Dimensions: 500mmx390mmx170mm			

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■ Safety Compliance

Certification		Standard	Status	Remark
UL/cUL		UL8750	✓	
CE		EN 61347-2-13:2014		
		EN61347-1:2008+A1:2011+A2:2013	✓	
		EN62493:2015		
SAA		AS/NZS61347.2.13	✓	
CCC		GB 19510.14-2009	✓	
BIS		IS15885:2012 Part 2 Sec 13	✓	Only for 3-in-1 Dimming
CE		EN61347-2-13:2014		
		EN61347-1:2008+A1:2011+A2:2013	✓	
Item		Standard	Remark	
Insulation Strength	Input-output	3200Vac/5mA Max/60s	Reinforced insulation	
	Primary-Earth	1600Vac/5mA Max/60s	Basic insulation	
	Sec.- Earth	1000Vac/5mA Max/60s	Function insulation	
Insulation Resistance	Input-output	≥10 MΩ	Testing Voltage: 500Vdc	
Ground Resistor		≤0.1Ω	25A/1min	
Leakage Current		≤0.75mA	277Vac	
Item		Criterion	Remark	
Conduction Emission		EN55015:2013+A1:2015		
Radiation Emission		EN55015:2013+A1:2015		
Harmonic Current Emissions		IEC/EN 61000-3-2	Class C	
Surge		IEC/EN61000-4-5	Difference mode 4kV, Common mode 4kV Criterion B	

Disclaimer:

Autec Power Systems' (Autec) LED Drivers are Hi-Pot tested during the manufacturing process. Autec assumes no responsibility for secondary Hi-Pot testing at customer location or designated production line(s). Should customer require further Hi-Pot testing, at their own production line, following assembly of the LED Driver into the customer's assembled fixture, Autec requests advance notice. This request must be communicated to Autec in a timely manner and is recommended to be requested at time of issuing each purchase order.

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■ Performance Curve

Fig. 1 O/P Voltage VS Output Current

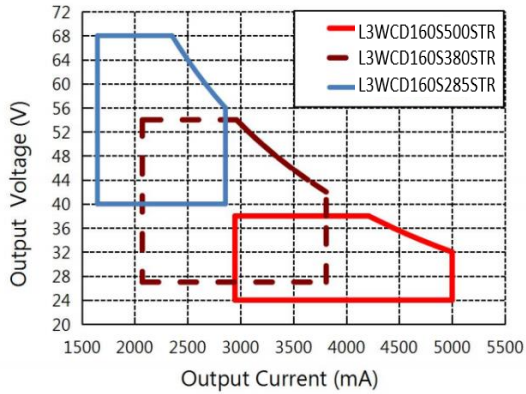


Fig. 2 O/P Power VS Ambient Temperature

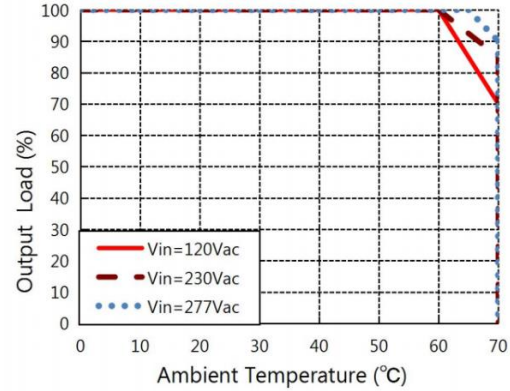


Fig. 3 Power Factor VS Output Power

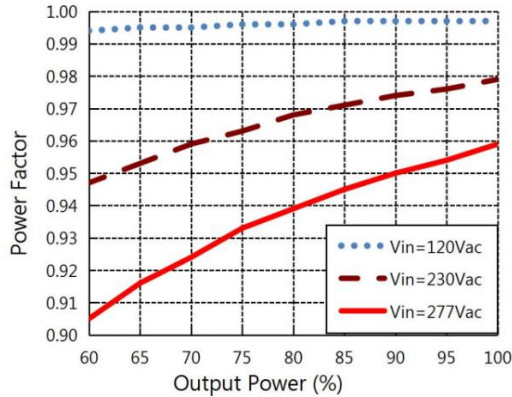


Fig. 4 THD VS Output Power

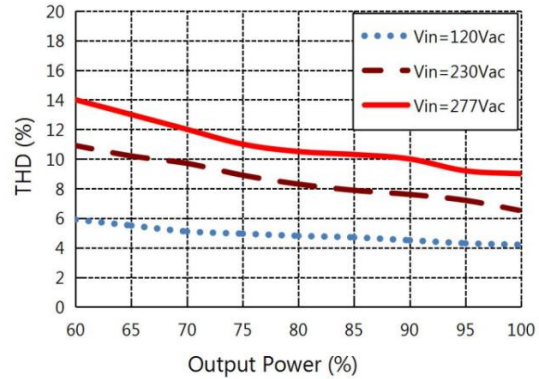


Fig. 5 Efficiency VS Output Power

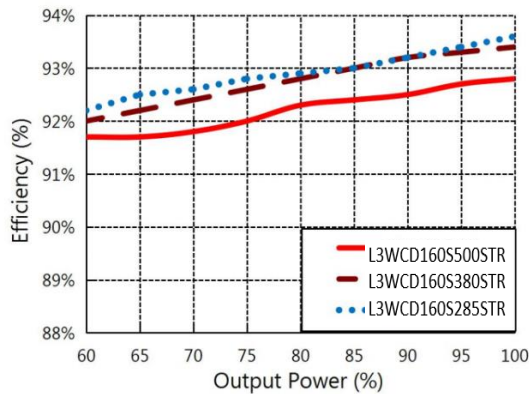
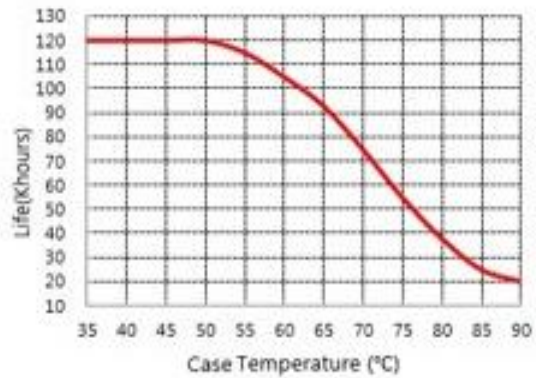


Fig. 6 Lifespan VS Case Temperature



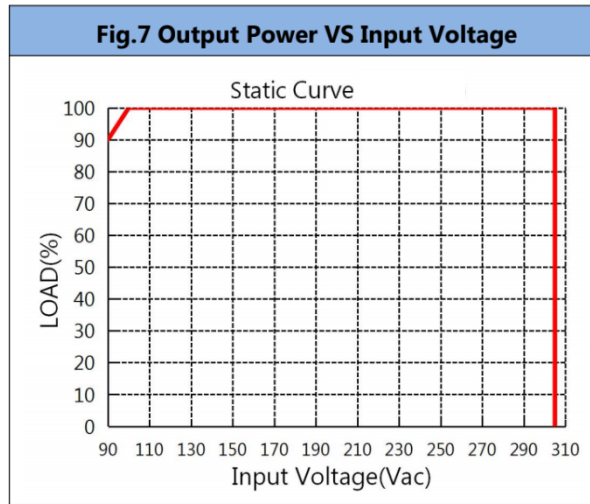
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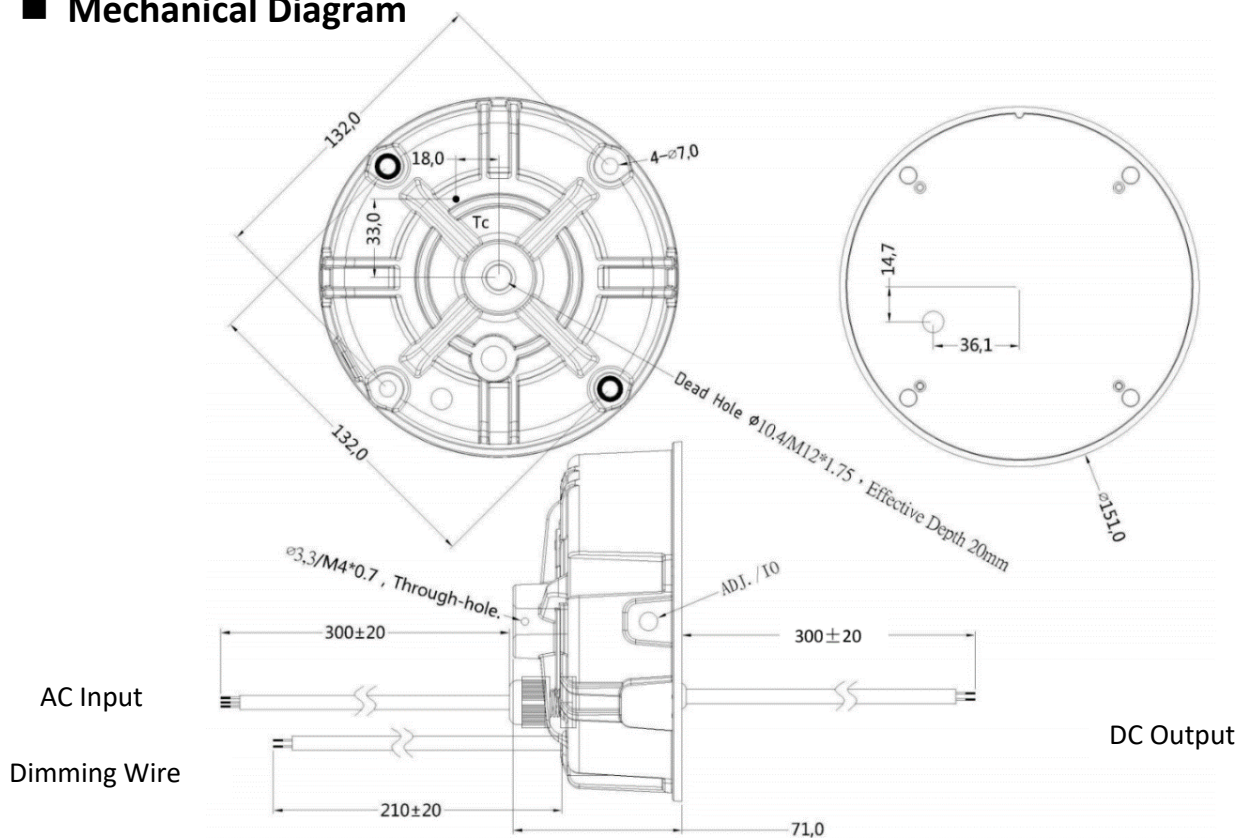
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■ Performance Curve(cont.)



■ Mechanical Diagram



Wire Specifications	
Input Wire	UL STW #18AWG, 3 X 0.824mm ² , O.D. 7.8mm, GREEN: PE, BLACK: L, WHITE: N
Output Wire	UL SJTW #18AWG 2X0.824mm ² , O.D. 7.8mm, RED: V+, BLACK: V-
Dim Wire	STYLE 2733, #22AWG O.D. 5.8mm, PURPLE: DIM+, GREY: DIM-

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■ Dimming

0-10V Dimming (Typ.)

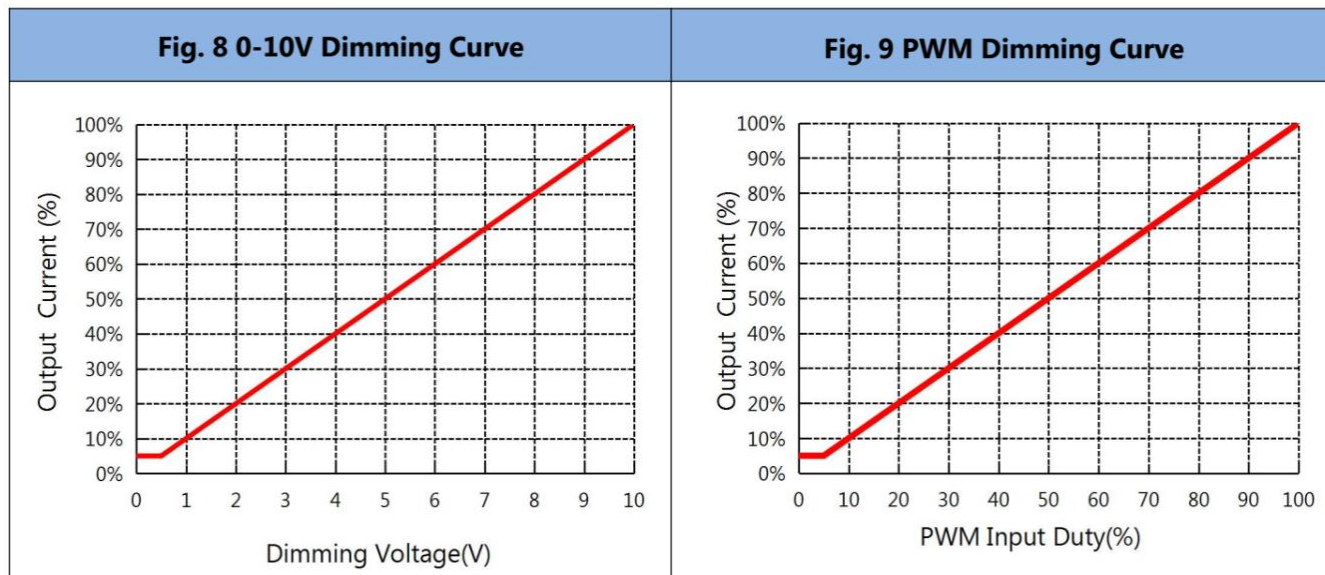
Voltage Range	1V	2V	3V	4V	5V	6V	7V	8V	9V	10V	Open
Rated Current Percentage	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%	95-108%

PWM Duty	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%	Open
Rated current percentage	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%	95-108%

Resistor(Typ.)

Resistor	10K Ω	20K Ω	30K Ω	40K Ω	50K Ω	60K Ω	70K Ω	80K Ω	90K Ω	100K Ω	Open
Rated Current Percentage	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%	95-108%

■ Dimming Curve

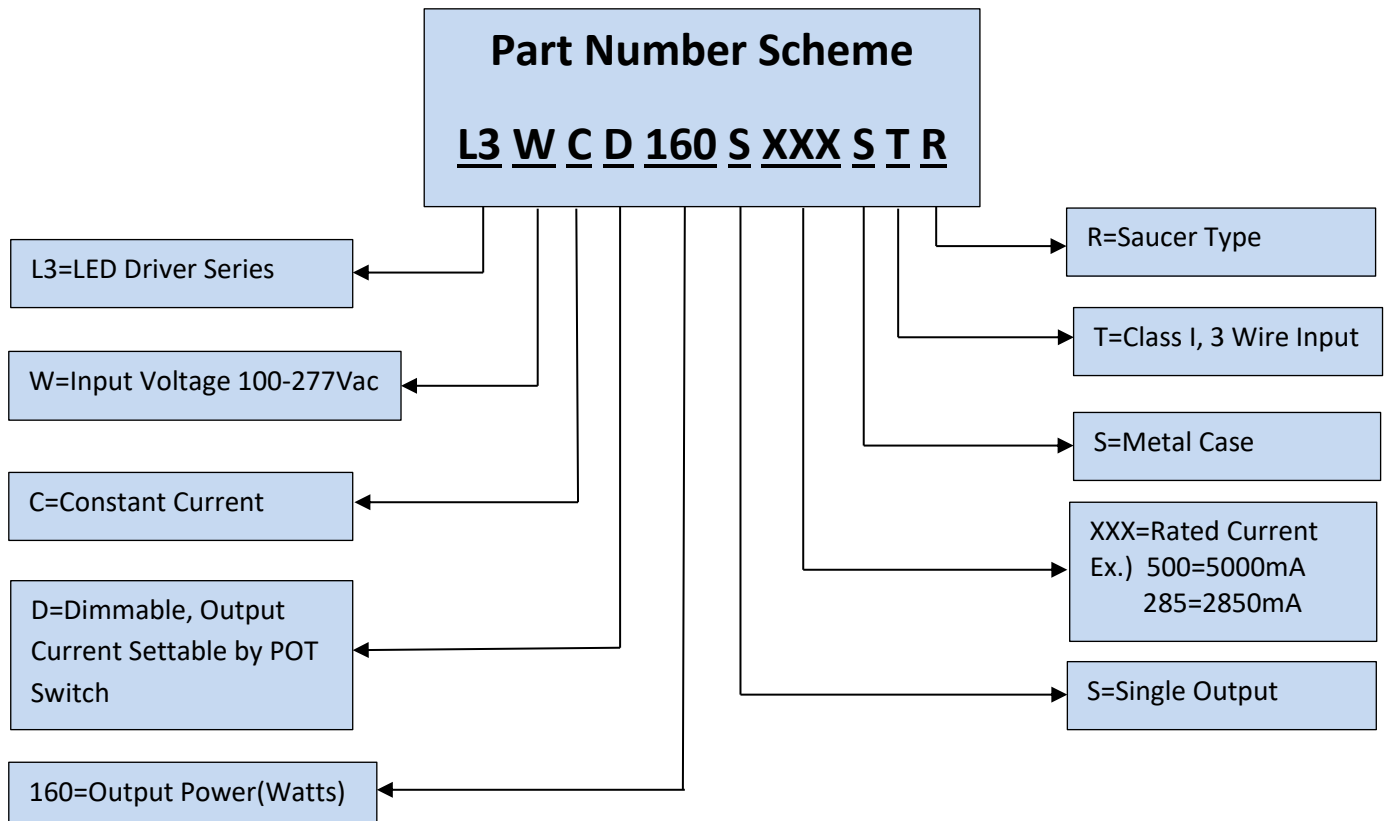


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