



- Constant Voltage and Current Output
- Universal AC Input of 100~305VAC
- Built-in Active PFC function
- Protections: Short Circuit/Over Voltage/Over Load
- Fixed Derating-Cutoff Type of Temperature Protection
- Cooling by Free Air Convection
- 3 in 1 Dimming Function (optional)
- Adjustable Output Voltage and Current (optional)
- Suitable for LED Lighting and LED Electronic Display Applications
- IP65 with Vo/Io Adjustment Screws, IP67 without
- Class II Some Models
- Suitable for Dry / Damp / Wet Locations
- 5 Year Warranty

cUL[®] US CE FC IP65/67

■ General functions

Output Power	75W	Input Frequency	50/60Hz
Input Voltage Range	100~305Vac	Operating Temperature	-40°C~+60°C
Storage Temperature	-45°C~+85°C	Safety & EMC	UL8750, UL1310 Class 2, IEC61347, EN55015
Turn-on Delay Time	3.0S max.	Inrush Current	65A at 230Vac, Cold start
Over Temp Protection	Fixed derating-cutoff type temperature protection	Waterproof	IP65/IP67

All specifications are typical at nominal input, full load, and 25°C unless otherwise noted

75W Single Output LED Driver with PFC

TABLE 1:

Model		DR075-200S035X-YY	DR075-108S070X-YY	DR075-072S105X-YY	DR075-054S140X-YY	DR075-048S157X-YY
Output	DC Voltage	200Vdc	108Vdc	72Vdc	54Vdc	48Vdc
	Constant Current Operation Voltage <small>note.5</small>	120~200Vdc	65~108Vdc	44~72Vdc	32.4~54Vdc	28.8~48Vdc
	Rated DC Current	350mA	700mA	1050mA	1400 mA	1570 mA
	Current Range	0~350mA	0~700mA	0~1050mA	0~1400mA	0~1570mA
	Dimming Current Range	10~100% rated output current (≥50% rated output voltage)				
	Ripple and Noise	10%Vo	10%Vo	10%Vo	10%Vo	10%Vo
	Voltage ADJ. Range <small>note.3</small>	180~210Vdc	97~113Vdc	65~76Vdc	49~57Vdc	43~50Vdc
	Current ADJ. Range <small>note.3</small>	210~350mA	420~700mA	630~1050mA	840~1400mA	942~1570mA
	Voltage Tolerance	±5%	±5%	±5%	±5%	±5%
	Voltage Line Regulation	±1%	±1%	±1%	±1%	±1%
Voltage Load Regulation	±5%	±5%	±5%	±5%	±5%	
Input	Efficiency	91%	91%	91%	91%	91%
	Power Factor	0.96/230Vac	0.96/230Vac	0.96/230Vac	0.96/230Vac	0.96/230Vac
	AC Current	1.0A/100Vac, 0.5A/230Vac				
	Leakage Current	<0.75mA/230Vac; <0.5mA/120Vac				
Output Protection	Over Current	Constant current limiting				
	Short Circuit	Non-dimmer type: recover automatically at hiccup; Dimmer type: Short-circuit power ≤10W.				
	Over Voltage	Shut down at 140% Vo and latch off o/p voltage, re-power on to recover				
Environmental	Operating Humidity	20~95% RH, non-condensing				
	Storage Humidity	10~95% RH				
	Temperature Coefficient	±0.03%/°C (0~50°C)				
	Vibration	10~300Hz, 1G, Period for 60min, each along X、Y、Z axes.				
Safety & EMC	Withstand Voltage	I/P-OP: 3.75KVac; IP-FG: 1.56KVac/2.00KVac (remove discharge tube); O/P-FG: 2.00KVac				
	Isolation Resistance	IP-OP, IP-FG, O/P-FG: 100M Ohms/500Vdc/25°C/70% RH				
	EMC Interference	Compliance to EN55015, EN55022 (CISPR22) Class B				
	EMC Emission	Compliance to EN61000-3-2 Class C (≥50%load); EN61000-3-3				
	EMC Immunity	Compliance to EN61000-4-2, 3, 4, 5, 6, 8, 11; ENV50204, EN61547, EN55024				
Others	Authentication	UL/TUV/CE/FCC/RoHS/CQC/REACH			UL class 2/TUV/CE/FCC/RoHS/CQC/REACH	
	MTBF	377k Hrs at full load and 30°C ambient conditions per MIL-HDBK-217F				
	Input Over-voltage	Can survive input over-voltage stress of 320Vac for 48 hours				
	Dimensions (mm)	199×59×40				
	Max. Case Temp.	Tc max=80°C				
	Net Weight	0.83Kg/pcs				
Note	1. All parameters NOT specially mentioned are measured at 230Vac input, rated load and 25°C of ambient temperature.					
	2. Ripple & noise are measured: at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1μf & 47μf parallel capacitor.					
	3. Output voltage and current can be adjusted by internal potentiometer ("A" type only).					
	4. Tolerance: includes set up tolerance, voltage line regulation and voltage load regulation.					
	5. Constant current operation region is within 60% ~100% rated output voltage. This is the suitable operation region for LED related applications, but please reconfirm special electrical requirements for some specific system design.					
	6. Derating may be needed under low input voltages. Please check the Static Characteristics for more details.					
	7. Safety and EMC design refer to EN60598-1, subject 8750 (UL), CNS15233, GB7000.1, FCC part18.					
	8. Length of set up time is measured at cold first start. Turning ON/OFF the power supply may lead to increase of the set up time.					
	9. The power supply is considered as a component that will be operated in combination with final equipment. Since EMC performance will be affected by the complete installation, the final equipment manufacturers must re-qualify EMC Directive on the complete installation again.					
	10. Canada (output voltage: 42-60V) : suitable for class 2 wiring method.					

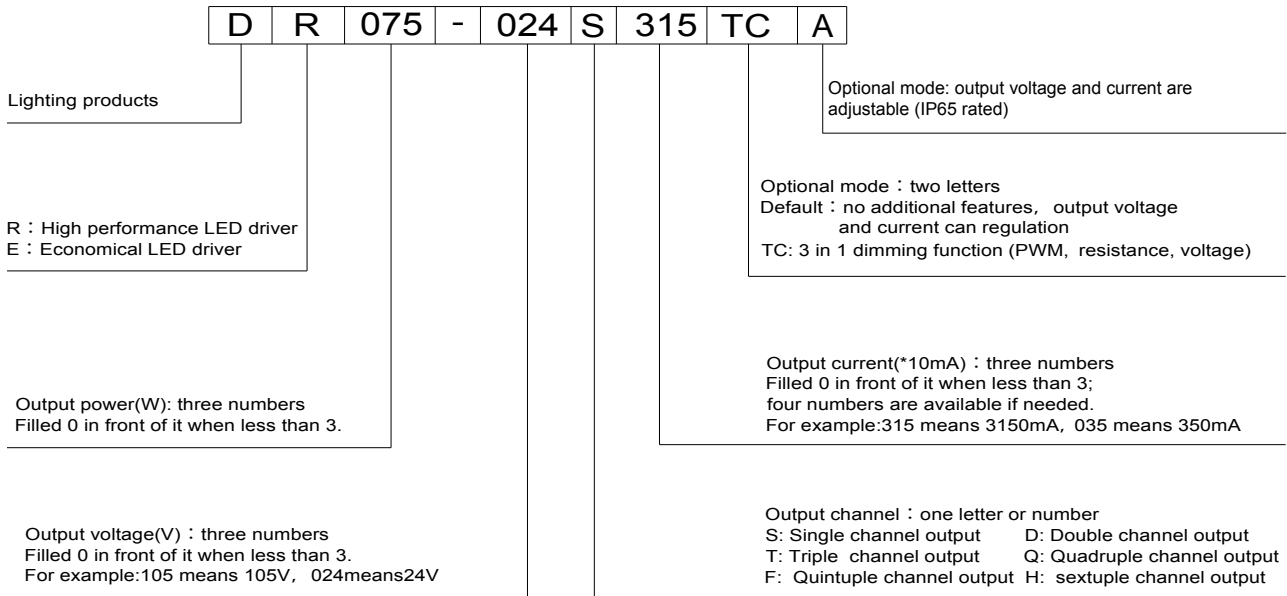
75W Single Output LED Driver with PFC

TABLE 2:

Model		DR075-036S210X-YY	DR075-030S245X-YY	DR075-024S315X-YY	DR075-020S375X-YY	DR075-042S176X-YY
Output	DC Voltage	36Vdc	30Vdc	24Vdc	20Vdc	42Vdc
	Constant Current Operation Voltage <small>note.5</small>	22 ~36Vdc	18~30Vdc	15 ~24Vdc	12~20Vdc	26 ~42Vdc
	Rated DC Current	2100 mA	2450 mA	3150 mA	3750 mA	1760 mA
	Current Range	0~2100mA	0~2450mA	0~3150mA	0~3750mA	0~1760mA
	Dimming Current Range	10~100% rated output current (≥50% rated output voltage)				
	Ripple and Noise	10%Vo	10%Vo	10%Vo	10%Vo	10%Vo
	Voltage ADJ. Range <small>note.3</small>	32~38Vdc	27~32Vdc	22~25Vdc	18~21Vdc	38~44Vdc
	Current ADJ. Range <small>note.3</small>	1260~2100mA	1470~2450mA	1890~3150mA	2250~3750mA	1056~1760mA
	Voltage Tolerance	±5%	±5%	±5%	±5%	±5%
	Voltage Line Regulation	±1%	±1%	±1%	±1%	±1%
Voltage Load Regulation	±5%	±5%	±5%	±5%	±5%	
Input	Efficiency	90%	90%	89%	88%	90%
	Power Factor	0.96/230Vac	0.96/230Vac	0.96/230Vac	0.96/230Vac	0.96/230Vac
	AC Current	1.0A/100Vac, 0.5A/230Vac				
	Leakage Current	<0.75mA/230Vac; <0.5mA/120Vac				
Output Protection	Over Current	Constant current limiting				
	Short Circuit	Non-dimmer type: recover automatically at hiccup; Dimmer type: Short-circuit power ≤10W.				
	Over Voltage	Shut down at 140% Vo and latch off o/p voltage, re-power on to recover				
Environmental	Operating Humidity	20~95% RH, non-condensing				
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	Temperature Coefficient	±0.03%/°C (0~50°C)				
	Vibration	10~300Hz, 1G, Period for 60min, each along X、 Y、 Z axes.				
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	MTBF	377k Hrs at full load and 30°C ambient conditions per MIL-HDBK-217F				
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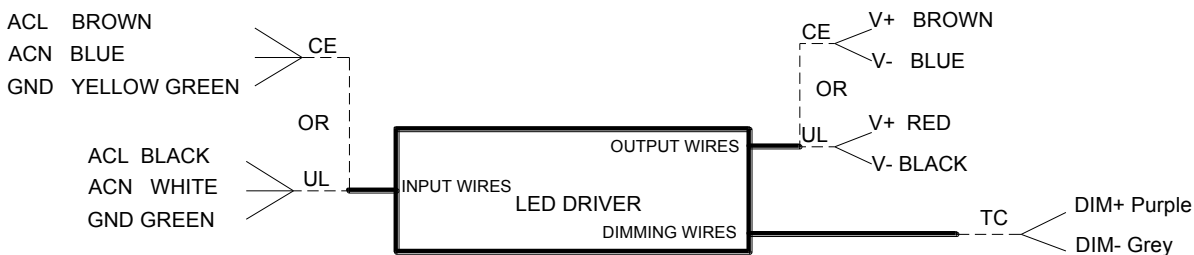
75W Single Output LED Driver with PFC

■ Part number code

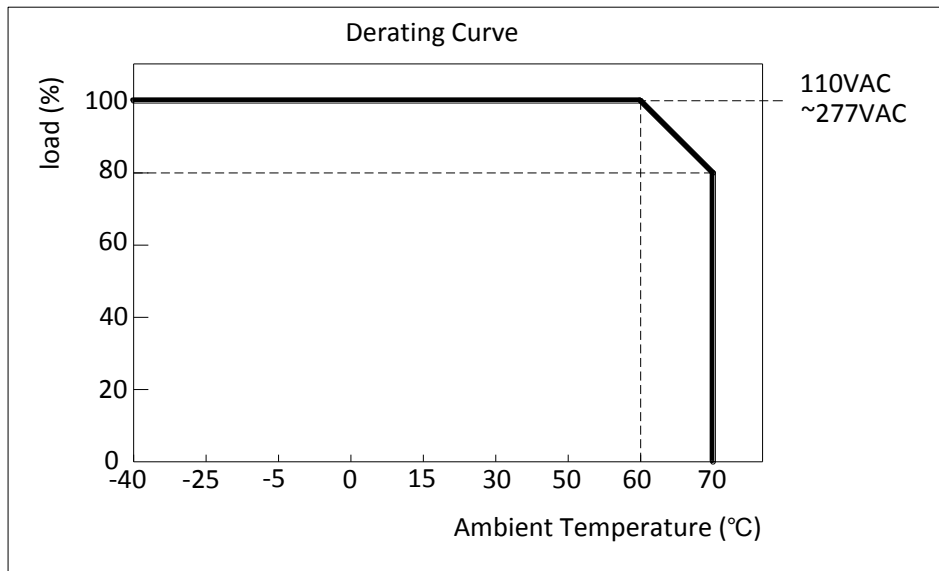


For example: DR075-024S315TC means it is a high performance LED driver, output power 75W, output voltage 24Vdc, output current 3150mA , single output, with intelligent wire dimming function and isolated output.

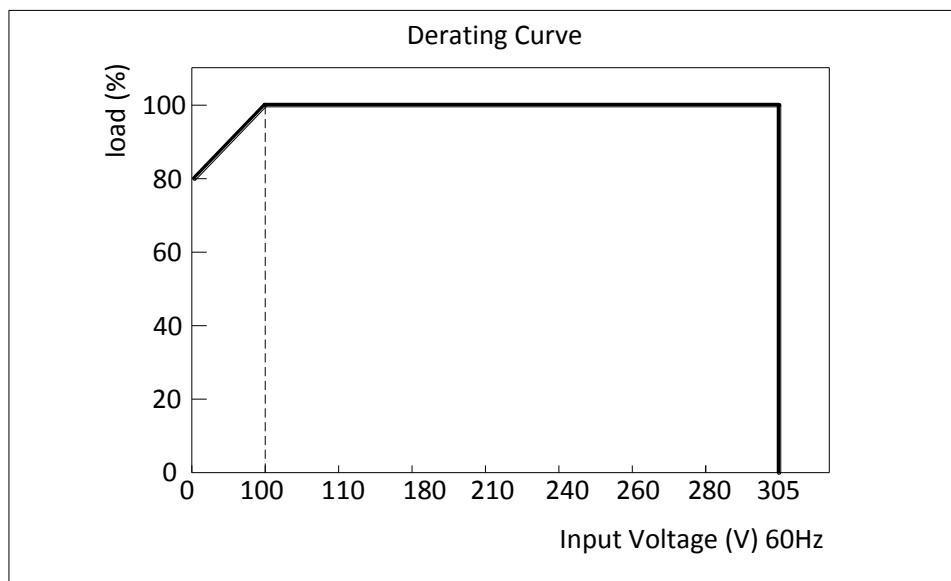
■ wiring diagram



■ Derating Curve

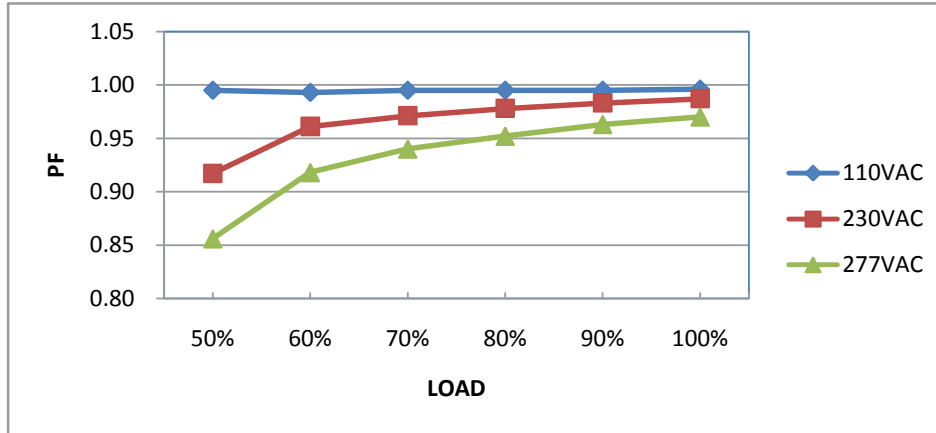


■ Static Characteristics

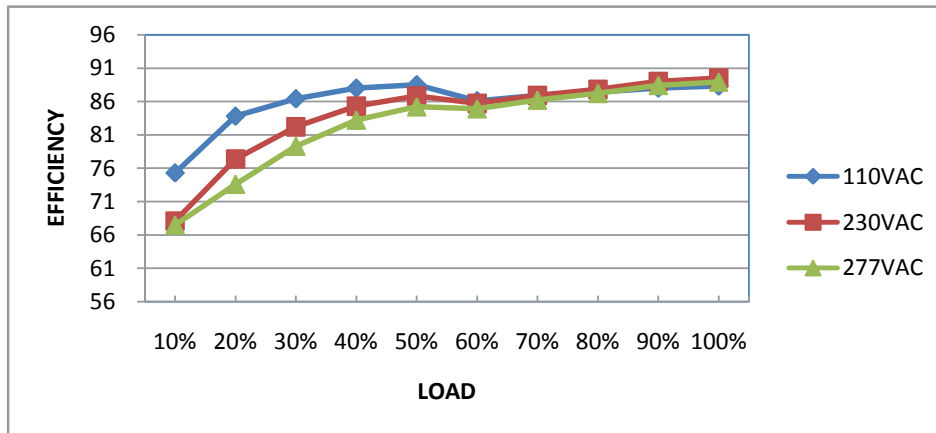


75W Single Output LED Driver with PFC

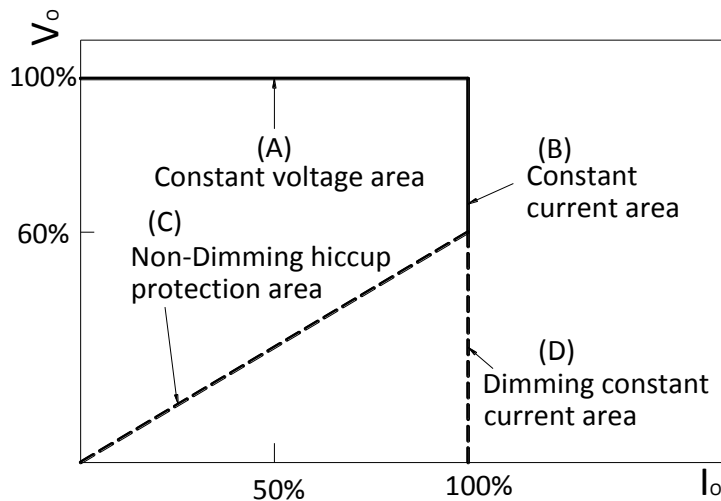
■ Power Factor Characteristic (DR075-024S315)



■ EFFICIENCY vs LOAD (DR075-024S315)



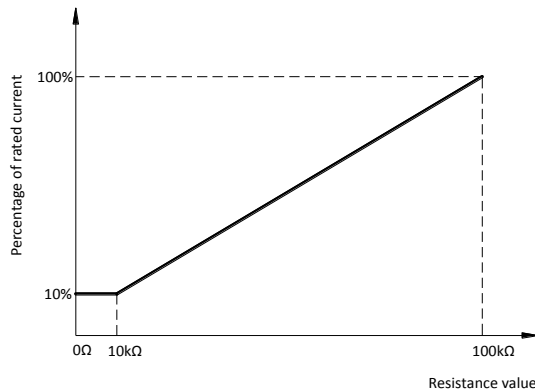
■ Typical LED power supply I-V curve



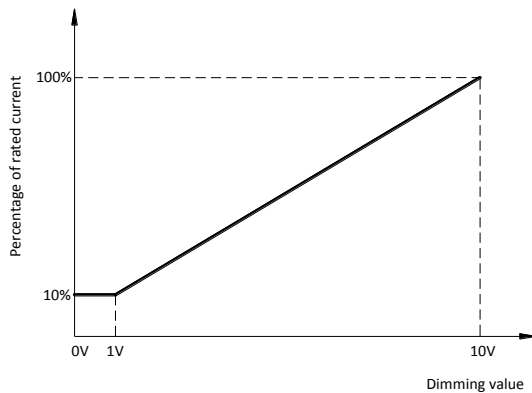
75W Single Output LED Driver with PFC

■ “-TC” option: 0-10V, resistance & PWM dimming

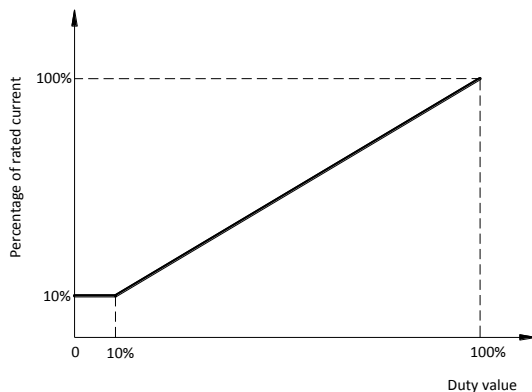
a. Reference resistance value for output current adjustment (Typical)



b. 0-10V dimming function for output current adjustment (Typical)



c. 10V PWM signal for output current adjustment (Typical): Frequency range: 200Hz~1.5KHz



75W Single Output LED Driver with PFC

Dimming control details:

Parameters		Minimum	Typical	Maximum
Dimming Type	Resistance	0kΩ	0-100kΩ	∞
	Voltage	-2V	0-10V	15V
	PWM(10%~100% f=200Hz~1.5KHz)	-2V	0-10V	15V
Dimming Current		-0.5mA	-	0.5mA

■ Input and output Dielectric strength

Isolation	Input Wires	Output Wires	Isolated Dimming Control Wires	Chassis
Input Wires	NA	3750	2000	1560
Output Wires	3750	NA	2000	2000
Isolated Dimming Control Wires	2000	2000	NA	2000
Chassis	1560	2000	2000	NA

■ Fixed derating-cutoff type temperature protection

