



■ Features

- Constant voltage and current output
- Universal AC input 100~305VAC
- Built-in active PFC function
- High efficiency
- Protections: Short circuit/Over voltage/Over load/Over temperature
- Over temperature Protection: Shut down and latch off o/p voltage, re-power on to recover
- Cooling by free air convection
- Digital, analog or remote control dimming function
- Suitable for LED lighting and LED Electronic display applications
- IP66/67 with Vo/Lo adjusting screws, internal use, avoid ultraviolet irradiation
IP67 without Vo/Lo adjusting screws, external use
- Compliance to worldwide safety regulations for lighting
- Suitable for dry / damp / wet locations



IP67



■ General functions

Output Power	150W	Input Frequency	50/60Hz
Input Voltage Range	100~305Vac	Operating Temperature	-40°C~+60°C
Storage Temperature	-45°C~+85°C	Safety & EMC	UL8750,IEC61347,EN55015
Turn-on Delay Time	3.0S max.	Inrush Current	65A
Over Temp Protection	Shut down and latch off o/p voltage	Waterproof	IP66/IP67

■ Detailed Specification

TABLE 1:

Model		DR150-429S035	DR150-215S070	DR150-143S105	DR150-108S140	DR150-086S175	DR150-072S210
Output	DC Voltage	429Vdc	215Vdc	143Vdc	108Vdc	86Vdc	72Vdc
	Constant Current Range	258 ~429Vdc	129 ~215Vdc	86 ~143Vdc	64 ~108Vdc	52 ~86Vdc	43~72Vdc
	Rated DC Current	350 mA	700 mA	1050 mA	1400 mA	1750 mA	2100 mA
	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	10%Vo
	Voltage Tolerance	±5%	±5%	±5%	±5%	±5%	±5%
	Voltage Line Regulation	±1%	±1%	±1%	±1%	±1%	±1%
	Voltage Load Regulation	±5%	±5%	±5%	±5%	±5%	±5%
Input	Efficiency	92%	92%	92%	91%	91%	91%
	Power Factor	0.96/220Vac	0.96/220Vac	0.96/220Vac	0.96/220Vac	0.96/220Vac	0.96/220Vac
	AC Current	1.8A/100VAC,0.9A/220VAC					
	Leakage Current	<0.75mA/230VAC;<0.5mA/120VAC					
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	IP-OP:3.75KVAC; IP-FG:1.56KAC/2.00KVAC(remove discharge tube); O/P-FG:2.00KVAC					
	Isolation Resistance	IP-OP,IP-FG,O/P-FG:100MOhms/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/CE					
	MTBF	300Khrs					
	Dimensions (mm)	226×68×40					
	Max. Case Temp.	Tc max=80°C					
	Net Weight	1.086Kg/pcs					
Note	1. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25 of ambient temperature.						
	2. Ripple & noise are measured: at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uf & 47uf parallel capacitor.						
	3.Tolerance : includes set up tolerance, voltage line regulation and voltage load regulation.						
	4. 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.						
	5. Derating may be needed under low input voltages. Please check the Static Characteristics for more details.						
	6. Safety and EMC design refer to EN60598-1, subject8750(UL),CNS15233, GB7000.1, FCC part18.						
	7. 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.						
	8. 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.						

TABLE 2:

Model		DR150-062S245	DR150-054S280	DR150-048S315	DR150-043S350	DR150-036S420	DR150-031S490
Output	DC Voltage	62Vdc	54Vdc	48Vdc	43Vdc	36Vdc	31Vdc
	Constant Current Range	37~62Vdc	32~54Vdc	28~48Vdc	26~43Vdc	21~36Vdc	18~31Vdc
	Rated DC Current	2450 mA	2800 mA	3150 mA	3500 mA	4200 mA	4900 mA
	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	10%Vo
	Voltage Tolerance	±5%	±5%	±5%	±5%	±5%	±5%
	Voltage Line Regulation	±1%	±1%	±1%	±1%	±1%	±1%
	Voltage Load Regulation	±5%	±5%	±5%	±5%	±5%	±5%
Input	Efficiency	91%	91%	91%	91%	91%	91%
	Power Factor	0.96/220Vac	0.96/220Vac	0.96/220Vac	0.96/220Vac	0.96/220Vac	0.96/220Vac
	AC Current	1.8A/100VAC,0.9A/220VAC					
	Leakage Current	<0.75mA/230VAC;<0.5mA/120VAC					
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	IP-OP:3.75KVAC; IP-FG:1.56KAC/2.00KVAC(remove discharge tube); O/P-FG:2.00KVAC					
	Isolation Resistance	IP-OP,IP-FG,O/P-FG:100MOhms/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/CE					
	MTBF	300Khrs					
	Dimensions (mm)	226x68x40					
	Max. Case Temp.	Tc max=80°C					
	Net Weight	1.086Kg/pcs					
Note	1. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25 of ambient temperature.						
	2. Ripple & noise are measured: at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uf & 47uf parallel capacitor.						
	3.Tolerance : includes set up tolerance, v oltage line regulation and v oltage load regulation.						
	4. 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.						
	5. Derating may be needed under low input voltages. Please check the Static Characteristics for more details.						
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TABLE3:

Model		DR150-026S595	DR150-024S625	DR150-020S750	DR150-015S1000	DR150-012S1250		
Output	DC Voltage	26Vdc	24Vdc	20Vdc	15Vdc	12Vdc		
	Constant Current Range	15~26Vdc	14~24Vdc	12~20Vdc	9~15Vdc	7~12Vdc		
	Rated DC Current	5950 mA	6250 mA	7500mA	10000 mA	12500mA		
	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 Tolerance	±5%	±5%	±5%	±5%	±5%		
	Voltage Line Regulation	±1%	±1%	±1%	±1%	±1%		
Input	Voltage Load Regulation	±5%	±5%	±5%	±5%	±5%		
	Efficiency	90%	90%	90%	88%	88%		
	Power Factor	0.96/220Vac	0.96/220Vac	0.96/220Vac	0.96/220Vac	0.96/220Vac		
	AC Current	1.8A/100VAC,0.9A/220VAC						
Protection	Leakage Current	<0.75mA/230VAC;<0.5mA/120VAC						
	Over Current	Constant current limiting						
	Short Circuit	Non-dimmer type: recover automatically at hiccup ;Dimmer type: Short-circuit power ≤10W.						
Environmental	Over Voltage	Shut down at 140%Vo and latch off o/p voltage, re-power on to recover						
	Operating Humidity	20~95%RH,non-condensing						
	Storage Humidity	10~95%RH						
	Temperature Coefficient	±0.03%/°C (0~50°C)						
Safety&EMC	Vibration	10~300HZ,1G ,Period for 60min,each along X、 Y、 Z axes.						
	Withstand Voltage	IP-OP:3.75KVAC; IP-FG:1.56KAC/2.00KVAC(remove discharge tube); O/P-FG:2.00KVAC						
	Isolation Resistance	IP-OP,IP-FG,O/P-FG:100MOhms/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						
Others	EMC Immunity	Compliance to EN61000-4-2,3,4,5,6,8,11;ENV50204, EN61547, EN55024.						
	Authentication	UL/CE						
	MTBF	300Khrs						
	Dimensions (mm)	226x68x40						
	Max. Case Temp.	Tc max=80°C						
Note	Net Weight	1.086Kg/pcs						
	1. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25 of ambient temperature.							
	2. Ripple & noise are measured: at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uf & 47uf parallel capacitor.							
	3.Tolerance : includes set up tolerance, v oltage line regulation and v oltage load regulation.							
	4. 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.							
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	6. Safety and EMC design refer to EN60598-1, subject8750(UL),CNS15233, GB7000.1, FCC part18.							
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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.								

■ Part number code

D R 150 - 024 S 625 TA

Lighting products

R: High performance LED driver
E: Economical LED driver

Output power(W): three numbers
Filled 0 in front of it when less than 3.

Output voltage(V): three numbers
Filled 0 in front of it when less than 3.
For example:105 means 105V, 024means24V

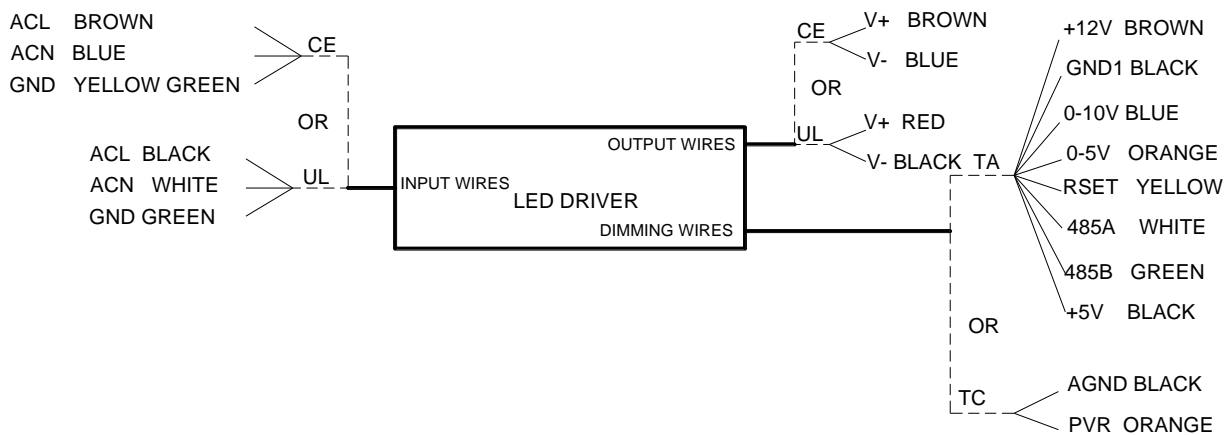
Optional mode: two letters
Default: no additional features, output voltage and current can regulation
TA: intelligent wire dimming function,isolated output
TB: intelligent wireless dimming function
TC: 3 in 1 dimming function(PWM、resistance, voltage)

Output current(*10mA): three numbers
Filled 0 in front of it when less than 3;
four numbers are available if need.
For example:625means 6250mA, 035 means 350mA

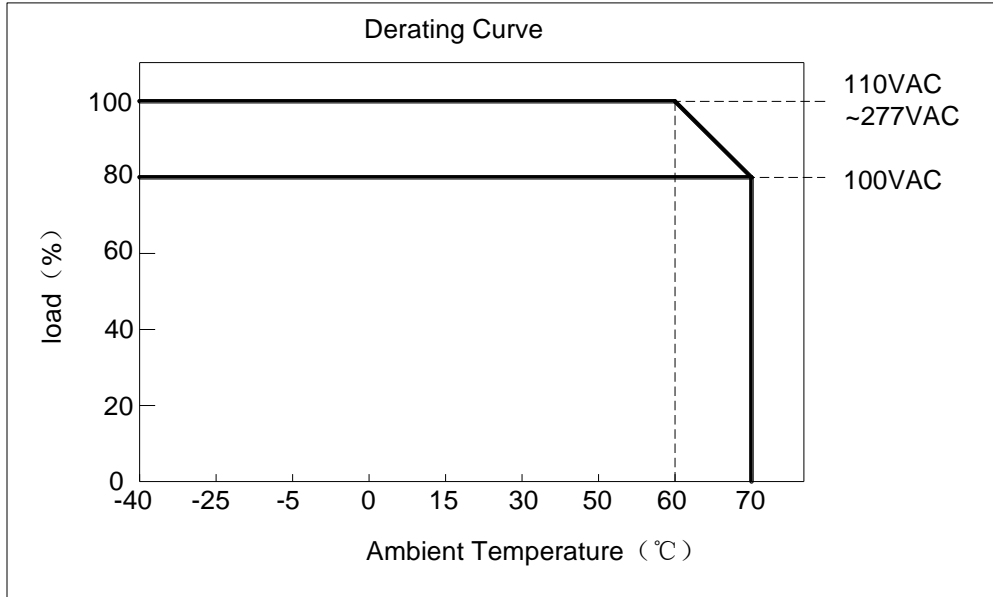
Output channel: one letter or number
S: Single channel output D: Double channel output
T: Triple channel output Q: Quadruple channel output
F: Quintuple channel output H: sextuple channel output

For example: DR150-024S625TA means it is a high performance LED driver, output power 150W, output voltage 24Vdc, output current 6250mA , single output, with intelligent wire dimming function and isolated output.

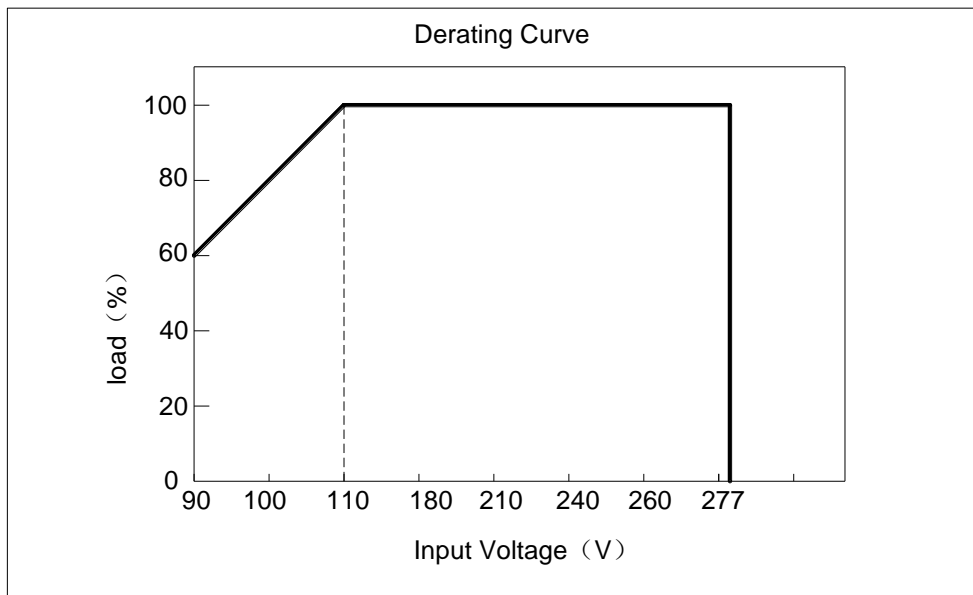
■ wiring diagram



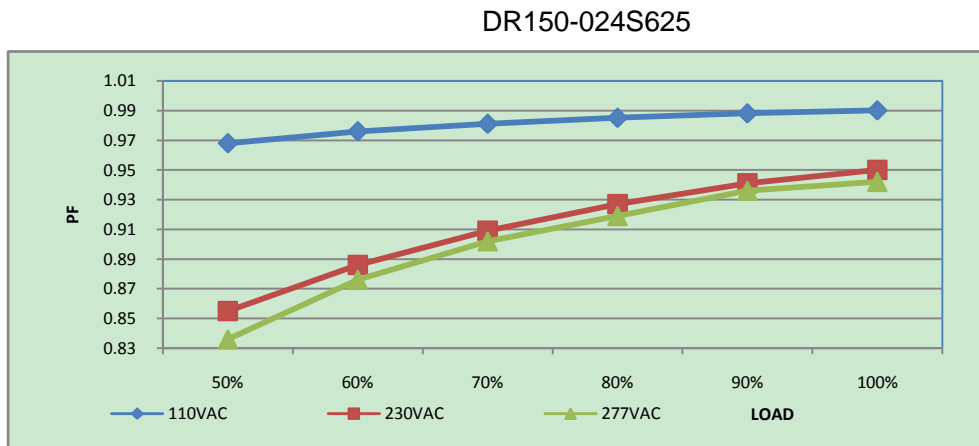
■ Derating Curve



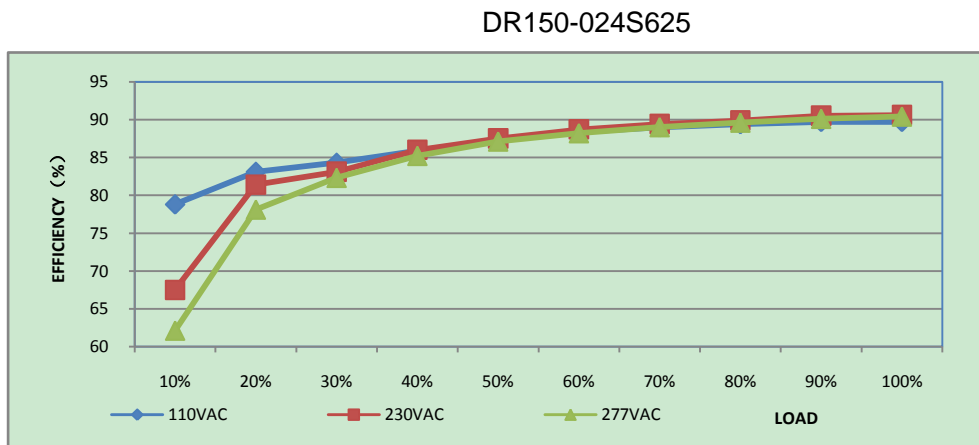
■ Static Characteristics



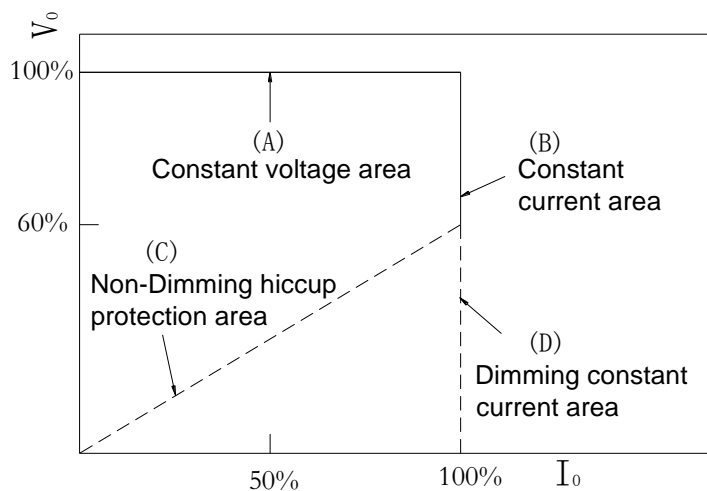
Power Factor Characteristic



EFFICIENCY vs LOAD

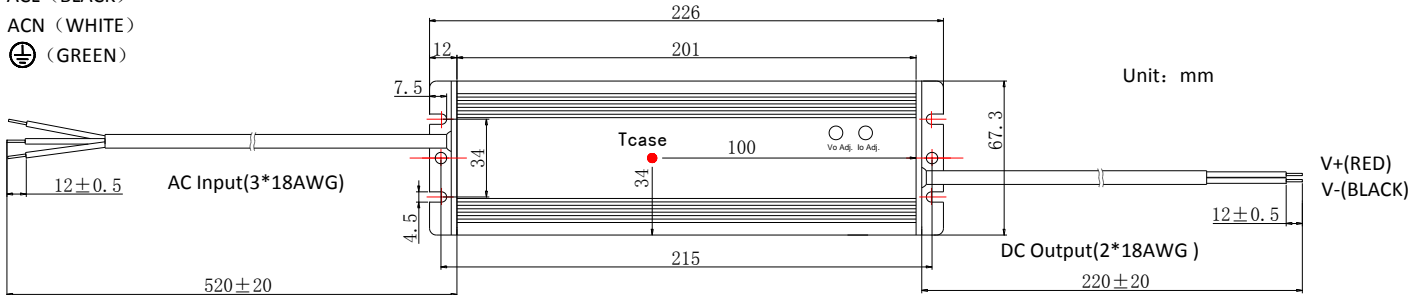


Typical LED power supply I-V curve



■ Mechanical Outline

ACL (BLACK)
ACN (WHITE)
⊕ (GREEN)



※Tcase: Max. Case Temperature



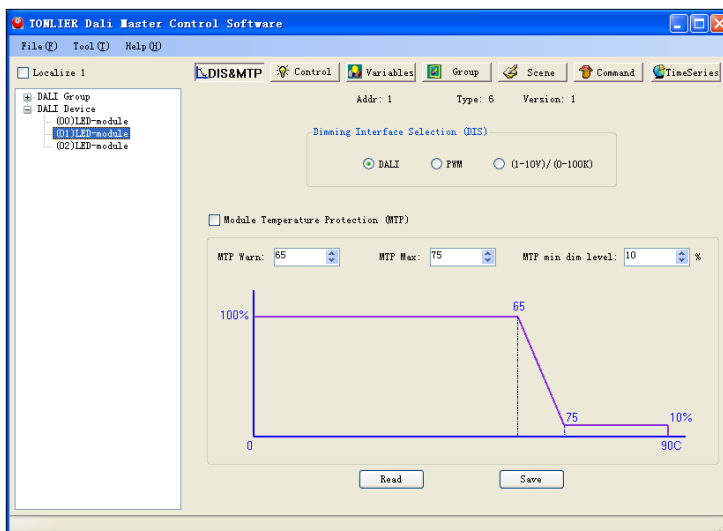
※Power's internal temperature is 15 °C warmer than case temperature.

NOTE:

NO.	DC Output Current	Wire Number	Wire specification
1	≤6A	1	2 × AWG18
2	6~8A(Including 8A)	1	2 × AWG16
3	8~10 (Including 10A)	2	2 × AWG18
4	10~20 (Including 20A)	2	2 × AWG16

■ Isolated intelligent dimming and control

- intelligent dimming
- LED Light attenuation compensation
- Derating Temperature Protection



■ Non-isolated 3 in 1 dimming function

Reference resistance value for output current adjustment (Typical)

Resistance value	Single driver	10KΩ	20KΩ	30KΩ	40KΩ	50KΩ	60KΩ	70KΩ	80KΩ	90KΩ	100KΩ	OPEN
	Multiple drivers	10KΩ /N	20KΩ /N	30KΩ /N	40KΩ /N	50KΩ /N	60KΩ /N	70KΩ /N	80KΩ /N	90KΩ /N	100KΩ /N	OPEN
Percentage of rated current		10%	20%	30%	40%	50%	60%	70%	80%	90%	100%	98%~108%

1 ~ 10V dimming function for output current adjustment (Typical)

Dimming value	1V	2V	3V	4V	5V	6V	7V	8V	9V	10V	OPEN
Percentage of rated current	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%	98%~108%

10V PWM signal for output current adjustment (Typical): Frequency range: 100HZ ~ 3KHz

Duty value	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%	OPEN
Percentage of rated current	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%	98%~108%

■ Input and output Dielectric strength

Isolation	Input Wires	Output Wires	Isolated Dimming Control Wires	Chassis
Input Wires	NA	3750	2000	1560/2000 (remove discharge tube)
Output Wires	3750	NA	2000	2000
Isolated Dimming Control Wires	2000	2000	NA	2000
Chassis	1560/2000 (remove discharge tube)	2000	2000	NA

■ Fixed derating-cutoff type temperature protection

