

DARFON DBL-070Series 70W single output power supply

Features

- DC wide range input (12 to 24Vdc)
- Protections: Short circuit/Over current auto recovery
- Over voltage/Over temperature power reset
- Constant current design (C.C.mode)
- Multiple dimming functions
- IP65/IP67 Design for indoor and outdoor use
- Suitable for LED and street lighting applications
- Comply with UL, TUV, CE, FCC, CQC safety regulation
- 5 years Warranty



SELV IP65 IP67 RoHS

DBL-070-XXXX □ Type A: IP65 grade · Adjust current by variable resistor internal & by 1~10V/PWM signal/Resistor external
 Type B: IP67grade · Dimming by 1~10V/PWM signal/Resistor

Model	Rated Current	Current adjust range(1)	Output Voltage (Max Vo * Iout)	OVP level	Input DC Voltage(4)		Output Power	Efficiency (2)
					12V	24V		
DBL-070-0500	500mA	200~500mA	115~165V(300mA)	181~198V		V	50W	88%
DBL-070-0700	700mA	280~700mA	70~120V(500mA)	132~144V	V	V	60W	89%
DBL-070-1400	1400mA	560~1400mA	42~75V(900mA)	90~97.5V	V	V	70W	90%
DBL-070-2450	2450mA	980~2450mA	18~45V(1550mA)	54~58.5V	V	V(3)	70W	91%

1. Only Type A Adjust current by variable resistor internal
2. Efficiency test condition please reference "Efficiency Vs Load "
3. Output voltage must be 3 volts higher than the input voltage
4. Just show 12V/24V two kinds of input voltage for reference , the others input voltage please contact Darofn for more detail.

◆ Input Specification

Input voltage range	11.4~25.2Vdc (Please reference the table above)
Inrush current (Typ.)	70A peak @24Vdc, Cold Start

◆ Output Specification

Output Current Tolerance	±5%
Ripple & Noise (1)	1V p-p
Output Ripple Current	±5%
Line Regulation	±1%
Turn-on Time	<0.5s @12Vdc /24Vdc, @ full load

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1. Ripple current is measured at 20MHz of bandwidth. The measured terminal is paralleled with a 22uF E-cap and a 0.1uF Ceramic cap.

◆ General Specification

MTBF	350Khrs min. MIL-HDBK-217F(25°C)
Life Time	>50,000hrs , 24VDC , 100% Load, @ T-Case 70°C
Dimension	138 * 67 * 30mm (L*W*H)
Weight	400g

◆ Protections

Short Circuit	Auto recovery or Power reset
Over Voltage	Power reset
Over Temperature De-rated (1)	Over 50°C , automatic de-rate to 75% of rated load current
Over Temperature (1)	85°C±10°C , Auto recovery

1. Please reference "Temperature-De-rating curve "

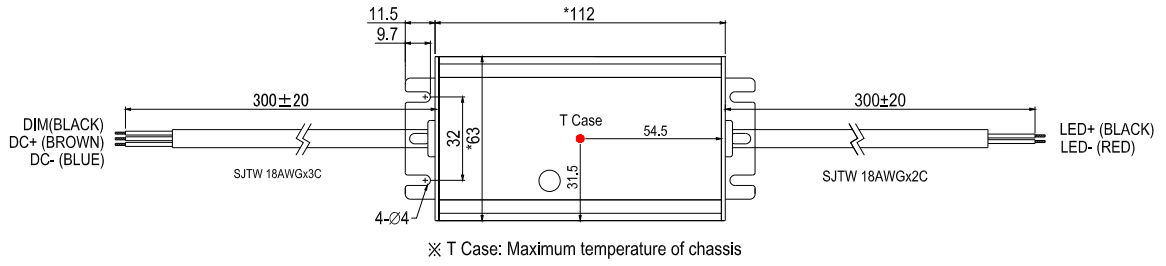
◆ Environment, Safety and EMC

Operating Temperature & Humidity (1)	-40°C~70°C ; 10%~95% RH , Non-condensing
Storage Temperature & Humidity	-40°C~85°C ; 10%~95% RH
Vibration	IEC 68-2-2-1995/CNS-3629-C6016/GB/T 2423.10-2008 ; 5-500Hz , 1.0G , 1 Oct/min , 2cycle X , Y , Z, 75 minutes
Safety standards	Meet UL 8750, EN 61347-1, EN 61347-2-13 , GB 19510.1, GB 19510.14
EMI	Meet EN 55015, EN 61000-3-2, EN 61000-3-3, FCC Part18, CNS 14115, GB 17743
EMS	Meet 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, GB 17625.1

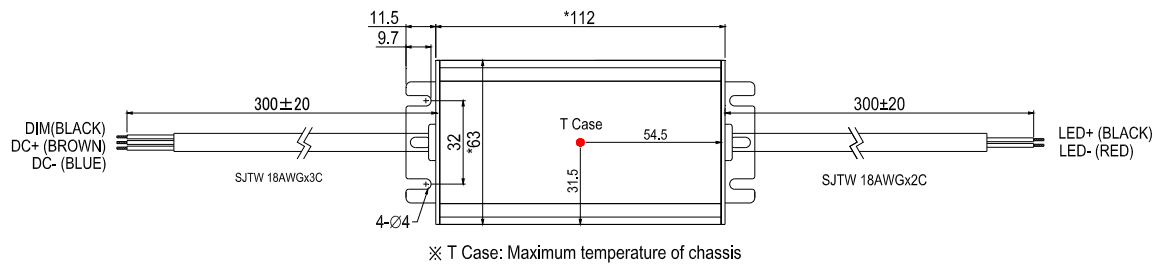
1. Please reference "Temperature-De-rating curve "

◆ Mechanical Drawing

Type A:IP65 DBL070



Type B:IP67 DBL070



Dimming Control

Adjust output current by follows resistor (VR must set to max output current for A type)

Resistor (DIM Black)	10.1K	23.2K	40K	61.2K	92.2K	137K	210K	353K	700K	OPEN
Current ratio	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%

Adjust output current by 1~10Vdc (VR must set to max output current for A type)

Vdc (DIM Black)	1V	2V	3V	4V	5V	6V	7V	8V	9V	10V	OPEN
Current ratio	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%	100%

Adjust output current by digital signal (VR must set to max output current for A type)

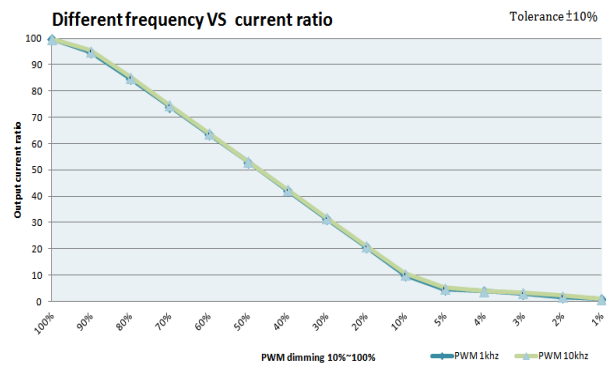
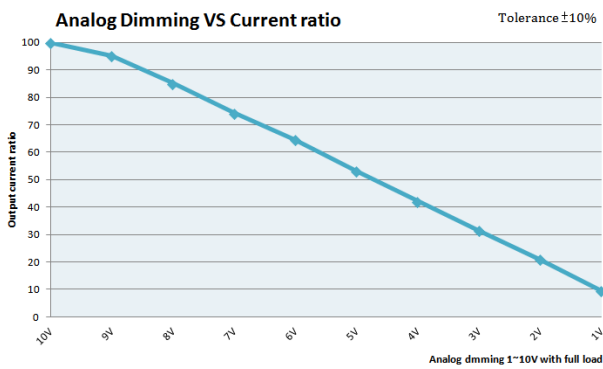
Amplitude: 10V

Frequency range: 1 ~10KHz

Duty (DIM Black)	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%	OPEN
Current ratio	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%	100%

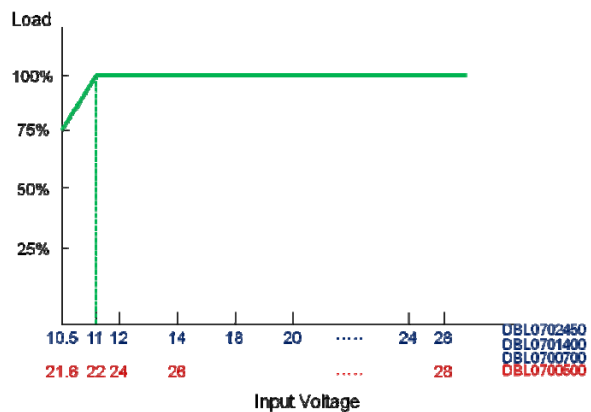
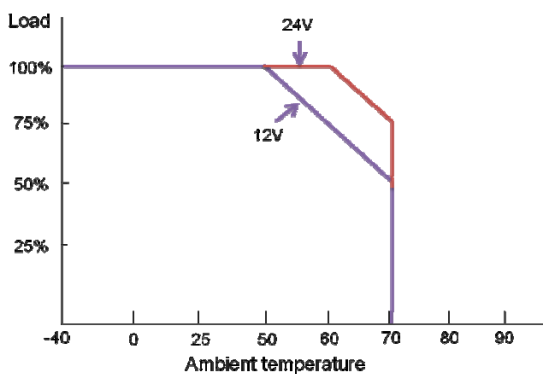
Note1: This function will pass through RC-filter to adjust driver brightness, may cause different tolerance by signal generator or power supply.

Note 2: If you don't adjust VR in max brightness may cause the output current different with above table.



◆ Output Load De-rating Curve

Temperature-De-rating curve



Efficiency Vs Load

