

## MDC-120 SERIES:



### 150 Watt LED Power Supply

- 8.23 x 2.48 x 1.57" IP65 / IP67 Enclosed Package

#### Features:

- Universal AC full range input ( to 305Vac)
- Protections : Short circuit/Over current
- Over voltage/Over temperature auto recover
- Constant current design (C.C.mode)
- 10KV Lightning Surge protect
- With active PFC function
- Multiple dimming function
- IP65/IP67 Design for indoor and outdoor used
- Suitable for LED and street lighting application
- Comply with UL,TUV,CE,FCC,CQC safety regulation
- 5 years Warranty

#### INPUT:

Input Voltage	Universal Input (90~305 VAC) / 127-431VDC
Input Frequency	47-63Hz
Inrush Current	75A @ 230 VAC max Cold Start
Input Current	1.6A @ 115VAC / 0.7A @ 277 VAC
Power Factor	PF>0.98 @ 115VAC, >0.95 @ 230VAC, >0.93 @ 264VAC
Total Harmonic Distortion	<10% @230VAC @ 50Hz, @ full load
Leakage Current	<0.75mA @ 277 VAC
Hold-Up	>12ms @ 115VAC Full Load

#### OUTPUT:

Minimum Load	None
Output Current Tolerance	±5%
Line Regulation	±1%
Ripple & Noise	2V p-p
Output Ripple Current	±5%
Over Voltage	Latching, recycle input to reset (see output models slection table for trip points)
Short Circuit Protection	Auto-Recovery
Over Temperature Protection	Ambient Temperature Over 70°C , Fixed 75% load output

#### GENERAL:

Efficiency	91%
Operating Temperature	-40 ~ 70°C (see derating curve)
Storage Temperature	-40 ~ 85°C
Operating Humidity	10% to 95% RH, non-condensing
Vivration	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
MTBF	220Khrs min. MIL-HDBK-217F (25°C)

#### APPROVALS:

EMI	EN 55015, EN 61000-3-2, EN 61000-3-3, FCC Part18; CNS 14115, GB 17743
EMS	EN61547, EN61000-4-2, EN61000-4-3, EN61000-4-4, EN61000-4-5, EN61000-4-6, EN 61000-4-8, EN61000-4-11, GB17625.1
SAFETY	UL 8750, EN 61347-1, EN 61347-2-13 , GB 19510.1, GB 19510.14
Surge	10KV(L-N-PE) & 5KV(L-N) /1.2*50µ sec

## MDC-120 SERIES:

**Output Specifications:**

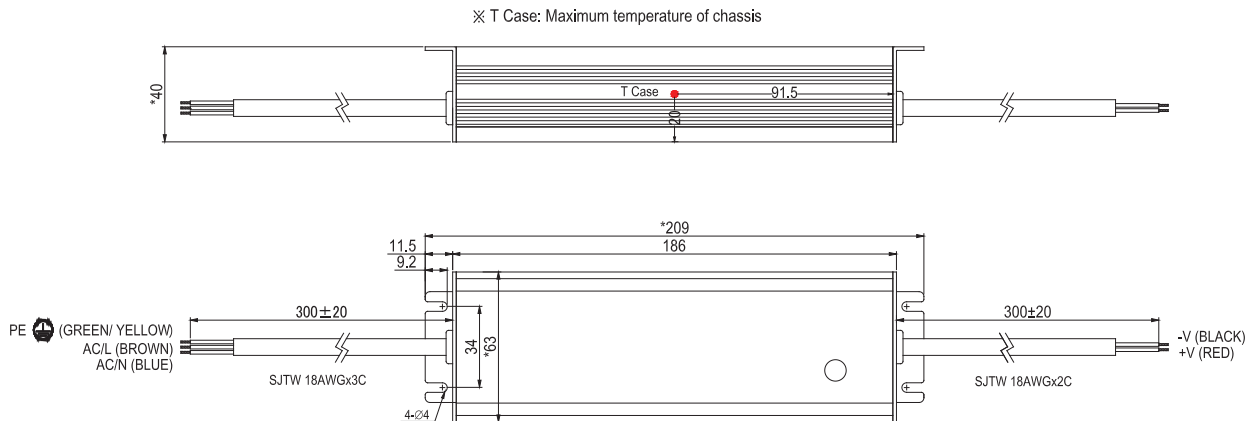
Model:	Rated Current	Current Adj. Range	Output Voltage	OVP Level	Output Power	Efficiency
MDC-120-0350	350mA	210~350mA	210~430V	475~495V	150W	92%
MDC-120-0500	500mA	300~500mA	150~300V	335~355V	150W	92%
MDC-120-0700	700mA	420~700mA	107~215V	230~240V	150W	92%
MDC-120-1050	1050mA	630~1050mA	74~148V	165~175V	155W	92%
MDC-120-1400	1400mA	840~1400mA	54~108V	120~130V	151W	92%
MDC-120-2100	2100mA	1260~2100mA	31~58V	62~74V	122W	91%
MDC-120-2450	2450mA	1500~2450mA	36~49V	57~63V	120W	91%
MDC-120-2800	2800mA	1700~2800mA	31~42V	49~55V	120W	91%
MDC-120-3500	3500mA	2100~3500mA	26~35V	41~47V	122W	91%
MDC-120-4550	4550mA	2700~4550mA	21~27V	31~37V 1	23W	90%

\* Suffix Required to complete part number as follows:

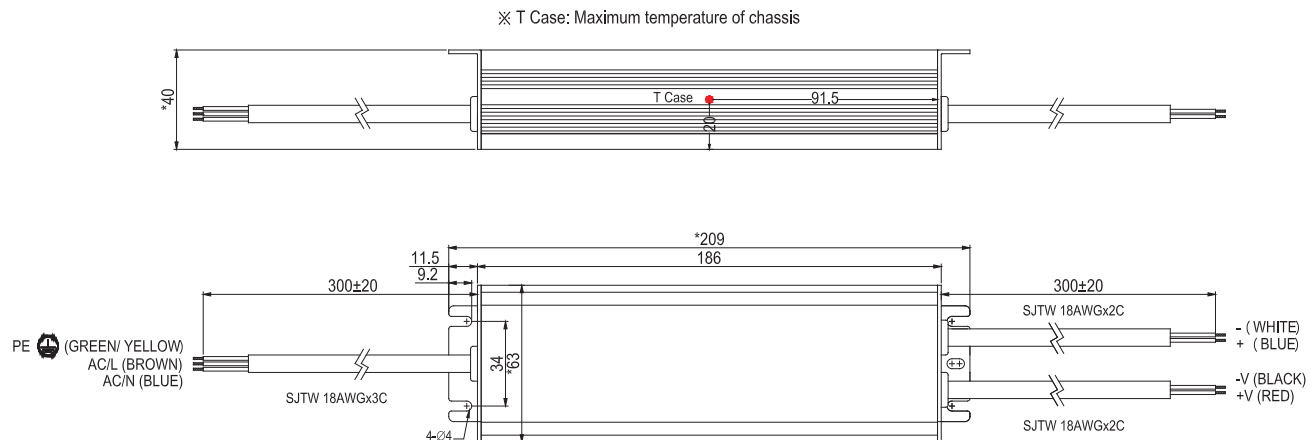
A suffix designates IP65 Grade, current adjustable via internal variable resistor

B suffix designates IP67 Grade, current adjustable by 1~10 PWM Signal, 10K~100KΩ Resistor or PWM

**OUTLINE DRAWING (Suffix A models):**

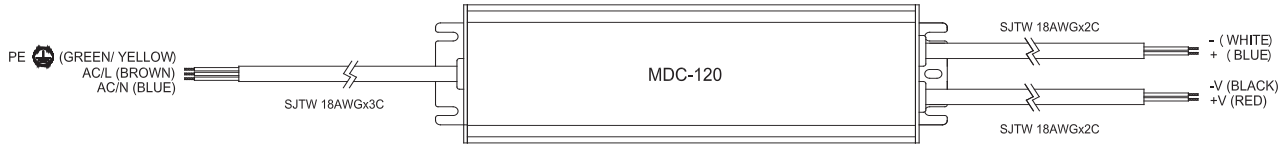


**OUTLINE DRAWING (Suffix B models):**



## MDC-120 SERIES:

### Type B Models, Resistor / $V_{ADJ}$ / PWM Values



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

\* 10K~100KΩ adjust output current

Resistor value	10KΩ	20KΩ	30KΩ	40KΩ	50KΩ	60KΩ	70KΩ	80KΩ	90KΩ	100KΩ	OPEN
Rated Current rate	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%	95~105%

\* 1~10Vdc adjust output current

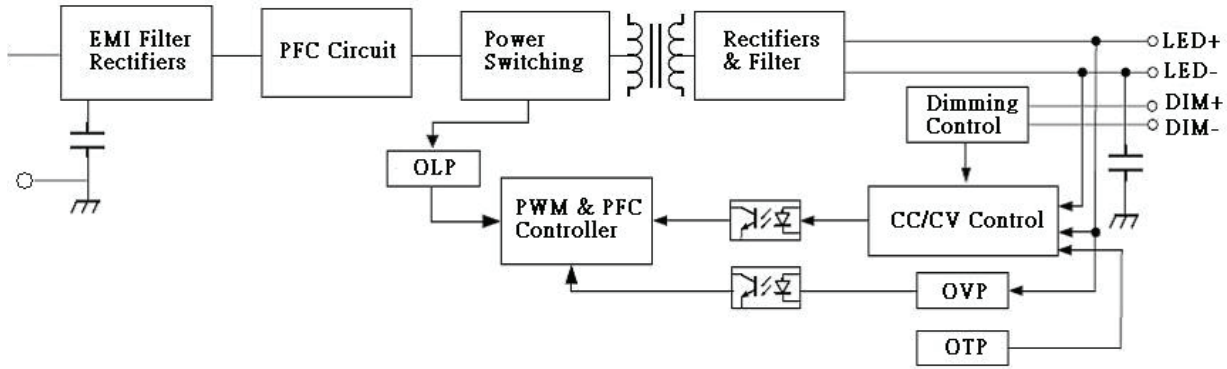
Vdc	1V	2V	3V	4V	5V	6V	7V	8V	9V	10V	OPEN
Rated Current rate	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%	95~105%

\* 10V PWM adjust output current ; Frequency range 100Hz~3KHz

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

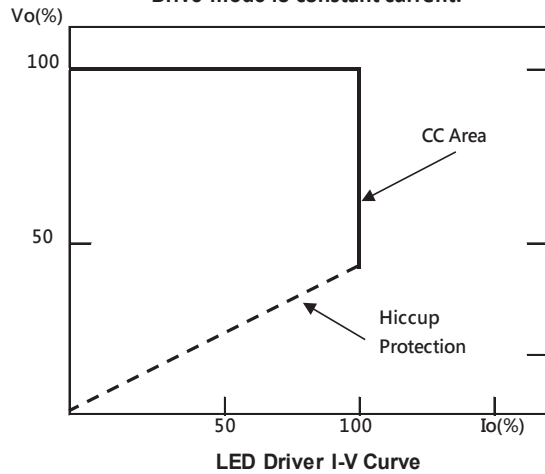
## MDC-120 SERIES:

### Function block



### LED Output curve(MDC-120-0700)

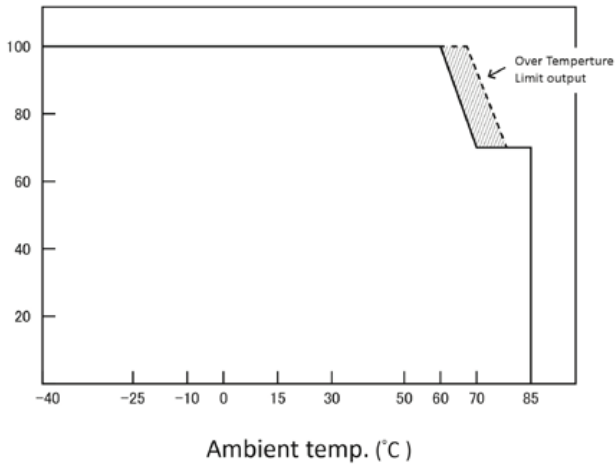
The characteristic of LED Driver is constant current(CC),  
Drive mode is constant current.



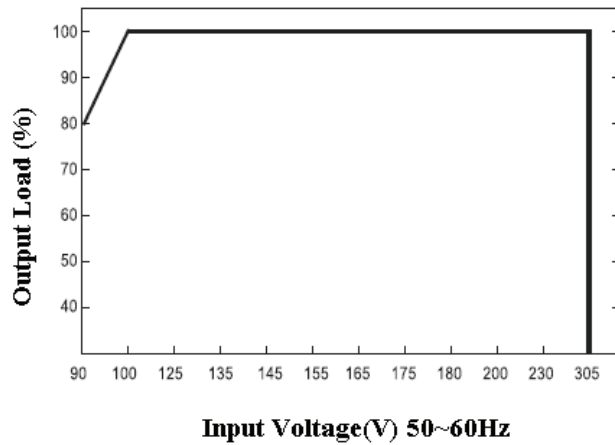
## MDC-120 SERIES:

### Output Load De-rating Curve

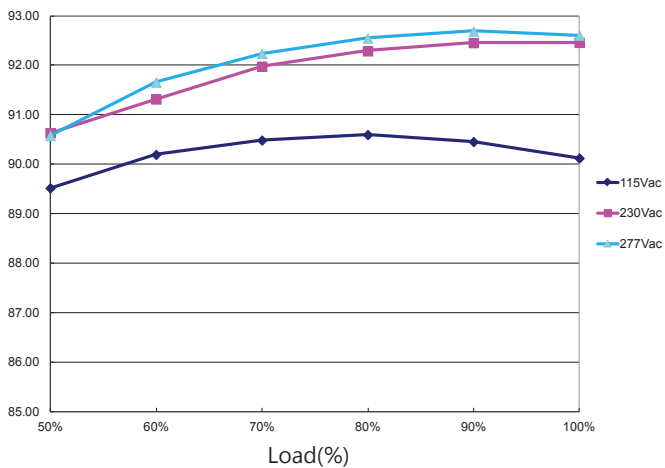
Temperature-De-rating curve



Input Voltage-De-rating curve



### Efficiency Vs Load(MDC-120-3500)



### Power Factor Vs Load(MDC-120-3500)

