

MBC-160 SERIES:



160 Watt LED Power Supply

- 5.95 x 5.95 x 2.80" 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)
- 4KV 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 year 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	1.87A @ 115VAC / 0.86A @ 230VAC / 0.77A @ 277VAC
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

GENERAL:

Efficiency	92%
Operating Temperature	-40 ~ 60°C (see derating curve)
Storage Temperature	-40 ~ 85°C
Operating Humidity	10% to 95% RH, non-condensing
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
MTBF	220Khrs min. MIL-HDBK-217F (25°C)

OUTPUT:

Minimum Load	None
Output Current Tolerance	±5%
Line Regulation	±1%
Ripple & Noise	300mV p-p
Output Ripple Current	±5%
Over Voltage	Latching, recycle input to reset (see output models selection table for trip points)
Short Circuit Protection	Auto-Recovery
Over Temperature Protection	Ambient Temperature Over 70°C , Fixed 75% load output

APPROVALS:

EMI	EN 55015, EN 61000-3-2, EN 61000-3-3, FCC Part18; CNS 14115
EMS	EN 61547, EN 61000-4-2, EN 61000-4-3, EN 61000-4-4, EN 61000-4-5, EN 61000-4-6, EN EN 61547, EN 61000-4-2, EN 61000-4-3, EN 61000-4-4, EN 61000-4-5, EN 61000-4-6, EN
SAFETY	UL 8750, EN 61347-1, EN 61347-2-13 , GB 19510.1, GB 19510.14
Surge	4KV(L/N-PE) & 2KV(L-N) /1.2*50μ sec

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Output Specifications:

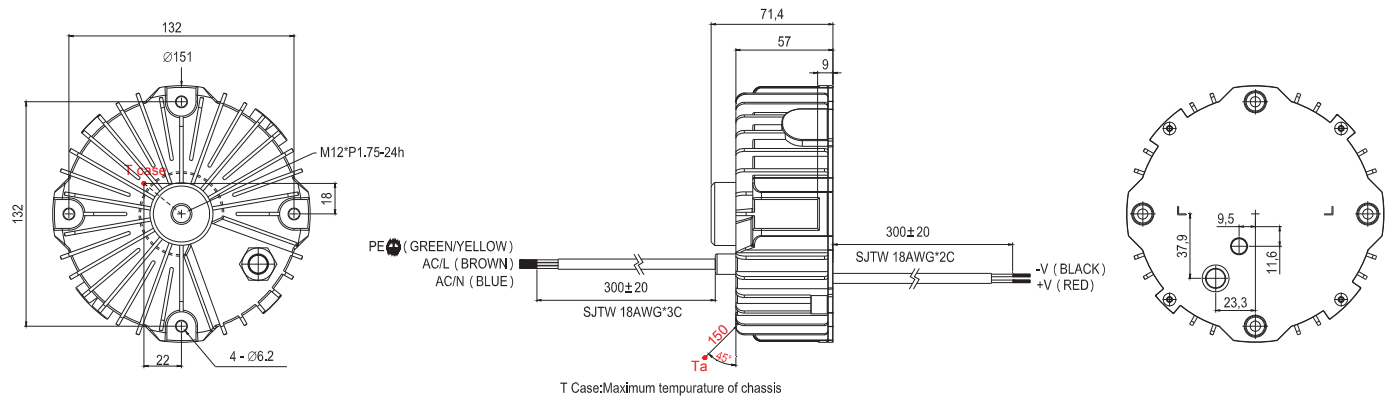
Model:	Rated Current	Current Adj. Range	Output Voltage	OVP Level	Output Power	Efficiency
MBC-160-2450	2450mA	1470~2450mA	42~63V	73~82V	154W	92%
MBC-160-2800	2800mA	1680~2800mA	37~56V	65~73 V	157W	92%
MBC-160-3150	3150mA	1890~3150mA	32~49V	56~64V	154W	92%
MBC-160-3850	3850mA	2310~3850mA	26~42V	48~55V	162W	92%
MBC-160-4550	4550mA	2425~4550mA	25~35V	40~45V	160W	92%

* Suffix Required to complete part number as follows:

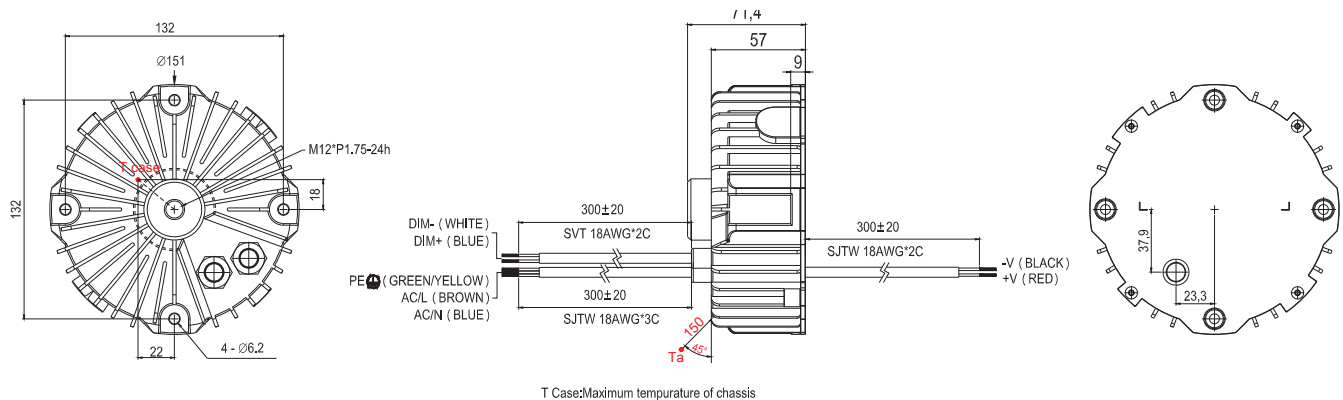
A suffix designates IP65 Grade, current adjustable via internal variable resistor

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):



MBC-160 SERIES:

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

* 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%

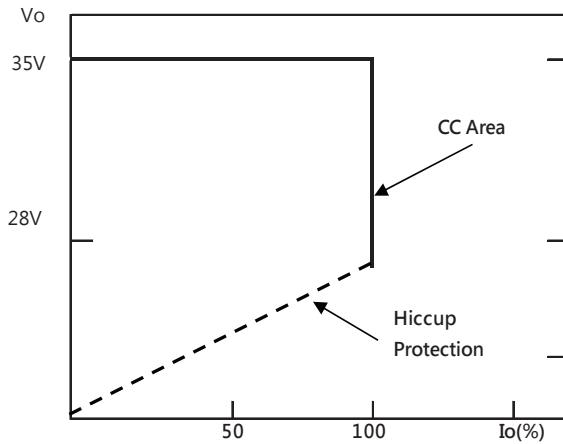
* 10V PWM adjust output current ; Frequency range 100Hz~3KHz

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%

MBC-160 SERIES:

◆ LED Output curve(MBC-160-4550)

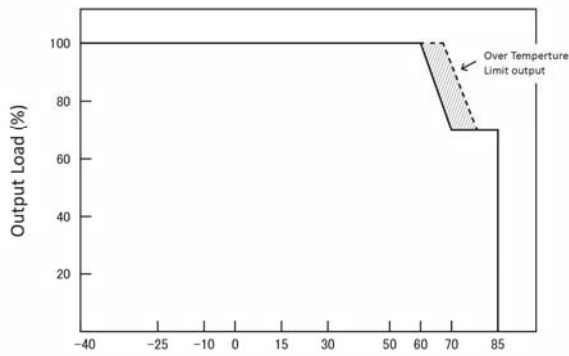
The characteristic of LED Driver is constant current(CC),
Drive mode is constant current.



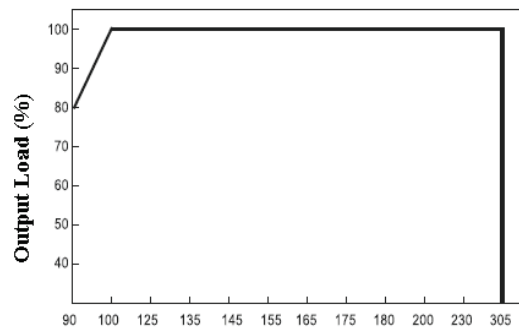
LED Driver I-V Curve

◆ Output Load De-rating Curve

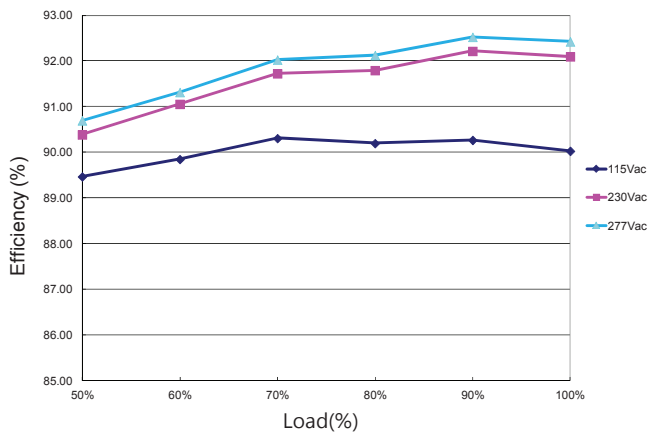
Temperature-De-rating curve



Input Voltage-De-rating curve



Efficiency Vs Load MBC-160-4550



Power Factor Vs Load (MBC-160-4550)

