

MBC-240 SERIES:



240 Watt LED Power Supply

- 7.48 x 7.48 x 2.76" 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 | 80A @ 230 VAC max Cold Start |
| Input Current | 2.7A @ 115VAC / 1.4A @ 230VAC / 1.2A @ 264VAC |
| 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 | 3V 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 61000-4-8, EN 61000-4-11 |
| 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 |

MBC-240 SERIES:

| Output Specifications: | | | | | | |
|------------------------|---------------|--------------------|----------------|-----------|--------------|------------|
| Model: | Rated Current | Current Adj. Range | Output Voltage | OVP Level | Output Power | Efficiency |
| MBC-240-4200 | 4200mA | 2520~4200mA | 30~60V | 68~78V | 252W | 92% |
| MBC-240-5250 | 5250mA | 3150~5250mA | 24~48V | 55~62V | 252W | 92% |
| MBC-240-6650 | 6650mA | 3990~6650mA | 18~36V | 41~48V | 240W | 92% |
| MBC-240-10150 | 10150mA | 6090~10150mA | 12~24V | 27~32V | 243W | 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

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% |

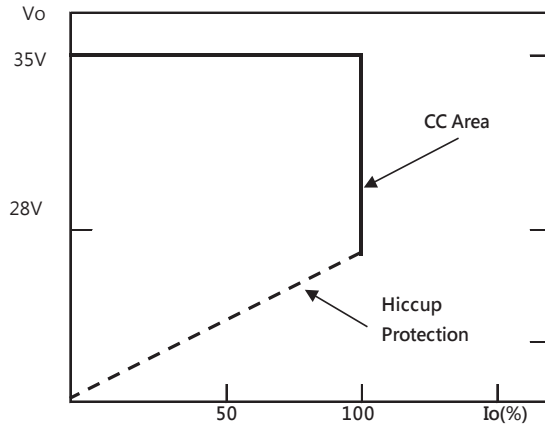
* 10V PWM adjust output current ; Frequency range 100Hz~3KHz

| | | | | | | | | | | | |
|--------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|---------|
| 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-240 SERIES:

LED Output curve(MBC-240-6650)

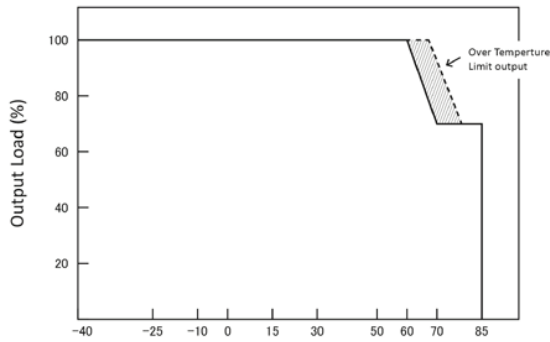
The characteristic of LED Driver is constant current(CC),
Drive mode is constant current.



LED Driver I-V Curve

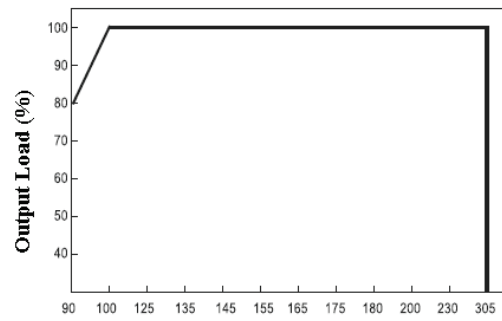
Output Load De-rating Curve

Temperature-De-rating curve



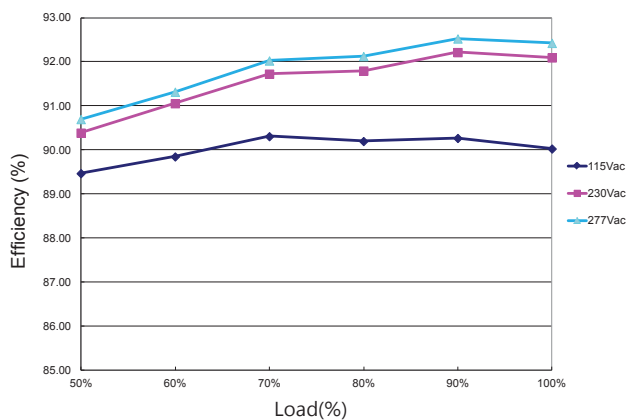
Ambient temp. (°C)

Input Voltage-De-rating curve



Input Voltage(V) 50~60Hz

Efficiency Vs Load MBC-240-6650



Power Factor Vs Load (MBC-240-6650)

