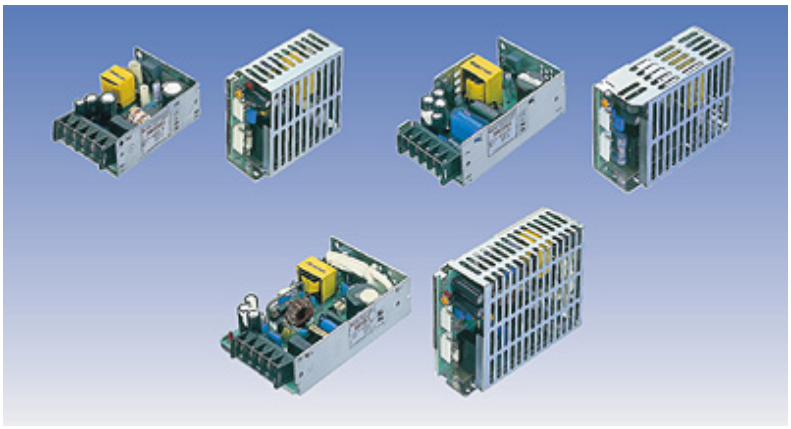
ETA-USA
Your power supply experts

50 WATT AC-DC CONVERTER

MRB-SA SERIES

General Description

MR-Series has been developed as an alternative for WR/ER Series. This open frame switcher has excellent EMI-performance. It is safety approved, compact, and very cost effective.



Features

1. Small size
2. High efficiency
3. Connectors: screw type (standard), molex optional

Options

1. Case cover (Add suffix "-P" ex. MRM05SA-PU")
2. Connector type (Add suffix "-S")

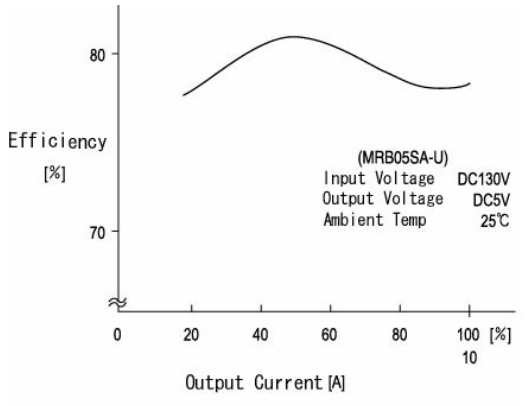
Specifications<AC/DC>	Model				
MRB**SA 50WATTS/SINGLE	MRB05SA-U	MRB12SA-U	MRB15SA-U	MRB24SA-U	MRB48SA-U
Input Characteristic					
Input Voltage	AC115V				
Input Current	1.1A				
Input Range	AC85-132V(DC110-175V)				
Input Frequency	50/60Hz				
Input Frequency Range	47-440Hz				
Phase	Single				
Inrush Current *1	20A(maximum)at AC115V				
Efficiency [%] (typical) *2	79	81	83	85	85

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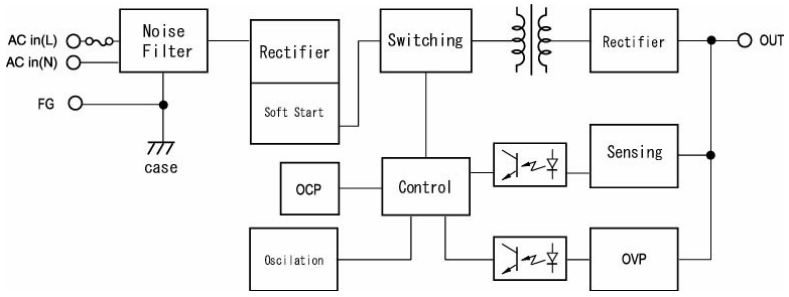
MRB**SA Specification

Specifications<AC/DC>	Model				
MRB**SA 50WATTS/SINGLE	MRB05SA-U	MRB12SA-U	MRB15SA-U	MRB24SA-U	MRB48SA-U
Output Voltage [V]	5	12	15	24	48
Output Current [A]	10.0	4.2	3.4	2.1	1.1
Voltage Adjust Range	+/- 10% of Rated Output Voltage(at no load within the input range)				
Ripple and Noise [mVp-p](maximum) *3	150	220	250	340	580
a.Statistic Line Regulation [mV](maximum)	40	96	120	192	384
b.Statistic Load Regulation [mV](maximum)	50	120	150	240	480
d.Drift[mV](maximum) *5	40	75	90	135	255
e.Dynamic Load Regulation [mV](typical) *6	150	360	450	720	1440
f.Recovery Time *6	0.3mS(Typical)				
Rise up time	500mS(maximum) at 25℃ and rated input/output				
Overcurrent Protection ≧110% of Rated Output Current[A]	Current Limiting with automatic recovery				
	11.0	4.62	3.74	2.31	1.21
Operating Temperature *7	-5 to +50℃/enclosed type: -5 to +40℃				
Operating Humidity	30 to 85%RH(non-condensing)				
Storage Temperature	-20 to +85℃				
Storage Humidity	10 to 85%RH(non-condensing)				
Isolation Resistance	Primary-Secondary-Frame Ground 50MΩ(minimum) by DC500V insulation tester				
Vibration	5-10Hz:10mm double amplitude,10-55Hz:19.6m/s^2,20minutes' period for 60minutes each along X,Y,Z axes(non-				
Shock	294m/s^2				
Cooling	Convection				
Weight (typical)	250g/enclosed type:300g				

Efficiency Curve

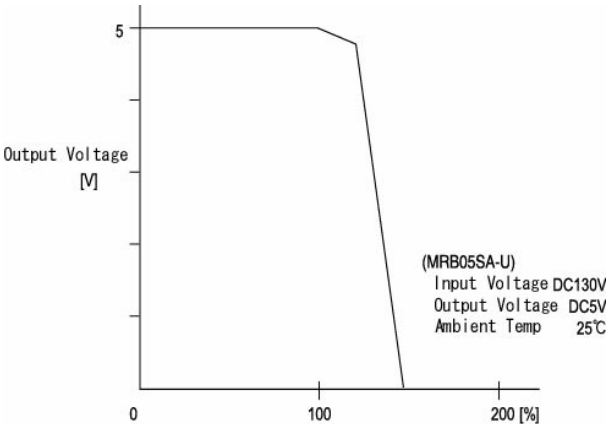


Block Diagram

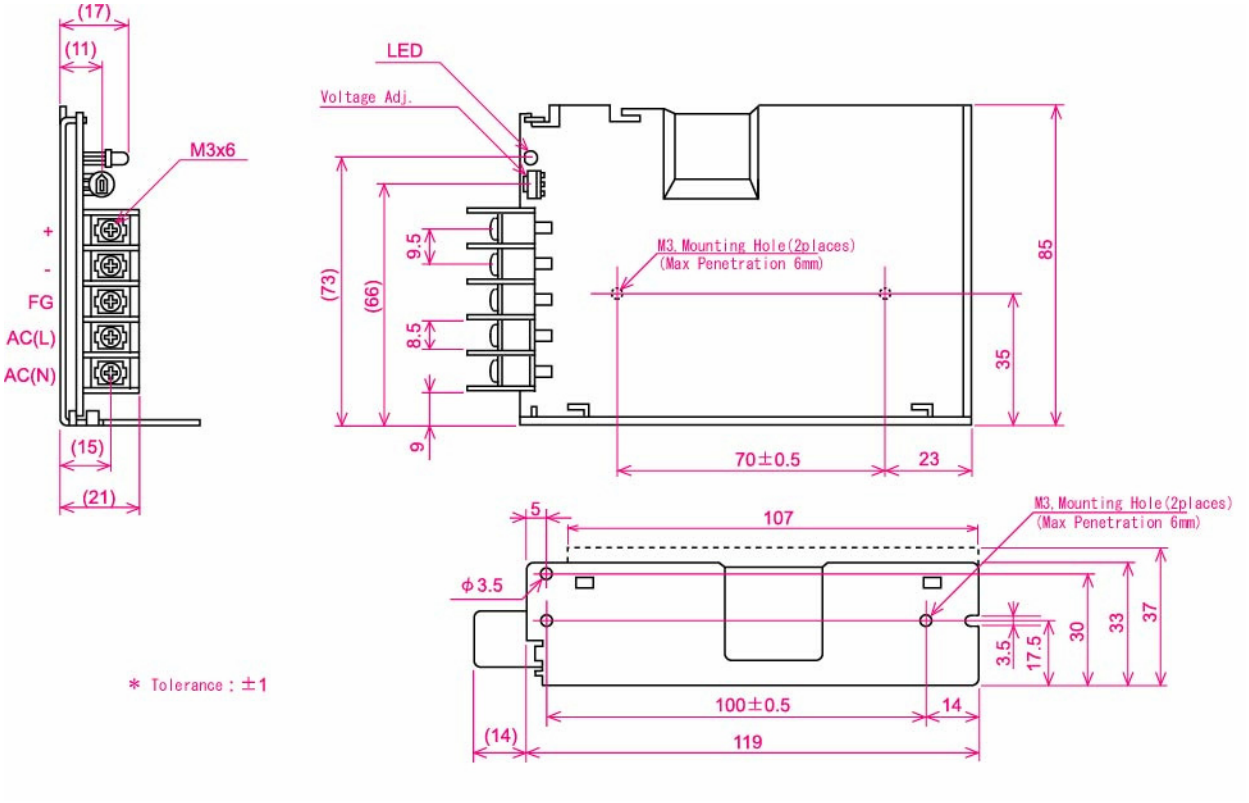


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OCP Curve



Dimension (mm)



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