



# ETA-USA

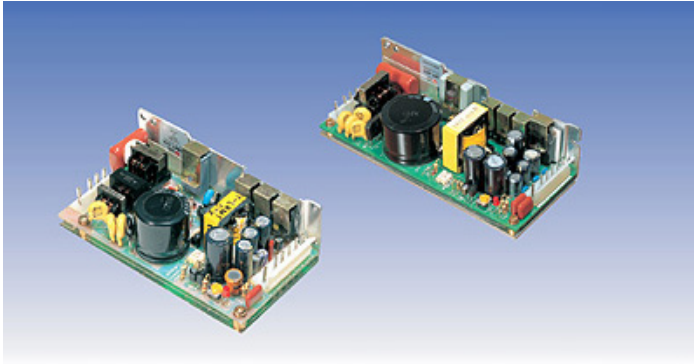
## HIGH QUALITY SWITCHING POWER SUPPLIES

AC/DC SWITCHING POWER SUPPLY  
DUAL CHANNEL OUTPUT  
15 WATTS  
UNIVERSAL INPUT

### LRM-FWX SERIES

#### General Description

The LR series have a universal input range without any selection. They are small in size, low price, and are highly reliable due to their simple circuitry.



#### Application

Broad needs

#### Input

<b>Input Voltage:</b>	AC100-240V
<b>Input Voltage Range:</b>	AC85~264V
<b>Input current:</b>	~0.32A
<b>Frequency:</b>	50/60 Hz
<b>Frequency Range:</b>	47~440Hz
<b>Phase:</b>	Single
<b>Inrush Current: *1</b>	20A(Typ.) at AC264VAC

#### Features

1. Small-sized and lightweight
2. Two ways mountable
3. Short circuit protection (no more than ten minutes)

#### Options

Wire harness set (40cm)

Vertical/horizontal mount

Certified:





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Output Characteristic	Unit	Models					
		LRM22FWX		LRM23FWX		LRM24FWX	
		V1	V2	V1	V2	V1	V2
Output Voltage	V <sub>dc</sub>	12	12	15	15	23	5
Output Current	A	0.2~0.8	0.5	0.2~0.5	0.5	0.2~0.8	0.8
Voltage Adjust Range	V	±5% of Rated Output Voltage (at no load within the input range) on V1					
Ripple & Noise(max)	mV <sub>pp</sub>	100					
Rise time	mS	300 max					
Hold up time	mS	12 mS typical					
<b>Regulation</b>							
a. Line Regulation [max]	mV	±0.5% of Rated Output Voltage					
b. Load Regulation	mV	±1% of Rated Output Voltage					
c. Temperature Coefficient	°C	0.03%/°C					
d. Drift(maximum)	mV	(Output voltage *0.5%+15)/8H					
<b>Efficiency</b> *1	%	<b>73</b>		<b>73</b>		<b>67</b>	
<b>Power Factor</b> *1		<b>No PFC needed</b>					





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Environmental Specification	
Operating Temperature*3	0 to +50 °C
Derating Curve	Not available
Operating Humidity	20~85[%RH] (non-condensing)
Storage Temperature	-20 to +85°C
Storage Humidity	10~85%/RH(non-condensing)
Withstanding Voltage	No information
Isolation Resistance	Primary-Secondary-Frame Ground 50MΩ(minimum) by DC500V insulation tester
Vibration	5~10Hz: 10mm XYZ Axis. 10~55Hz:19.6 m/ s <sup>2</sup> XYZ Axis.
Shock	294 m/s <sup>2</sup> on x,y,z axis
Cooling	Convection
Leakage current	0.5mA
Environmental Agencies	
Line Conducted Noise [EMI]	FCC Part 15 class A compliant
Line Harmonic Distortion/Current	No info available
Safety	Built to meet UL standards
Function/Protection	
Over current Protection	Current limiting device
Over voltage Protection	Overvoltage clamp
Short circuit Protection	Available, not longer than 10 minutes.
Remote Sense	Not available
Remote Control	Not available
Series Operation	No information available
Parallel Operation	No information available
Input Fuse	No information available
Mechanical	
Dimension [mm]	60 × 110L × 40H
Weight [g] (typical)	220g

Conditions:

\*1 Rated input and Rated output

\*2 at Output current quick change 25% to 75%

\*3 At 100% load (convection cooling)



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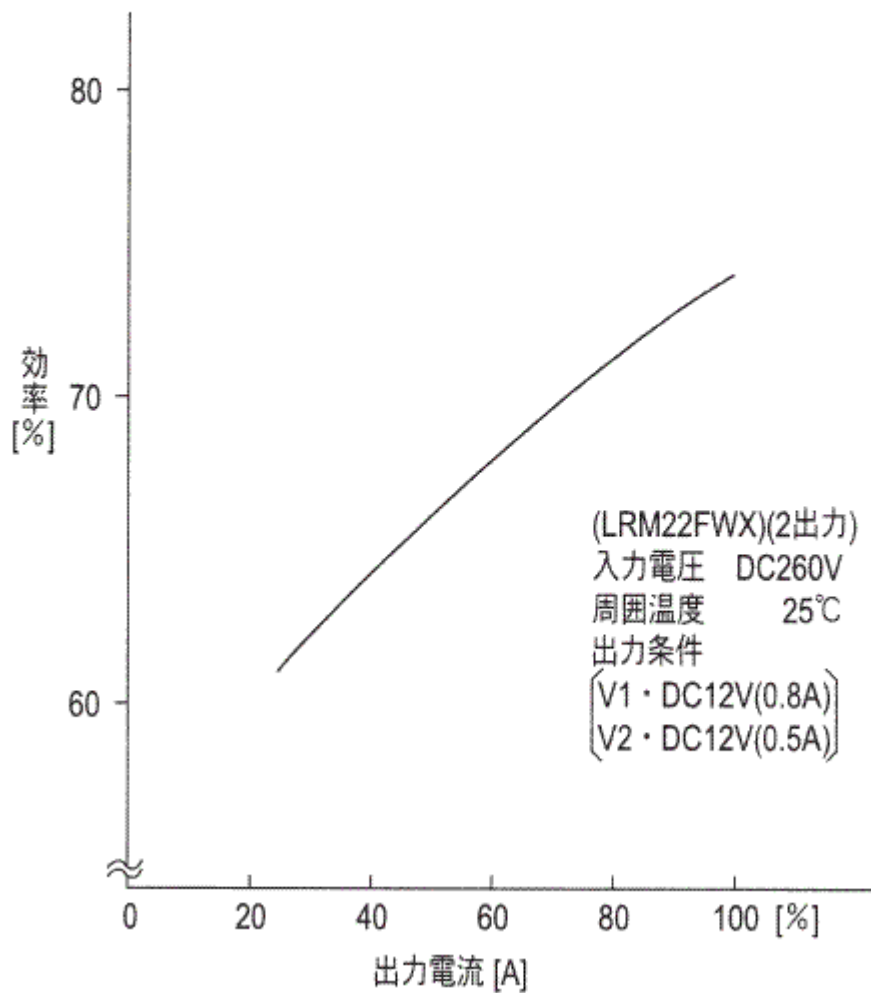
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## Efficiency Diagram

### ■ 出力電流と効率

LRM22FWX

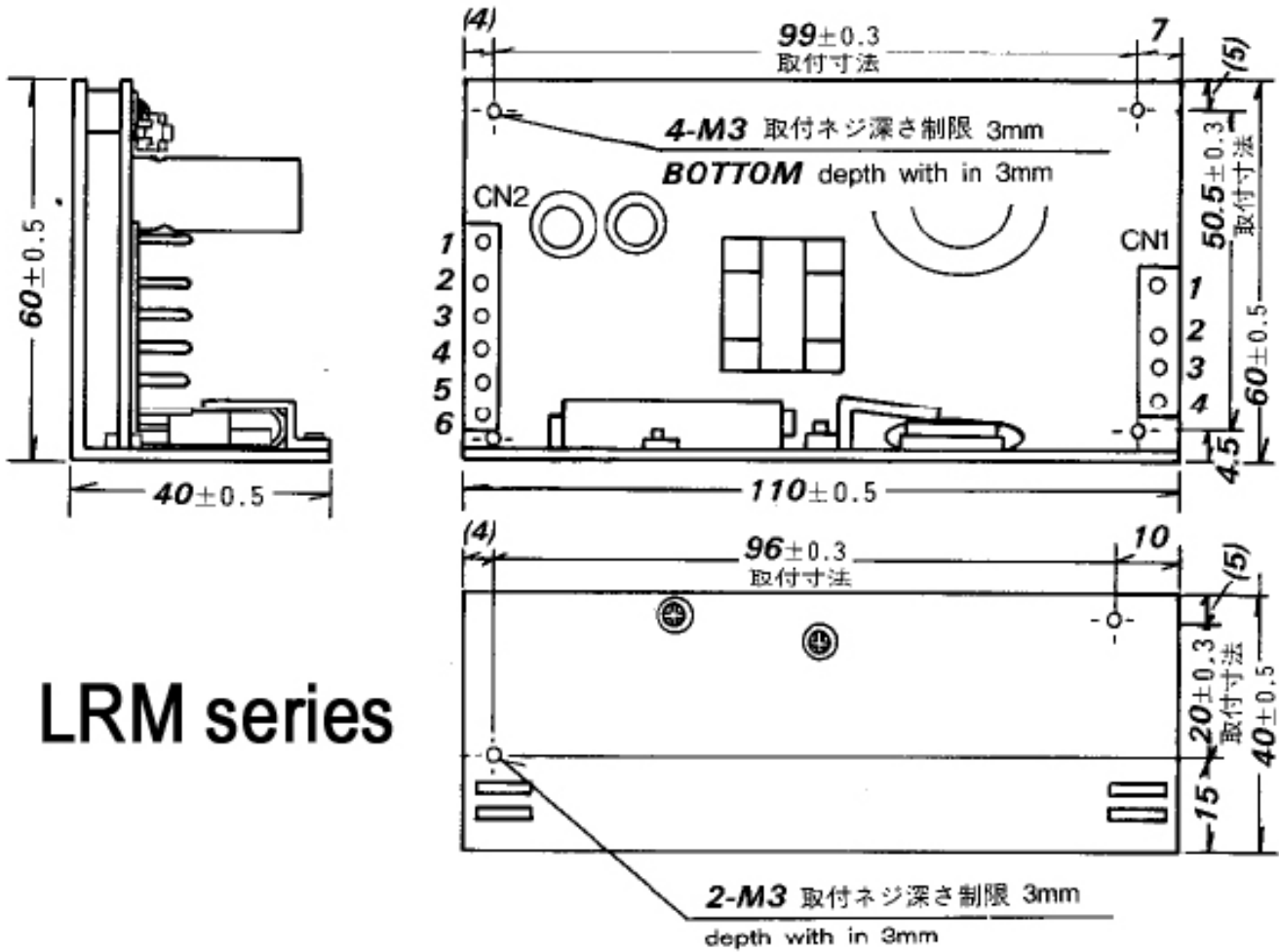




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## Mechanical Drawings Dimension in mm



### LRM series

