

## Power Module

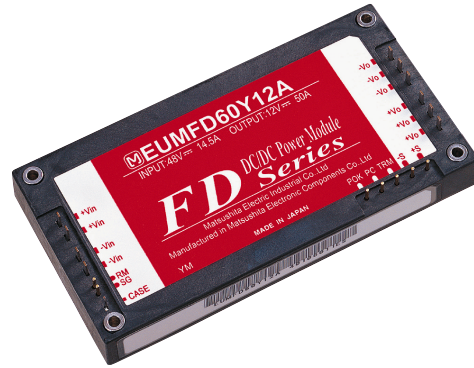
Series: **FD (Full-brick)**

Type: **12V, 28V**

DC/DC converter applicable to needs of making into down-size, large-current and non-centralized power of power module for communication systems equipment

Applied Safety Std. : UL60950, CSA22.2-60950, EN60950

Industrial Property : 16 Patents (pending)



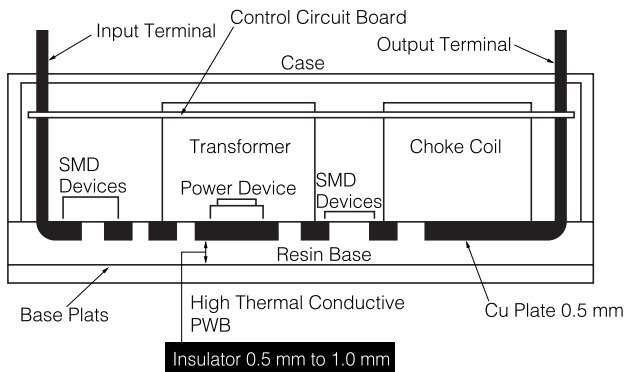
### ■ Features

- Making into high power(700 W), down-size high-power density(5.5 W/cm<sup>3</sup>) by adopting high thermal conductive substrate
- High-efficiency( $\eta=91$  % typ.) and low-noise level (compared with our conventional one : Approx. 20 dB less) by means of newly developed converter
- Energy-saving design(8 W less compared with Matsushita conventional products)

### ■ Recommended Applications

- Radio communication equipment
- Cable communication equipment
- For non-centralized type power supply
- Server

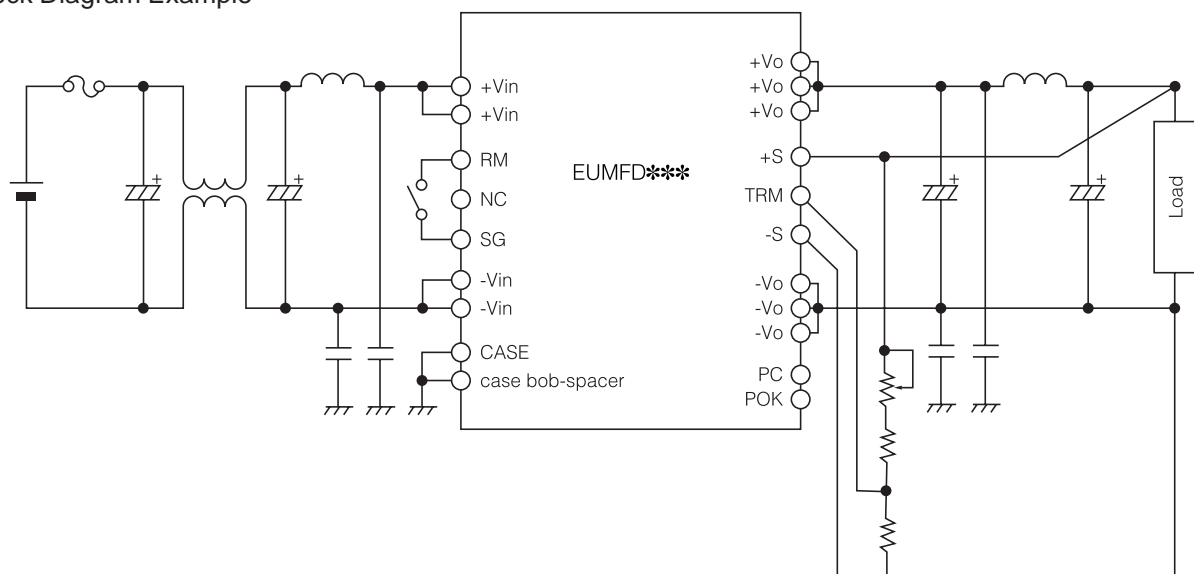
### ■ Construction(Cross Section)



### ■ Explanation of part numbers

1	2	3	4	5	6	7	8	9	10	11
E	U	M	F	D	6	0	Y	1	2	A
Product Code				Series Code		Output Power	Input Voltage	Output Voltage	Design No.	

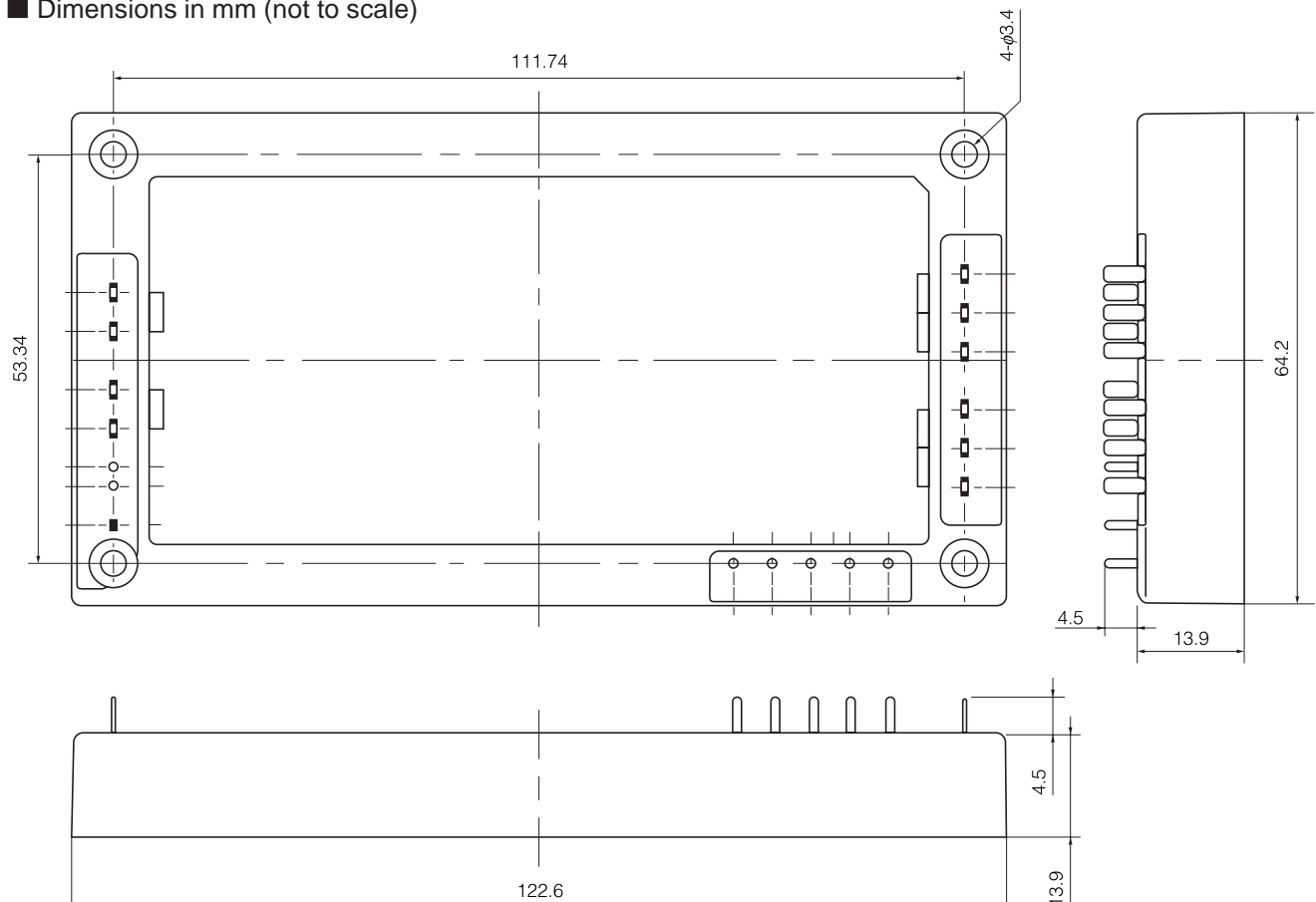
### ■ Block Diagram Example



## ■ Ratings(Typical Spec.)

Product No.		EUMFD50V12A	EUMFD60V28A	EUMFD60Y12A	EUMFD60Y28A	Condition
Input Conditions	Input Voltage	19 VDC to 36 VDC(Rating 24 VDC)		36 VDC to 72 VDC(Rating 48 VDC)		
	Input Current	25 A max.	29 A max.	14.5 A max.	14 A max.	Rated input and output
	Efficiency	86 % typ.	88.5 % typ.	88.5 % typ.	91 % typ.	Rated input and output
Output Conditions	Rated output Voltage	12 V	28 V	12 V	28 V	
	Voltage Adjustable Range	9 V to 12.5 V	24 V to 28 V	9 V to 12.5 V	24 V to 28 V	
	Rated Output Current	42 A	21.5 A	50 A	21.5 A	
	max. Output Current	42 A	21.5 A	50 A	21.5 A	
	Line Regulation	150 mV	150 mV	150 mV	150 mV	
	Load Regulation	300 mV	300 mV	300 mV	300 mV	
	Ripple Noise Voltage	300 mV[p-p]	300 mV[p-p]	200 mV[p-p]	300 mV[p-p]	
Environment	Operating Temperature	-20 °C to 100 °C				Base plate temp.
	Operating Humidity	5 % to 85 %				Not be dewy
	Storage Temperature	-40 °C to 115 °C				
Insulation Spec.	Dielectric Withstanding Voltage	1500 VDC 1 min. (Between input and output, Input and base plate)				Normal temp.
	Insulation Resistance	10 MΩ 500 VDC (Between input and output, Input and base plate)				Normal humidity
Others	Attached Function	Over current protection, Over voltage protection, Over heat protection Remote ON/OFF, Current share accuracy, Power good signal, Remote sensing				
	Applied Safety	UL60950, CSA22.2-60950, EN60950				
	Size	W122.6 mm × D64.2 mm × H13.9 mm				
	Mass	280 g				

## ■ Dimensions in mm (not to scale)



Design and specifications are each subject to change without notice. Ask factory for the current technical specifications before purchase and/or use. Should a safety concern arise regarding this product, please be sure to contact us immediately.