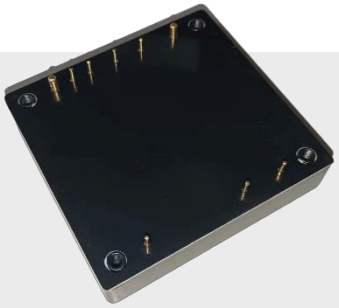
MV Series | 280V 1/2 Brick DC/DC Modules

Description

The MV series 1/2 brick products are isolated power modules, standard half-bricks, with a wide input voltage range, and a maximum output power of up to 800W. They come in various enclosure forms and offer features such as low ripple noise, high reliability, high power density, and high efficiency. These products find wide applications in industrial control, rail transportation, specialized applications, and other fields.



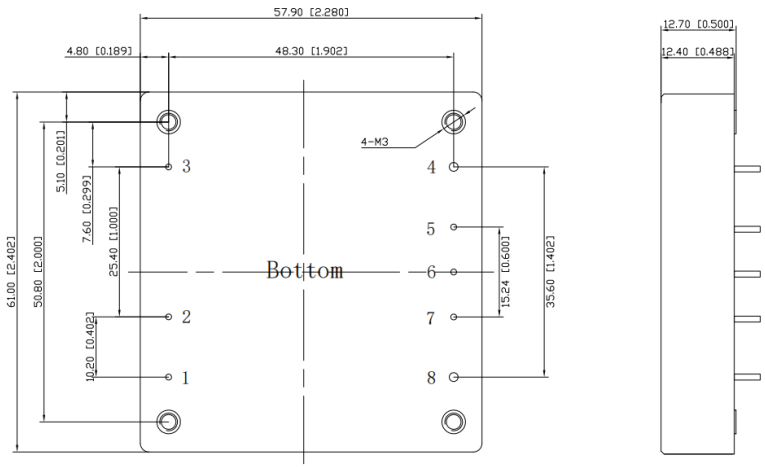
Features

- Built-in input LC filtering
- Input undervoltage protection
- Output overcurrent protection
- Output short-circuit protection
- Output overvoltage protection
- Over-temperature protection
- Adjustable output voltage
- Voltage adjustment rate: ±1%
- Load adjustment rate: ±1%
- Parallel current sharing function

Specifications

Input Voltage Range	Output Characteristics				
	Power	Voltage	Max. Current	Efficiency	Ripple noise
180-425V	800W	12V	66.67A	92.5%	120mV
180-425V	800W	48V	16.67A	93%	250mV

Mechanical Drawing



Items	Notes	Min.	Typ.	Max.	Units
Input Voltage Range	Allow input maximum surge voltage 475V, less than 100mS	180	280	425	Vdc
Input Undervoltage	Recovery point, half load		175		Vdc
	Protect point, output half load		165		Vdc
On/Off Controls Voltage	Positive logic, open or high output normal, low no output	2.4		25	Vdc
	Negative logic, suspended(open) or high no output, low output normal	-0.5		0.8	Vdc
Output Voltage Set Accuracy	Input Typ., output full load			±1	%Vo
Output Regulation Over Line	Whole Input range, full load			±1	%Vo
Output Regulation Over Load	Input Typ.s, Whole load range			±1	%Vo
Output Voltage Overshoot Amplitude(on/OFF)	Input Typ.s, output full range			±5	%Vo
Output Current Limiting Protection	Input Typ.s, output Hiccup protection		120		%Iomax
Output Overvoltage Protection	Input Typ.s, output Hiccup protection		130		%Vo
Dynamic Load	50% to 100% load		±5	±10	%
Ripple &Noise (Peak-to-peak Value	Input Typ., full load, bandwidth limit 20MHz, output parallel 1 μF ceramic capacitor and 10 μF tantalum capacitor	180mV			
Dynamic Overshoot Amplitude	50%~75%~50% Load		±5		%Vo
Recovery Time			400		μs
Switching Frequency	Input Typ., output full load		330		KHz
Overtemperature Protection	case temperature		110		℃
Overtemperature Recovery	case temperature		100		℃
Efficiency	Input Typ.s, output full load	93%			
Output Adjustable	Trim up			+10	%Vo
	Trim down	-20			%Vo
Output Short Circuit Protection	It can short circuit for a long time and recover automatically after fault clearing				
Isolation Voltage	280 Typical input voltage range, input to output			2250	Vda
	280 Typical input voltage range, input to case			2250	Vda
	280 Typical input voltage range, output to case			2250	Vda
Insulation Resistance	Standard atmospheric pressure, with 90% relative humidity, 500Vdc	100			MΩ
Operating Temperature	shell temperature	-40		100	℃
Storage Temperature	ambient temperature	-55		125	℃
Temperature Coefficient				± 0.02	%/℃
Relative Humidity	No condensation, module operating	5		95	%R.H.
	No condensation, module storage	5		95	%R.H.