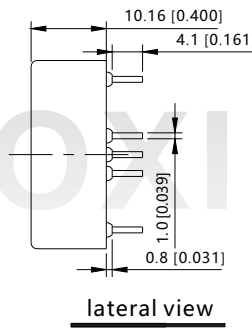
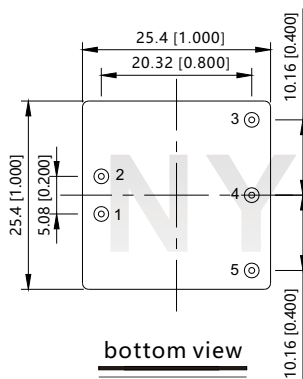


**20W DC/DC Module power supply**
**product property**


- ★ International standard pin mode
- ★ Output short-circuit protection, self recovery
- ★ Isolation and pressure resistance 1500VDC
- ★ High efficiency, high power density, and low ripple noise
- ★ Industrial grade product design, small volume
- ★ operating temperature range : -40~+85°C

V(U)RBxxYMD-20WR3 series-----It is a 4:1 wide voltage input range, efficiency up to 88%, 1500VDC isolation voltage stable power module, the product is widely used in medical, industrial control, power, instrumentation, communication occasions and so on.

**Figure of encapsulation size**


PIN	Feet function
1	-Vi
2	+Vi
3	+Vo
4	NP
5	-Vo

stakes:

Size unit: mm[inch]

dimensional tolerance:  $\pm 0.5[\pm 0.020]$

NP: The pin is empty foot

**product types choosing**

model	Input voltage range (VDC)	Output Voltage (VDC)	output (mA)	productiveness (Typ)
VRB1203YMD-20WR3	9~18V (Nominal: 12VDC)	3.3V	4000mA	78%
VRB1205YMD-20WR3		5V	4000mA	78%
VRB1212YMD-20WR3		12V	1667mA	79%
VRB1215YMD-20WR3		15V	1333mA	80%
VRB1224YMD-20WR3		24V	833mA	82%
VRB2403YMD-20WR3	18~36V (Nominal: 24VDC)	3.3V	4000mA	78%
VRB2405YMD-20WR3		5V	4000mA	78%
VRB2412YMD-20WR3		12V	1667mA	79%
VRB2415YMD-20WR3		15V	1333mA	80%
VRB2424YMD-20WR3		24V	833mA	82%
VRB4803YMD-20WR3	36~75V (Nominal: 48VDC)	3.3V	4000mA	78%
VRB4805YMD-20WR3		5V	4000mA	78%
VRB4812YMD-20WR3		12V	1667mA	79%
VRB4815YMD-20WR3		15V	1333mA	80%
VRB4824YMD-20WR3		24V	833mA	82%

URB2403YMD-20WR3		3.3V	4000mA	78%
URB2405YMD-20WR3		5V	4000mA	79%
URB2412YMD-20WR3	9~36V	12V	1667mA	80%
URB2415YMD-20WR3		15V	1333mA	81%
URB2424YMD-20WR3		24V	833mA	83%
URB4803YMD-20WR3		3.3V	4000mA	78%
URB4805YMD-20WR3		5V	4000mA	79%
URB4812YMD-20WR3	18~75V	12V	1667mA	80%
URB4815YMD-20WR3		15V	1333mA	81%
URB4824YMD-20WR3		24V	833mA	83%

**output characteristic**

project	going	Min	Typ	Max
output power		0	--	20W
Output voltage accuracy	Input voltage range, 100% load	--	±2%	--
voltage regulation	Under rated load, input voltage voltage ± 1%	--	±0.2%	--
load regulation	10% to 100% load	--	±0.5%	--
Output ripple noise <sup>①</sup>	20 MHz bandwidth (peak-peak)	--	100mV	--
Temperature drift coefficient	Nominal voltage input, 100% load, -40°C ~ + 85°C	--	--	±0.03%/°C

\* pour:①The test method of ripple noise adopts the parallel line test method, and please refer to the "DC-DC Module Power Supply Application Guide" for the specific operation method.

**general characteristic**

project	going	Min	Typ	Max
Insulation and pressure resistance	Input-output, with a test time of 60s	--	1500VDC	--
working temperature		-40°C	--	+85°C
Storage temperature		-55°C		+125°C
Store humidity		--	--	95%RH
switching frequency		--	300KHz	--
MTBF	MIL-HDBK-217F, 25°C		3500,000h	
Module shell material		Metal aluminum shell		

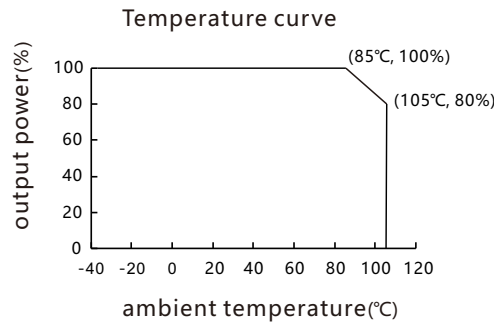
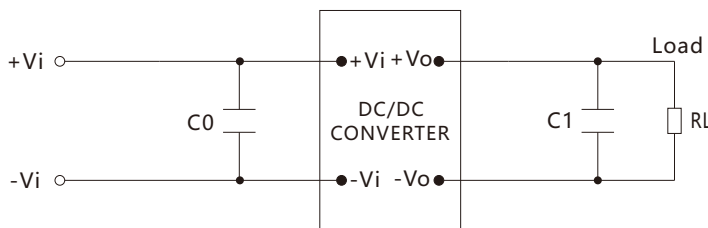
**Product performance curve**

**Refer to the scheme**
**1 Diagram representation of the typical application circuit**


Figure [1] Typical application circuit

**Notes (Figure 1)**

a. The external capacitor at the input or output end of the product is recommended, It is not recommended to use tantalum capacitors with ceramic capacitors or electrolytic capacitors, otherwise there is a certain risk of failure.

b. The product does not support output parallel power or hot swap use

input voltage	12V	24V	48V
C0	10 $\mu$ F	22 $\mu$ F	47 $\mu$ F

output voltage	3.3V	5V	12V	15V	24V
C1	220 $\mu$ F	220 $\mu$ F	100 $\mu$ F	100 $\mu$ F	100 $\mu$ F

**Safety precautions and statements**

1. No power supply product shall exceed the rated output power, and shall not exceed the rated input voltage range;
2. If the power supply product is multi-channel output, each output must be loaded at a proportional time;
3. The power supply product without short circuit protection function shall not have the output terminal short circuit situation;
4. If the definition of physical pin of the power supply product is inconsistent with the product selection manual, the definition of physical pin shall prevail;
5. Do not transform our power supply products at will, and our company is not responsible for all the consequences caused by this;