

**RQB150W12 Series:**  
**150W 1/4 Brick 14~160Vdc Ultra-Wide Input**  
**Railway DC/DC Converter**

Product Strategy Center/Frank Chen

MEAN WELL has been working on railway telematics for years, the 8~500W encapsulated module type, enclosed type, and DIN rail type have been widely praised within the industry (details in the table below). To meet the demand for a wider voltage input range, we're introducing the newly launched encapsulated module of 1/4 brick 150W 12:1 (14~160Vdc) ultra-wide voltage input RQB150W12 series.

Main features include 14~160Vdc ultra-wide voltage input can cover the mainstream nominal voltages of global railway systems (24/36/48/72/96/110Vdc), operate under extreme environments of -40~+90°C, an external capacitor can be added to ensure the hold-up time would last for 10~30 ms while the DC input is temporarily unstable, 3KVac high isolation withstand voltage, complete protections, etc. It is very suitable for industries such as railways, trams, MRTs, buses and information networks, industrial control automation, communication equipment and double-layer isolation requirements, DC UPS systems, battery voltage conversion or voltage stabilization...etc.

## DC-DC Converter Selection Guide for Railway Application

Mounting Type		Series Name	Main Specifications							
			Watt (W)	Input Voltage (Vdc)	Output Voltage (Vdc)	Operating Temp.	Safety	Dimension (L x W x H)		
Encapsulated Modules (PCB mount)	DIP24	RSDW/RDDW08	8W	(4:1) 9~36V 18~75V	Single : 3.3 / 5 / 12 / 15V Dual : ±5 / 12 / 15V	-40 ~ +85°C	EAC/CE/UKCA (EN50155/ EN55032)	31.8*20.8*10.2 mm		
		RSDW/RDDW10	10W	(4:1) 43~160V						
	2" x 1"	RSDW/RDDW20	20W	(18:1) 8.5~160V	Single : 5 / 12 / 15V Dual : ±12 / 15 / 24V					
		RSDW/RDDW40	40W	(4:1) 9~36V	Single : 3.3 / 5 / 12 / 15 / 24 / 48V Dual : ±12 / 15V			50.8*25.4*10.2 mm		
		RSDW/RDDW60	60W	18~75V 40~160V						
	1/4 Brick	RQB40W12	40W	(12:1) 14~160V	Single : 5 / 12 / 24 / 48 / 54V	-40 ~ +90°C	UL62368-1 (40W/60W), EAC/CE/UKCA (EN50155/ EN55032)	57.9*36.8*12.7mm		
		RQB60W12	60W							
		RQB150W12 <b>NEW</b>	150W	(3:1) 66~160V	Single : 12 / 24 / 48 / 54V					
Enclosed Type (Terminal block)	RSD-30	30W	(4:1) 9~36V 18~72V 40~160V	(2:1) 14.4~33.6V 28.8~67.2V 57.6~154V	Single : 3.3 / 5 / 12 / 15 / 24V	-40 ~ +70°C	CB/UL 62368-1 EAC/CE/UKCA (EN50155/ EN55032)	113*60*25 mm		
	RSD-60	60W	Single : 5 / 12 / 24V		128*60*25 mm					
	RSD-100	100W	Single : 12 / 24 / 48V		161*68*36 mm					
	RSD-150	150W	Single : 5 / 12 / 24 / 48V		189*77*36 mm					
	RSD-200	200W	Single : 12 / 24 / 48V		191*86*40 mm					
	RSD-300	300W	Single : 12 / 24 / 48V		216*96.5*40 mm					
Din Rail Type (Rail mount)	RSD-500	500W	Single : 12 / 24 / 48V		-40 ~ +80°C	CB/UL 62368-1 EAC/CE/UKCA (EN50155/ EN55032)	237*100*41 mm			
	DDR-120	120W	(2:1) 9~18V 16.8~33.6V 33.6~67.2V 67.2~154V		Single : 12 / 24 / 48V		-40 ~ +70°C		32*125.2*102 mm	
	DDR-240	240W			Single : 24 / 48V				40*125.2*113.5 mm	
	DDR-480	480W			Single : 12 / 24 / 48V		-40 ~ +80°C	85.5*125.2*128.5 mm		

## Features

- 12:1 (14~160Vdc) Ultra-wide input range
- Internal gel potting for improved anti-vibration, dust proof, and moisture proof capabilities
- -40 ~ +90°C ultra-wide operating temperature range
- IP-OP isolation: 3KVac
- Protections: Short Circuit /Overload /Over Voltage /Over Temperature /Input Under Voltage
- Remote ON/OFF control
- Trimming output voltage ± 10%
- Safety approval:

Railway: EN50155 / EN50121-3-2

ITE: LVD IEC62368-1, EAC, CE, UKCA

- Ultra-low-profile, dimensions (L x W x H) 57.9 x 36.8 x 12.7 mm
- 3 years warranty

## Applications



## Order information

**RQB 150 W12 - 110 S 12**

Output voltage (12/24/48/54Vdc)

Single output

Typical input voltage (110Vdc)

12:1 ultra-wide input voltage (14~160Vdc)

Rated wattage

Series name