

# RTW150W Specifications

ITEMS/UNITS		MODEL	RTW03-35R	RTW05-30R	RTW12-12R	RTW15-10R	RTW24-6R3	RTW28-5R4	RTW48-3R2	
Input	Voltage Range (Nominal: 100-240VAC)	V	AC85-265							
	Frequency (Nominal: 50-60 single phase)	Hz	47-66							
	Power Factor (100/240VAC)(typ)		0.99/0.96							
	Efficiency (100VAC)(typ)	%	80	83	84	86				
	Efficiency (200VAC)(typ)	%	83	86	87	88	89			
	Current (100-120/200-240VAC) (max)	A	1.9/1.0 (3.3V: 1.6/0.85)							
	Inrush Current (100/200VAC)(typ) (*1)	A	14/28							
	Leakage Current (100/240VAC) (max)	mA	0.45/0.65							
Output	Nominal Voltage	VDC	3.3	5	12	15	24	28	48	
	Maximum Current (*2)	A	35	30	12.5	10	6.3 (peak 10)	5.4	3.2	
	Maximum Power	W	115.5	150			151.2	153.6		
	Maximum Line Regulation (Within input voltage range) (max/typ)		0.2%/0.1%							
	Maximum Load Regulation (0-100% load) (max/typ)		0.4%/0.2%							
	Temperature Coefficient (Ambient temperature -10°C to +71°C) (max/typ)	%	1.0/0.5							
	Warm Up Drift (max/typ) (*3)	%	0.5/0.2							
	Max Power Total Regulation (max/typ)	%	± 1.8/ ± 0.9							
	Maximum Ripple Voltage (max) (*4)	mVp-p	80	100	150	200				
	Maximum Ripple & Noise (max) (*4)	mVp-p	120	150	200	300				
	Start Up Time (100/240VAC)(typ) (*5)	ms	220/120							
	Hold-up Time (100/240VAC)(typ)	ms	50/55	35/40						
	Voltage Adjustable Range	VDC	2.85-4.0	4.0-5.8	9.6-13.2	12.0-16.5	19.2-26.4	22.4-30.8	38.4-52.8	
	Function	Over Current Protection (*6)	A	38.5-45.5	33-39	13.7-16.3	11-13	10.5-13.5	5.94-7.02	3.52-4.16
		Over Voltage Protection (*7)	VDC	4.2-5.2	6.0-6.9	13.7-15.7	17.0-19.0	27.0-30.5	32.0-35.0	55.0-60.0
Over Temperature Protection			Not available							
Remote Sensing			Available							
Remote ON/OFF Control (*8)			Available							
Parallel Operation			Not available							
Series Operation			Applicable							
Operation Indicator			Available (green LED)							
Variable Output Voltage			Not available							
Monitoring Signal			Not available							
Environment	Operating Temperature	°C	-10 to +71							
	Storage Temperature	°C	-30 to +75							
	Operating Humidity	% RH	10-95 (the conditions of maximum 35°C in wet bulb temperature and non-condensation should be ensured.)							
	Storage Humidity	% RH	10-95 (the conditions of maximum 35°C in wet bulb temperature and non-condensation should be ensured.)							
	Vibration		5-10Hz, 10 minutes sweep, 10mmp-p total amplitude, 3 directions, 1h for each, in non-operation 10-200Hz, 10 minutes sweep, 19.6m/s <sup>2</sup> (2G) acceleration, 3 directions, 1h for each, in non-operation							
	Shock		588m/s <sup>2</sup> (60G), 11 ± 5ms, 3 directions, 3 times for each, in non-operation							
Isolation	Withstand Voltage		For 1 minute at ordinary temperature and humidity Between input terminal and ground terminal: 2.0kVAC, 10mA cutout current Between input terminal and output terminal: 3.0kVAC, 10mA cutout current Between output terminal and ground terminal: 500VAC, 20mA cutout current							
	Isolation Resistance		In 500VDC and 100MΩ or over at ordinary temperature and humidity Between input terminal and ground terminal, between input terminal and output terminal, and between output terminal and ground terminal							
Standards	Safety Standards		Approved by UL60950-1, CSA C22.2 No.60950-1 (C-UL), EN60950-1 (TÜV), complying with Electrical Appliance and Material Safety Law (meeting the regulations of creepage surface and spacial distance in item 8 of the appendix table)							
	PFHC		Complying with EN61000-3-2							
	EMI		Complying with FCC-Class B / VCCI-Class B / EN55011-B / EN55022-B							
Mechanical	Immunity		Complying with EN61000-4-2 Level2, 3, -3 Level3, -4 Level3, -5 Level3, 4, -6 Level3, -8 Level4, -11							
	Weight without cover / with cover / type L (max)	g	520/600/520							
	Size (W x H x D) without cover / with cover / type L	mm	30 x 92 x 180/30 x 92 x 180/30 x 92 x 191.5							
Models of different	Detailed product name1 with cover		RTW03-35RC	RTW05-30RC	RTW12-12RC	RTW15-10RC	RTW24-6R3C	RTW28-5R4C	RTW48-3R2C	
	Detailed product name2 type L		RTW03-35RL	RTW05-30RL	RTW12-12RL	RTW15-10RL	RTW24-6R3L	RTW28-5R4L	RTW48-3R2L	

With nominal input/output voltage, maximum output current, and Ta=25°C, if not specified separately.

(\*1) In primary surge current, 25°C, and cold starting.

(\*2) The maximum output current value is between -10°C and +30°C. For use in outside this temperature range, Derating is needed.

(\*3) 30min to 8h after the start of input voltage application.

(\*4) 1.5 times the value in 100MHz and at between -10°C and 0°C.

(\*5) Fixed current reduction system and automatically resumes when the causes are removed.

(\*6) Output voltage shutdown system and resumes by restarting input (approximately 30s interval).

(\*7) Use and non-use can be switched by the internal switch.

### Recommended EMC Filter



RSEL-2003W

Please refer to "TDK-Lambda EMC Filters" catalog.