



## Switch Power Pack, Battery Charger, DC-DC-Converter

# RPL 250W Series 250 Watt

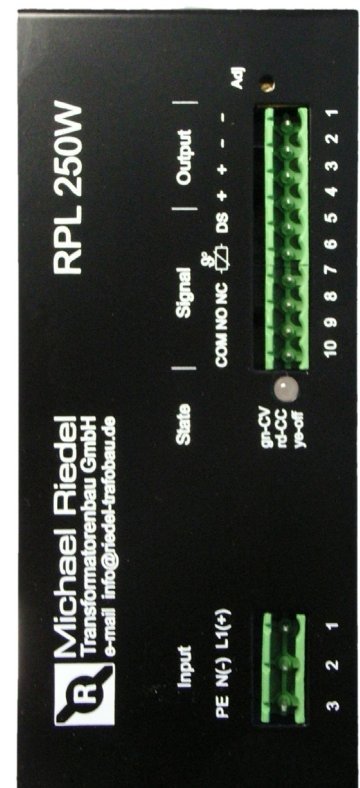
*input range AC 85V - 264V or DC 88V - 375V*

Easy adjustment of wide range output voltage on front plate via potentiometer.

RPLs run either in constant voltage or constant current operation, therefore allowing application as battery chargers also.

Custom makes on special request

- Special features:**
- output voltage DC 12, 24 or 48V, wide range adjustment
  - connection in series and parallel
  - high efficiency
  - compact and robust design in metal housing
  - easy fitting onto DIN-rail, several fitting positions possible
  - protection class I
  - sinusoidal current on input side, active PFC
  - interference emission EN 61000-6-3, EN 55011 class B, EN 55022 class B (Telecom)
  - interference immunity EN 61000-6-2
  - overcurrent limiter and short-circuit protection
  - overtemperature protection
  - inrush current limiter, enabling application of conventional circuit breakers
  - overvoltage limiter
  - status display: tricolored LED
  - potential free noise output (change-over switch)
  - input DS (Disable) for remote output switch-on and switch-off
  - temperature guided charging already possible with the standard version via switching of jumper and activation of temperature sensor input
  - all power packs series RPL also apply as **chargers** (type ...WL) or **DC-DC-converters** (reverse polarity protection available on input side)



- Options:**
- Series diode (decoupling diode) on output side for redundancy systems and UPS-systems: additional letter – S. Example RPL 2410W-S.
  - Overload shut down, storing cut-off at overload: additional letter – D. Example RPL 2410W-D.
  - Analog input DC 0-10V to adjust output voltage from 0 up to 29V: additional letter – U. Example RPL 2410W-U.
  - Further options (other signal combinations, tropically insulated, increased vibration resistance, etc.) on request.



Technical Data	250W						
	RPL 1220W	RPL 1220WL	RPL 2410W	RPL 2410WL	RPL 4805W	RPL 4805WL	
<b>INPUT</b>							
Rated voltage, U <sub>1nominal</sub>	AC 100V-240V						
Voltage range, U <sub>1min</sub> -U <sub>1max</sub>	AC 85-264V or DC 88V-375V						
Frequency	45-65 Hz or 0Hz						
Overvoltage protection	varistor						
Rated current typical, I <sub>1nominal</sub>	1,3A at AC 230V   2,4A at AC 115V		1,2A at AC 230V   2,4A at AC 115V		1,2A at AC 230V   2,4A at AC 115V		
Highest transient pulse Ta=25°C	< 35A at AC 230V, < 17A at AC 115V						
Highest transient pulse Ta=55°C	< 76A at AC 230V, < 38A at AC 115V						
Internal fuse (instrument fuse)	6,3AT						
Recommended external fuse	circuit breaker B10, B16						
Maximal switching rate	30 switching cycles per hour						
Mains failure bridging time	> 25ms at AC 100-240V						
Reverse polarity protection DC-input	Yes						
<b>OUTPUT</b>							
Rated voltage U <sub>2nominal</sub>	DC 12V	DC 13.7V	DC 24V	DC 27.4V	DC 48V	DC 54.8V	
Voltage range U <sub>2min</sub> - U <sub>2max</sub>	DC 9-15V adjustable		DC 21-29V adjustable		DC 45-58V adjustable		
Rated current I <sub>2</sub> (at U <sub>2nominal</sub> ) Ta = -25...+60°C	20.0A	18.0A	10.0A	9.0A	5.0A	4.5A	
Rated current I <sub>2</sub> (at U <sub>2nominal</sub> ) Ta = -25...+45°C	24.0A	22.0A	12.0A	11.0A	6.0A	5.5A	
Overload-, short circuit-, no-load protection	Yes						
Overcurrent limitation 4s / after 4s typical	25.0A / 20.5A	23.5A / 19.0A	13.0A / 11.0A	12.5A / 11.0A	6.3A / 5.0A	6.1A / 5.0A	
Short circuit current 4s / after 4s typical	< 35A / < 25A		< 21A / < 18A		< 16A / < 15A		
Overload shut down, storing cut-off at overload. Option ,D'	unit switches off on output side after 4s overcurrent. Fault repair: switch off mains, check load and switch on mains again.						
Overvoltage protection	TVS 18V		TVS 36V		TVS 62V		
Residual ripple f = 20Hz...300 kHz	< 20mV eff.						
Line control U <sub>1min</sub> - U <sub>1max</sub>	< 0,15 %						
Load control Load change 10% <-> 90%	< 1,0% (< 3,0% option -S)		< 0,5% (< 1,5% option -S)		< 0,5% (< 1,5% option -S)		
Overshoot / control time Load leap 10% <-> 90%	< 3.0% < 3ms						
Temperature stability	< 0,02% / K						
Series- and parallel operation	yes. Series operation up to output voltage DC 150V max.						
<b>SIGNAL DATA</b>							
LED status reports	U <sub>2</sub> > 0,9xU <sub>2</sub> -must value (voltage control): LED green U <sub>2</sub> < 0,9xU <sub>2</sub> -must value (current limitation): LED red unit connected to mains, output voltage switched off: LED yellow						
Input DS (Disable): remote output switch-off / -on	external signal, „+“ to DS, „-“ to -. 10-29V: output OFF, 0-2,5V: output ON						
Noise output	U <sub>2</sub> > 0,9xU <sub>2</sub> -must value: connection COM-NO U <sub>2</sub> -ist < 0,9xU <sub>2</sub> -must value: connection COM-NC						
Temperature controlled charging	TEMP COM on ON						
External NTC-resistor	10k NTC, B=3977K. Not included.						
<b>REGULATIONS</b>							
Mains harmonics limitation comp. EN 61000-3-2	yes. Active PFC						
Noise emission	EN 61000-6-3						
Noise immunity	EN 61000-6-2						
Safety	EN 60950 class I						
Test mark / approbation							
Test voltage input / housing	AC 2,5kV (type test), AC 2kV (routine test)						
Test voltage input / output	AC 3kV (type test), AC 2kV (routine test)						
Test voltage output / housing	DC 500V (routine test)						
Humidity	85% RH IEC 68-2-30						
Vibration & shock	ETS 300 019-2-4, class 4M5						
<b>OPERATION SPECIFICS</b>							
Efficiency typical at 100%-load	> 87% at AC 230V		> 91% at AC 230V		> 91% at AC 230V		
Protection comp. VDE 0470/EN60529	IP 20						
Protection class comp. IEC 536, VDE 0106 T1	I						
Overtemperature protection	yes						
Ambient temperature, 2 cm beneath unit	-25° up to +60°C						
Storage temperature	-40 up to +85°C						
Article no	0500-	000001220W	00001220WL	000002410W	00002410WL	000004805W	00004805WL
Cooling	natural convection						
<b>MECHANICS</b>							
Housing construction	aluminum						
Assembly	snap onto mounting rail comp. DIN EN 60715, or screw-on						
Installation position	Several installation positions possible						
Measurements approx. W x H x D in mm	67 x 153 x 141 (mm)						
Weight approx. in kg	1,13kg						