



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

RPL 250WD Type 250 Watt

Wide input range 3AC 340V up to 575V or DC 450V up to 820V

Adjustment of wide range output voltage on front plate via potentiometer.

RPL operates either in constant voltage operation or in constant current operation, therefore allowing application as battery charger also.

Custom makes on special request.

- Special features:**
- output voltage DC 24V, wide range adjustment
 - switch in series and parallel
 - high efficiency
 - compact and robust design in metal housing
 - easy fitting onto DIN-rail, diverse installation positions possible
 - protection class I
 - noise emission EN 61000-6-3, EN 55011 class B, EN 55022 class B (Telecom)
 - noise immunity EN 61000-6-2: ESD, electromagnetic irradiation, burst, conducted noise immunity, mains voltage dips
 - overcurrent limitation and short circuit protection
 - overtemperature protection
 - inrush current limitation, enabling application of conventional circuit breakers.
 - overvoltage limitation
 - status display: tricolor LED
 - potential free noise output (change-over switch)
 - input DS (Disable) for remote output switch-on and switch-off
 - all power packs RPL also apply as **chargers** (type ...WDL) or **DC-DC- converters** (reverse polarity protection available on input side).

- Options:**
- series diode (decoupling diode) on output for redundancy- and UPS-systems: additional letter 'S': for example RPL 2410WD-S.
 - overload shut down, storing cut-off at overload: additional letter 'D': for example RPL 2410WD-D
 - temperature controlled charging: additional letter 'T': for example RPL 2410WDL-T
 - further options (other signal combinations, tropical insulation, increased vibration resistance, etc.) on request.





Technical Data	250W	
	RPL 2410 WD	RPL 2410 WDL
INPUT		
Rated voltage, U1nominal	AC 3 x 400V-500V	
Voltage range, U1min-U1max	AC 340-575V or DC 450V-820V	
Frequency	45-65 Hz or 0 Hz	
Overvoltage protection	Varistor	
Rated current typical, I1nominal	0.6A at AC 400V, 0.5A at AC 500V	
Highest transient pulse Ta=25°C	< 26A at AC 400V, < 32A at AC 500V	
Highest transient pulse Ta=55°C	< 69A at AC 400V, < 85A at AC 500V	
Internal fuse (instrument fuse)	2 A time lag	
Recommended external fuse	line circuit breaker B10, B16	
Maximal switching rate	30 switching cycles per hour	
Mains failure bridging time	> 25ms at AC 400V	
Reverse polarity protection DC-input	yes	
OUTPUT	Power pack	Charger
Rated voltage U2nominal	DC 24V	DC 27.4V
Voltage range U2min - U2max	DC 21-29V	
Rated current I2 (at U2nominal) Ta = -25...+60°C	10.0A	9.0A
Rated current I2 (at U2nominal) Ta = -25...+45°C	12.0A	10.5A
Overload-, short circuit-, no-load protection	yes	
Overcurrent limitation 4s / after 4s typical	12.5A / 11A	11,5A / 10.5A
Short circuit current 4s / after 4s typical	< 21A / < 13A	
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 36V	
Residual ripple f = 20Hz...300 kHz	< 20mV eff.	
Line control U1min - U1max	< 0,15 %	
Load control Load change 10% <-> 90%	< 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.	
SIGNAL DATA		
LED status reports	U2 > 0.9xU2-must value (voltage control): LED green U2 < 0.9xU2-must value (current limitation): LED red unit connected to mains, output voltage switched off: LED yellow	
Input DS (Disable): output remote switch-off / -on	external signal, „+“ to DS, „-“ to -. 10-29V: output OFF, 0-2.5V: Output ON	
Noise output (not available for option ,T')	U2 > 0.9xU2-must value: connection COM-NO	
Potential free change-over contact DC 24V or AC 30V/0.1-0.5 A	U2-actual value < 0.9xU2-must value: connection COM-NC	
Temperature controlled charging, option ,T'	connection external NTC-resistor 10k with B=3977K to COM-NO	
REGULATIONS		
Mains harmonics limitation comp. EN 61000-3-2	yes	
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	
OPERATION SPECIFICS		
Efficiency typical	typical 92% at AC 400V and 100%-load	
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	
Cooling	natural convection	
MECHANICS		
Housing construction	Aluminum	
Assembly	snap onto mounting rail comp. DIN EN 60715, or screw-on	
Installation position	diverse installation positions possible	
Measurements W x H x D in mm	ca. 67 x 157 x 141	
Weight in kg	ca. 1,0	