



Switch Power Packs, Battery Chargers, DC-DC-Converters

RPL 30W1 Type 30 Watt

input range AC 195V up to AC 460V or DC 230V up to DC 650V

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

Units RPL operate either in constant voltage operation or in 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 plastic housing
 - easy fitting onto DIN-rail
 - protection class I
 - interference emission EN 61000-6-3, EN 55022 class B
 - interference immunity EN 61000-6-2: ESD, electromagnetic irradiation, Burst, conducted interference immunity, mains voltage dips
 - overcurrent limiter and short-circuit protection
 - overtemperature protection
 - inrush current limiter, enabling application of conventional circuit breakers.
 - overvoltage limiter
 - status display: LED
 - all power packs series RPL can also apply as **chargers** (type ...WL) or **DC-DC-converters** (reverse polarity protection on input available).



Article No. and Voltages						
Type	Article No.	Input voltage range	Output voltage range	Output rated voltage		Output rated current
RPL 122.5 W1	0500-000122.5W1	AC 195-460V or DC 230-650V	DC 11-15V	DC 12V	(power pack)	2.50A
RPL 241.25 W1	0500-00241.25W1		DC 23-29V	DC 24V	(power pack)	1.25A
RPL 480.65 W1	0500-00480.65W1		DC 45-58V	DC 48V	(power pack)	0.65A
RPL 122.5 W1L	0520-0012.25W1L		DC 11-15V	DC 13.7V	(battery charger)	2.25A
RPL 241.25 W1L	0520-0241.25W1L		DC 23-29V	DC 27.4V	(battery charger)	1.15A
RPL 480.65 W1L	0520-0480.65W1L		DC 45-58V	DC 54.8V	(battery charger)	0.60A



Technical Data	30W1					
	RPL 122.5W1	RPL 122.5W1L	RPL 241.25W1	RPL 241.25W1L	RPL 480.65W1	RPL 480.65W1L
INPUT						
Rated voltage, U _{1nominal}	AC 220V - 400V					
Voltage range, U _{1min} -U _{1max}	AC 195V - 460V or DC 230V - 650V					
Frequency	45-65 Hz					
Overvoltage protection	varistor AC 460V					
Rated current typical, I _{1nominal}	0.32A at AC 230V 0.19A at AC 400V					
Highest transient pulse Ta=25°C	< 25A at AC 230V < 35A at AC 400V					
Highest transient pulse Ta=55°C	< 50A at AC 230V < 60A at AC 400V					
Recommended external fuse	circuit breaker B10, B16					
Maximal switching rate	30 switching cycles per hour					
Mains failure bridging time	> 10ms at AC 230V > 20ms at AC 400V					
Reverse polarity protection DC-input	Yes					
OUTPUT						
Rated voltage U _{2nominal}	DC 12V	DC 13.7V	DC 24V	DC 27.4V	DC 48V	DC 54.8V
Voltage range U _{2min} - U _{2max}	DC 10-15V adjustable		DC 21-29V adjustable		DC 45-58V adjustable	
Rated current I ₂ (at U _{2nominal}) Ta = -25...+55°C	2.5A	2.3A	1.25A	1.15A	0.65A	0.6A
Overload-, short circuit-, no-load protection	Yes					
Overcurrent limitation	2.7A	2.3A	1.3A	1.15A	0.7A	0.6A
Short circuit current	< 5A		< 3A		< 2A	
Overvoltage protection	Yes					
Residual ripple f = 20Hz...300 kHz	< 20mV eff.					
Line control U _{1min} - U _{1max}	< 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	< 0.03% / K					
Series- and parallel operation	Yes. Series operation up to output voltage DC 150V max.					
SIGNAL DATA						
LED status reports	LED green					
REGULATIONS						
Mains harmonics limitation comp. EN 61000-3-2	Not necessary					
Noise emission	EN 61000-6-3, EN 55022 Klasse B					
Noise immunity	EN 61000-6-2					
Safety	EN 60950 class I					
Test mark / approbation						
Test voltage input / output	AC 3kV (type test), AC 2kV (type test)					
Humidity	85% RH IEC 68-2-30					
Vibration & shock	ETS 300 019-2-4, class 4M5					
OPERATION SPECIFICS						
Efficiency typical	80% at AC 230V		82% at AC 230V		82% 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 +55°C					
Storage temperature	-40° up to +85°C					
Cooling	Natural convection					
Article no.	0500-000122.5W1	0520-00122.5W1L	0500-00241.25W1	0520-0241.25W1L	0500-00480.65W1	0520-0480.65W1L
MECHANICS						
Housing construction	Synthetic material					
Assembly	Snap onto mounting rail comp. DIN EN 50022					
Installation position	Vertical					
Measurements approx. W x H x D in mm	ca. 40 x 80 x 85					
Weight approx. in kg	ca. 0.14					