Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!

Contact us

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Email & Skype: info@chipsmall.com Web: www.chipsmall.com
Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China

Features

- Universal AC Input (85-264VAC)
- Long 7 Year Warranty
- Protections: SCP, OVP, OCP, OTP
- 100% Full Load burn-in test
- DC OK Indicator LED with Relay Contacts
- cooling by free air convection, 5000m operation
- UL, CSA & CE certified with CB Report

RECOM

AC/DC Converter

REDIN45

45 Watt DIN-Rail Power Supply

Description

This DIN-rail mounted power supply uses high reliability components to give a long, trouble-free life.The power supply can be end mounted to save space or side mounted for use in low-profile cabinets. Relay contacts simplify DC OK monitoring and the units can deliver 60W start-up power. The REDIN series is fully certified for industrial use and carries a 7-year warranty.

Selection Guide

Part Number	Input Voltage Range (VAC)	Output Voltage (VDC)	Output Trimming Voltage (VDC)	Rated Current (A)	Efficiency typ. (%)	Max. Capacitive Load (µF)
REDIN45-12	85-264	12	12-15	3.75	85	18800
REDIN45-24	85-264	24	24-28	1.875	86	4700

CB-Report
UL-60950-1 Certified
UL-508 Certified
IEC-60950-1 Certified
EN-60715 Compliant
EN-50022 Compliant
CSA C22.2 No. 60950-1-07 Certified

Specifications (measured at T_A= 25°C, 230VAC, full load and after warm up)

BASIC CHARACTERISTICS				
Parameter	**Condition**	**Min.**	**Typ.**	**Max.**
Input Voltage Range	all operating conditions	85VAC		264VAC
max. Input Voltage	max. 1 second			300VAC 375VDC
Output Voltage Adjustment (Factory Setting) (1)	12Vout 24Vout	12-15VDC (12V±5%) 24-28VDC (24V±5%)		
Input Current	full load, 115VAC full load, 230VAC			1.35A 0.75A
Inrush Current	cold start at 25°C, 115VAC cold start at 25°C, 230VAC			40A 60A
No Load Power Consumption	standard (with Relay) /NR option (no Relay)			<1000mW <500mW
Start Up time	cold start, 230VAC		500ms	1000ms
Rise time	cold start, 230VAC		20ms	
Hold-up time	full load, 115VAC full load, 230VAC		20ms 50ms	
Input Frequency Range		47Hz		63Hz
Operating Frequency Range			65kHz	
Efficiency		see Selection Guide		
Output Ripple and Noise (2)	12Vout 24Vout		60mVp-p 75mVp-p	
Over Load	all operating conditions	140% for 5 seconds max.		

Notes:

Note1: For more details refer to Vadj. Derating Graph

Note2: Ripple and Noise are measured at 20MHz bandwidth by using a 12" twisted pair-wire terminated with 0.1µF & 47µF parallel capacitor

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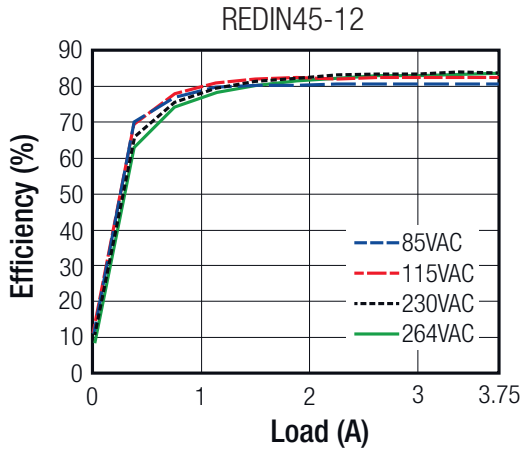
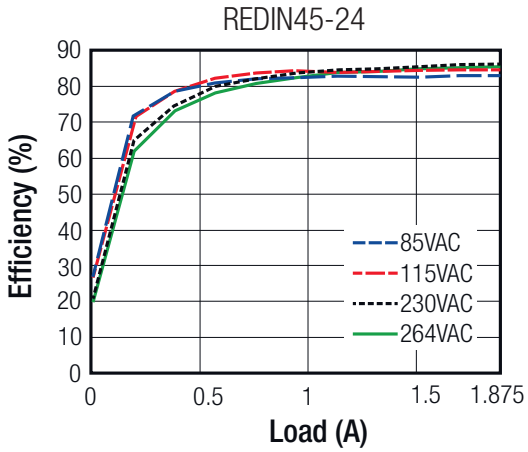
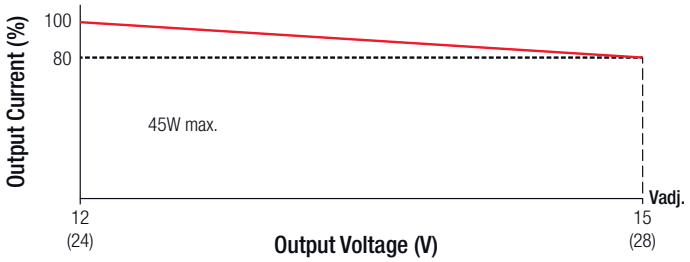
Specifications (measured at T_A= 25°C, 230VAC, full load and after warm up)

Efficiency vs. Load





Vadj. Derating



REGULATION		
Parameter	**Condition**	**Value**
Line Regulation		±0.1 typ. / ±1% max.
Load Regulation		±0.1 typ. / ±1% max.
Transient Response [3]	12Vout (step load change: 1.875A - 3.75A) 24Vout (step load change: 0.937A - 1.875A)	±5% typ. ±5% typ.
Dwell Time		100Hz & 1kHz 50% duty
Slew Rate		0.5A / µs

Notes:

Note3: Transient Response + E-CAP loading 3300µF. Other specs with resistive load only.

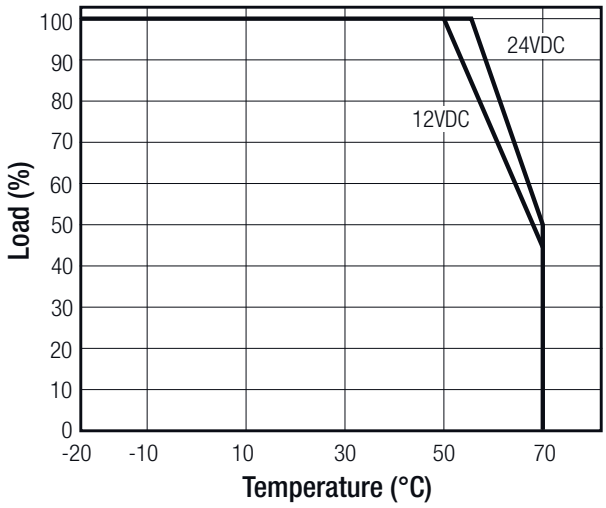
PROTECTION		
Parameter	**Condition**	**Value**
Input Fuse		T2.5A, slow blow type
Short Circuit Protection (SCP)	Hiccup	auto-recovery after fault condition
Over Voltage Protection (OVP)	12Vout 24Vout	18VDC max., shut-down latch-off o/p voltage, re-power on to recover 35VDC max., shut-down latch-off o/p voltage, re-power on to recover
Over Current Protection (OCP)		150% typ., auto-recovery after fault condition
Over Temperature Protection (OTP)	detect on inside ambient	105°C±5%, shut-down latch-off o/p voltage, re-power on to recover
Isolation Voltage	I/P to O/P I/P to FG O/P to FG	3.75kVAC / 1 minute 1.88kVAC / 1 minute 0.5kVAC / 1 minute
Isolation Resistance	500VDC, 70% RH, I/P to O/P; I/P to FG; O/P to FG	100MΩ min.
Leakage Current	240VAC	<1.0mA
Power OK LED	Relay Contacts LED/Relay	1A, 30VDC / 120VAC ON if Vout = 11-16V (12V) / 22-30V (24V)

Specifications (measured at T_A= 25°C, 230VAC, full load and after warm up)

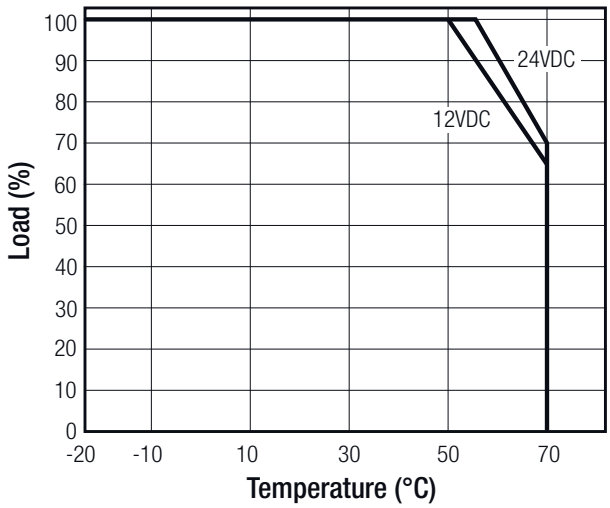
ENVIRONMENTAL		
Parameter	**Condition**	**Value**
Operating Temperature Range	with derating	-20°C to +70°C (see graph)
Operating Humidity	non-condensing	20% - 90%RH
Vibration		10-500Hz 2G, 60min.
Shock	3 times each axis	10G / 11ms, along X, Y and Z axis
Altitude	see derating graph	5000m
MTBF (+25°C)	MIL-HDBK-217F, 115VAC, 60Hz, 75% load	200 x 10^3 hours
Design Lifetime (+40°C)		87.6 x 10^3 hours

Derating Graph

Vin ≤ 100VAC

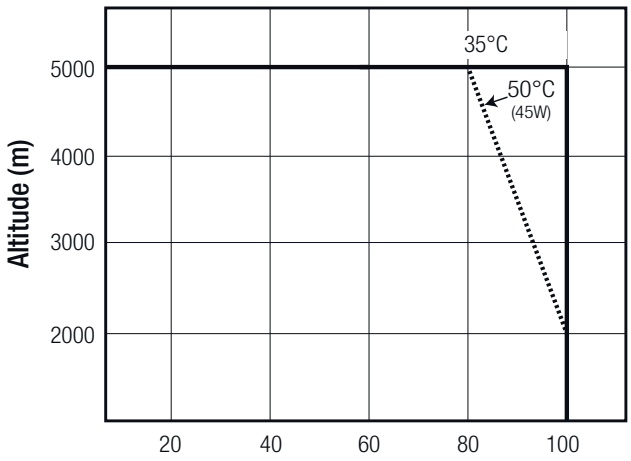


Vin > 100VAC

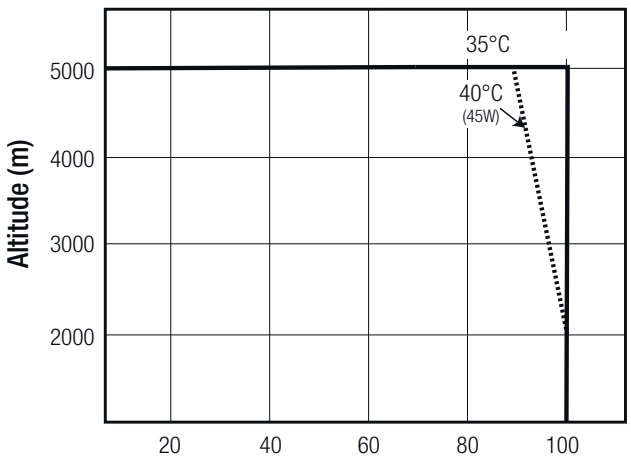


Typical Characteristics

REDIN45-12



REDIN45-24



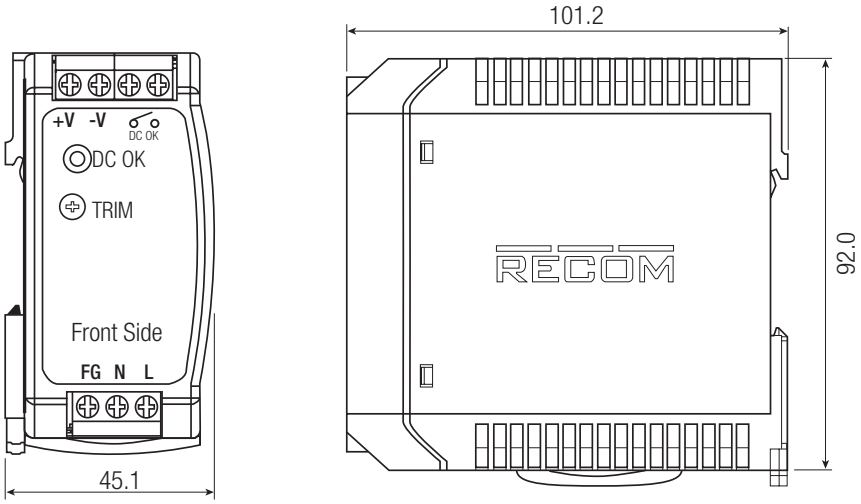
Specifications (measured at T_A= 25°C, 230VAC, full load and after warm up)

SAFETY AND CERTIFICATIONS		
Certificate Type (Safety)	**Report / File Number**	**Standard**
UL General Safety	E224736	UL-60950-1, 2nd Edition UL-1310
CSA General Safety		C22.2 No. 60950-1-07, 2nd Edition
Industrial Control Equipment General Use Power Supplies	E470721	UL-508 C22.2 No. 107.1
IEC/EN General Safety	E224736	IEC/EN-60950-1, 2nd Edition
Chinese Safety Standard	E224736	GB 4943.1-2011

EMC Compliance	**Report / Condition**	**Standard / Criterion**
EMI Standard	Report: HA150146	EN-55022, Class B
		EN-55024, Class B
		FCC15, Class B
ESD	±8kV Contact & Air Discharge	EN-61000-4-2, Criteria A
Radiated Immunity	10V/m, 80-3000MHz, 80% AM at 1kHz	EN-61000-4-3, Criteria A
Fast Transient	Level 2	EN-61000-4-4, Criteria A
Surge	±2kV / L-N, ±4kV / L, N-FG	EN-61000-4-5, Criteria A
Conducted Immunity	10Vrms, 0.15-80MHz, 80% AM at 1kHz	EN-61000-4-6, Criteria A
Power frequency magnetic field immunity test		EN-61000-4-8, Criteria A
Noise Immunity	40% reduction, 200ms	EN-61000-4-11, Criteria A
	70% reduction, 500ms	EN-61000-4-11, Criteria B
	90% reduction, 5s	EN-61000-4-11, Criteria B
Harmonic Immunity	not applicable input below 75W	EN-61000-3-2
Voltage Flicker		EN-61000-3-3

DIMENSION and PHYSICAL CHARACTERISTICS		
Parameter	**Type**	**Value**
Case Material		UL94V-0 plastic
Paclage Dimension (WxHxD)		45.1 x 92.0 x 101.2mm
Package Weight		332g

Dimension Drawing (mm)



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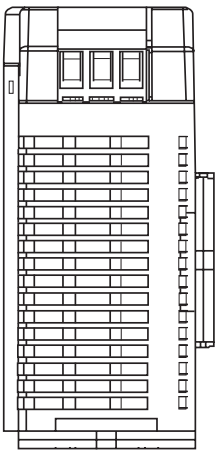
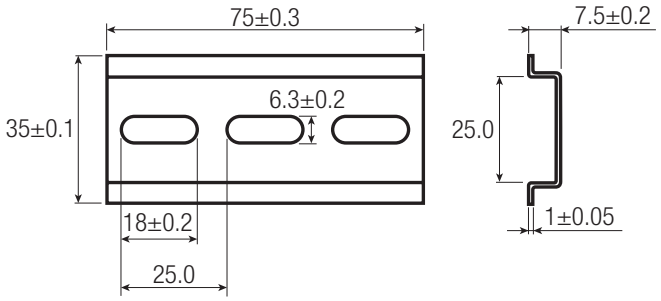
Specifications (measured at T_A= 25°C, 230VAC, full load and after warm up)

Dimension Drawing (mm)

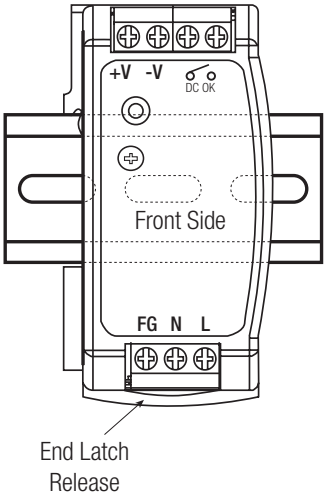


DIN-RAIL mounting bracket
(75mm) included

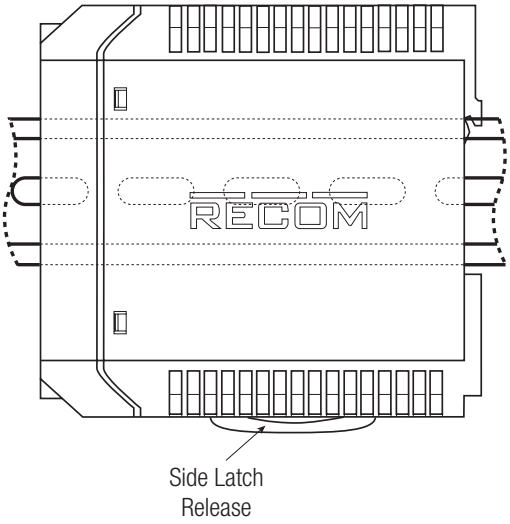


INSTALLATION

END MOUNTING



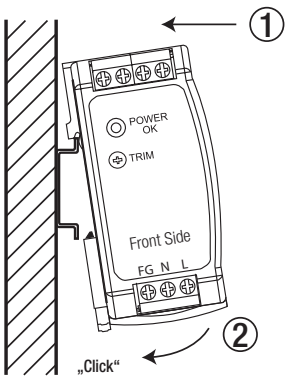
SIDE MOUNTING



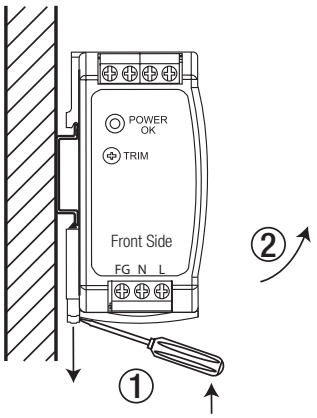
Tolerance: ±0.5mm

Mounting Instruction

Mounting



Releasing



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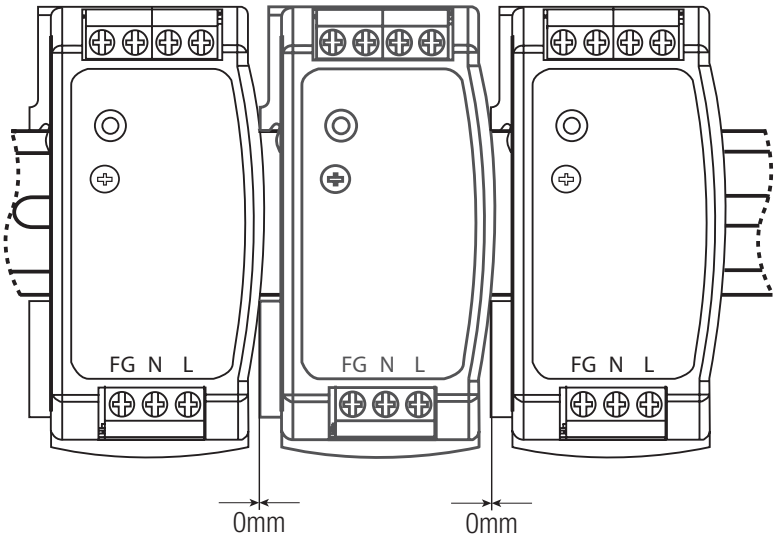
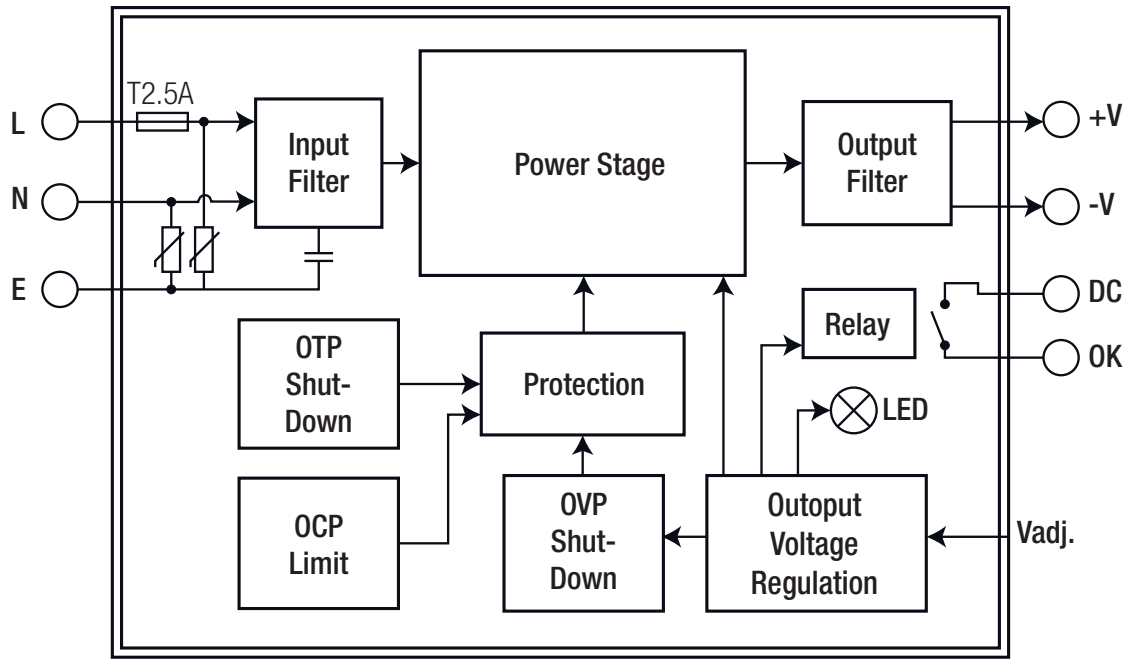
Specifications (measured at T_A= 25°C, 230VAC, full load and after warm up)

Mounting Multiple Power Supplies



no spacers between supplies required

Functional Diagram



PACKAGING INFORMATION		
Parameter	**Type**	**Value**
Packaging Dimension (LxWxH)	Cardboard Box	116.0 x 97.0 x 54mm
Packaging Quantity		1pcs
Storage Temperature Range		-30°C to +85°C
Storage Humidity		10% - 90% RH