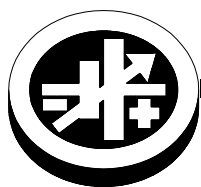


# QUICK START GUIDE



**KEPCO** An ISO 9001 Company.



## 300W, PFC, OPEN FRAME POWER SUPPLIES

### I — INTRODUCTION

**SCOPE OF MANUAL.** This Quick Start Guide covers the installation and operation of the Kepco RMW Series of Open Frame Switching Power Supplies. Full specifications are listed in the Operator Manual that can be downloaded from the Kepco web site:

- [www.kepcopower.com/support/opmanls.htm#rmw](http://www.kepcopower.com/support/opmanls.htm#rmw)

**DESCRIPTION.** Kepco RMW Series are 300W RoHS-compliant switching power supplies with seven models providing 5V, 12V, 15V, 24V, 28V, 48V and a triple output model (RMW 51212-300K) which provides a primary output of +5V and secondary outputs of  $\pm 12V$ . All models also

include a separate +12V output that can be used to power an external cooling fan and an output suitable for driving an LED. Power Factor Correction (PFC) is included in all models.

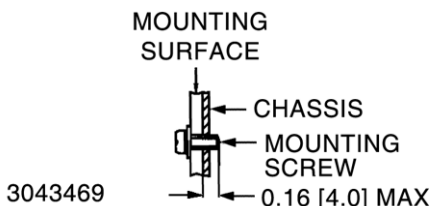
Units may be operated with a nominal 115V a-c or 230V a-c (input voltage range 85 to 264 Va-c), 50-60 Hz (input frequency range 47-66Hz). If overvoltage protection trips, the unit shuts down; it is necessary to cycle input power off, then on to reset the unit. Overcurrent protection with automatic recovery from short circuit is featured (except for single-and triple output 5V models that latch off when overcurrent or short-circuit is detected). Units are convection cooled U-chassis construction.

**TABLE 1. RMW OPEN FRAME MODELS**

VOLTAGE	5V	5V, $\pm 12V$	12V	15V	24V	28V	48V
MODEL	RMW 5-60K	RMW 51212K-300	RMW 12-25K	RMW 15-20K	RMW 24-12K	RMW 28-11K	RMW 48-6.2K

### II — INSTALLATION

**MOUNTING THE POWER SUPPLY.** Refer to Figure 1. The unit may be mounted using 6-32 mounting screws (not supplied). Eight mounting holes are provided: four on the base, and two on each side. Note the restrictions for maximum penetration of mounting screws (see Figure 1).



**FIGURE 1. MOUNTING SCREW PENETRATION**

**CONNECTIONS.** All connections are made via TB1 through TB5 (see Figure 2 for locations). AC input power is

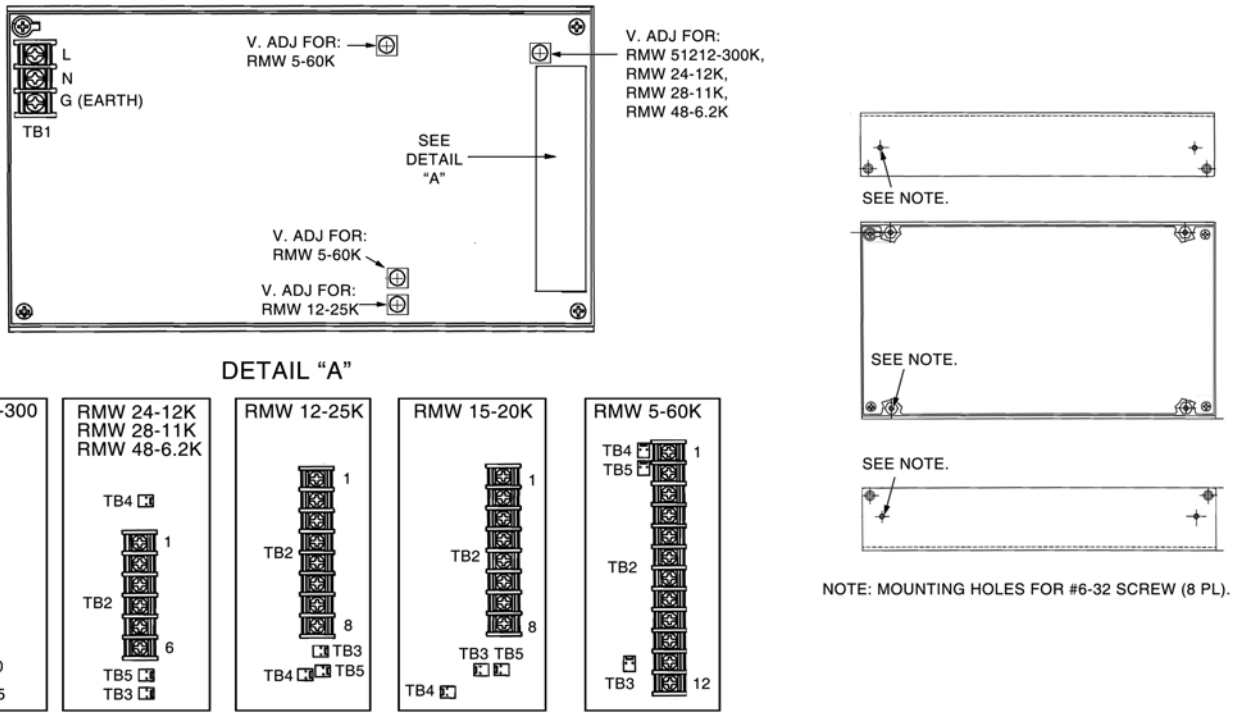
applied via the terminal block TB1. Connect the AC input Neutral, Line and Earth Ground wires to the respective terminals of the terminal block (see Figure 2). TB2 provides the DC outputs; see Table 1 for pin allocation. TB3, TB4 and TB5 are each 2-pin connectors that require a Molex 5045-02A (or equivalent) mating connector. TB3 provides a floating +12V output for use with an auxiliary fan (not supplied). TB4 provides  $\pm$  connections used for remote sensing. TB5 provides connections used to drive an external Power OK LED (not supplied).

Figure 3 shows proper connection of one or more loads. If oscillations set off overvoltage protection, install one electrolytic capacitor (470 $\mu$ F min) between +S and + and one between - and -S terminals.

**TABLE 1. TB2 DC OUTPUT PIN ALLOCATION**

MODEL	OUTPUT TERMINAL												
	1	2	3	4	5	6	7	8	9	10	11	12	
RMW 5-60K	+5V <sup>(1)</sup>		GND						+5V		RTN (+12V)		+12V
RMK 51212K-300	+5V		GND						+12V		-12V	---	
RMW 12-25K	+12V		GND				RTN (+12V)		+12V	---		---	
RMW 15-20K	+15V		GND				RTN (+12V)		+12V	---		---	
RMW 24-12K	+24V	GND		RTN (+12V)		+12V		---		---		---	
RMW 28-11K	+28V	GND		RTN (+12V)		+12V		---		---		---	
RMW 48-6.2K	+48V	GND		RTN (+12V)		+12V		---		---		---	

(1) CAUTION: Limit RMW 5-60K to 15A maximum per output terminal to avoid overheating



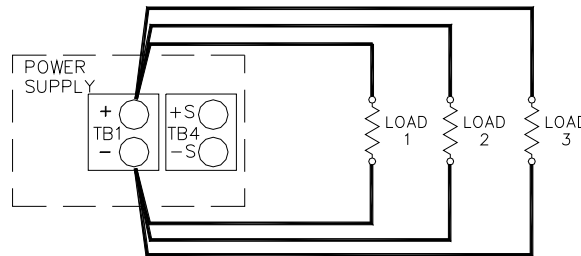
**FIGURE 2. COMPONENT LOCATIONS**

### III — OPERATION

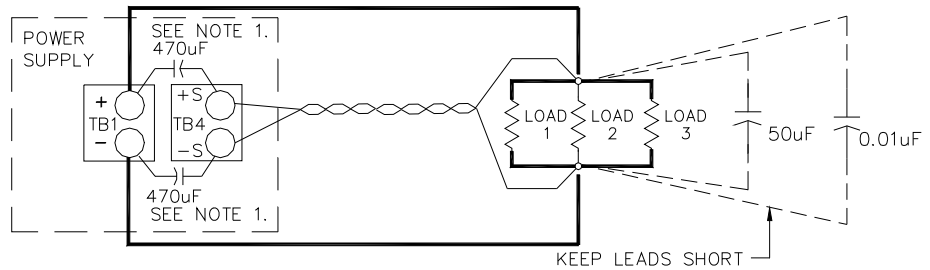
When output voltage is available, the output at TB5 is available to drive an external LED and the +12V output at TB3 is available to power an external cooling fan. The

Output Voltage Adjust trimmer (see Figure 2) allows adjustment of the primary output voltage.

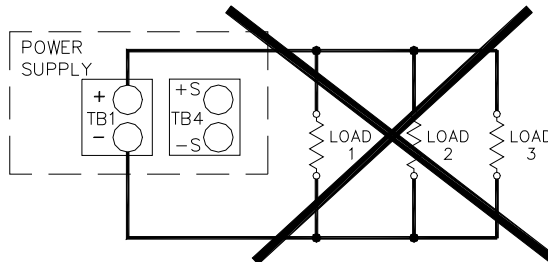
**A**  
CORRECT METHOD  
WITH NO REMOTE SENSING



**B**  
CORRECT METHOD  
WITH SENSING AT LOAD  
(REMOTE SENSING)



**C**  
NOT RECOMMENDED



NOTES:

1. CAPACITORS AT +, +S AND -, -S, PREVENT OSCILLATION AND PREMATURE TRIPPING OF OVERVOLTAGE PROTECTION.
2. CAPACITORS AT LOAD TERMINALS REDUCE RIPPLE.

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**FIGURE 3. LOAD CONNECTIONS**