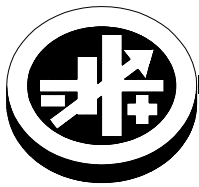


QUICK START GUIDE



KEPCO An ISO 9001 Company.



SINGLE OUTPUT OPEN FRAME POWER SUPPLIES

I — INTRODUCTION

SCOPE OF MANUAL. This Quick Start Guide covers the installation and operation of the Kepco RKW Series of Open Frame, PFC (Power Factor Corrected), RoHS (Reduction of Hazardous Substances) compliant switching power supplies. Full specifications are listed in the applicable Operator Manual that can be downloaded from the Kepco web site:

- 30W: www.kepcopower.com/support/opmanls.htm#rkw30
- 50W: www.kepcopower.com/support/opmanls.htm#rkw50
- 100W: www.kepcopower.com/support/opmanls.htm#rkw100
- 150W: www.kepcopower.com/support/opmanls.htm#rkw150

DESCRIPTION. The Kepco RKW Open Frame Series switching power supplies come in 30W, 50W, 100W and 150W sizes. Each size has 3.3V, 5V, 12V, 15V, 24V and 48V models (the 100W and 150W sizes also have a 28V model). Power Factor Correction (PFC) is included in all models except for the 30W size.

Units may be operated with a nominal 100V a-c to 240V a-c (input voltage range 85 to 265 Va-c), 50-60 Hz (input frequency range 47-66Hz; units operate up to 440Hz although leakage current, power factor and efficiency specifications may not be met). They will also operate on 110V to 370V d-c input. Overvoltage and overcurrent protection is provided. Current limiting with automatic recovery from short circuit is featured. Units are convection cooled L-chassis construction. Steel covers are available as an option (see Table 1).

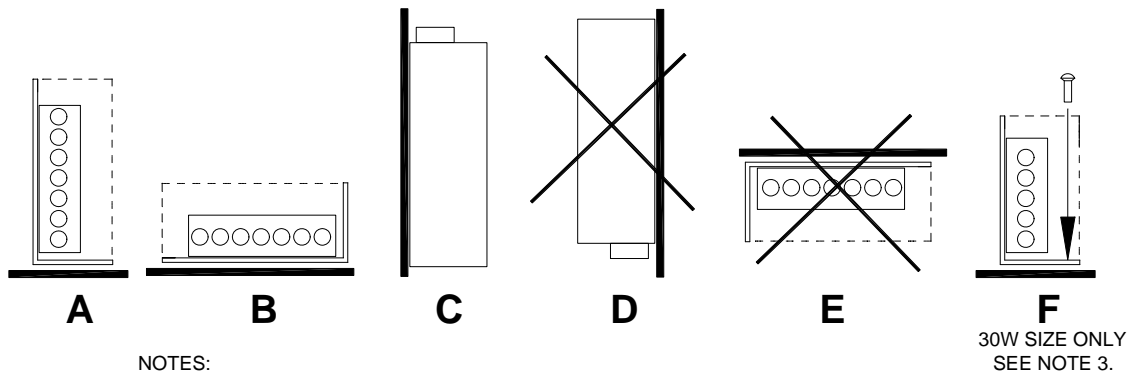
TABLE 1. RKW OPEN FRAME MODELS

SIZE	MODELS							OPTIONAL COVER
	3.3V	5V	12V	15V	24V	28V	48V	
30W	RKW 3.3-7K	RKW 5-6K	RKW 12-2.5K	RKW 15-2K	RKW 24-1.3K	N/A	RKW 48-0.65K	CA 33-R
50W	RKW 3.3-12K	RKW 5-10K	RKW 12-4.3K	RKW 15-3.5K	RKW 24-2.2K	N/A	RKW 48-1.1K	CA 34-R
100W	RKW 3.3-25K	RKW 5-20K	RKW 12-8.5K	RKW 15-7K	RKW 24-4.5K	RKW 28-3.8K	RKW 48-2.1K	CA 35-R
150W	RKW 3.3-35K	RKW 5-30K	RKW 12-13K	RKW 15-10K	RKW 24-6.5K	RKW 28-5.5K	RKW 48-3.3K	CA 36-R

II — INSTALLATION

MOUNTING THE POWER SUPPLY. Refer to Figure 1. The unit may be mounted on one mounting surface. Note the restrictions for maximum penetration of mounting screws (M3 for 30W and 50W size, M4 for 100W and 150W

size): 0.24 in (6 mm) from case. The air surrounding the power supply must not exceed the ambient values given in the graph in Figure 2.



- NOTES:
1. METHODS D AND E ARE NOT RECOMMENDED DUE TO INSUFFICIENT VENTILATION.
 2. REFER TO FIGURE 1 FOR OUTPUT POWER VS. TEMPERATURE FOR MOUNTING METHOD SELECTED.
 3. MOUNTING BY TOP SCREWS ONLY IS NOT RECOMMENDED; VIBRATION/SHOCK SPECIFICATIONS ARE REDUCED AS FOLLOWS: VIBRATION: 9.8M/S²; SHOCK: 98M/S².

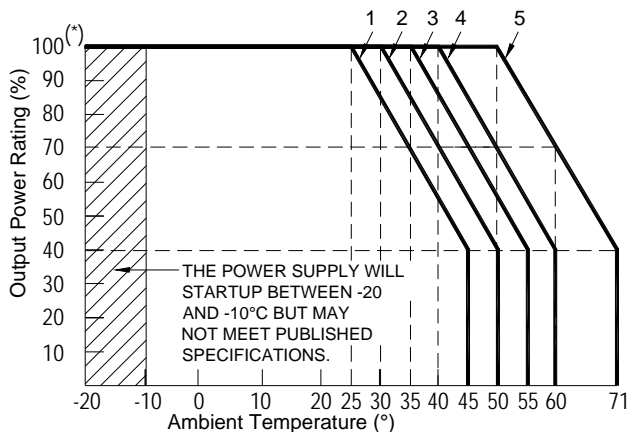
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FIGURE 1. POWER SUPPLY MOUNTING

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Use Mounting, Size (Watts) and whether cover is installed to find correct curve number in Figure 2 below.

MOUNTING (FIG. 1)	30W		50W		100W		150W	
	NO COVER	WITH COVER	NO COVER	WITH COVER	NO COVER	WITH COVER	NO COVER	WITH COVER
A	#5	#4	#5	#3	#5	#4	#5	#4
B	#5	#4	#4	#1	#4	#1	#4	#1
C	#5	#4	#4	#2	#4	#2	#4	#2



3043423 (*) 24 VOLT MODEL: RMS OUTPUT POWER
FIGURE 2. OUTPUT POWER VS. TEMPERATURE

CONNECTIONS (30W SIZE). Connect the load to the power supply Output + and Output - terminals shown in Figure 3. The AC input power is applied via the terminal block. Make sure to connect the AC input Neutral, Line and Ground wires to the respective terminals of the terminal block (see Figure 3).

CONNECTIONS (50W, 100W, 150W SIZES). The AC input power is applied via the terminal block. Connect the AC input Neutral, Line and Ground wires to the respective terminals of the terminal block (see Figure 3). Figure 4 shows proper connection of one or more loads

using either remote or local sensing. **Local or remote sensing must be configured for the unit to work properly.** The unit is shipped with shorting links in place for Local sensing. For remote sensing, remove the shorting links and connect the +S and -S terminals to the load. Remote sensing compensation is up to 0.4V per load wire (0.15V for 3.3V models, 0.25V for 5V models). Transient recovery specs may not be met when remote sensing is used. If oscillations set off overvoltage protection, install one electrolytic capacitor (470µF min) between +S and + and one between - and -S terminals.

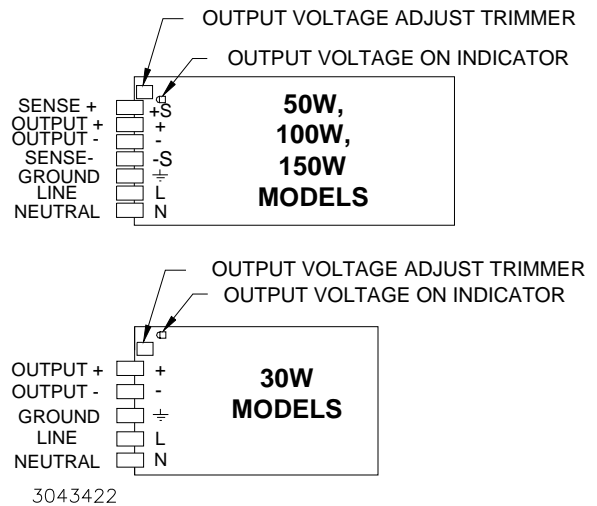
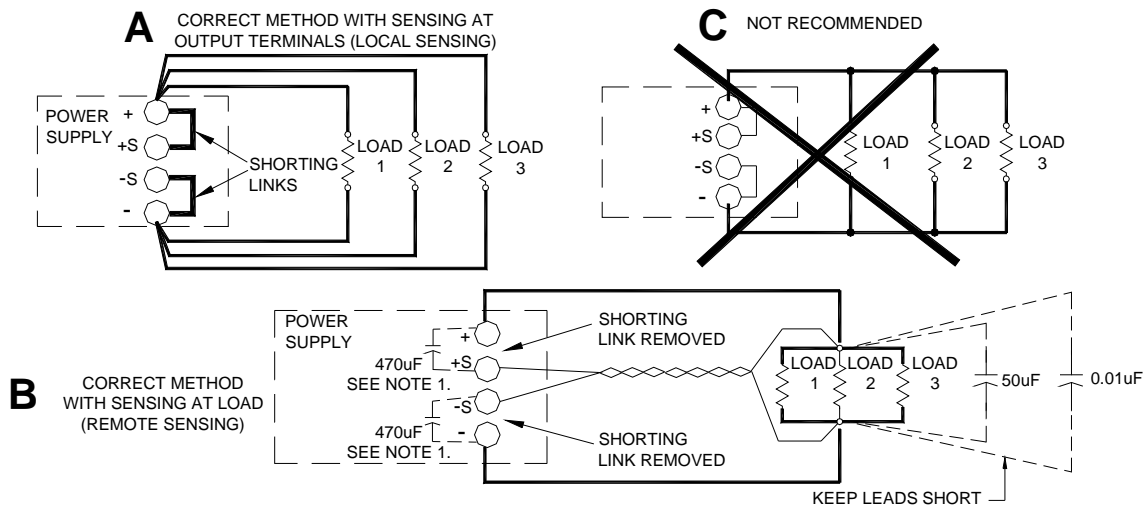


FIGURE 3. COMPONENT LOCATIONS

III — OPERATION

When output voltage is available, the green LED is on. The Output Voltage Adjust trimmer (see Figure 3) allows adjustment of the output voltage. RKW power supplies may be configured in series or parallel, and the 50W, 100W and 150W models have remote voltage programming capability; see Operator Manual listed on page 1 for details.



NOTES:
 1. CAPACITORS PREVENT OSCILLATION AND PREMATURE TRIPPING OF OVERVOLTAGE PROTECTION.
 2. SENSING (EITHER LOCAL OR REMOTE) MUST BE USED, OTHERWISE THE UNIT WILL NOT OPERATE.

FIGURE 4. LOAD CONNECTIONS (50W, 100W, 150W SIZES)