# THE KEPCO POWER ASSEMBLY PROGRAM



Typical Kepco power assemblies illustrating the range of front and rear panel display, controls and connectors

#### FEATURES

- Multiple outputs. Up to 10 independent outputs per rack. Up to 4500 watts in a single 3U (5 1/4") high rack.
- N+1 redundancy with plug-in hot swap capability.
- Mix linear, switching and ferroresonant stabilizing technologies to do the job.
- Choose a mix of meters, displays, trimmers, test points, switches or circuit breakers for the panel.

Kepco's power assembly program allows you to specify custom-configured arrays of volt-ampere combinations in rack mount housings of various sizes from 1U to 5U height  $(1 \ \frac{3}{4}" \sim 8 \ \frac{3}{4}")$ . Kepco's variety of single- and multi-output power modules offers a selection of output voltages from a nominal 3.3 volts to a nominal 48 volts. Power levels range from 15 watts to 1500 watts. For higher voltage we can easily connect modules in series and can parallel them to increase current capability or provide redundancy. Select from switchmode modules for fixed or trimmable outputs, or linear series-pass modules for analog-programmable applications. Digitally programmable (IEEE 488.2) plug-in power supplies are available for test applications.

Kepco power modules have either selectable 115-230 volt inputs or wide range (85-264 volt) inputs. Many sizes are available with Power Factor Correction (PFC). Models with d-c inputs (12V-150V d-c) are also available.

Specify the combinations needed, up to 8 outputs per assembly or more in bolt-down style. Select front panel components: meters, LEDs, test points, trimmers, etc. Select rear panel components: a-c or d-c input connections and barrier strips for the d-c output. We can mark the terminals as required and custom screen and paint the panels.

Kepco's power assemblies are a good solution to the need for multiple output power supplies in industrial test applications.







Series JBW 10~30W



Series RKW 30~1500W



Series FAW 15~150W



Series HSM 1000W/1500W



Series RAX 50~300W



Series RCW 350~1500W

## Standard Off-The-Shelf Bolt-Down Power Modules

Kepco will select suitable modules from the whole of our standard catalog line. This catalog details the specs on most of the available modules. Generally we select power supplies from among our JBW, FAW, HSM, RAX, RCW or RKW products, for bolt-down assemblies, and our PAT and PTR modules for analog-programmable requirements. If the requirement demands, we'll recommend other appropriate modules.

#### Table of Voltage and Power Available from Standard Kepco Bolt-Down Power Modules

NOMINAL VOLTAGE							
SINGLE OUTPUT MODULES							
	3.3V	5V	12V	15V	24V	28V	48V
10W	x	x	x	x	x		
15W		Х	Х	Х	Х		
25W		х	х	х	x		
30W	x	х	x	x	x		x
50W	х	х	Х	x	х		х
100W	x	x	x	x	x	x	x
150W	x	х	x	x	x	x	x
175W	х	х	х	x	x	x	x
300W	x	х	x	x	x	x	x
350W	х	х	X	x	x	x	x
600W	х	Х	X	х	x	х	х
750W	x	x	x	x	x	x	x
1000W	х	х	х	x	х	x	х
1500W	x	х	X	x	x	x	x
MULTI OUTPUT MODULES							
35-65W	5V, ±12V and ±15V						
PROGRAMMABLE LINEAR MODULES							
20-50W	50W 0-7V, 0-15V, 0-21V, 0-40V, 0-72V and 0-100V						



This is an assembly that was made for a major aero-space manufacturer. It is comprised of two linear power modules (PAT and PTR) and two 100W switch-mode modules (RAX). A thirdparty high voltage unit is also installed together with splitters to derive multiple HV outputs. A remote control circuit sequences the outputs on and off.

KEPCO, INC. • 131-38 Sanford Avenue • Flushing, NY 11352 USA • Tel: (718) 461-7000 • Fax: (718) 767-1102 Email: hq@kepcopower.com • www.kepcopower.com/custompa.htm Kepco offers a selection of front panel options for the bolt-down power assemblies. They are configured in multiples of 1/8" widths in a 3U (5.25") height. A total of 8/8 such panels fully populate a Power Assembly's front panel. The illustrations show our selection of on-off switches and circuit breakers, meters, LEDs, trimmer controls, test points for monitoring, etc. Filler panels are available in all widths to complete the assembly.

The rear panel parts include a-c and d-c input connectors, a variety of d-c output terminal blocks, vent panels and fans. These, too, are arranged in multiples of 1/8th panel width and should total 8/8. Blank fillers are available in all sizes.

Kepco has an array of precision current sensing resistors that we will wire as requested to provide current monitoring functions for the bolt-down assemblies. These are 50W and 100W low drift resistors in small ohmic ratings.

Kepco can provide relays, diodes, chassis mounting slides and other special-purpose components as required. Contact the Kepco sales offices for other options.

### **Rack Adapters**

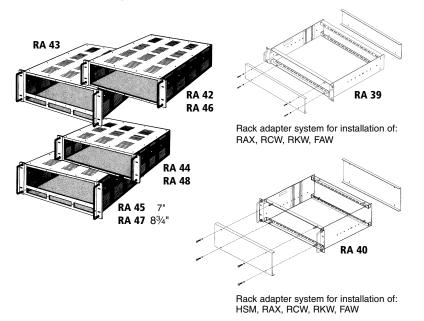
н	w	D	MODEL	н	w	D
3 <sup>1</sup> /2"	19"	15"	RA 47*	8 <sup>3</sup> /4"	19"	24"
5 <sup>1</sup> ⁄4"	19"	15"	RA 48	5 <sup>1</sup> ⁄4"	19"	15"
5 <sup>1</sup> ⁄4"	19"	21"	RA 73	3 <sup>1</sup> /2"	24"	16"
7"	19"	21"	RA 74	5 <sup>1</sup> ⁄4"	24"	16"
5 <sup>1</sup> ⁄4"	19"	16"	RA 75	1 <sup>3</sup> /4"	24"	16"
7"	19"	16"	RA 76	3 <sup>1</sup> /2"	19"	16"
5 <sup>1</sup> ⁄4"	19"	24"				
	3 <sup>1</sup> /2" 5 <sup>1</sup> /4" 5 <sup>1</sup> /4" 7" 5 <sup>1</sup> /4" 7"	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	3 <sup>1</sup> / <sub>2</sub> " 19" 15" RA 47*   5 <sup>1</sup> / <sub>4</sub> " 19" 15" RA 48   5 <sup>1</sup> / <sub>4</sub> " 19" 21" RA 73   7" 19" 21" RA 74   5 <sup>1</sup> / <sub>4</sub> " 19" 16" RA 75   7" 19" 16" RA 76	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	$\begin{array}{cccccccccccccccccccccccccccccccccccc$

\*Supplied with various vented and solid front and rear filler panels.

Vented filler panel

Solid filler panel

The RA 39 and RA 40 rack mount systems are designed to allow you to combine a variety of switching power modules in a standard 19" equipment housing.



### Accessories for the Power Assembly Program

#### EMI FILTERS

For extra attenuation of conducted EMI as required.

Recommended power supplies offer the following levels of internal filtration:

FAW — FCC B	RAX — FCC A
HSM — FCC A	RCW — FCC A
KRW — FCC B	RKW — FCC B
	Conducted
	and Radiated

#### **CURRENT SENSING RESISTORS**

Provide voltage drop proportional to load current. Choose the resistor which provides 0-0.2V full scale for current of the power supply being measured.

MODEL	RESISTANCE	CURRENT DISPLAY
KT 1915	$1.0\Omega$	0-199.9mA
KT 2356	$0.1\Omega$	0-1.999A
KT 2713	$0.01\Omega$	0-19.99A
KT 2714	$0.001\Omega$	0-40.0A
KT 2780	$0.001\Omega$	0-100.0A
KT 2796	$0.001\Omega$	0-500.0A
KT 3040	$0.001\Omega$	0-500.0A

#### **POWER FAIL DETECTOR**

MODEL PFD 01

Detects loss of a-c within 5-8.3 msec; provides optically isolated signal.

#### ACCESSORY POWER SUPPLY TO ENERGIZE DVMs MODEL DMS 2X9

Mounts internally, powers 2 DVMs.

#### **RACK ADAPTERS FOR 24" RACK CABINETS**

MODEL

3 <sup>1</sup> / <sub>2</sub> " panel height
NOTE: Custom front and rear panel elements
required.
5 <sup>1</sup> /4" panel height
NOTE: Standard front and rear panel element.
fit in this rack adapter.

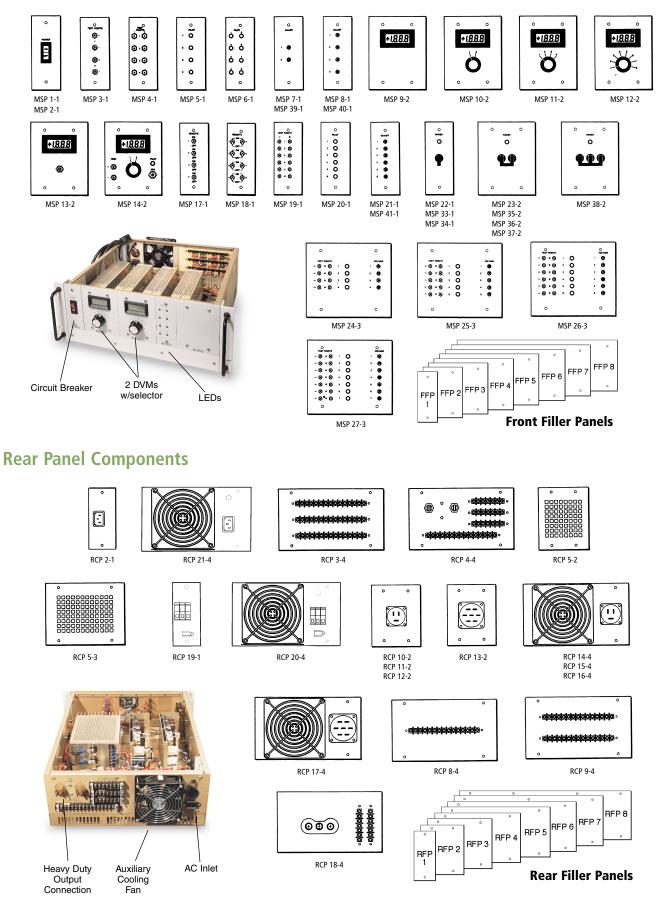
CHASSIS SLIDES\*

MODEL	SIZE
<b>CS 01</b> (pr.)	20" deep
<b>CS 02</b> (pr.)	22" deep
<b>CS 03</b> (pr.)	24" deep

\*For other chassis slides, please consult factory.



### **Front Panel Components**



KEPCO, INC. • 131-38 Sanford Avenue • Flushing, NY 11352 USA • Tel: (718) 461-7000 • Fax: (718) 767-1102 Email: hg@kepcopower.com • www.kepcopower.com/custompa.htm



This compact 1U high assembly containing two low-profile FAW series power modules was created for a company producing analytical systems



Kepco made a custom panel and chassis for this customer and installed the power modules and delivered it for completion by the customer

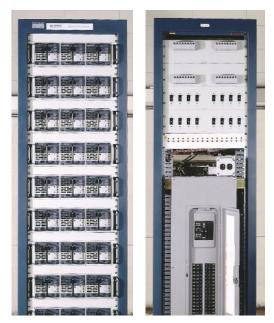


An aerospace customer uses this large power assembly containing six power modules, including a 28V, 26A output. Kepco wires, tests, delivers and warrants the completed package incorporating some user-specified filters

### **Custom Power Assemblies**



Kepco does custom rack and stack assemblies using our large variety of instrument-grade power supplies 50W-1000W



Above left shows the front view of a large rack assembly containing 1500W HSP plug-in models. On the right is the rear view.

