

## KA3005PE+ PROGRAMMABLE DC LINEAR POWER SUPPLY



### Product Description

The KA3005PE+ Linear Programmable DC power supply features industrial-grade performance with communication control via USB, RS232, RS485, and MODBUS. Its fully digital control ensures accurate voltage and current output. All with precision encoder adjustment and memory locations with dedicated buttons for fast recall. This unit also features over-voltage, over-current, and reverse polarity protections. All of this delivered with low-noise and an intelligent temperature-controlled fan.

### Key Features

- Digitally-controlled power supply
- 4-digit display
- Intelligent temperature-controlled fan with speed controlled by heat temperature and output power
- Compact Design
- 10 mV /1 mA resolution
- Low noise and ripple
- CV / CC automatic switching
- Output ON/OFF control
- Voltage, Amperage, and Wattage Readout
- 5 sets of parameters can be stored for fast recall
- Fine & coarse adjustment for voltage and current
- Software calibration
- Panel LOCK function
- Settable OCP and OVP
- Reverse polarity protection
- Communication Control via USB, RS232, RS485, and MODBUS.



## Specifications

Model	KA3003DS/ KA3003DE/ KA3003DEA/ KA3003PS/ KA3003PE/ KA3003PEA/ KA3003PEA+	KA3005DS/ KA3005DE/ KA3005DEA/ KA3005PS/ KA3005PE/ KA3005PEA/ KA3005PEA+	KA6002DS/ KA6002DE/ KA6002DEA/ KA6002PS/ KA6002PE/ KA6002PEA/ KA6002PEA+	KA6003DS/ KA6003DE/ KA6003DEA/ KA6003PS/ KA6003PE/ KA6003PEA/ KA6003PEA+	KA3010DS/ KA3010DE/ KA3010DEA/ KA3010PS/ KA3010PE/ KA3010PEA/ KA3010PEA+	KA6005DS/ KA6005DE/ KA6005DEA/ KA6005PS/ KA6005PE/ KA6005PEA/ KA6005PEA+
Voltage Range	0-30V	0-30V	0-60V	0-60V	0-30V	0-60V
Current Range	0-3A	0-5A	0-2A	0-3A	0-10A	0-5A
<b>Load Regulation</b>						
Voltage	$\leq 0.01\% + 2\text{mV}$	$\leq 0.01\% + 2\text{mV}$	$\leq 0.01\% + 2\text{mV}$	$\leq 0.01\% + 2\text{mV}$	$\leq 0.01\% + 3\text{mV}$	$\leq 0.01\% + 2\text{mV}$
Current	$\leq 0.1\% + 5\text{mA}$ $\leq 0.1\% + 10\text{mA}$	$\leq 0.1\% + 5\text{mA}$	$\leq 0.1\% + 5\text{mA}$	$\leq 0.1\% + 5\text{mA}$	$\leq 0.1\% + 20\text{mA}$	$\leq 0.1\% + 10\text{mA}$
<b>Line Regulation</b>						
Voltage	$\leq 0.01\% + 3\text{mV}$	$\leq 0.01\% + 3\text{mV}$	$\leq 0.01\% + 3\text{mV}$	$\leq 0.01\% + 3\text{mV}$	$\leq 0.01\% + 3\text{mV}$	$\leq 0.01\% + 3\text{mV}$
Current	$\leq 0.1\% + 3\text{mA}$	$\leq 0.1\% + 3\text{mA}$	$\leq 0.1\% + 3\text{mA}$	$\leq 0.1\% + 3\text{mA}$	$\leq 0.1\% + 3\text{mA}$	$\leq 0.1\% + 3\text{mA}$
<b>Setup Resolution</b>						
Voltage	10mV	10mV	10mV	10mV	10mV	10mV
Current	1mA	1mA	1mA	1mA	1mA	1mA
<b>Setup Accuracy (25°C to -5°C)</b>						
Voltage	$\leq 0.5\% + 20\text{mV}$	$\leq 0.5\% + 20\text{mV}$	$\leq 0.5\% + 30\text{mV}$	$\leq 0.5\% + 30\text{mV}$	$\leq 0.5\% + 20\text{mV}$	$\leq 0.5\% + 30\text{mV}$
Current	$\leq 0.5\% + 3\text{mA}$	$\leq 0.5\% + 5\text{mA}$	$\leq 0.5\% + 3\text{mA}$	$\leq 0.5\% + 3\text{mA}$	$\leq 0.5\% + 10\text{mA}$	$\leq 0.5\% + 5\text{mA}$
<b>Ripple (20-20m)</b>						
Voltage	$\leq 1\text{mVrms}$	$\leq 2\text{mVrms}$	$\leq 1\text{mVrms}$	$\leq 1\text{mVrms}$	$\leq 2\text{mVrms}$	$\leq 1\text{mVrms}$
Current	$\leq 3\text{mVrms}$	$\leq 3\text{mVrms}$	$\leq 3\text{mVrms}$	$\leq 3\text{mVrms}$	$\leq 5\text{mVrms}$	$\leq 3\text{mVrms}$
<b>Temperature Coefficient</b>						
Voltage	$\leq 150\text{ppm}$	$\leq 150\text{ppm}$	$\leq 150\text{ppm}$	$\leq 150\text{ppm}$	$\leq 150\text{ppm}$	$\leq 150\text{ppm}$
Current	$\leq 150\text{ppm}$	$\leq 150\text{ppm}$	$\leq 150\text{ppm}$	$\leq 150\text{ppm}$	$\leq 150\text{ppm}$	$\leq 150\text{ppm}$
<b>Read Back Accuracy</b>						
Voltage	10mV	10mV	10mV	10mV	10mV	10mV
Current	1mA	1mA	1mA	1mA	1mA	1mA
<b>Read Back Temperature Coefficient</b>						
Voltage	$\leq 150\text{ppm}$	$\leq 150\text{ppm}$	$\leq 150\text{ppm}$	$\leq 150\text{ppm}$	$\leq 150\text{ppm}$	$\leq 150\text{ppm}$
Current	$\leq 150\text{ppm}$	$\leq 150\text{ppm}$	$\leq 150\text{ppm}$	$\leq 150\text{ppm}$	$\leq 150\text{ppm}$	$\leq 150\text{ppm}$
<b>Reaction Time</b>						
Voltage Rise	$\leq 100\text{ms}$	$\leq 100\text{ms}$	$\leq 100\text{ms}$	$\leq 100\text{ms}$	$\leq 100\text{ms}$	$\leq 100\text{ms}$
Voltage Drop	$\leq 100\text{ms}$ (10% rated load)	$\leq 100\text{ms}$ (10% rated load)	$\leq 100\text{ms}$ (10% rated load)	$\leq 100\text{ms}$ (10% rated load)	$\leq 100\text{ms}$ (10% rated load)	$\leq 100\text{ms}$ (10% rated load)
<b>Analog Programming: 0-10V control (only for some models)</b>						
External voltage control output voltage			Accuracy and linearity: $\pm 0.1\%$ of rated output voltage + 15mv.			
External voltage control output current			Accuracy and linearity: $\pm 0.5\%$ of rated output current + 5mA.			

