

PCX-MAT MODEL TABLE

MODEL	d-c OUTPUT RANGE		OUTPUT IMPEDANCE			
	VOLTS	AMPS	VOLTAGE MODE SERIES R	SERIES L	CURRENT MODE SHUNT R	SHUNT C
PCX 7-2MAT	0-7	0-2	0.2mΩ	1μH	250KΩ	500μF
PCX 15-1.5MAT	0-15	0-1.5	0.5mΩ	1μH	333KΩ	225μF
PCX 21-1MAT	0-21	0-1	1.0mΩ	1μH	500KΩ	150μF
PCX 40-0.5MAT	0-40	0-0.5	4.0mΩ	1μH	1.0MΩ	100μF
PCX 72-0.3MAT	0-72	0-0.3	12.0mΩ	1μH	1.6MΩ	50μF
PCX 100-0.2MAT	0-100	0-0.2	25.0mΩ	1μH	2.5MΩ	40μF
PCX 200-0.1MAT	0-200	0-0.1	100.0mΩ	1μH	10.0MΩ	30μF

CC & PCX-MAT GENERAL SPECIFICATIONS

SPECIFICATION	CONDITION	RATING/DESCRIPTION
INPUT		
Voltage	User selectable	105-125/210-250V a-c
Current	Max load, 115V a-c	0.6A rms
Frequency		50-440Hz
OUTPUT		
Current adjustment (PCX-MAT)	0-71°C	0-100% of rating range
Voltage limiting (CC)	Fixed	150-200% of rated load compliance voltage
Error sense (PCX-MAT)	Static voltage allowance	0.5V per load wire
Voltage recovery	Step load change between 10% and 100% I_o max	50 μ sec typ, 100 μ sec max
Isolation voltage	Output to ground	500V d-c or peak
Leakage current, Output to ground	rms at 115V a-c	5 microamperes
	p-p at 115V a-c	50 microamperes
Series connection (PCX-MAT)	Max voltage off ground	500V
Parallel connection	—	No restrictions
OVP	—	Not available

CC & PCX-MAT GENERAL SPECIFICATIONS

SPECIFICATION	CONDITION	RATING/DESCRIPTION
CONTROL		
Type (PCX-MAT)	Voltage	Fixed input, variable gain
Voltage (PCX-MAT)	Local	10-turn precision rheostat
	Remote analog	1000 Ohms/Volt or by control voltage delivering 0-1mA
	Remote digital	Use SN digital to analog converter
Type (CC)	Current	Fixed ref. variable gain
Current (CC)	Local	10-turn precision rheostat
	Remote analog	0-10,000 Ohm resistor, or by control voltage delivering 0-100 μ A
Dynamics Programming speed		$dV/dt=I/C$ (see tabulated C) in the model table
MECHANICAL		
Input/output connections	Source power, d-c output, sense, & control terminals	Male PC connector mates with built-in socket in bench or rack housing
	Output monitoring	Front panel
Meters	Front panel analog	Two 2" \pm 3% horizontal
Indicators	One neon	Power on
Mounting	See Mounting	Fits in single slot of rack or bench housing
Cooling	Convection	Top surface
Dimensions (H x W x D)	Inches	5 $\frac{7}{32}$ x 2 $\frac{25}{32}$ x 14 $\frac{15}{16}$
	mm	132.6 x 70.6 x 379.4
Finish; Fed Std 595	Front panel	Gray color 26440
Weight	Packed for shipment	8lbs (3.6Kg)

STATIC SPECIFICATIONS

INFLUENCE QUANTITY	
Source: 105-125/210-250V a-c	
Load: 10% load - 100% load	
Time: 8 hours (drift)	
Temperature: Per °C	
Ripple and Noise ⁽²⁾	rms pp ⁽³⁾

PCX-MAT

OUTPUT EFFECTS VOLTAGE MODE	VOLTAGE AMPLIFIER OFFSETS		VOLTAGE REFERENCE (INTERNAL)
	ΔE_o	ΔI_o	
<0.0005%	<10 μ V	<2nA	0.0001%
<0.005% or 0.2mV ⁽¹⁾	<200 μ V	<6nA	—
<0.01% or 1mV ⁽¹⁾	<20 μ V	<2nA	0.005%
<0.01% ⁽⁴⁾	<20 μ V	<5nA	0.005%
<0.1mV	—	—	—
<3mV	—	—	—

Fractional dimensions in light face type are in inches, dimensions in bold face type are in millimeters.

Tolerance: $\pm 1/64$ " (0.4) between mounting holes; $\pm 1/32$ " (0.8) other dimensions

