



Agilent E363xA Series Programmable DC Power Supplies

Data Sheet



Anticipate — Accelerate — Achieve



Agilent Technologies

E3631A/32A/33A/34A Programmable DC Power Supply Specifications

Model Number	E3631A			E3632A	E3633A	E3634A
	1	2	3			
DC Output Rating (0 °C to 40 °C)	0 to +6 V, 0 to 5 A	0 to +25 V, 0 to 1 A	0 to -25 V, 0 to 1 A	0 to 15 V/7 A or 0 to 30 V/4 A	0 to 8 V/20 A or 0 to 20 V/10 A	0 to 25 V/7 A or 0 to 50 V/ 4 A
Load Regulation ± (% of output + offset)				< 0.01% + 2 mV < 0.01% + 250 µA		
Line Regulation ± (% of output + offset)				< 0.01% + 2 mV < 0.01% + 250 µA		
Ripple and Noise (20 Hz to 20 MHz)						
Normal Mode Voltage	< 350 µVrms/2 mVpp			< 350 µVrms/3 mVpp	< 500 µVrms/ 3 mVpp	
Normal Mode Current	< 2 mArms	< 500 µArms		< 2 mArms		
Common Mode Current	< 1.5 µArms					
Accuracy¹ 12 Months (25 °C + 5 °C), ± (% output + offset)						
Programming						
Voltage	0.1% + 5 mV	0.05% + 20 mV		0.05% + 10 mV		
Current	0.2% + 10 mA	0.15% + 4 mA		0.2% + 10 mA		
Readback ²						
Voltage	0.1% + 5 mV	0.05% + 10 mV		0.05% + 5 mV		
Current	0.2% + 10 mA	0.15% + 4 mA		0.15% + 5 mA		
Resolution						
Program	0.5 mV/0.5 mA	1.5 mV/0.1 mA		1 mV/0.5 mA	1 mV/1 mA	3 mV/0.5 mA
Readback	0.5 mV/0.5 mA	1.5 mV/0.1 mA		0.5 mV/0.1 mA	0.5 mV/1 mA	1.5 mV/0.5 mA
Meter	1 mV/1 mA	10 mV/1 mA		1 mV/1 mA	1 mV/1 mA (< 10A), 10 mA (≥ 10 A)	
Transient Response	Less than 50 µsec for output to recover to within 15 mV following a change in output current from full load to half load or vice versa					
Command Processing Time³	< 50 msec			< 100 msec		
OVP/OCP						
Accuracy ± (% output + offset)	N/A			0.5% + 0.5 V/0.5% + 0.5 A		
Activation Time	N/A			1.5 msec, OVP ≥ 3 V/< 10 msec, OVP < 3 V and OCP < 10 msec		
Temperature Coefficient per °C (% output + offset)						
Voltage	0.01% + 2 mV	0.01% + 3 mV				
Current	0.02% + 3 mA	0.02% + 0.5 mA		0.02% + 3 mA		
Stability , constant load & temperature ± (% of output + offset), 8 hrs						
Voltage	0.03% + 1 mV	0.02% + 2 mV		0.02% + 1 mV		
Current	0.1% + 3 mA	0.05% + 1 mA		0.1% + 1 mA		
Remote Sense (max. voltage in each load lead)	N/A			1 V	0.7 V	
Voltage Programming Speed , to within 1% of total excursion						
Up	Full Load	11 msec	50 msec	50 msec	95 msec	80 msec
	No Load	10 msec	20 msec	20 msec	45 msec	100 msec
Down	Full Load	13 msec	45 msec	45 msec	30 msec	30 msec
	No Load	200 msec	400 msec	400 msec	450 msec	450 msec

¹ Accuracy specifications are valid after a 1-hour warm-up and calibration at 25 °C.

² Accuracy refers to readback over GPIB and RS-232 or front panel with respect to actual output.

³ Maximum time for output to change after receipt of commands.

Model Number	E3631A			E3632A	E3633A	E3634A
	1	2	3			
AC Input (47 Hz – 63 Hz)	100 Vac ±10% (Opt 0E9)/115 Vac ±10% (Std)/230 Vac ±10% (0E3)					
Dimensions	213 x mm W x 133 mm H x 348 mm D (8.4 x 5.2 x 13.7 in)					
Weight	8.2 kg (18 lbs) net, 11 kg (24 lbs) shipping			9.5 kg (21 lbs) net, 12 kg (26 lbs) shipping		
Warranty	Three years for E363xA series power supplies Three months for standard shipped accessories					
Product Regulation	Certified to CSA 22.2 No. 231 (for E3631A), No. 1010.1 (for E3632A/33A/34A); conforms to IEC 1010-1; carries CE marks; complies with CISPR-11, Group 1, Class A					

Ordering Information

E3630 Series Power Supplies
E3631A 80-Watt
Triple Power Supply
E3632A 120-Watt
Single Power Supply
E3633A/34A 200-Watt
Single Power Supply

Standard Shipped Accessories

User's & Service guide, Product
Reference CD, AC power cord

Power Options

Opt. 0E3 230 Vac ± 10%
Opt. 0EM 115 Vac ± 10%
Opt. 0E9 100 Vac ± 10%

Other Options

Opt. 0L2 Extra manual sets
Opt. 1CM Rackmount kit*
Opt. UK6 Commercial calibration
with test result data
E3600A-100 Test lead kit

Rackmount Kits*

Agilent E3631A/32A/33A/34A
To rackmount two instruments side-
by-side
Lock-link Kit (P/N 5061-9694)
Flange Kit (P/N 5063-9214)
To rackmount one or two instruments
in a sliding support shelf
Support Shelf (P/N 5063-9256)
Slide Kit (P/N 1494-0015) required
for support shelf

* Rackmounting with 1CM or
lock-link/flange kit requires
Agilent or customer support rails
Agilent Support Rails-E3663AC



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