



Agilent DC Power Supply Selection Guide

Use this Selection Guide to find the exact model number for your application



Power Supply Categories

Since dc power supplies are used in such a wide variety of applications, Agilent offers a full line of dc power supplies to meet your test requirements. Our family starts with high-value basic power supplies and goes up to high performance products. In addition, we have specialty power supplies and two modular power supplies to give you the flexibility you need in test system development.

Basic

Affordable, quiet, and stable power supplies for both manual and simple computer controlled operation. The Agilent line of basic power supplies is optimized to provide dc power in applications where speed and accuracy are a low consideration. These power supplies are a high value fit for the bench and in a system rack.

Performance

Speed, accuracy, and advanced programming features make the performance power supplies the right choice when the dc power supply is a factor in test performance. With features such as DUT protection, fast programming times, downloadable V&I sequences, these dc power supplies can reduce your risk of test and system development.

Specialty

For specific applications, Agilent has developed dc power supplies with critical performance. For example, the mobile communications power supplies are excellent performers in test systems where the reactance of the test leads is a significant factor. No longer will you have to compensate or sub-optimize your test system design.

Modular

Agilent designed fully programmable power supplies in a modular format, the N6700 low profile modular power system and 66000 modular power system series. With this feature you now have an extensive choice of power options—from basic through performance. Additionally, all modules interact in the same way at a single interface node which simplifies system architecture and reduces cost when the test system inevitably changes.

DC Power Supply Selection Index

Instructions

1. From the list below, match *voltage*, *current*, or *power* to requirements of the application.
2. Go to the **Feature vs. Model Numbers table** and match additional features.

Note: Contact Agilent if you do not find a match to the Volts, Amp, and/or Watts.

Maximum Volts	Maximum Amps	Maximum Watts	Number of Outputs	Model	Type
5	10	50	1	N6731B	Basic Module
5	20	100	1	N6741B	Basic Module
5	875	4400	1	6680A	Performance
6	2.5	15	3	E3630A	Basic
6	5	30	3	E3631A	Basic
6	100	600	1	N5741A	Basic
6	180	1080	1	N5761A	Basic
8	3	24	1	E3640A	Basic
8	3	24	2	E3646A	Basic
8	3	30	1	E3610A	Basic
8	5	40	1	6611C	Performance
8	5	40	1	E3642A	Basic
8	5	40	2	E3648A	Basic
8	6	48	1	E3614A	Basic
8	6.25	50	1	N6732B	Basic Module
8	8	80	1	E3644A	Basic
8	10	80	1	6631B	Performance
8	12.5	100	1	N6742B	Basic Module
8	16	128	1	66101A	Performance Module
8	20	160	1	6541A	Performance
8	20	160	1	6641A	Performance
8	20	160	1	E3633A	Basic
8	50	400	1	6551A	Performance
8	50	400	1	6651A	Performance
8	90	720	1	N5742A	Basic
8	165	1320	1	N5762A	Basic
8	220	1760	1	6571A	Performance
8	220	1760	1	6671A	Performance
8	580	4600	1	6681A	Performance

DC Power Supply Selection Index (Continued)

Maximum Volts	Maximum Amps	Maximum Watts	Number of Outputs	Model	Type
12	1.5	18	2	66309B	Specialty
12	1.5	18	2	66309D	Specialty
12	1.5	18	2	66319B	Specialty
12	1.5	18	2	66319D	Specialty
12.5	60	750	1	N5743A	Basic
12.5	120	1500	1	N5763A	Basic
15	2	30	1	E3610A	Basic
15	3	45	2	66309B	Specialty
15	3	45	2	66309D	Specialty
15	3	45	1	66311B	Specialty
15	3	45	2	66319B	Specialty
15	3	45	2	66319D	Specialty
15	3	45	2	66321B	Specialty
15	3	45	2	66321D	Specialty
15	440	6600	1	6690A	Performance
20	0.5	10	3	E3630A	Basic
20	1.5	30	1	E3611A	Basic
20	1.5	30	1	E3640A	Basic
20	1.5	30	2	E3646A	Basic
20	2	40	1	6612C	Performance
20	2.5	50	1	E3642A	Basic
20	2.5	50	2	E3648A	Basic
20	2.5	50	1	N6733B	Basic Module
20	3	60	1	E3615A	Basic
20	4	80	1	E3644A	Basic
20	5	100	1	6632B	Performance
20	5	100	1	66332A	Specialty
20	5	100	1	N6743B	Basic Module
20	7.5	150	1	66102A	Performance Module
20	10	200	1	6542A	Performance
20	10	200	1	6642A	Performance
20	10	200	1	E3633A	Basic
20	15	300	1	N6773A	Basic Module
20	25	500	1	6552A	Performance
20	25	500	1	6652A	Performance
20	38	760	1	N5744A	Basic
20	76	1520	1	N5764A	Basic
20	100	2000	1	6572A	Performance
20	100	2000	1	6672A	Performance
21	240	5000	1	6682A	Performance

DC Power Supply Selection Index (Continued)

Maximum Volts	Maximum Amps	Maximum Watts	Number of Outputs	Model	Type
25	1	25	2	E3620A	Basic
25	1	25	3	E3631A	Basic
25	7	175	1	E3634A	Basic
30	4	120	1	E3632A	Basic
30	25	750	1	N5745A	Basic
30	50	1500	1	N5765A	Basic
30	220	6600	1	6691A	Performance
32	160	5100	1	6683A	Performance
35	0.8	28	2	E3647A	Basic
35	0.8	30	1	E3641A	Basic
35	0.85	30	1	E3611A	Basic
35	1.4	49	2	E3649A	Basic
35	1.4	50	1	E3643A	Basic
35	1.5	50	1	N6734B	Basic Module
35	1.7	60	1	E3616A	Basic
35	2.2	80	1	E3645A	Basic
35	3	100	1	N6744B	Basic Module
35	4.5	150	1	66103A	Performance Module
35	6	210	1	6543A	Performance
35	6	210	1	6643A	Performance
35	8.5	300	1	N6774A	Basic Module
35	15	525	1	6553A	Performance
35	15	525	1	6653A	Performance
35	60	2100	1	6573A	Performance
35	60	2100	1	6673A	Performance
40	19	760	1	N5746A	Basic
40	38	1520	1	N5766A	Basic
40	128	5100	1	6684A	Performance
50	1	50	1	6613C	Performance
50	1.5	50	1	N6761A	Performance Module
50	2	100	1	6633B	Performance
50	3	100	1	N6762A	Performance Module
50	4	200	1	E3634A	Basic
50	5	50	1	N6751A	Performance Module
50	10	100	1	N6752A	Performance Module

DC Power Supply Selection Index (Continued)

Maximum Volts	Maximum Amps	Maximum Watts	Number of Outputs	Model	Type
60	0.5	30	1	E3612A	Basic
60	0.5	30	1	E3641A	Basic
60	0.5	30	2	E3647A	Basic
60	0.8	48	2	E3649A	Basic
60	0.8	50	1	E3643A	Basic
60	0.8	50	1	N6735B	Basic Module
60	1	60	1	E3617A	Basic
60	1.3	80	1	E3645A	Basic
60	1.6	100	1	N6745B	Basic Module
60	2.5	150	1	66104A	Performance Module
60	3.5	210	1	6544A	Performance
60	3.5	210	1	6644A	Performance
60	5	300	1	N6775A	Basic Module
60	9	540	1	6554A	Performance
60	9	540	1	6654A	Performance
60	12.5	750	1	N5747A	Basic
60	25	1500	1	N5767A	Basic
60	35	2100	1	6574A	Performance
60	35	2100	1	6674A	Performance
60	110	6600	1	6692A	Performance
65	8	480	1	E4350B	Specialty
70/80	30/26	2000	1	E4356A	Specialty
80	9.5	760	1	N5748A	Basic
80	19	1520	1	N5768A	Basic
100	0.5	50	1	6614C	Performance
100	0.5	50	1	N6736B	Basic Module
100	1	100	1	6634B	Performance
100	1	100	1	N6746B	Basic Module
100	3	300	1	N6776A	Basic Module
100	7.5	750	1	N5749A	Basic
100	15	1500	1	N5769A	Basic

DC Power Supply Selection Index (Continued)

Maximum Volts	Maximum Amps	Maximum Watts	Number of Outputs	Model	Type
120	0.25	30	1	E3612A	Basic
120	1.25	150	1	66105A	Performance Module
120	1.5	180	1	6545A	Performance
120	1.5	180	1	6645A	Performance
120	4.5	540	1	6555A	Performance
120	4	540	1	6655A	Performance
120	18	2160	1	6575A	Performance
120	18	2160	1	6675A	Performance
130	4	480	1	E4351B	Specialty
150	5	750	1	N5750A	Basic
150	10	1500	1	N5770A	Basic
200	0.75	150	1	66106A	Performance Module
300	2.5	750	1	N5751A	Basic
300	5	1500	1	N5771A	Basic
500	2	1000	1	6035A	Performance
600	1.3	780	1	N5752A	Basic
600	2.6	1560	1	N5772A	Basic

Modular Power Supply Mainframes

See N67xx modules	400	up to 4	N6700B	Mainframe
See N67xx modules	600	up to 4	N6701A	Mainframe
See N67xx modules	1200	up to 4	N6702A	Mainframe
See 661xx modules	1200	up to 8	66000A	Mainframe

Features vs. Model Index

Instructions

1. Go back to the Voltage, Current, and/or Power list and match to requirements of the application.
2. From the table below, match additional features to the requirements of the application.

Model Numbers	Number of Outputs	Remote Sense	Computer Interface	Ripple and Noise, mVp-p		Time to Change V Output	Ranges	V & I Output Measurement	Over V & I Protection	Analog Control	Active Down Programming	Optional Disconnect Relay	Optional Polarity Relay	Advanced P Programming
6541A - 6545A	1	y	n	L	L	1	y	y	y	y				
6551A - 6555A	1	y	n	L	L	1	y	y	y	y				
6571A - 6575A	1	y	n	M	M	1	y	y	y	y				
6611C - 6614C	1	y	GPIO	L	L	1	y	y		y				y
6631B - 6634B	1	y	GPIO	L	L	1	y	y		y				y
6641A - 6645A	1	y	GPIO	L	L	1	y	y	y	y				y
6651A - 6655A	1	y	GPIO	L	L	1	y	y	y	y				y
6671A - 6675A	1	y	GPIO	M	M	1	y	y	y	y				y
6680A - 6684A	1	y	GPIO	M	M	1	y	y	y	y				y
6690A - 6692A	1	y	GPIO	M	M	1	y	y	y	y				y
66000 Series Mainframe	up to 8		GPIO		M									y
66101A - 66106A Modules	1	y	n/a	M	M	1	y	y		y	y	y		y
66309B/D	2	y	GPIO	L	L	1	y	y		y	y			y
66311B	2	y	GPIO	L	L	1	y	y		y				y
66319B/D	2	y	GPIO	L	L	1	y	y		y	y			y
66321B/D	1	y	GPIO	L	L	1	y	y		y				y
66332A	1	y	GPIO	L	L	1	y	y		y	y	y		y

Time to change V output: UltraL = <2 ms, L = 2 ms to 15 ms, M = 9 ms to 60 ms, H = 100 ms to 300 ms

Ripple and Noise, p-p: L = 3 mVp-p to 10 mVp-p; M = 5 mVp-p to 50 mVp-p; H = 30 mVp-p to 300 mVp-p

Advanced Programming: Refer to individual product data information for specific advanced programming features. They may include features such as: sequencing of multiple outputs, programmable up/down ramp rates, downloadable LIST's of voltage or current vs. time, and high speed digitizer for V & I output measurements.

Features vs. Model Index (Continued)

Model Numbers	Number of Outputs	Remote Sense	Computer Interface	Ripple and Noise, mVp-p		Time to Change V Output	Ranges	V & I Output Measurement	Over V & I Protection	Analog Control	Active Down Programming	Optional Disconnect Relay	Optional Polarity Relay	Advanced Programming
N5741A - N5749A	1	y	GPIB, LAN, USB	H	H	1	y	y	y					y
N5750A - N5752A	1	y	GPIB, LAN, USB	H	H	1	y	y	y					y
N5761A - N5769A	1	y	GPIB, LAN, USB	H	H	1	y	y	y					y
N5770A - N5771A	1	y	GPIB, LAN, USB	H	H	1	y	y	y					y
N6700 Series Mainframes	up to 4		GPIB, LAN, USB		L									y
N6731B-N6736B Modules	1	y	n/a	M	L	1	y	y		y	y	y	y	y
N6741B-N6746B Modules	1	y	n/a	M	L	1	y	y		y	y	y	y	y
N6751A-N6754A Modules	1	y	n/a	L	UltraL	Auto	y	y		y	y			y
N6761-N6762A Modules	1	y	n/a	L	UltraL	Auto/Mult	y	y		y	y			y
N6773A-N6776A Modules	1	y	n/a	M	L	1	y	y		y	y	y	y	y
E3610A-E3612A	1		n	L	H	2	y							
E3614A-E3617A	1	y	n	L	H	1	y	y						
E3620A	2		n	L	H	1	y							
E3630A	3		n	L	H	1	y							
E3631A	3		GPIB	L	H	1	y							
E3632A-E3634A	1	y	GPIB	L	H	2	y	y						
E3640A-E3645A	1	y	GPIB	L	H	2	y	y						
E3646A-E3649A	2	y	GPIB	L	H	2	y	y						

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