



Sorensen™ Asterion® DC Fixed Range & Autoranging Programmable Power Supply with Touch Screen Display (1.7/3.4/5.0/10 kW, 40-600 V, 2.8-250 A)

The Sorensen™ Asterion® DC Series is the newest addition to the Asterion platform of power testing solutions. The new DC series features two types of product lines: fixed range and autoranging. The fixed range supplies are economical power supplies with traditional rectangular power curves and with all the enhanced operation advantages standard with the Asterion platform. The autoranging supplies feature expanded current and voltage range at the full output power level, enabling the ability to satisfy a wider testing need without requiring the purchase of additional models.

The Asterion DC Series, just like the Asterion AC Series, has several operating advantages such as easy auto-parallel, complete remote programming and control via Virtual Panels™ GUI, and intuitive front panel touch screen operation.

Asterion DC
Virtual Panels GUI



Advantages:

- < High power density in a 1U/2U chassis up to 5 kW/10 kW
- < Intuitive touch panel control
- < Multi-language display for global operation
- < Auto paralleling for higher power
- < Full remote control via Virtual Panels™

Advanced Intelligent Control

The Asterion DC Series is operated from the intuitive, easy-to-use front panel touch screen display. Quickly access output programming parameters, measurements, configuration and system settings from the touch screen interface. Functions and parameters can be directly selected from the touch screen or by using the encoder selector button. The control resolution is adjusted by a dynamic rate change algorithm that combines the benefits of precise control over small parameter changes with quick sweeps through the entire range.

Additionally, the instrument can be controlled via standard LXI Ethernet, USB, and RS232 control interfaces, as well as through the optional GPIB and EtherCAT control interface. The unit can be controlled remotely via the Virtual Panels GUI.

Sorensen Asterion DC Series: Product Specifications & Details

Model	Asterion DC 1.7 kW		Asterion DC 3.4 kW	Asterion DC 5 kW	Asterion DC 10 kW
Output Specifications					
Constant Voltage Mode					
Line Regulation	0.01% of rated voltage				
Load Regulation	0.02% of rated voltage				
Constant Current Mode					
Line Regulation	0.05% of rated current				
Load Regulation	0.15% of rated current				
Constant Power Mode					
Line Regulation	0.01% of rated power				
Load Regulation	0.01% of rated power				
Transient Response Time	1 ms (40 - 100 V), 2 ms (150 - 400 V)				
Voltage Programming Accuracy	+/- 0.1% of rated output voltage				
Current Programming Accuracy	+/- 0.2% of rated output current				
AC Input Specifications					
Input Voltage Operating Range	1-phase line-neutral: Low-input range: 90-145 V AC, high-input range: 180 V AC-264 V AC 3-phase line-line: 180 V AC-264 V AC 3-phase line-line: 342-457 V AC 3-phase line-line: 342-528 V AC				3-phase line-line: 180-264 V AC 3-phase line-line: 342-457 V AC 3-phase line-line: 342-528 V AC
Input Frequency Range	47-63 Hz, 360-440 Hz				
Power Factor	98% (single phase 220VAC), 94% (three phase input)				
Efficiency (Typical)	≥89%		≥91%		
Environmental					
Operating Temperature	0°C to 50°C (32°F to 122°F)				
Storage Temperature	-30°C to +85°C				
Relative Humidity	20-90% RH, non-condensing				

*See manual for output power ratings vs input voltage.

Output Specifications (Fixed)				Ripple & Noise	
Model	Voltage (V)	Current (A)	Power (W)	rms	p-p
				(20 Hz-300 kHz)	(20 Hz-20 MHz)
AST40-42	40	42	1700	7 mV	60 mV
AST60-28	60	28	1700	7 mV	60 mV
AST80-22	80	22	1700	12 mV	75 mV
AST100-17	100	17	1700	12 mV	75 mV
AST150-12	150	12	1700	20 mV	75 mV
AST200-9	200	9	1700	20 mV	100 mV
AST300-6	300	6	1700	20 mV	120 mV
AST400-4.3	400	4.3	1700	40 mV	300 mV
AST600-2.8	600	2.8	1700	60 mV	600 mV
AST40-85	40	85	3400	12 mV	75 mV
AST60-56	60	56	3400	12 mV	75 mV
AST80-43	80	43	3400	15 mV	90 mV
AST100-34	100	34	3400	15 mV	90 mV
AST150-23	150	23	3400	20 mV	120 mV
AST200-17	200	17	3400	40 mV	150 mV
AST300-11	300	11	3400	60 mV	200 mV
AST400-8.5	400	8.5	3400	40 mV	300 mV
AST600-5.7	600	5.7	3400	80 mV	350 mV
AST40-125	40	125	5000	12 mV	75 mV
AST60-83	60	83	5000	12 mV	75 mV
AST80-63	80	63	5000	15 mV	90 mV
AST100-50	100	50	5000	15 mV	90 mV
AST150-34	150	34	5000	20 mV	120 mV
AST200-25	200	25	5000	40 mV	150 mV
AST300-17	300	17	5000	60 mV	200 mV
AST400-13	400	13	5000	80 mV	300 mV
AST600-8.3	600	8.3	5000	80 mV	350 mV
AST40-250	40	250	10000	12 mV	75 mV
AST60-167	60	167	10000	12 mV	75 mV
AST80-125	80	125	10000	15 mV	90 mV

Output Specifications (Fixed) (Continued)				Ripple & Noise	
Model	Voltage (V)	Current (A)	Power (W)	rms	p-p
				(20 Hz-300 kHz)	(20 Hz-20 MHz)
AST100-100	100	100	10000	15 mV	90 mV
AST150-67	150	67	10000	20 mV	120 mV
AST200-50	200	50	10000	40 mV	150 mV
AST300-34	300	34	10000	60 mV	200 mV
AST400-25	400	25	10000	80 mV	300 mV
AST600-16.7	600	16.7	10000	80 mV	350 mV

Output Specifications (Autoranging)				Ripple & Noise	
Model	Voltage (V)	Current (A)	Max Power (W)	rms	p-p
				(20 Hz-300 kHz)	(20 Hz-20 MHz)
AST60-42AR	60	42	1700	12 mV	75 mV
AST40-85AR	40	85	1700	12 mV	75 mV
AST60-56AR	60	56	1700	12 mV	75 mV
AST80-43AR	80	43	1700	12 mV	75 mV
AST200-17AR	200	17	1700	20 mV	100 mV
AST400-6AR	400	6	1700	40 mV	300 mV
AST600-6AR	600	5.7	1700	60 mV	300 mV
AST40-125AR	40	125	3400	12 mV	75 mV
AST60-85AR	60	85	3400	12 mV	75 mV
AST80-63AR	80	63	3400	15 mV	90 mV
AST200-34AR	200	34	3400	40 mV	150 mV
AST400-12AR	400	12	3400	80 mV	300 mV
AST600-8AR	600	8.3	3400	80 mV	350 mV
AST60-125AR	60	125	5000	12 mV	75 mV
AST200-50AR	200	50	5000	40 mV	150 mV
AST400-18AR	400	18	5000	80 mV	300 mV
AST60-250AR	60	250	10000	12 mV	75 mV
AST200-100AR	200	100	10000	40 mV	150 mV
AST400-34AR	400	34	10000	80 mV	300 mV

Avionics Test

Power Simulation

ATE Applications

Manufacturing

Frequency Conversion

IEC Standards Testing

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