AMETEK®
PROGRAMMABLE POWER

Differences Between the 10 kW Rackmount Programmable Power Supplies

SGX – vs – SGA

10 kW Rackmount Programmable Power Supply	SGX Series	SGA Series
Model	SGX60X167C-0ASAR	SGA60X167C-0AAAR
2024 US List Price	**$11,382**	$12,986
Cost in $/Watt	**$1.14**	$1.30
Output Power	10 kW	10 kW
Form Factor	3U Rack Mount	3U Rack Mount
Output Specifications		
Rated Output Voltage	60 V	60 V
Rated Output Current	167 A	167 A
Voltage Load Regulation	0.02% maximum, of rated output voltage for 40 V-1000 V models	0.02% maximum, of rated output voltage for 40 V-1000 V models
Current Load Regulation	0.1%, maximum, of rated output current	0.1%, maximum, of rated output current
Voltage Line Regulation	±0.01%, maximum, of rated output voltage for 40 V-1000 V models	±0.01%, maximum, of rated output voltage for 40 V-1000 V models
Current Line Regulation	±0.05%, maximum, of rated output current	±0.05%, maximum, of rated output current
Output Ripple (mV) rms, CV Mode	20	20
Output Noise pk-pk (mV), CV Mode	75	75
Voltage Programming Accuracy	**±0.1%, maximum, of rated output voltage for 40 V-1000 V models**	±0.5%, maximum, of rated output voltage + 1 digit
Current Programming Accuracy	**±0.4%, maximum, of rated output current for 40 V-1000 V models**	±0.5%, maximum, of rated output current + 1 digit
Voltage Readback Accuracy	±0.5%, maximum, of rated output voltage	3.5 digit diplay, ±0.5%, maximum, of rated output voltage + 1 digit
Current Readback Accuracy	±1%, maximum, of rated output current	3.5 digit display, ±1%, maximum, of rated output current + 1 digit
Transient Response	1 ms, typical, to recover within 0.75% of rated output voltage for load step change of 50% of rated output current	1 ms, typical, to recover within 0.75% of rated output voltage for load step change of 50% of rated output current
Efficiency (nominal line and max load)	87%, typical, at full load, nominal AC line	87%, typical, at full load, nominal AC line
Isolation Voltage	±300 V(PK), maximum, with respect to chassis ground; exceeding the limit will be detected as a fault by a protective supervisory monitor and shutdown of the output will be executed; this condition will be latched, requiring reset to resume normal operation.	±300 V(PK), maximum, with respect to chassis ground; exceeding the limit will be detected as a fault by a protective supervisory monitor and shutdown of the output will be executed; this condition will be latched, requiring reset to resume normal operation.
Line Drop Compensation (per line)	5%, maximum of rated output voltage per line for models, 40 V to less than 160 V; 2%, maximum of rated output voltage per line for models greater than or equal to 160 V.	5%, maximum of rated output voltage per line for models, 40V to less than 160 V; 2%, maximum of rated output voltage per line for models greater than or equal to 160 V.
Derating (per deg C)	0.02%/ C, typical, of rated output voltage 0.03%/ C, typical, of rated output current	0.02%/ C, typical, of rated output voltage 0.03%/ C, typical, of rated output current
Input Specifications		
Input Voltage	3 Phase: 208/230 VAC ±10%, allowed range 187-253 VAC; 3 Phase: 380/400 VAC ±10%, allowed range 342-440 VAC; 3 Phase: 440/480 VAC ±10%, allowed range 396-528 VAC	3 Phase: 208/230 VAC ±10%, allowed range 187-253 VAC; 3 Phase: 380/400 VAC ±10%, allowed range 342-440 VAC; 3 Phase: 440/480 VAC ±10%, allowed range 396-528 VAC
Max Current (per phase)	**39 A rms**	47 A rms
Input Frequency	47 Hz to 63 Hz	47 Hz to 63 Hz
Power Factor	**0.90, typical, for all AC input ratings**	0.75, typical, for 208/230 VAC input; 0.72, typical, for 380/400 VAC input; 0.69, typical, for 440/480 VAC input;
Interface / Programming		
Programming Standard	**Front panel touchscreen, LXI Class C Ethernet, RS-232C**	Front panel controls and 3.5 digit display
Programming Options	Isolated Analog Control, IEEE-488	LXI Class C Ethernet, RS-232C, Isolated Analog Control, IEEE-488
Operation Modes	**CC, CV, CP**	CV, CP
Features	**Ramps, Sequencing, Power On Settings**	None
General Specifications		
Form Factor	3U x 19 inch Rack Mount	3U x 19 inch Rack Mount
Operating Temperature	0 to 50° C (+32° F to +122° F)	0 to 50° C (+32° F to +122° F)
Mechanical Specifications		
Height/Width/Depth	5.25 in (13.3 cm) x 19.00 in (48.3 cm) x 26.3 in (66.8 cm)	5.25 in (13.3 cm) x 19.00 in (48.3 cm) x **25.5 in (64.7 cm)**
Weight	≤ 75 lbs (34 kg)	≤ 75 lbs (34 kg)
Cooling	Forced convection with internal, linearly-variable-speed fans; vents on front, sides and rear; units may be stacked without clearance above or below.	Forced convection with internal, linearly-variable-speed fans; vents on front, sides and rear; units may be stacked without clearance above or below.
Approval & Warranty		
Approval	CE marked for EMC Directive 2014/30/EU per EN 61326-1:2013 Class A for Emissions and Industrial Immunity levels as required. NRTL certified for US and Canada to CAN/CSA-C22.2 No. 61010-1-12, UL 61010-1 Third Edition (1). CE marked for LVD Directive 2014/35/EU to EN 61010-1 Third Edition as required. CE marked for RoHS Directive 2011/65/EU per EN IEC 63000:2018 as required. Note (1): UL/CSA 61010 certification only applies to 10V to 800V, 4kW to 15kW, 3U models.	CE Compliant: Certified to UL/CSA 61010 and IEC/EN 61010- 1 by a NRTL(1); LVD Categories: Installation Category II, Pollution Degree 2, Class II Equipment, for Indoor Use Only; EMC Directive, EN 61326:1998; Semi-F47 Compliant Note (1): UL/CSA 61010 certification only applies to 10V to 800V, 4kW to 15kW, 3U models.
Warranty	5 Years	5 Years