

# SAGEON II® SERIES

## BULK POWER MODULE

24 or 48VDC | 400 and 600A

10-1021



### FEATURES AND BENEFITS

#### High density

Compact design with rectifiers at up to 16.1 watts per cubic inch, minimizing space required for installation

#### remote access (Optional)

Remotely monitor and control the complete power system, reducing trips to site and increasing uptime

#### Battery testing (Optional)

Automatic or on-demand battery testing, ensures batteries are functioning properly under real world load conditions

#### Battery Monitoring (Optional)

Continuous, individual cell level monitoring, providing 24 hour automated out-of-tolerance alarming and detailed identification by cell number

#### Programmable Battery recharge Current (Optional)

Programmable recharge current limit eliminates overcharging of standby batteries, extending their useful service life

#### Wide input Voltage range

Operating voltage range from 85 to 285 volts AC increases flexibility and ensures unit functions under diverse conditions

#### Common Family

The SAGEON II Power Module is part of the SAGEON Family of DC Power Plants which all feature a common controller, monitor and control software, and remote communications modules; eliminating the learning curve

SAGEON® is intelligent power. SAGEON, the latest development in power systems, is simple to operate yet genius in delivering enhanced, built in intelligence. SAGEON Power Systems minimize manual adjustments and measurements, while providing you with the information you need to manage power.

The SAGEON II Power Module the next advancement in the Sageon offering. This new design will be offered in two bulk power sizes 600A (N+1) and 400A (N+1), the Sageon II Power Module provides the flexibility to put power where it is needed.

The Sageon II Power Module consists of a power frame that includes the Sageon Controller and 24V or 48V Rectifiers, mechanical mounting for up to nine rectifiers in the 400A offering and up to thirteen rectifiers in the 600A system. Each unit comes with an AC conduit box for ease of installation.

In addition to the basic control functions, the Sageon II Power Module supports all the advanced functionality available in all Sageon Family of product including: remote monitor and control, battery testing, individual cell monitoring, programmable battery recharge current, and site monitoring.

### APPLICATIONS

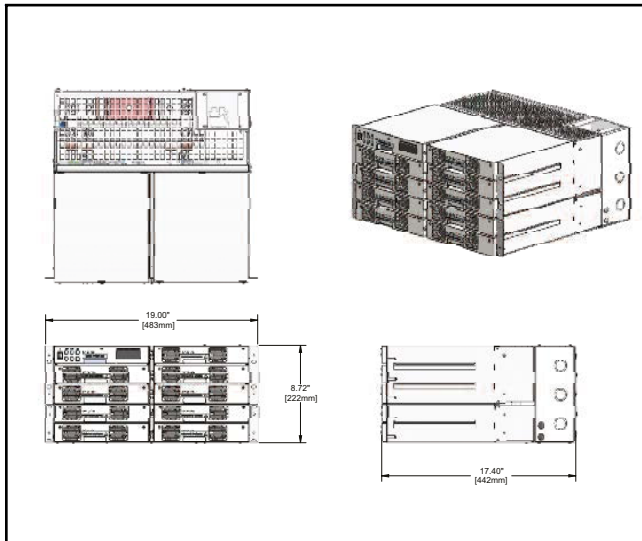
- Bulk Power
- System Expansion
- Outside Plant
- Homeland Security Networks
- Power System Upgrade
- Controlled Environment Vaults
- Wireless Sites
- Microwave Sites
- Cable / Internet
- OEMs

### THREE YEAR WARRANTY

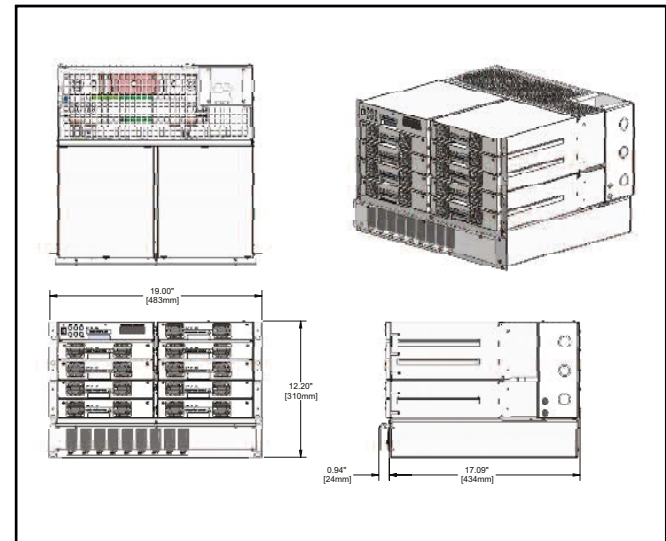
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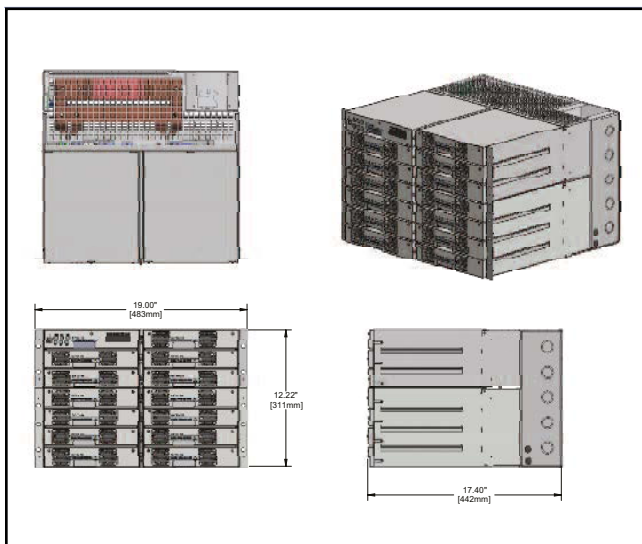
BASE BULK POWER PLANT	RATING	LIST
-48V bulk 19" power plant includes: controller, alarm board, 5RU power shelf configured to accomodate up to 9 rectifiers with 9 A/C feeds	400A	
Supports: up to 9 rectifiers; one ambient and one battery temperature probe	5RU	40
Same as list 40, plus 9 A/C circuit breakers in 2RU enclosure	400A	
Additional support for four CT's and up to four battery temperature sensors	7RU	41
-48V bulk 19" power plant includes: controller, alarm board, 7RU power shelf configured to accomodate up to 13 rectifiers with 13 A/C feeds		
Supports: up to 13 rectifiers, one ambient and one battery temperature probe		
Same as list 60, plus 13 A/C circuit breakers in 2RU enclosure	600A	
Additional support for four CT's and up to four battery temperature sensors	9RU	61
OPTIONS: ORDER BY PART NUMBER		PART NUMBER
RACK MOUNTING - (flush mount only)		
23" rack flush mount		
List 40	OPT	385.5202.4023
List 41	OPT	385.5202.4123
List 60	OPT	385.5202.6023
List 61	OPT	385.5202.6123
BATTERY CURRENT TRANSDUCERS (LIST 41& 61 ONLY)		
200A closed window (1.25" dia. window) 200A	OPT	385.5971.200
split window (0.84" dia. window)	OPT	385.5972.200
400A closed window (1.25" dia. window) 400A	OPT	385.5971.400
split window (0.84" dia. window)	OPT	385.5972.400
600A closed window (0.82" x 2.5" dia. window)	OPT	385.5971.600
800A split window (1.57" x 4.0" dia. window)	OPT	385.5972.800
COMMUNICATIONS (list 40, 41, 60 & 61)		
Ethernet TCP/IP	OPT	385.4014.00
Ethernet TCP/IP W/SNMP	OPT	385.4015.00
TEMPERATURE COMPENSATION		
List 40 & 60 can accommodate one ambient & one battery sensor.		
List 41 & 61 can accommodate one ambient & four battery sensors.		
Ambient & battery temperature sensors must be ordered seperately for all Sageon II systems		
TEMPERATURE SENSORS		
10' (3m) cable length	OPT	385.5941.03
20' (6m) cable length	OPT	385.5941.06
50' (15m) cable length	OPT	385.5941.15
100' (30m) cable length	OPT	385.5941.30
BATTERY MONITOR (requires both battery wire and post 'pig-tail' adaptor)	OPT	385.5202.20
BATTERY SENSE WIRE		
10' cable length	OPT	350.7812.10
25' cable length	OPT	350.7812.25
50' cable length	OPT	350.7812.50
100' cable length	OPT	350.7812.100
BATTERY POST LUG SIZE (pig-tail) adaptor		
#10 ring lug adaptor kit	OPT	385.6151.03
1/4" (6mm) ring lug adaptor kit	OPT	385.6151.04
5/16" (8mm) ring lug adaptor kit	OPT	385.6151.05
3/8" (10mm) ring lug adaptor kit	OPT	385.6151.06
1/2" (12mm) ring lug adaptor kit	OPT	385.6151.07
RECTIFIERS (- 48 VOLT 50 AMP)		
List 40 & 41 (up to 9 rectifiers per system)	REQ	100.7675.4850
List 60 & 61 (up to 13 rectifiers per system)	REQ	100.7675.4850
SITE MONITOR (externally mounted panel)	OPT	385.5202.21



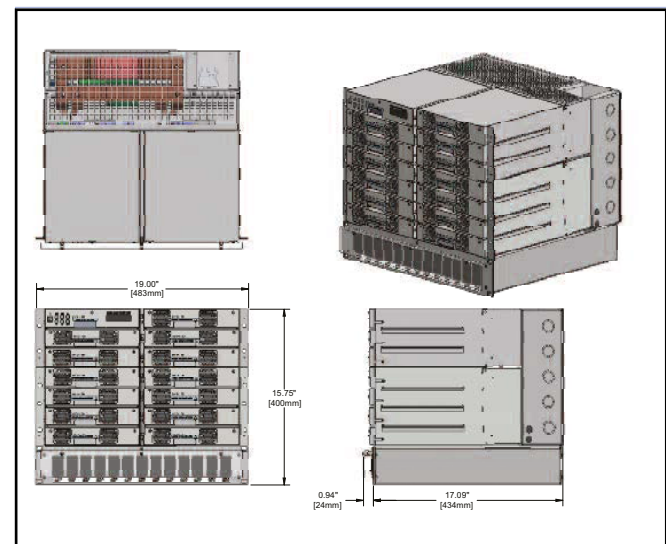
400A BULK  
 LIST 40  
 35 LBS. WITHOUT RECTIFIERS  
 81 LBS. WITH RECTIFIERS



400A BULK  
 WITH 2RU A/C  
 BREAKER ENCLOSURE LIST 41  
 55 LBS. WITHOUT RECTIFIERS  
 101 LBS. WITH RECTIFIERS



600A BULK  
 LIST 60  
 40 LBS. WITHOUT RECTIFIERS  
 107 LBS. WITH RECTIFIERS



600A BULK  
 WITH 2RU A/C  
 BREAKER ENCLOSURE LIST 61  
 60 LBS. WITHOUT RECTIFIERS  
 127 LBS. WITH RECTIFIERS

## SPECIFICATIONS

### INPUT AC:

Voltage	Universal AC 85-300VAC (L-N, 1phase) Fully protected up to 440VAC (L-N)
inrush Current	<16A RMS per rectifier
THD	Line Harmonics meet EN61000-3-2
Power Factor	>0.98 for >50% output power

### OUTPUT DC:

Voltage	+24VDC systems, adjustable range 22V to 29V
Current limit	55A per 24V rectifier module, fully adjustable
Power limit	1920W per rectifier module
Efficiency	>90% at 100% output power for 24VDC systems
Regulation	±1% or better over line, load and temperature
Noise	<1mV RMS Psophometrically weighted <32dBrnC Voiceband <10mV RMS and <100mV peak-to-peak (10kHz-100MHz)

### PROTECTION:

Short Circuit	Can sustain short circuit at output terminals indefinitely
Reverse Battery Polarity	Internal fuse at output of RECTIFIER
High Voltage Shutdown	Rectifier shuts down if output exceeds programmed overvoltage limit
Electrostatic Discharge (ESD)	IEC 61000-4-2 (Level 4: Air 15kV, Contact 8kV)
Regulation	±1% or better over line, load and temperature
AC Surge	IEC 61000-4-4 (EFT), Level 4 IEC 61000-4-5 (Impulse), Level X: 6kV/3kA IEC 61000-4-12 (Ringwave), Level X: 6kV/500A
RF immunity	IEC 61000-4-3 (Radiated), Level 4 IEC 61000-4-6 (Conducted), Level 3
RF emissions	CISPR 22 Class B, (Conducted & Radiated)

### ENVIRONMENTAL:

Operating	-40°F (-40°C) to +158°F (+70°C)
Full Power	-40°F (-40°C) to +131°F (+55°C)
Derated Operation	50% power at +149°F (+65°C)
Storage/Transport	-40°F (-40°C) to +158°F (+70°C)
Humidity	0 to 100% relative humidity, condensing
acoustic noise	< 60dB (A weighting)

### AGENCY COMPLIANCES:

Safety	Designed to IEC 60950, UL/CSA 60950
EMC	ETSI EN 300 386 V1.3.2 (2002-12)
Environmental	ETSI EN 300 019