PS1 Grid-Interactive Solar System



Battery-based Power Back-up

True Sinewave Output

CEC certified 91% Efficiency Inverter

Zero AC Watts Consumed at Night

Proven Maximum
Power Point Tracking

16 Millisecond AC Transfer Switch

Type 3R Rainproof

Multiple Anti-Islanding Safequards

Standard 5-year Warranty



The PS1 is advanced engineering and refinement that you have come to expect from OutBack Power in a next generation grid-interactive solar electric system. The system's battery back-up is a silent and hands-off alternative to noisy and maintenance intensive generators. Designed with an emphasis on performance, the PS1 system operates similarly to standard solar inverters but with the unique benefit of uninterrupted power during utility outages.

In side-by-side "real world" testing, the PS1 system performs within 5% of the industry leading battery-less grid-tie inverter. This translates into more money savings when using net metering. The same field proven MPPT technology found in the MX60 solar charge

controller is featured in the PS1. This technology gives the system the ability to use your PV array at its peak output. Uninterrupted AC power is provided by the system's true sinewave inverter that has an industry leading, California Energy Commission (CEC) certified, efficiency of 91% – thus guaranteeing that your household appliances run seamlessly while utilizing all available solar power. Your recommended AGM batteries are maintained and charged by an innovative OutBack multi-stage charging process, this valuable feature assists in providing reliable back-up power and a battery life up to 10 years.

Like every OutBack Power product, the PS1 is rugged. All components are protected within an aluminum type 3R rainproof enclosure. An ultra-fast 16 millisecond AC transfer switch guarantees that even sensitive back-up loads, like computers, never know when a grid outage occurs. The ETL listed system is pre-wired by OutBack engineers to ensure that the PS1 system works reliably for years to come. A standard 5-year warranty provides peace of mind and satisfies state rebate requirements.

High performance, battery back-up, and proven OutBack engineering makes the PS1 system the only choice for a premium grid interactive solar power system.



Continuous Power Rating At 25° C AC Voltage / Frequency Output AC Input Current Maximum ACTransfer Switch / System Bypass Battery Charger Maximum AC Surge Current Peak (1 millisecond) RMS (5 seconds) Maximum PV Array Wattage PV Open Circuit Voltage MPPT Input Voltage Range PV Array Ground Fault Protection Inverter Efficiency Typical Peak MPPT Efficiency Overall System Efficiency Typical Peak Battery Voltage - Nominal Minimum / maximum operating range Battery Charge Rate Inverter MX60 AC Output Voltage Regulation Typical AC Output Current Inverting Selling Total Harmonic Distortion Inverting AC Transfer Switch Speed Battery Temperature Sensor Operating Temperature Sensor Operating Temperature Range Recommended Minimum Energy Storage Recommended Batteries Communications Enclosure Materials	PS1-3000 3000 VA 3600 VA 120 VAC 60 Hz 50 amps AC 20 amps AC with automatic back-off 70 amps AC 3300 watts DC stc rating 150 VDC 44 to 135 VDC Standard - 80 amp DC 91% (CEC Certified) 93% 98% 89% 92% 48 VDC 40 to 60 VDC 45 amps DC 50 amps DC	PS1-2500 2500 VA 3000 VA 120 VAC 60 Hz 50 amps AC 16 amps AC with automatic back-off 70 amps AC 50 amps AC 3300 watts DC stc rating 150 VDC 44 to 135 VDC Standard - 80 amp DC 91% (not CEC Certified) 93% 98% 89% 92% 48 VDC 40 to 60 VDC 35 amps DC 60 amps DC
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Peak MPPT Efficiency Overall System Efficiency Typical Peak Battery Voltage - Nominal Minimum / maximum operating range Battery Charge Rate Inverter MX60 AC Output Voltage Regulation AC Output Current Inverting Selling Fotal Harmonic Distortion Inverting Selling AC Transfer Switch Speed Battery Temperature Sensor Operating Temperature Range Recommended Mininum Energy Storage Recommended Batteries Communications	93% 98% 89% 92% 48 VDC 40 to 60 VDC 45 amps DC 60 amps DC 5%	93% 98% 89% 92% 48 VDC 40 to 60 VDC 35 amps DC 60 amps DC
APPT Efficiency Overall System Efficiency Peak Stattery Voltage - Nominal Minimum / maximum operating range Stattery Charge Rate Inverter MX60 AC Output Voltage Regulation AC Output Current Inverting Selling Sotal Harmonic Distortion Inverting Selling AC Transfer Switch Speed Stattery Temperature Sensor Operating Temperature Range Recommended Minimum Energy Storage Recommended Batteries Communications	98% 89% 92% 48 VDC 40 to 60 VDC 45 amps DC 60 amps DC 5%	98% 89% 92% 48 VDC 40 to 60 VDC 35 amps DC 60 amps DC
Overall System Efficiency Peak Stattery Voltage - Nominal Minimum / maximum operating range Stattery Charge Rate Inverter MX60 AC Output Voltage Regulation Typical Nominal AC Output Current Inverting Selling Sotal Harmonic Distortion Inverting AC Transfer Switch Speed Selling AC Transfer Switch Speed Selling Departing Temperature Range Selling Departing Temperature Range Secommended Minimum Energy Storage Secommended Batteries Communications	89% 92% 48 VDC 40 to 60 VDC 45 amps DC 60 amps DC 5%	89% 92% 48 VDC 40 to 60 VDC 35 amps DC 60 amps DC
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Minimum / maximum operating range stattery Charge Rate Inverter MX60 AC Output Voltage Regulation Typical Nominal AC Output Current Inverting Selling Total Harmonic Distortion Inverting Selling AC Transfer Switch Speed Typical stattery Temperature Sensor Operating Temperature Range Recommended Minimum Energy Storage Recommended Batteries Communications	40 to 60VDC 45 amps DC 60 amps DC 5%	40 to 60VDC 35 amps DC 60 amps DC
Sattery Charge Rate Inverter MX60 AC Output Voltage Regulation Typical Nominal AC Output Current Inverting Selling Total Harmonic Distortion Inverting Selling AC Transfer Switch Speed Typical Sattery Temperature Sensor Operating Temperature Range Recommended Mininum Energy Storage Recommended Batteries Communications	45 amps DC 60 amps DC 5%	35 amps DC 60 amps DC
MX60 AC Output Voltage Regulation AC Output Current AC Output Current Inverting Selling Fotal Harmonic Distortion Inverting Selling AC Transfer Switch Speed AC Transfer Switch Speed Sattery Temperature Sensor Operating Temperature Range Recommended Mininum Energy Storage Recommended Batteries Communications	60 amps DC 5%	60 amps DC
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Total Harmonic Distortion Inverting Selling AC Transfer Switch Speed Typical Battery Temperature Sensor Operating Temperature Range Recommended Mininum Energy Storage Recommended Batteries Communications	30.0 amps AC	25.0 amps AC
Selling AC Transfer Switch Speed Typical Sattery Temperature Sensor Operating Temperature Range Recommended Mininum Energy Storage Recommended Batteries Communications	25.0 amps AC	20.8 amps AC
AC Transfer Switch Speed Typical Sattery Temperature Sensor Operating Temperature Range Recommended Mininum Energy Storage Recommended Batteries Communications	2% VAC THD	2% VAC THD
Battery Temperature Sensor Dperating Temperature Range Recommended Mininum Energy Storage Recommended Batteries Communications	< 5% current THD per UL1741 conditions	< 5% current THD per UL1741 conditions
Operating Temperature Range Recommended Mininum Energy Storage Recommended Batteries Communications	< 16 Milliseconds	< 16 Milliseconds
Recommended Mininum Energy Storage Recommended Batteries Communications	Included	Included
Recommended Batteries Communications	-40 $^{\circ}$ C to 60 $^{\circ}$ C (power derated above 25 $^{\circ}$ C)	-40° C to 60° C (power derated above 25° C)
Communications	4 kWHRS at 80% discharge	4 kWHRS at 80% discharge
	Four AGM type 31 or type 27 sealed VRLA	Four AGM type 31 or type 27 sealed VRLA
inclosure Materials	Optional MATE system display with RS232 port	Optional MATE system display with RS232 port
	Powedercoated aluminum with stainless steel hardware	Powedercoated aluminum with stainless steel hardwa
1 ounting	Wall mount, 16-inch on center studs	Wall mount, 16-inch on center studs
Recommended Mounting Hardware	5/16 x 2.5" Lag Bolts - three per side minimum	5/16 x 2.5" Lag Bolts - three per side minimum
System Enclosure Dimensions (HxWxD) Unit	31.3 x 17.25 x 12.9" (80 x 44 x 33 cm)	31.3 x 17.25 x 12.9" (80 x 44 x 33 cm)
Shipping	40.5 × 20.5 × 17.25" (103 × 52 × 44 cm)	40.5 × 20.5 × 17.25" (103 × 52 × 44 cm)
Battery Enclosure Dimensions (HxWxD) Unit	36.25 × 17.25 × 12.55" (92 × 44 × 32 cm)	36.25 × 17.25 × 12.55" (92 × 44 × 32 cm)
Shipping	43.25 × 20.25 × 16.75" (110 × 51 × 43 cm)	43.25 × 20.25 × 16.75" (110 × 51 × 43 cm)
System Weight Unit	107 lbs (49 kg)	107 lbs (49 kg)
Shipping	117 lbs (53 kg)	117 lbs (53 kg)
Battery Enclosure Weight (without batteries) Unit	29 lbs (13 kg)	29 lbs (13 kg)
Shipping	47 lbs (21 kg)	47 lbs (21 kg)
Certifications	ETL certified to the UL1741 standard	ETL certified to the UL1741 standard
Anti-Islanding Measures	UL1741 compliant	UL1741 compliant
Warranty	·	5 year limited repair warranty standard
,	5 year limited repair warranty standard	· · · · ·
Field Installable Options	5 year limited repair warranty standard MATE or MATE2 remote system display	MATE or MATE2 remote system display OBAC breakers for additional AC load circuits



Available From:

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