

A

B

C

D

E

F

MECHANICAL SPECIFICATION

Format	1760mm x 1050mm x 32mm (including frame)
Weight	12.9kg
Front Cover	3.2mm thermally pre-stressed glass with anti-reflection technology
Back Cover	Conductive film
Frame	Black anodized aluminum
Cell	6 x 20 monocrystalline Q-ANTUM solar half cells
Junction box	68-101 mm x 52-60 mm x 15-18 mm Protector class IP67, with bypass diodes
Cable	4 mm ² Solar cable (V ₁ ±150mm, V ₂ ±150mm)
Connector	Stäubli MC4, Asphand LTX, Rave OS-6, Tongsh TL-CableCL8, JMT-HY JMB01, IP68 or Friends PV2ie IP67

ELECTRICAL CHARACTERISTICS

POWER CLASS	330	335	340	345	
MINIMUM PERFORMANCE AT STANDARD TEST CONDITIONS, STC ¹ (POWER TOLERANCE ±0.5W)					
Power at MPP	P _{MPP} [W]	330	338	340	345
Short Circuit Current ¹	I _{sc} [A]	10.41	10.47	10.52	10.58
Open Circuit Voltage ¹	V _{oc} [V]	40.16	40.41	40.66	40.92
Current at MPP	I _{MPP} [A]	8.81	9.97	10.02	10.07
Voltage at MPP	V _{MPP} [V]	33.29	33.82	33.84	34.25
Efficiency	η [%]	±18.4	±18.7	±19.0	±19.3
MINIMUM PERFORMANCE AT NORMAL OPERATING CONDITIONS, NMOT ²					
Power at MPP	P _{MPP} [W]	247.0	250.7	254.5	258.2
Short Circuit Current	I _{sc} [A]	8.39	8.43	8.48	8.52
Open Circuit Voltage	V _{oc} [V]	37.86	38.10	38.34	38.59
Current at MPP	I _{MPP} [A]	7.80	7.84	7.89	7.93
Voltage at MPP	V _{MPP} [V]	31.69	32.27	32.27	32.57
¹ Measurements tolerance P _{MPP} ±3%, I _{sc} V _{oc} ±5% at 57°C 1000 W/m ² , 20 ±2°C, AM 1.5 G according to IEC 60904-3 • 1800 W/m ² , NMOT, repeat in AM 1.5 G					
Q CELLS PERFORMANCE WARRANTY					
PERFORMANCE AT LOW IRRADIANCE					
At least 99% of nominal power during first year. thereafter max. 0.54% degradation per year. At least 92.1% of nominal power up to 10 years. At least 90.5% of nominal power up to 25 years.					
All data within measurement tolerances. Full warranty also in accordance with the warranty terms of the Q CELLS sales organization of your respective country.					
Typical module performance under low irradiance conditions in comparison to STC conditions (23°C, 1000 W/m ²)					
TEMPERATURE COEFFICIENTS					
Temperature Coefficient of I _{sc}	α [%/K]	+0.04	Temperature Coefficient of V _{oc}	β [%/K]	-0.27
Temperature Coefficient of P _{MPP}	γ [%/K]	-0.58	Normal Module Operating Temperature	NMOT [°C]	49 ±3
PROPERTIES FOR SYSTEM DESIGN					
Maximum System Voltage	V _{sys} [V]	1000	Safety Class	II	
Maximum Reverse Current	I _r [A]	30	Fine Rating	C	
Max. Design Load, Push/Pull	[N]	3600/2867	Permitted Module Temperature on Continuous Duty	-40°C +65°C	
Max. Test Load, Push/Pull	[N]	8400/4000			
QUALIFICATIONS AND CERTIFICATES					
VDE Quality Tested, IEC 61215/2016, IEC 61730/2016, Application Class II. This data sheet complies with DIN EN 50380.					
CE					
Note: Installation instructions must be followed. See the installation and operating manual or contact our technical service department for further information on approved installation and use of this product.					
Hannu Q CELLS GmbH					
Sonnenstraße 3-23, 02769 Borsdorf-Wahren, Germany TEL +49 (0)3404 68 99-234441 FAX +49 (0)3404 68 99-230001 EMAIL sales@q-cells.com WEB www.q-cells.com					
Engineered in Germany					
Q CELLS					

01 PV MODULE SPEC. SHEET
SCALE: N/A

Pika ENERGY

PV Link™
S2500 Series substrung optimizer

Advantages:

- Fast, simple installation
- Lower failure risk than module-level optimizers
- Rapid Shutdown compliant
- Accurate monitoring for each substrung
- Ground-fault protection
- Robust ceramic capacitors

Features:

- Quick connections with MC4 connectors
- 2500W capacity
- Compatible with high-voltage smart batteries
- Cost-effective solution for high-performance PV
- 25-year limited warranty

Fast. Flexible. Safe.

PV Link is the simple solar optimizer for quick installation and long-lasting performance. Connect as few as two or as many as nine PV modules to each PV Link to overcome shading and challenging roof lines.

Specification	PV Link Model S2501	Unit
Rated power	2500	W
Peak efficiency	99%	-
MPPT voltage range	60-360	VMP
Max input voltage	420; max when cold	VOC
Max output	420	VOC
Nominal output (REbus™)	380	VOC
Max output current	8	A
Standby power	<1	W
Topology	Boost converter	-
Protections	Ground-fault protection	-
Max operating temp	70	°C
Remote monitoring	Via REView™ web dashboard	-
Enclosure	Type 3R	-
Weight	7.3	Lb
Dimensions	2 x 15.4 x 9.6	In
Limited warranty	25 years	-

www.pika-energy.com / sales@pika-energy.com / made in the USA

M0021-20 2017/018-0912 © Pika Energy all rights reserved

03 POWER OPTIMIZER SPEC. SHEET
SCALE: N/A

GENERAC

PWRCELL

7.6kV 18 PV/Reall Inverter with CTs
Model #: XT902 (Growing SKU: APKE00014)
15.4 kV 20 PV/Reall Inverter with CTs
Model #: XT1402 (Growing SKU: APKE00015)

Solar + storage is simple with the Generac PWRcell™ Inverter. This bi-directional, REbus™-powered inverter offers a simple, efficient design for integrating smart batteries with solar. Ideal for self-supply, backup power, zero-export and energy cost management, the PWRcell Inverter is the industry's most feature-rich line of inverters, available in single-phase and three-phase models.

FEATURES & BENEFITS

- Single inverter for grid-tied solar with smart battery integration
- Simplified system design: No autotransformer or battery inverter needed
- User-selectable modes for backup power, self-supply, time-of-use, zero-import and export limiting
- Free system monitoring included via PWRview™ Web Portal and Mobile App

AC OUTPUT/GRID-TIE

	MODEL XT902	MODEL XT1402
MAX. CONT. GRID-TIED AC POWER @ 50°C (122°F)	7800 W	11400 W
AC OUTPUT VOLTAGE	120/240, 1Ø VAC	120/208, 3Ø VAC
AC FREQUENCY	60 Hz	60 Hz
MAXIMUM CONTINUOUS OUTPUT CURRENT	33 A, RMS	33 A, RMS
GROUND-FAULT ISOLATION DETECTION	Included	Included
CHARGE BATTERY FROM AC	Yes	Yes
THD CURRENT	<2%	<2%
TYPICAL NIGHTTIME POWER CONSUMPTION	<7 W	<7 W

AC OUTPUT/ISLANDED

	MODEL XT902	MODEL XT1402
MAX. CONT. AC POWER @ 40°C (104°F) W/ SINGLE 6 MODULE BATTERY CABINET	8,000 W	8,000 W
MAX. CONT. AC POWER @ 40°C (104°F) W/ 2 BATTERY CABINETS 6 MODULES MINIMUM	11,000 W	9,600-11,000 W
MAX. CONT. AC POWER @ 50°C (122°F)	8,800 W	7,500-8,800 W
PEAK MOTOR STARTING CURRENT (2 SEC)	50 A, RMS	
AC BACKUP OUTPUT VOLTAGE	120/240, 1Ø VAC	120/208, 3Ø VAC
AC FREQUENCY	60 Hz	60 Hz
THD VOLTAGE	<2%	<2%
AUTOMATIC SWITCHOVER TIME	<1 Seconds	<1 Seconds

DC INPUT

	MODEL XT902	MODEL XT1402
DC INPUT VOLTAGE RANGE	350-420 VDC	350-420 VDC
NOMINAL DC BUS VOLTAGE	380 VDC	380 VDC
DC DISTRIBUTION INPUT BREAKERS	4 x 2P30 A	4 x 2P30 A
MAX INPUT CURRENT PER DC INPUT	30 A	30 A
REVERSE-POLARITY PROTECTION	Yes	Yes
TRANSFORMERLESS, UNBYPASSABLE	Yes	Yes
TYPICAL NIGHTTIME POWER CONSUMPTION	<7 W	<7 W
DC BUS EXPORT FUSES (1-5)	40 A	40 A
3-POLE DISCONNECTION	Yes	Yes

EFFICIENCY

	MODEL XT902	MODEL XT1402
PEAK EFFICIENCY	97.9%	97.9%
CEC WEIGHTED EFFICIENCY	96.9%	97.9%

¹Peak Performance
²In island mode XT1402 protected loads only supply 2 phases 120 VAC L-N, 208 L-L, which results in lower power than in grid tied 3 phase mode. The low value of the range is for full L-L loading while high value of the range is full L-N loading

02 INVERTER SPEC. SHEET
SCALE: N/A

Specifications

PWRcell™ BATTERY CONFIGURATIONS

BATTERY MODULE SERIES:	3.0 kWh DCB			
BATTERY MODULES:	3	4	5	6
USABLE ENERGY:	9 kWh	12 kWh	15 kWh	18 kWh
NOMINAL CONT. AC POWER ¹	3.4 kW	4.5 kW	5.6 kW	6.7 kW
MAX. CONT. AC POWER ²	4.5 kW	6 kW	7.5 kW	9 kW
PEAK MOTOR STARTING CURRENT (2 SEC) - A, RMS	25	33	42	50
REbus™ VOLTAGE - INPUT/OUTPUT:	360-420 VDC			
NOMINAL VOLTAGE:	46.8 VDC			
DC-DC ROUND-TRIP EFFICIENCY:	96.5%			
MAXIMUM AMBIENT OPERATING TEMPERATURE:	14 TO 122 °F (-10 TO 50 °C)			
RECOMMENDED AMBIENT OPERATING TEMPERATURE:	41 to 104 °F (5 to 40 °C)			
MAXIMUM INSTALLATION ALTITUDE - FT (M):	8934 (3000)			
DIMENSIONS, L x W x H - IN (MM):	22" x 10" x 68" (559 x 254 x 1727)			
WEIGHT, ENCLOSURE - LB (KG):	115 (52)			
WEIGHT, INSTALLED - LB (KG):	280 (127)	335 (152)	390 (177)	445 (202)
WEIGHT, ACCESSORY MOUNTING HARDWARE - LB (KG):	21 (10)			
ENCLOSURE TYPE:	Type 3R			
WARRANTY - LITHIUM MODULES:	10 Years, (7.56MWh)			
WARRANTY - ELECTRONICS AND ENCLOSURE:	10 Years			
COMMUNICATION PROTOCOL:	REbus™ DC Nanogrid™			
COMPLIANCE:	UL 9540, UL 1973, UL 1642, CSA 22.2 #107.1			

PWRcell ACCESSORIES

Inside of the PWRcell Battery Cabinet, battery modules are stacked two deep on three levels, allowing for up to six modules to be connected in series. You can upgrade an existing PWRcell Battery Cabinet by adding Battery Modules and a Module Spacer (APKE00008). A Module Spacer is only required for battery configurations with an odd number of modules (i.e. 3 or 5).

Generac offers a convenient PWRcell Battery Upgrade Kit (APKE00009) to help replace lost or misplaced hardware.

PWRcell MODEL BUILDER

PRODUCT SERIES > ENCLOSURE TYPE > # OF MODULES > BATTERY SERIES

PWRcell

OR

M3

OR

DCB

1R (Indoor-Rated)
OR (Outdoor-Rated)

3 Modules
4 Modules
5 Modules
6 Modules

DCB

Sample Model Name: PWRcell OR M3 DCB

05 BATTERY SPEC. SHEET
SCALE: N/A

NATIONAL ELECTRICAL CODE, NEC (2017)

ENGINEER

ALPER ICELI
FL 90469

3753 LOCKRIDGE DR.
LAND O LAKES, FL 34638
(813) 406-7060
alper@iceli-pe.com

This item has been digitally signed and sealed by Alper Iceli, PE, on date shown above.

Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

NAME OF OWNER: ZIMMERMAN ROBERT A
ADDRESS: 181 NW SUNTILT CT
WHITE SPRINGS, FL 32096
PROPERTY ID#: 14-2S-15-00053-000 (99)

CONTRACTOR:
Sky Solar Energy Inc.
40415 Chancey Rd.
Unit #104 Zephyrhills, FL 33542
352-443-6580
EC 13010029

SKYSOLAR-ZIMMERMAN

DATA
SEP.17-21

COPYRIGHT & INTELLECTUAL PROPERTY NOTICE

- This plan set is COPYRIGHT PROTECTED AND CONTAINS INTELLECTUAL PROPERTY WHICH BELONGS TO ALPER ICELI, PE.
- NO OTHER USE MAY BE MADE OF THE INFORMATION, DRAWINGS, OR IDEAS WITHOUT THE EXPRESS, WRITTEN PERMISSION OF ALPER ICELI, PE.