

**Department of Public Service**  
**Certified Interconnection Equipment**  
**Approved Prior to 2011**

## Notes:

1. All equipment included on this list is approved to operate only at its designated phase and voltage level. Use on any other system configuration may require supplemental equipment to ensure compliance with the SIR.
2. Utility grade relays need not be certified per the requirements of the SIR, Section I.H.
3. Inverter incorporated within a specific distributed generation unit (mainly wind turbines), and listed below, have been certified and approved by the Department of Public Service (DPS) for interconnection. The actual wind turbine system, however, is not certified or approved by the DPS.

Manufacturer	ABB, Inc.
Model No. PVI-3.0-OUTD-US	PVI-3.0-OUTD-US PVI-3.0-OUTD-US-Z PVI-3.0-OUTD-S-US PVI-3.0-OUTD-S-US-Z PVI-3.0-OUTD-S-US-Z-A PVI-3.0-OUTD-US-W
Date of Approval	
Testing Agency	CSA International Master Contract: 259813
Device Description	3300 W/ 3300 W/ 3000 W 277 Vac /240 Vac/ 208 Vac Single Phase Utility Interactive Inverters. Note: PVI-3.0-OUTD-US-W is intended for operation with AC generated supply (i.e. wind or hydro)

Manufacturer	ABB, Inc.
Model No.	PVI-3.6-OUTD-US PVI-3.6-OUTD-US-Z PVI-3.6-OUTD-S-US PVI-3.6-OUTD-S-US-Z PVI-3.6-OUTD-S-US-Z-A PVI-3.6-OUTD-US-W
Date of Approval	
Testing Agency	CSA International Master Contract: 259813
Device Description	4000 W/ 4000W/ 3600 W 277 Vac /240 Vac/ 208 Vac Single Phase Utility Interactive Inverters. Note: PVI-3.6-OUTD-US-W is intended for operation with AC generated supply (i.e. wind or hydro)

Manufacturer	ABB, Inc.
Model No.	PVI-3.8-OUTD-US PVI-3.8-OUTD-US-Z PVI-3.8-OUTD-S-US PVI-3.8-OUTD-S-US-Z PVI-3.8-OUTD-S-US-Z-A PVI-3.8-OUTD-US-W
Date of Approval	
Testing Agency	CSA International Master Contract: 259813
Device Description	4200 W /3800 W /3300 W 277 Vac /240 Vac/ 208 Vac Single Phase Utility Interactive Inverters. Note: PVI-3.8-OUTD-US-W is intended for operation with AC generated supply (i.e. wind or hydro)

Manufacturer	ABB, Inc.
Model No.	PVI-4.2-OUTD-US PVI-4.2-OUTD-US-Z PVI-4.2-OUTD-S-US PVI-4.2-OUTD-S-US-Z PVI-4.2-OUTD-S-US-Z-A PVI-4.2-OUTD-US-W
Date of Approval	
Testing Agency	CSA International Master Contract: 259813
Device Description	4800 W/ 4600 W/ 4200 W 277 Vac /240 Vac/ 208 Vac Single Phase Utility Interactive Inverters. Note: PVI-4.2-OUTD-US-W is intended for operation with AC generated supply (i.e. wind or hydro)

Manufacturer	ABB, Inc.
Model No.	PVI-5000-OUTD-US PVI-5000-OUTD-US-Z PVI-5000-OUTD-US-A PVI-5000-OUTD-US-Z-A
Date of Approval	
Testing Agency	CSA International
Test Report	173688 – 1841082 Master Contract: 259813
Device Description	Description 5000 W 277 Vac / 240 Vac / 208 Vac Single Phase Utility Interactive Inverter

Manufacturer	ABB, Inc.
Model No.	PVI-6000-OUTD-US PVI-6000-OUTD-US-Z PVI-6000-OUTD-US-A PVI-6000-OUTD-US-Z-A
Date of Approval	
Testing Agency CSA International	CSA International
Test Report	Test Report 173688 – 1841082 Master Contract: 259813
Device Description	6000 W 277 Vac / 240 Vac / 208 Vac Single Phase Utility Interactive Inverter

Manufacturer	ABB, Inc.
Model No.	PVI-6000-OUTD-US-W
Date of Approval	
Testing Agency	CSA International
Test Report	173688 – 1841082 Master Contract: 259813
Device Description	6000 W 277 Vac / 240 Vac / 208 Vac Single Phase Utility Interactive Inverter. Note: PVI-6000-OUTD-US-W is intended for operation with AC.

Manufacturer	Advanced Energy Inc.
Model No.	GC-1000-SA
Date of Approval	9/18/02
Firmware Version	300.120, 300.140
Testing Agency	Underwriter's Laboratories
Test Report	E182866-02NK08125
Date of Report	9/10/02
Device Description	1000W, 120V Single Phase Inverter

Manufacturer	Advanced Energy Inc.
Model No.	MM-5000
Date of Approval	1/28/02
Firmware Version	3.21
Testing Agency	Underwriter's Laboratories
Test Report	E182866-01NK10139
Date of Report	9/06/01
Device Description	5000W, 120V Single Phase Inverter

Manufacturer	Advanced Energy Inc.
Model No.	MM-3000
Date of Approval	1/28/02
Firmware Version	3.21
Testing Agency	Underwriter's Laboratories
Test Report	E182866-01NK10139
Date of Report	9/06/01
Device Description	3000W, 120V Single Phase Inverter

Manufacturer	Advanced Energy Inc.
Model No.	GC1000
Date of Approval	4/26/00
Firmware Version	2.47
Testing Agency	Underwriter's Laboratories
Test Report	E182866-00NK12026
Date of Report	4/24/00
Device Description	1000W, 120/240 Single Phase Inverter

Manufacturer	Advanced Energy Industries, Inc.
Model No.	Solaron 333 Solaron 500
Date of Approval	5/4/09
Testing Agency	CSA International
Device Description	333 kW, 500 kW, 480 VAC Three Phase Inverters

Manufacturer	Alpha Technologies
Model No.	Solaris 3500
Date of Approval	2/22/05
Testing Agency	Underwriter's Laboratories
Device Description	3.5 kW 240 V Single Phase Inverter

Manufacturer	Amptech Inc.
Model No.	Windspire 800080
Date of Approval	3/17/2010
Testing Agency	Intertek Testing Services
Device Description	1.2 kW 120 Vac Single Phase Inverter

Manufacturer	Ascension Technology
Model No.	SS01-MP
Date of Approval	8/18/00
Firmware Version	2.09
Testing Agency	Underwriter's Laboratories
Test Report	E184515-00NK25412
Date of Report	7/13/00
Device Description	300W, 120/240 Single Phase Inverter

Manufacturer	Ballard Power Systems
Model No.	EPC-PV-208-30KW, EPC-PV-480-30KW
Date of Approval	8/19/04
Firmware Version	1447, 4705
Testing Agency	Underwriter's Laboratories
Device Description	30 kW, 208V and 480V Three Phase Inverters

Manufacturer	Beacon Power
Model No.	M4, M4 Plus, M5 Plus
Date of Approval	5/30/06
Testing Agency	Underwriter's Laboratories
Device Description	120V Single Phase Inverters

Manufacturer	Beacon Power Corp.
Model No.	M5
Date of Approval	12/17/03
Firmware Version	M5V4-109
Testing Agency	Underwriter's Laboratories
Device Description	5 kW, 120V Single Phase Power Conversion System

Manufacturer	Beckwith Electric
Model No.	M-3410
Date of Approval	10/22/03
Firmware Version	D0091V01.05.07 to D0091V01.99.99
Testing Agency	Underwriter's Laboratories
Test Report	E128716-03CA33157
Date of Report	9/24/03
Device Description	Intertie/Generator Protection Relay

Manufacturer	Beckwith Electric
Model No.	M-3410A
Date of Approval	10/22/03
Firmware Version	D0110V01.01.08 to D0110V01.99.99
Testing Agency	Underwriter's Laboratories
Test Report	E128716-03CA33157
Date of Report	9/24/03
Device Description	Intertie/Generator Protection Relay

Manufacturer	Beckwith Electric
Model No.	M-3520
Date of Approval	10/22/03
Firmware Version	D0060V03.00.06 to D0060V03.99.99
Testing Agency	Underwriter's Laboratories
Test Report	E128716-03CA33157
Date of Report	9/24/03
Device Description	Intertie/Generator Protection Relay

Manufacturer	Capstone Turbine
Model No.	65
Date of Approval	7/26/06
Testing Agency	Underwriter's Laboratories, Nemko
Device Description	65kW, 480V, Three Phase Microturbine

Manufacturer	Capstone Turbine
Model No.	C60 Microturbine
Date of Approval	2/28/02
Firmware Version	3.10 through 3.99
Testing Agency	Underwriter's Laboratories, Nemko EESI, Inc.
Test Report	180102-AU2867F, 21-296
Date of Report	1/18/02, 12/26/01
Device Description	60kW, 480V, Three Phase Microturbine

Manufacturer	Capstone Turbine
Model No.	(330) 30 MicroTurbine
Date of Approval	6/26/00
Firmware Version	4.52 through 4.99, 5.2
Testing Agency	Underwriter's Laboratories, Nemko EESI, Inc.
Test Report	310102-AU2687B, 20200402
Date of Report	1/31/02, 5/4/00
Device Description	30kW, 480V, Three Phase Microturbine

Manufacturer	Capstone Turbine Corp.
Model No.	60, C60, 60 SA, C60 SA, C60 ICHP
Date of Approval	11/5/04
Firmware Version	4.24
Testing Agency	Underwriter's Laboratories
Device Description	60kW, 480V, Three Phase Microturbine

Manufacturer	Elliott Energy Systems
Model No.	PE100-4B-8
Date of Approval	8/27/07
Testing Agency	Intertek Testing Services
Device Description	480 V, 100 kW Microturbine

Manufacturer	Enphase Energy
Model No.	Models: M175-24-240-S01, M175-24-240-S02, M175-24-208-S01, M175-24-208-S02, M200-32-208-S01, M200-32-208-S02, M200-32-240-S01, M200-32-240-S02.
Date of Approval	9/22/08
Testing Agency	CSA International
Device Description	175 W, 200 W, 240 V, 208V, Single Phase Micro-Inverter

Manufacturer	Enphase Energy
Model No.	Models: M190-72-240-S11, M190-72-240-S12, M190-72-208-S11, M190-72-208-S12
Date of Approval	5/4/09
Testing Agency	CSA International
Device Description	190 W, 240 V, 208V, Single Phase Micro-Inverter

Manufacturer	Enphase Energy
Model No.	Models: M210-84-240-S12, M210-84-208-S12,
Date of Approval	10/13/09
Testing Agency	CSA International
Device Description	210 W, 240 V, 208V, Single Phase Micro-Inverter

Manufacturer	Enphase Energy
Model No.	Models: D380-72-240-S1x D380-72-208-S1x D380-72-2LL-S1x D380-72-2LL-S1x-NA
Date of Approval	9/30/2010
Testing Agency	CSA International
Device Description	380W, 240 V, 208V, Single Phase Micro-Inverter

Manufacturer	Eocycle Technologies
Model No.	EO-CCU-A0045-60-0480
Date of Approval	12/9/2010
Testing Agency	QPS Evaluation Services Inc.
Device Description	45kW, 480V, Three Phase Inverters

Manufacturer	Fronius
Model No.	IG 4000, IG 5100
Date of Approval	2/2/05
Testing Agency	Underwriter's Laboratories
Device Description	4 kW, 5.1 kW 240 V Single Phase Inverters

Manufacturer	Fronius
Model No.	IG 4500-LV
Date of Approval	2/2/05
Testing Agency	Underwriter's Laboratories
Device Description	4.5 kW 208 V Single Phase Inverter

Manufacturer	Fronius USA
Model No.	IG 2500-LV
Date of Approval	3/3/04
Firmware Version	V2.00.01
Testing Agency	Underwriter's Laboratories
Device Description	2.5 kW, 208 V Single Phase Inverter

Manufacturer	Fronius USA
Model No.	IG 2000, IG 3000
Date of Approval	3/3/04
Firmware Version	V2.00.01
Testing Agency	Underwriter's Laboratories
Device Description	2 kW, 3 kW 240 V Single Phase Inverters

Manufacturer	Fronius USA
Model No.	Fronius IG Plus 3.0-1 UNI Fronius IG Plus 3.8-1 UNI Fronius IG Plus 5.0-1 UNI Fronius IG Plus 6.0-1 UNI Fronius IG Plus 7.5-1 UNI Fronius IG Plus 10.0-1 UNI Fronius IG Plus 11.4-1 UNI
Date of Approval	12/11/08
Testing Agency	CSA International
Device Description	3.0/3.0/3.0 kW 3.8/3.8/3.8 kW 5.0/5.0/5.0 kW 6.0/6.0/6.0 kW 7.5/7.5/7.5 kW 9.995/9.995/9.995 kW 11.4/11.4/11.4 kW 208/240/277 VAC Single Phase Inverters

Manufacturer	Fronius USA
Model No.	Fronius IG Plus 11.4-3 Delta Fronius IG Plus 12.0-3 WYE277
Date of Approval	12/11/08
Testing Agency	CSA International
Device Description	11.4/11.4 kW 208/240 VAC 3-Phase Inverter 12.0 kW 277 VAC 3-Phase Inverter

Manufacturer	Fronius USA
Model No.	Fronius IG Plus V 11.4-3 Delta Fronius IG Plus V 12.0-3 WYE277
Date of Approval	9/23/2010
Testing Agency	CSA International
Device Description	11.4/11.4 kW 208/240 VAC 3-Phase Inverter 12.0 kW 277 VAC 3-Phase Inverter

Manufacturer	Fronius USA
Model No.	Fronius CL 33.3 Delta Fronius CL 36.0 WYE277 Fronius CL 44.4 Delta Fronius CL 48.0 WYE277 Fronius CL 55.5 Delta Fronius CL 60.0 WYE277
Date of Approval	9/14/2010
Testing Agency	CSA International
Device Description	33.3/33.3 kW 36.0kW 44.4/44.4 kW 48.0 kW 7.5/7.5/7.5 kW 55.5/55.5 kW 60.0 kW 208/240/277 VAC 3-Phase Inverters

Manufacturer	Fronius USA
Model No.	Fronius IG Plus V 3.0-1 UNI Fronius IG Plus V 3.8-1 UNI Fronius IG Plus V 5.0-1 UNI Fronius IG Plus V 6.0-1 UNI Fronius IG Plus V 7.5-1 UNI Fronius IG Plus V 10.0-1 UNI Fronius IG Plus V 11.4-1 UNI
Date of Approval	9/23/2010
Testing Agency	CSA International
Device Description	3.0/3.0/3.0 kW 3.8/3.8/3.8 kW 5.0/5.0/5.0 kW 6.0/6.0/6.0 kW 7.5/7.5/7.5 kW 10.0/10.0/10.0 kW 11.4/11.4/11.4 kW 208/240/277 VAC Single Phase Inverters

Manufacturer	GE
Model No.	GEPVb-2800-NA-240/208-02 GEPVb-3300-NA-240/208-02 GEPVb-4000-NA-240/208-02 GEPVb-5000-NA-240/208-02
Date of Approval	11/19/07
Testing Agency	CSA
Device Description	208/240 V Single Phase Inverters

Manufacturer	GE Energy
Model No.	GEPVb-5000-NA-240-01
Date of Approval	4/24/07
Testing Agency	CSA
Device Description	5 kW, 240 V Single Phase Inverter

Manufacturer	GE Energy
Model No.	GEPVb-2500-240-01, GEPVb-3000-240-01, GEPVb-3300-240-01, GEPVb-3300-208-01, GEPVb-3800-240-01
Date of Approval	6/21/06
Testing Agency	CSA
Device Description	208V, 240V Single Phase Inverters

Manufacturer	Honda Motor Co
Model No.	MCHP 1.2
Date of Approval	4/4/07
Testing Agency	Underwriter's Laboratories
Device Description	1.2 kW, 240 V CHP Unit

Manufacturer	Honda Motor Co
Model No.	MCHP1.2D, MCHP1.2DP
Date of Approval	8/19/09
Testing Agency	Intertek ETL SEMKO Testing Services
Device Description	1.2 kW, 120/240 V Single Phase Micro CHP

Manufacturer	Inverters Unlimited
Model No.	Sun-AC 3000
Date of Approval	11/28/05
Testing Agency	Underwriter's Laboratories
Device Description	3 kW, 240 V Single Phase Inverter

Manufacturer	Kaco new energy GmbH
Model No.	blueplanet 1502xi, blueplanet 2502xi
Date of Approval	8/18/09
Testing Agency	TUV Rheinland of North America, Inc.
Device Description	1.5 kW, 2.5 kW 208/240 V Single Phase Inverters

Manufacturer	Kaco new energy GmbH
Model No.	XP100U-H4
Date of Approval	10/27/09
Testing Agency	Intertek ETL SEMKO Testing Services
Device Description	100 kW 480Vac Three Phase Inverter

Manufacturer	Kaco new energy GmbH
Model No.	blueplanet 3502xi blueplanet 5002xi
Date of Approval	12/10/09
Testing Agency	TUV Rheinland of North America, Inc.
Device Description	3.5 kW, 5.0 kW 208/240 V Single Phase Inverters

Manufacturer	Magnetek
Model No.	PVI-3000-I-OUTD-US
Date of Approval	11/5/04
Firmware Version	3E14.C.1.0.6, 3D52.A.0.0.1, 3D52.B.0.5.4
Testing Agency	Underwriter's Laboratories
Device Description	3 kW, 240 V Single Phase Inverter

Manufacturer	Marathon Engine Systems
Model No.	ecopower
Date of Approval	7/28/08
Testing Agency	Intertek ETL SEMKO Testing Services
Device Description	5 kW, 240 V Single Phase Micro CHP

Manufacturer	MOTECH INDUSTRIES INC.
Model No.	PVMate 2900U, PVMate 2900U-PG PVMate 3900U, PVMate 3900U-PG PVMate 4900U, PVMate 4900U-PG PVMate 5300U, PVMate 5300U-PG
Date of Approval	2/9/09
Testing Agency	Intertek ETL SEMKO Testing Services
Device Description	2900W, 3900W, 4900W, 5300W 208/240 V, Single Phase Inverters

Manufacturer	MOTECH INDUSTRIES INC.
Model No.	PVMate 3840U, PVMate 3840U-PG
Date of Approval	10/30/09
Testing Agency	Intertek ETL SEMKO Testing Services
Device Description	3840W 208/240 V, Single Phase Inverters

Manufacturer	Ningbo Ginlong Technologies Co. Ltd.
Model No.	GCI-2K
Date of Approval	5/3/2010
Testing Agency	Intertek ETL SEMKO Testing Services
Device Description	2 kW, 240V, Three Phase Inverter

Manufacturer	Northern Power Systems Inc. (Refer to Note #3)
Model No.	Northwind 100, model 1006055
Date of Approval	12/1/09
Testing Agency	SGS U.S. Testing Company, Inc.
Device Description	100 kW, 480V, Three Phase Wind Turbine

Manufacturer	Outback Power Systems
Model No.	GTFX2524, GTFX3048, GVFX3524, GVFX3648
Date of Approval	11/23/04
Testing Agency	Intertek Testing Services
Device Description	2.5 kW, 3 kW, 3.5 kW, 3.6 kW 120 V Single Phase Inverters

Manufacturer	Plug Power
Model No.	MP-5000
Date of Approval	4/1/03
Firmware Version	MP5C3.3
Testing Agency	Underwriter's Laboratories
Test Report	E206704-03NK18292
Date of Report	1/30/03
Device Description	5000 W, 120V Single Phase Inverter

Manufacturer	Plug Power
Model No.	SU1PCM-059622
Date of Approval	11/14/01
Firmware Version	3.21
Testing Agency	Underwriter's Laboratories
Test Report	E206704-01NK16753
Date of Report	10/30/01
Device Description	6500 W, 240V Single Phase Fuel Cell Inverter

Manufacturer	Power-One Italy S.p.a.
Model No.	PVI-5000-OUTD-US PVI-5000-OUTD-US-Z PVI-5000-OUTD-US-A PVI-5000-OUTD-US-Z-A
Date of Approval	02/27/08
Firmware Versions	Microprocessor: C.0.1.6 DC-DC Converter: A.0.3.8 Inverter: B.0.3.A
Firmware Versions (Alternate Microcontroller, Atmel, Type ATMEGA 256-16-AU):	Microprocessor: C.1.4.0 DC-DC Converter: A.1.0.8 Inverter: B.1.0.B
Firmware Versions (-A models with DC Arc Fault protection)	Microprocessor: C.0.4.1 DC-DC Converter: A.1.0.8 Inverter: B.1.0.B
Alternate Firmware Version (Referred to very high voltage field adjustable time setting):	Microprocessor: C.1.4.1 DC-DC Converter: A.1.0.8 Inverter: B.1.1.5
Testing Agency	CSA International
Test Report	173688 – 1841082
Device Description	Description 5000 W 277 Vac / 240 Vac / 208 Vac Single Phase Utility Interactive Inverter

Manufacturer	Power-One Italy S.p.a.
Model No.	PVI-6000-OUTD-US PVI-6000-OUTD-US-Z PVI-6000-OUTD-US-A PVI-6000-OUTD-US-Z-A
Date of Approval	02/27/08
Firmware Versions	Microprocessor: C.0.1.6 DC-DC Converter: A.0.3.8 Inverter: B.0.3.A
Firmware Versions (Alternate Microcontroller, Atmel, Type ATMEGA 256-16-AU):	Microprocessor: C.1.4.0 DC-DC Converter: A.1.0.8 Inverter: B.1.0.B
Firmware Versions (-A models with DC Arc Fault protection)	Microprocessor: C.0.4.1 DC-DC Converter: A.1.0.8 Inverter: B.1.0.B
Alternate Firmware Version (Referred to very high voltage field adjustable time setting):	Microprocessor: C.1.4.1 DC-DC Converter: A.1.0.8 Inverter: B.1.1.5
Testing Agency CSA International	CSA International
Test Report	Test Report 173688 – 1841082
Device Description	6000 W 277 Vac / 240 Vac / 208 Vac Single Phase Utility Interactive Inverter

Manufacturer	Power-One Italy S.p.a.
Model No.	PVI-6000-OUTD-US-W
Date of Approval	02/27/08
Firmware Versions	Microprocessor: C.0.1.6 DC-DC Converter: A.1.0.8 Inverter: B.1.0.B
Firmware Versions (Alternate Microcontroller, Atmel, Type ATMEGA 256-16-AU):	Microprocessor: C.1.4.0 DC-DC Converter: A.1.0.8 Inverter: B.1.0.B
Firmware Versions (-A models with DC Arc Fault protection)	Microprocessor: C.0.4.0 DC-DC Converter: A.1.0.8 Inverter: B.1.0.B
Testing Agency	CSA International
Test Report	173688 – 1841082
Device Description	6000 W 277 Vac / 240 Vac / 208 Vac Single Phase Utility Interactive Inverter. Note: PVI-6000-OUTD-US-W is intended for operation with AC.

Manufacturer	Power-One Italy S.p.a.
Model No.	PVI-CENTRAL-100-US, PVICENTRAL-50-US
Date of Approval	2/9/09
Firmware Versions	DSP Firmware versions: C002 MICRO Firmware versions: D002
	When provided with 50 kW Inverter Modules P/N 933I67994F0G: DSP Firmware versions: CF05 MICRO Firmware versions: DF09
Testing Agency	CSA International
Test Report	173688 – 2022026
Device Description	100 kW, 50 kW, 208 Vac / 480 Vac Three Phases Utility Interactive Inverter

Manufacturer	Power-One Italy S.p.a.
Model No.	PVI-4.2-OUTD-US PVI-4.2-OUTD-US-Z PVI-4.2-OUTD-S-US PVI-4.2-OUTD-S-US-Z PVI-4.2-OUTD-S-US-Z-A PVI-4.2-OUTD-US-W
Date of Approval	11/8/2010
Firmware Versions Rev. Number	DC-DC Converter A.2.0.5 Inverter B.2.0.5 Number Microprocessor C.0.2.2
Alternate Device Version (referred to Alternate Microcontroller, Atmel, Type ATMEGA 256-16-AU):	DC-DC Converter A.2.0.5 Inverter B.2.0.5 Number Microprocessor C.1.4.0
Alternate Firmware Version for –A Model Series Only	DC-DC Converter A.2.0.5 Inverter B.2.0.C Number Microprocessor C.0.4.1
Alternate Device Version (referred to Firmware revision for very high voltage field adjustable time setting)	DC-DC Converter A.2.0.5 Inverter B.2.0.C Number Microprocessor C.1.4.1
Device Description	4800 W/ 4600 W/ 4200 W 277 Vac /240 Vac/ 208 Vac Single Phase Utility Interactive Inverters. Note: PVI-4.2-OUTD-US-W is intended for operation with AC generated supply (i.e. wind or hydro)

Manufacturer	Power-One Italy S.p.a.
Model No.	PVI-3.8-OUTD-US PVI-3.8-OUTD-US-Z PVI-3.8-OUTD-S-US PVI-3.8-OUTD-S-US-Z PVI-3.8-OUTD-S-US-Z-A PVI-3.8-OUTD-US-W
Date of Approval	11/8/2010
Firmware Versions Rev. Number	DC-DC Converter A.2.0.5 Inverter B.2.0.5 Number Microprocessor C.0.2.2
Alternate Device Version (referred to Alternate Microcontroller, Atmel, Type ATMEGA 256-16-AU):	DC-DC Converter A.2.0.5 Inverter B.2.0.5 Number Microprocessor C.1.4.0
Alternate Firmware Version for –A Model Series Only	DC-DC Converter A.2.0.5 Inverter B.2.0.C Number Microprocessor C.0.4.1
Alternate Device Version (referred to Firmware revision for very high voltage field adjustable time setting)	DC-DC Converter A.2.0.5 Inverter B.2.0.C Number Microprocessor C.1.4.1
Device Description	4200 W /3800 W /3300 W 277 Vac /240 Vac/ 208 Vac Single Phase Utility Interactive Inverters. Note: PVI-3.8-OUTD-US-W is intended for operation with AC generated supply (i.e. wind or hydro)

Manufacturer	Power-One Italy S.p.a.
Model No.	PVI-3.6-OUTD-US PVI-3.6-OUTD-US-Z PVI-3.6-OUTD-S-US PVI-3.6-OUTD-S-US-Z PVI-3.6-OUTD-S-US-Z-A PVI-3.6-OUTD-US-W
Date of Approval	11/8/2010
Firmware Versions Rev. Number	DC-DC Converter A.2.0.5 Inverter B.2.0.5 Number Microprocessor C.0.2.2
Alternate Device Version (referred to Alternate Microcontroller, Atmel, Type ATMEGA 256-16-AU):	DC-DC Converter A.2.0.5 Inverter B.2.0.5 Number Microprocessor C.1.4.0
Alternate Firmware Version for –A Model Series Only	DC-DC Converter A.2.0.5 Inverter B.2.0.C Number Microprocessor C.0.4.1
Alternate Device Version (referred to Firmware revision for very high voltage field adjustable time setting)	DC-DC Converter A.2.0.5 Inverter B.2.0.C Number Microprocessor C.1.4.1
Device Description	4000 W/ 4000W/ 3600 W 277 Vac /240 Vac/ 208 Vac Single Phase Utility Interactive Inverters. Note: PVI-3.6-OUTD-US-W is intended for operation with AC generated supply (i.e. wind or hydro)

Manufacturer	Power-One Italy S.p.a.
Model No. PVI-3.0-OUTD-US	PVI-3.0-OUTD-US PVI-3.0-OUTD-US-Z PVI-3.0-OUTD-S-US PVI-3.0-OUTD-S-US-Z PVI-3.0-OUTD-S-US-Z-A PVI-3.0-OUTD-US-W
Date of Approval	11/8/2010
Firmware Versions Rev. Number	DC-DC Converter A.2.0.5 Inverter B.2.0.5 Number Microprocessor C.0.2.2
Alternate Device Version (referred to Alternate Microcontroller, Atmel, Type ATMEGA 256-16-AU):	DC-DC Converter A.2.0.5 Inverter B.2.0.5 Number Microprocessor C.1.4.0
Alternate Firmware Version for –A Model Series Only	DC-DC Converter A.2.0.5 Inverter B.2.0.C Number Microprocessor C.0.4.1
Alternate Device Version (referred to Firmware revision for very high voltage field adjustable time setting)	DC-DC Converter A.2.0.5 Inverter B.2.0.C Number Microprocessor C.1.4.1
Device Description	3300 W/ 3300 W/ 3000 W 277 Vac /240 Vac/ 208 Vac Single Phase Utility Interactive Inverters. Note: PVI-3.0-OUTD-US-W is intended for operation with AC generated supply (i.e. wind or hydro)

Manufacturer	Power-One Italy S.p.a.
Models No.	PVI-3.8-I-OUTD-US-PG, PVI-3.8-IOUTD-US-NG, PVI-3.8-I-OUTD-S-US-PG, PVI-3.8-I-OUTD-S-US-NG SSW-3.8-I-OUTD-US
Date of Approval 12/11/12	Date of Approval 12/11/12
Testing Agency	CSA International
Test Report	173688 – 2326508
Device Description	4200 W / 4200 W / 3650 W 277 Vac / 240 Vac / 208 Vac Single Phase Utility Interactive Inverter

Manufacturer	PV Powered
Model No.	PVP5200-240, PVP4600-208
Date of Approval	02/27/08
Testing Agency	Underwriter's Laboratories
Date of Report	03/03/07
Device Description	208V, 240V Single Phase Inverters

Manufacturer	PV Powered
Model No.	PVP4800-240, PVP3500-240, PVP2500-240
Date of Approval	02/11/08
Testing Agency	Underwriter's Laboratories
Date of Report	03/03/07
Device Description	240 V Single Phase Inverters

Manufacturer	PV Powered
Model No.	PVP30kW
Date of Approval	10/16/07
Testing Agency	Underwriters Laboratories
Device Description	30 kW, 208/480 V Inverter

Manufacturer	PV Powered
Model No.	PVP2000-120, PVP2900, PVP2800-XV, PVP3200
Date of Approval	9/14/05
Testing Agency	Underwriter's Laboratories
Device Description	120V, 208V, 240V Single Phase Inverters

Manufacturer	PV Powered, LLC
Model No.	PVP 2800-240
Date of Approval	5/5/04
Firmware Version	1400
Testing Agency	Underwriters Laboratories
Device Description	2.8 kW, 240 V Single Phase Inverter

Manufacturer	PV Powered
Model No.	PVP 1100, PVP 2000, PVP 2800, PVP 3000.
Date of Approval	11/17/08
Testing Agency	Intertek Testing Services.
Device Description	1.1 kW, 2.0 kW, 2.8 kW, 3.0 kW, 120V, 240V, 208V Single Phase Inverters.

Manufacturer	PV Powered
Model No.	PVP 75 kW, PVP 100 kW.
Date of Approval	11/17/08
Testing Agency	Intertek Testing Services
Device Description	75 kW, 100 kW, 208V/480V Three Phase Inverters

Manufacturer	Rockwell Automation
Model No.	PowerFlex 700L, Grid Tied Inverter
Date of Approval	8/15/08
Testing Agency	Intertek Testing Services
Device Description	300 kW, 480 V Three Phase Inverter

Manufacturer	SatCon Power Systems
Model No.	PVS-30, PVS-50, PVS-135
Date of Approval	6/26/08
Testing Agency	CSA
Device Description	30 kW, 50 kW, 135kW 208/240/480 V Three Phase Inverters
Manufacturer	SatCon Power Systems
Model No.	AE-375-50-F-U-04
Date of Approval	6/5/08
Testing Agency	Intertek ETL SEMKO
Device Description	300kW, 380/400/420/440/460/480VAC Three Phase Inverter

Manufacturer	SatCon Power Systems
Model No.	AE-500-60-PV, AE-225-60-PV, AE-135-60-PV, AE-100-60-PV, AE-75-60-PV, AE-50-60-PV, AE-30-60-PV
Date of Approval	10/23/07
Testing Agency	CSA
Device Description	208/240/480 V Three Phase Inverters

Manufacturer	SatCon Power Systems
Model No.	PVS-75, PVS-100, PVS 250
Date of Approval	1/20/09
Testing Agency	CSA
Device Description	75 kW, 100 kW, 250 kW 208/240/480 V Three Phase Inverters

Manufacturer	SatCon Power Systems
Model No.	PVS-375, PVS-500
Date of Approval	1/20/09
Testing Agency	CSA
Device Description	375 kW, 500 kW 480 V Three Phase Inverters

Manufacturer	SatCon Power Systems
Model No.	PVS-500 (xfmrless)
Date of Approval	1/20/09
Testing Agency	CSA
Device Description	500 kW 200 V Three Phase Inverters

Manufacturer	Schweitzer Engineering Labs
Model No.	SEL-351A00H24552XX
Date of Approval	11/11/00
Firmware Version	SEL-351A-R101-V0-Z001001-D19990908
Testing Agency	Underwriter's Laboratories
Test Report	E202915-00NK41853
Date of Report	10/25/00
Device Description	Utility Interactive Relay, Single Phase and Three Phase

Manufacturer	Sharp Corporation
Model No.	JH-3500U
Date of Approval	8/27/03
Firmware Version	SMJ04
Testing Agency	Underwriter's Laboratories
Device Description	3500 W, 240V Single Phase Inverter

Manufacturer	SMA America
Model No.	SI5048U
Date of Approval	03/20/08
Testing Agency	Underwriter's Laboratories
Device Description	120V(105-132V) Single Phase Inverter

Manufacturer	SMA America
Model No.	SB-700U
Date of Approval	10/25/07
Testing Agency	Underwriters Laboratories
Device Description	120 V Single Phase Inverter

Manufacturer	SMA America
Model No.	ST36, ST42
Date of Approval	10/18/07
Testing Agency	Underwriters Laboratories
Device Description	208/480 V Three Phase Inverters

Manufacturer	SMA America
Model No.	SB3000US, SB4000US, SB5000US, SB6000US, SB7000US
Date of Approval	5/1/07
Testing Agency	Underwriters Laboratories
Device Description	208/240/277 V Single Phase Inverters

Manufacturer	SMA America
Model No.	SB2100U
Date of Approval	7/19/06
Testing Agency	Underwriter's Laboratories
Device Description	240V Single Phase Inverter

Manufacturer	SMA America
Model No.	SB3300U
Date of Approval	7/19/06
Testing Agency	Underwriter's Laboratories
Device Description	208V/240V Single Phase Inverter

Manufacturer	SMA America
Model No.	SB 3800U
Date of Approval	10/13/05
Testing Agency	Intertek Testing Services
Device Description	3.8 kW, 208/240 V Single Phase Inverter

Manufacturer	SMA America
Model No.	SB 6000U
Date of Approval	11/17/04
Firmware Version	2.59/2.56/2.54
Testing Agency	Underwriter's Laboratories
Device Description	6 kW, 208, 240 V, 277 V Single Phase Inverter

Manufacturer	SMA America
Model No.	SWR-1800U
Date of Approval	9/8/04
Firmware Versions	8.30, 8.32, 8.64, 8.65, 8.66, 8.90, 8.92, 8.94
Testing Agency	Underwriter's Laboratories
Date of Report	7/19/04
Device Description	1800 W, 120 V Single Phase Inverter

Manufacturer	SMA America
Model No.	SWR-2500U
Date of Approval	9/8/04
Firmware Versions	8.30, 8.32, 8.64, 8.65, 8.66, 8.90, 8.92, 8.94
Testing Agency	Underwriter's Laboratories
Date of Report	7/19/04
Device Description	2500 W, 208/240 V Single Phase Inverter

Manufacturer	SMA America, SMA Technologies AG
Model No.	SI4248U
Date of Approval	02/27/06
Testing Agency	Intertek Testing Services
Device Description	120V Single Phase Inverter

Manufacturer	SMA Solar Technology AG
Model No.	SB8000US
Date of Approval	1/7/2010
Testing Agency	Underwriters Laboratories
Device Description	240/277 V Single Phase Inverters

Manufacturer	SMA Solar Technology AG
Model No.	SC250U, SC500U
Date of Approval	1/31/2010
Testing Agency	Underwriters Laboratories
Device Description	250 kW, 500 kW, 480 V ac Three Phase Inverters

Manufacturer	SMA Solar Technology AG
Model No.	SC500HE-US
Date of Approval	2/25/2010
Testing Agency	Underwriters Laboratories
Device Description	500 kW, 200 VAC, Three Phase Inverter

Manufacturer	SMA Solar Technology AG
Model No.	SB 8000TL-US, SB 9000TL-US, SB 10000TL-US
Date of Approval	8/27/2010
Testing Agency	Underwriters Laboratories
Device Description	8kW, 9kW, 10kW, 208 VAC, Single Phase Inverters

Manufacturer	SolarEdge Technologies Ltd/Flextronics
Model No.	SE 3300, SE 4000, SE 5000, SE 6000
Date of Approval	12/6/2010
Testing Agency	Intertek Testing Services
Device Description	3300W, 4000W, 5000W, 6000W 208/240 VAC, Single Phase Inverters

Manufacturer	Solectria
Model No.	PVI1800, PVI2500
Date of Approval	2/28/08
Testing Agency	TUV Rheinland of North America, Inc.
Device Description	208/240 VAC, Single Phase Inverters

Manufacturer	Solectria
Model No.	PVI1800, PVI2500
Date of Approval	12/22/05
Testing Agency	CSA
Device Description	208/240 Three Phase Inverters

Manufacturer	Solectria Renewables
Model No.	PVI60kW, PVI82kW ( also known as PVI77kW), PVI95kW (also known as PVI90kW)
Date of Approval	02/27/08
Testing Agency	Intertek Testing Services
Date of Report	08/08/07
Device Description	208/480VAC, Three Phase Inverters

Manufacturer	Solectria Renewables
Model No.	PVI 13KW, PVI 15KW
Date of Approval	02/27/08
Testing Agency	Intertek Testing Services
Date of Report	04/06/07
Device Description	208/480 VAC, Three Phase Inverter

Manufacturer	Solectria Renewables
Model No.	PVI 3000, PVI 3000-P PVI 4000, PVI 4000-P PVI 5000, PVI 5000-P PVI 5300, PVI 5300-P
Date of Approval	03/29/2010
Testing Agency	Intertek Testing Services
Device Description	208/240 VAC, single Phase Inverters

Manufacturer	Southwest Windpower
Model No.	Skystream 3.7
Date of Approval	1/11/07
Testing Agency	Underwriter's Laboratories
Device Description	120/240 V Single Phase Inverter

Manufacturer	SunPower
Model No.	SPR-2800x
Date of Approval	11/19/07
Testing Agency	CSA
Device Description	240 V Single Phase Inverter

Manufacturer	SunPower
Model No.	SPR-3000m, SPR-4000m, SPR-5000m, SPR-6000m, SPR-7000m
Date of Approval	8/21/07
Testing Agency	Underwriters Laboratories
Device Description	208/240/277 V Single Phase Inverters

Manufacturer	SunPower Corp.
Model No.	SPR-5000x
Date of Approval	4/24/07
Testing Agency	CSA
Device Description	5 kW, 240 V Single Phase Inverter

Manufacturer	SunPower Corp.
Model No.	SPR-3300x, SPR-3300x-208, SPR-4000x
Date of Approval	6/21/06
Testing Agency	CSA
Device Description	208V, 240V Single Phase Inverters

Manufacturer	Sunpower Corp.
Model No.	SPR5200-240, SPR4600-208
Date of Approval	1/23/06
Testing Agency	Underwriter's Laboratories, CSA
Device Description	208V, 240V Single Phase Inverters
Manufacturer	Sunpower Corp.
Model No.	SPR-2000-120, SPR-2900, SPR-3200
Date of Approval	9/14/05
Testing Agency	Underwriter's Laboratories
Device Description	120V, 208V, 240V Single Phase Inverters

Manufacturer	Sunpower Corp.
Model No.	SPR-3300f SPR-4000f SPR- 6500f SPR-8000f
Date of Approval	12/11/08
Testing Agency	CSA International
Device Description	3.3/3.3/3.3 kW 3.8/4.0/4.0 kW 6.5/6.5/6.5 kW 7.6/8.0/8.0 kW 208/240/277 VAC Single Phase Inverters

Manufacturer	Sunpower Corp.
Model No.	SPR-12000f
Date of Approval	12/11/08
Testing Agency	CSA International
Device Description	11.4/12.0 kW 208/240 VAC 3-Phase Inverter

Manufacturer	Sunpower Corp.
Model No.	SPR- 11401f-3-208/240 Delta SPR- 12001f-3-277 WYE
Date of Approval	9/14/2010
Testing Agency	CSA International
Device Description	11.4/11.4 kW 208/240 VAC 3-Phase Inverter. 12.0 kW 277 VAC 3-Phases Inverter.

Manufacturer	Sunpower Corp.
Model No.	SPR-3301f-1 UNI SPR-3801f-1UNI SPR- 7501f-1 UNI SPR- 6501f-1 UNI SPR- 10001f-1 UNI SPR- 11401f-1 UNI
Date of Approval	9/14/2010
Testing Agency	CSA International
Device Description	3.3/3.3/3.3 kW 3.8/3.8/3.8 kW 6.5/6.5/6.5 kW 7.5/7.5/7.5 kW 10.0/10.0/10.0 kW 11.4/11.4/11.4 kW 208/240/277 VAC Single Phase Inverters

Manufacturer	Tecogen, Inc.
Model No.	CM-60, CM-75
Date of Approval	10/7/02
Firmware Version	US002
Testing Agency	ITS-ETL Semko
Test Report	TCF-1
Date of Report	8/5/02
Device Description	60 kW, 75 kW 460V or 208/230V Cogeneration Systems

Manufacturer	Tecogen, Inc.
Model No.	TS2000-01 (For use with INV-100 CHP Module)
Date of Approval	1/22/09
Testing Agency	Intertek Testing Services
Device Description	100 kW, 480V, 3-Phase Inverter, Power Conditioning System

Manufacturer	TIER ELECTRONICS LLC
Model No.	AMFA00100000000027AF, AMFA00100000000027AH
Date of Approval	12/1/08
Testing Agency	Underwriter's Laboratories
Device Description	12000 W, 240 VAC, Single Phase, Wind Turbine Inverters

Manufacturer	Trace Engineering
Model No.	ST1000, ST1500, ST2000, ST2500
Date of Approval	12/7/00
Firmware Version	3.0, 5.0
Testing Agency	Underwriter's Laboratories
Test Report	E187916-00NK37316
Date of Report	10/24/00
Device Description	1000W, 1500W, 2000W, 2500W Single Phase 120/240V Inverters

Manufacturer	Trace Engineering
Model No.	ST1000, ST1500, ST2000, ST2500
Date of Approval	8/18/00
Firmware Version	2.9
Testing Agency	Underwriter's Laboratories
Test Report	E187916-00NK02576
Date of Report	6/27/00
Device Description	1000W, 1500W, 2000W, 2500W Single Phase 120/240V Inverters

Manufacturer	Vector Systems, Inc.
Model No.	HE INV500W-U
Date of Approval	7/23/09
Testing Agency	Intertek Testing Services
Device Description	500W, 120VAC Single Phase Inverters

Manufacturer	Windterra Systems, Inc.
Model No.	ECO 1200
Date of Approval	10/20/08
Testing Agency	Intertek Testing Services
Device Description	1200W,120VAC Single Phase Inverters

Manufacturer	Xantrex
Model No.	GT100-208 and GT100-208-PG GT100-480 and GT100-480-PG GT250-480 and GT250-480-PG GT500-MV and GT500-MV-PG
Date of Approval	9/2/09
Testing Agency	CSA
Device Description	500kW,250kW,100kW 480/240/208 VAC Three Phase Inverters

Manufacturer	Xantrex
Model No.	GT2.8-NA-240/208, GT3.3N-NA-240/208, GT4.0N-NA-240/208 GT5.0-NA-240/208
Date of Approval	11/19/07
Testing Agency	CSA
Device Description	208/240 V Single Phase Inverters

Manufacturer	Xantrex
Model No.	GT5.0-NA-DS-240, GT5.0-NA-DS-240-POS
Date of Approval	4/24/07
Testing Agency	CSA
Device Description	5 kW, 240 V Single Phase Inverter

Manufacturer	Xantrex
Model No.	GT 3.8-NA-DS-240
Date of Approval	6/21/06
Testing Agency	CSA
Device Description	240V Single Phase Inverter

Manufacturer	Xantrex
Model No.	PV100S-480, PV225S-480P
Date of Approval	3/14/06
Testing Agency	Underwriter's Laboratories, CSA
Device Description	480V Three Phase Inverters

Manufacturer	Xantrex
Model No.	PV20-208, PV30-208, PV45-208
Date of Approval	3/14/06
Testing Agency	Underwriter's Laboratories, CSA
Device Description	208/480 V Three Phase Inverters

Manufacturer	Xantrex Technology
Model No.	XW 4024, XW 4548
Date of Approval	3/14/08
Testing Agency	CSA International
Test Report	159409-1873035
Project No.	1981978
Date of Report	3/7/08
Device Description	4000W, 4500W, 120/240-60 Single Phase Inverters

Manufacturer	Xantrex Technology
Model No.	XW6048
Date of Approval	3/6/08
Testing Agency	CSA International
Test Report	159409-1873035
Device Description	6000W, 120/240-60 Single Phase Inverter

Manufacturer	Xantrex Technology
Model No.	GT2.5-NA-DS-240, GT2.5-NA-DS-240-POS, GT3.3-NA-DS-240, GT3.3-NA-DS-240-POS, GT3.3-NA-DS-208, GT3.3-NA-DS-208-POS
Date of Approval	10/13/05
Testing Agency	CSA
Device Description	208, 240 Single Phase Inverters

Manufacturer	Xantrex Technology
Model No.	GT 3.0
Date of Approval	2/1/05
Testing Agency	CSA International
Device Description	3000 W, 240 V, Single Phase Inverter

Manufacturer	Xantrex Technology
Model No.	SW4024 Series 2, SW4048 Series 2, SW5548 Series 2 (All with Grid Tie Interface accessory)
Date of Approval	12/2/04
Firmware Version	4.3
Testing Agency	Underwriter's Laboratories, CKC Laboratories
Date of Report	10/26/04, 11/16/04
Device Description	4000W, 5500W, 120V, Single Phase Inverters

Manufacturer	Xantrex Technology
Model No.	BWT-10240
Date of Approval	12/3/02
Firmware Version	3.2.5.1
Testing Agency	CSA International
Test Report	216481-1338805
Date of Report	8/19/02
Device Description	10 kW, 240 V Single Phase Inverter

Manufacturer	Xantrex Technologies
Model No.	STXR1500, STXR2000, STXR2500
Date of Approval	9/18/02
Firmware Version	3.2, 5.0
Testing Agency	Underwriter's Laboratories, CKC Laboratories
Test Report	E187916-02NK33060, GE02-035
Date of Report	7/26/02, 9/9/02
Device Description	1500W, 2000W, 2500 W 240V Single Phase Inverters

Manufacturer	Xantrex Technology
Model No.	SW4024 Series 2, SW4048 Series 2, SW5548 Series 2 (All with Grid Tie Interface accessory)
Date of Approval	8/1/02
Firmware Version	4.20
Testing Agency	Underwriter's Laboratories, CKC Laboratories
Test Report	E187916-02NK33060, GE02-027
Date of Report	7/26/02, 6/04/02
Device Description	4000W, 5500W, 120V, Single Phase Inverters