Inaccess Z-PPC

Product Brief

Power Limitation and Zero Power Injection

An increasing number of commercial installations use PV generation to offset their energy usage, provide corporate environmental stewardship and save money. At the same time grid operators need to maintain a reliable, secure supply of electricity to existing customers. Export power limitation schemes serve exactly these two needs, requiring a maximum power export from the installation to the grid. Power Limitation may be specified as "Zero Power Injection" or "Export Limitation": Zero Power Injection indicates that the customer is not allowed to inject any active power to the grid. Export Limitation is a limit on the amount of power the customer can export to the grid. Both mandates come with strict requirements in timing and accuracy.

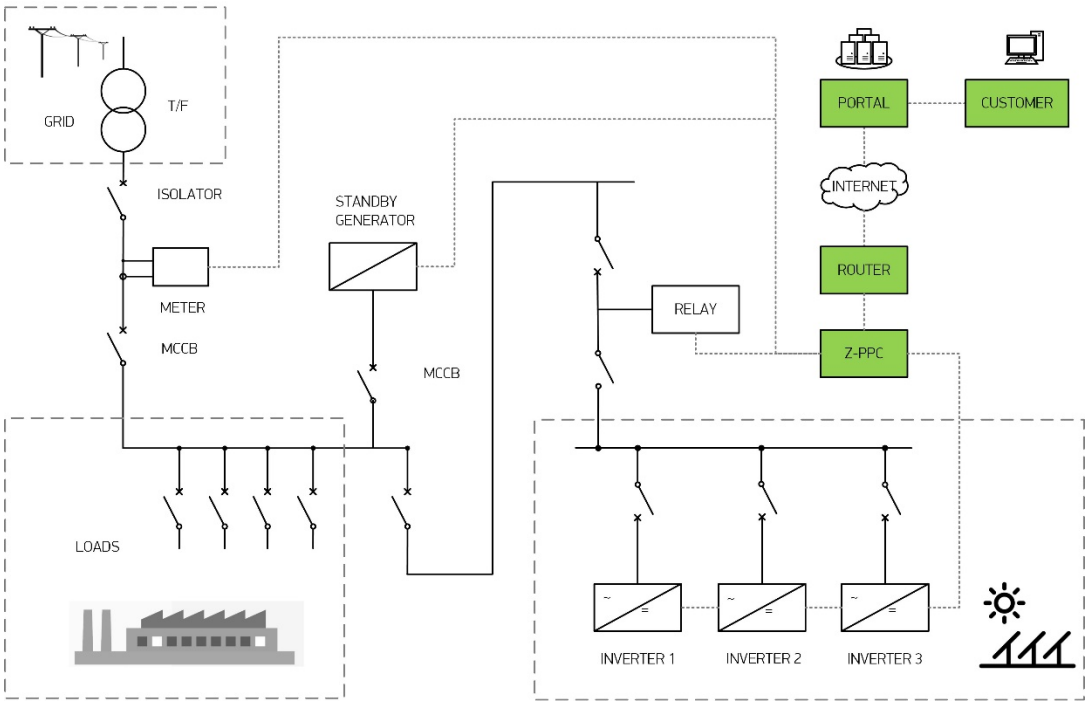


Figure 1 - PV Plant with Inaccess Z-PPC

Inaccess Z-PPC satisfies Power Limitation requirements for the most rigorous grid, using the plant inverters and meters/relays, providing near real-time capabilities for plant active power control. With Inaccess advanced Power Limitation schemes, the EPC and Plant owner may benefit by installing larger PV systems, simplifying design while optimizing the array to meet the needs of the customer - not only the stringest

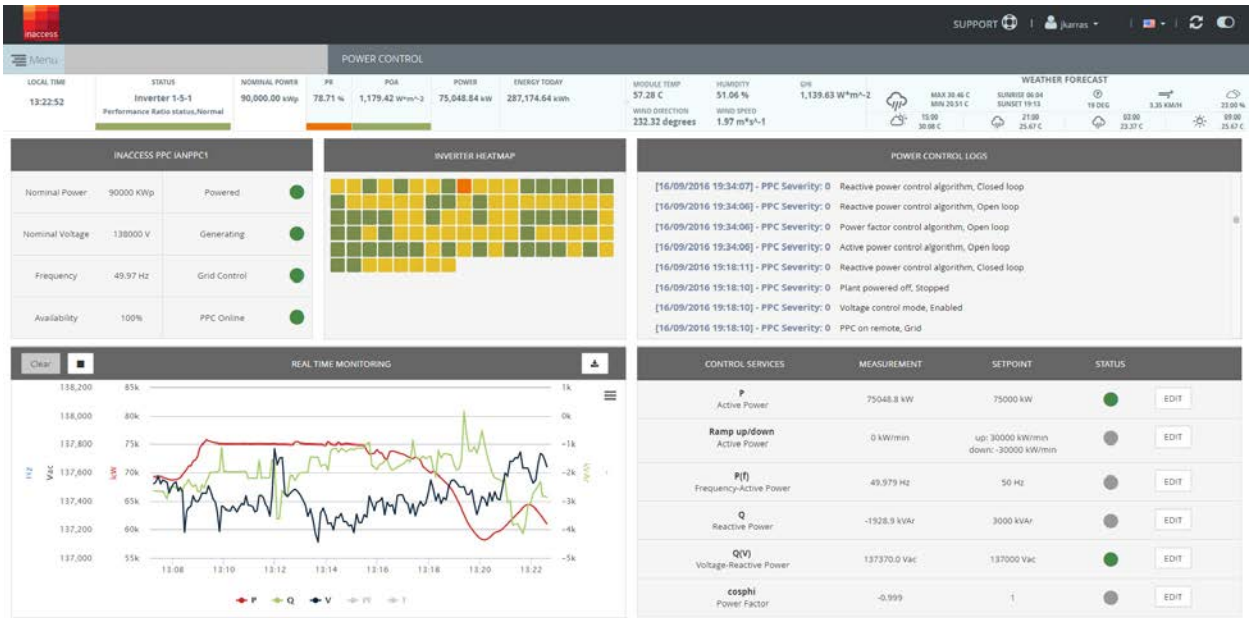
demands of the utility. Zero Power Injection has strict timing requirements with the system either not allowed to export at any time or ensure the zero export level with a 2-5 seconds deviation response time.

Inaccess Z-PPC

Inaccess Z-PPC is an intelligent vendor-independent system, for dynamic PV power plant control and grid code compliance. Using intelligent closed-loop control schemes coupled with advanced zero-export feed-forward algorithms and individual inverter control, the Z-PPC measures the power at the Point of Connection, continuously regulates the inverters and ensures that the power limit is not exceeded - while maximizing the PV generation up to the allowable limits.

FEATURE	BENEFIT
Configurable active power limitation	Compatible with several export limitation schemes
Fast reaction time and settling	Reaction before exceeding the limit
Individual inverter control	Limit not exceeded in case of inverters start-up, load
Failsafe in case of power/meter failure	Secure operation against failures, preconfigured setpoints
Monitoring of additional loads	Monitoring of different consumption meters in a building
Combined control strategies	Inverters curtailment, Failsafe protection, Manual control
Interoperable with Inaccess monitoring	Historical data, Performance evaluation, Alarms, Reporting

Inaccess Z-PPC is a fully integrated system, supporting data acquisition and control of all PV plant components and loads, in a protocol agnostic manner. The Z-PPC is interoperable with Inaccess Centralized monitoring system, offering extended monitoring, visualization and reporting, for both generation and consumption.



Z-PPC Specifications

CPU & Network interfaces	CPU unit	1.86GHz operation frequency
	RAM memory	4GByte
	Storage	64GByte
	Ethernet	2-ports 10/100/1000BaseT port 5-port 10/100 switch (optional)
		6-port 10/100 switch with 2 optical SM or MM ports (optional)
	USB	6-ports Rev. 2.0 compliant full speed host ports
	Serial Ports	4- ports which offers 485 serial communication interface
	Protocols	TCP/IP, UDP/IP, Modbus/TCP, Modbus RTU, IEC62056-21, IEC60870, DNP3.0, custom inverter protocols
		Standardized or proprietary protocols upon request
I/Os	Number of digital inputs (DI)	Up to 8
	Number of Analog inputs (AI)	Up to 4
Power requirements	Power Supply units	1 unit for power operation
	UPS	DIN RAIL 24 V DC/10 A and 12 V DC/5 A
	Supply voltage	24VDC or 100-240VAC
	Supply frequency	50/60Hz
	Supply current	Typical 0.8A@115VAC
	Consumption	40W (typical)
Mechanical	Enclosure	IP66 GRP (Glass Reinforced Polyester) electrical panel
	Dimensions (HxWxD)	850mm x 650mm x 300mm (33.5x25.5x11.8in) (Excluding cables and cable glands)
	Mounting	Wall mounted
	Weight	20 Kg / 44 lbs
Environment	Operating temperature	0 to 60°C (32 to 140°F)
	Relative humidity	10% to 95% non-condensing
	Storage temperature	-40 to 85°C (-40 to 185°F)
	Marking	UL
	Altitude	Operating available up to 3000m (9842 feet)
	Pollution degree	2
	Cooling	Passive Fanless
	Usage	Indoors/Outdoors

Ordering information

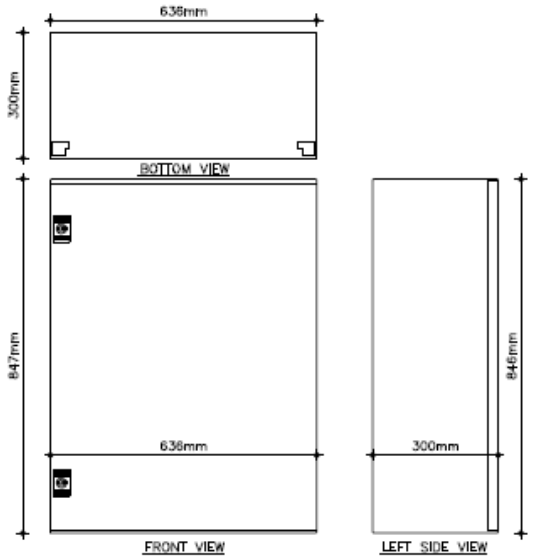
Part number

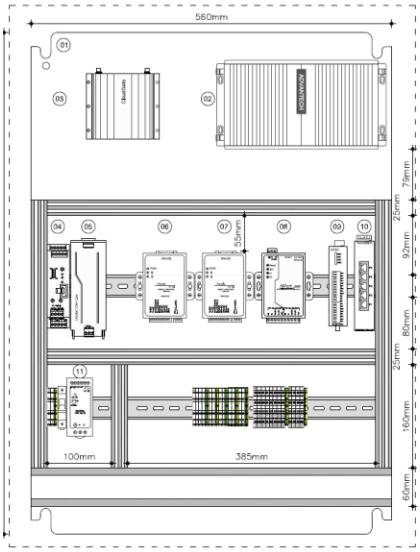
Z-PPC - DC - A D - 3G

Input Power Supply
DC: 24VDC
AC: 100-240VAC

Remote I/O Configuration
A: number of analog inputs
D: number of digital inputs

3G Modem/Router
3G: CG0192
Empty: no switch





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