



i.LON SmartServer 2.0

Echelon Communication Gateway

MONITOR PV SYSTEM 24/7 COMPREHENSIVE DATA COLLECTION ENABLES MAXIMUM UPTIME

Model: i.LON SmartServer 2.0

Communication with Direct Grid
Micro-inverters through power lines

Data Harvesting and Mining

PV System Monitoring

Simple Din Rail Mount

LAN interface 10/100 Base T

24/7 Operation

Up to 225 Micro Inverters per i.LON

OVERVIEW

The Echelon i.LON SmartServer 2.0 is an active gateway device that communicates with a network of Direct Grid grid-tie Echelon enabled micro-inverters through existing power lines. Individual micro inverter power harvesting and diagnostic information is collected by the SmartServer and transmitted to Direct Grid's web based control center through a LAN connection. Alternately, gathered data can be ported to a local host computer. Direct Grid's WattTrack™ monitoring interface and web subscription service enables users to track and manage performance of the collected data from their photovoltaic system anytime day or night.

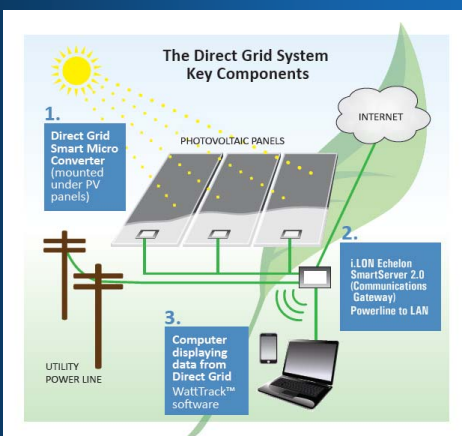
When wired into any circuit on the AC breaker panel, the SmartServer identifies each Direct Grid micro-inverter on the network and initializes the registration process collecting each individual unit's ID code. Each micro-inverter that communicates with the SmartServer becomes dedicated to the unit. Up to 225 micro inverters can be connected with a single SmartServer.

FEATURES and BENEFITS

Echelon Communication: Robust protocol transmits real-time monitoring data of power line, PV system status, harvested power, dollar contribution, carbon footprint— all on a daily, monthly, yearly or customer specific timeframe.

Detailed System Performance: translates to faster troubleshooting. Event notification is delivered in near real-time to the WattTrack™ monitoring system to enable fast response and maximum PV system uptime.

Theft Deterrence: one of the first duties during activation of the Direct Grid SMART system is collection of the unique IDs of each micro inverter in the network. If a Echelon enabled micro-inverter is removed from the network, it is reported by the SmartServer to the Direct Grid remote web server.



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i.LON SmartServer 2.0 ELECTRICAL SPECIFICATIONS

Part Ordering Code:

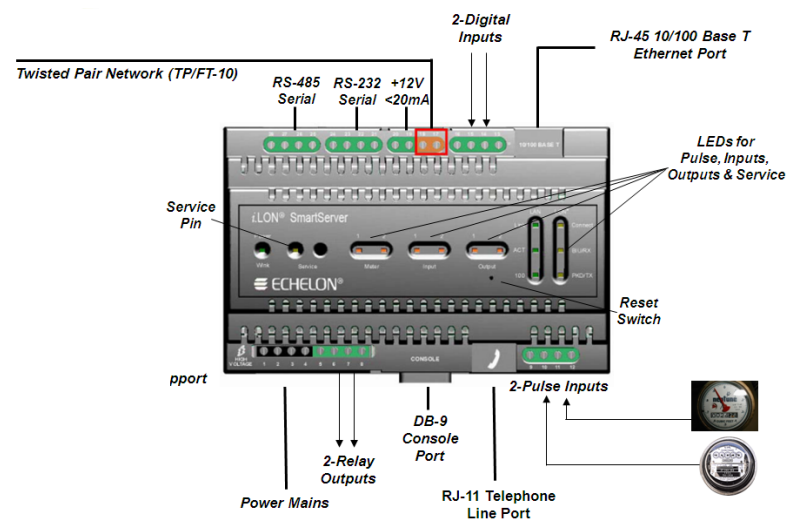
Model 72103R-440: Single Phase
(Internal Coupling)

Model 72103R-460: Three Phase
(External Coupling¹)

*Model 72101R-440: Three Phase
(External Coupling¹) - for twisted pair-to-power
line router connection

¹ External poly phase coupling boxes enable
cross phase communications to the i.LON:
model: BiBaja PLC277-3PH

Specification	i.LON SmartServer 2.0
Interface	
Power line Communication	Echelon (LonWorks)
LAN Connection	10/100 BaseT Ethernet
Web Protocol	SOAP/XML
Update Rate	15 minutes
Power Requirements	
Voltage/Frequency	100-240VAC, 50/60Hz
Power Consumption	<15W
Mechanical Data	
Operating Temperature	-40 to 50°C; *0 to 50°C
Operating Humidity	10-90%RH, non condensing
Dimensions (H x W x D)	3.51 x 5.47 x 2.60" 8.9 x 13.8 x 6.6cm
Mounting	DIN, Enclosure 8TE
Wiring	Screw Terminals
Weight	0.925 Lbs (0.42Kg)
Standard Compliance/Agency Listings	
EMC	FCC Part15 Class B, EN55022, Class B, EN55024, CISPR 22 Class B, VCCI Class B UL 60950, cUL C22.2
Safety	No.60950-00, TÜV EN 60950, CE, C-Tick



* Specifications are subject to change without notice: 7-5-11