Power Plant Controller

Power Plant Controller (PPC) is an integrated vendor-independent system for PV power plant control and grid code compliance, customizable to satisfy any grid requirement while ensuring interoperability with plant SCADA systems. PPC controls the output of the PV plant at the Point of Common Coupling, using the plant inverters, meters, breakers and peripheral controllers - providing near real-time capabilities for plant disconnection or generation stop, active and reactive power control, as well as power ramp rate control.

Type designation	Power Plant Controller
Control Functions	
Active Power Control P	Active power control with dynamic or fixed setpoints
Ramp Rate Control	Control the active power up and down ramp rates, dynamic or fixed
Reactive Power Control Q, Q(P), Qnight	Reactive power control, dynamic, fixed setpoints or Q (P) power curve
Power Factor Control cosφ, cosφ (P)	Power factor control, high accuracy, dynamic, fixed or cosφ(P)
Voltage Regulation AVR, Q (V), cosφ (V)	Voltage regulation, slope-based, direct or using grid code curves
Frequency Support P (f)	Frequency-dependent active power control using grid code curves
Circuit Breakers control	Plant isolation, gradual transformers connection or premagnetization
Stop Plant Generation	Fast, without disconnecting from the grid
Communication	
Port	1×Ethernet switch with 1×SFP , 4×Ethernet ports
Protocol	Modbus / TCP (Standard), TCP / IP, UDP / IP, Modbus RTU, IEC62056-21, IEC60870, DNP3.0, custom inverter protocols (Optional)
Power Supply	
Voltage	100-240 VAC (50 / 60 Hz)
Power consumption	Typ. 40 W
Ambient Parameters	
Operating temperature	-10 to 60 ℃
Storage temperature	-40 to 85 ℃
Relative humidity	10% to 95% non-condensing
Max. operating altitude	≤ 3000 m
Mechanical Parameters	
Weight	20 kg
Installtion method	Wall mounting
Dimensions (W*H*D)	650 * 850 * 300 mm