

GRID EDGE SOLUTIONS

e-mesh™ Control - PPC Renewable Insight

Complex renewable plant control made simple with pre-engineered solution to unlocking potential of conventional renewable plants to greater extent by improving stability and reliability



Smart Power Plant Controller for renewable plants to perform and optimize complex operations



Grid code compliance

Ensures plant operates as per local and national regulations to maintain quality and reliability of plant.



Plant stability

Thanks to e-mesh PPC, renewable plants are controlled efficiently, effectively, and safely with maximum care of operators and assets.



Simplified engineering

Pre-engineered cabinets with ready to use software libraries reduce on-site commissioning and configuration activities.



Cybersecurity

e-mesh PPC complies to various industrial defacto cybersecurity standards to ensure plant is protected from unintended operations.



Digital ecosystem

e-mesh is vertically integrated digital ecosystem, PPC being part of the ecosystem bridges conventional plants to gain latest technology advantages.

	Element	Details
Enclosure details	Dimesnsion	1000 X 800 X 1000 mm (h x w x d)
	Mounting	Wall mounting type, Indoor
	Ingress protection	IP 2x, optionally IP6x
	Impact resistance	IK10
	Maximum altitude	2000 mtr ASL
	Temperature	0 – 70 C
	Relative humidity	10 – 90% (non-condensing)
	Power supply	230Vac @ 50Hz
Processor	CPU	ARM cortex A8
	Boot flash	8 MB
	SD card	Class 2, 4GB
Internal clock	Battery	Lithium 3Vdc, CR2032
	Time resolution	1sec, 1ms with time sync
	Battery life	>10 years
	Free running	+/- 50 ppm
Serial Interfaces	Connector	RJ45
	Type	RS232C or RS485 (Software selectable)
	Bit rate	200 bits/s to 38.4 kbits/s
	Level	Typical: +/- 6V
Ethernet interfaces	Connector	RJ45
	Type	IEEE 802.3, 10/100BaseT
USB Interface	Connector	USB Type B (configuration interface)
Protocols	Supported protocols	MODBUS RTU, MODBUS TCP/IP, IEC 60870-5-101 / 104, DNP 3.0, IEC61850
User Interface	Local interface	Standard web browser.
Cyber security	Features	<ul style="list-style-type: none"> • Network authentication based on IEEE 802.1x • IEC62351 based user access control • https based web server and supports X509 certificates • Patch management • Supports security logging • Comply to IEC62351-5
Optional add-on	Local HMI	12-inch touch screen
	Measuring device	Standard MFM to measure values from Poi
	Digital Enterprise Edge Connect	For interfacing plant with e-mesh Monitor for cloud-based monitoring.
	Battery backup	Onboard UPS as per project requirement.