

Hyperie 8300

Next Generation Power Server

Make substation more Real-time, more Powerful, more Reliable and more Cost Effective



IEC 61850-3



IEEE 1613



Kyland's Hyperie 8300 is a power automation platform, equipped with various data interfaces, built-in hundreds of protocols, integrated soft-PLC control functions and SCADA/HMI functionality, pre-installed Intewell Hypervisor for real-time virtualization, open platform for customized APPs, making it an ideal solution for automation system of transmission/distribution substation, distributed PV power generation, wind power, thermal energy storage, etc.

Key Features:

Data Collection and Concentration

- Multi-kinds of interfaces for extension connectivity: Ethernet copper and fiber port, serial port, DI/DO, IRIG-B, HDMI, VGA, USB
- Multi-protocol IEDs data acquisition, processing, storage; multi-protocol conversion, data forwarding and breakpoint continuation transfer
- Built-in hundreds of protocols for communication with various substation devices, compliant with the majority protocols within substation automation, such as IEC61850 Server/Client, IEC60870-5-101/103/104, DNP3.0, Modbus TCP/RTU, SEL faster, ABB Spabus, Alstom Courier, etc.

Control Platform

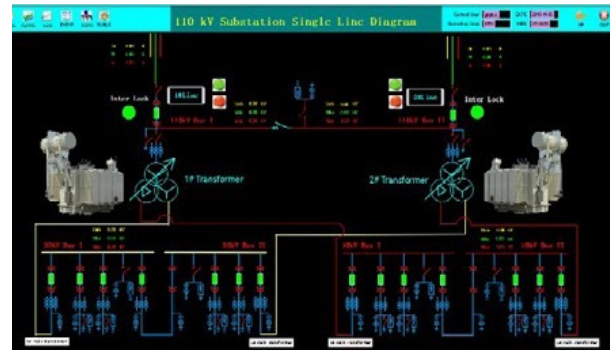
- Integrates Drag-and-drop graphical programming development suite
- Compliance with IEC61131 programming standard and support the IEC61131-3 programming language of ST, FDB, LD
- Support C++, MatLab/Simulink programming Alstom Courier, etc.

Powerful SCADA/HMI Functionality

- Collect the operation status, communication status, operating parameters, failure report and other information of system devices
- Monitoring the operation status and fixed value data of the primary and secondary system, protection device and fault recorder in a friendly and visually way
- Support professional and practical HMI development tool and provide comprehensive and professional graphics, reports, curves/charts, statistical analysis and event alarm/ recording for power applications
- Alarm information management and alarm classification assist operator in alarm event location
- User permission management functions, capable of setting user groups and access right by region, restricting the operation of protection devices in operators, restricting the access right of system devices etc.

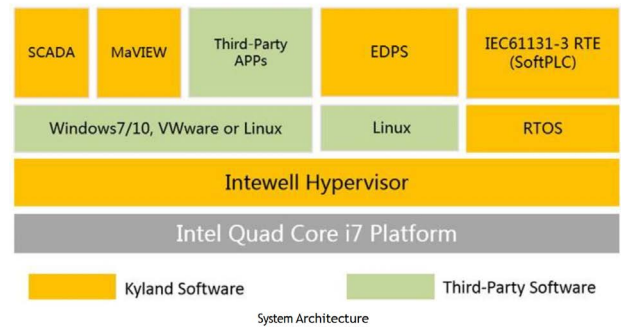
Pre-install Intewell Hypervisor with real-time virtualization

- Quad Core Intel i7 processor platform provides powerful and flexible computing ability to support real-time applications
- Virtualize up to 20 software-defined RTOS on a single CPU platform, allowing simultaneous operation of real time OS and Non-real time OS with isolation
- Install Windows/Linux on virtualized core, compatible with Windows and Linux-based APPs

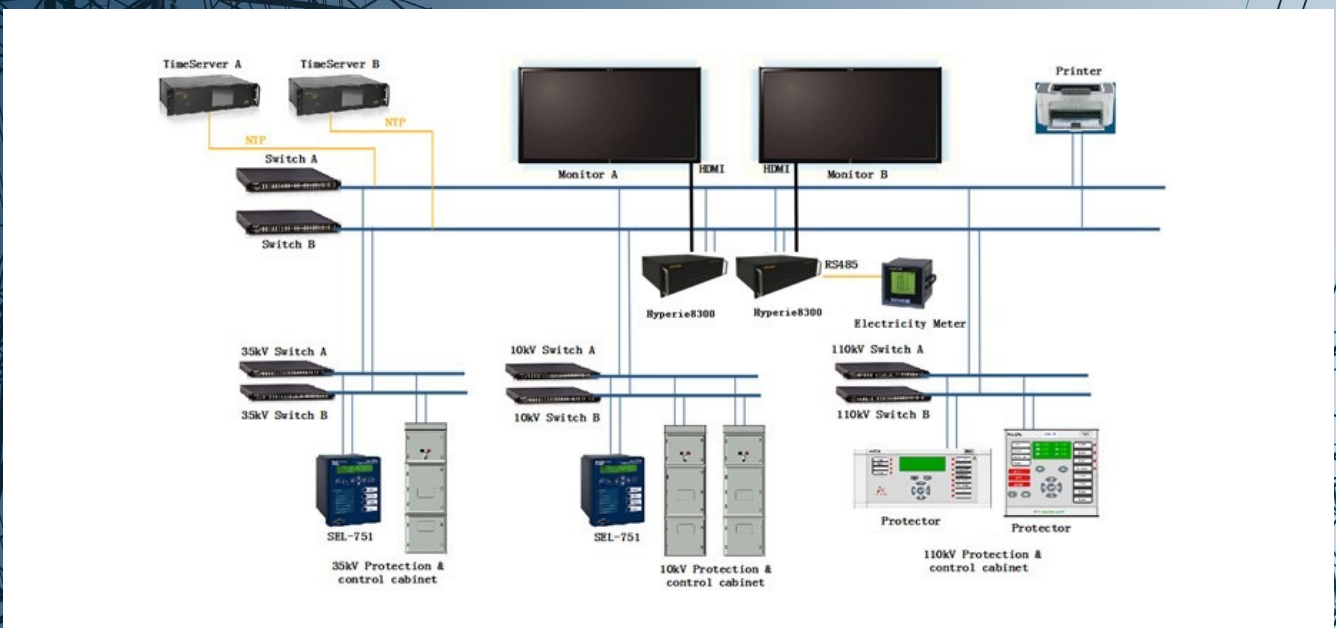


Industry Grade Design for Harsh Environment

- Fanless design and -40°C to +75°C operating temperature for harsh environments
- Compliant with IEC61850-3 and IEEE 1613 for power automation system
- Wide power input range: 88~264V AC/DC, redundant power supplies



Substation Automation Diagram



Product Specification

Hyperie8300		
Processor, Memory and Storage	CPU	Intel® Core™ i7,i5,Celeron optional
	RAM	8GB/Max 64GB DDR4 SODIMM
	Storage Slot	2.5" SSD slots x 2
Interface	Ethernet Ports	6 x 10/100/1000Base-T(X) RJ45 ports, 2 x Gigabit SFP slots for fiber SFP module
	Serial Ports	8 x RS232/RS485 ports, DB9/terminal connector, 2.5KV isolation and 2KV surge protection
	DIDO	4 x DI, 4 x DO
	IRIG-B	1 x IRIG-B IN, 1 x IRIG-B OUT
	Console	RS232, DB9
	Alarm Contact	2 x programmable normally close (NC) dry contact outputs for system failure alarm, 2 x power loss alarm contacts
	USB	2 x USB2.0 (front), 5 x USB3.0 (rear)
	Display	1 x VGA, 2 x HDMI
Expansion Slot	3 expansion slots for optional Ethernet RJ45/ fiber port, DIDO and serial port modules	
LED	System	Run: RUN, Power: PWRI, PWR2 Alarm: ALM1, ALM2
	Programmable LED	1-8
	LAN	2 per RJ45/SFP port (LINK, ACT)
	Serial	2 per port (TXD, RXD)
	DIDO	1 per port
Power Supply	Input Range	88~264V AC/DC, redundant power supplies
	Power Button	ON/OFF
	Power Loss Alarm	Support
	Power Consumption	Max 50W
Physical Characteristics	Housing	Metal, fanless
	Dimension	438mm x 133mm x 330mm
	Weight	9kg
	Mounting	19 inch Rack mounting
Environmental Limits	Operating Temperature	-40°C to +75°C
	Storage Temperature	-40°C to +85°C
	Ambient Relative Humidity	5% to 95% (non-condensing)
Protocol	Server	IEC 61850-8-1 Server (MMS/GOOSE) IEC 60870-5-101, IEC 60870-5-103, IEC 60870-5-104, DNP 3.0 Serial and LAN/WAN Modbus RTU and TCP/IP, Multi-Vender Meter protocol CDT
	Client	IEC 61850-8-1 Client (MMS/GOOSE) Courier SEL Fast Meter IEC 60870-5-101 IEC 60870-5-103, IEC 60870-5-104 DNP 3.0 Serial and LAN/WAN Modbus RTU and TCP/IP, Multi-Vender Meter protocol CDT
Standards	IEC61850-3,IEEE1613.1,IEC60870,IEC60068,IEC60255,IEEE std C3790-2007,IEC61000,CISPR32 and CISPR35	
Warranty	2 year	

Ordering Information

Main Model	Storage 1	Storage 2	Extention Slot 1	Extention Slot 2	Extention Slot 3	Operating System & Application
Hyperie8300-C7-M2-DB-H	HYM-128-TLC	HYM-128-TLC	HYM-8D-232/485	HYM-HSR/PRP-GE	HYM-MultiOts	HYM-WO
Main Model P/N Scheme						
Hyperie8300	C7	M2	DB9			H
Model: Hyperie8300	CPU: C1: Celeron®4305UE C5: i5-8365UE C7: i7-8665UE	Memory: M1 : 8G M2 : 16G M3 : 32G M4 : 64G	Integrated DB9 Serial Port Modular: 00 : non DB : 8 x DB9 based serial port	Power Supply: 0: Dual fixed HV power supply, none hot-swappable H: Dual Hot-Swappable HV power supply		

Expansion Module (Support up to 3 Modules)

Main Model	Description
HYM-8D-232/485	Serial port module with 8 x RS232/485 serial ports, terminal connectors
HYM-8DI8DO	DI/DO module with 8 x DI and 8 x DO
HYM-2GX	Ethernet port module with 2 x 1000Base-X SFP slots
HYM-6GE	Ethernet port module with 6 x 10/100/1000Base-T(X) RJ45 ports
HYM-HSR/PRP-GE	PRP/HSR Module-2X10/100/1000Base-T(X) RJ45 ports
HYM-HSR/PRP-GX	PRP/HSR Module-2 X 1000Base-X, 100Base-FX SFP
HYM-MultiOts	2*SFP ports + 4*DIDO + 2*ALM contacts + 1*IRIG-B Input/Output+ 2*USB2.0/3.0

Storage

Model	Description
128GB SSD	128GB TLC/MLC SSD
256GB SSD	256GB TLC/MLC SSD
512GB SSD	512GB TLC/MLC SSD
1TB SSD	1TB TLC/MLC SSD

Operating System + Application

Model	Description
HYM-WO	Windows 10 IOT 2019 LTSC
HYM-LG	Centos 7 + EDPS Protocol Gateway Support IEC61870-5-101/103/104,DNP3.0, Modbus,IEC61850 client/server
HYM-VW(specify for i7 platform)	Intewell Virtualization platform <Windows 10 IOT 2019 LTSC> <CentOS + EDPS Protocol Gateway> <RTOS with MaVIEW IEC61131-3 SoftPLC>

