

ABB monitoring and communications VSN730 System Monitor



The VSN730 System Monitor is a high-performance data collection and communication system that is ideal for small to medium commercial PV plant applications.

The VSN730 is the “lite” version of the VSN750 Plant Manager offering a basic set of features at the lowest price possible for a monitoring turnkey solution.

The turnkey solution saves the installer time (and money) by providing several components, prewired and preinstalled in an outdoor rated enclosure. It collects data and uploads information over the Internet in near real-time to the Aurora Vision® Plant Management Platform.

VSN730 System Monitor includes quality equipment for reliable monitoring

Included in this system is the VSN700 Data Logger (-03 or -05) which can monitor and provide data management for up to 10 ABB string inverters and one VSN800 Weather Station. It also provides RS-485 surge protection, which on the RS-485 communication lines is a “must have” to offer protection against logger damage in electrically “dirty” environments. The 277 VAC capable input power supply is ideal for commercial installations where only 3-phase 480 VAC is easily available and inverter command and control for commercial and utility PV system operation, as well as SCADA integration.

Highlights

- VSN700-03 or VSN700-05 Data Logger
- Enclosed in a painted, steel NEMA 4/IP65 enclosure
- 85 VAC to 305 VAC / 24 VDC, 1 A power supply
- Supports 10 ABB string inverters and a VSN800 Weather Station
- RS-485 surge protection
- Easy installation

Additional highlights

- Remote performance and asset management through the Aurora Vision® Plant Management Platform
- The turnkey solution saves the installer time (and money) by providing several components, prewired and preinstalled in an outdoor rated enclosure
- Remote management capabilities minimize truck rolls by providing configuration, upgrades and debug over the Internet using the Aurora Vision® Plant Management Platform



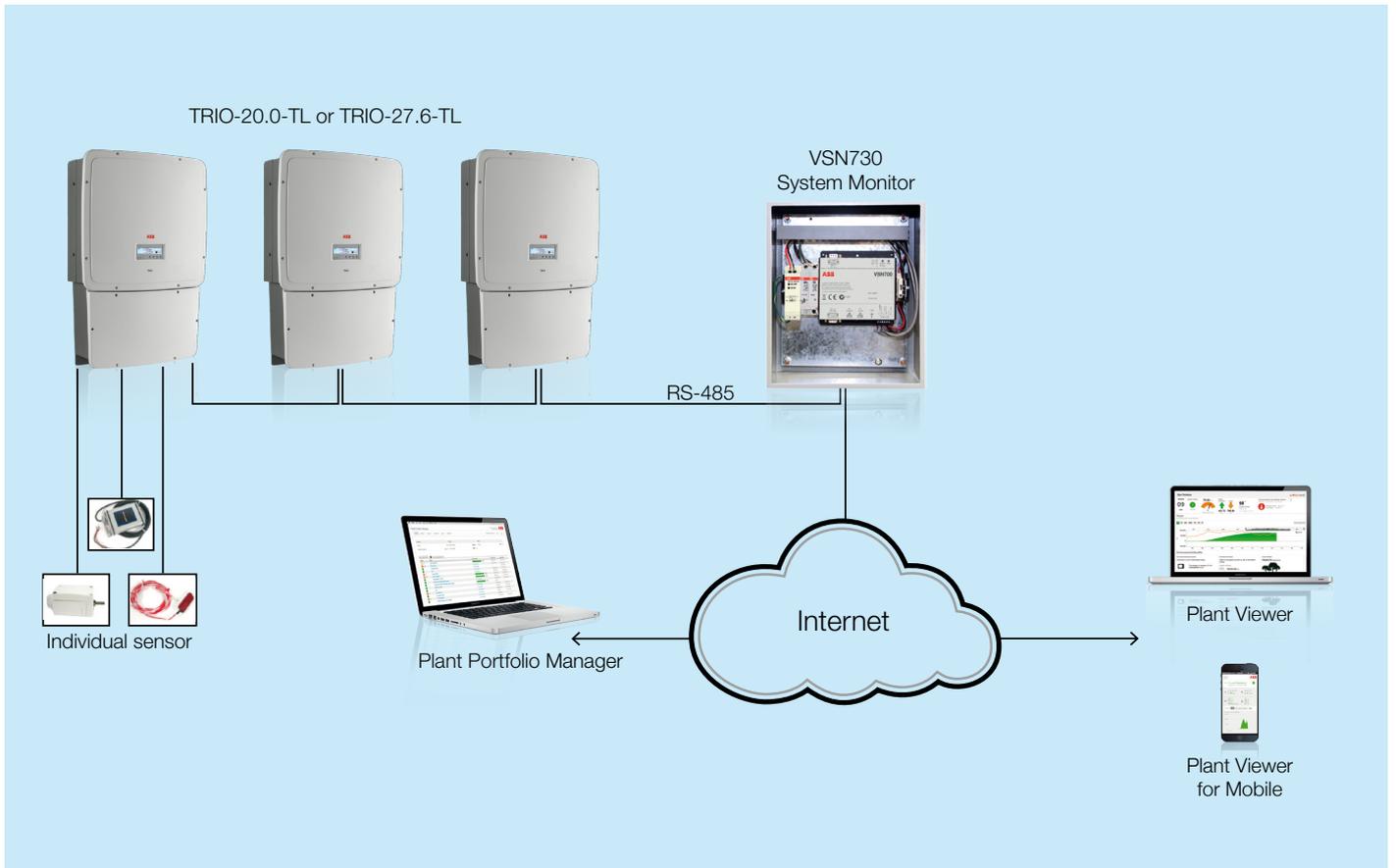
Technical data and types

Type code	VSN730 System Monitor	
	VSN730-03	VSN730-05
Platform		
Devices supported	10 x string inverters ABB + 1 x VSN800-XX Weather Station	All ABB inverters + any ABB as well as third-party devices ¹⁾
Monitoring	Inverter direct, environmental sensors	
Inverter control	None	
Communication interfaces		
Serial port interface	(2) RS-485 + (1) RS-232	
RS-485 port 1 configuration	Optically isolated repeater for Modbus or Aurora Protocol support	
RS-485 port 2 configuration	Non-isolated Modbus or Aurora Protocol support	
Maximum devices per serial port	11 devices, depending on poll rate and configuration	
Fieldbus cable	RS-485 shielded twisted Pair. Recommend Belden # 1120A cable or # 3106A for 3 conductors	
Ethernet port 0	Firewall protected Ethernet WAN port for internet connection	
Ethernet port 1	Local LAN with static IP address	
Ethernet connections	RJ-45 Ethernet 10/100 base-T (LAN/WAN)	
Communication protocols		
Plant fieldbus protocols	Aurora Protocol, Modbus RTU, SunSpec	
LAN/WAN protocols	Modbus/TCP, HTTP, DHCP, SSL, SSH, XML	
Data logging specifications		
Data sampling rate	High frequency data sampling (less than 1 minute average)	
Logging	Real time power values at 1, 3, 5, 15 minute configurable intervals	
Local storage	Log data for 30 days based on 15-minute intervals. (Days logged may be reduced by intervals shorter than 7-minute)	
Upgradeability	Field upgradable over the Internet or locally via USB memory stick	
Communications surge protection		
Replaceable cartridge	Citel DLAM-06D3	
Power supply		
DC power supply input	90 VAC to 264 VAC	
DC power supply output	24 VDC, 1 A	
Environmental protection rating		
Ambient temperature range	-20°C to 60°C	
Environmental protection rating	NEMA 4	
Relative humidity	0 to 100% condensing	
Mechanical parameters		
Dimensions H x W X D	12" x 10" x 5" (.30 m x .25 m x .13 m)	
Enclosure options	Painted steel	
Weight	14 lbs (6.4 kg)	
Mounting System	Screws through flanges	
Compliance		
Safety	UL508A	
Marking	cCSAus / CE	
Altitude	Operate below 3000 m	
Emission	FCC Part 15 Class A, CISPR 22, EN 55022 Conducted and Radiated Emission	
Immunity	EN 61000, EN55024	
Telecom	N/A	

¹⁾ Consult latest supported devices list

Remark. Features not specifically listed in the present data sheet are not included in the product

Commercial application with VSN730 System Monitor using individual weather sensors



VSN730 - Accessories

VSN800-12

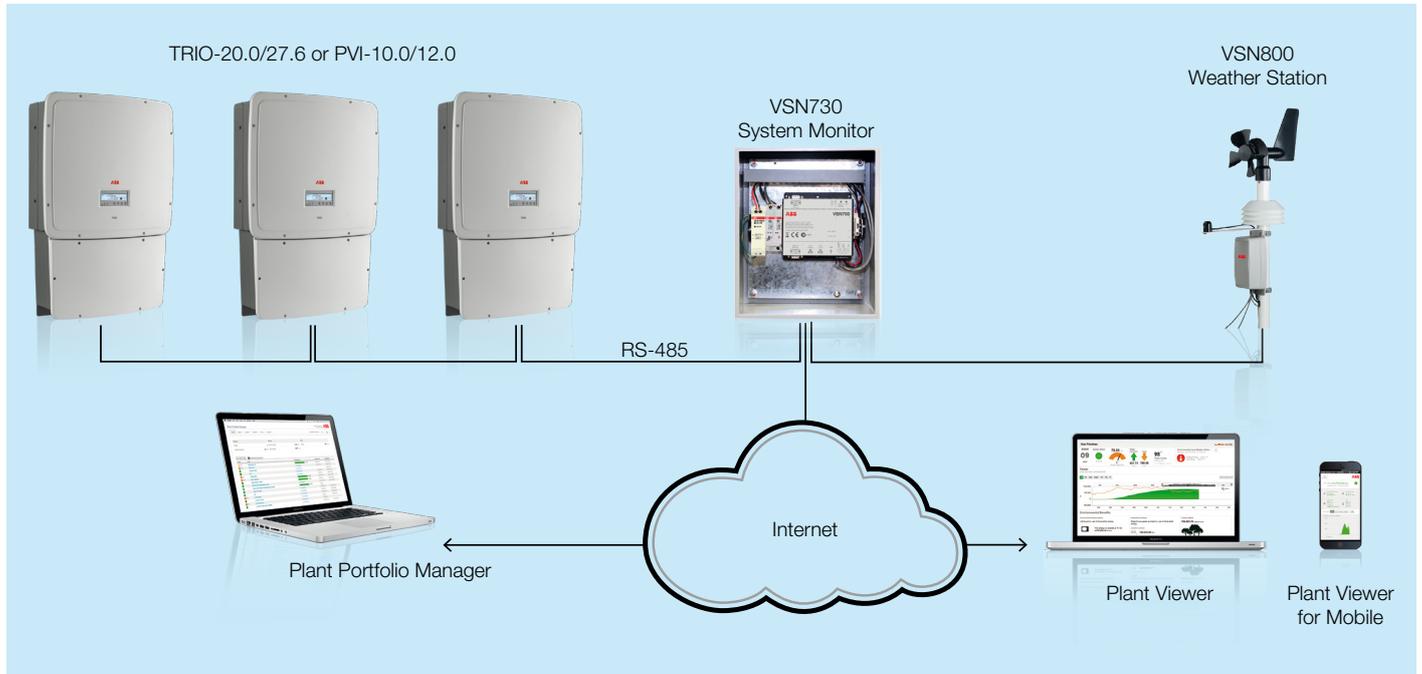
Weather Station with sensors: ambient temperature, panel temperature, global irradiance

VSN800-14

Weather Station with sensors: ambient temperature, panel temperature, global irradiance, plane of array irradiance, wind speed and direction



Commercial application with VSN730 System Monitor using VSN800 Weather Station



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