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 a 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

<table>
<thead>
<tr>
<th>Type code</th>
<th>VSN730 System Monitor</th>
<th>VSN730-05</th>
</tr>
</thead>
<tbody>
<tr>
<td>Devices supported</td>
<td>10 x string inverters ABB + 1 x VSN800-XX Weather Station</td>
<td>All ABB inverters + any ABB as well as third-party devices ¹</td>
</tr>
<tr>
<td>Monitoring</td>
<td>Inverter direct, environmental sensors</td>
<td>None</td>
</tr>
</tbody>
</table>

### Communication interfaces

- **Serial port interface**
  - 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 upgradeable over the Internet or locally via USB memory stick

### Communications surge protection

- **Replaceable cartride**: 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
- **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

TRIO-20.0-TL or TRIO-27.6-TL

VSN730 System Monitor

RS-485

Internet

Individual sensor

Plant Portfolio Manager

Plant Viewer

Plant Viewer for Mobile

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

Support and service
ABB supports its customers with dedicated, global service organization in more than 60 countries and strong regional and national technical partner networks providing complete range of life cycle services.

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