

VIDI +

System Controller for OPUS DC Power Systems



Product description

VIDI is the advanced monitoring and control device for OPUS DC Power Systems. It delivers intelligence, an easy user interface and a comprehensive set of features for DC Power System management.

VIDI architecture is based on PowerCAN bus communication and a modular design, which enables excellent system expandability, selectable additional features and flexibility in design.

The VIDI controller is the universal solution for all OPUS family DC Power Systems from 24 VDC up to 220 VDC, and for other modules in the family.

Features

- Universal controller for all 24 VDC-220VDC OPUS DC Power Systems DC Power Systems
- Modular structure for optimal performance and design flexibility
- Sophisticated User Interface. User friendly local and remote operation
- Comprehensive features and alarms
- Numerous user configurable alarms and settings
- Full remote monitoring and control with WEB interface via RS 232, modem or TCP/IP
- Large event log file with real time clock time stamp

Technical Specifications

Electrical		VIDI+, VIDI+ I/O
Power Input voltage range		18 – 280 VDC

Communication Ports		VIDI+, VIDI+ I/O
LAN		10/100 Ethernet, RJ-45 connector
Serial communication		RS-232, 9600-115200 kbps

Monitoring and Control		User Interface Module
Local Monitoring and Control		
Local Display		128 x 64 Graphical LCD with Backlight
Local Operation		Dial button, Info button and cancel button
Local LED indication		3 color system Status LED
Info		Dedicated button to open info text
Default view		Charge mode, system voltage, number of active alarms
Languages		English, Russian, Finnish

Monitoring and Control		VIDI+, VIDI+ I/O
Remote Monitoring and Control		
Remote PC connection		Connect via LAN
Local PC connection		Connect directly with serial port RS-232 or LAN port
Alarms		E-mail or SNMP traps
Remote user interface		Web interface, 3 access levels
Remote terminal		Text mode interface over Telnet/SSH
Supported Protocols		HTTP, HTTPS, Telnet, SSH, SMTP, SNMPv2, NTP, DHCP, Modbus TCP/IP
Languages		English, Russian, Finnish

Technical Specifications

System Features		VIDI+, VIDI+ I/O	
Measurements		System Output Voltage Measurement AC input voltage, individual rectifiers DC output voltage, individual rectifiers DC output current, individual rectifiers Temperature, individual rectifiers DC output current, total rectifiers Battery current Load current	
Functions		PowerCAN-Bus interface to MRC rectifiers and Smart Peripheral Modules	
		Energy Save Mode, with MRC rectifiers	
		Rectifier runtime counter	
		Alarm configuration	
		System parameters upload and download in XML format	
		Real Time Clock with Battery Backup	
		Plug-and-Play Support, Automatic Module Configuration	
		Inventory Management for Installed Modules	
		Site Information text input	
Connections		VIDI+, VIDI+ I/O	
Battery or Load LVD's		1 pcs	
Connections		VIDI+	VIDI+ I/O
Alarm/Temperature Inputs		4	12
Alarm Relay Outputs		4	12
Modules		VIDI+, VIDI+ I/O	
Supported max number of all modules		48	
Limitations per module types		VIDI+, VIDI+ I/O	
Local User Interface panel		1	
Rectifiers, supported max amount		47	
VIDI-LVD Low voltage disconnection modules. Supported max amount. Connections		8	
VIDI-BM Battery management modules. Supported max amount.		16	
VIDI-SAM modules. Supported max amount.		1	

Technical Specifications

Battery Management Features	
Measurements	VIDI+, VIDI+ I/O
Battery tests	Manual battery test Periodic battery test Natural battery tests, starts on mains fault
Charge modes	Float charge Manual boost charge Periodic boost charge Automatic boost charge Temperature compensation in all charge modes
Functions	Charge current limiting Discharged Ah-counter Time window for battery tests

Alarms	
	VIDI+, VIDI+ I/O
Configurable	Mains Fault Phase Fault Rectifier Low/Over voltage System Low/Over voltage Rectifier overcurrent Rectifier Over Temperature System Over Temperature High Battery Temperature Low Battery Temperature Rectifier Fault Module Communication Error/Module Fault Load fuse fault Battery LVD or Load LVD Contactor failure Battery Temperature Sensor Fault Rectifiers No Redundancy Alarms/Rectifiers Over Load, Configurable limits Load Disconnect Warning, Configurable limits Load Disconnect Battery Fuse Fault Battery Discharge Test Fault Boost Charge Fault Battery Disconnect Warning, Configurable limit

Alarms	VIDI+ I/O
Configurable	Earth fault detection

Log Data	
	VIDI+, VIDI+ I/O
	Alarm log: 512 last alarms, Event log: 100 last events, Battery Temperature Log Graph, System Power log, 12 Months

Technical Specifications

Mechanical	VIDI+ , VIDI+ I/O	User interface module
Dimensions (HxWxD)	105 x 40 x 205 mm	80 x 80 x 20 mm
Enclosure	IP20 / IEC 529	IP43 / IEC 529

Connectors	
Alarm/Temperature input	Screw terminals
Internal PowerCAN-Bus Connector	User Interface Module RJ11 Other PowerCAN connectors RJ45
PowerCAN Termination Plug	RJ45 plug

Environmental	
Cooling	natural convection
Acoustic noise	< 40 dB (A)
Operating temperature (min/max)	-20 / +50 °C
Storage temperature (min/max)	-40 / +70°C
Humidity (max)	95% (relative humidity, non condensing)
Altitude (max)	2000 m above sea level

Applicable Standards	
EMC	Emissions: EN/ IEC 61000-6-4 Immunity: EN/ IEC 61000-6-2 Harmonic currents: EN/ IEC 61000-3-2 Voltage fluctuations& flicker: EN/ IEC 61000-3-3 *Measured as a part of Opus C-series rack system
Safety	IEC/EN 60950-1 *Tested as a part of Opus C-series rack system

Order information

System controller kits	
Description	Order number
VIDI+ controller kit. Includes system controller module and cable set	8320X0004311
VIDI+ I/O controller kit. Includes system controller module and cable set	8320X0004312
Auxiliary controller kits	
Description	Order number
VIDI BM kit. Includes Battery monitoring module and cable set	9040X0002338
VIDI LVD kit. Includes Low Voltage Disconnect controller module and cable set	8320X0003275
VIDI SAM kit. Includes serial adapter module and cable set. Used with OPUS EIM and DUAL inverters	8320X0004402