## SAGE 3030 Magnum

A high caliber and secure substation automation platform





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## **Features**

Two — Built-in 10/100 Mbps Ethernet® ports (independent IPs)

Optional — internal three port Ethernet switch

16 Built-in RS232 communications ports

Separate PPP port for serial dial-up

AMD LX-800 500 MHz CPU with 1 GB flash memory

Non Windows® OS

PC/104<sup>™</sup> bus architecture

Browser based "UIF" User Interface Configuration Tool (Uses Internet Explorer®) \*no proprietary software required.

Optional - external digital, analog and SBO control output points

- Up to 224 digital / 5 msec. SOE / accumulator inputs
- Up to 64 T/C momentary and latching control outputs
- Up to 256 analog inputs

Wide range input power supply for standard substation voltages

Full three Year Warranty Standard

IP Sec Security

- HTTPS
- Encryption
- SSL/SSH
- Firewall

Over 100 LEDs for positive visual indications

- Power, Run, Reset, Local, Time Source Failed, IED Failed, User Logged In, Configuration Changed, RLL Running, Ethernet Link, and Alarm 1 and 2
- Communications LEDs (RX, TX, RTS, CTS, and DCD/+5V on each port)

Designed for Electric Utility applications

- Meet IEEE 472, ANSI C37.90 SWC
- Meet C37.90.1 standards

Rugged relay-style metal enclosure for easy rack mounting

Optional - internal GPS receiver

Continuous IRIG-B output with built-in bus to all communication ports for IRIG-B, GPS, RTC, or protocol time synchronization

Complete MTU/ IED protocol library

(standard with every unit)



Front view



Specifications		
CPU/Memory		
Processor / Speed	AMDLX-800, 500 MHz	
DRAM	256 MB	
BB RAM	2 MB	
Compact Flash	1 GB	
Bios Flash	1 MB	
Real Time Clock	±10 sec per day (115ppm)	
Battery	3.0V Rechargeable Lithium Model BR2330A (Standby power for 10+ years)	
User Interface		
Web Browser	Internet Explorer®	
Ethernet	10/100BASE-T (RJ45)	
PPP	38.4kbps (RS232)	
Communications		
Ethernet	Two 10/100Base-T (RJ45)	
Serial	Four RS232 (DB-9) Expands to 12	
Console	RS232 (DB-9)	
Dial-up	RS232 (DB-9)	
Serial Speeds	300-115,000 bps	
Protocols	Synchronous and asynchronous	
	Option (Requires optional internal C3463 module )	
Logic Capabilities		
IEC 61131 compliant PLC rur	atimo angina	
Power Requirements		
Input Voltage	120 VAC (85-264 VAC)	
mpat voltage	125 VDC (85-350 VDC)	
	24/48 VDC (20-60 VDC)	
Input Power	35 Watts maximum	
Input/Output Isolation	500 VDC	
Visual Indications		
Communications	5 LEDs per RS232 port (DCD/+5V, RX, RTS, TX, CTS)	
Communications	Fthernet Link	
Other Indications	24.0.1.01	
Other maleations	Power, Run, Reset, Local/Remote, Time Source Failed, IED Failed, Alarm 1, Alarm 2, User Logged In, Config Changed, RLL Running LEDs	
Alarm Outputs	Alam 2, Oser Logged III, Oomig Ondriged, NLL Bullillig LEDS	
Contact Form	Form	
Max Output Points	Form C	
Contact Ratings		
	30 VDC @ 2A	
Environmental Operating Temperature	409 to 1059 C	
	-40° to +85° C	
Relative Humidity	5 percent to 95 percent, non-condensing	
Transient Protection	All user field connections designed to pass: IEEE 472-1974,	
6:	ANSI C37.90-1979 (R1982) ANSI C37.90.1-1989	
Size	40" 40 5" 5 05" + 11	
Enclosure	19"x 10.5"x 5.25" metal box	
IDIO DI L	Fits standard 19"rack/relay panel	
IRIG-B Input	1 120 2 1 11 1 200	
Modulated/Demodulated	Accepts IRIG-B signal through BNC format connector	



Specifications		
IRIG-B Output		
Demodulated	Available on all 16 Communications	
Ports	Available on all 16 Communications	
Format	Pins 4&6 on RS232C (DB-9)	
Demodulated	Available on BNC connector	
	uires optional C3461 internal module)	
RS232 Power		
5VDC	Configurable on all 16 Comm ports	
Formats	Pin 1 on RS232C (DB-9)	
Power Available	5W Max Total	
Digital Inputs (Requires option	nal external termination (C3432) module)	
Used as Status/5 Millisecond SOE Inputs		
Isolation	Optically isolated, 1500VDC	
Accuracy	5ms	
Configuration	2 terminals per point (common ground)	
Max Input Points	224	
Power	129/48/24VDC (wetting from ext. PS)	
XT Dimensions	32pts / 6.4x8 inch card	
Used as Accumulator Inputs		
Accum. Formats	FA, FC (One or two counts/cycle)	
Accum. Input Rate	20 pps max.	
Max Input Points	112	
SBO Control Outputs (Requires optional external termination (C3233) module)		
Duration	Software programmable in 5 msec increments	
Momentary	KUP type 1FC/2FA 10A @ 240VAC or 10A @ 28VDC. KUEP type 1FC 3A @	
	150VDC, 2FA 5A @ 150VDC, 1FX 10A @ 150 VDC.	
Latching	KUL type 1FC/2FA 10A @ 240VAC or 10A @28VDC.	
Relay Installation	Socketed	
Max Output Points	64 T/C Pairs (128 coils)	
XT Dimensions	4pts / 6.4x8 inch card	
Analog Inputs (Requires optional internal and external termination (C3430) module)		
Input Type	Differential	
Input Ranges	±5VDC, 0-5VDC, 1-5VDC,	
	±1mA, 0-1mA, 4-20mA, 10-50mA	
Resolution	12 Bits (11 plus sign	
Accuracy	±0.25% FS between -40 to +85 C	
Max Input Points	256	
XT Dimensions	16pts/6.4x8 inch card	

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