Guardian™ Automation and Control for Rod Pump Controller

We offer a complete line of innovative products and supportive services to automate, control, and monitor rod pump artificial lift systems accurately and cost-effectively.

Artificial lift applications can be very dynamic and change in a manner of minutes. Guardian™ automation and control for rod pumps has been built by utilizing the vast pumping and control experience of field operators and production engineers. Our automation systems provide safe operating conditions with lower downtime, while optimizing the well production.

To maintain and/or optimize well production, our suite of hardware and software services allow quick assessment of well conditions and pump performance.

Guardian can greatly reduce maintenance and operating costs while providing optimum pump performance. Our software eliminates the need for resistor banks during basic operations.

Features

- Versatile application and outstanding performance in the hardest conditions
- Simple installation and startup
- User friendly interface
- Flowline and casing pressure inputs
- Maximizes energy efficiency
- Counterbalances weight adjustment reporting
- Real-time position and torque display
- Support for extreme climate conditions
- Automatic pump fill detection on each stroke
- Belt slippage prevention and detection
- Detailed fault history with real date timestamp
- Energy meter reports KWh consumption
- ON/OFF timer control
- Easily integrate wireless load cells and wireless inclinometers

Benefits

- Remote pump monitoring and control capabilities
- Interactive communication between the operator and the well
- Real time well diagnostic and control functionality

Accessories

- Harmonic filters
- Surface pressure sensors (flowline/casing)
- Downhole pressure sensors and position sensors
- Load cells and braking resistors
- Communications (satellite/cellular/radio)
- Running/fault lights
- Power line in/motor/Presco connectors
- Motors
- Totally enclosed fan cooled (TEFC) or TEXP

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Guardian™ Automation and Control Rod Pump Controller

Work smarter, not harder

GoConnect™ equipment monitoring solution powered by NOV Max. Reduce maintenance costs, extend the life of your assets, and avoid unplanned downtime.

Standard configurations

• Main line circuit breaker

• Lightning arrester

• 5% line reactor

• Control transformer

• Accessible terminal connections

• Low maintenance

Security

• Restricts access based upon user roles

• Detailed change log tracks configuration changes and updates

Safety and performance

• Simple and easy to use operator interfaces

• Automatic, non-moving A/C motor tuning

• cULu Listed enclosure

• Local graphing / plotting of performance information

• Safe access to data and diagnostic interface ports

Services

• Highest level of support and training at preferred locations

Technical Specifications

Ratings

Power supply voltage	Power supply frequency
380 -480V (-15%/+10%)	47 - 63 Hz

HP	kW	AMPS
10	7.5	17.6
15	11	27.7
20	15	33
25	18.5	41
30	22	48
40	30	66
50	37	79
60	45	94
75	55	116
100	75	160
125	90	179
150	110	215

Other power options and sizing available upon request

Input/output configuration

	Standard
Analog in	4
Analog out	3
Digital in	16
Relay out	3

Communications

Modbus	1 (RS422/RS485)
TCP/IP (optional)	1
CanOpen (optional)	1
Ethernet (optional)	1
Bluetooth (optional)	1

Protections (internal to the VFD)

Thermal protection	Yes, 12t motor thermal protection depending on the thermal prtection motor frequency
Memorization when power off	
Electronic/PTC	Yes, dedicated input on option cards
Short circuit between phase	Yes
Ground fault	Yes
Output phase loss	Yes
Input phase loss	Yes
Overload	Yes
Overvoltage	Yes
Undervoltage	Yes
Drive thermal protection	Yes
Locked motor protection	Yes
Stall prevention	Yes
Others	
Options and accessories	-
Braking resistors	-