FLUIDWISE™

DRIVES & CONTROLS

Designed specifically for coalbed methane, shale gas, and light oil stripper well applications, Franklin's progressive cavity pump and CBM+ motor are designed to meet the harshest conditions, providing the most dependable system available in the industry.

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Franklin Electric

FLUIDWISE™ I SERIES - USA VFD & CONTROL (SINGLE-DOOR)

Franklin Electric's full-featured variable frequency drive control center can be seamlessly paired with the electric submersible progressive cavity (ESPCP) and electric submersible centrifugal (ESP) pumps. The pump protection, data acquisition, and user interface are unmatched in the gas industry. This version uses UL-based standard wire colors common in the USA and does not come with a neutral wire. Optional antenna kits are sold separately.

FEATURES

- Simple setup with preprogrammed, PC-based controller
- Webpage interface
- Alarms and alerts sent straight to your phone or email
- Password protection for security and HTTPS security encryption
- 3 running modes: run according to a set speed, speed regulated to reach a set target water level, speed regulated to reach a desired flow rate (must have a flow meter)
- Franklin Electric exclusive pump protection algorithms
- Underload, overload, and dry-run protection
- Reverse start feature
- Built-in event history and diagnostics
- Data logging with the capability of downloading a Microsoft Excel file (.csv)
- Sensitivity and timeout adjustments for unusual well conditions
- 8 analog inputs: downhole pressure sensor, casing pressure sensor, water line pressure sensor, water flow sensor, gas pressure sensor, gas flow sensor, and two additional analog inputs
- Single-door weatherproof NEMA 3R-rated enclosure with cable knockouts
- External emergency stop push button and run indicator light
- Load reactors to minimize voltage spikes and harmonic noise transmitted to motor
- Line reactors to minimize noise transmission back onto the transmission line
- 450W for external heat tape
- Heater for condensation prevention and fan for internal cooling
- WiFi connectivity for control webpage and software updates
- No autotune needed

EXTERNAL HMI

- Start and stop buttons
- Real-time display of speed, water level, motor load, target and shut-off water levels, operation mode, and recovery time
- Adjustable recovery time, speed, and water level settings
- Weatherproof NEMA 3R-rated enclosure
- Backlit LCD screen
- Surge protection

FLUIDWISE™ I SERIES - USA VFD & CONTROL (SINGLE-DOOR)

ORDERING INFORMATION

Drive Size	Order No.	Input Power
15 hp FluidWise™ I - USA	226800901	
20 hp FluidWise™ I - USA	226801901	3-Phase
30 hp FluidWise™ I - USA	226802901	

Enclosure Size: A: 34.5" W x 17.03" D x 38.38" H (876 mm W x 432 mm D x 975 mm H) - Single-Door

PANEL SPECIFICATIONS

Input Supply	
Voltage	460 V / 400 V – 60 Hz / 50 Hz
Output Power	
Voltage	Up to 460 V / 400 V
Frequency	60 Hz / 50 Hz
Environmental	
Operating Temperature	-10 °C - 40 °C (14 °F - 104 °F)
Storage Temperature	-10 °C - 70 °C (14 °F - 158 °F)
Relative Humidity	95% - non-condensing
Inputs and Outputs	
Analog Inputs	8
Relay Outputs	1
Communication	
RS485-MODBUS 2-Wire	External
Ethernet Plug – MODBUS TCP / IP	External
Telemetry	
WiFi	Standard
Cellular	Optional
Satellite	Optional
GFCI Internal Outlet	Standard
IS Barrier	Optional
Sun Shield	Optional

FLUIDWISE™ II SERIES - USA VFD & CONTROL (DOUBLE-DOOR)

Franklin Electric's two-door option is aimed for high/low voltage separation applications. The pump protection, data acquisition, and user interface are unmatched in the gas industry. This version includes a neutral wire and uses IEC-standard wire colors common in international markets.

FEATURES

- Simple setup with preprogrammed, PC-based controller
- Webpage interface
- Alarms and alerts sent straight to your phone or email
- Password protection for security and HTTPS security encryption
- 3 running modes: run according to a set speed, speed regulated to reach a set target water level, speed regulated to reach a desired flow rate (must have a flow meter)
- Franklin Electric exclusive pump protection algorithms
- Underload, overload, and dry-run protection
- Reverse start feature
- Built-in event history and diagnostics
- Data logging with the capability of downloading a Microsoft Excel file (.csv)
- Sensitivity and timeout adjustments for unusual well conditions
- 8 analog inputs: downhole pressure sensor, casing pressure sensor, water line pressure sensor, water flow sensor, gas pressure sensor, gas flow sensor, and two additional analog inputs
- Double-door weatherproof NEMA 3R-rated enclosure with cable knockouts
- External emergency stop push button and run indicator light
- Load reactors to minimize voltage spikes and harmonic noise transmitted to motor
- Line reactors to minimize noise transmission back onto the transmission line
- 450W for external heat tape
- Heater for condensation prevention and fan for internal cooling
- WiFi connectivity for control webpage and software updates
- No autotune needed

EXTERNAL HMI

- Start and stop buttons
- Real-time display of speed, water level, motor load, target and shut-off water levels, operation mode, and recovery time
- Adjustable recovery time, speed, and water level settings
- Weatherproof NEMA 3R-rated enclosure
- Backlit LCD screen
- Surge protection

FLUIDWISE™ II SERIES - USA VFD & CONTROL (DOUBLE-DOOR)

ORDERING INFORMATION

Drive Size	Order No.	Input Power
15 hp FluidWise™ II - USA	226808901	
20 hp FluidWise™ II - USA	226809901	3-Phase
30 hp FluidWise™ II - USA	226810901	

Enclosure Size: B: 51.14" W x 14.97" D x 33.29" H (1299 mm W x 380 mm D x 846 mm H) - Double-Door

PANEL SPECIFICATIONS

Input Supply	
Voltage	460 V / 400 V – 60 Hz / 50 Hz
Output Power	
Voltage	Up to 460 V / 400 V
Frequency	60 Hz / 50 Hz
Environmental	
Operating Temperature	-10 °C - 40 °C (14 °F - 104 °F)
Storage Temperature	-10 °C - 70 °C (14 °F - 158 °F)
Relative Humidity	95% - non-condensing
Inputs and Outputs	
Analog Inputs	8
Relay Outputs	1
Communication	
RS485-MODBUS 2-Wire	External
Ethernet Plug – MODBUS TCP / IP	External
Telemetry	
WiFi	Standard
Cellular	Optional
Satellite	Optional
GFCI Internal Outlet	Standard
IS Barrier	Optional
Sun Shield	Optional

FLUIDWISE™ I SERIES - INTERNATIONAL VFD DRIVE & CONTROL (SINGLE-DOOR)

The international version of the FluidWise™ I includes a full-featured control center that can be seamlessly paired with the electric submersible progressive cavity (ESPCP) and electric submersible centrifugal (ESP) pumps. The pump protection, data acquisition, and user interface are unmatched in the gas industry. This version includes a neutral wire and uses IEC-standard wire colors common in international markets. Optional antenna kits are sold separately.

FEATURES

- Simple setup with preprogrammed, PC-based controller
- Webpage interface
- Alarms and alerts sent straight to your phone or email
- Password protection for security and HTTPS security encryption
- 3 running modes: run according to a set speed, speed regulated to reach a set target water level, speed regulated to reach a desired flow rate (must have a flow meter)
- Franklin Electric exclusive pump protection algorithms
- Underload, overload, and dry-run protection
- Reverse start feature
- Built-in event history and diagnostics
- Data logging with the capability of downloading a Microsoft Excel file (.csv)
- Sensitivity and timeout adjustments for unusual well conditions
- 8 analog inputs: downhole pressure sensor, casing pressure sensor, water line pressure sensor, water flow sensor, gas pressure sensor, gas flow sensor, and two additional analog inputs
- Single-door weatherproof NEMA 3R-rated enclosure with cable knockouts
- External emergency stop push button and run indicator light
- Load reactors to minimize voltage spikes and harmonic noise transmitted to motor
- Line reactors to minimize noise transmission back onto the transmission line
- 450W for external heat tape
- Heater for condensation prevention and fan for internal cooling
- WiFi connectivity for control webpage and software updates
- No autotune needed

EXTERNAL HMI

- Start and stop buttons
- Real-time display of speed, water level, motor load, target and shut-off water levels, operation mode, and recovery time
- Adjustable recovery time, speed, and water level settings
- Weatherproof NEMA 3R-rated enclosure
- Backlit LCD screen
- Surge protection

FLUIDWISE™ I SERIES - INTERNATIONAL VFD DRIVE & CONTROL (SINGLE-DOOR)

ORDERING INFORMATION

Drive Size	Order No.	Input Power
11 kW FluidWise™ I - INT'L	226804901	
15 kW FluidWise™ I - INT'L	226805901	3-Phase w/NTRL
22 kW FluidWise™ I - INT'L	226806901	

Enclosure Size: A: 34.5" W x 17.03" D x 38.38" H (876 mm W x 432 mm D x 975 mm H) - Single-Door

PANEL SPECIFICATIONS

Input Supply	
Voltage	400 V - 50 Hz w/NTRL
Output Power	
Voltage	Up to 400 V w/NTRL
Frequency	50 Hz
Environmental	
Operating Temperature	-10 °C - 40 °C (14 °F - 104 °F)
Storage Temperature	-10 °C - 70 °C (14 °F - 158 °F)
Relative Humidity	95% - non-condensing
Inputs and Outputs	
Analog Inputs	8
Relay Outputs	1
Communication	
RS485-MODBUS 2-Wire	External
Ethernet Plug – MODBUS TCP / IP	External
Telemetry	
WiFi	Standard
Cellular	Optional
Satellite	Optional
RCD Schuko Internal Outlet	Standard
IS Barrier	Optional
Sun Shield	Optional

FLUIDWISE™ II SERIES - INTERNATIONAL VFD DRIVE & CONTROL (DOUBLE-DOOR)

Franklin Electric's two-door option is aimed for high/low voltage separation applications. The pump protection, data acquisition, and user interface are unmatched in the gas industry. This version includes a neutral wire and uses IEC-standard wire colors common in international markets.

FEATURES

- Simple setup with preprogrammed, PC-based controller

- Webpage interface

- Alarms and alerts sent straight to your phone or email

- Password protection for security and HTTPS security encryption

- 3 running modes: run according to a set speed, speed regulated to reach a set target water level, speed regulated to reach a desired flow rate (must have a flow meter)

- Franklin Electric exclusive pump protection algorithms

- Underload, overload, and dry-run protection

- Reverse start feature and daily flow limit setting

- Built-in event history and diagnostics

- Data logging with the capability of downloading a Microsoft Excel file (.csv)

- Sensitivity and timeout adjustments for unusual well conditions

- 8 analog inputs: downhole pressure sensor, casing pressure sensor, water line pressure sensor, water flow sensor, gas pressure sensor, gas flow sensor, and two additional analog inputs

- Double-door weatherproof NEMA 3R-rated enclosure with cable knockouts

- External emergency stop push button and run indicator light

- Load reactors to minimize voltage spikes and harmonic noise transmitted to motor

- Line reactors to minimize noise transmission back onto the transmission line

- High and low voltage separation

- 450W for external heat tape

- Heater for condensation prevention and fan for internal cooling

- WiFi connectivity for control webpage and software updates

- Extra DIN rail inside panel to hang ancillary equipment (2-door only)

EXTERNAL HMI

- Start and stop buttons

- Real-time display of speed, water level, motor load, target and shut-off water levels, operation mode, and recovery time

- Adjustable recovery time, speed, and water level settings

- Weatherproof NEMA 3R-rated enclosure

- Backlit LCD screen

- Surge protection

FLUIDWISE™ II SERIES - INTERNATIONAL VFD DRIVE & CONTROL (DOUBLE-DOOR)

ORDERING INFORMATION

Drive Size	Order No.	Input Power
11 kW FluidWise™ II - INT'L w/IS Barriers	226812901	
15 kW FluidWise™ II - INT'L w/IS Barriers	226813901	3-Phase w/NTRL
22 kW FluidWise™ II - INT'L w/IS Barriers	226814901	

Enclosure Size: B: 51.14" W x 14.97" D x 33.29" H (1299 mm W x 380 mm D x 846 mm H) - Double-Door

PANEL SPECIFICATIONS

Input Supply	
Voltage	400 V - 50 Hz w/NTRL
Output Power	
Voltage	Up to 400 V w/NTRL
Frequency	50 Hz
Environmental	
Operating Temperature	-10 °C - 40 °C (14 °F - 104 °F)
Storage Temperature	-10 °C - 70 °C (14 °F - 158 °F)
Relative Humidity	95% - non-condensing
Inputs and Outputs	
Analog Inputs	8
Relay Outputs	1
Communication	
RS485-MODBUS 2-Wire	External
Ethernet Plug – MODBUS TCP / IP	External
Telemetry	
WiFi	Standard
Cellular	Optional
Satellite	Optional
RCD Schuko Internal Outlet	Standard
IS Barrier	Optional
Sun Shield	Optional

VARIABLE SPEED CONTROL

- Vector control for ESPCP required starting torque

PANEL OPTIONS

CELLULAR MODEM OPTIONS (WIFI INCLUDED)

Modem Package	Order No.	Model	Modulation	Countries	Network
A	226310901		CDMA	USA	Verizon
B	226310911	GX400+WiFi	GSM	AUS/NZ	Telstra
C	226310921		GSM	Rest of the World	All GSM

SUNSHIELD

Optional	Order No.
Sunshield - Single Door	226816901
Sunshield - Double Door	226816902

IS BARRIER

Optional	Order No.
IS Barrier	226816901

NOTE: Customer must supply SIM card and pay the cellular service

ANTENNA

Antenna Package	Order No.	Cellular Antenna	WiFi Antenna
A	226311901	Direct (Yagi) 11dBi	Direct (Yagi) 15dBi
B	226311911	Direct (Yagi) 11dBi	Omni 8dBi

Cellular Antenna　　　　*WiFi Antenna*

SATELLITE

Modem Package	Order No.	Model	Modulation	Countries	Network
Satellite Option	226074901	Hughes 9502	BGAN	ALL	Mackay Communications

INSTRUMENTATION

Description	Hazardous Rating	Order No.	Range
Pressure Transmitter	N/A	106769101	< = 580 psi
	Ex d IIC T6 Gb	106769102	< = 580 psi
Water Flow Meter - Ultrasonic	N/A	106767101	0-2700 bdp
	Ex d IIC	106767102	0-2700 bdp
Viatran Surface Sensor	-	106976101	< = 500 psi
	-	106976102	< = 1,000 psi

CONTROL STAND

Description	Order No.	Width Inches	Depth Inches	Height Inches
Stand	165794901	36.4	37	68.3

FEATURES & SPECIFICATIONS

Set system parameters and get realtime data from anywhere in the world.

Real time data display with interactive capability

Ease of operation at site with door mounted HMI

Data logging provides critical system performance history

Text alerts for peace of mind

WIRING DIFFERENCES

Version	Wire Colors	Neutral Wire
FluidWise™ - USA	UL-based wire colors	No
FluidWise™ - INT'L	IEC-based wire colors	Yes
AL Series Drive - Global	UL-based wire colors	No

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