DRIVES, CONTROLS, & PROTECTION

RESIDENTIAL & LIGHT COMMERCIAL

Franklin Electric

Franklin Electric

RESIDENTIAL & LIGHT COMMERCIAL DRIVES, CONTROLS, & PROTECTION

For the most up-to-date product information, visit **franklinwater.com**.

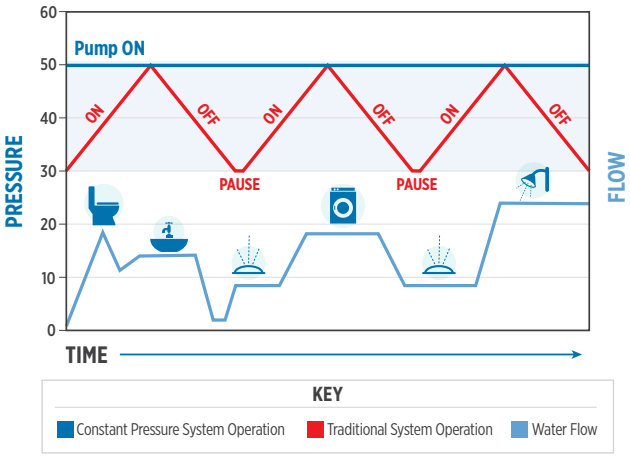
MENU

WHAT IS A CONSTANT PRESSURE SYSTEM?

A constant pressure system delivers the water experience users want, how and when they want it: consistently and reliably. Constant pressure systems accommodate a range of flow demands so homeowners and end users can consistently get the water delivery they expect, even if their usage fluctuates.

In comparison to a traditional water system, where water pressure decreases as water demand changes, a constant pressure system eliminates these pressure fluctuations -- no matter how many faucets or water appliances you need to run at the same time.

Here's how we make it happen:



THE SIMPLIFIED SOLUTION TO UPGRADE: THE SUBDRIVE FAMILY

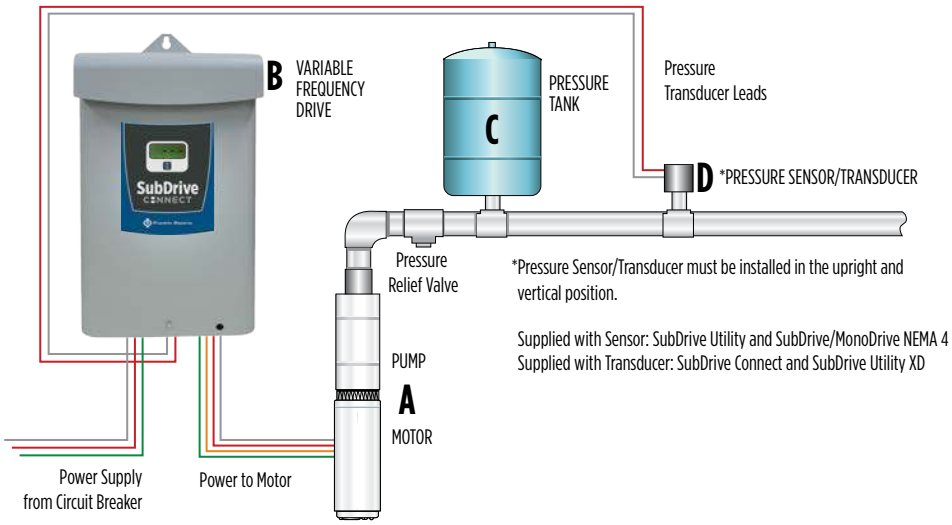
From residential to agricultural and commercial applications, Franklin Electric's SubDrive family of variable frequency drives offers a cost-effective, easy-to-install upgrade to traditional systems. Simply wire up the unit, flip a switch or two, and you instantly have motor protection, pressure boosting, and constant pressure delivery. The SubDrive family offers a range of motor voltage and horsepower ratings to meet a variety of submersible and above ground pumping system application needs.

FEATURES & BENEFITS

- **Designed for Water Systems, Optimized for Constant Pressure**: Designed specifically for water pumping applications, the SubDrive family of drives delivers unique features tailored to your installation needs.
- **Simple Installation**: The easy-to-install platform uses an array of setup, monitoring, and assisted troubleshooting solutions to help you save time during initial setup and servicing.
- **Versatility for Multiple Applications**: Whether you need a complete packaged solution or a drive to upgrade an existing job, find an extensive catalog of product solutions that fulfills a variety of application needs up to 30 horsepower.
- **Smaller Footprint, Smarter Use of Space**: Compact self-contained enclosure designs are ideal for wall-mounting and can be used indoors or outside.
- **Fully Supported**: Comes fully supported by the industry-leading technical support professionals and field service engineers

APPLICATIONS

- Residential water systems
- Landscape irrigation systems
- Constant pressure boosting
- Water treatment systems
- Geothermal systems



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PRODUCT COMPARISON

FEATURES & PROTECTION

GOOD: ★ BETTER: ★★ BEST: ★★★

Specifications		Control	Protection				Variable Frequency Drives (VFD)					
		Control Box	QD Pumptec	Pumptec	Pumptec Plus	SubMonitor Connect	SubDrive Utility UT2W	SubDrive Utility UT3P	MonoDrive/ MonoDriveXT	SubDrive 75/100/150/300	SubDrive 20/ 30/50 Connect	SubDrive Connect Plus
Features	Constant Pressure						✓	✓	✓	✓	✓	✓
	Electrical Filtering						★	★	★★★	★★★	★★★	★★
	Compatible w/MagForce™ High Efficiency Motor										✓	✓
Protection	Rating	NEMA 3R		NEMA 3R	NEMA 3R	Base: NEMA 1 Display: NEMA 4X	NEMA 3R	NEMA 3R	NEMA 4	NEMA 4	NEMA 3R	NEMA 3R
	Underload		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	Under/Over Voltage		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	Rapid Cycle			✓	✓	✓		Soft Start	Soft Start	Soft Start	Soft Start	Soft Start
	Overload/Locked Pump		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	Open Circuit					Phase Loss	✓	✓	✓	✓	✓	✓
	Short Circuit						✓	✓	✓	✓	✓	✓
	Phase Imbalance					✓					✓	✓
Input/ Output/ Control	Pressure Sensor (Hobbs)						✓	✓	✓	✓	✓	✓
	Pressure Transducer (4-20mA)						✓	✓			✓	✓
	Run Relay Output								Accessory	Accessory or SubDrive300	✓	✓
	Fault Relay Output										✓	✓
	Broken Pipe						✓	✓			✓	✓
	Pressure Sensor Error						✓	✓			✓	✓
	Auxilliary Control					Hand/Off/Auto Modbus					✓	Run/Stop Hand/Auto
	Wet Floor Sensor										✓	✓
	Lead/Lag/Alternate						Accessory, 2 Drives	Accessory, 2 Drives	Accessory, 2 Drives	Accessory, 2 Drives	Built-in, 2 Drives	Built-in, up to 8 Drives
	FE Connect Mobile App					✓					✓	✓

SUBMERSIBLE MOTORS

Specifications			Control	Protection				Variable Frequency Drives (VFD)					
Phase	Volts	Horsepower	Control Box	QD Pumptec	Pumptec	Pumptec Plus	SubMonitor Connect	SubDrive Utility UT2W	SubDrive Utility UT3P	MonoDrive/ MonoDriveXT	SubDrive 75/100/150/300	SubDrive 20/ 30/50 Connect	SubDrive Connect Plus
1-Phase 2-Wire	115 V	1/3 hp – 1/2 hp			✓			✓					
	230 V	1/3 hp			✓	✓		✓					
		1/2 hp – 1.5 hp			✓	✓	✓	✓				SubDrive 20 & 30	
1-Phase 3-Wire	115 V	1/3 hp – 1/2 hp	✓		✓								
	230 V	1/3 hp	✓	✓	✓	✓							
		1/2 hp – 1 hp	✓	✓	✓	✓			✓	✓		✓	
		1.5 hp	✓		✓	✓			✓	✓		✓	
		2 hp	✓			✓			✓	✓		✓	
		3 hp	✓			✓						✓	
		5 hp	✓			✓							
		5 hp – 15 hp	✓										
3-Phase	200 V	1/2 hp – 30 hp					✓						
	230 V	1/2 hp – 3/4 hp					✓		✓				✓
		1 hp – 2 hp					✓		✓			✓	✓
		1.5 hp – 5 hp					✓				✓	✓	✓
		5 hp – 15 hp					✓						✓
		15 hp – 30 hp					✓						
	460 V	1/2 hp – 30 hp					✓						✓
		1/2 hp – 200 hp					✓						

SURFACE PUMPS

Specifications			Control	Protection				Variable Frequency Drives (VFD)					
Phase	Volts	Horsepower	Control Box	QD Pumptec	Pumptec	Pumptec Plus	SubMonitor Connect	SubDrive Utility UT2W	SubDrive Utility UT3P	MonoDrive/ MonoDriveXT	SubDrive 75/100/150/300	SubDrive 20/ 30/50 Connect	SubDrive Connect Plus
1-Phase 2-Wire	115 V	1/3 hp – 1 hp						✓					
	230 V	1/2 hp – 2 hp						✓				SubDrive 20 & 30	
		1/10 hp – 50 hp					✓						
3-Phase	200 V	1/2 hp – 200 hp					✓						
	230 V	1/2 hp – 2 hp					✓		✓			✓	✓
		3 hp – 5 hp					✓					✓	✓
		5 hp – 15 hp					✓						✓
		15 hp – 400 hp					✓						
	460 V	1/2 hp - 30 hp					✓						✓
		30 hp - 500 hp					✓						

PRODUCT COMPARISON

DRIVE HIGHLIGHTS

SubDrive Utility

- Economical solution for 115 V and 230 V single-phase, two-wire systems and 230 V three-wire and three-phase systems up to 2 hp.

SubDrive Connect

- The most complete and versatile solution for 1/2 to 5 hp single-phase, two-wire and three-wire, and three-phase systems supported by mobile connectivity for monitoring, advanced setup, and troubleshooting.
- Available as an all-in-one solution to upgrade jobs to groundbreaking performance, easy startups and reliability with SubDrive QuickPAK powered by a MagForce High Efficiency Motor.

SubDrive Connect Plus

- Full-featured solution for systems performing with three-phase motors up to 30 hp supported by enhanced mobile connectivity for monitoring, advanced setup, and troubleshooting.
- Streamlined solution to deliver pumping power at maximum efficiency along with quick, easy startups and reliable protection for projects powered by MagForce High Efficiency Motors.

SubDrive/MonoDrive & MonoDrive XT NEMA 4

- Rugged, watertight solution for 1/2 to 2 hp single-phase, three-wire and 1-1/2 to 5 hp three-phase systems.

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Note: Applications containing sensitive electronic equipment such as LEDs, dimmer switches, and AM radio may require higher levels of electrical filtering. For ideal electrical filtering drive qualities, please refer to the Drive Comparison table.

ENCLOSURE OPTIONS

- NEMA 3R: The NEMA 3R enclosure is rated for indoor and outdoor use. It provides a degree of protection against falling rain and sleet.
- NEMA 4: The NEMA 4 weatherproof enclosure is designed for both indoor and outdoor use and offers robust protection against harsh environmental conditions.

NEMA 3R NEMA 4

VARIABLE FREQUENCY DRIVES - SUBDRIVE UTILITY

Franklin Electric's SubDrive Utility™ Variable Frequency Drives provide an easy-to-install constant pressure solution for 115 V and 230 V single-phase, two-wire systems and 230 V three-wire and three-phase systems up to 2 hp.

Requiring only a small pressure tank in most applications, they offer a more compact overall footprint compared to traditional water systems while providing the added value of constant water pressure and built-in motor protection.

FEATURES & BENEFITS

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- **Designed for Water Systems, Optimized for Constant Pressure:** Designed specifically for water pumping applications, SubDrive Utility delivers unique features:
  - Provides consistent water pressure across a system, eliminating fluctuations
- **Additional built-in protections include:**
  - Underload (Dry-run) with customizable sensitivity
  - Overload / Locked pump
  - Output short circuit and open circuit
  - Undervoltage
- **Simple Installation:** Easy-to-install drive; most applications require the simple flip of one switch, saving significant time during installation.
- **Versatility for Multiple Applications:**
  - Ideal for retrofitting or optimizing existing single-phase, two-wire or three-wire, and three-phase submersible or above ground pumping systems up to 2 hp
- **Smaller Footprint, Smarter Use of Space:**
  - Compact design that's ideal for wall-mounting and works with small pressure tanks or existing units
  - Cost-effective solution that replaces the need for multiple control boxes, a pressure switch, and larger tanks; delivers a total system cost at or below standard installations with pump flows of 10 gpm and greater
  - Can be used indoors or outside since the self-contained NEMA 3R-rated drive provides a degree of protection against falling rain or sleet
- **Fully Supported:** Comes fully supported by the industry-leading technical support professionals and field service engineers

ORDERING INFORMATION

Submersible Applications															
Drive Model	Order No.	115 V 2-Wire		230 V 2-Wire				230 V Single-Phase 3-Wire					230 V 3-Phase		
		1/3 HP	1/2 HP	1/2 HP	3/4 HP	1 HP	1.5 HP	1/2 HP	3/4 HP	1 HP	1.5 HP	2 HP	1 HP	1.5 HP	2 HP
SubDrive Utility UT2W with Pressure Sensor	5870202003	✓	✓	✓	✓	✓	✓	-	-	-	-	-	-	-	-
SubDrive Utility UT2W with Analog Pressure Transducer	5870202003XD														
SubDrive Utility UT3P with Pressure Sensor	5870202303	-	-	-	-	-	-	✓	✓	✓	✓	✓	✓	✓	✓
SubDrive Utility UT3P with Analog Pressure Transducer	5870202303XD														

Surface Applications															
Drive Model	Order No.	Motor Overload Protection Ratings	115 V Single Phase 2-Wire				230 V Single Phase 2-Wire					230 V 3-Phase				
			1/3 HP	1/2 HP	3/4 HP	1 HP	1/2 HP	3/4 HP	1 HP	1.5 HP	2 HP	1/2 HP	3/4 HP	1 HP	1.5 HP	2 HP
SubDrive Utility UT2W with Pressure Sensor	5870202003	4.6 – 13.1 A	✓	✓	✓	✓	✓	✓	✓	✓	✓	-	-	-	-	-
SubDrive Utility UT2W with Analog Pressure Transducer	5870202003XD															
SubDrive Utility UT3P with Pressure Sensor	5870202303	2.6 – 8.1 A	-	-	-	-	-	-	-	-	-	✓	✓	✓	✓	✓
SubDrive Utility UT3P with Analog Pressure Transducer	5870202303XD															

NOTE: Not equipped with FE Connect mobile app

MENU

VARIABLE FREQUENCY DRIVES - SUBDRIVE UTILITY

SPECIFICATIONS

Model No.	Indoor/Outdoor	SubDrive Utility UT2W (NEMA 3R) Model 5870202003 & 5870202003XD	SubDrive Utility UT3P (NEMA 3R) Model 5870202303 & 5870202303XD
Input from Power Source	Voltage	115/208/230 +/- 10% VAC	230 +/- 10% VAC
	Phase In	Single-phase	Single-phase
	Frequency	60 Hz	60 Hz
	Current (max)	20 Amps	20 Amps
	Power Factor	- 0.52	- 0.52
	Power (idle)	3 Watts	3 Watts
	Power (max)	2500 Watts	2500 Watts
	Wire Gauge Size(s)	Consult Federal, State, and Local codes for branch circuit installations	Consult Federal, State, and Local codes for branch circuit installations
Output to Motor	Voltage	Variable based on frequency	Adjusts with frequency
	Phase Out	Single-phase (2-wire)	Single-phase (3-wire) or three-phase
	Frequency Range	35-63 Hz	Single-phase (3-wire) Submersible: 30-63 Hz Three-phase Submersible: 30-60 Hz Three-phase Surface: 15-60 Hz
	Current (max)	13.1 A (based on motor SFA)	13.2 A (based on 2 hp, single-phase, 3-wire motor)
	Wire Gauge Size(s)	Consult Federal, State, and Local codes for branch circuit installations	#6 - #20 ga.
Pressure Setting	Factory preset	50 psi (3.4 bar)	50 psi (3.4 bar)
	Adjustment Range	Pressure Sensor: 25-80 psi (1.7-5.5 bar) Pressure Transducer: 5-95% of transducer range	Pressure Sensor: 25-80 psi (1.7-5.5 bar) Pressure Transducer: 5-95% of transducer range
Operating Conditions (A)	Temperature (at 230 VAC input)	-13 °F to 122 °F (-25 °C to 50 °C)	-13 °F to 122 °F (-25 °C to 50 °C)
	Relative Humidity	20-95%, non-condensing	20-95%, non-condensing
Controller Size (B) (approximate)	Outer Dimensions	9-3/4" x 16-3/4" x 5-1/4" (25 x 42.5 x 13 cm)	9-3/4" x 16-3/4" x 5-1/4" (25 x 42.5 x 13 cm)
	Weight	7.7 lbs (3.5 kg)	7.7 lbs (3.5 kg)
For Use With (C)	Pump (60 Hz)	1/3 hp, 0.25 kW with 244502-Series motor 1/2 hp, 0.37 kW with 244504- or 244505-Series motor 3/4 hp, 0.55 kW with 244507-Series motor 1.0 hp, 0.75 kW with 244508-Series motor 1.5 hp, 1.1 kW with 244309-Series motor	1/2 hp (0.37 kW) pump with 214505-series motor 3/4 hp (0.55 kW) pump with 214507-series motor 1.0 hp (0.75 kW) pump with 214508-series motor 1.5 hp (1.1 kW) pump with 224300-series motor 2.0 hp (1.5 kW) pump with 224301-series motor 1/2 hp (0.37 kW) pump with 234511-series motor 3/4 hp (0.55 kW) pump with 234512-series motor 1.0 hp (0.75 kW) pump with 234513-series motor 1.5 hp (1.1 kW) pump with 234514-series motor 2.0 hp (1.5 kW) pump with 234315-series motor
	FE 115V Submersible Motor (Requires 115 VAC Input)	244502-Series (1/3 hp, 0.25 kW), 115 VAC, single-phase, 2-wire 244504-Series (1/2 hp, 0.37 kW), 115 VAC, single-phase, 2-wire	-
	FE 230V Submersible Motor (Requires 230 VAC Input)	244505-Series (1/2 hp, 0.37 kW), 230 VAC, single-phase, 2-wire 244507-Series (3/4 hp, 0.55 kW), 230 VAC, single-phase, 2-wire 244508-Series (1.0 hp, 0.75 kW), 230 VAC, single-phase, 2-wire 244309-Series (1.5 hp, 1.1 kW), 230 VAC, single-phase, 2-wire	214505-Series (0.5 hp, 0.37 kW) single-phase, 3-wire 214507-Series (0.75 hp, 0.55 kW) single-phase, 3-wire 214508-Series(1.0 hp, 0.75 kW) single-phase, 3-wire 224300-Series (1.5 hp, 1.1 kW) single-phase, 3-wire 224301-Seriess (2.0 hp, 1.5 kW) single-phase, 3-wire 234511-Series (0.5 hp, 0.37 kW) three-phase 234512-Series (0.75 hp, 0.55 kW) three-phase 234513-Series (1.0 hp, 0.75 kW) three-phase 234514-Series (1.5 hp, 1.1 kW) three-phase 234515-Series (2.0 hp,1.5 kW) three-phase
	Other Pumps	Submersible PSC and Surface Pumps 4.6-13.1 Amps, single-phase, 2-wire, 115 VAC and 230 VAC	Surface Pumps 2.6-8.1 Amps, three-phase, 230 VAC

NOTES: Refer to Franklin Electric's SubDrive Utility Installation Manual.
(A) Operating temperature is specified at full output power when installed as described in Controller Location Selection.
(B) Refer to detailed Mounting Dimensions.
(C) If a pump other than the default rating is used, refer to Drive Configuration.

VARIABLE FREQUENCY DRIVES - SUBDRIVE CONNECT

Franklin Electric's SubDrive Connect Variable Frequency Drives are the most complete and versatile constant pressure solution for residential and light commercial water systems. Helping you upgrade jobs up to 5 hp, this easy-to-install drive is equipped to optimize submersible and above-ground pumps with 1-phase, 2-wire and 3-wire, or 3-phase motors.

The sleek NEMA 3R-rated SubDrive Connects are full-featured for field-proven reliability, while the FE Connect mobile app offers easier service, real-time local monitoring, setup, and troubleshooting.

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MagForce™ Ready*

FEATURES & BENEFITS

- **Designed for Water Systems, Optimized for Constant Pressure:** Designed specifically for water pumping applications, SubDrive Connect delivers robust features for unparalleled dependability:
  - Provides consistent water pressure across a system, eliminating fluctuations
  - Soft start maximizes system life
  - Advanced filtering to mitigate interference with sensitive electronic devices, such as LED lighting and smart home appliances
  - Power Factor Correction that optimizes the system for a wider performance range
- **Additional built-in protections include:**
  - Underload (Dry-run) with customizable sensitivity and off time
  - Overload / Locked pump
  - Broken pipe detection
  - Output short circuit and open circuit
  - Undervoltage
  - Electrical surge
  - Overheated controller
  - Moisture sensor input
  - Run and fault relays
- **Simple Installation, Made Easier Through Connectivity:** The easy-to-install platform uses an array of setup, local monitoring, and assisted troubleshooting solutions to help you save time during installation and servicing:
  - LCD display provides immediate feedback and read-outs on pressure and system status
  - No programming is required with easy DIP switches for basic drive configuration
  - Integrated connectivity and compatibility with our FE Connect mobile app for real-time data and monitoring; access to advanced features such as motor frequency range, lead/lag/alternation, broken pipe detection, and fault log retrieval
- **Redefined Versatility to Tackle a Wider Range of Applications:**
  - Ideal for new construction or retrofitting submersible and above-ground systems from 1/2 – 5 hp with single-phase, two-wire and three-wire, or three-phase, SubDrive Connect is available as a standalone drive or the popular all-in-one *SubDrive QuickPAK powered by MagForce High Efficiency Motors
  - Built-in lead/lag and alternation capability for duplex systems
  - Comes standard with various input/output (I/O) ports for streamlined compatibility with adjacent systems
- **Smaller Footprint, Smarter Use of Space:**
  - Compact design that's ideal for wall-mounting and works with small pressure tanks or existing tanks
  - Can be used indoors or outside since the self-contained NEMA 3R-rated drive provides a degree of protection against falling rain or sleet
- **Fully Supported:** Comes fully supported by the industry-leading technical support professionals and field service engineers

ORDERING INFORMATION

Drive Model	Order No.	Single-phase (2-Wire) HP					Single-Phase (3-Wire) HP						Three-Phase HP				
		0.5	0.75	1.0	1.5	2.0	0.5	0.75	1.0	1.5	2.0	3.0	1.0	1.5	2.0	3.0	5.0
SubDrive20	5870205313C	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓	✓		
SubDrive30	5870205403C	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓	✓	✓	
SubDrive50	5870205503C						✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

NOTE: Drives can operate all motors up to their maximum output rating as shown in the table above

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VARIABLE FREQUENCY DRIVES - SUBDRIVE CONNECT

SPECIFICATIONS

Model No.	Indoor/Outdoor	SubDrive20 (NEMA 3R) Model 5870205313C		SubDrive30 (NEMA 3R) Model 5870205403C			SubDrive50 (NEMA 3R) 5870205503C		
Input from Power Source	Voltage	208/230 VAC +/- 10%		208/230 VAC +/- 10%			208/230 +/- 10% VAC		
	Phase In	Single-phase		Single-phase			Single-phase		
	Frequency	60/50 Hz		60/50 Hz			60/50 Hz		
	Current (max)	17.3 Amps		23 Amps			36 Amps		
	Power Factor	~ 0.95		~ 0.95			~ 0.95		
	Power (idle)	5 Watts		5 Watts			7 Watts		
	Power (max)	3600 Watts		4200 Watts			7200 Watts		
	Wire Gauge Size(s)	Consult Federal, State, and Local codes for branch circuit installations		Consult Federal, State, and Local codes for branch circuit installations			Consult Federal, State, and Local codes for branch circuit installations		
Output to Motor	Voltage	Adjusts with Frequency		Adjusts with Frequency			Variable based on frequency		
	Phase Out	Single-phase (2-wire or 3-wire) OR Three-phase		Single-phase (2-wire or 3-wire) OR Three-phase			Single-phase (3-wire) OR three-phase		
	Frequency Range	Hz Range	Pump HP vs. Motor HP	Motor Type Model	Model: SubDrive 20		Model: SubDrive 30		Model: SubDrive 50
		30-78	1/2*	3-Phase	✓		✓		✓
		30-70	2/3**	3-Phase	✓		✓		✓
			3/4***	3-Phase	✓		✓		✓
		30-60	Matched	3-Phase	✓		✓		✓
		30-63	Matched	Single-Phase	✓		✓		✓
		60-120	Matched	MagForce	✓		✓		✓
		60-156	1/2*	MagForce	✓		✓		
			2/3**	MagForce	✓		✓		✓
			3/4***	MagForce	✓		✓		✓
	Current (max)	8.1 A (three-phase) 13.1 A (single-phase 2-wire) 13.2A (single-phase 3-wire)		10.9 A (three-phase) 13.1 A (single-phase 2-wire) 13.2A (single-phase 3-wire)			17.8 A (three-phase) 17.0A (single-phase 3-wire)		
	Wire Gauge Size(s)	#6 - #14* ga.		#6 - #14* ga.			#6 - #12* ga.		
Pressure Setting	Factory Preset	50 psi (3.4 bar)		50 psi (3.4 bar)			50 psi (3.4 bar)		
	Adjustment Range	25-80 psi (1.7 - 5.5 bar)		25-80 psi (1.7 - 5.5 bar)			Analog Transducer: 5-95 PSI (0.3 - 6.6 bar) Pressure Sensor: 25-80 psi (1.7 - 5.5 bar)		
Operating Conditions (A)	Temperature (at 230 VAC input)	-13 °F to 122 °F (-25 °C to 50 °C)		-13 °F to 122 °F (-25 °C to 50 °C)			-13 °F to 122 °F (-25 °C to 50 °C)		
	Relative Humidity	20-95%, non-condensing		20-95%, non-condensing			20-95%, non-condensing		
Controller Size (B) (approximate)	Outer Dimensions	9-3/4" x 19-3/4" x 5-1/4" (25 x 50 x 13 cm)		9-3/4" x 19-3/4" x 5-1/4" (25 x 50 x 13 cm)			26 1/8" x 15 3/8" x 11 1/2" (66 x 39 x 29 cm)		
	Weight	26 lbs (11.8 kg)			26 lbs (11.8 kg)		31 lbs (14.1 kg)		
For Use With (C)		Motor and Pump Combination: Motor	Pump hp (kW)	SubDrive 20		SubDrive 30		SubDrive 50	
	Single-phase 2-wire	230V 0.5 hp (0.37 kW) 244505-series	0.5 (0.37)	✓		✓			
		230V 0.75 hp (0.55 kW) 244507-series	0.75 (0.55)	✓		✓			
		230V 1.0 hp (0.75 kW) 244508-series	1.0 (0.75)	✓		✓			
		230V 1.5 hp (1.1 kW) 244309-series	1.5 (1.1)	✓		✓			
	Single-phase 3-wire	0.5 hp (0.37 kW) 214505-series	0.5 (0.37)	✓		✓		✓	
		0.75 hp (0.55 kW) 214507-series	0.75 (0.55)	✓		✓		✓	
		1.0 hp (0.75 kW) 214508-series	1.0 (0.75)	✓		✓		✓	
		1.5 hp (1.1 kW) 224300-series	1.5 (1.1)	✓		✓		✓	
		2.0 hp (1.5 kW) 224301-series	2.0 (1.5)	✓		✓		✓	
		3.0 hp (2.2 kW) 224302-series	3.0 (2.2)					✓	
	Surface Pumps	2.0–8.1 A (three-phase) 2.0–13.1 A (single-phase 3-wire)		2.0–10.9 A (three-phase) 2.0– 13.1 A (single-phase 3-wire)			2.0–17.8 A (three-phase), 230 VAC (three-phase)		

NOTES: Refer to Franklin Electric's SubDrive/MonoDrive Installation Manual. Refer to detailed Circuit Breaker and Wire Sizing charts.
(A) Operating temperature is specified at full output power when installed as described in Controller Location Selection.
(B) Refer to detailed Mounting Dimensions.
(C) If a pump other than the default rating is used, refer to Drive Configuration
** Example: 1HP pump with 2HP motor*
*** Example: 2HP pump with 3HP motor or 3HP pump with 5HP motor*
**** Example: 1.5HP pump with 2HP motor*

VARIABLE FREQUENCY DRIVES - SUBDRIVE & MONODRIVE NEMA 4

From demanding residential to agricultural and commercial applications, Franklin Electric's SubDrive & MonoDrive NEMA 4 Variable Frequency Drives provide an easy-to-install constant pressure solution and built-in protection for jobs up to 5 horsepower.

Designed within a NEMA 4 weatherproof enclosure, they offer rugged, watertight variable frequency drive solutions that meet water demand changes.

FEATURES & BENEFITS

- **Designed for Water Systems, Optimized for Constant Pressure:** Designed specifically for water pumping applications, SubDrive & MonoDrive deliver unique features:
  - Provides consistent water pressure across a system, eliminating fluctuations
  - Soft start maximizes system life
  - Advanced filtering to remove radio frequency interference

  Additional built-in protections include:
  - Underload (Dry-run) with customizable sensitivity
  - Overload / Locked pump
  - Output short circuit and open circuit
  - Undervoltage
  - Electrical surge
  - Overheated controller
- **Simple Installation**: Easy-to-install drive; most applications require the simple flip of one switch, saving significant time during installation.
- **Versatility for Multiple Applications:**
  - From SubDrive75 thru SubDrive300, SubDrive (NEMA 4) models are designed to provide constant pressure for three-phase motors using single-phase input power for 1-1/2 – 5 hp jobs.
  - MonoDrive and MonoDriveXT (NEMA 4) are designed to convert a conventional ½ hp to 2 hp, single-phase, 3-wire pump system into a constant pressure system by simply replacing the control box and pressure switch.
- **Smaller Footprint, Smarter Use of Space:**
  - Compact design that's ideal for wall-mounting and works with small pressure tanks or existing tanks
  - Ideal for demanding applications since the self-contained NEMA 4 enclosures (rated for indoor or outdoor use) offer robust protection against harsh environmental conditions
- **Fully Supported:** Comes fully supported by the industry-leading technical support professionals and field service engineers

ORDERING INFORMATION

SubDrive & MonoDrive NEMA 4 Variable Frequency Drives		
VFD	Enclosure Type	Model No.
MonoDrive	NEMA 4 Variable Frequency	5870203114
MonoDriveXT		5870204114
SubDrive 75		5870203384
SubDrive 100		5870204104
SubDrive 150		5870204154
SubDrive 300		5870206300

VARIABLE FREQUENCY DRIVES - MONODRIVE & MONODRIVE XT NEMA 4

SPECIFICATIONS

Model No.	Indoor/Outdoor	MonoDrive (NEMA 4) Model 5870203114	MonoDriveXT (NEMA 4) Model 5870204114
Input from Power Source	Voltage	190-260 VAC	190-260 VAC
	Phase In	Single-phase	Single-phase
	Frequency	60/50 Hz	60/50 Hz
	Current (max)	5.7 Amps (RMS) 1/2 hp, 0.37 kW system 8.7 Amps (RMS) 3/4 hp, 0.55 kW system 11 Amps (RMS) 1 hp, 0.75 kW system	13 Amps (RMS) 1.5 hp, 1.1 kW system 16 Amps (RMS) 2 hp, 1.5 kW system
	Power Factor	1.0 (constant)	1.0 (constant)
	Power (idle)	35 Watts	65 Watts
	Power (max)	1150 Watts (1/2 hp, 0.37 kW) system 1750 Watts (3/4 hp, 0.55 kW) system 2150 Watts (1 hp, 0.75 kW) system	2500 Watts (1.5 hp, 1.1 kW) system 3100 Watts (2 hp, 1.5 kW) system
	Wire Gauge Size(s)	Consult Federal, State, and Local codes for branch circuit installations	Consult Federal, State, and Local codes for branch circuit installations
Output to Motor	Voltage	Adjusts with Frequency	Adjusts with Frequency
	Phase Out	Single-phase (3-wire)	Single-phase (3-wire)
	Frequency Range	30-60 Hz	30-60 Hz
	Current (max)	Main Phase: 6 Amps (RMS) 1/2 hp, 0.37 kW system Main Phase: 8 Amps (RMS) 3/4 hp, 0.55 kW system Main Phase: 10.4 Amps (RMS) 1 hp, 0.75 kW system	Main Phase: 11.5 Amps (RMS) 1.5 hp, 1.1 kW system Main Phase: 13.2 Amps (RMS) 2 hp, 1.5 kW system
	Wire Gauge Size(s)	#6 - #18 * ga.	#6 - #18 * ga.
Pressure Setting	Factory Preset	50 psi (3.4 bar)	50 psi (3.4 bar)
	Adjustment Range	25-80 psi (1.7 - 5.5 bar)	25-80 psi (1.7 - 5.5 bar)
Operating Conditions (A)	Temperature (at 230 VAC input)	-13 °F to 125 °F (-25 °C to 50 °C)	-13 °F to 125 °F (-25 °C to 50 °C)
	Relative Humidity	0-100%, condensing	0-100%, condensing
Controller Size (B) (approximate)	Outer Dimensions	17-1/2" x 16-3/8" x 11-3/8" (44.45 x 41.59 x 28.89 cm)	17-1/2" x 16-3/8" x 11-3/8" (44.45 x 41.59 x 28.89 cm)
	Weight	24.14 lbs (10.95 kg)	28.32 lbs (12.84 kg)
For Use With (C)	Pump (60 Hz)	0.5 hp (0.37 kW) pump with 214505-Series motor 0.75 hp (0.55 kW) pump with 214507-Series motor 1.0 hp (0.75 kW) pump with 214508-Series motor	1.5 hp (1.1 kW) pump with 224300-Series motor 2.0 hp (1.5 kW) pump with 224301-Series motor
	FE Motor	214505-Series (0.5 hp, 0.37 kW) single-phase, 3-wire 214507-Series (0.75 hp, 0.55 kW) single-phase, 3-wire (default) 214508-Series (1.0 hp, 0.75 kW) single-phase, 3-wire	224300-Series (1.5 hp, 1.1 kW) single-phase, 3-wire (default) 224301-Series (2.0 hp, 1.5 kW) single-phase, 3-wire

NOTES: Refer to Franklin Electric's SubDrive/MonoDrive Installation Manual.
(A) Operating temperature is specified at full output power when installed as described in Controller Location Selection.
(B) Refer to detailed Mounting Dimensions.
(C) If a pump other than the default rating is used, refer to Drive Configuration.
** Refer to detailed Circuit Breaker and Wire Sizing charts.*

VARIABLE FREQUENCY DRIVES - SUBDRIVE NEMA 4

SPECIFICATIONS

Model No.	Indoor/Outdoor	SubDrive75 (NEMA 4) Model 5870203384	SubDrive100 (NEMA 4) Model 5870204104
Input from Power Source	Voltage	190-260 VAC	190-260 VAC
	Phase In	Single-phase	Single-phase
	Frequency	60/50 Hz	60/50 Hz
	Current (max)	19 Amps (RMS)	19 Amps (RMS)
	Power Factor	1.0 (constant)	1.0 (constant)
	Power (idle)	65 Watts	65 Watts
	Power (max)	3800 Watts	3800 Watts
	Wire Gauge Size(s)	Consult Federal, State, and Local codes for branch circuit installations	Consult Federal, State, and Local codes for branch circuit installations
Output to Motor	Voltage	Adjusts with Frequency	Adjusts with Frequency
	Phase Out	Three-phase (3-wire)	Three-phase (3-wire)
	Frequency Range	30-80 Hz (1 hp, 0.75 kW) pump 30-70 Hz (1.5 hp, 1.1 kW) pump 30-60 Hz (2 hp, 1.5 kW) pump	30-80 Hz (1 hp, 0.75 kW) pump 30-70 Hz (1.5 hp, 1.1 kW) pump 30-60 Hz (2 hp, 1.5 kW) pump
	Current (max)	8.1 Amps (RMS, each phase)	8.1 Amps (RMS, each phase)
	Wire Gauge Size(s)	#6 - #18* ga.	#6 - #18* ga.
Pressure Setting	Factory Preset	50 psi (3.4 bar)	50 psi (3.4 bar)
	Adjustment Range	25-80 psi (1.7 - 5.5 bar)	25-80 psi (1.7 - 5.5 bar)
Operating Conditions (A)	Temperature (at 230 VAC input)	-13 °F to 125 °F (-25 °C to 50 °C)	-13 °F to 125 °F (-25 °C to 50 °C)
	Relative Humidity	0-100%, condensing	0-100%, condensing
Controller Size (B) (approximate)	Outer Dimensions	17-1/2" x 16-3/8" x 11-3/8" (44.45 x 41.59 x 28.89 cm)	17-1/2" x 16-3/8" x 11-3/8" (44.45 x 41.59 x 28.89 cm)
	Weight	28.32 lbs (12.84 kg)	28.32 lbs (12.84 kg)
For Use With (C)	Pump (60 Hz)	3/4 hp (0.55 kW) [default] 1.0 hp (0.75 kw) 1.5 hp (1.1 kW)	1 hp (0.75 kW) [default] 1.5 hp (1.1 kW) 2 hp (1.5 kW)
	FE Motor	234514-Series (1.5 hp, 1.1 kw)	234315-Series (2 hp, 1.5 kW)

Model No.	Indoor/Outdoor	SubDrive150 (NEMA 4) Model 5870204154	SubDrive300 (NEMA 4) Model 5870206300
Input from Power Source	Voltage	190-260 VAC	220-260 VAC
	Phase In	Single-phase	Single-phase
	Frequency	60/50 Hz	60/50 Hz
	Current (max)	23 Amps (RMS)	36 Amps (RMS)
	Power Factor	1.0 (constant)	1.0 (constant)
	Power (idle)	65 Watts	65 Watts
	Power (max)	4600 Watts	7200 Watts
	Wire Gauge Size(s)	Consult Federal, State, and Local codes for branch circuit installations	Consult Federal, State, and Local codes for branch circuit installations
Output to Motor	Voltage	Adjusts with Frequency	Adjusts with Frequency
	Phase Out	Three-phase (3-wire)	Three-phase (3-wire)
	Frequency Range	30-80 Hz (1.5 hp, 1.1 kW) pump 30-70 Hz (2 hp, 1.5 kW) pump 30-60 Hz (3 hp, 2.2 kW) pump	30-80 Hz (3 hp, 2.2 kW) pump 30-70 Hz (5 hp, 3.7 kW) pump
	Current (max)	10.9 Amps (RMS, each phase)	17.8 Amps (RMS, each phase)
	Wire Gauge Size(s)	#6 - #18 * ga.	#2 - #18 * ga.
Pressure Setting	Factory preset	50 psi (3.4 bar)	50 psi (3.4 bar)
	Adjustment Range	25-80 psi (1.7 - 5.5 bar)	25-80 psi (1.7 - 5.5 bar)
Operating Conditions (A)	Temperature (at 230 VAC input)	-13 °F to 125 °F (-25 °C to 50 °C)	-13 °F to 125 °F (-25 °C to 50 °C)
	Relative Humidity	0-100%, condensing	0-100%, condensing
Controller Size (B) (approximate)	Outer Dimensions	17-1/2" x 16-3/8" x 11-3/8" (44.45 x 41.59 x 28.89 cm)	19-7/8" x 17-1/2" x 14-1/4" (50.48 x 44.45 x 36.20 cm)
	Weight	28.32 lbs (12.84 kg)	35.15 lbs (15.94 kg)
For Use With (C)	Pump (60 Hz)	1.5 hp (1.1 kW) [default] 2 hp (1.5 kW) 3 hp (2.2 kW)	3 hp (2.2 kW) [default] 5 hp (3.7 kW)
	FE Motor	234316-Series (3 hp, 2.2 kW)	234317-Series (5 hp, 3.7 kW)

NOTES: Refer to Franklin Electric's SubDrive/MonoDrive Installation Manual.
(A) Operating temperature is specified at full output power when installed as described in Controller Location Selection.
(B) Refer to detailed Mounting Dimensions.
(C) If a pump other than the default rating is used, refer to Drive Configuration.
** Refer to detailed Circuit Breaker and Wire Sizing charts.*

VARIABLE FREQUENCY DRIVES - SUBDRIVE CONNECT PLUS

Franklin Electric's SubDrive Connect Plus™ Variable Frequency Drives are engineered to provide a simple, powerful constant pressure solution for water pumping systems in an array of submersible and above ground applications that utilize three-phase motors up to 30 horsepower (hp). Enhanced with advanced connectivity, they enable real-time local monitoring, quick setup and streamlined troubleshooting through the FE Connect mobile app.

FEATURES & BENEFITS

MagForce™ Ready*

- **Designed for Water Systems, Optimized for Constant Pressure:** Designed specifically for water pumping applications, SubDrive Connect Plus delivers unique features:
  - Provides consistent water pressure across a system, eliminating fluctuations
  - Dual set point and adjustable drawdown for exact pressure control
  - Soft start maximizes system life
  - Run/stop and hand/auto control

  Additional built-in protections include:
  - Pipe fill mode to reduce water hammer
  - Underload (Dry-run) with customizable sensitivity and off time
  - Overload / Locked pump
  - Broken pipe detection
  - Output short circuit and open circuit
  - Undervoltage
  - Electrical surge
  - Overheated controller
  - Moisture sensor input
  - Run and fault relays
- **Simple Installation, Made Easier Through Connectivity:** The easy-to-install platform uses an array of setup, local monitoring, and assisted troubleshooting solutions to help you save time during installation and servicing:
  - LCD display provides immediate feedback and read-outs of pressure and system status
  - No advanced programming is required with single-level menu and DIP switches for basic drive configuration
  - Integrated connectivity and compatibility with our FE Connect mobile app for real-time data and monitoring; access to advanced features such as motor frequency range, lead/lag alternation, broken pipe detection, and fault log retrieval
- **Versatility for Multiple Applications:**
  - Ideal for new construction or retrofitting and optimizing submersible and surface systems up to 30 horsepower, including projects *powered by MagForce High Efficiency Motors
  - Built-in lead/lag and alternation capability for up to 8 drives
  - Phase conversion allows for single-phase or 3-phase input in 230 V models
  - Comes standard with various input/output (I/O) connections or terminals for streamlined compatibility with adjacent systems
- **Smaller Footprint, Smarter Use of Space:**
  - Compact design that's ideal for wall-mounting and provides a cost-effective solution when compared to high-horsepower systems that use starters or VFD panel packages
  - Can be used indoors or outside since the self-contained NEMA 3R-rated drive provides a degree of protection against falling rain or sleet
- **Fully Supported:** Comes fully supported by the industry-leading technical support professionals and field service engineers

VARIABLE FREQUENCY DRIVES - SUBDRIVE CONNECT PLUS

ORDERING INFORMATION

SubDrive Connect Plus - Variable Frequency Drive (VFD)					
Rated Voltage	1-Phase Input		3-Phase Input		Model No. / Order No.
	Rated Output (HP)	Rated Output (Amps)	Rated Output (HP)	Rated Output (Amps)	
230	3	11	7.5	28	SDCP-SUB0723
	5	18	10	37	SDCP-SUB1023
	7.5	27	15	48	SDCP-SUB1523
460	-	-	10	18	SDCP-SUB1043
	-	-	15	26	SDCP-SUB1543
	-	-	20	31	SDCP-SUB2043
	-	-	25	39	SDCP-SUB2543
	-	-	30	46	SDCP-SUB3043

SPECIFICATIONS

Model No.	Indoor/Outdoor	SubDrive Connect Plus (NEMA 3R) Model SDCP-XXXXXXX
Input from Power Source	Voltage	208/230 ± 10% VAC or 460 ± 10% VAC, depending on model
	Phase In	Single-Phase or Three-Phase (208/230 VAC) or Three-Phase (460 VAC), depending on model
	Frequency	60 Hz
	Current (max)	Model dependent, refer to "Input Wire Sizing" on Owner's Manual
	Power Factor	~ 0.75
	Power (idle)	230V Frame 2/Frame 3: 25W 460V Frame 2/Frame 3: 32W
	Power (max)	Model dependent, refer to "Input Wire Sizing" on Owner's Manual
	Wire Gauge Size(s)	Refer to "Input Wire Sizing" on Owner's Manual
Output to Motor	Voltage	208/230VAC or 460VAC depending on model
	Phase Out	Three-Phase
	Frequency Range	30-60 Hz: Submersible Pump (Three-Phase)
		15-60 Hz: Centrifugal Pump (Three-Phase)
		60-120 Hz: MagForce High Efficiency Submersible Motors (Three-Phase)
	Current (max)	Model-dependent, refer to "Applications" on Owner's Manual
	Wire Gauge Size(s)	Refer to "Centrifugal Pump Motors" on Owner's Manual
Pressure Setting	Factory Preset	0 PSI for Setpoint 1 and Setpoint 2
	Transducer Range	Transducer: 0 to 5PSI below Transducer maximum. The programmed drive Transducer range is selectable from 100 to 300 PSI in 10 PSI increments.
Operating Conditions (A)	Temperature	–13 °F to 104 °F (–25 °C to 40 °C)
	Relative Humidity	20-95%, non-condensing
	Environment	Pollution Degree 2
Controller Size (B) (approximate)	Outer Dimensions	Frame 2: 10.7" x 9.4" x 27.2" Frame 3: 13.8" x 9.9" x 34.3"
	Weight	Refer to Owner's Manual
Storage	Temperature	–13 °F to 149 °F (–25 °C to 65 °C)
	Shelf Life	1.5 Years

** Operating temperature is specified at full output power when installed as recommended. Refer to "Over Temperature Foldback" on Owner's Manual.*

*** Shelf life can be extended for one year by powering the drive for 60 minutes with no load.*

MENU

VARIABLE FREQUENCY DRIVES - FE CONNECT MOBILE APP

Service Franklin Electric products in more ways with FE Connect. Using intuitive setup features as well as real-time logs and monitoring, FE Connect delivers comprehensive insight and support that enhances the way you service Franklin Electric product equipped with wireless connectivity.

You get convenient access to all compatible Franklin Electric products in a single tool – now and in the future. Plus, FE Connect helps you save time and enhances safety during installation and service with an array of startup, monitoring and troubleshooting solutions that minimize hands-on interaction with the drive or protection device. It's one more way Franklin Electric is supporting professionals so you can get on to the next job faster.

- **Robust Interface Helps Professionals Quickly Service More Jobs**
  - Intuitive setup pairs quickly with compatible drives and protections
  - Save connected devices and manage locations to quickly reconnect
  - Create and manage templates to easily save and load configurations from one installation to the next
  - Access over-the-air firmware updates for effortless upgrades
- **Discover a Streamlined Setup & Support Experience**
  - In-app guidance leads you through startups
  - Get real-time product status
  - Conveniently collect auto-generated commissioning reports and time-stamped logs
  - In-app support troubleshoots potential issues and recommends corrective actions – no internet connection required
- **Service Compatible Franklin Electric Products in One Place**
  - SubDrive Connect
  - SubDrive Connect Plus
  - SubMonitor Connect
  - Cerus X-Drive

Access local monitoring

Discover the intuitive setup

Quickly service more jobs

Unlock full-view logs and reporting

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VARIABLE FREQUENCY DRIVES - ACCESSORIES

ACCESSORIES

Accessories	Detail	Used With	Part No.
Air Screen Kit	Helps prevent insects from entering and damaging the internal components of the drive	SubDrive20/30 Connect and MonoDrive/ MonoDriveXT Connect (date code 18A and older)	226550901
		SubDrive50 Connect (date code 18A and older)	226550902
		SubDrive/MonoDrive Utility	226115920
	Replacement Kit: For the included standard kit with SubDrive/MonoDrive Connect models built February 2018 and after	SubDrive20/30/50 Connect and MonoDrive/ MonoDriveXT Connect (date code 18B & newer)	575214902
Analog Pressure Transducer	4-20mA analog pressure transducer (includes 10 ft cable)	All Connect and Utility Models - 100 PSI	226905902
		All Connect and Utility Models - 150 PSI	226905903
		All Connect and Utility Models - 200 PSI	226905904
	Cable Kit: Outdoor rated cable to connect analog pressure transducer to the drive	All Connect and Utility models - 10 ft	226910901
		All Connect and Utility models - 25 ft	226910902
		All Connect and Utility models - 50 ft	226910903
		All Connect and Utility models - 100 ft	226910904
		All Connect and Utility models - 150 ft	226910905
		All Connect and Utility models - 200 ft	226910906
Conduit Plate Kit	**Blank Kit:** Replacement blank conduit plate without knockouts. May be used to customize conduit hole size and location.	All SubDrive Connect Plus **Frame 2** units with model numbers ending in -0723, -1023, -1043, -1543, -2043	224759908
		All SubDrive Connect Plus **Frame 3** units with model numbers ending in -1523, -2543, and -3043	224759909
	Replacement Kit: Conduit plate with knockouts. Contains the same knockout sizes and locations as the standard conduit plate preinstalled on the drive.	All SubDrive Connect Plus **Frame 2** units with model numbers ending in -0723, -1023, -1043, -1543, -2043	224759906
		All SubDrive Connect Plus **Frame 3** units with model numbers ending with -1523, -2543, and -3043	224759907
Conduit Grounding Kit	Provides a means to ground metal conduit when used in with a nonmetallic enclosure	SubDrive/MonoDrive Utility - 1/2"	224471901
		SubDrive/MonoDrive Utility - 3/4"	224471902
Control Board Replacement Kit	Replacement control coard for drives with a damaged display, buttons, or terminal blocks.	All SD Connect Plus models	224759901
Duplex Alternator	Allows a water system to alternate between two parallel pumps controlled by separate drives. Must use pressure sensor; not compatible with analog pressure transducer.	All Models	5850012000
Duplex Alternator Cable Kit	Communication cable kit required to use built-in Duplex Alternator function in drives equipped with this feature	All Connect models - 10 ft	226895901
		All Connect models - 50 ft	226895902
		All Connect models - 100 ft	226895903
Enhanced Display Board	**Legacy Replacement Kit:** For drives compatible with WiFi connectivity with damaged display, battery holder, or Duplex Alternator communication issue.	SubDrive Connect units built March 2024 (date code 24C) and older	226540914
	Replacement Kit: For drives compatible with Bluetooth connectivity with damaged display, battery holder, or Duplex Alternator communication issue.	SubDrive Connect units built April 2024 (date code 24D) and newer	226540915
Enhanced Pressure Input Board	**Replacement Kit:** Board for drives that have experienced a surge on the control inputs	All Connect models	226540902
Filter	Filter used on the input side of the drive to help reduce interference with LED lighting and other sensitive electronics.	SubDrive20 and SubDrive30 - 23A / 3HP	226115922
		All SubDrive Connect models - 36A / 5HP	226115923
	Input AMR: Filter used on the input side of the drive to help eliminate interference with automated meter reading systems.	All models (excluding SubDrive30/50, SubDrive150, and SubDrive300)	226030901
	Input IGF: Filter used in the input side of the drive to help eliminate interference on the ground wire	All models	226035901
	Output: Filter used on the output side of the drive to help eliminate interference	All Models (excluding SubDrive300)	225300901
	Surge Capacitor (3-lead): Capacitor used on the service panel to help eliminate interference	All Models	225199901
	Surge Capacitor (4-lead): Capacitor used on the service panel to help eliminate interference. Additional ground lead suitable for subpanel installation and effective against LED lighting interference.	All Models	225199902
	System: Dedicated filter box for SubDrive/MonoDrive Utility systems to help eliminate electrical interference	SubDrive/MonoDrive Utility	226115912
Heatsink Cover Kit	Assists in preventing critters from entering and blocking the fan area	All NEMA 4 models (excluding SubDrive300)	225805901
Fan Replacement Kit	Replacement Fan	SubDrive50 Connect	226545903
		SubDrive/MonoDrive Utility	226115915
	Replacement fan (date code prior to 08K)	SubDrive75 and MonoDrive NEMA 3R	225635907
	Replacement fan (date code 14L and after)	MonoDrive Connect and NEMA 3R	226545901
	Replacement fan (date code 14L and after)	SubDrive20/30, MonoDriveXT Connect and NEMA 3R	226545902

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VARIABLE FREQUENCY DRIVES - ACCESSORIES

ACCESSORIES

Accessories	Detail	Used With	Part No.
NEMA 4 Cooling Fan Replacement Kit	Replacement External fan	SubDrive75 and MonoDrive NEMA 4	225635901
		SubDrive100/150 and MonoDriveXT NEMA 4	225635902
	Replacement External fan (includes 2 fans)	SubDrive300	225635903
	Replacement Internal Stirring fan	All NEMA 4 models	225635904
SD Connect Plus Fan Replacement Kit	**Internal:** Contains replacement fans for both the internal stirring fan and output filter cooling fan	All SubDrive Connect Plus **Frame 2** units with model numbers ending in -0723, -1023, -1043, -1543, -2043	224759902
	External: Contains two replacement external cooling fans		224759904
	Internal: Contains replacement fans for both the internal stirring fan and output filter cooling fan	All SubDrive Connect Plus **Frame 3** units with model numbers ending in -1523, -2543, and -3043	224759903
	External: Contains two replacement external cooling fans		224759905
Lightning Arrestor	Provides additional surge suppression on the single-phase input power side of the drive	All models	150814902
Low Voltage Kit	Make adjustments to the input voltage of the SubDrive300 in low voltage applications	SubDrive300	225950901
Moisture Sensor Kit	External sensor device that shuts down the drive when water is detected	All Connect and Connect Plus models	226770901
Multidrive Cable Kit	Communication cable kit required to use the built-in MultiDrive function	SubDrive Connect Plus - 10 ft	226895901
		SubDrive Connect Plus - 50 ft	226895902
		SubDrive Connect Plus - 100 ft	226895903
NEMA 4 Auxiliary Relay Board	Offers Run-Indication Relay (date code 09J and after)	All NEMA 4 models (excluding SubDrive300)	225755901
NEMA 4 Option Card	Offers Run-Indication Relay and Underload Extended Off-Time Adjustment (date code 09J and after)	All NEMA 4 models (excluding SubDrive300)	225880901
Pressure Sensor	**High Pressure:** 75-150 PSI, NSF Rated; adjusts pressure in the water system from 75-150 PSI (2-leaded 10 ft cable included)	All Models	225970901
	Standard Pressure: 25-80 PSI, NSF Rated; adjusts pressure in the water system from 25-80 PSI (2-leaded 10 ft cable included)	All Models	226941901
	High Pressure Shut-Off Kit: Includes pressure sensor (25-80 PSI), high pressure shut-off sensor (100 PSI), and 4-leaded 10 ft cable	SubDrive300	225495901
Sensor Cable Kit	**Outdoor:** 100 feet of 22 AWG cable (2-leaded)	All models (excluding SubDrive300)	223995902
	Indoor: 100 feet of 22 AWG cable (4-leaded)	SubDrive300	225495902
	Direct Burial Cable: Designed to run in an underground trench without conduit	All models - 10 ft (3 m)	225800901
		All models - 30 ft (9 m)	225800902
		All models - 100 ft (30 m)	225800903
Tank Drawdown Kit	Allows the use of water stored in the during low flow demands	SubDrive20/30/50 and MonoDrive/MonoDriveXT Connect, and SubDrive300	225770901
		SubDrive75/100/150 and MonoDrive/MonoDriveXT NEMA 4 (requires Auxiliary Relay Board or NEMA 4 Option Card kit)	225770901

**N1 = NEMA 1 (Indoors), N3R = NEMA 3R (Indoor/Outdoor), N4 = NEMA 4 (Outdoor)*

PUMPTEC

Franklin Electric's Pumptec family provides the high performance pump protection you need deep down in the well. Designed to monitor motor load and supply voltage, as well as shut down the pump to prevent damage, the Pumptec family of products protect your water system investment. QD Pumptec, Pumptec, and Pumptec-Plus are the only single-phase load monitoring devices designed specifically for Franklin single-phase motors. They cover a broad range of ratings and fault conditions.

PUMPTEC FAMILY COMPARISON

	QD Pumptec	Pumptec	Pumptec-Plus
Air or Gas Locked Pump (Cavitation)	•	•	•
Broken Shaft or Coupling	•	•	•
Clogged Well Screen	•	•	•
Drop in Water Level	•	•	•
Faulty Check Valve		•	•
High Voltage	•	•	•
Low Voltage	•	•	•
Low Yield Wells	•	•	•
Rapid Cycling		•	•
Water Logged Tank		•	•
Worn Pump Parts	•	•	•

QD PUMPTEC

Exclusively designed for Franklin QD Relay Control Boxes, QD Pumptec is a solid state sensing device that monitors motor load and incoming power to automatically shut off a Franklin single-phase, 3-wire motor when related fault conditions are detected. QD Pumptec protects the life of your 4-inch pump and reduces the odds that you will ever have to see the motor again.

QD Pumptec allows the user to choose the standard factory calibration for underload or to calibrate to a particular system. Control knobs make it easy to adjust sensitivity and timeout settings.

QD Pumptec easily plugs into 3-wire QD Relay Control Boxes in minutes, without additional wiring or tools.

PUMPTEC

For 2- & 3-wire single-phase motors of 1/3 to 1.5 hp, Pumptec is a microcomputer-based pump protection device. It monitors motor load and power line conditions to provide protection against dry well conditions, waterlogged tanks, and abnormal line voltage conditions. Pumptec interrupts power to the motor whenever the load drops quickly or below a preset level. Indicator lights on the cover provide complete system status.

Additional Features:

- Easily Adjustable Sensitivity Settings
- Run and Fault Indicator Lights
- Heavy Duty Relay
- Alarm Circuit Contacts
- UL/CSA Listed

PUMPTEC

PUMPTEC-PLUS

The Pumptec-Plus solid state pump protection system is designed for 1/2 to 5 hp single-phase submersible pump motors. Pumptec-Plus protects against a variety of fault conditions. Run and fault lights on the cover make diagnosis quick and easy. Push button Snap Shot™ calibration makes Pumptec-Plus simple to install and an effective troubleshooting tool.

Additional Features:

- Push Button Calibration
- Run and Fault Indicator Lights
- Heavy Duty (30A) Contactor
- Works with PSC, Split-phase CSCR and CSIR motors
- UL/CSA Listed

SPECIFICATIONS & ORDERING INFORMATION

	QD Pumptec	Pumptec	Pumptec-Plus
Model Number	5800070600	5800020610	5800060100 (60 Hz) 5800060502 (50 Hz)
HP Rating	1/3 to 1	1/3 to 1.5	1/2 to 5
Voltage Rating	230 V	115 V / 230 V	60 Hz - 230 V 50 Hz - 220 V
Frequency	60 Hz	50 / 60 Hz	50 or 60 Hz
Mounting Location	Inside Franklin QD Control Box	Indoor/Outdoor	Indoor/Outdoor
Indicator Lights	No	Yes - Load/Voltage/Status	Yes - Load/Voltage/Status
Remote (IR) Accessible	No	Yes	No
Response Time	3 Seconds	3 Seconds	3 Seconds
Reset Time	Adjustable: 2 to 240 min.	Adjustable: 2 to 120 min.	Adjustable: 1 to 256 min.
Alarm Contact Rating	N/A	1 Amp 115 V / 230 V	N/A
Under/Overvoltage Time-out	2 minutes	2 minutes	2 minutes
Operating Temp Range	-15 °F to 130 °F	-15 °F to 130 °F	-15 °F to 140 °F
Sensitivity Adjustment	± 20%	40 to 90% SFL	N/A
Overvoltage Trip	+10%	+10%	+10%
Undervoltage Trip	-10%	-10%	-10%

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