

CONSTANT PRESSURE PUMP SYSTEMS



Table of contents

SubDrive QuickPAK

System description	3
Model designation	4
60SDQP-1.1 kW Perf. Data	5
60SDQP-1.5 kW Perf. Data	6
60SDQP-2,2 kW Perf. Data	7
SubDrive Dimensions	8
System installation description	9
Tri-Seal Pump description	10
Tri-Seal Pump/Motor dimensions	11

All-in-One Package:

The Franklin Electric SubDrive QuickPAK is an all-in-one package with an extended warranty available on the pump, motor and drive, and Franklin's commitment to quality, availability, service, innovation, and value.

The SubDrive QuickPAK includes:

- Pump
- Motor
- SubDrive variable frequency controller
- Pressure sensor

Learn more about how we handle the pressure at constantpressure.com.

Key Features:

SubDrive QuickPAK is Franklin's popular system solution package, designed to simplify the installation of a constant pressure system.

- Motor, pump, and drive in one package
- Selection based on flow and total dynamic head
- Extended warranty available on QuickPAK components
- Soft start feature prevents water hammer and increases motor life
- Works with small or large pressure tanks, even works with an existing tank
- Smart Reset® technology allows well recovery before restarting the pump
- Excellent radio frequency interference shielding

The SubDrive QuickPAK includes:

- Flexible power inputs featuring single-phase input power with three-phase motor performance, using 1.1 - 2,2kW motors

Applications:

- Residential Water Systems
 - City-like water pressure
 - Smaller tank saves space
- Landscape Irrigation Systems
 - Even distribution of water in zones
 - Eliminates need for separate system
- Water Treatment Systems
 - More efficient back flushing
 - Eliminates need for multiple pumps
- Geothermal Systems
- Constant Pressure Boosting
 - Ability to pump from a cistern or holding tank

Built-in Diagnostics and Protection:

The SubDrive QuickPAK products include diagnostic features and built-in protection from potentially harmful conditions.

- Surge
- Undervoltage
- Locked pump
- Open circuit
- Short circuit
- Overheated controller



Model Designation:

XX SD QP - X.XkW - XX

SubDrive Enclosure Rating

Motor **kW**(hp): **1.1**(1.5), **1.5**(2), **2.2**(3)

QuickPAK

SubDrive

Pump Flow l/min (m³/h): 60(3,6)

SUBDRIVE QUICKPAK INCLUDES

QUICKPAK			SUBDRIVE		PUMP						MOTOR	
Order No.	Modell	l/min	SD	Part No.	KW	Outlet Size (mm)	l/min	Design	Hydraulics	Part No.	KW	Part No.
308 714 621	60SDQP-1,1kW-N1	60	SD75-N1	587 020 3380	0.55	32	60	SS	Noryl	938 715 07	1.1	234 714 1621L
308 715 621	60SDQP-1,5kW-N1	60	SD100-N1	587 020 4100	0.75	32	60	SS	Noryl	938 715 10	1.5	234 715 1621L
308 716 521	60SDQP-2,2kW-N1	60	SD150-N1	587 020 4150	1.1	32	60	SS	Noryl	938 715 15	2.2	234 716 2521L

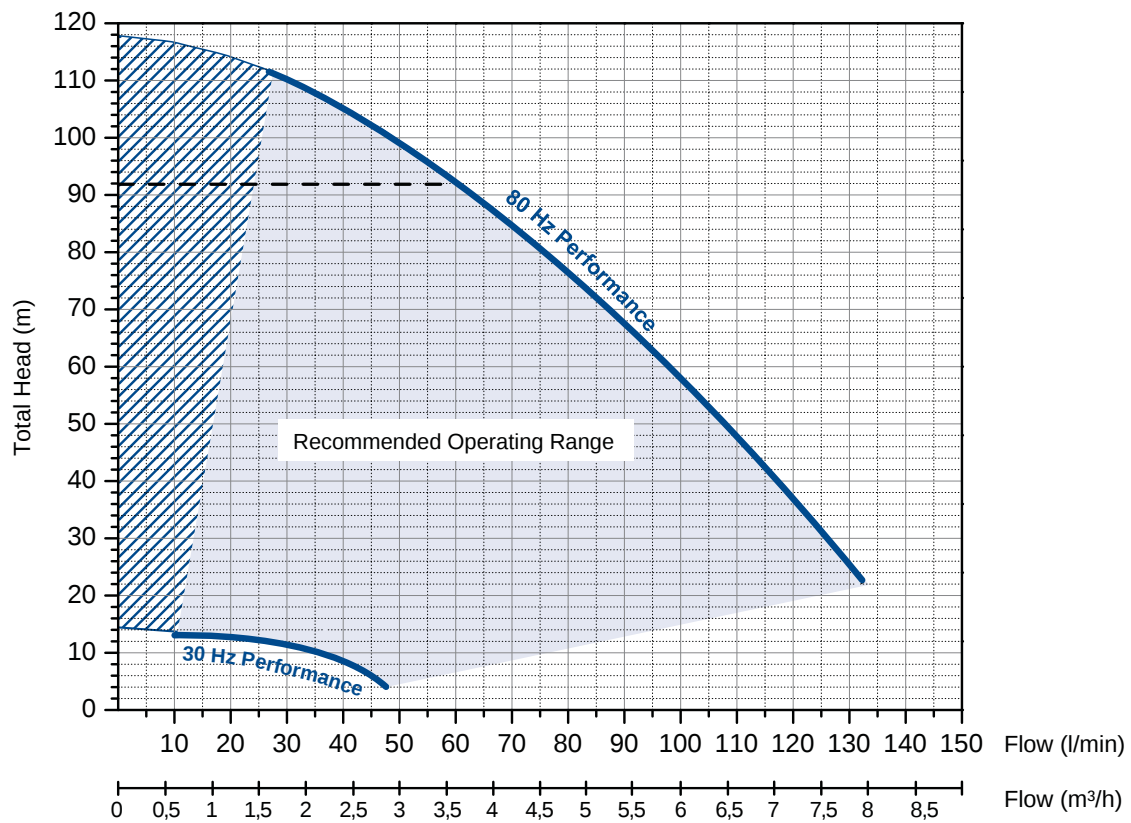


QuickPAK Dimensions

Type	A [mm]	B [mm]	C [mm]	Shipping Weight [Kg]
60SDQP-1,1kW-N1	245	467	755	25
60SDQP-1,5kW-N1	245	467	755	28
60SDQP-2,2kW-N1	245	467	755	30

60SDQP-1.1 kW

SD75, 60 l/min - 0,55 kW Pump End, 1.1 kW Motor



kW	kg/cm ² (metres)	Depth to Pumping Water Level, or Lift, in Metres												
		5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0	45.0	50.0	60.0	80.0	100.0
1.1	0 (0)					130	125	121	116	112	107	97	75	49
	0.5 (5)				130	125	121	116	112	107	102	92	70	41
	1 (10)			130	125	121	116	112	107	102	97	87	63	31
	2 (20)	130	125	121	116	112	107	102	97	92	87	75	49	
	3 (30)	121	116	112	107	102	97	92	87	81	75	63	31	
	4 (40)	112	107	102	97	92	87	81	75	70	63	49		
	5 (50)	102	97	92	87	81	75	70	63	57	49	31		
	6 (60)	92	87	81	75	70	63	57	49	41	31			
	7 (70)	81	75	69	63	57	49	41	31					
Shut-off kg/cm ²		11	11	10	10	9	9	8	8	7	7	6	4	2

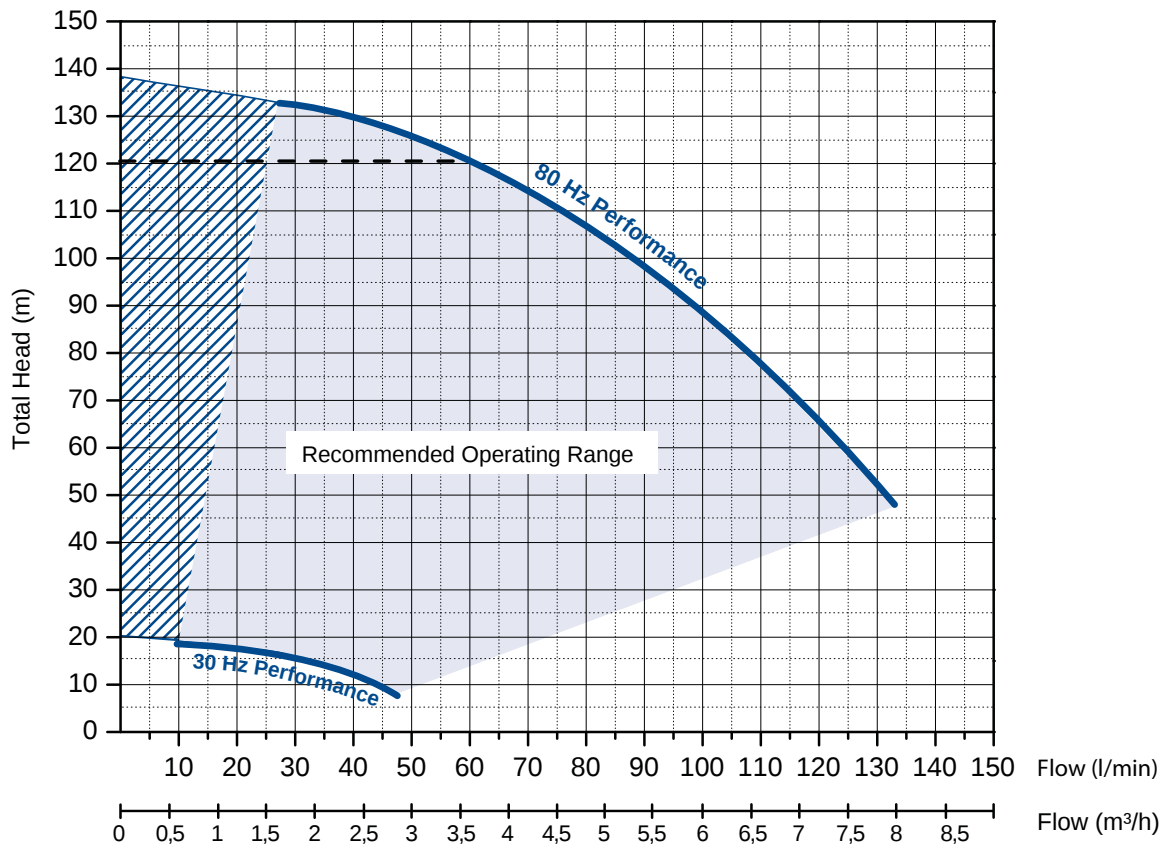
Shut-off 117 m

NOTE: Running outside of 'Recommended Operating Range' for short periods of time is permissible.

Actual maximum performance of the SubDrive QuickPAK system is power limited by the SubDrive unit. This limit is based on the maximum allowable AMP load of the submersible motor. The result is that in some installations an 80 Hz speed may not be attained.

60SDQP-1,5 kW

SD100, 60 l/min - 0,75 kW Pump End, 1,5 kW Motor



kW	kg/cm ² (metres)	Depth to Pumping Water Level, or Lift, in Metres													
		10.0	15.0	20.0	25.0	30.0	35.0	40.0	45.0	50.0	60.0	80.0	100.0	120.0	Shut-off 138 m
1.5	0 (0)									130	123	107	87	62	
	0.5 (5)								130	126	119	103	82	52	
	1 (10)							130	126	123	116	98	76	37	
	2 (20)					130	126	123	119	116	107	87	62		
	3 (30)			130	126	123	119	116	112	107	98	76	37		
	4 (40)	130	126	123	119	116	112	107	103	98	87	62			
	5 (50)	123	119	116	112	107	103	97	92	87	76	37			
	6 (60)	116	112	107	102	97	92	87	82	76	62				
7 (70)	107	102	97	92	87	82	76	70	62	37					
Shut-off kg/cm ²		13	12	12	11	11	10	10	9	9	8	6	4	2	

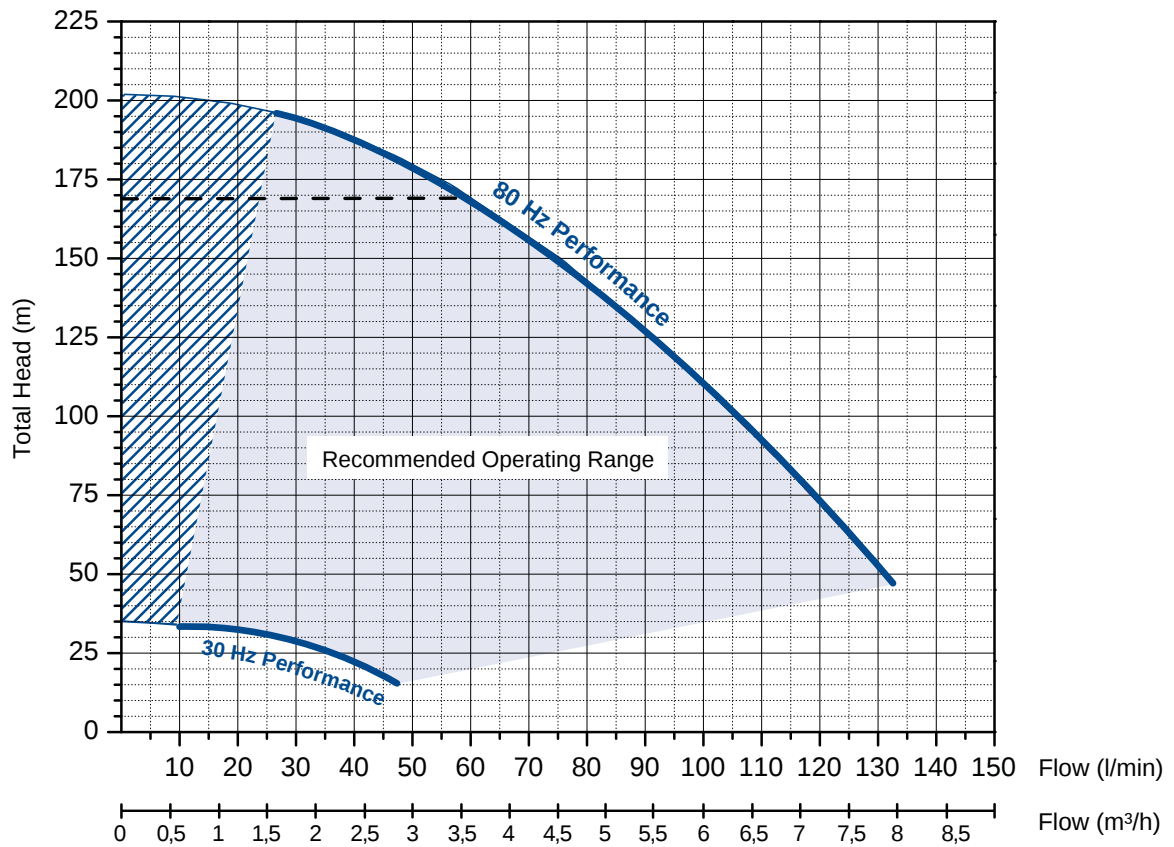
Shut-off 138 m

NOTE: Running outside of 'Recommended Operating Range' for short periods of time is permissible.

Actual maximum performance of the SubDrive QuickPAK system is power limited by the SubDrive unit. This limit is based on the maximum allowable AMP load of the submersible motor. The result is that in some installations an 80 Hz speed may not be attained.

60SDQP-2,2 kW

SD150, 60 l/min - 1,5 kW Pump End, 2,2 kW Motor



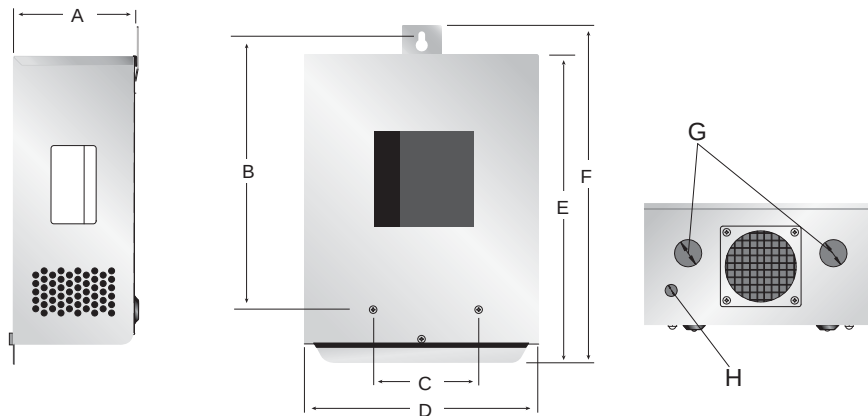
kW	kg/cm ² (metres)	Depth to Pumping Water Level, or Lift, in Metres															
		15.0	20.0	25.0	30.0	35.0	40.0	45.0	50.0	60.0	80.0	100.0	120.0	140.0	160.0	180.0	
2.2	0 (0)								130	124	116	107	94	81	68	51	Shut-off 201 m
	0.5 (5)							130	127	122	114	104	90	77	65	44	
	1 (10)						130	127	124	120	112	100	87	74	61	36	
	2 (20)				130	127	124	122	120	116	107	94	81	68	51		
	3 (30)		130	127	124	122	120	118	116	112	100	87	74	61	36		
	4 (40)	127	124	122	120	118	116	114	112	107	94	80	68	51			
	5 (50)	122	120	118	116	114	112	109	107	100	87	74	61	36			
	6 (60)	118	116	114	112	109	107	104	100	94	80	68	51				
	7 (70)	114	112	109	107	103	100	97	94	87	74	61	36				
Shut-off kg/cm ²		19	18	18	17	17	16	16	15	14	12	10	8	6	4	2	

NOTE: Running outside of 'Recommended Operating Range' for short periods of time is permissible.

Actual maximum performance of the SubDrive QuickPAK system is power limited by the SubDrive unit. This limit is based on the maximum allowable AMP load of the submersible motor. The result is that in some installations an 80 Hz speed may not be attained.

Mounting Dimensions

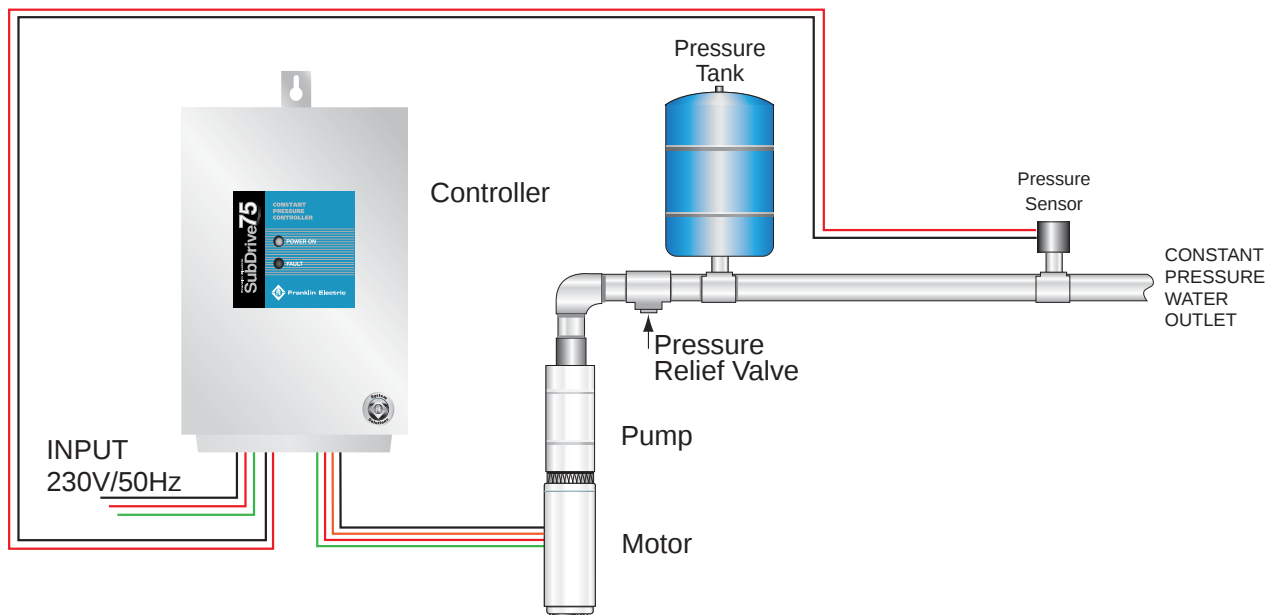
SubDrive SD75/100/150
NEMA 1 Enclosure (IP 10)



NEMA 1	A	B	C	D	E	F	G	H
Dimension	13.4	29.2	14	24.8	32.5	35.6	2.9	1.3
Conduit Sizes	-	-	-	-	-	-	1.9	1,3

* Use knock-outs as required.

Typical Installation



Maximum Motor Cable Length (in Metres)									
Controller Model	Franklin Electric Motor Model	Rated Power		Metric Cable Size, Square Millimeters, Copper Wire, 70°C Rated Insulation					
		kW	HP	1,5	2,5	4	6	10	16
SubDrive 75	234 714 1621L	1,1	1 1/2	120	200	330	330	330	330
SubDrive 100	234 715 1621L	1,5	2	90	150	250	330	330	330
SubDrive 150	234 716 2521L	2,2	3	50	100	160	250	330	330

Generator Sizing for SubDrive		
Controller Model	Recommended minimum generator sizes	kW
SubDrive 75	3500 Watts	3,5
SubDrive 100	5700 Watts	6
SubDrive 150	7000 Watts	7

NOTE: Not to be used on GFIC circuit. Externally regulated generators: Verify voltage, hertz and idle speed are appropriate to supply drive.

4400 Tri-Seal

The standard FPS 4400 4" submersible pump features the new TRI-SEAL floating stage system. This new stage system further improves efficiency and protects against wear when pumping abrasives like sand.



Features:

- 300 series stainless steel hub floats with the impeller maintaining a positive seal
- Phenolic washer provides downthrust protection
- Celcon®* impeller provides high efficiency performance and abrasion resistance
- Noryl®** diffuser and disc- proven abrasion resistant material
- Floating stage design allows impeller to float independently
- Removable, spring-loaded check valve
- Maximum water temperature: 120°F / 49°C
- Ceramic shaft sleeve and rubber discharge bearing protect shaft and eliminate sand wear
- Powered by Franklin Electric corrosion resistant 4" submersible motors

* Celcon® is a Registered Trademark of the Celanese Corporation

** Noryl® is a Registered Trademark of G.E

Patented impeller hub seal system seals radially and axially to prevent fluid recirculation, providing high performance in the harshest conditions.

TRI-SEAL™
Floating Stage System
U.S. Patent No. 7,290,984

Seal 1

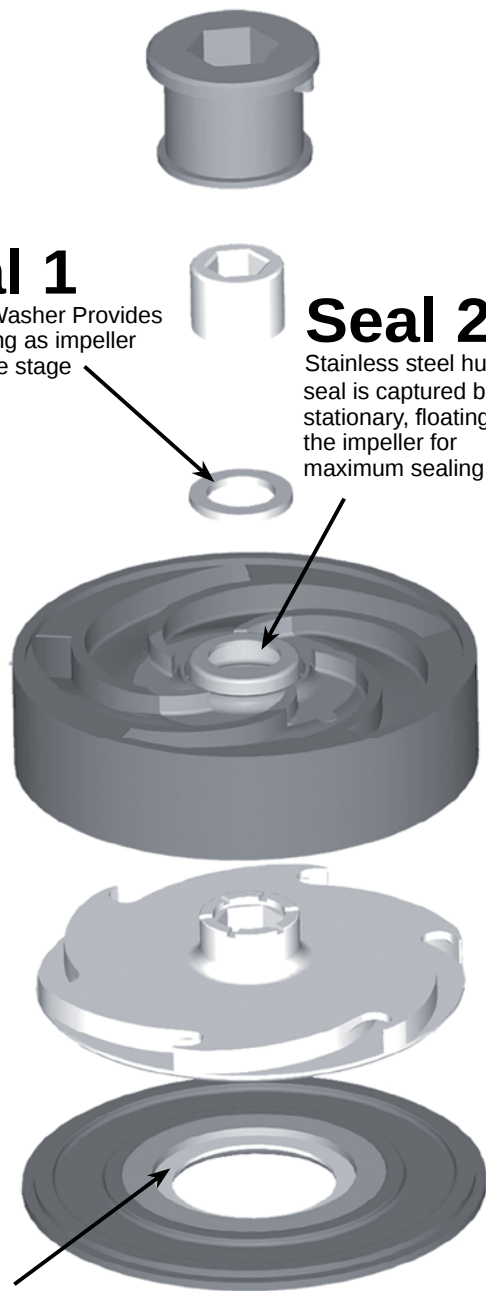
Phenolic Washer Provides axial sealing as impeller floats in the stage

Seal 2

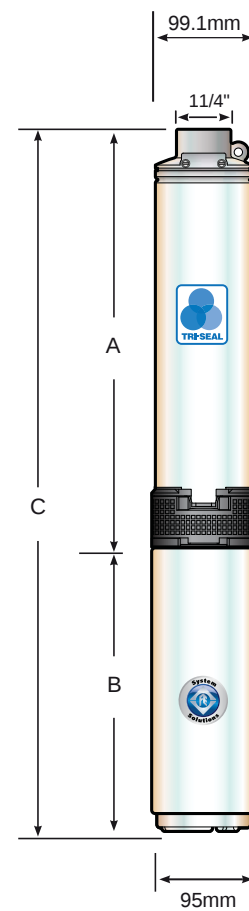
Stainless steel hub seal is captured but not stationary, floating with the impeller for maximum sealing

Seal 3

Stainless steel impeller eye seal



4" Submersible Pumps 50 Hz - Tri-Seal



LPM	kW	HP	3-Phase			Pump weight (KG)	Motor weight (KG)
			A (mm)	B (mm)	C (mm)		
60	1,1	1,5	364	283	647	3,6	10,2
	1,5	2	426	307	733	4,1	11,2
	2,2	3	520	339	859	5	12,6



Franklin Electric

Franklin Electric Europa GmbH
Rudolf-Diesel-Strasse 20
D-54516 Wittlich/Germany
Tel.: +49 (0) 6571 / 105-0
Fax: +49 (0) 6571 / 105-520
e-mail: info@franklin-electric.de
www.franklin-electric.eu