

NS-U & NS-V SERIES



3" DEEP WELL SUBMERSIBLE PUMPS



PRODUCT CATALOGUE

60Hz

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3" DEEP WELL SUBMERSIBLE PUMPS

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3" DEEP WELL SUBMERSIBLE PUMPS

PUMP SIZE: 3"

GENERAL DATA

5 GPM to 22 GPM

PREFACE

The **Northam** NS-U & NS-V series, 3 inch well pumps are suitable for installation in 3 inch and larger diameter deep wells. They are designed to operate at around 7000 RPM to deliver dependable performance, energy efficiency, and long service life.

Manufactured with corrosion-resistant materials and precision-engineered pump hydraulics, powered by a 7000 RPM, 3 inch, canned submersible motor, these pumps are ideal for residential water supply, pressure boosting, livestock watering, garden irrigation and light commercial applications.

The pump & motor are separate units coupled together. Both of them are easy to dismantle and service if required. A controller unit is separately provided along with the pump and motor for either fixed speed operation at 7000 RPM on NS-U series pumps or for constant pressure control variable speed operation on NS-V series pumps.

FEATURES

Following are the main features of NS-U& NS-V series pumps.

- ▶ Encapsulated Water filled Motor
- ▶ Soft Start Operation
- ▶ High Starting Torque
- ▶ Heavy duty Upthrust Protection
- ▶ Floating impeller for wear resistance
- ▶ High Efficiency Motor, Controller and Pump
- ▶ Over Voltage and Under Voltage Protection
- ▶ Dry Run Protection
- ▶ Overload and Locked Rotor Protection.

NS-V series pumps have the following additional features.

- ▶ Constant Pressure Variable Speed Control using a pressure transducer
- ▶ Variable Speed Operation to conserve energy.

APPLICATIONS

- ▶ Residential water supply
- ▶ Pressure Boosting
- ▶ Garden Irrigation with variable demand
- ▶ Liquid transfer in tanks
- ▶ Farms and livestock watering
- ▶ Light commercial

OPERATING RANGE & CONDITIONS

Flow ratings	5, 10, 15 & 22 GPM
Head up to	600 feet
HP range	½ HP to 1½ HP
Maximum Liquid Temp	86°F
Delivery Connection	1" NPT, 1-1/4" NPT and 1-1/2" NPT Threaded

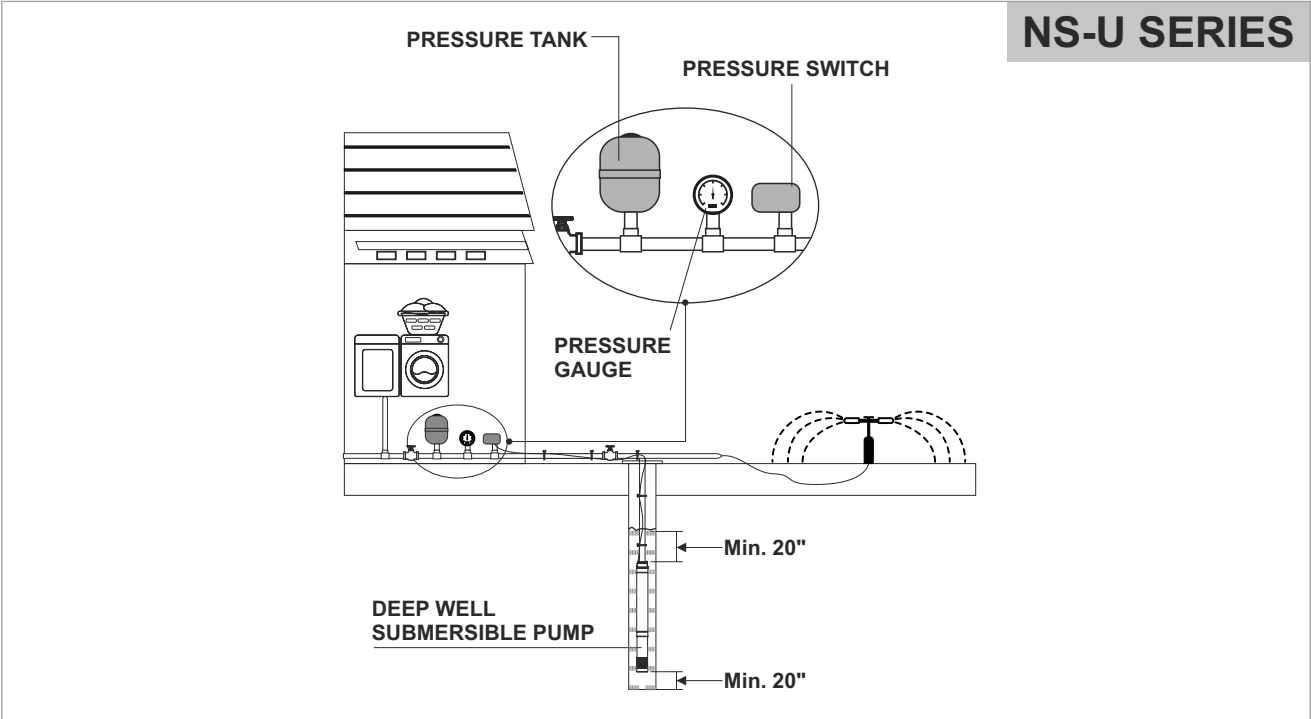
3" DEEP WELL SUBMERSIBLE PUMPS

PUMP SIZE: 3"

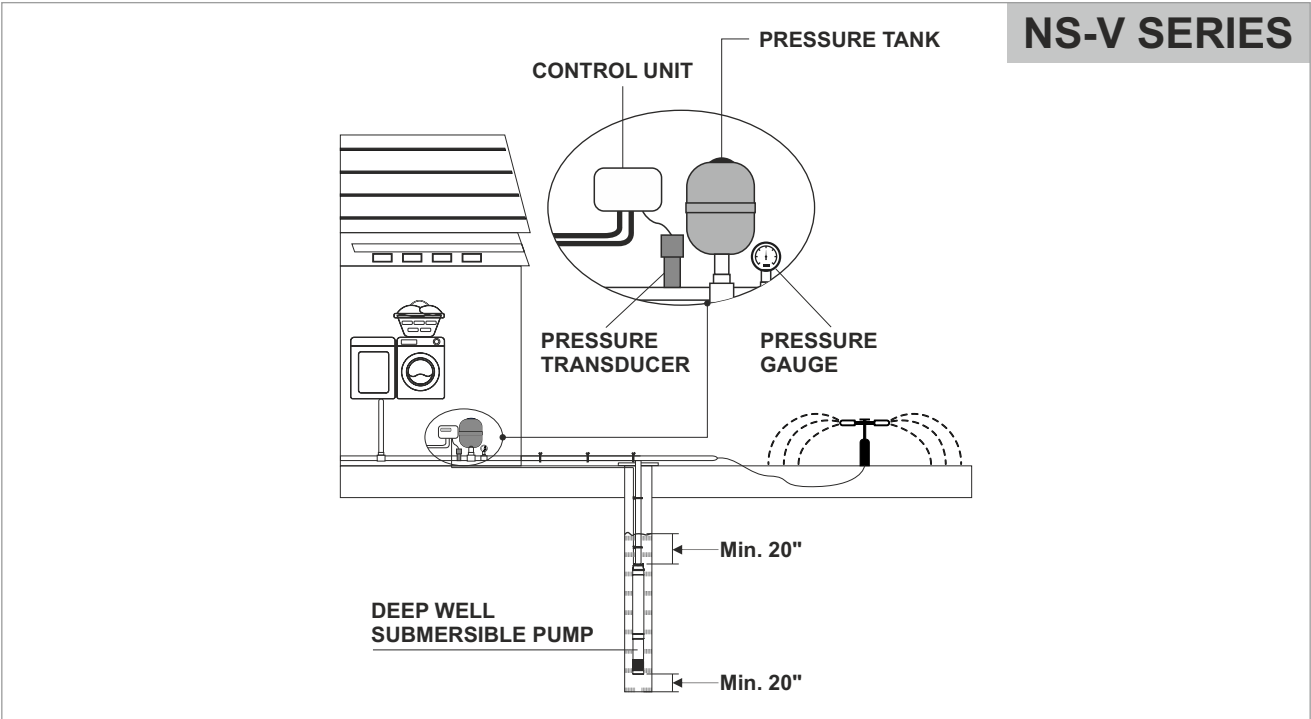
TYPICAL INSTALLATION

5 GPM to 22 GPM

PUMP WITH PRESSURE SWITCH AND PRESSURE TANK



PUMP WITH PRESSURE TRANSDUCER AND PRESSURE TANK

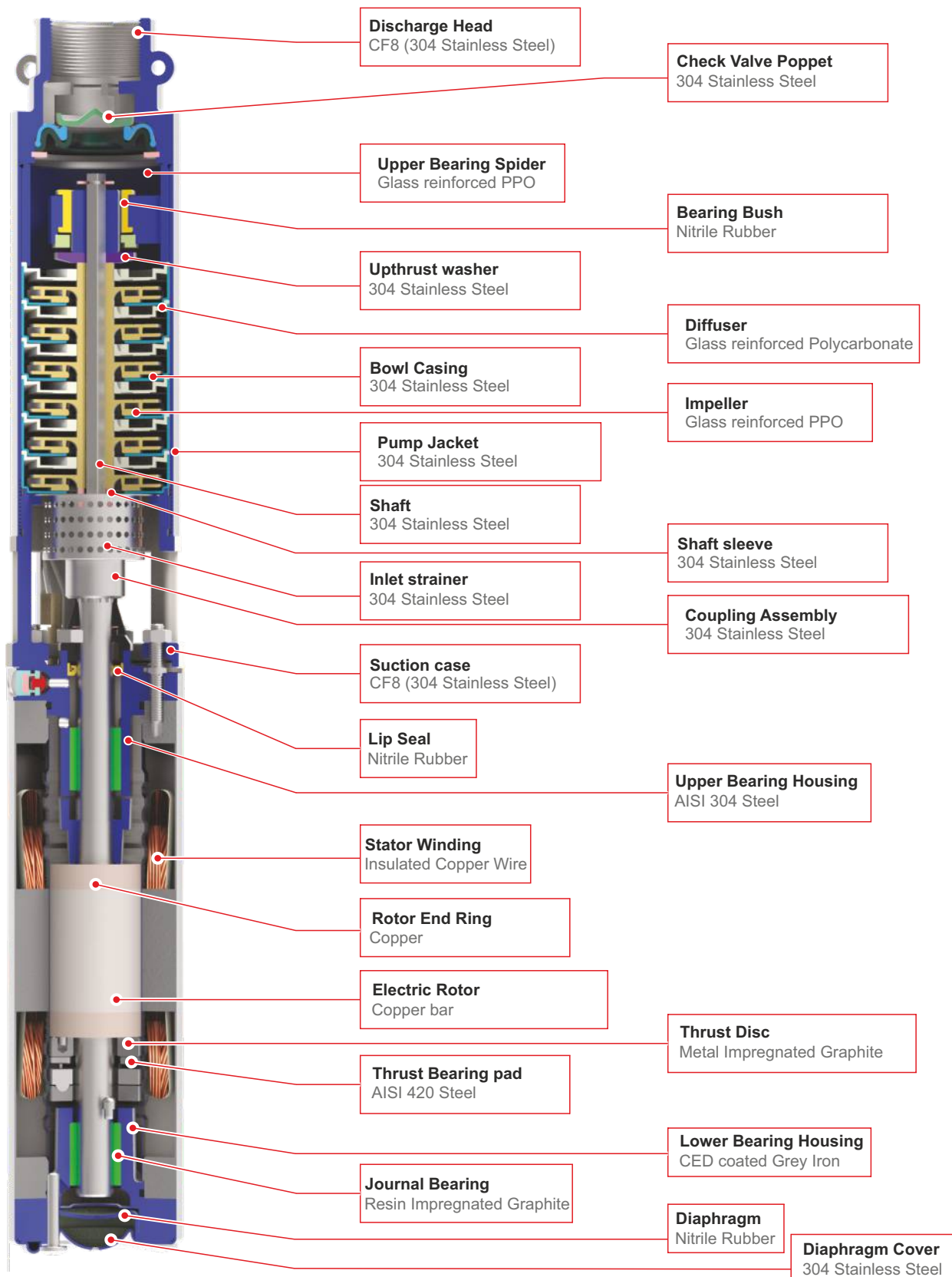


3" DEEP WELL SUBMERSIBLE PUMPS

PUMP SIZE: 3"

MATERIAL OF CONSTRUCTION

5 GPM to 22 GPM



3" DEEP WELL SUBMERSIBLE PUMPS

PUMP SIZE: 3"

PUMP CONTROLLER

115V / 230V - 60 Hz

PUMP WITH VARIABLE SPEED OPERATION

The controller provides fixed 7000 RPM speed with NS-U control unit or intelligent variable speed operation with NS-V control unit using a pressure transducer to automatically maintain a constant system pressure regardless of changing water demand.

The pressure transducer continuously monitors the discharge pressure and transmits real-time feedback to the controller. The controller compares the measured pressure with the user-defined pressure setpoint and automatically adjusts the pump speed to compensate for variations in system demand.

When water demand increases and system pressure begins to fall, the controller gradually increases the motor speed to restore the pressure to the desired setpoint. Conversely, when demand decreases and the pressure rises above the setpoint, the controller reduces the motor speed to maintain stable pressure while minimizing energy consumption.

Unlike conventional fixed-speed systems that repeatedly start and stop the pump, variable speed operation provides smooth and continuous pressure regulation, reducing pressure fluctuations, water hammer, and mechanical stress on the pump and piping system.

The controller continuously optimizes pump performance by operating only at the speed required to satisfy the system demand, resulting in improved energy efficiency, extended equipment life, and enhanced user comfort.

Key Features:

- ▶ Closed-loop pressure control using a pressure transducer.
- ▶ Automatic motor speed adjustment to maintain constant discharge pressure.
- ▶ Smooth acceleration and deceleration for reduced hydraulic and mechanical stress.
- ▶ Energy-efficient operation by matching pump output to system demand.
- ▶ Reduced pump cycling resulting in extended pump and motor life.
- ▶ Adjustable pressure setpoint and control parameters.
- ▶ Continuous pressure monitoring with fault detection for sensor failure and abnormal operating conditions.

NQU & NQV TYPE PUMP CONTROLLER



- 1) NQV type Control Unit applicable for 3" Variable speed NSV series Deep Well Submersible Pump
- 2) NQU type Control Unit applicable for 3" Fixed speed NSU series Deep Well Submersible Pump

3" DEEP WELL SUBMERSIBLE PUMPS

PUMP SIZE: 3"

MODEL CODE

5 GPM to 22 GPM

NS	V	10	05	3	-	E3	07	A
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PUMP

MOTOR

Power Supply

Code	Power Supply
A	2 Wire single phase, 230V, 2 Pole, 60 Hz
B	2 Wire single phase, 115V, 2 Pole, 60 Hz

Motor HP

Code	HP
05	0.5 HP
07	0.75 HP
10	1 HP
15	1.5 HP

Motor type

Code	Type
E3	3" Canned Submersible Motors (7000 RPM)

Pump size

Code	Size
3	3"

Number of stages

Rated flow (GPM)

Code	GPM
05	5 GPM
10	10 GPM
15	15 GPM
22	22 GPM

Pump type

Code	Type
U	Pumps with 7000 rpm motor
V	Pumps with 7000 rpm motor & Constant pressure control

Series name

Code	Series
NS	Submersible pump

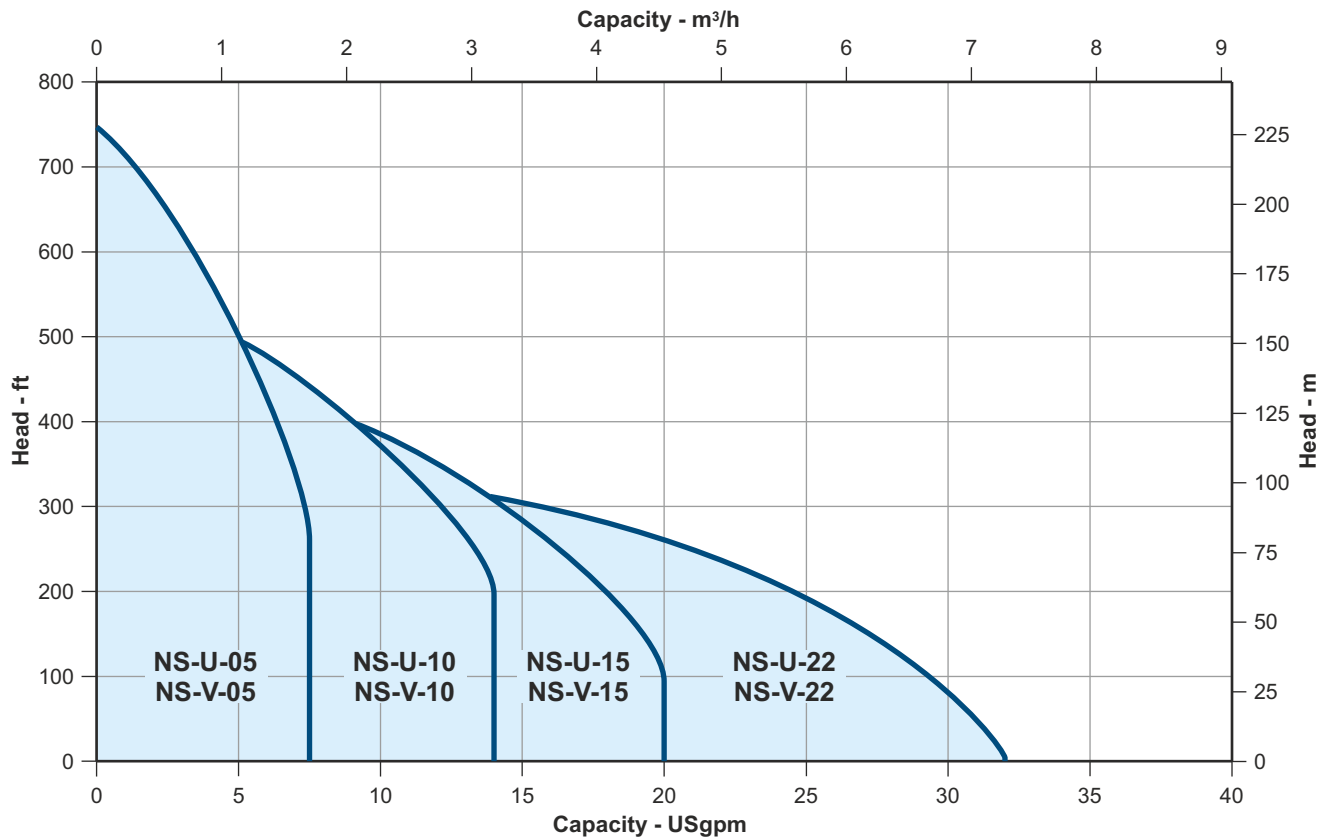
SAMPLE CODE - NSV10053-E307A

3" DEEP WELL SUBMERSIBLE PUMPS

PUMP SIZE: 3"

PERFORMANCE RANGE

5 GPM to 22 GPM



NS-U Pumps with 7000 rpm motor		
Pump Size	Model Name	Rated Flow
3" PUMP	NS-U-05	5 GPM
3" PUMP	NS-U-10	10 GPM
3" PUMP	NS-U-15	15 GPM
3" PUMP	NS-U-22	22 GPM

NS-V Pumps with 7000 rpm motor & Constant pressure control		
Pump Size	Model Name	Rated Flow
3" PUMP	NS-V-05	5 GPM
3" PUMP	NS-V-10	10 GPM
3" PUMP	NS-V-15	15 GPM
3" PUMP	NS-V-22	22 GPM

3" DEEP WELL SUBMERSIBLE PUMPS

PUMP SIZE: 3"

ORDER INFORMATION

5 GPM to 22 GPM

GPM	STAGES	HP	ORDER NO. / MODEL CODE		
			230V		115V
			NS-U	NS-V	NS-U
5	02	0.5	NSU05023-E305A	NSV05023-E305A	NSU05023-E305B
	03	0.5	NSU05033-E305A	NSV05033-E305A	NSU05033-E305B
	04	0.5	NSU05043-E305A	NSV05043-E305A	NSU05043-E305B
	05	0.75	NSU05053-E307A	NSV05053-E307A	-
	06	0.75	NSU05063-E307A	NSV05063-E307A	-
	07	0.75	NSU05073-E307A	NSV05073-E307A	-
	08	1	NSU05083-E310A	NSV05083-E310A	-
	09	1	NSU05093-E310A	NSV05093-E310A	-
	10	1.5	NSU05103-E315A	NSV05103-E315A	-
10	02	0.5	NSU10023-E305A	NSV10023-E305A	NSU10023-E305B
	03	0.5	NSU10033-E305A	NSV10033-E305A	NSU10033-E305B
	04	0.75	NSU10043-E307A	NSV10043-E307A	-
	05	0.75	NSU10053-E307A	NSV10053-E307A	-
	06	1	NSU10063-E310A	NSV10063-E310A	-
	07	1.5	NSU10073-E315A	NSV10073-E315A	-
	08	1.5	NSU10083-E315A	NSV10083-E315A	-
	08	1.5	NSU10083-E315A	NSV10083-E315A	-
15	02	0.5	NSU15023-E305A	NSV15023-E305A	NSU15023-E305B
	03	0.75	NSU15033-E307A	NSV15033-E307A	-
	04	0.75	NSU15043-E307A	NSV15043-E307A	-
	05	0.75	NSU15053-E307A	NSV15053-E307A	-
	06	1	NSU15063-E310A	NSV15063-E310A	-
	07	1	NSU15073-E310A	NSV15073-E310A	-
	08	1.5	NSU15083-E315A	NSV15083-E315A	-
	08	1.5	NSU15083-E315A	NSV15083-E315A	-
22	01	0.5	NSU22013-E305A	NSV22013-E305A	NSU22013-E305B
	02	0.5	NSU22023-E305A	NSV22023-E305A	NSU22023-E305B
	03	0.75	NSU22033-E307A	NSV22033-E307A	-
	04	1	NSU22043-E310A	NSV22043-E310A	-
	05	1	NSU22053-E310A	NSV22053-E310A	-
	06	1.5	NSU22063-E315A	NSV22063-E315A	-

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5 GPM

RATINGS ARE IN GALLONS PER MINUTE (GPM)

HP	Stage	PSI	Depth to pumping water level (Lift) in feet																											
			20	40	60	80	100	120	140	160	180	200	220	240	260	280	300	350	400	450	500	600	700	800	900	1000				
1/2	2	0					6.5	5.0	3.0																					
		20		7.3	6.1	4.6	2.5																							
		30	7.2	5.8	4.5	2.0																								
		40	5.6	4.0	1.5																									
		50	3.6																											
		60																												
Shut-off PSI		60	51	42	34	25	16	8																						
1/2	3	0				7.3	6.7	6.2	5.5	4.5	3.4	1.5																		
		20				6.6	6.0	5.3	4.2	3.0																				
		30		7.0	6.5	5.9	5.1	4.0	2.7																					
		40	7.0	6.4	5.8	5.0	3.8	2.5																						
		50	6.3	5.7	4.8	3.6	2.0																							
		60	5.6	4.5	3.4	2.0																								
Shut-off PSI		93	84	75	67	58	49	41	32	23	15	6																		
1/2	4	0				7.4	7.0	6.6	6.2	5.7	5.0	4.4	3.7	2.8	1.6															
		20			7.3	6.9	6.5	6.0	5.5	4.9	4.2	3.4	2.5																	
		30		7.2	6.9	6.4	6.0	5.4	4.8	4.1	3.3	2.3																		
		40	7.2	6.8	6.4	5.9	5.3	4.7	4.0	3.1	2.0																			
		50	6.7	6.3	5.8	5.2	4.6	3.9	3.0	2.0																				
		60	6.3	5.7	5.1	4.5	3.8	2.8	1.7																					
Shut-off PSI		121	113	104	95	87	78	69	61	52	43	35	26	17	9															
3/4	5	0				7.4	7.2	6.9	6.5	6.1	5.7	5.3	4.8	4.2	3.6	2.9														
		20			7.4	7.1	6.7	6.4	6.0	5.6	5.1	4.5	4.0	3.3	2.7	1.8														
		30		7.3	7.0	6.7	6.3	5.9	5.5	5.0	4.5	3.9	3.2	2.5	1.7															
		40	7.3	7.0	6.7	6.3	5.9	5.4	4.9	4.4	3.8	3.2	2.4	1.6																
		50	6.9	6.6	6.2	5.8	5.4	4.9	4.3	3.7	3.1	2.2	1.5																	
		60	6.5	6.1	5.7	5.3	4.7	4.2	3.6	3.0	2.0																			
Shut-off PSI		147	138	130	121	112	104	95	86	78	69	60	52	43	34	26														
3/4	6	0				7.4	7.1	6.7	6.4	6.0	5.5	5.1	4.6	4.0	2.6															
		20				7.3	7.0	6.6	6.3	5.8	5.4	4.9	4.4	3.9	3.4															
		30				7.2	6.9	6.6	6.2	5.8	5.3	4.8	4.3	3.8	3.3	2.7														
		40			7.2	6.9	6.5	6.2	5.7	5.3	4.8	4.3	3.7	3.2	2.5															
		50		7.2	6.8	6.5	6.1	5.7	5.2	4.7	4.2	3.6	3.1	2.4	1.8															
		60	7.1	6.8	6.4	6.0	5.6	5.1	4.6	4.1	3.6	3.0	2.3	1.6																
Shut-off PSI		173	165	156	147	139	130	121	113	104	95	87	78	69	61	52	30													
3/4	7	0							7.3	7.0	6.7	6.3	6.0	5.6	5.1	4.0	2.9	1.5												
		20							7.2	6.9	6.6	6.2	5.8	5.4	5.0	4.6	4.1	3.0	1.5											
		30						7.2	6.9	6.5	6.1	5.7	5.4	5.0	4.5	4.1	3.6	2.3												
		40				7.4	7.1	6.8	6.5	6.1	5.7	5.3	4.8	4.4	4.0	3.5	3.0	1.6												
		50			7.4	7.1	6.8	6.5	6.0	5.6	5.2	4.8	4.4	3.9	3.5	3.0	2.5	1.0												
		60		7.3	7.0	6.7	6.3	6.0	5.6	5.1	4.7	4.3	3.9	3.4	2.9	2.4	1.8													
Shut-off PSI			196	187	179	170	161	153	144	135	127	118	109	101	92	83	62	40	18											
1	8	0												7.2	6.9	6.6	6.3	5.5	4.6	3.6	2.5									
		20											7.1	6.8	6.5	6.2	5.9	5.6	4.7	3.7	2.5									
		30								7.4	7.1	6.8	6.5	6.2	5.9	5.6	5.2	4.3	3.2	2.0										
		40							7.3	7.1	6.8	6.5	6.1	5.8	5.5	5.1	4.8	3.8	2.6	1.4										
		50						7.3	7.0	6.7	6.4	6.1	5.8	5.5	5.1	4.7	4.4	3.3	2.0											
		60					7.3	7.0	6.7	6.4	6.1	5.8	5.4	5.1	4.7	4.3	3.9	2.7	1.4											
Shut-off PSI						206	197	189	180	171	163	154	145	137	128	119	98	76	54	33										
1	9	0													7.3	7.0	6.4	5.7	4.9	4.1	1.6									
		20												7.2	7.0	6.7	6.4	5.8	5.0	4.2	3.1									
		30										7.4	7.2	6.9	6.7	6.4	6.1	5.4	4.6	3.7	2.5									
		40									7.4	7.2	6.9	6.6	6.4	6.1	5.8	5.0	4.2	3.2	1.9									
		50								7.3	7.1	6.9	6.6	6.3	6.1	5.8	5.5	4.7	3.8	2.6	1.2									
		60							7.3	7.1	6.8	6.6	6.3	6.0	5.8	5.5	5.1	4.2	3.3	2.0										
Shut-off PSI								219	211	202	193	185	176	167	159	150	128	107	85	63	20									
1½	10	0														7.4	6.8	6.2	5.6	5.0	3.4	1.4								
		20													7.4	7.1	6.9	6.3	5.7	5.0	4.3	2.5								
		30												7.3	7.1	6.9	6.6	6.0	5.4	4.7	4.0	2.0								
		40											7.3	7.0	6.8	6.6	6.3	5.7	5.0	4.4	3.5	1.5								
		50									7.3	7.0	6.8	6.5	6.3	6.1	5.5	4.7	4.0	3.2	1.0									
		60							7.4	7.2	7.0	6.7	6.5	6.3	6.0	5.8	5.1	4.4	3.6	2.7										
Shut-off PSI									254	246	237	228	220	211	202	194	172	150	129	107	64	20								

MOST EFFICIENT OPERATING RANGE.
PERFORMANCES ARE SUBJECT TO PERIODIC CHANGES DUE TO CONTINUOUS IMPROVEMENTS.

3" DEEP WELL SUBMERSIBLE PUMPS

MODEL: NS-U-10 / NS-V-10

SELECTION CHART

10 GPM

RATINGS ARE IN GALLONS PER MINUTE (GPM)

HP	Stage	PSI	Depth to pumping water level (Lift) in feet																											
			20	40	60	80	100	120	140	160	180	200	220	240	260	280	300	350	400	450	500	600	700	800	900	1000				
1/2	2	0			13.8	12.2	10.0	6.5																						
		20	13.5	11.7	9.0	4.5																								
		30	11.3	8.5	4.5																									
		40	8.0	2.5																										
		50																												
		60																												
Shut-off PSI			51	43	34	25	17	8																						
1/2	3	0					13.5	12.3	10.8	9.0	6.5																			
		20			13.1	11.8	10.2	8.2	5.7																					
		30		13.0	11.7	10.0	7.9	5.0																						
		40	12.8	11.4	9.7	7.6	4.3																							
		50	11.3	9.4	7.0	3.8																								
		60	9.2	6.8	3.3																									
Shut-off PSI			82	74	65	56	48	39	30	22	13																			
3/4	4	0						13.2	12.0	10.7	9.4	7.8	6.0	3.5																
		20				13.9	12.7	11.5	10.3	9.0	7.2	5.5	3.0																	
		30			13.8	12.5	11.5	10.2	8.8	7.0	5.0	2.5																		
		40		13.6	12.4	11.2	10.0	8.5	6.8	4.8																				
		50	13.5	12.3	11.0	9.6	8.1	6.5	4.2																					
		60	12.0	10.8	9.5	8.0	6.0	4.0																						
Shut-off PSI			113	104	95	87	78	69	61	52	43	35	26	17	9															
3/4	5	0							13.8	12.9	12.0	11.0	10.0	8.9	7.7	6.2														
		20						13.5	12.6	11.7	10.7	9.7	8.5	7.3	5.8	4.2	2.0													
		30				13.4	12.5	11.5	10.6	9.6	8.3	7.0	5.6	4.0																
		40			13.3	12.4	11.4	10.5	9.4	8.2	6.9	5.5	3.8																	
		50		13.1	12.2	11.3	10.3	9.2	8.0	6.6	5.0	3.4																		
		60	13.8	13.0	12.1	11.1	10.1	9.0	7.8	6.4	5.0	2.9																		
Shut-off PSI			145	137	128	119	111	102	93	85	76	67	59	50	41	33	24													
1	6	0								13.5	12.8	12.0	11.2	10.4	9.5	6.9	3.7													
		20								13.3	12.6	11.8	11.0	10.1	9.2	8.2	7.1	3.8												
		30								13.2	12.5	11.7	10.8	10.0	9.0	8.0	7.0	5.8												
		40				13.8	13.1	12.4	11.6	10.7	9.8	8.9	7.9	6.8	5.5	4.0														
		50			13.7	13.0	12.2	11.4	10.6	9.7	8.8	7.8	6.5	5.3	3.9	2.0														
		60		13.6	12.9	12.1	11.4	10.5	9.6	8.6	7.5	6.4	5.0	3.7																
Shut-off PSI					159	150	142	133	124	116	107	98	90	81	72	64	55	33	12											
1½	7	0									13.2	12.5	11.9	11.1	9.3	7.2	4.5													
		20								13.6	13.0	12.4	11.6	10.9	10.2	9.5	7.4	4.8												
		30								13.5	12.9	12.2	11.5	10.8	10.1	9.3	8.5	6.3	3.1											
		40							13.5	12.8	12.1	11.4	10.7	10.0	9.3	8.5	7.5	5.0												
		50					13.4	12.7	12.0	11.3	10.6	9.9	9.1	8.3	7.5	6.5	3.5													
		60				13.3	12.6	11.9	11.3	10.5	9.7	9.0	8.1	7.3	6.3	5.2														
Shut-off PSI							173	164	155	147	138	129	121	112	103	95	86	64	42	21										
1½	8	0										13.9	13.3	12.7	12.1	10.7	9.0	7.1	4.8											
		20									13.7	13.1	12.5	11.9	11.3	10.7	9.1	7.3	5.0											
		30								13.6	13.0	12.4	11.8	11.3	10.6	10.0	8.4	6.3	3.7											
		40							13.5	12.9	12.3	11.8	11.2	10.5	9.9	9.2	7.4	5.1												
		50						13.5	12.8	12.3	11.6	11.0	10.5	9.8	9.1	8.5	6.5	4.0												
		60					13.4	12.8	12.2	11.6	11.0	10.4	9.7	9.0	8.4	7.6	5.4													
Shut-off PSI							190	181	173	164	155	147	138	129	121	112	90	68	47	25										

MOST EFFICIENT OPERATING RANGE.

PERFORMANCES ARE SUBJECT TO PERIODIC CHANGES DUE TO CONTINUOUS IMPROVEMENTS.

3" DEEP WELL SUBMERSIBLE PUMPS

MODEL: NS-U-15 / NS-V-15

SELECTION CHART

15 GPM

RATINGS ARE IN GALLONS PER MINUTE (GPM)

HP	Stage	PSI	Depth to pumping water level (Lift) in feet																											
			20	40	60	80	100	120	140	160	180	200	220	240	260	280	300	350	400	450	500	600	700	800	900	1000				
1/2	2	0		19.5	17.5	15.1	12.0	5.5																						
		20	16.8	14.2	10.5																									
		30	14.0	10.0																										
		40	9.0																											
		50																												
		60																												
Shut-off PSI			46	38	29	20	12	3																						
3/4	3	0			18.8	17.1	15.5	13.2	10.2	6.5																				
		20	18.2	16.5	14.6	12.4	9.0	4.8																						
		30	16.4	14.5	12.0	8.5	4.0																							
		40	14.4	11.5	7.8																									
		50	11.0	7.3																										
		60	6.8																											
Shut-off PSI			67	59	50	41	33	24	15	7																				
3/4	4	0			19.5	18.4	17.1	15.9	14.2	12.7	10.6	8.0	5.2																	
		20	19.1	18.0	16.7	15.3	13.7	12.0	10.0	7.2	3.5																			
		30	17.8	16.5	15.0	13.6	11.9	9.8	7.0	3.0																				
		40	16.3	15.0	13.3	11.4	9.1	6.6																						
		50	14.7	13.1	11.2	9.0	6.0																							
		60	12.8	10.9	8.1	5.4																								
Shut-off PSI			94	85	76	68	59	50	42	33	24	16	7																	
3/4	5	0			19.2	18.4	17.4	16.4	15.3	14.0	12.5	11.0	9.2	7.0	4.0															
		20	19.7	19.0	18.0	17.0	16.0	14.8	13.5	12.0	10.5	8.5	6.0																	
		30	18.8	18.0	17.0	15.8	14.6	13.3	12.0	10.2	8.0	5.8																		
		40	17.8	16.8	15.7	14.5	13.2	11.8	10.0	7.8	5.0																			
		50	16.7	15.5	14.3	13.0	11.5	9.8	7.7	5.0																				
		60	15.2	14.0	12.8	11.2	9.5	7.0	4.0																					
Shut-off PSI			120	111	103	94	85	77	68	59	51	42	33	25	16	7														
1	6	0			19.8	19.2	18.5	17.8	17.2	16.2	15.2	14.0	13.0	11.9	10.5	8.8														
		20		19.5	19.0	18.3	17.6	16.8	16.0	15.0	13.9	12.6	11.5	10.0	8.1	6.0	3.2													
		30		18.9	18.2	17.5	16.6	15.7	14.8	13.7	12.5	11.2	9.7	7.8																
		40		18.1	17.3	16.6	15.6	14.6	13.5	12.5																				
		50	18.0	17.4	16.5	15.5	14.5	13.3	12.2	10.9	9.0																			
		60	17.1	16.3	15.4	14.2	13.1	12.0	10.7	9.0																				
Shut-off PSI			150	142	133	124	116	107	98	90	81	72	64	55	46	38	29													
1	7	0					19.7	19.2	18.7	18.2	17.5	16.9	16.1	15.4	14.5	13.6	12.5	9.0	4.3											
		20			19.5	19.0	18.5	18.0	17.3	16.5	15.9	15.1	14.3	13.2	12.1	10.7	9.3	4.9												
		30		19.5	19.0	18.5	17.9	17.2	16.5	15.8	15.0	14.1	13.1	11.9	10.5	9.0	7.3													
		40	19.3	18.9	18.4	17.8	17.1	16.4	15.7	14.9	14.0	12.9	11.7	10.3	8.9	7.0	5.2													
		50	18.8	18.3	17.6	17.0	16.3	15.5	14.6	13.7	12.7	11.5	10.0	8.5	6.9	5.0														
		60	18.2	17.5	16.9	16.1	15.5	14.6	13.6	12.5	11.4	9.9	8.1	6.7	4.8															
Shut-off PSI			179	170	162	153	144	136	127	118	110	101	92	84	75	66	58	36	14											
1½	8	0						19.8	19.4	19.0	18.5	17.9	17.3	16.5	16.0	15.1	14.4	12.0	9.0	4.8										
		20					19.3	18.9	18.4	17.7	17.1	16.4	15.7	15.0	14.1	13.2	12.2	9.2	5.3											
		30			19.6	19.2	18.7	18.2	17.6	16.9	16.3	15.5	14.8	14.0	13.1	12.1	11.0	7.6												
		40		19.6	19.1	18.6	18.1	17.5	16.9	16.2	15.5	14.7	13.9	12.9	12.0	10.8	9.5	5.6												
		50	19.5	19.1	18.6	18.0	17.4	16.8	16.1	15.3	14.6	13.7	12.8	11.7	10.7	9.3	7.8	3.5												
		60	19.0	18.5	18.0	17.3	16.7	16.0	15.2	14.5	13.6	12.6	11.6	10.4	9.0	7.6	6.0													
Shut-off PSI			203	195	186	177	169	160	151	143	134	125	117	108	99	91	82	60	39	17										

MOST EFFICIENT OPERATING RANGE.

PERFORMANCES ARE SUBJECT TO PERIODIC CHANGES DUE TO CONTINUOUS IMPROVEMENTS.

3" DEEP WELL SUBMERSIBLE PUMPS

MODEL: NS-U-22 / NS-V-22

SELECTION CHART

22 GPM

RATINGS ARE IN GALLONS PER MINUTE (GPM)

HP	Stage	PSI	Depth to pumping water level (Lift) in feet																											
			20	40	60	80	100	120	140	160	180	200	220	240	260	280	300	350	400	450	500	600	700	800	900	1000				
1/2	1	0	28.0	19.0																										
		20																												
		30																												
		40																												
		50																												
		60																												
Shut-off PSI		16	8																											
1/2	2	0	30.0	27.0	23.5	19.0	13.0																							
		20	22.5	17.5	10.0																									
		30	16.5	9.0																										
		40	7.5																											
		50																												
		60																												
Shut-off PSI		44	35	27	18	9																								
3/4	3	0	31.0	29.0	27.0	24.5	21.5	18.5	14.5	9.0																				
		20	26.0	23.5	20.5	17.5	13.0	7.5																						
		30	23.0	20.5	17.0	12.5	6.0																							
		40	20.0	16.0	12.0																									
		50	16.0	10.5																										
		60	9.5																											
Shut-off PSI		70	61	52	44	35	26	18	9																					
1	4	0	31.4	30.0	28.6	27.0	25.5	23.7	21.7	19.5	17.1	14.0	10.0																	
		20	28.0	26.6	25.0	23.2	21.0	19.0	16.2	13.0	9.0																			
		30	26.5	25.0	23.0	21.0	18.5	16.0	12.1	8.0																				
		40	24.5	22.5	20.5	18.0	15.5	12.0	6.5																					
		50	22.3	20.0	18.0	14.8	11.0	5.5																						
		60	19.5	17.2	14.2	10.5	5.0																							
Shut-off PSI		99	91	82	73	65	56	47	39	30	21	13																		
1	5	0	31.5	30.5	30.0	29.0	28.0	27.0	25.5	24.0	22.5	20.5	18.5	16.5	13.5	10.0														
		20	29.5	28.7	27.5	26.5	25.0	23.5	22.0	20.0	18.0	15.5	12.5	8.0																
		30	28.5	27.5	26.5	25.0	23.5	21.5	20.0	17.5	15.0	11.7	7.0																	
		40	27.2	26.2	25.0	23.0	21.2	19.5	17.0	14.5	11.0	6.5																		
		50	26.0	24.5	23.0	21.0	19.5	17.0	14.2	10.5	5.5																			
		60	24.2	22.5	20.5	19.0	16.5	14.0	10.0	5.0																				
Shut-off PSI		125	116	108	99	90	82	73	64	56	47	38	30	21	12															
1½	6	0	31.7	31.1	30.7	29.9	29.2	28.5	27.5	26.6	25.8	24.6	23.4	21.8	20.0	18.0	15.2	7.0												
		20	30.4	29.7	29.0	28.2	27.2	26.5	25.5	24.4	23.0	21.0	19.5	17.0	14.5	11.5	8.0													
		30	29.5	29.0	28.0	27.0	26.5	25.5	24.0	22.5	21.0	19.0	16.5	14.2	11.0	7.5														
		40	28.7	28.0	27.0	26.2	25.0	24.0	22.5	20.7	18.5	16.5	14.0	11.0	6.5															
		50	28.0	27.0	26.0	25.0	23.8	22.0	20.5	18.5	16.0	13.5	10.5	5.0																
		60	26.8	26.0	25.0	23.5	22.0	20.0	18.0	15.8	13.0	10.0	5.0																	
Shut-off PSI		152	143	135	126	117	109	100	91	83	74	65	57	48	39	31	9													

MOST EFFICIENT OPERATING RANGE.

PERFORMANCES ARE SUBJECT TO PERIODIC CHANGES DUE TO CONTINUOUS IMPROVEMENTS.

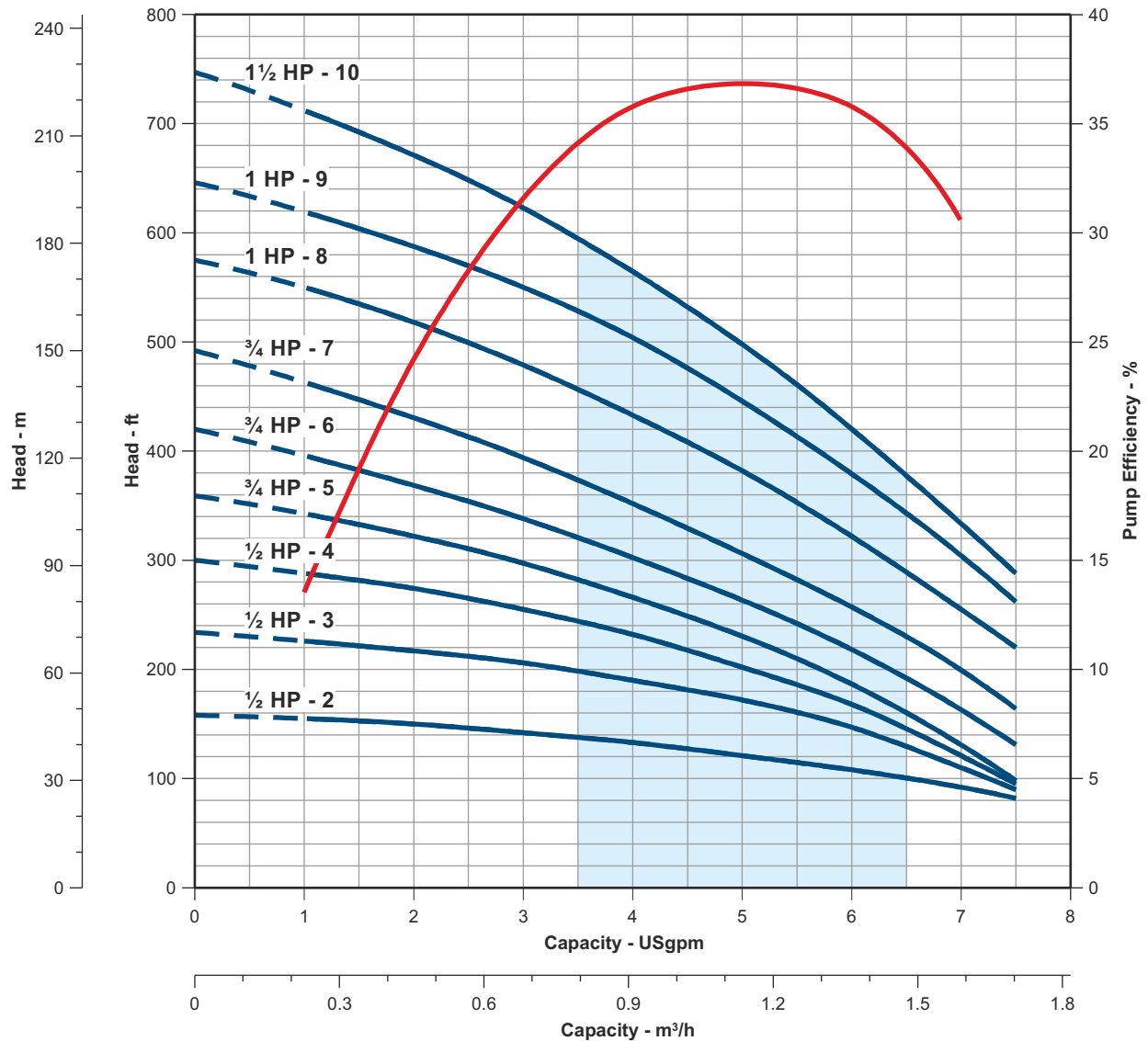
3" DEEP WELL SUBMERSIBLE PUMPS

MODEL: NS-U-05 / NS-V-05

PERFORMANCE CURVE

5 GPM

Nominal RPM	7000
Curve based on clear water @	68°F



BEST EFFICIENCY REGION

RECOMMENDED PUMP OPERATING RANGE

PERFORMANCE BASED ON TEST ACCEPTANCE - ISO 9906:2012 3B.

PERFORMANCE CURVES SHOWN ABOVE ARE FOR FIXED-SPEED OPERATION. CONSULT THE FACTORY FOR VARIABLE SPEED CURVES. PERFORMANCES ARE SUBJECT TO PERIODIC CHANGES DUE TO CONTINUOUS IMPROVEMENTS.

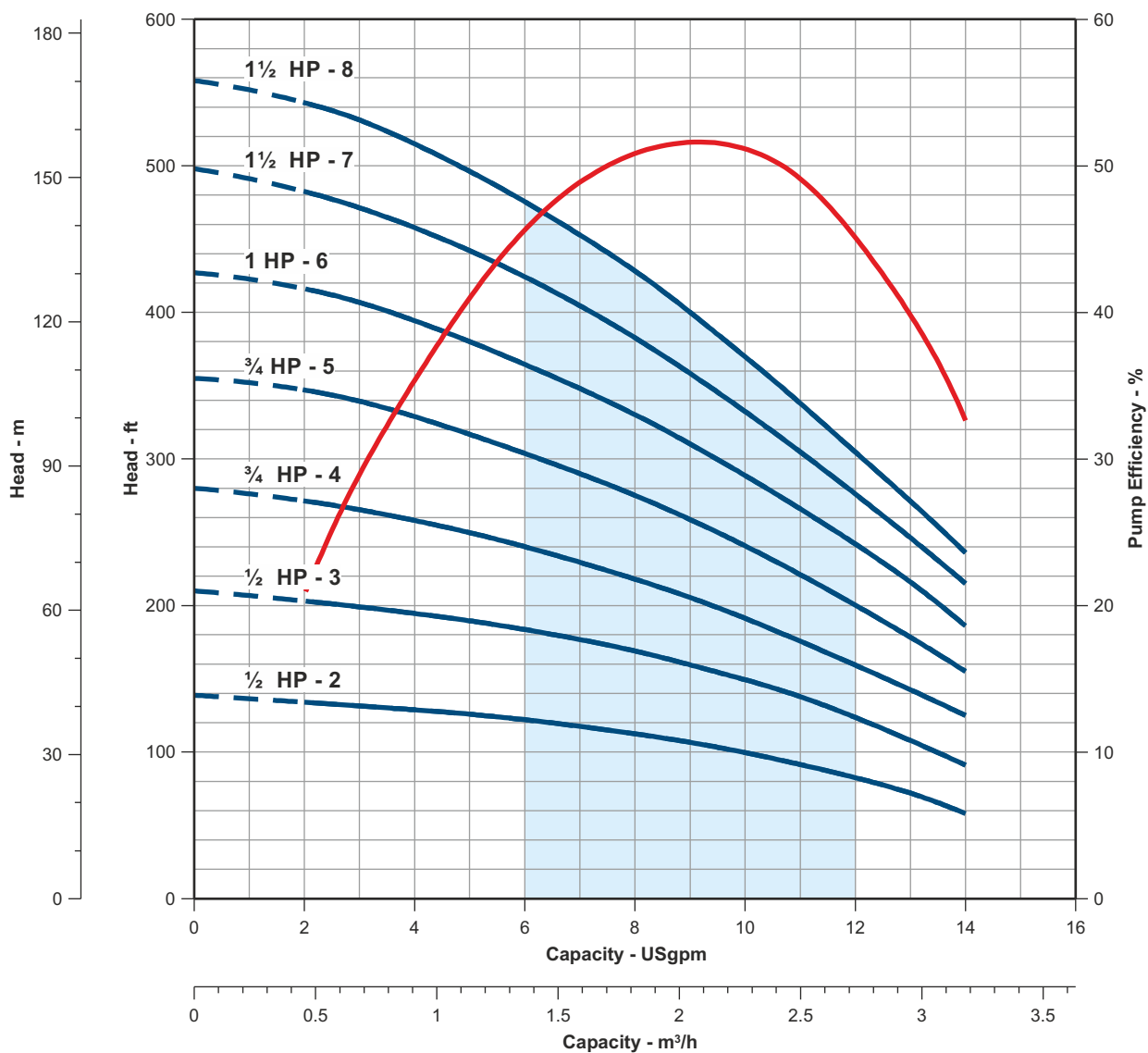
3" DEEP WELL SUBMERSIBLE PUMPS

MODEL: NS-U-10 / NS-V-10

PERFORMANCE CURVE

10 GPM

Nominal RPM	7000
Curve based on clear water @	68°F



BEST EFFICIENCY REGION

RECOMMENDED PUMP OPERATING RANGE

PERFORMANCE BASED ON TEST ACCEPTANCE - ISO 9906:2012 3B.

PERFORMANCE CURVES SHOWN ABOVE ARE FOR FIXED-SPEED OPERATION. CONSULT THE FACTORY FOR VARIABLE SPEED CURVES. PERFORMANCES ARE SUBJECT TO PERIODIC CHANGES DUE TO CONTINUOUS IMPROVEMENTS.

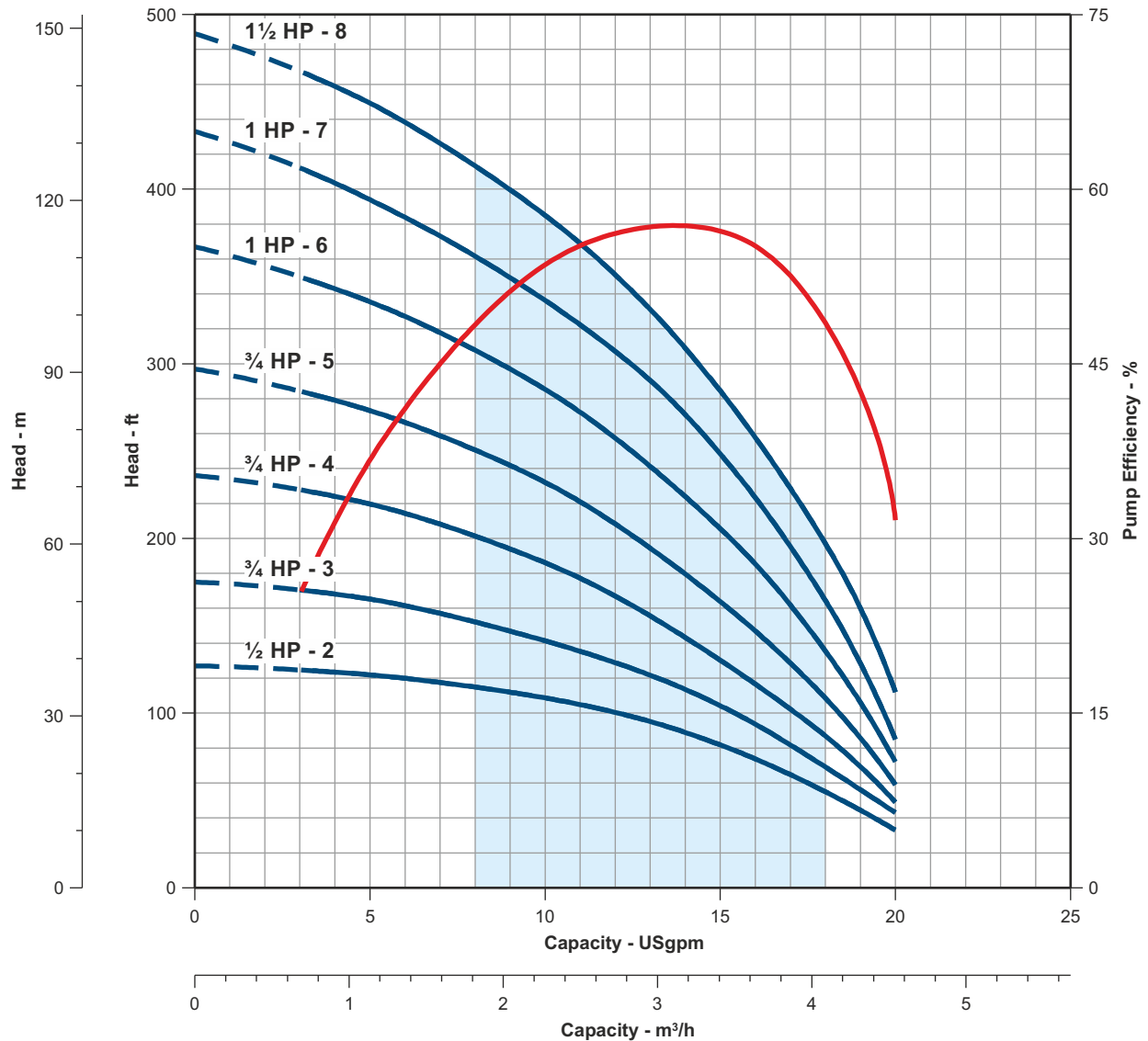
3" DEEP WELL SUBMERSIBLE PUMPS

MODEL: NS-U-15 / NS-V-15

PERFORMANCE CURVE

15 GPM

Nominal RPM	7000
Curve based on clear water @	68°F



 BEST EFFICIENCY REGION

 RECOMMENDED PUMP OPERATING RANGE

PERFORMANCE BASED ON TEST ACCEPTANCE - ISO 9906:2012 3B.

PERFORMANCE CURVES SHOWN ABOVE ARE FOR FIXED-SPEED OPERATION. CONSULT THE FACTORY FOR VARIABLE SPEED CURVES. PERFORMANCES ARE SUBJECT TO PERIODIC CHANGES DUE TO CONTINUOUS IMPROVEMENTS.

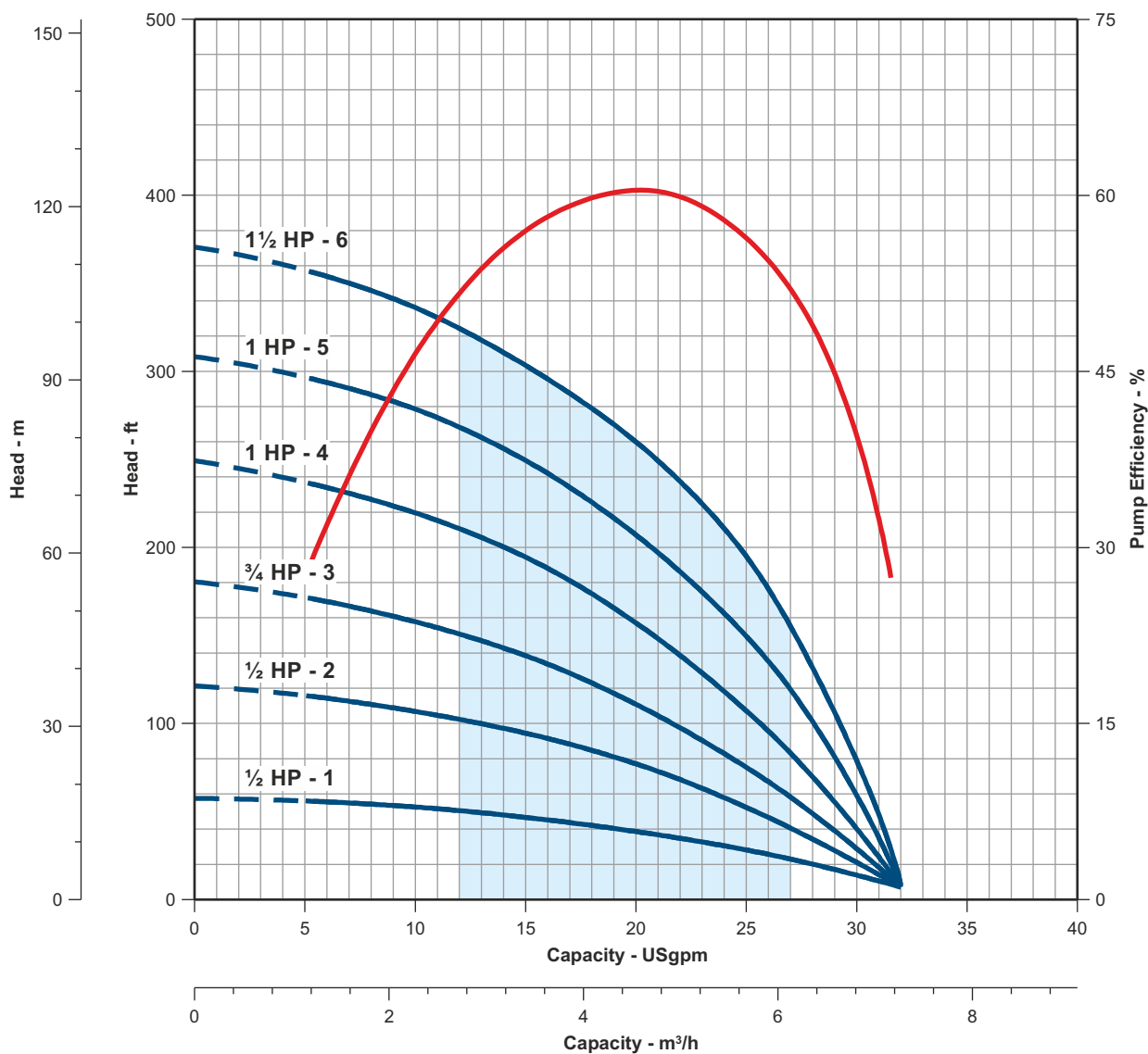
3" DEEP WELL SUBMERSIBLE PUMPS

MODEL: NS-U-22 / NS-V-22

PERFORMANCE CURVE

22 GPM

Nominal RPM	7000
Curve based on clear water @	68°F



 BEST EFFICIENCY REGION

 RECOMMENDED PUMP OPERATING RANGE

PERFORMANCE BASED ON TEST ACCEPTANCE - ISO 9906:2012 3B.

PERFORMANCE CURVES SHOWN ABOVE ARE FOR FIXED-SPEED OPERATION. CONSULT THE FACTORY FOR VARIABLE SPEED CURVES. PERFORMANCES ARE SUBJECT TO PERIODIC CHANGES DUE TO CONTINUOUS IMPROVEMENTS.

3" DEEP WELL SUBMERSIBLE PUMPS

PUMP SIZE: 3"
TECHNICAL DATA
5 GPM to 22 GPM

GPM	Stage	HP	PHASE	Voltage	Full Load Amps @ 115V	Full Load Amps @ 230V	Min Well Diameter	Discharge Size [inch]
5	02	1/2	1	115 V / 230 V	11.9	5.3	3"	1" NPT
	03	1/2	1	115 V / 230 V	11.9	5.3	3"	1" NPT
	04	1/2	1	115 V / 230 V	11.9	5.3	3"	1" NPT
	05	3/4	1	230 V	-	5.8	3"	1" NPT
	06	3/4	1	230 V	-	5.8	3"	1" NPT
	07	3/4	1	230 V	-	5.8	3"	1" NPT
	08	1	1	230 V	-	7.5	3"	1" NPT
	09	1	1	230 V	-	7.5	3"	1" NPT
	10	1½	1	230 V	-	10.8	3"	1" NPT
10	02	1/2	1	115 V / 230 V	11.9	5.3	3"	1¼" NPT
	03	1/2	1	115 V / 230 V	11.9	5.3	3"	1¼" NPT
	04	3/4	1	230 V	-	5.8	3"	1¼" NPT
	05	3/4	1	230 V	-	5.8	3"	1¼" NPT
	06	1	1	230 V	-	7.5	3"	1¼" NPT
	07	1½	1	230 V	-	10.8	3"	1¼" NPT
	08	1½	1	230 V	-	10.8	3"	1¼" NPT
	09	1½	1	230 V	-	10.8	3"	1¼" NPT
15	02	1/2	1	115 V / 230 V	11.9	5.3	3"	1¼" NPT
	03	3/4	1	230 V	-	5.8	3"	1¼" NPT
	04	3/4	1	230 V	-	5.8	3"	1¼" NPT
	05	3/4	1	230 V	-	5.8	3"	1¼" NPT
	06	1	1	230 V	-	7.5	3"	1¼" NPT
	07	1	1	230 V	-	7.5	3"	1¼" NPT
	08	1½	1	230 V	-	10.8	3"	1¼" NPT
	09	1½	1	230 V	-	10.8	3"	1¼" NPT
22	01	1/2	1	115 V / 230 V	11.9	5.3	3"	1½" NPT
	02	1/2	1	115 V / 230 V	11.9	5.3	3"	1½" NPT
	03	3/4	1	230 V	-	5.8	3"	1½" NPT
	04	1	1	230 V	-	7.5	3"	1½" NPT
	05	1	1	230 V	-	7.5	3"	1½" NPT
	06	1½	1	230 V	-	10.8	3"	1½" NPT
	07	1½	1	230 V	-	10.8	3"	1½" NPT

3" DEEP WELL SUBMERSIBLE PUMPS

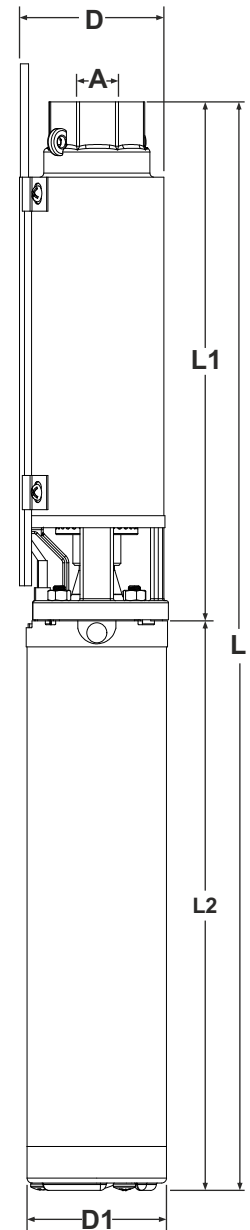
PUMP SIZE: 3"

DIMENSIONS

5 GPM to 22 GPM

PUMP AND MOTOR

GPM	STAGE	HP	MOTOR SIZE [inch]	A [inch]	D* [inch]	L1 [inch]	D1 [inch]	L2 [inch]	L [inch]	WEIGHT [lbs]
5	02	1/2	3	1 NPT	2.85	7.56	2.70	12.52	20.08	19
	03	1/2	3	1 NPT	2.85	8.07	2.70	12.52	20.59	19
	04	1/2	3	1 NPT	2.85	8.58	2.70	12.52	21.10	19
	05	3/4	3	1 NPT	2.85	9.09	2.70	13.11	22.20	20
	06	3/4	3	1 NPT	2.85	9.61	2.70	13.11	22.72	20
	07	3/4	3	1 NPT	2.85	10.12	2.70	13.11	23.23	20
	08	1	3	1 NPT	2.85	10.63	2.70	13.70	24.33	21
	09	1	3	1 NPT	2.85	11.14	2.70	13.70	24.84	21
	10	1½	3	1 NPT	2.85	11.65	2.70	15.28	26.93	24
10	02	1/2	3	1¼ NPT	2.85	7.13	2.70	12.52	19.65	19
	03	1/2	3	1¼ NPT	2.85	7.72	2.70	12.52	20.24	19
	04	3/4	3	1¼ NPT	2.85	8.90	2.70	13.11	22.01	20
	05	3/4	3	1¼ NPT	2.85	9.49	2.70	13.11	22.60	21
	06	1	3	1¼ NPT	2.85	10.08	2.70	13.70	23.78	22
	07	1½	3	1¼ NPT	2.85	10.67	2.70	15.28	25.95	25
	08	1½	3	1¼ NPT	2.85	11.26	2.70	15.28	26.54	25
15	02	1/2	3	1¼ NPT	2.85	8.23	2.70	12.52	20.75	19
	03	3/4	3	1¼ NPT	2.85	9.02	2.70	13.10	22.12	19
	04	3/4	3	1¼ NPT	2.85	9.84	2.70	13.11	22.95	20
	05	3/4	3	1¼ NPT	2.85	10.67	2.70	13.11	23.78	20
	06	1	3	1¼ NPT	2.85	11.50	2.70	13.70	25.20	21
	07	1	3	1¼ NPT	2.85	12.32	2.70	13.70	26.02	20
	08	1½	3	1¼ NPT	2.85	13.11	2.70	15.28	28.39	24
22	01	1/2	3	1½ NPT	2.85	7.40	2.70	12.52	19.92	19
	02	1/2	3	1½ NPT	2.85	8.23	2.70	12.52	20.75	20
	03	3/4	3	1½ NPT	2.85	9.02	2.70	13.11	22.13	21
	04	1	3	1½ NPT	2.85	9.84	2.70	13.70	23.54	21
	05	1	3	1½ NPT	2.85	10.67	2.70	13.70	24.37	22
	06	1½	3	1½ NPT	2.85	11.50	2.70	15.27	26.77	24



* Max. diameter across cable guard

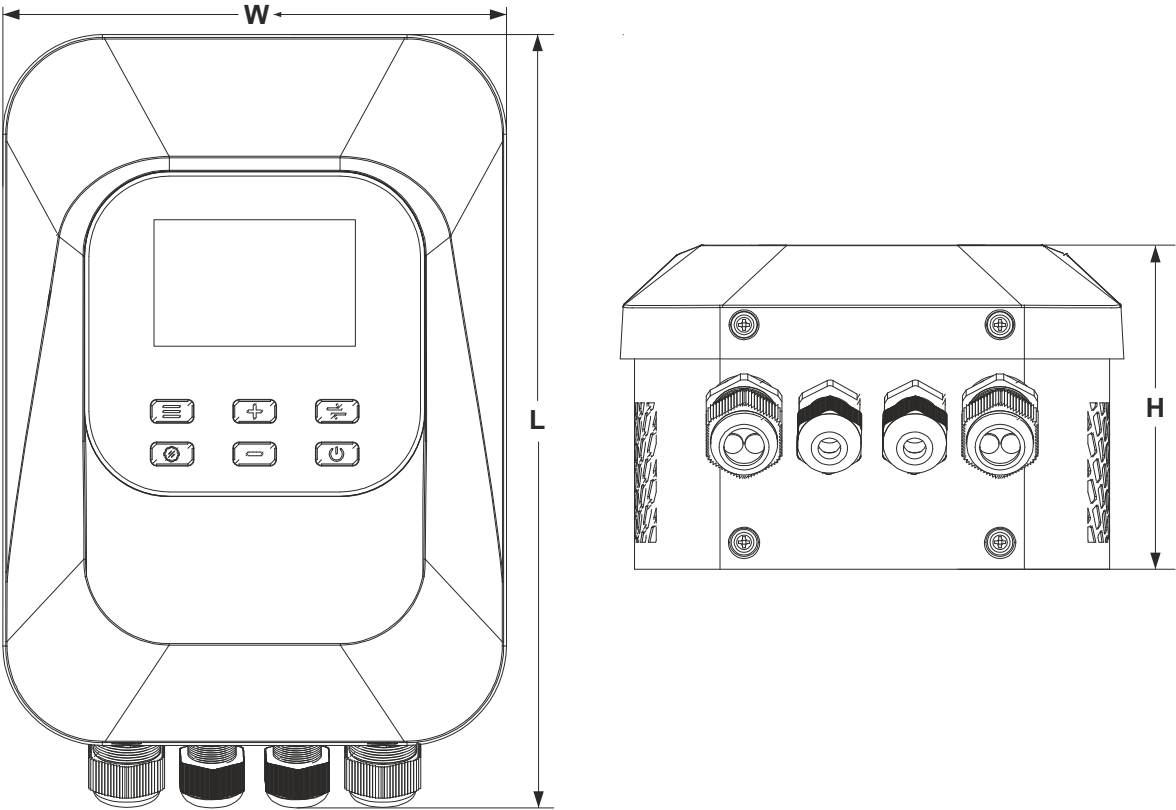
3" DEEP WELL SUBMERSIBLE PUMPS

PUMP SIZE: 3"

DIMENSIONS

115V / 230V - 60 Hz

PUMP CONTROLLER



L	W	H
10.5 inch	7 inch	4.5 inch
267 mm	179 mm	115 mm

NOTE

[illegible]

NOTE

This image shows a single page from a notebook or ledger. It features approximately 20 evenly spaced horizontal blue lines across its entire width. The left edge of the page has a faint vertical margin line, creating a narrow left margin. There are no markings, text, or drawings on the page other than the printed lines.



Northam Inc.

995/C Griffin Pond Road, Clarks Summit, PA 18411, USA
Phone : +1-570-659-7200, Email : sales@northam-inc.com

Product Improvement and changes are a continuous process at 'Northam'. The data given in this publication is therefore subject to revision.