

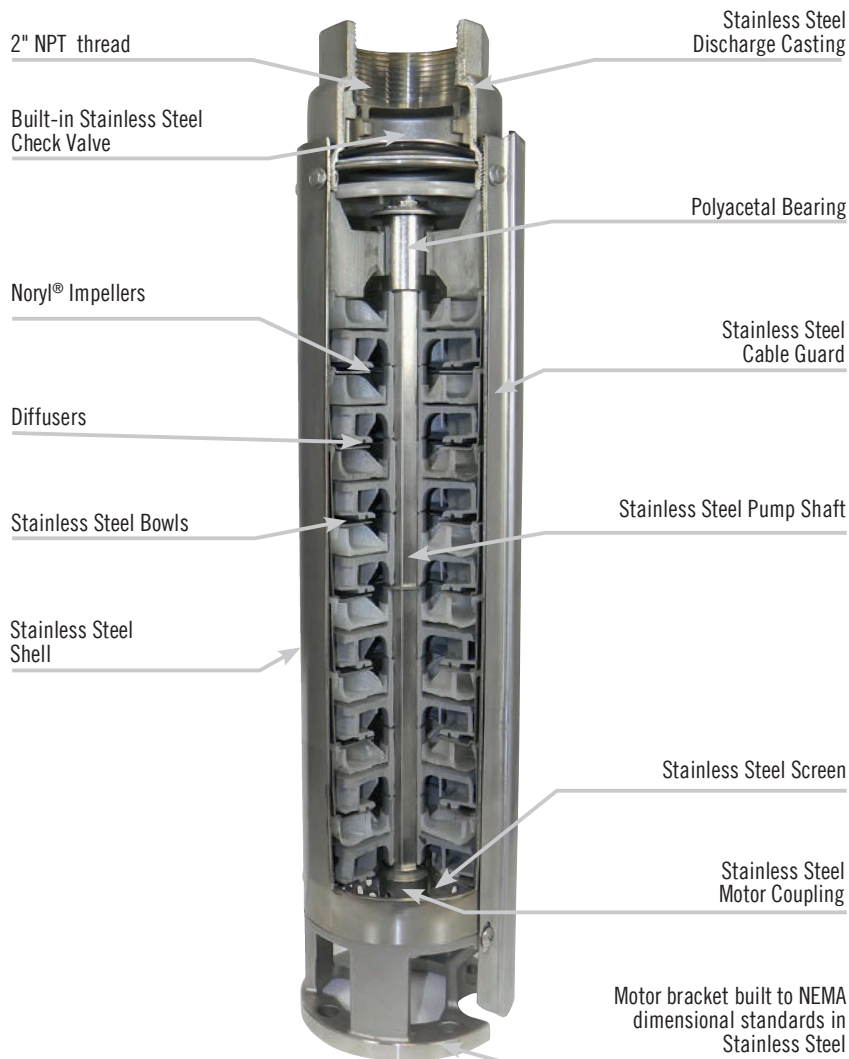
24000 Series High Flow

A.Y. McDonald offers a full line of 4" submersibles ranging from 1 through 10 horsepower, with flow rates ranging from 35 through 80 gallons per minute (GPM). Our 24000 high flow submersibles offer peak capacity performance in 35, 40, 55, 60, and 80 gallons per minute (GPM) models.

- Powered by A.Y. McDonald stainless steel motors
- Delivery: up to 124 GPM at 3450 rpm
- Head: up to 1300' at 3450 rpm
- The charts on the following page will assist you in choosing the pump that meets your needs.



Submersible Pumps



How to Order 4" Submersible Pumps

Order by Model Number - Example: 24200R3

24	200	R	3		
Series Stainless Steel	Horsepower 100 - 1 HP 150 - 1 1/2 HP 200 - 2 HP 300 - 3 HP 500 - 5 HP 750 - 7 1/2 HP 1000 - 10 HP	GPM R - 35 GPM G - 40 GPM S - 55 GPM Q - 60 GPM T - 80 GPM	Wires Two wire or Three wire	Other Leave blank for 230V 60 HZ, Single Phase (Standard) Other Options - Contact Factory Z - 230V Three Phase Y - 460V Three Phase	Controls Leave blank for Control (Standard) LB - Less box (Single Phase Option) LS - Less starter (Three Phase Option)

Model 24200R3 is a 2 HP, three wire, 230 volt, single phase stainless steel 4" high flow submersible pump, designed to pump in the 35 GPM range.

NOTES

- Standard is 230V, Single Phase, 60 HZ (no suffix letter required)
- Two-Wire Single phase models include; pump, motor, leads.
- Three-Wire Single phase models include; pump, motor, leads, and control box.
- Three-Wire Three phase models include; pump, motor, leads, and starter kit.
- All submersible pumps include internal check valves and grounded lead on motor.

Submersible Pumps

Locating the code number on the pump



A.Y. McDonald Mfg. Co.
aymcdonald.com


MODEL: 24300R **HP:** 3

GPM: 25

PEI CL: 0.80 **Imp. Dia:** 2.80 (in)

S/N: T2200023460-001 **D C:** 20B

MADE IN TAIWAN



US
Drinking Water
ANSI/NFPA 61
60651

A code appears on each A.Y. McDonald 24000 series submersible pump. Contained in this code is the following information:

- Pump Model
- Date of manufacture
- Motor HP
- Pump GPM

MATERIALS OF CONSTRUCTION

Discharge Head	Stainless Steel 304, discharge 2" NPT from 35 GPM to 80 GPM series
Motor Adapter	Stainless Steel 304, NEMA standard
Check Valve	Stainless Steel 304
External Shell	Stainless Steel 304 polished
Impellers	Noryl
Diffusers	Polycarbonate
Bearing	Polyacetal
Shaft Coupling	Stainless Steel 304 NEMA Standard
Strainer	Stainless Steel 304
Shaft	Stainless Steel 304
Cable Guard	Stainless Steel 304

R - 35 GPM

All Stainless Steel Submersible Pumps are designed to pump within the 35 gallons per minute (GPM) range. Sizes are available from 1 to 10 HP. All models are standard with 2" NPT discharge.

Two Wire Single Phase

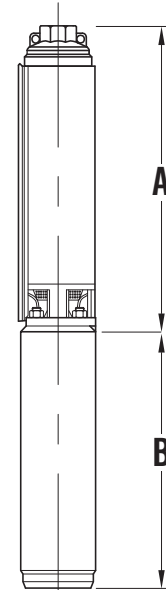
Part No.	Model No.	HP	Stages	Volt	A	B	Wt.
6630-053	24100R2	1	6	230	14.1"	16.8"	38
6630-057	24150R2	1 1/2	8	230	16.6"	18.5"	40

Three Wire Single Phase

Part No.	Model No.	HP	Stages	Volt	A	B	Wt.
6630-054	24100R3	1	6	230	14.1"	13.6"	38
6630-058	24150R3	1 1/2	8	230	16.6"	16.2"	48
6630-065	24200R3	2	10	230	19.0"	16.2"	52
6630-072	24300R3	3	14	230	23.9"	21.4"	75
6630-079	24500R3	5	22	230	35.2"	26.9"	103

Three Wire Three Phase

Part No.	Model No.	HP	Stages	Volt	A	B	Wt.
6630-062	24150R3Z	1 1/2	8	230	16.6"	13.6"	42
6630-060	24150R3Y	1 1/2	8	460	16.6"	13.6"	37
6630-069	24200R3Z	2	10	230	19.0"	15.4"	62
6630-067	24200R3Y	2	10	460	19.0"	15.4"	48
6630-076	24300R3Z	3	14	230	23.9"	19.8"	60
6630-074	24300R3Y	3	14	460	23.9"	19.8"	54
6630-083	24500R3Z	5	22	230	35.2"	24.2"	79
6630-081	24500R3Y	5	22	460	35.2"	24.2"	74
6630-088	24750R3Z	7 1/2	34	230	49.5"	26.9"	98
6630-086	24750R3Y	7 1/2	34	460	49.5"	26.9"	97
6630-091	241000R3Y	10	43	460	51.9"	30.1"	159



4" Stainless Steel Pump Ends

Part No.	Model No.	HP	Wt.
6630-052	24100R	1	8
6630-056	24150R	1 1/2	9
6630-064	24200R	2	11
6630-071	24300R	3	13
6630-078	24500R	5	18
6630-085	24750R	7 1/2	26
6630-090	241000R	10	31

** All three wire pumps are available in three phase by selecting pump end and appropriate motor and starter kit (see pages 121-136).

Output - in Gallons Per Minute (Depth to Water)

1 HP	PSI	20'	40'	60'	80'	100'	120'	140'
	0			43	39	34	27.5	17.
30	38	32	24	15	19			
50	24	14						

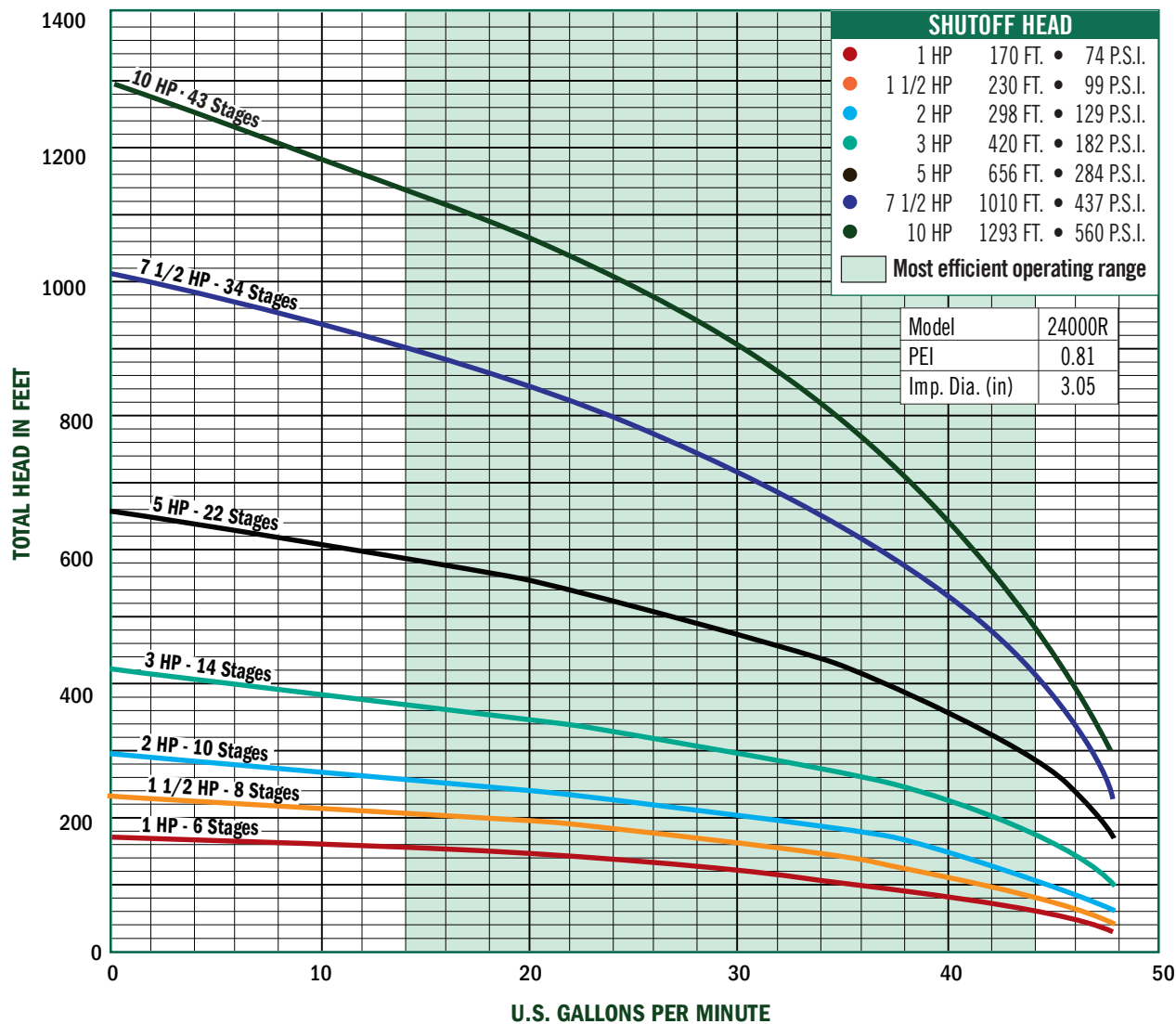
1 1/2 HP	PSI	20'	40'	60'	80'	100'	120'	140'	160'	180'	200'
	0				44	42	38	34	30	24	16
30			40	37	28	25	22	10			
50	37	28	25	20	8						

2 HP	PSI	40'	60'	80'	100'	120'	140'	160'	180'	200'	220'	240'	260'
	0				44.3	42.3	41	39	35	30	24	18	12
30			42	41	39	35	30	21	16	9			
50	41	39	35	30	21	16	8						

3 HP	PSI	60'	80'	100'	120'	140'	160'	180'	200'	220'	240'	260'	280'	300'	340'	380'
	0						44.5	43.5	42	40	38	35.8	32.2	28	20	10
30				44	42.5	41	40	38	35	32	26	24	20	14		
50	42.5	41	40.5	39	36	34	31	27	22	18	13					

FRICITION LOSSES IN RISER PIPE
HAVE NOT BEEN CALCULATED

R - 35 GPM



Submersible Pumps

5 HP	PSI	150'	200'	250'	300'	350'	400'	450'	500'	550'	600'
	0			45	43	40	36.5	32	26.8	20	11.8
	30		44.5	42	39	32	30	24	16.8		
	50	44.5	42.5	39.8	35.8	29.	25				

7 1/2 HP	PSI	300'	350'	400'	450'	500'	550'	600'	650'	700'	750'	800'	850'	900'
	0					41	39	36.5	34	31	27	23.5	19	12
	30			41	40	38	35	32.3	29	25	22	17	12	
	50	43	42	40	37.8	5	31.3	29	26	21	16	12		

10 HP	PSI	450'	500'	550'	600'	650'	700'	750'	800'	850'	900'	950'	1000'	1050'	1100'	1150'	1200'
	0				43	41	40	38	36	34	31.5	28.5	26	22.3	18.2		
	30		43.2	41.2	40.3	38.3	37	35	33	30	27.3	24	21	17	13		
	50	43.5	42.2	40.5	39.5	37	35.8	33	31	28	25	21	18				

FRICITION LOSSES IN RISER PIPE HAVE NOT BEEN CALCULATED

G - 40 GPM

All Stainless Steel Submersible Pumps are designed to pump within the 40 gallons per minute (GPM) range. Sizes are available from 1 1/2 to 7 1/2 HP. All models are standard with 2" NPT discharge.

Two Wire Single Phase

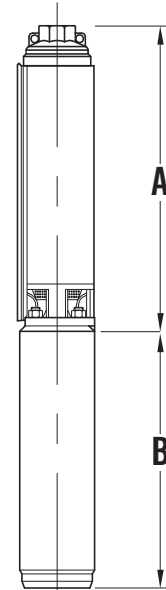
Part No.	Model No.	HP	Stages	Volt	A	B	Wt.
6630-094	24150G2	1 1/2	5	230	12.8"	18.5"	37

Three Wire Single Phase

Part No.	Model No.	HP	Stages	Volt	A	B	Wt.
6630-095	24150G3	1 1/2	5	230	12.8"	16.2"	48
6630-102	24200G3	2	6	230	14.0"	16.2"	51
6630-109	24300G3	3	8	230	16.5"	21.4"	73
6630-116	24500G3	5	14	230	23.8"	26.9"	99

Three Wire Three Phase

Part No.	Model No.	HP	Stages	Volt	A	B	Wt.
6630-099	24150G3Z	1 1/2	5	230	12.8"	13.6"	47
6630-097	24150G3Y	1 1/2	5	460	12.8"	13.6"	40
6630-106	24200G3Z	2	6	230	14.0"	15.4"	47
6630-104	24200G3Y	2	6	460	14.0"	15.4"	46
6630-113	24300G3Z	3	8	230	16.5"	19.8"	60
6630-111	24300G3Y	3	8	460	16.5"	19.8"	51
6630-120	24500G3Z	5	14	230	23.8"	24.2"	75
6630-118	24500G3Y	5	14	460	23.8"	24.2"	71
6630-125	24750G3Z	7 1/2	21	230	33.8"	26.9"	93
6630-123	24750G3Y	7 1/2	21	460	33.8"	26.9"	93



4" Stainless Steel Pump Ends

Part No.	Model No.	HP	Wt.
6630-093	24150G	1 1/2	7
6630-101	24200G	2	8
6630-108	24300G	3	9
6630-115	24500G	5	13
6630-122	24750G	7 1/2	18

** All three wire pumps are available in three phase by selecting pump end and appropriate motor and starter kit (see pages 121-136).

Output - in Gallons Per Minute (Depth to Water)

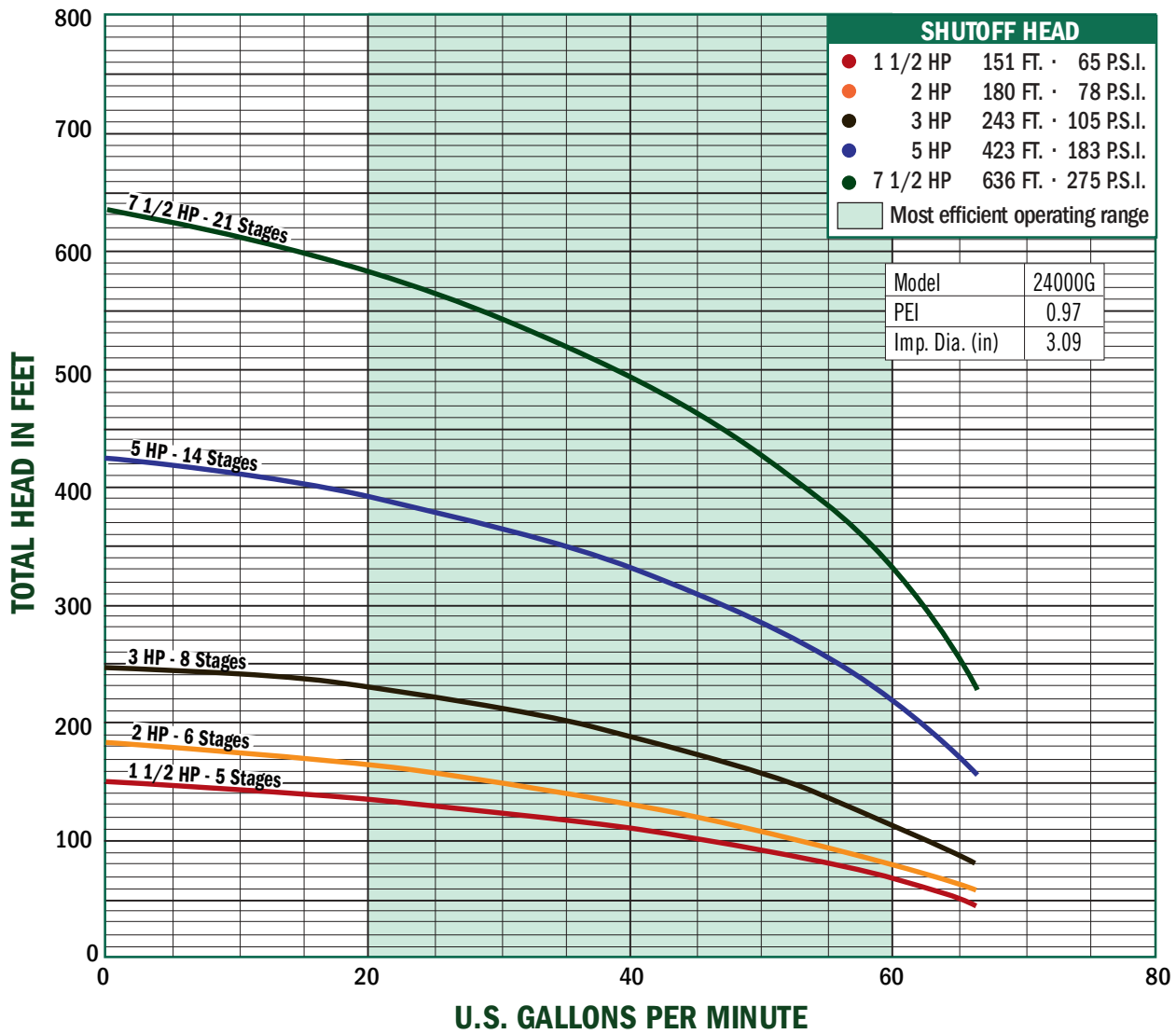
1 1/2 HP	PSI	20'	30'	40'	50'	60'	70'	80'	90'	100'	120'	140'
	0				65	63	57	54	50	45	32	15
	30			40	31	22	12					
	50	17	12									

2 HP	PSI	20'	30'	40'	50'	60'	70'	80'	90'	100'	120'	140'	160'
	0					66	63	58	56	53	43	34	22
	30	55	52.5	47.5	44	38	34	28	22	12			
	50	37.5	32	27	17.5	12							

3 HP	PSI	20'	30'	40'	50'	60'	70'	80'	90'	100'	120'	140'	160'	180'	200'	240'
	0							66	64	62.5	57	53	43	42	35	10
	30	66	62.5	60	58	57	55	53	43	42	38	31	20	5		
	50	55	52.5	50	47.5	44	41	38	33	27	20					

FRICION LOSSES IN RISER PIPE
HAVE NOT BEEN CALCULATED

G - 40 GPM



Submersible Pumps

5 HP	PSI	100'	120'	160'	180'	200'	220'	240'	260'	280'	300'	320'	340'	360'	380'	400'
	0					63	58	56	53	50	46	42	37	32	23	1
	30			57	56	52	48	44	40	34	27	18				
50	60	57	51	47	43	38	33	26	22							

7 1/2 HP	PSI	220'	240'	260'	280'	300'	320'	340'	360'	380'	400'	420'	440'	460'	500'	540'
	0					63	61	58	57	55	53	51	48	45	38	
	30			59	58	57	53	52	48	46	43	40	37	32	22	
50	61	57	56	53	52	48	44	42	38	35	31	23				

FRICITION LOSSES IN RISER PIPE HAVE NOT BEEN CALCULATED

S - 55 GPM

All Stainless Steel Submersible Pumps are designed to pump within the 55 gallons per minute (GPM) range. Sizes are available from 1 1/2 to 10 HP. All models are standard with 2" NPT discharge.

Two Wire Single Phase

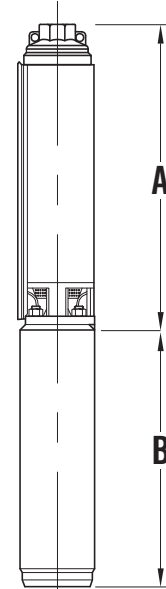
Model No.	Model No.	HP	Stages	Volt	A	B	Wt.
6630-181	24150S2	1 1/2	5	230	17.0"	18.5"	40

Three Wire Single Phase

Part No.	Model No.	HP	Stages	Volt	A	B	Wt.
6630-182	24150S3	1 1/2	5	230	17.0"	16.2"	44
6630-189	24200S3	2	7	230	21.1"	16.2"	48
6630-196	24300S3	3	9	230	25.2"	21.4"	60
6630-203	24500S3	5	15	230	37.5"	26.9"	95

Three Wire Three Phase

Part No.	Model No.	HP	Stages	Volt	A	B	Wt.
6630-186	24150S3Z	1 1/2	5	230	17.0"	13.6"	38
6630-184	24150S3Y	1 1/2	5	460	17.0"	13.6"	38
6630-193	24200S3Z	2	7	230	21.1"	15.4"	44
6630-191	24200S3Y	2	7	460	21.1"	15.4"	44
6630-200	24300S3Z	3	9	230	25.2"	19.8"	51
6630-198	24300S3Y	3	9	460	25.2"	19.8"	51
6630-207	24500S3Z	5	15	230	37.5"	24.2"	74
6630-205	24500S3Y	5	15	460	37.5"	24.2"	73
6630-212	24750S3Z	7 1/2	22	230	53.0"	26.9"	97
6630-210	24750S3Y	7 1/2	22	460	53.0"	26.9"	95
6630-215	241000S3Y	10	29	460	67.2"	30.1"	106



4" Stainless Steel Pump Ends

Part No.	Model No.	HP	Wt.
6630-180	24150S	1 1/2	10
6630-188	24200S	2	12
6630-195	24300S	3	14
6630-202	24500S	5	20
6630-209	24750S	7 1/2	28
6630-214	241000S	10	35

** All three wire pumps are available in three phase by selecting pump end and appropriate motor and starter kit (see pages 121-136).

Output - in Gallons Per Minute (Depth to Water)

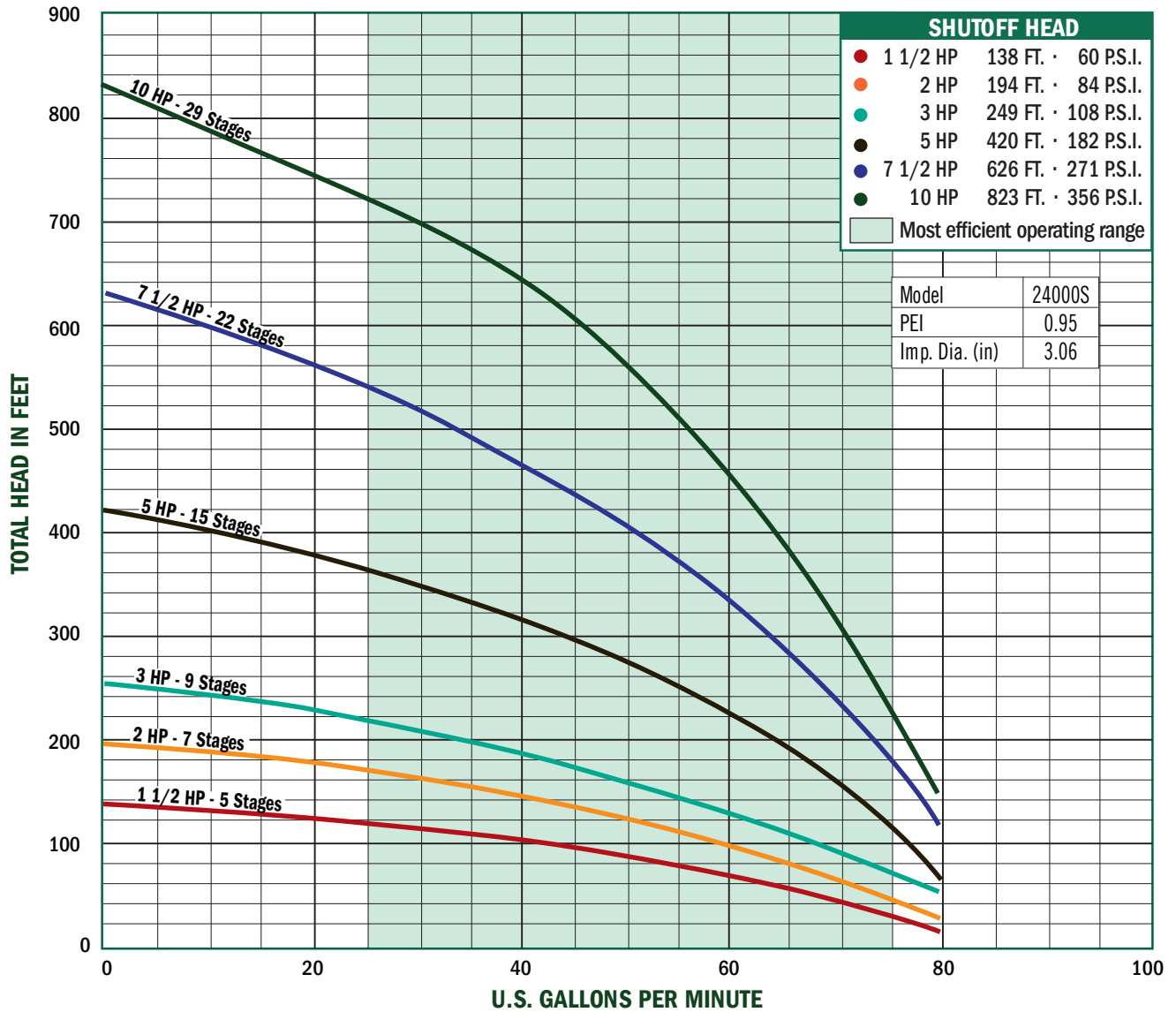
1 1/2 HP	PSI	20'	30'	40'	50'	60'	70'	80'	90'	100'	120'
0				72.5	67.5	65	60	52.5	45	42.5	2
30	47.5	42.5	32.5	20							
50											

2 HP	PSI	10'	20'	30'	40'	50'	60'	70'	80'	90'	100'	120'	140'	160'	180'
0					77.5	75	72.5	68	67	62.5	60	52	42.5	32	1
30			62	60	55	52	47	43	37	32	25				
50	48	45	38	35	27	23									

3 HP	PSI	20'	30'	40'	50'	60'	70'	80'	90'	100'	120'	140'	160'	180'	200'	240'
0						79	76	73	70	68	62.5	57	50	4		
30				66	62.5	60	57	53	50	46	38	24	17			
50	60	58	53	46	45	40	37	33	27	16						

FRICION LOSSES IN RISER PIPE
HAVE NOT BEEN CALCULATED

S - 55 GPM



Submersible Pumps

5 HP	PSI	40'	60'	80'	100'	120'	160'	180'	200'	220'	240'	260'	280'	300'	320'	340'	360'	380'
	0				77	75	70	67	65	61	58	53	49	44	38	33	26	1
30		74	72	68	66	58	55	51	47	41	36	29	22					
50	71	68	65	62	58	51	46	41	35	30	22							

7 1/2 HP	PSI	80'	100'	120'	140'	160'	180'	200'	220'	240'	260'	280'	300'	340'	380'	420'	460'	500'	540'
	0					77	75	74	72	70	68	66	64	58	54	47.5	40	33	25
30			74	72.5	71	69	67	65	63	60	57	55	47	42	35	27			
50	74	72	71	68	67	65	62	60	57	55	52	48	42	35					

10 HP	PSI	100'	120'	140'	160'	180'	200'	220'	240'	260'	280'	300'	340'	380'	420'	460'	500'	540'	580'	620'	660'	700'	740'
	0					78	77	76	75	74	73	72	69	67	63	59	55	52	47	41	35	30	20
30			77	76	75	74	72	71	70	67	66	62	60	57	53	47	43	37	31	23			
50	77	76	75	74	72	71	70	67	66	62	60	57	56	53	50	42	40	33					

FRICTION LOSSES IN RISER PIPE HAVE NOT BEEN CALCULATED

Q - 60 GPM

All Stainless Steel Submersible Pumps are designed to pump within the 60 gallons per minute (GPM) range. Sizes are available from 1 1/2 to 7 1/2 HP. All models are standard with 2" NPT discharge.

Two Wire Single Phase

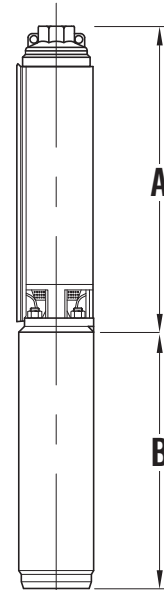
Part No.	Model No.	HP	Stages	Volt	A	B	Wt.
6630-128	24150Q2	1 1/2	4	230	14.9"	18.5"	40

Three Wire Single Phase

Part No.	Model No.	HP	Stages	Volt	A	B	Wt.
6630-129	24150Q3	1 1/2	4	230	14.9"	16.2"	44
6630-136	24200Q3	2	5	230	16.9"	16.2"	48
6630-143	24300Q3	3	7	230	21.0"	21.4"	60
6630-150	24500Q3	5	11	230	29.2"	26.9"	95

Three Wire Three Phase

Part No.	Model No.	HP	Stages	Volt	A	B	Wt.
6630-133	24150Q3Z	1 1/2	4	230	14.9"	13.6"	38
6630-131	24150Q3Y	1 1/2	4	460	14.9"	13.6"	38
6630-140	24200Q3Z	2	5	230	16.9"	15.4"	44
6630-138	24200Q3Y	2	5	460	16.9"	15.4"	44
6630-147	24300Q3Z	3	7	230	21.0"	19.8"	51
6630-145	24300Q3Y	3	7	460	21.0"	19.8"	51
6630-154	24500Q3Z	5	11	230	29.2"	24.2"	74
6630-152	24500Q3Y	5	11	460	29.2"	24.2"	73
6630-159	24750Q3Z	7 1/2	17	230	43.0"	26.9"	97
6630-157	24750Q3Y	7 1/2	17	460	43.0"	26.9"	95



4" Stainless Steel Pump Ends

Part No.	Model No.	HP	Wt.
6630-127	24150Q	1 1/2	9
6630-135	24200Q	2	10
6630-142	24300Q	3	12
6630-149	24500Q	5	16
6630-156	24750Q	7 1/2	23

** All three wire pumps are available in three phase by selecting pump end and appropriate motor and starter kit (see pages 121-136).

Output - in Gallons Per Minute (Depth to Water)

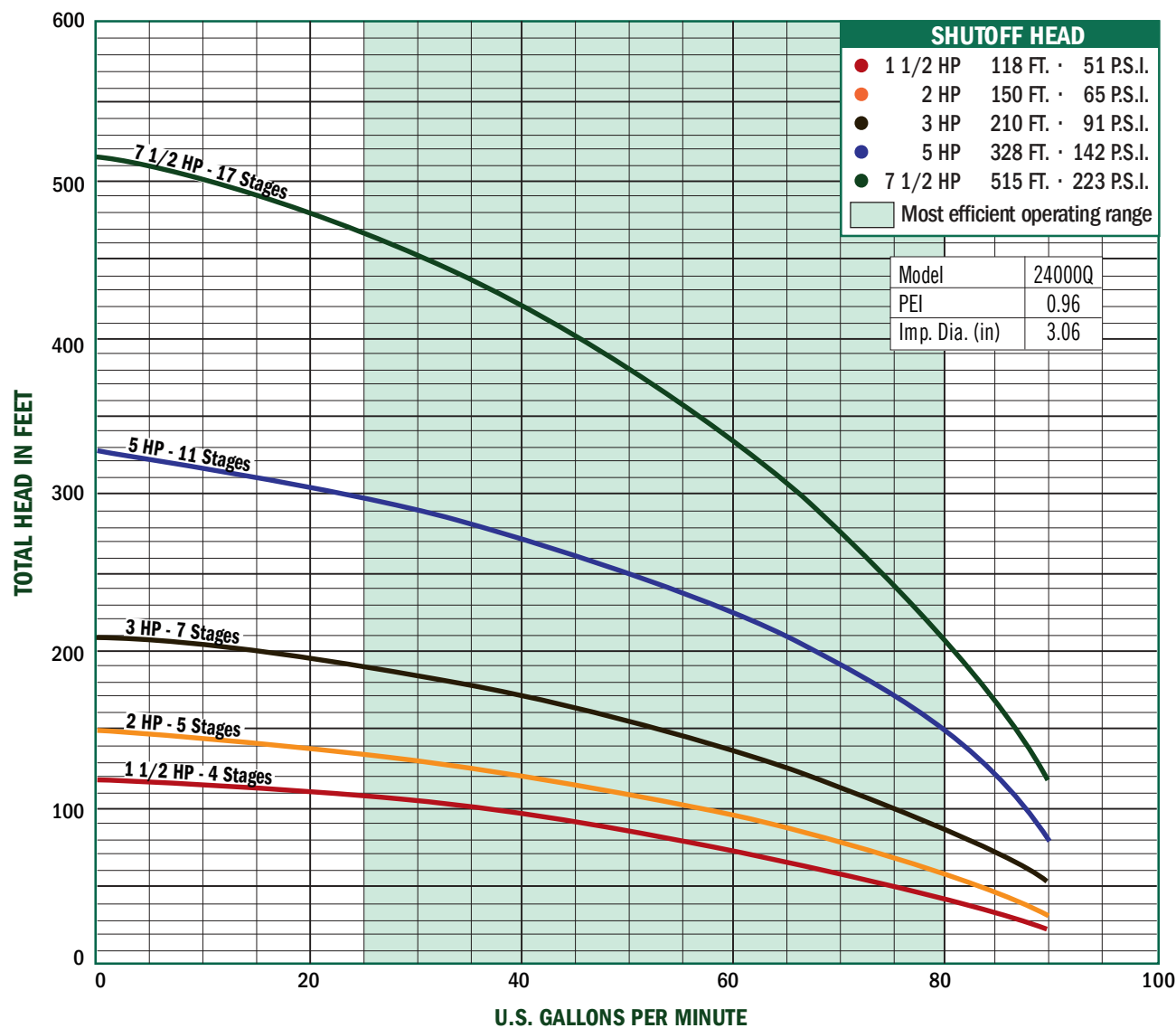
1 1/2 HP	PSI	10'	20'	30'	40'	50'	60'	70'	80'	90'	100'
	0			85	79	74	67	61	53	44	35
	30	53	44	35	18						
	50										

2 HP	PSI	10'	20'	30'	40'	50'	60'	70'	80'	90'	100'	120'
	0				84	82	78	73	67	62	5	
	30		62	55	47.5	39	28	15				
	50	37	22									

3 HP	PSI	30'	40'	50'	60'	70'	80'	90'	100'	120'	140'	160'	180'
	0					84	81	77	73	66	57	46	
	30			66	62	57	52	46	40				
	50	55	48	43	37	30							

FRICION LOSSES IN RISER PIPE
HAVE NOT BEEN CALCULATED

Q - 60 GPM



Submersible Pumps

5 HP	PSI	80'	100'	120'	140'	160'	180'	200'	220'	240'	260'	280'
	0					77	72.5	67	60	53	44	28.5
	30			69	66	62.5	50	40	28	16		
	50	69	62	55	47	38	26	15				

7 1/2 HP	PSI	120'	140'	160'	180'	200'	220'	240'	260'	280'	300'	340'	380'	420'
	0					80	78	75	72	69	66	6		
	30			75	73	70.5	67.5	64	60	56	52.5	42		
	50	76	73	69	67	63	57	55	50	46				

FRICITION LOSSES IN RISER PIPE
HAVE NOT BEEN CALCULATED

T - 80 GPM

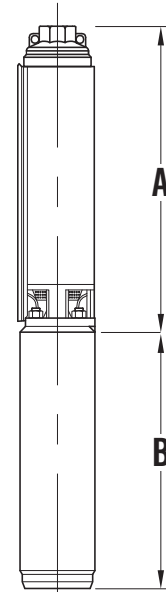
All Stainless Steel Submersible Pumps are designed to pump within the 80 gallons per minute (GPM) range. Sizes are available from 3 to 7 1/2 HP. All models are standard with 2" NPT discharge.

Three Wire Single Phase

Part No.	Model No.	HP	Stages	Volt	A	B	Wt.
6630-162	24300T3	3	5	230	18.6"	21.4"	58
6630-169	24500T3	5	9	230	29.3"	26.9"	92

Three Wire Three Phase

Part No.	Model No.	HP	Stages	Volt	A	B	Wt.
6630-166	24300T3Z	3	5	230	18.6"	19.8"	49
6630-164	24300T3Y	3	5	460	18.6"	19.8"	49
6630-173	24500T3Z	5	9	230	29.3"	24.2"	71
6630-171	24500T3Y	5	9	460	29.3"	24.2"	69
6630-178	24750T3Z	7 1/2	14	230	42.6"	26.9"	93
6630-176	24750T3Y	7 1/2	14	460	42.6"	26.9"	91



Submersible Pumps

4" Stainless Steel Pump Ends

Part No.	Model No.	HP	Wt.
6630-161	24300T	3	10
6630-168	24500T	5	16
6630-175	24750T	7 1/2	22

** All three wire pumps are available in three phase by selecting pump end and appropriate motor and starter kit (see pages 121-136).

Output - in Gallons Per Minute (Depth to Water)

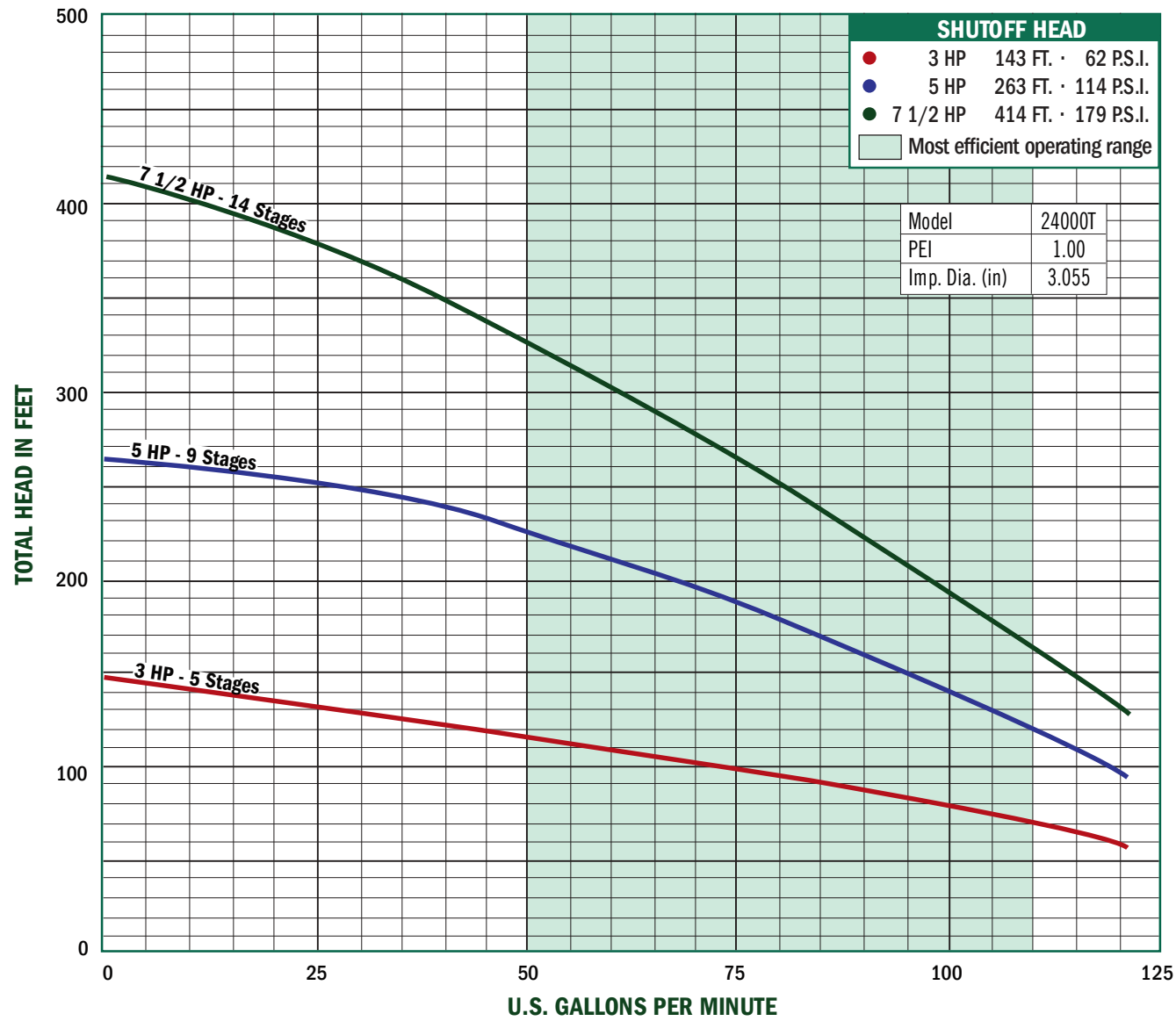
3 HP	PSI	60'	70'	80'	90'	100'	120'
	0			100	85	73	4
	30	100	58				
	50						

5 HP	PSI	60'	80'	100'	120'	140'	160'	180'	200'	220'	240'
	0					95	83	72	59	45	27
	30			76	65	51	35	20			
	50	75	62	50	32	15					

7 1/2 HP	PSI	120'	140'	160'	180'	200'	220'	240'	260'	280'	300'	320'	340'	360'	380'
	0					96	90	83	75	68	60	52	43	34	25
	30			86	80	72.5	65	56	47	39	27				
	50	80	77	70	63	55	45	36	25						

FRICION LOSSES IN RISER PIPE
HAVE NOT BEEN CALCULATED

T - 80 GPM



Submersible Pumps