

GENERATION V STAINLESS STEEL Features



Discharge - 300 Series Stainless Steel, Corrosion resistant, easy wrench design, built in safety eye, threads onto shell



Discharge Bearing - Rubber surrounding stainless steel provides superior wear resistance against the harshest conditions. Self lubricating for long life.



Cartridge - One piece replacement design simplifies field service.

Cable Guard - Stainless steel protects motor leads. Angled top helps keep leads out of the way when lowering and raising.



Polycarbonate Diffuser - Durable corrosion/abrasion resistant material. Enclosed stack with our exclusive "flo-thru" design for maximum sand handling without compromising performance.



Impeller - Acetal plastic composite. This slippery and flexible material is precision engineered for maximum performance..



Shaft - 7/16" 300 Series stainless steel, hex design for positive impeller drive. Each shaft individually measured for straightness with strict tolerances.

Heavy Stainless Steel Shell - Threaded at both ends for easy field service

Motor Bracket - Stainless Steel

- Each pump carries the NRTL (Nationally Recognized Testing Laboratory) and CSA listing.
- Once assembled, each pump is individually tested to assure performance within design specifications.
- Each pump is stamped with the tester's "signature" marking to assure quality control.

Submersible Pumps 23000 Series

How to Order 4" Submersible Pumps

Order by Model Number. Example: 23050K3A

23

Pump Model
4" Submersible
Stainless Steel
Pumps are **Model 23**

050

Horsepower
050 - 1/2 HP
075 - 3/4 HP
100 - 1 HP
150 - 1 1/2 HP
200 - 2 HP
300 - 3 HP
500 - 5 HP

K

Series
J Series - 5 GPM
V Series - 7 GPM
K Series - 10 GPM
L Series - 13 GPM
P Series - 18 GPM
M Series - 25 GPM

3

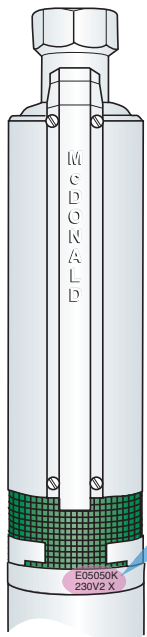
Wires
2 wire or
3 wire

A

Other
Leave blank for 230V
60 HZ, 1 Phase (Std.)
A - 115V 1 Phase
C - 200V 3 Phase
Z - 230V 3 Phase
Q - 380V 3 Phase
Y - 460V 3 Phase
M - 575V 3 Phase
E - 220V 50HZ 1 Phase
F - 220V 50HZ 3 Phase
H - 380V 50HZ 3 Phase
N - 415V 50HZ 3 Phase

NOTES

- Standard is 230V, 1 Phase, 60 HZ (no suffix letter required)
- 3-Wire single phase models include pump, motor, 48" leads, control box and check valve.
- 2-Wire single phase models include pump, motor, 48" leads and check valves.
- 3-Wire three phase models include pump, motor, 48" leads, magnetic starter, heaters and check valve.
- All submersible pumps include **grounded leads**.
- All one-third horsepower pumps are furnished with one-half horsepower motors (and control boxes where applicable).



Model 23050K3A is a
1/2 HP, 3 wire, 115 volt, single phase stainless steel
4" submersible pump, designed to pump in the 10 GPM range.

EXAMPLE

Date Code	Motor HP	Pump Series
E05050K		
230V2	X	
Voltage	No. of Power Leads	Assembler's Code

Locating the code number on the pump

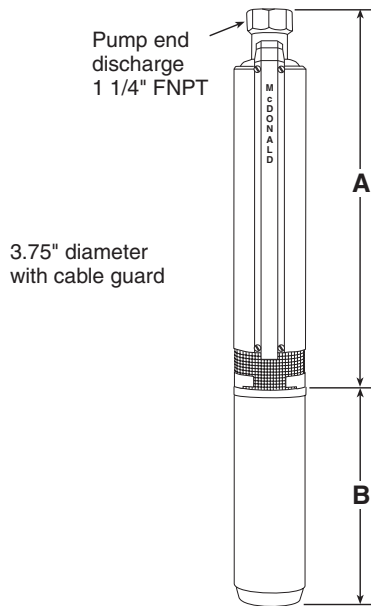
A code is stamped on each A.Y. McDonald submersible pump. Contained in this code is the following information:

- Date of manufacture
- Motor HP
- Pump Series
- Voltage
- Number of power leads
- Assembler's code

Submersible Pumps 23000 Series

5 GPM • J Series

- Sizes from 1/2 to 1½ HP
- 2 or 3 wire models up to 1½ HP



MODELS AVAILABLE*						
2 Wire Single Phase						
MODEL NO.	HP	STAGES	VOLT	A	B	WT
23050J2	1/2	15	230	17.96"	9.53"	32
23075J2	3/4	20	230	23.19"	10.66"	38
23100J2	1	25	230	27.09"	11.75"	43
3 Wire** Single Phase						
MODEL NO.	HP	STAGES	VOLT	A	B	WT
23050J3	1/2	15	230	17.96"	9.53"	32
23075J3	3/4	20	230	23.19"	10.66"	38
23100J3	1	25	230	27.09"	11.75"	43

*1½ horsepower pumps are available by special order in 2 or 3 wire, single phase and 3 wire, three phase.
**All 3 wire pumps require Quick disconnect control box. See page N-36 for control boxes.

DESCRIPTION	HP	MODEL NO.	PRODUCT NUMBER
2 Wire Single Phase	1/2	23050J2	85198
	3/4	23075J2	85198 1
	1	23100J2	85201 6
3 Wire Single Phase	1/2	23050J3	85197
	3/4	23075J3	85198 2
	1	23100J3	85201 7

OUTPUT IN GALLONS PER MINUTE

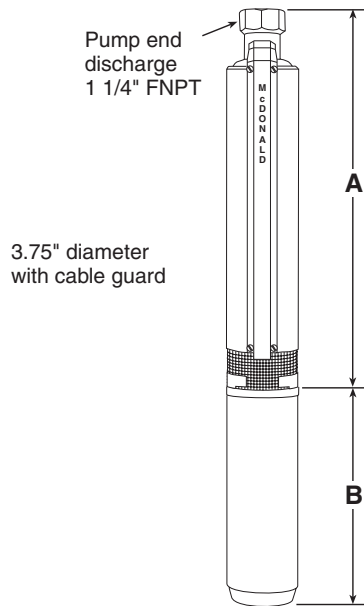
		DEPTH TO WATER																			
		PSI	25'	50'	75'	100'	125'	150'	175'	200'	225'	250'	275'	300'	325'	350'	375'	400'	425'	450'	475'
1/2 HP	0	9.2	8.7	8.2	7.8	7.3	6.8	6.9	5.8	5.3	4.8	4.3	3.7	2.5							
	30	7.9	7.4	6.9	6.4	6.0	5.5	4.9	4.3	3.7	2.9										
	50	7.0	6.5	6.0	5.5	5.0	4.4	3.8	2.9	1.3											
3/4 HP	0	9.3	9.0	8.7	8.2	7.8	7.4	7.1	6.8	6.4	6.1	5.7	5.4	5.0	4.6	4.1	3.6	3.1	2.4	1.7	
	30	8.4	7.9	7.5	7.1	6.8	6.5	6.2	5.8	5.6	5.1	4.7	4.2	3.8	3.2	2.5	1.8				
	50	7.7	7.3	6.9	6.5	6.2	5.9	5.5	5.2	4.8	4.3	3.8	3.3	2.7	1.9						
1 HP	0	9.4	9.1	8.8	8.5	8.3	7.9	7.7	7.3	7.0	6.7	6.4	6.1	5.8	5.5	5.1	4.8	4.4	4.0	3.7	
	30	8.6	8.3	8.0	7.7	7.5	7.1	6.7	6.4	6.2	5.9	5.5	5.2	4.9	4.5	4.1	3.7	3.4	2.9	2.4	
	50	8.1	7.8	7.4	7.1	6.8	6.5	6.2	5.9	5.6	5.3	4.9	4.5	4.2	3.8	3.4	2.9	2.4	2.2		
1½ HP	0	9.3	8.8	8.3	7.9	7.5	7.1	6.7	6.3	5.8	5.3	4.8	4.2	3.6	2.9	1.9					
	30	8.6	8.2	7.8	7.3	6.9	6.5	6.0	5.6	5.1	4.6	4.0	3.3	2.6	1.4						
	50	8.2	7.8	7.3	7.0	6.6	6.1	5.7	5.2	4.6	4.0	3.3	2.6	1.8							

FRICITION LOSSES IN RISER PIPE HAVE NOT BEEN CALCULATED

Submersible Pumps 23000 Series

7 GPM • V Series

- Sizes from 1/2 to 2 HP
- 2 wire models up to 1 1/2 HP
- 3 wire models up to 2 HP



MODELS AVAILABLE*						
2 Wire Single Phase						
MODEL NO.	HP	STAGES	VOLT	A	B	WT
23050V2	1/2	12	230	14.83"	9.53"	28
23075V2	3/4	15	230	17.96"	10.66"	32
23100V2	1	18	230	20.27"	11.75"	36
3 Wire** Single Phase						
MODEL NO.	HP	STAGES	VOLT	A	B	WT
23050V3	1/2	12	230	14.83"	9.53"	28
23075V3	3/4	15	230	17.96"	10.66"	32
23100V3	1	18	230	20.27"	11.75"	37

*1 1/2 and 2 horsepower pumps are available by special order in 2 or 3 wire, single phase and 3 wire, three phase.
**All 3 wire pumps require Quick disconnect control box. See page N-36 for control boxes.

DESCRIPTION	HP	MODEL NO.	PRODUCT NUMBER
2 Wire Single Phase	1/2	23050V2	85201
	3/4	23075V2	85201 1
	1	23100V2	85202
3 Wire Single Phase	1/2	23050V3	85200 1
	3/4	23075V3	85200
	1	23100V3	85202 2

OUTPUT IN GALLONS PER MINUTE

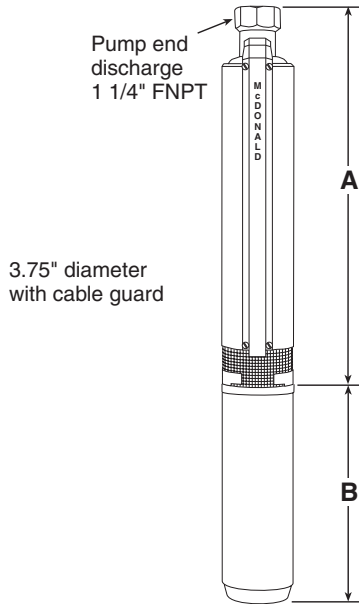
	DEPTH TO WATER																			
	PSI	25'	50'	75'	100'	125'	150'	175'	200'	225'	250'	275'	300'	325'	350'	375'				
1/2 HP	0	12.7	12.2	11.5	11.0	10.0	9.3	8.5	7.5	6.0	5.2	3.2								
	30	11.1	10.2	9.4	8.6	7.7	6.1	5.3	3.5	2.0	2.9									
	50	9.7	8.7	7.7	6.2	5.3	3.8	2.1	2.9	1.3										
3/4 HP	0	12.8	12.3	12.0	11.5	11.0	10.5	10.0	9.3	8.5	7.7	7.0	6.0	5.1	4.2	2.5				
	30	11.7	11.2	10.7	10.2	9.4	8.7	7.8	7.1	6.1	4.7	3.8	3.0	2.0	2.5					
	50	10.8	10.3	9.6	8.8	7.9	7.3	6.2	4.8	3.9	2.9	2.1	2.7	1.9						
1 HP	0	13.0	12.7	12.3	12.0	11.5	11.3	11.0	10.5	9.8	9.5	9.0	8.5	7.7	7.0	6.5	5.5	4.5	4.0	2.2
	30	12.2	11.7	11.5	11.2	10.7	10.0	9.7	9.2	8.7	7.8	7.2	6.7	5.7	4.6	4.1	3.3	1.9	2.9	2.4
	50	11.7	11.3	10.8	10.1	9.8	9.3	8.8	7.9	7.3	6.8	5.7	4.8	4.3	3.4	2.0	2.9	2.4	2.2	
1 1/2 HP	0	13.2	12.3	11.7	11.3	10.7	10.0	9.3	8.5	7.5	6.7	5.5	4.2	3.2						
	30	12.2	11.5	11.2	10.5	9.8	9.2	8.3	7.3	6.5	5.3	3.9	3.0							
	50	11.5	11.2	10.5	9.8	9.2	8.3	7.3	6.5	5.3	4.0	1.1	2.6	1.8						
2 HP	0	13.3	12.7	12.2	11.8	11.3	10.7	10.2	9.5	8.8	8.2	7.3	6.5	5.8	5.0	4.0	3.0			
	30	12.5	12.0	11.7	11.2	10.5	10.0	9.3	8.7	8.0	7.2	6.3	5.7	4.8	3.8	2.8				
	50	12.0	11.7	11.2	10.5	10.0	9.3	8.7	8.0	7.2	6.3	5.7	4.8	3.7	2.4					

FRICITION LOSSES IN RISER PIPE HAVE NOT BEEN CALCULATED

Submersible Pumps 23000 Series

10 GPM • K Series

- Sizes from 1/2 to 5 HP
- 2 wire models up to 1½ HP
- 3 wire models up to 5 HP



MODELS AVAILABLE						
2 Wire Single Phase						
MODEL NO.	HP	STAGES	VOLT	A	B	WT
23050K2	½	9	230	13.24"	9.53"	27
23075K2	¾	12	230	15.61"	10.66"	31
23100K2	1	15	230	17.96"	11.75"	35
3 Wire** Single Phase						
MODEL NO.	HP	STAGES	VOLT	A	B	WT
23050K3	½	9	230	13.24"	9.53"	28
23075K3	¾	12	230	15.61"	10.66"	31
23100K3	1	15	230	17.96"	11.75"	36

*1½ through 5 horsepower pumps are available by special order in 2 or 3 wire, single phase and 3 wire, three phase.
**All 3 wire pumps require Quick Disconnect control box. See page N-36 for control boxes.

DESCRIPTION	HP	MODEL NO.	PRODUCT NUMBER
2 Wire Single Phase	½	23050K2	85201 2
	¾	23075K2	85201 3
	1	23100K2	85202 1
3 Wire Single Phase	½	23050K3	85200 2
	¾	23075K3	85200 3
	1	23100K3	85202 3

OUTPUT IN GALLONS PER MINUTE

	DEPTH TO WATER																	
	PSI	25'	50'	75'	100'	125'	150'	175'	200'	225'	250'	275'	300'	325'	350'	375'	400'	425'
1/2 HP	0	16.6	15.8	14.4	13.2	12.0	10.6	9.0	7.4	5.0								
	30	11.2	9.8	8.0	6.0	4.0	6.1	5.3	3.5	2.0								
	50	9.7	8.7	7.7	6.2	5.3	3.8	2.1	2.9	1.3								
3/4 HP	0	16.8	16.0	15.0	14.2	13.3	12.7	11.7	10.6	9.3	8.2	6.8	5.4	3.4				
	30	14.6	13.6	12.6	11.8	11.0	9.8	8.4	7.0	6.0	4.0		3.0	2.0				
	50	12.8	12.0	11.0	9.8	8.6	7.4	6.0	4.2	2.0	2.9	2.1						
1 HP	0	17.0	16.3	15.7	14.9	14.3	13.7	12.9	12.1	11.3	10.7	9.8	8.9	7.9	7.0	5.4	4.0	2.0
	30	15.2	14.4	13.7	13.0	12.4	11.6	10.8	10.0	9.3	8.0	7.0	5.6	4.6	2.0	4.1	3.3	1.9
	50	13.9	13.2	12.4	11.6	11.0	10.2	9.2	8.2	7.2	6.1	4.6	2.8	4.3	3.4	2.0	2.9	2.4
1½ HP	0	16.6	15.8	14.8	13.8	12.6	11.6	10.2	8.8	7.2	5.6	3.2						
	30	15.2	14.4	13.4	12.2	11.0	9.8	8.4	6.6	4.8	2.0	3.9						
	50	14.4	13.5	12.4	11.2	9.9	8.4	6.9	4.9	2.0	4.0	1.1						
2 HP	0	16.8	16.0	15.2	14.4	13.6	12.8	11.9	11.0	10.0	9.2	8.0	6.8	5.4	3.6			
	30	15.6	14.8	14.0	13.2	12.4	11.6	10.6	9.8	8.8	7.6	6.4	4.7	2.7	3.8			
	50	14.8	14.1	13.1	12.5	12.0	10.8	9.8	8.8	7.7	6.4	4.8	2.8	3.7	2.4			
3 HP	0	16.9	16.2	15.4	14.8	14.3	13.6	13.0	12.4	11.6	11.0	10.2	9.4	8.6	7.8	6.8	5.6	4.0
	30	15.8	15.2	14.6	14.0	13.4	12.8	12.0	11.4	10.6	9.9	9.0	8.4	7.4	6.4	5.2	3.6	
	50	15.4	14.7	14.0	13.5	12.8	12.1	11.4	10.7	10.0	9.2	8.4	7.5	6.5	5.3	3.7		
5 HP	0	16.0	15.6	15.2	14.8	14.4	14.0	13.6	13.2	12.7	12.2	11.6	11.2	10.6	10.0	9.6	9.0	7.6
	30	15.6	15.2	14.8	14.2	13.8	13.4	12.9	12.4	12.0	11.5	11.1	10.5	9.9	9.3	8.9	8.0	6.5
	50	15.2	14.8	14.2	13.9	13.5	12.9	12.4	12.0	11.5	11.0	10.5	10.0	9.3	8.8	8.2	6.6	4.5

FRICITION LOSSES IN RISER PIPE HAVE NOT BEEN CALCULATED

Submersible Pumps 23000 Series

Single Phase Control Boxes



Quick Disconnect (QD)

For use with 3 wire single phase submersible motors 1/8 through 1 HP

HP	KW	Volts	HZ	Franklin Model No.	A.Y. McDonald Model No.
1/8	.25	115	60	280 102 49	6618-116
1/8	.25	230	60	280 102 49	6618-117
1/4	.37	115	60	280 104 49	6618-118
1/4	.37	230	60	280 105 49	6618-119
3/4	.55	230	60	280 107 49	6618-110
1	.75	230	60	280 108 49	6618-111

Capacitor Start/Capacitor Run CRC Control Boxes

HP	Volts	HZ	Franklin Model No.	A.Y. McDonald Model No.
1/2	230	60	282 405 50	6617-116
3/4	230	60	282 407 50	6617-117
1	230	60	282 408 50	6617-118



Standard Integral HP

For use with single phase submersible motors 1 1/2 through 3 HP

HP	KW	Volts	HZ	Franklin Model No.	A.Y. McDonald Model No.
1 1/2	1.1	230	60	282 300 81	6617-112
2	1.5	230	60	282 301 81	6617-113
3	2.2	230	60	282 302 81	6617-114
5	3.7	230	60	282 113 81	6617-133

DESCRIPTION	HP	MODEL NO.	PRODUCT NUMBER
Quick Disconnect Control Box	1/2	6618-119	85207
	3/4	6618-110	85207 1
	1	6618-111	85207 2
Standard Integral Control Box	1 1/2	6617-112	NS
	2	6617-113	NS
	3	6617-114	NS
	5	6617-133	NS



Pumptec - with remote reading

For use with 4" single phase submersible motors 1/8 through 1 1/2 HP.

Protects against: • Low yield wells • Low voltage • Air or gas locked pump • Drop in water level • Clogged well screen • Broken shaft or coupling • Worn pump parts

HP	Volts	HZ	Franklin Model No.	A.Y. McDonald Model No.
1/8-1 1/2	115/230	60	580 002 0600	6617-425



Pumptec	MODEL NO.	PRODUCT NUMBER
	6617-425	85207 5