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Submersible Sewage Pump

Model DWU/DWXU
Dominator





Technical Specification

EBARA

EBARA Pumps Americas Corporation

Contents

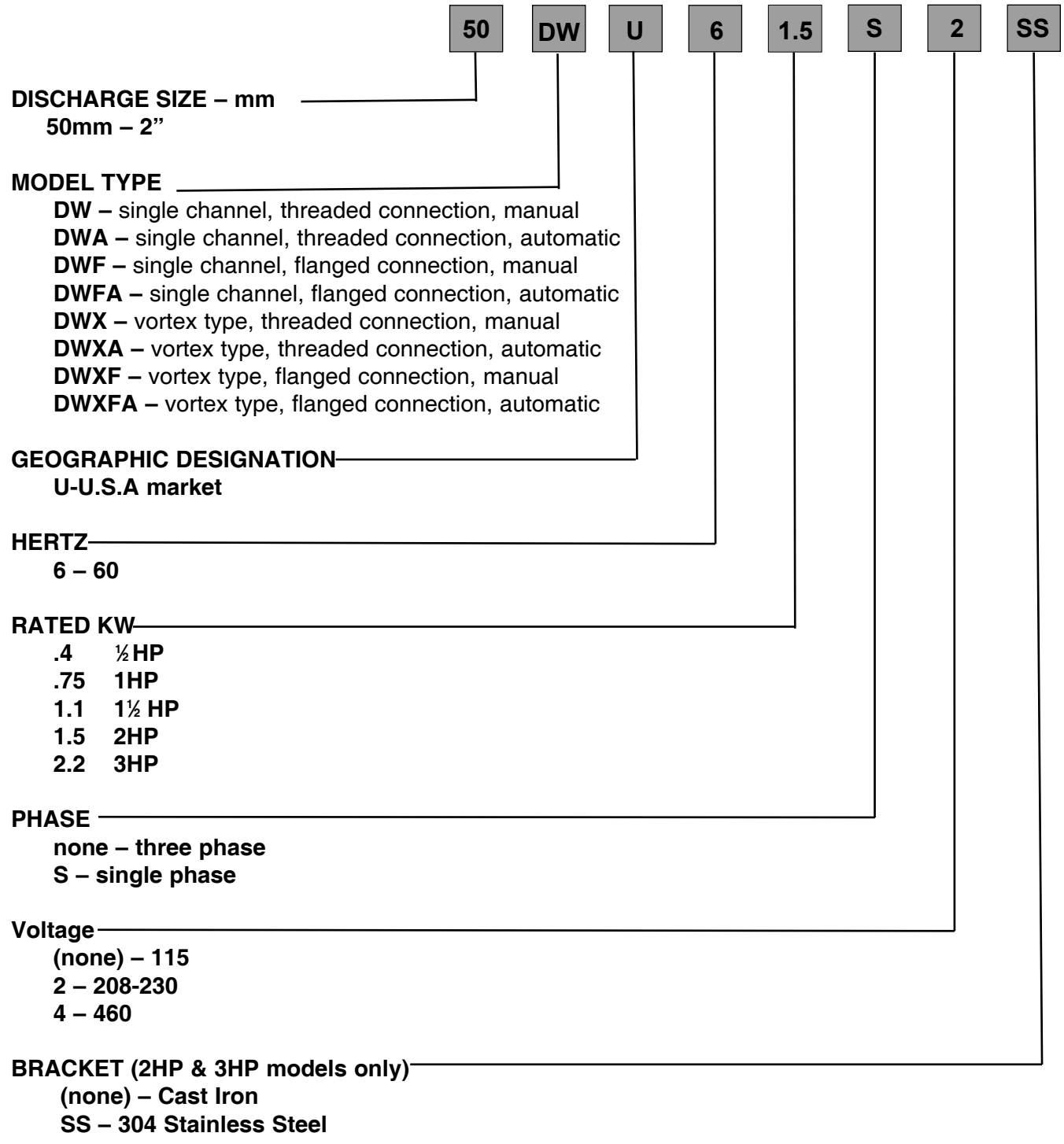
Model No.	Specifications	Selection Chart	Performance Curve	Dimensions		Sectional View
				Pump	Motor Data	
50DWU6.4S	1-129	1-130	1-132	1-138	1-148 – 1-158	1-146
50DWU6.75S						
50DWU6.4S2						
50DWU6.75S2						
50DWU61.1S2			1-133			
50DWU61.5S2						
50DWU6.4			1-132			
50DWU6.75						
50DWU61.1			1-133			
50DWU61.5						
50DWU62.2			1-134			
50DWFU6.4S	1-129	1-130	1-132	1-139	1-148 – 1-158	1-146
50DWFU6.75S						
50DWFU6.4S2						
50DWFU6.75S2						
50DWFU61.1S2			1-133			
50DWFU61.5S2						
50DWFU6.4			1-132			
50DWFU6.75						
50DWFU61.1			1-133			
50DWFU61.5						
50DWFU62.2			1-134			
50DWXU6.4S	1-129	1-131	1-135	1-140	1-148 – 1-158	1-146
50DWXU6.75S						
50DWXU6.4S2						
50DWXU6.75S2						
50DWXU61.1S2			1-136			
50DWXU61.5S2						
50DWXU6.4			1-135			
50DWXU6.75						
50DWXU61.1			1-136			
50DWXU61.5						
50DWXU62.2			1-137			
50DWXFU6.4S	1-129	1-131	1-135	1-141	1-148 – 1-158	1-1476
50DWXFU6.75S						
50DWXFU6.4S2						
50DWXFU6.75S2						
50DWXFU61.1S2			1-136			
50DWXFU61.5S2						
50DWXFU6.4			1-135			
50DWXFU6.75						
50DWXFU61.1			1-136			
50DWXFU61.5						
50DWXFU62.2			1-137			

Contents (continued)

Model No.	Specifications	Selection Chart	Performance Curve	Dimensions		Sectional View
				Pump	Motor Data	
50DWAU6.4S	1-129	1-130	1-132	1-142	1-148 – 1-158	1-146
50DWAU6.758						
50DWAU6.4S2						
50DWAU6.75S2						
50DWAU61.1S2			1-133			
50DWFAU6.4S	1-129	1-130	1-132	1-143	1-148 – 1-158	1-146
50DWFAU6.75S						
50DWFAU6.4S2						
50DWFAU6.75S2						
50DWFAU61.1S2			1-133			
50DWXAU6.4S	1-129	1-131	1-135	1-142	1-148 – 1-158	1-146
50DWXAU6.75S						
50DWXAU6.4S2						
50DWXAU6.75S2						
50DWXAU61.1S2			1-136			
50DWXFAU6.4S	1-128	1-131	1-135	1-143	1-148 – 1-158	1-146
50DWXFAU6.75S						
50DWXFAU6.4S2						
50DWXFAU6.75S2						
50DWXFAU61.1S2			1-136			

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Model Designation



***Note:** The model DW(A)(F)U, DWX(A)(F)U is listed by the Canadian Standards Association (CSA) as certified (3HP excluded).

Specifications

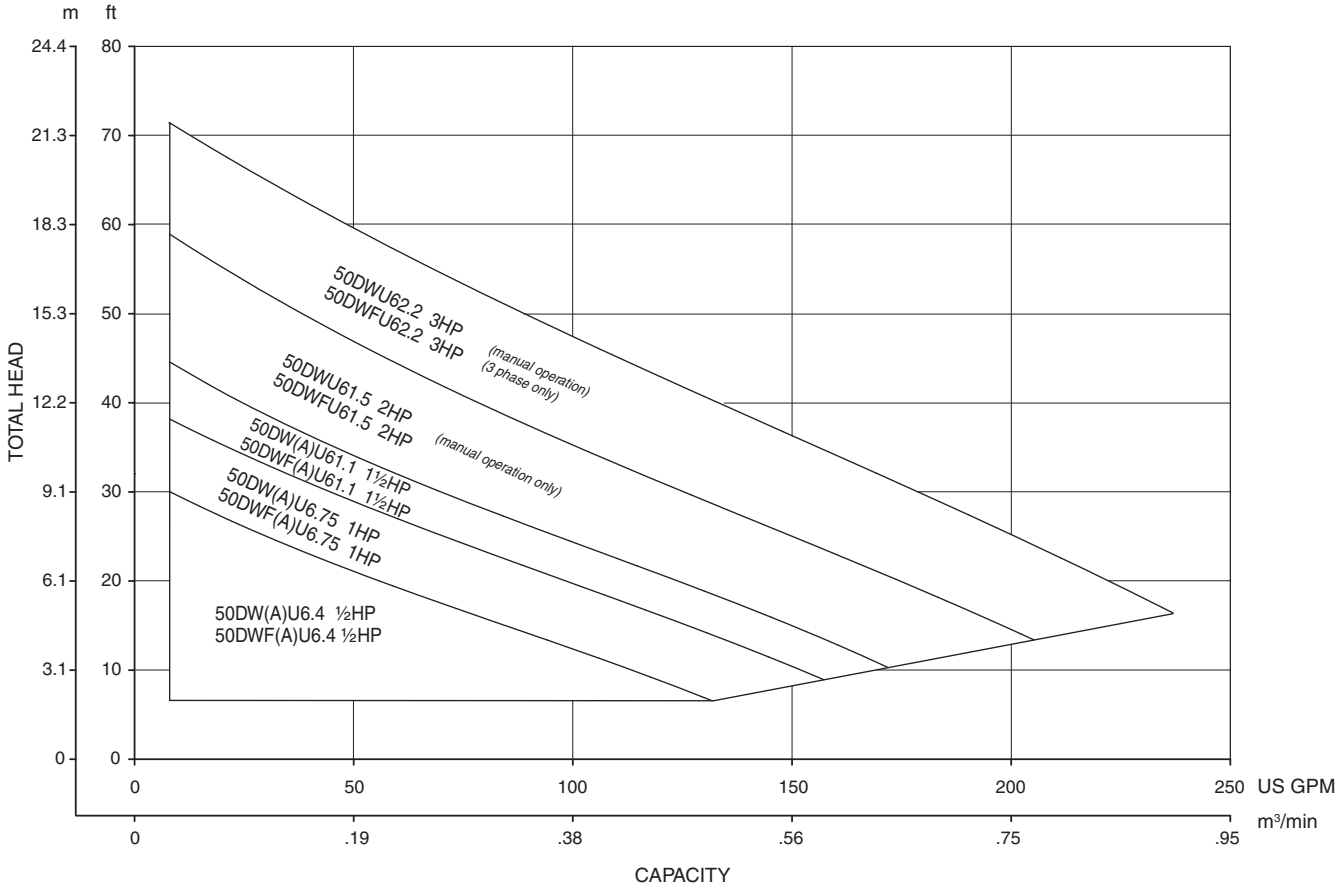
	Manual	Automatic
Discharge size/Connection	2" NPT or 2" ANSI Flanged	
Range of HP	½ HP to 3 HP	½HP to 1½HP
Range of Performance	Capacity 12 to 238 GPM Head 4 to 74 feet	Capacity 12 to 169 GPM Head 4 to 48 feet
Limitation Maximum Water Temperature	104°F (40°C)	
Synchronous Speed	3600 RPM	
Materials Casing Impeller Shaft Motor Frame Fastener **Bracket** ½HP, 1HP, 1 ½HP 2HP & 3HP	 304L Stainless Steel 304L Stainless Steel 304L Stainless Steel 304L Stainless Steel 304L Stainless Steel 304L Stainless Steel Standard Cast Iron 304L Stainless Steel	
Mechanical Seal Material – Upper Side Material – Lower Side Impeller Type Bearing Motor Single Phase Three Phase Motor Protection	Double Mechanical Seal Carbon/Ceramic/NBR Silicon Carbide/Silicon Carbide/FPM Single Channel/Vortex Sealed Ball Bearing Air-filled, Insulation Class F 115 V (½, 1HP), 208/230V 208V, 230V, 460V Built-in Overload Protection (Single phase models) Submersible Cable 25 ft. *Consult factory for additional cable lengths.*	 115V (½, - 1HP) 208/230V (½, -1½HP)
Accessories	QDC System	

Note: 2HP, 1-phase and 3HP, 3-phase units have a cast iron intermediate bracket. The Model DW(A)(F)U, DWX(A)(F)U is listed by the Canadian Standards Association (CSA) as a certified (3HP excluded).

Selection Chart

Model DW(A)U
DWF(A)U

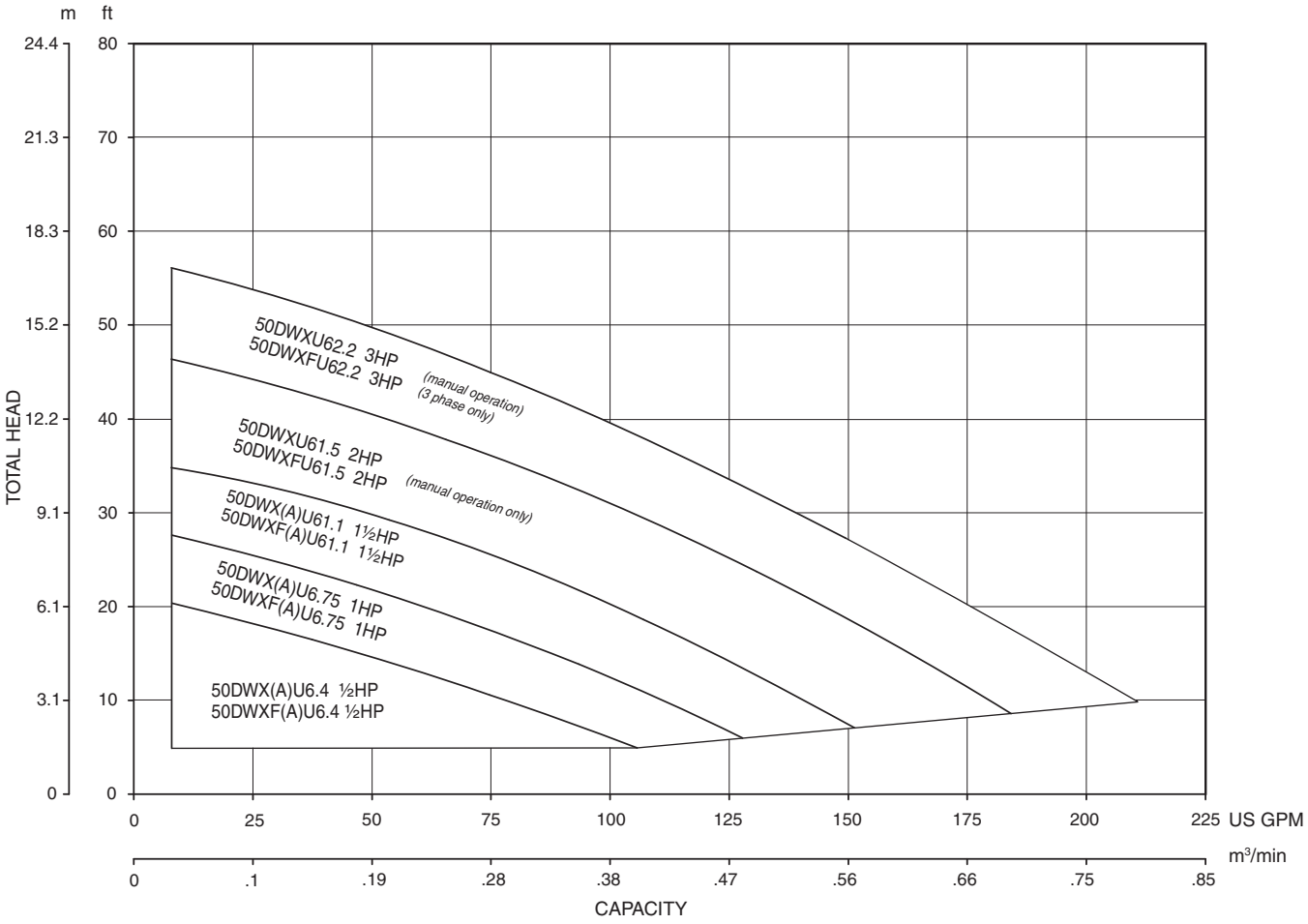
Single Channel Impeller



Selection Chart

Model DWX(A)U
DWXF(A)U

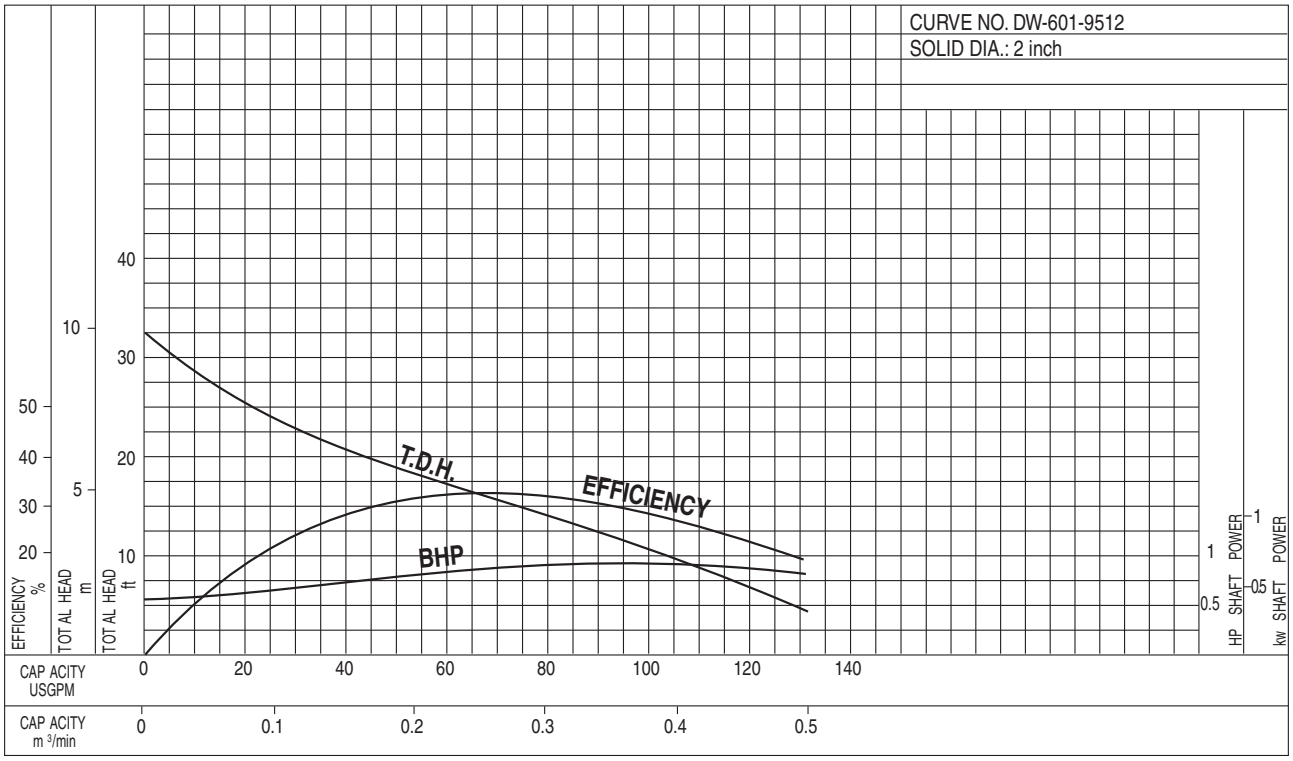
Vortex Impeller



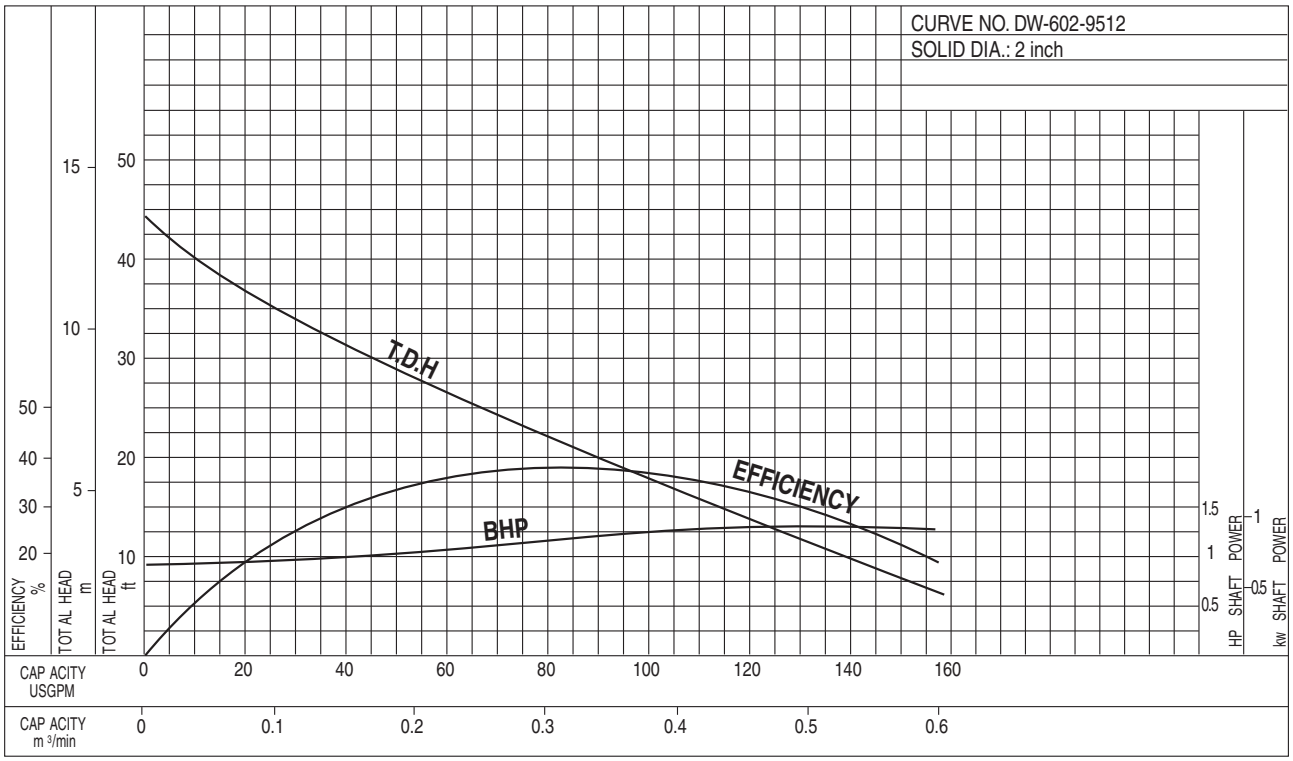
Performance Curves

Project: GPM: TDH: EFF: HP: Chk'd: Date:

50DW6.4 (½HP) Synchronous Speed: 3600 RPM — 2 inch Discharge



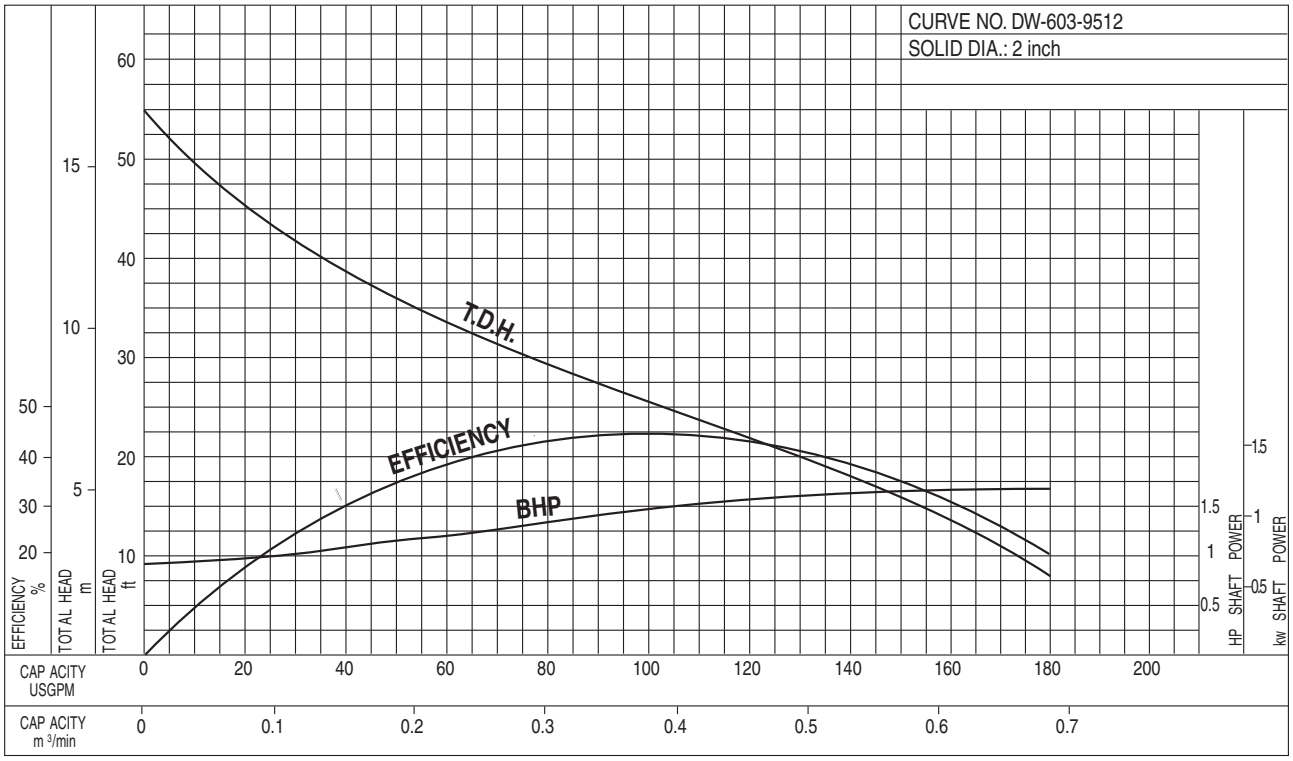
50DW6.75 (1HP) Synchronous Speed: 3600 RPM — 2 inch Discharge



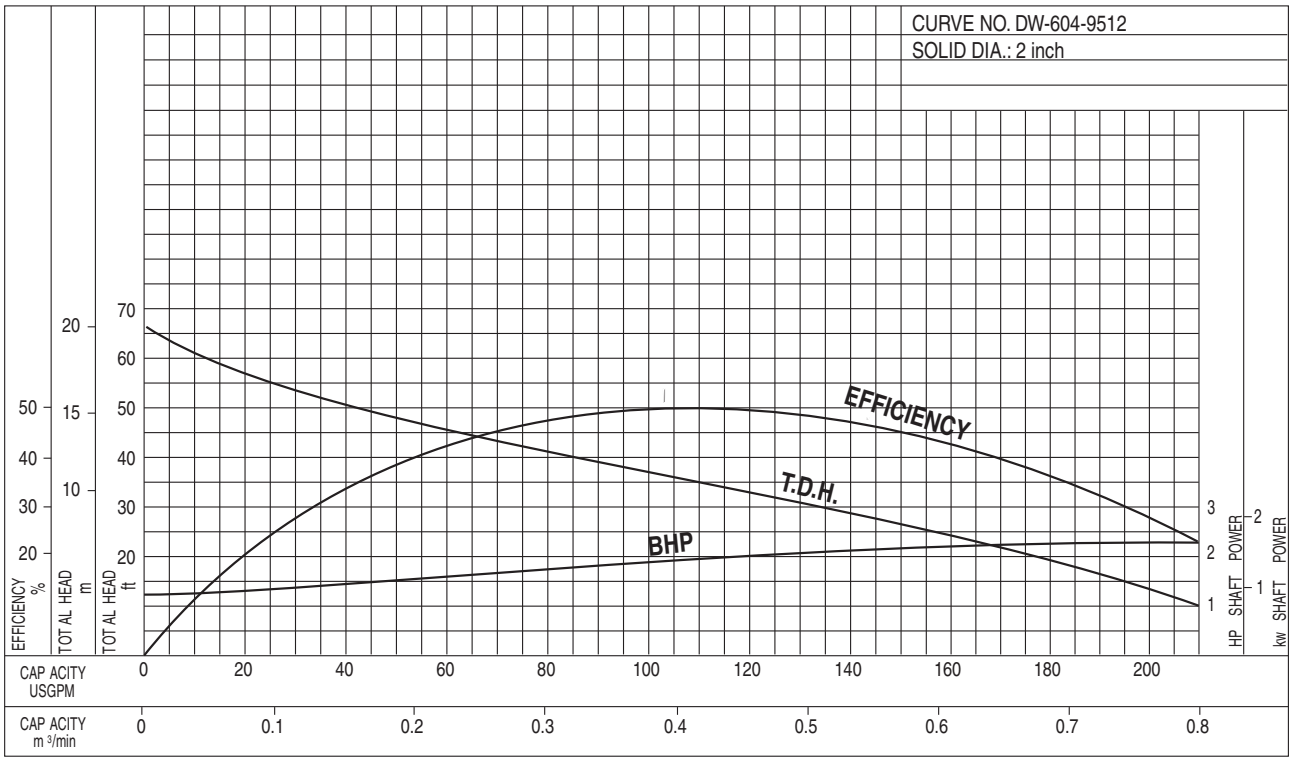
Performance Curves

Project: GPM: TDH: EFF: HP: Chk'd: Date:

50DW61.1 (1½HP) Synchronous Speed: 3600 RPM — 2 inch Discharge



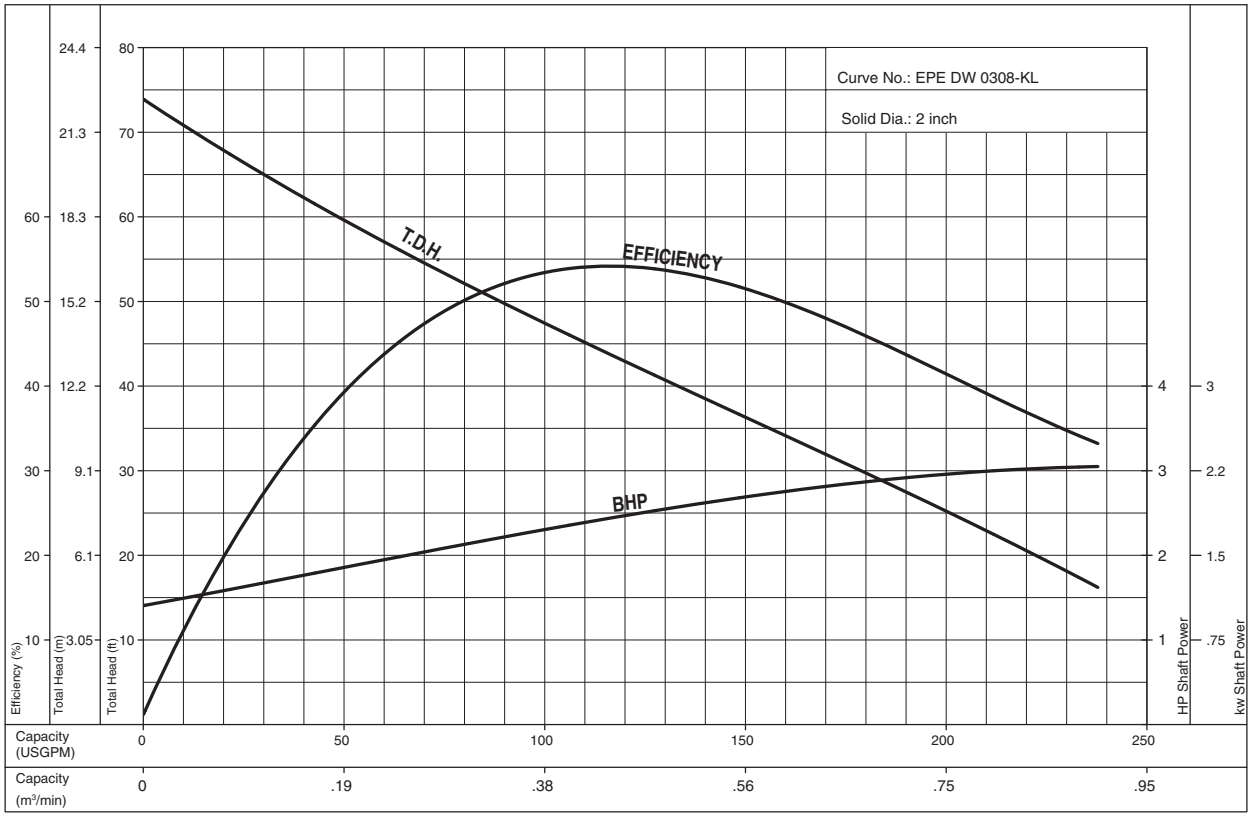
50DW61.5 (2HP) Synchronous Speed: 3600 RPM — 2 inch Discharge



Performance Curves

Project: Model: Chk'd: Date:

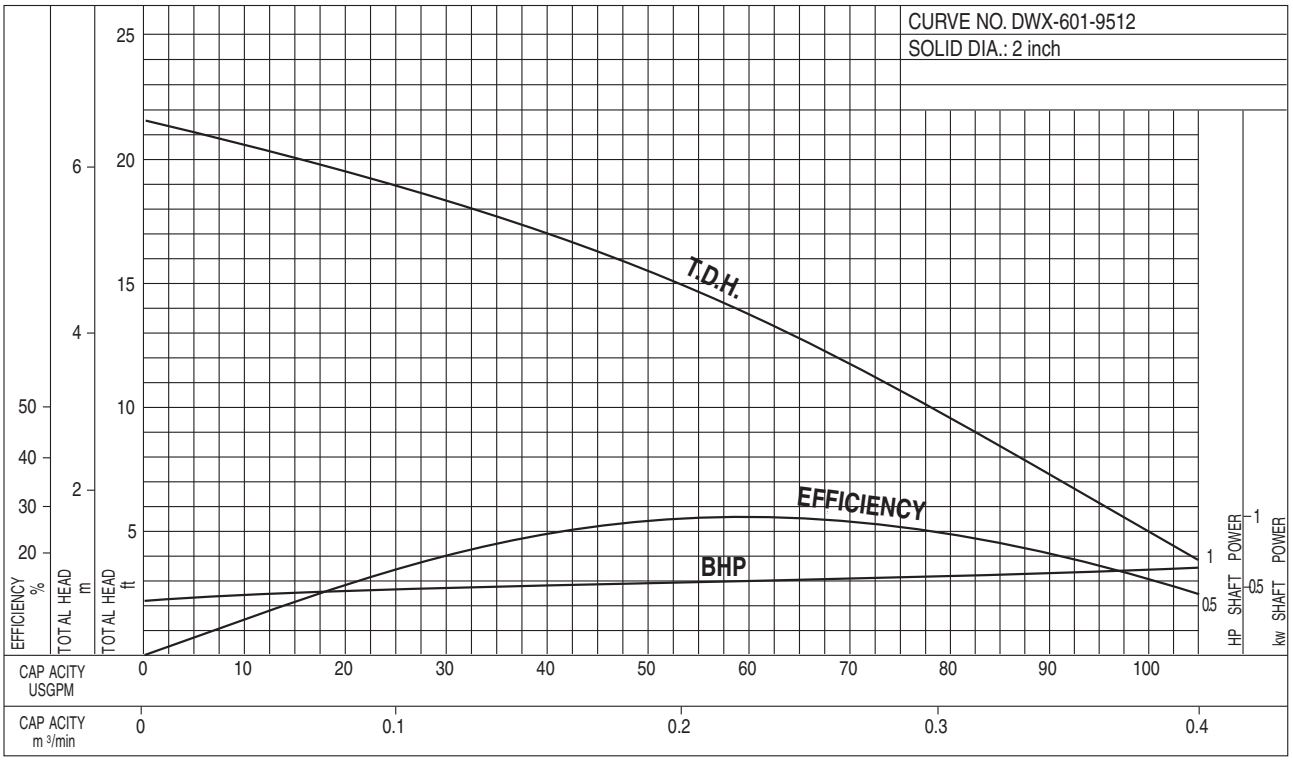
50DW62.2 (3HP) Synchronous Speed: 3600 RPM 2 inch Discharge



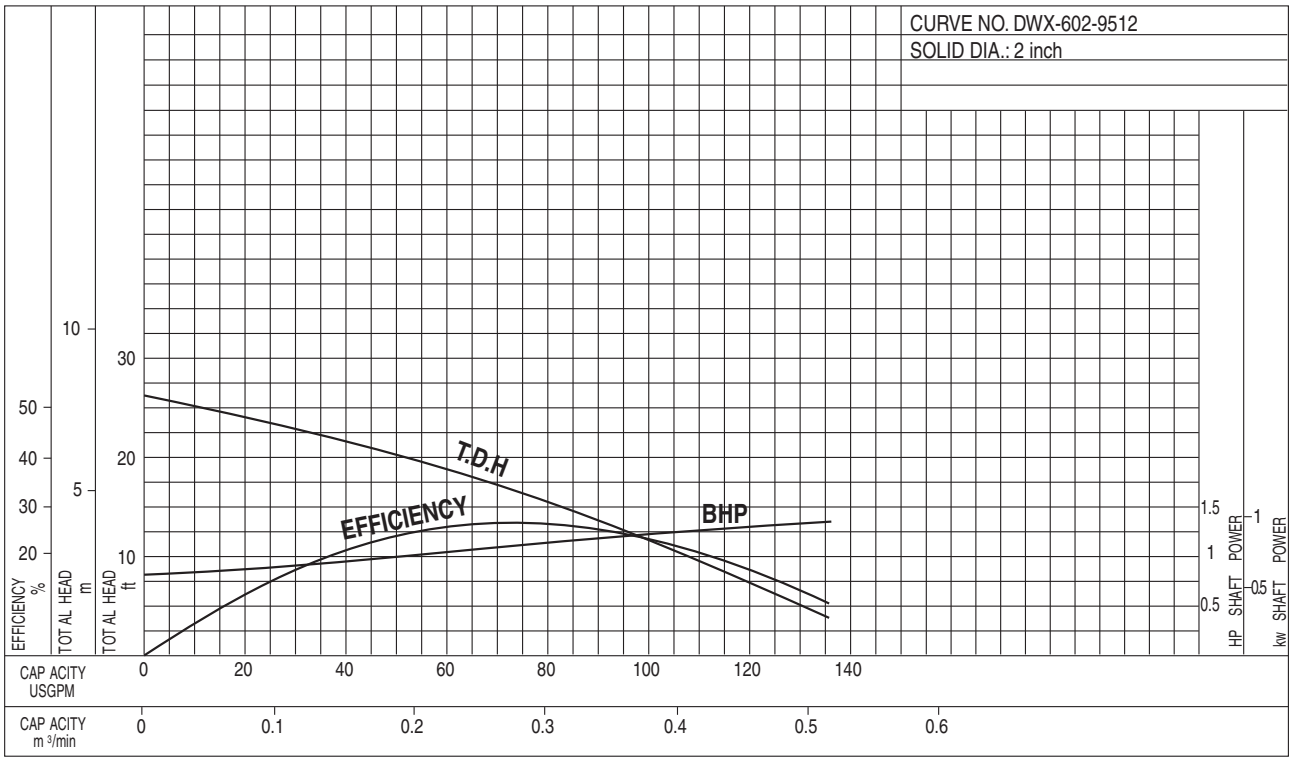
Performance Curves

Project: GPM: TDH: EFF: HP: Chk'd: Date:

50DWX6.4 (½HP) Synchronous Speed: 3600 RPM — 2 inch Discharge



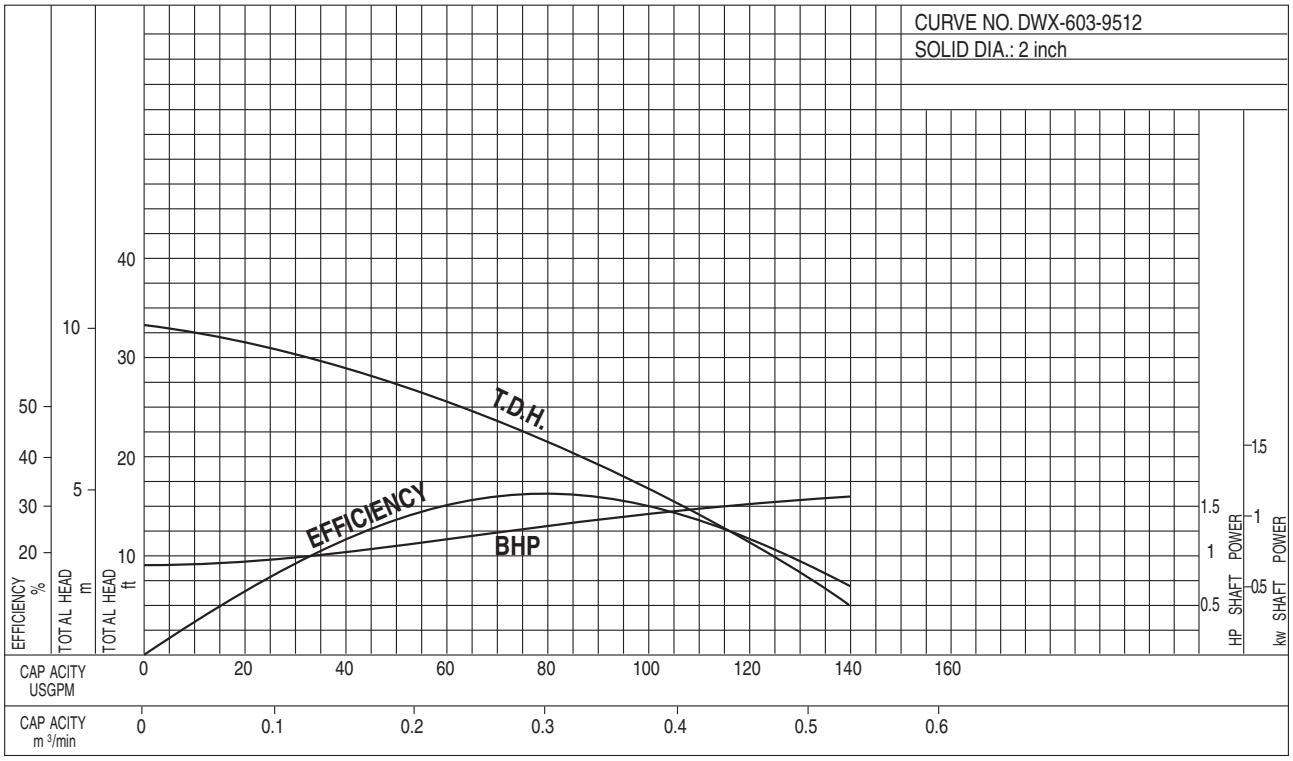
50DWX6.75 (1HP) Synchronous Speed: 3600 RPM — 2 inch Discharge



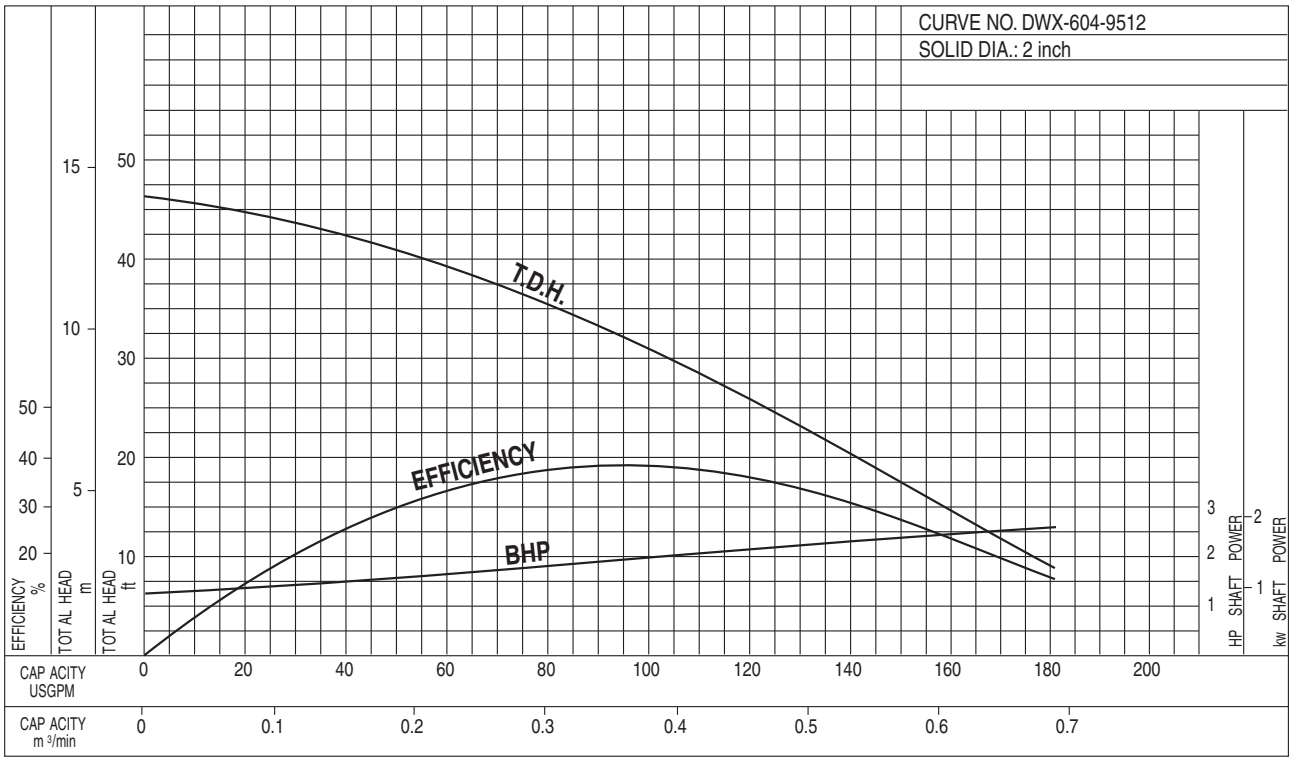
Performance Curves

Project: GPM: TDH: EFF: HP: Chk'd: Date:

50DWX61.1 (1½HP) Synchronous Speed: 3600 RPM — 2 inch Discharge



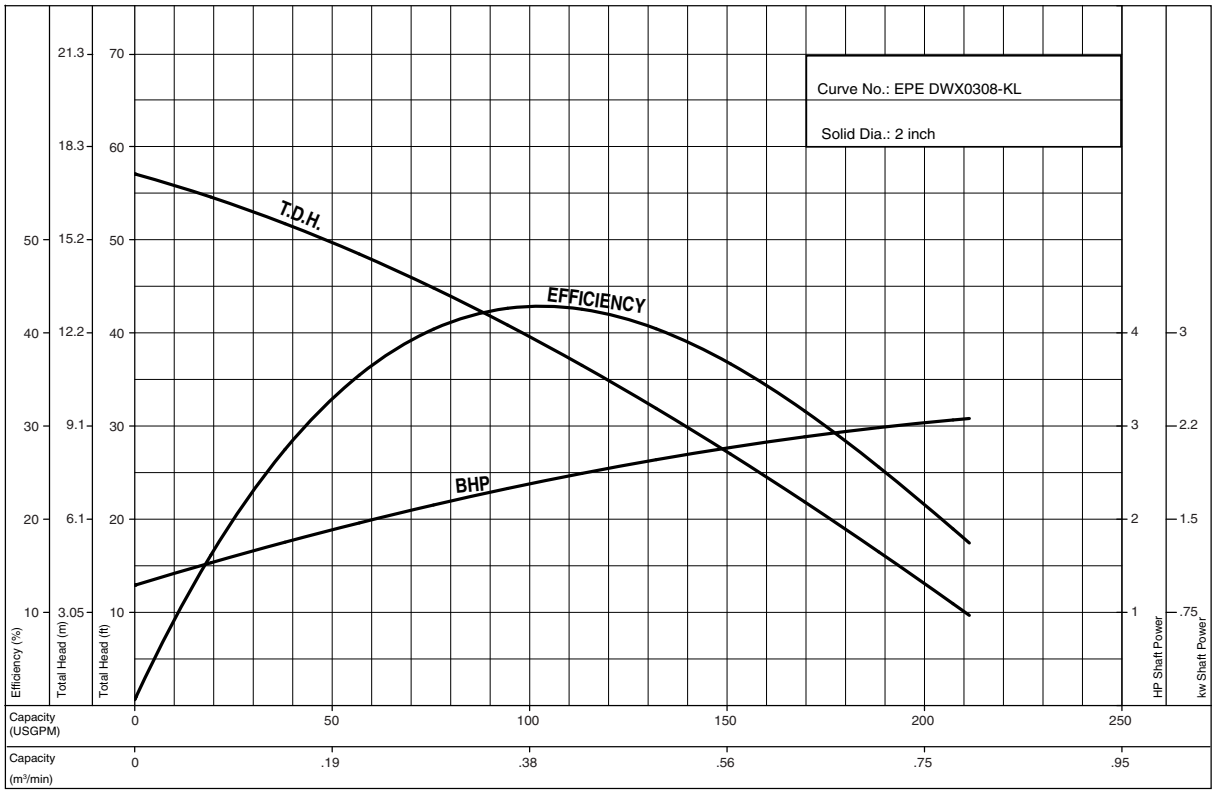
50DWX61.5 (2HP) Synchronous Speed: 3600 RPM — 2 inch Discharge



Performance Curves

Project: Model: Chk'd: Date:

50DWX62.2 (3HP) Synchronous Speed: 3600 RPM 2 inch Discharge



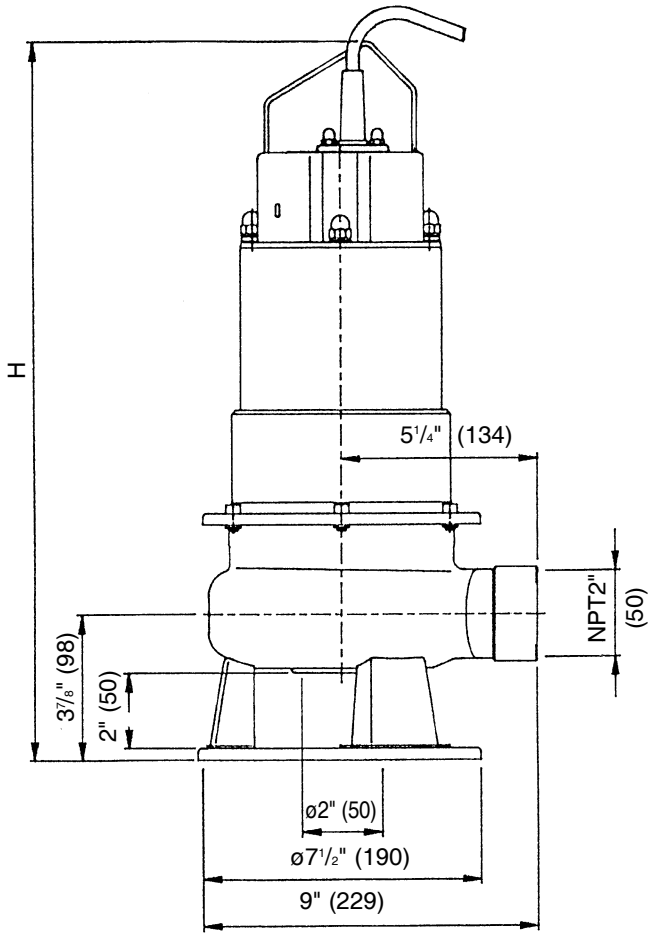
Dimensions

Project: Model: Chk'd: Date:

Model DWU

Manual Operation Pumps

Unit: inch (mm)



Note: Three phase motors are equipped with a Power Cable and a Thermal Protection Cable

Phase	Size ø	Model	Output		Pump	Weight Lbs (kg)
			kw	HP	H	
Single	2" (50mm)	50DWU6.4S	0.4	½	21⅝ (550)	35 (16)
		50DWU6.75S	0.75	1	22¹³⁄₁₆ (580)	40 (18)
		50DWU6.4S2	0.4	½	19⅛ (485)	35 (16
		50DWU6.75S2	0.75	1	20¼ (515)	40 (18)
		50DWU61.1S2	1.1	1½	20¼ (515)	44 (20)
		50DWU61.5S2	1.5	2	24 (610)	51 (23)
Three	2" (50mm)	50DWU6.4	0.4	½	19⅛ (485)	33 (15)
		50DWU6.75	0.75	1	19⅛ (485)	35 (16)
		50DWU61.1	1.1	1½	20¼ (515)	40 (18)
		50DWU61.5	1.5	2	20¼ (515)	44 (20)
		50DWU62.2	2.2	3	21⁷⁄₁₆ (545)	55 (25)

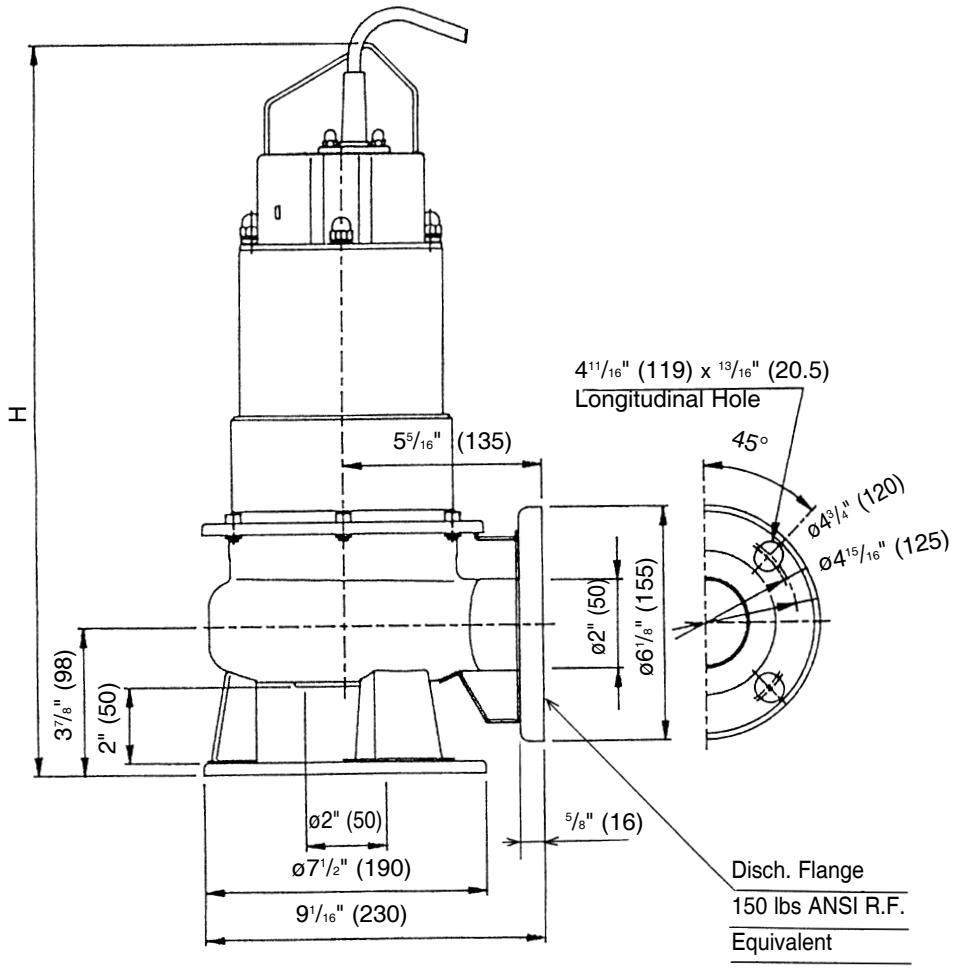
Dimensions

Project: Model: Chk'd: Date:

Model DWFU

Manual Operation Pumps

Unit: inch (mm)



Note: Three phase motors are equipped with a Power Cable and a Thermal Protection Cable

Phase	Size ø	Model	Output		Pump	Weight Lbs (kg)
			kw	HP	H	
Single	2" (50mm)	50DWFU6.4S	0.4	1/2	21 5/8 (550)	37 (17)
		50DWFU6.75S	0.75	1	22 13/16 (580)	42 (19)
		50DWFU6.4S2	0.4	1/2	19 1/8 (485)	37 (17)
		50DWFU6.75S2	0.75	1	20 1/4 (515)	42 (19)
		50DWFU61.1S2	1.1	1 1/2	20 1/4 (515)	46 (21)
		50DWFU61.5S2	1.5	2	24 (610)	53 (24)
Three	2" (50mm)	50DWFU6.4	0.4	1/2	19 1/8 (485)	35 (16)
		50DWFU6.75	0.75	1	19 1/8 (485)	37 (17)
		50DWFU61.1	1.1	1 1/2	20 1/4 (515)	42 (19)
		50DWFU61.5	1.5	2	20 1/4 (515)	46 (21)
		50DWFU62.2	2.2	3	21 7/16 (545)	57 (26)

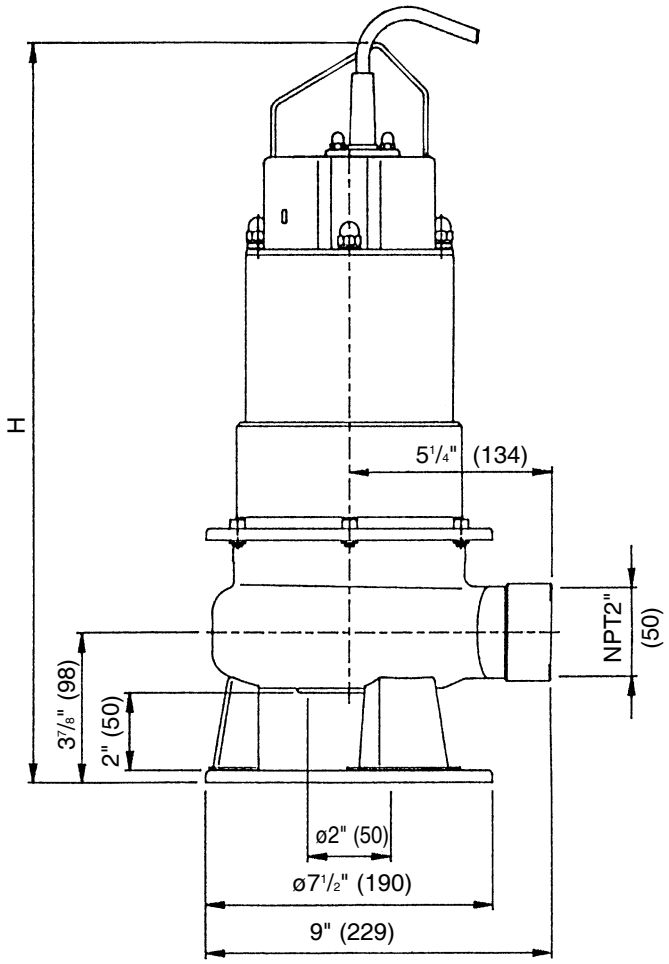
Dimensions

Project: Model: Chk'd: Date:

Model DWXU

Manual Operation Pumps

Unit: inch (mm)



Note: Three phase motors are equipped with a Power Cable and a Thermal Protection Cable

Phase	Size ø	Model	Output		Pump	Weight Lbs (kg)
			kw	HP	H	
Single	2" (50mm)	50DWXU6.4S	0.4	½	21⅝ (550)	35 (16)
		50DWXU6.75S	0.75	1	22¹³⁄₁₆ (580)	40 (18)
		50DWXU6.4S2	0.4	½	19⅛ (485)	35 (16)
		50DWXU6.75S2	0.75	1	20¼ (515)	40 (18)
		50DWXU61.1S2	1.1	1½	20¼ (515)	44 (20)
		50DWXU61.5S2	1.5	2	24 (610)	51 (23)
Three	2" (50mm)	50DWXU6.4	0.4	½	19⅛ (485)	33 (15)
		50DWXU6.75	0.75	1	19⅛ (485)	35 (16)
		50DWXU61.1	1.1	1½	20¼ (515)	40 (18)
		50DWXU61.5	1.5	2	20¼ (515)	44 (20)
		50DWXU62.2	2.2	3	21⁷⁄₁₆ (545)	55 (25)

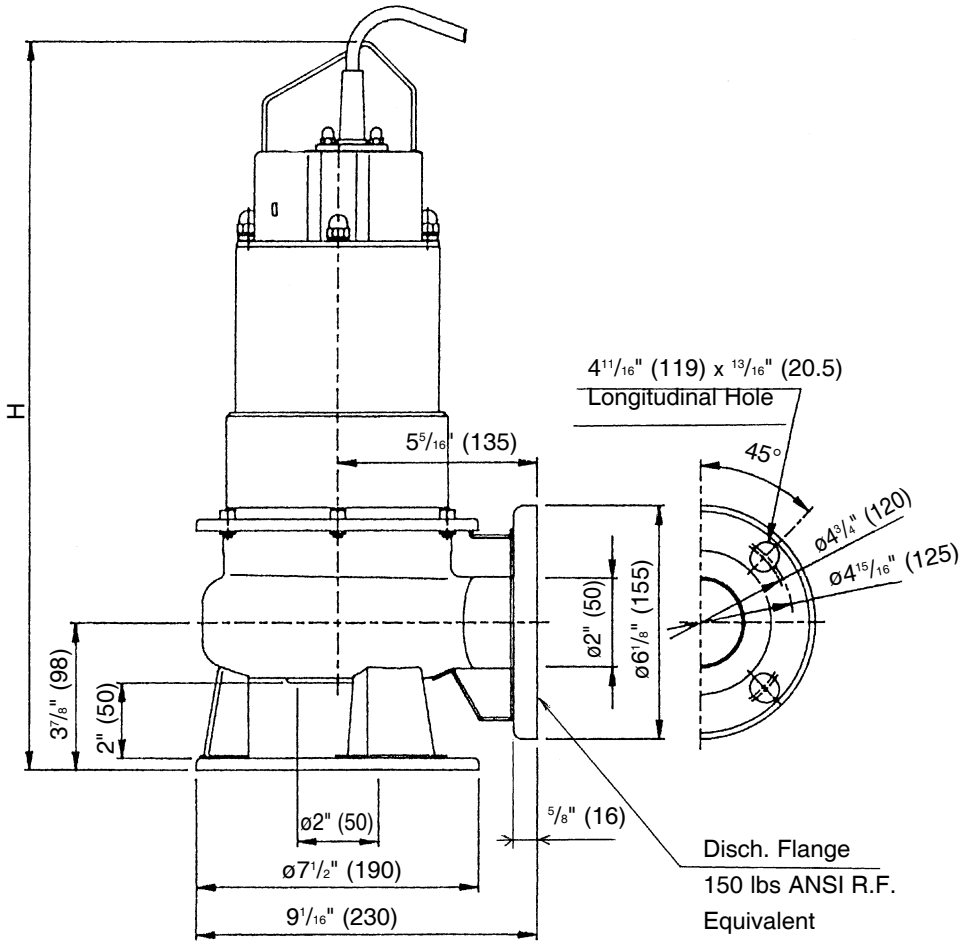
Dimensions

Project: Model: Chk'd: Date:

Model DWXFU

Manual Operation Pumps

Unit: inch (mm)



Note: Three phase motors are equipped with a Power Cable and a Thermal Protection Cable

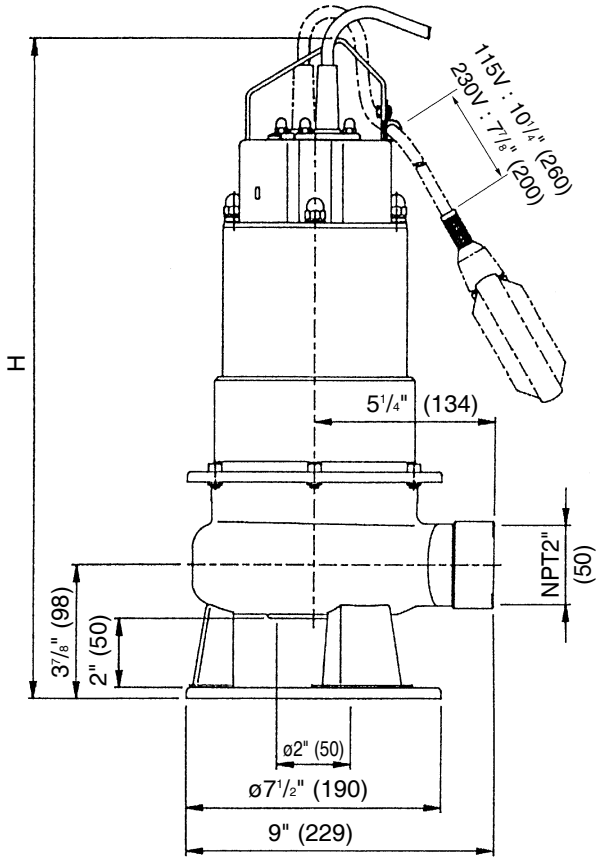
Phase	Size ø	Model	Output		Pump	Weight Lbs (kg)
			kw	HP	H	
Single	2" (50mm)	50DWXFU6.4S	0.4	1/2	21 5/8 (550)	37 (17)
		50DWXFU6.75S	0.75	1	22 13/16 (580)	42 (19)
		50DWXFU6.4S2	0.4	1/2	19 1/8 (485)	37 (17)
		50DWXFU6.75S2	0.75	1	20 1/4 (515)	42 (19)
		50DWXFU61.1S2	1.1	1 1/2	20 1/4 (515)	46 (21)
		50DWXFU61.5S2	1.5	2	24 (610)	53 (24)
Three	2" (50mm)	50DWXFU6.4	0.4	1/2	19 1/8 (485)	35 (16)
		50DWXFU6.75	0.75	1	19 1/8 (485)	37 (17)
		50DWXFU61.1	1.1	1 1/2	20 1/4 (515)	42 (19)
		50DWXFU61.5	1.5	2	20 1/4 (515)	46 (21)
		50DWXFU62.2	2.2	3	21 7/16 (545)	57 (26)

Dimensions

Project: Model: Chk'd: Date:

Model DWAU
Model DWXAU
Automatic Operation Pumps

Unit: inch (mm)



Model DWAU

Phase	Size ø	Model	Output		Pump	Weight Lbs (kg)
			kw	HP	H	
Single	2" (50mm)	50DWAU6.4S	0.4	1/2	21 5/8 (550)	35 (16)
		50DWAU6.75S	0.75	1	22 13/16 (580)	40 (18)
		50DWAU6.4S2	0.4	1/2	19 1/8 (485)	35 (16)
		50DWAU6.75S2	0.75	1	20 1/4 (515)	40 (18)
		50DWAU61.1S2	1.1	1 1/2	20 1/4 (515)	44 (20)

Model DWXAU

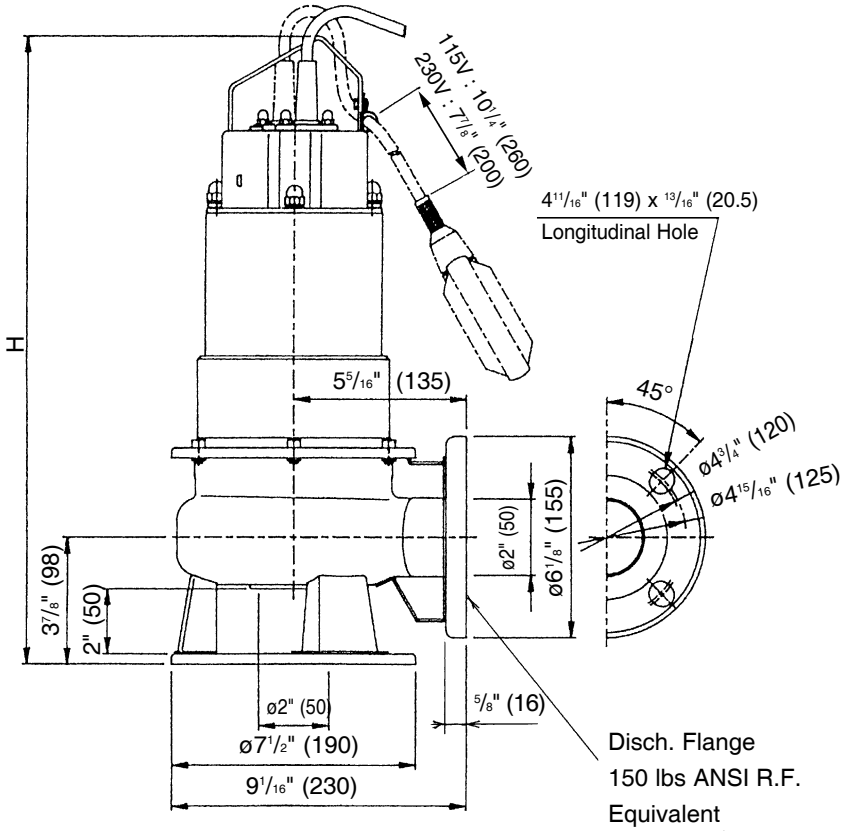
Phase	Size ø	Model	Output		Pump	Weight Lbs (kg)
			kw	HP	H	
Single	2" (50mm)	50DWXAU6.4S	0.4	1/2	21 5/8 (550)	35 (16)
		50DWXAU6.75S	0.75	1	22 13/16 (580)	40 (18)
		50DWXAU6.4S2	0.4	1/2	19 1/8 (485)	35 (16)
		50DWXAU6.75S2	0.75	1	20 1/4 (515)	40 (18)
		50DWXAU61.1S2	1.1	1 1/2	20 1/4 (515)	44 (20)

Dimensions

Project: Model: Chk'd: Date:

Model DWFAU
Model DWXFAU
Automatic Operation Pumps

Unit: inch (mm)



Model DWFAU

Phase	Size ø	Model	Output		Pump	Weight Lbs (kg)
			kw	HP	H	
Single	2" (50mm)	50DWFAU6.4S	0.4	1/2	21 5/8 (550)	37 (17)
		50DWFAU6.75S	0.75	1	22 13/16 (580)	42 (19)
		50DWFAU6.4S2	0.4	1/2	19 1/8 (485)	37 (17)
		50DWFAU6.75S2	0.75	1	20 1/4 (515)	42 (19)
		50DWFAU61.1S2	1.1	1 1/2	20 1/4 (515)	46 (21)

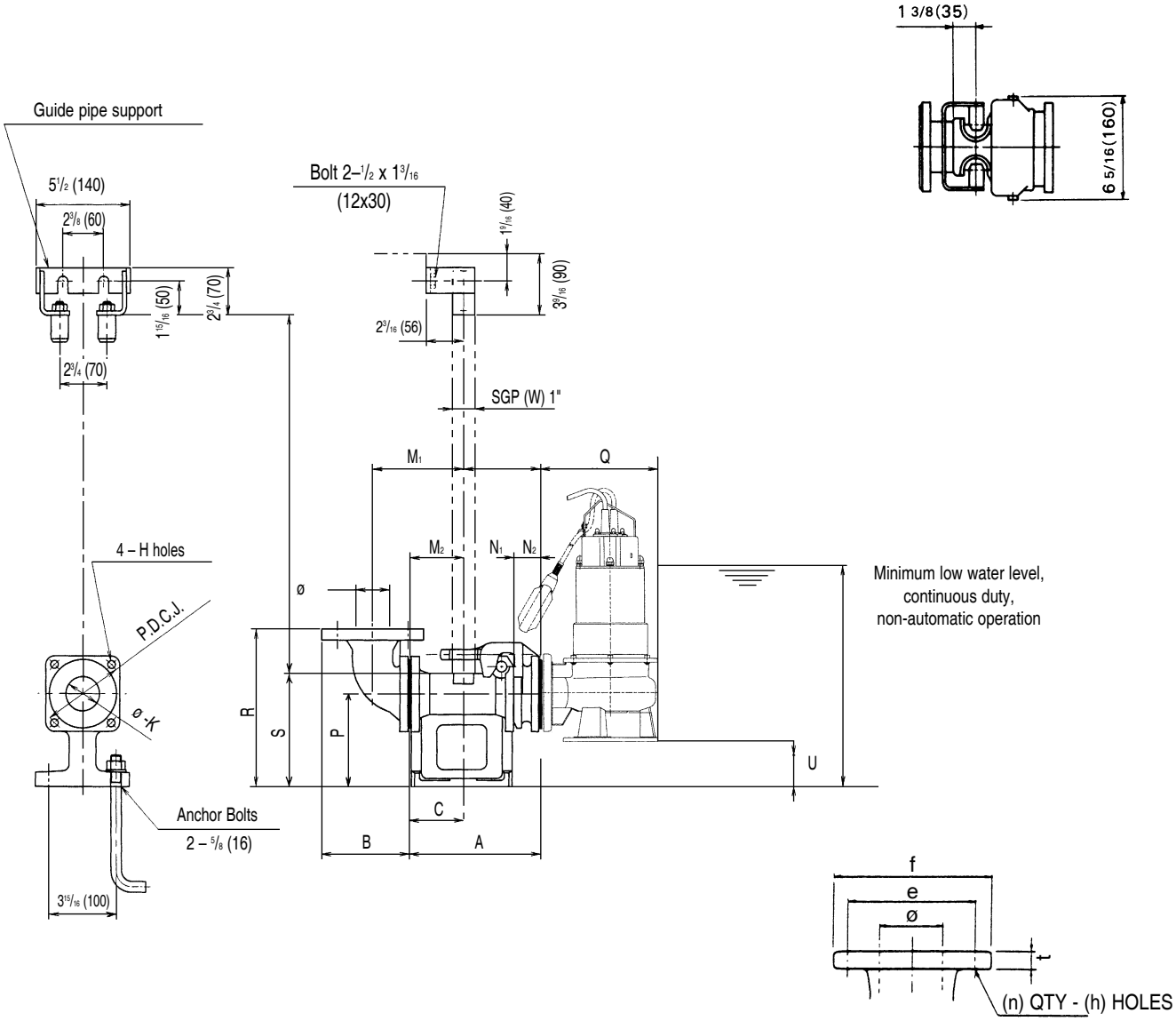
Model DWXFAU

Phase	Size ø	Model	Output		Pump	Weight Lbs (kg)
			kw	HP	H	
Single	2" (50mm)	50DWXFAU6.4S	0.4	1/2	21 5/8 (550)	37 (17)
		50DWXFAU6.75S	0.75	1	22 13/16 (580)	42 (19)
		50DWXFAU6.4S2	0.4	1/2	19 1/8 (485)	37 (17)
		50DWXFAU6.75S2	0.75	1	20 1/4 (515)	42 (19)
		50DWXFAU61.1S2	1.1	1 1/2	20 1/4 (515)	46 (21)

Dimensions

Project: Model: Chk'd: Date:

Model DWFU with Quick Discharge Connector



Flange (ANSI 125 PSI F.F)

inch

ø	e	f	t	n	h
2	4 3/4	6	5/8	4	3/4

mm

ø	e	f	t	n	h
50	121	152	16	4	19

Dimensions: inch

MODEL	A	B	C	H	J	K	M1	M2	N1	N2	P	Q	R	S	U	QDC WEIGHT Lb
LM50	7 11/16	5 1/4	3 1/8	1/2	4 3/4	2	5 5/16	3 1/8	4 1/2	1 9/16	5 5/16	9 1/8	9 1/16	6 1/2	2 5/16	25

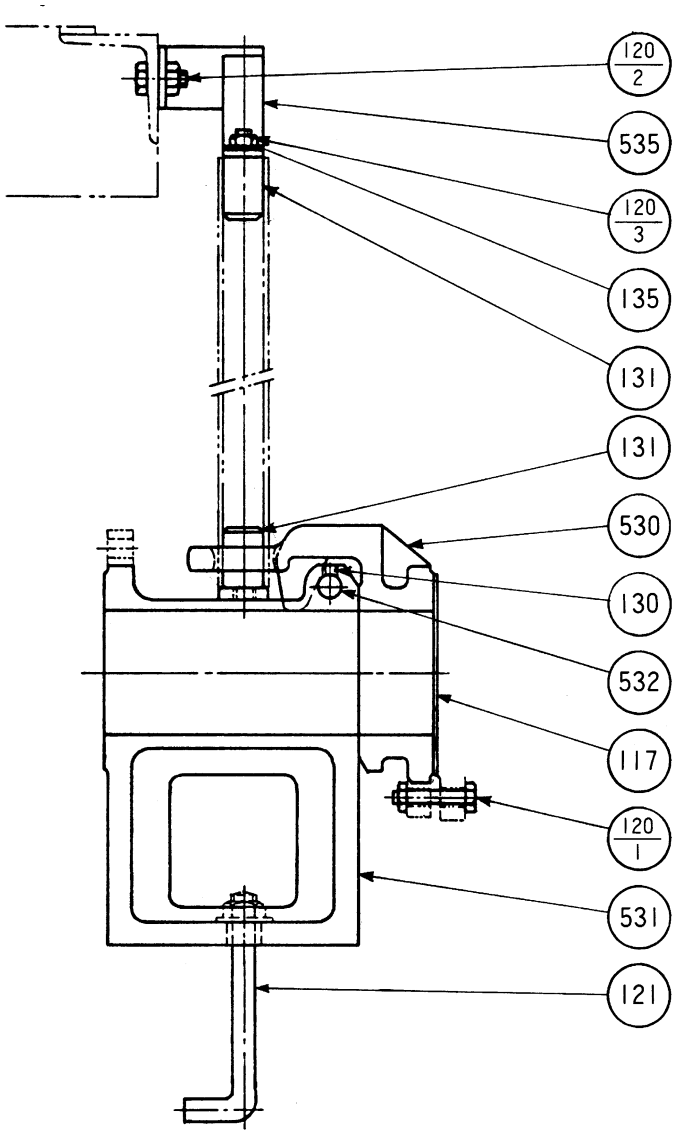
Dimensions: mm

MODEL	A	B	C	H	J	K	M1	M2	N1	N2	P	Q	R	S	U	QDC WEIGHT kg
LM50	195	133	80	12	120	2	135	80	115	40	135	230	230	165	55	12

Dimensions

Project: Model: Chk'd: Date:

Models LM50



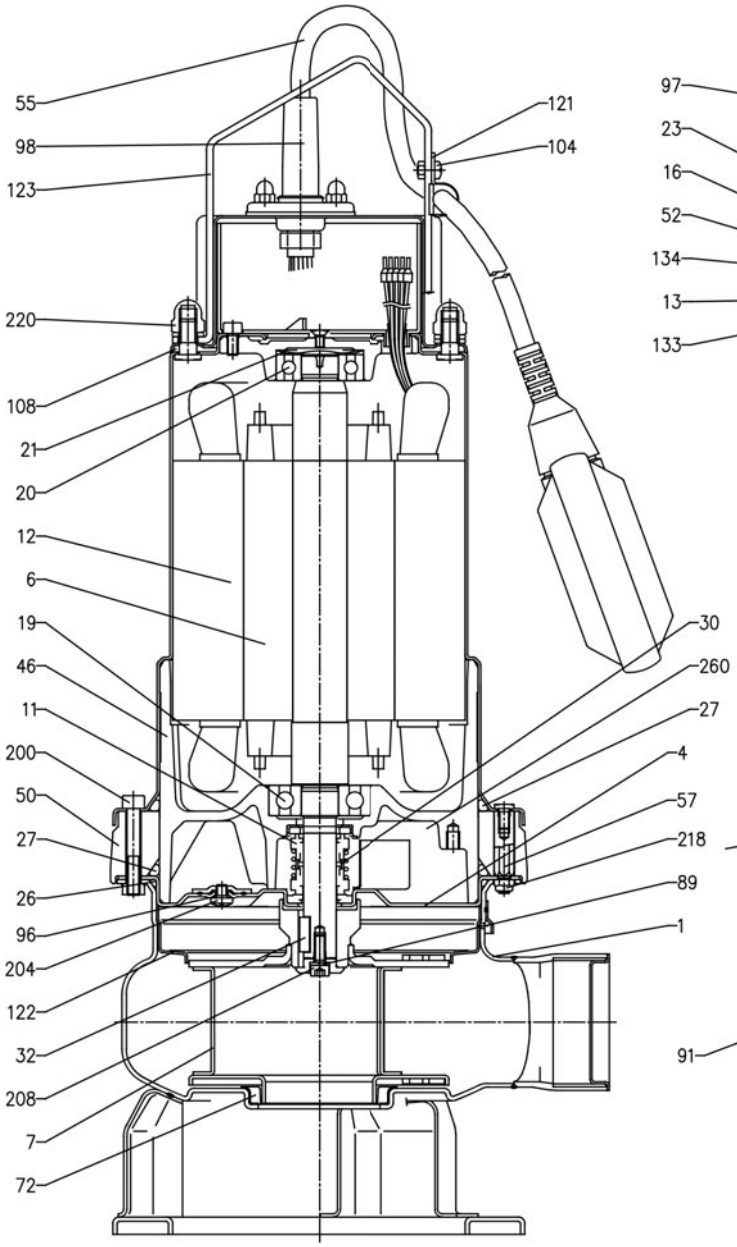
Part No.	Part Name	Material		ASTM, AISI, CODE		No. for 1 Unit
		Model LM	Model LME	Model LM	Model LME	
117	Gasket					1
120-1	Bolt & Nut	304 Stainless		AISI304		4
120-2	Bolt & Nut	304 Stainless		AISI304		2
120-3	Nut	304 Stainless		AISI304		2
121	Anchor Bolt	Steel		A283 Grade D		2
130	Set Screw	304 Stainless		AISI304		1
131	Guide Pin	Steel	Brass	A283 Grade D	B36 C27200	4
135	Washer	304 Stainless		AISI403		2
530	Connector	Cast Iron	Bronze	A48 Class 30	B584 C83600	1
531	Body	Cast Iron		A48 Class 30		1
532	Support Bar	420 Stainless		AISI420		1
535	Guide Support Plate	Steel		A283 Grade D		1

Sectional View

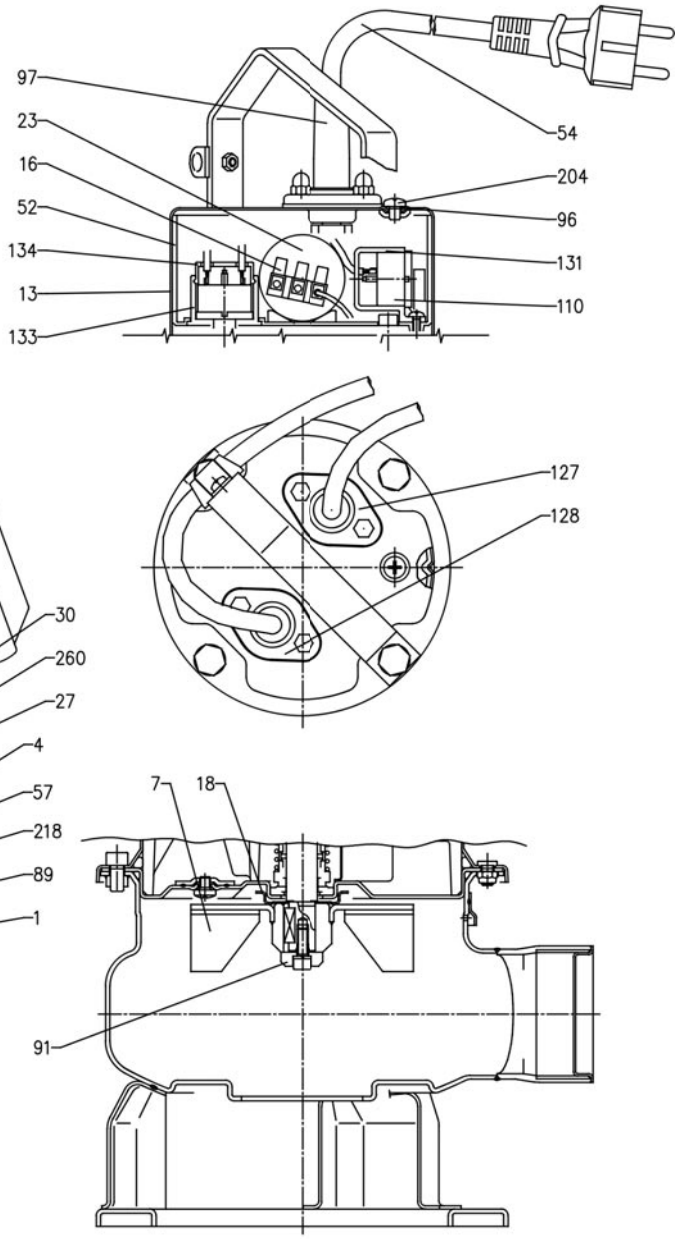
Project: Model: Chk'd: Date:

Model DWU, DWXU Manual Type
Model DWAU, DWXAU Automatic Type

DWU, DWAU Single Phase Motor



Three Phase Motor



Sectional View

Project: Model: Chk'd: Date:

SECTIONAL VIEW TABLE

N°	Part Name	Material	QTY
1	Casing	AISI 304	1
4	Casing Cover	AISI 304	1
6	Shaft with rotor	AISI 304	1
7	Impeller	AISI 304	1
11	Mechanical Seal [7]	SiC/SiC/NBR	1
11	Mechanical Seal [7]	Carbon/Ceramic/NBR	1
12	Motor frame with stator	-	1
13	Motor cover	AISI 304	1
16	Terminal	-	1
18	Mechanical seal protection	AISI 304	1
19	Lower side ball bearing	-	1
20	Upper side ball bearing	-	1
21	Adjusting ring	Steel C70	1
23	Capacitor [1]	-	1
26	O ring	NBR	1
27	O ring	NBR	1
27	O ring [2]	NBR	1
30	Mechanical seal spacer	Brass	1
32	Key	AISI 316	1
46	Bearing housing	G20	1
50	Spacer [2]	G20	1
52	Terminal insulating box	-	1
54	Power cable	-	1
55	Float switch [4]	-	1

N°	Part Name	Material	QTY
57	Spacer [2]	AISI 304	4
72	Casing ring [4]	NBR	1
89	Washer	AISI 304	1
91	Washer	AISI 304	1
96	O ring	NBR	3
97	Power cable entry	NBR	1
98	Floating sw cable entry [3]	NBR	1
104	Cable guard [3]	NBR	1
108	Cover gasket	NBR	1
110	Protector [1]	-	2
121	Support for float switch [3]	AISI 304	1
122	Impeller protection ring [5]	AISI 304	1
123	Handle	AISI 304	1
127	Power cable connector	AISI 304	1
128	Floating sw. cable connector [3]	AISI 304	1
131	Support for protector [6]	PA66	1
133	Support for probe [6]	Aluminum	1
134	Cover for support probe [6]	PA66	1
200	Screw	Stainless Steel A2 UNI 7323	6
204	Screw	Stainless Steel A2 UNI 7323	3
208	Screw	Stainless Steel A2 UNI 7323	1
218	Nut	Stainless Steel A2 UNI 7323	4
220	Nut	Stainless Steel A2 UNI 7323	4
260	Lubricating liquid	White mineral oil	-

[1] Only for Single phase
[2] Only for DW-DW Vox 3006
[3] Only for Single phase with float switch
[4] Only for DW
[5] Except for DW Vox 1506, 2006 and 3006
[6] Only for Single phase with external motor protection
[7] See MECHANICAL SEAL page 1-160

Motor Specification

Project: Model: Chk'd: Date:

Model DWU, DWAU, DWFU, DWFAU, DWXU, DWXAU, DWXFU, DWXFAU

Output		Phase	Rating			Locked Rotor Current A	Insulation Class	Overload Protection	Power Cable					Performance Data at Rating Point		Resistance at 20°C Ohms	* Symbols
HP	kW		Voltage V	Current A	Speed R.P.M.				Type	No. of Cond	mm²	AWG	Length Ft	Efficiency %	Power Factor %		
1/2	0.4	Single	115	8.3	3350	33.7	F	Built-In Auto Cut	SOOW	3	1.25	#16	25	63.3	98.0	0.66	EI
			230	4.4	3350	10.7								62.3	95.8	2.38	EI
1	0.75		115	11	3375	46.8					2.0	#14		74.6	99.0	0.50	EI
			230	6.5	3375	28.5					1.25	#16		72.8	94.3	1.54	EI
1 1/2	1.1		230	7.5	3380	36.8								77.6	96.3	1.11	EI
2	1.5		230	11.1	3479	66.0					2.0	#14		79.5	96.0	0.62	EI
1/2	0.4	Three	230	3.0	3425	23.0		Thermal Sensor		4	1.25	#16		76.5	62.0	4.15	EI
			460	1.4	3450	9.9								76.8	70.0	20.0	EI
1	0.75		230	4.2	3475	32.3								80.4	75.9	2.82	EI
			460	2.0	3450	18.7								81.0	76.7	13.05	EI
1 1/2	1.1		230	5.1	3500	47.0								81.7	75.9	1.94	EI
			460	2.5	3450	24.4								82.6	75.4	7.43	EI
2	1.5		230	7.3	3475	68.7								81.8	75.1	1.30	EI
			460	3.6	3450	32.5								82.0	81.3	5.57	EI
3	2.2		230	8.5	3475	89.2								83.6	87.3	.884	EI
			460	4.2	3500	48.5								84.4	81.3	3.53	EI

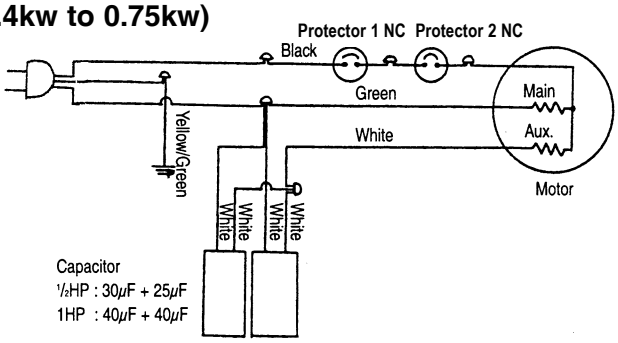
Thermal Protection Cable				
SOOW	2	0.75	#18	25

Motor Wiring Diagram

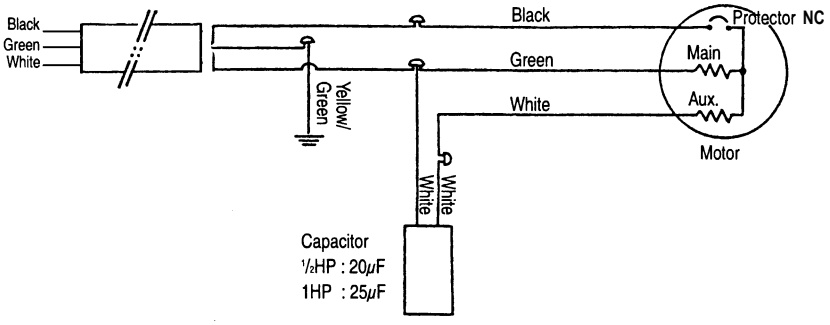
Project: Model: Chk'd: Date:

DWU, DWFU, DWXU, DWXFU
Manual Operation Type (Single Phase)

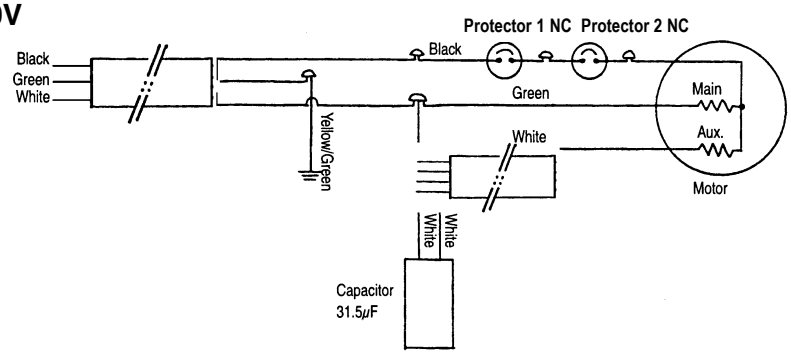
- **Output ½ to 1 HP (0.4kw to 0.75kw)**
  115V



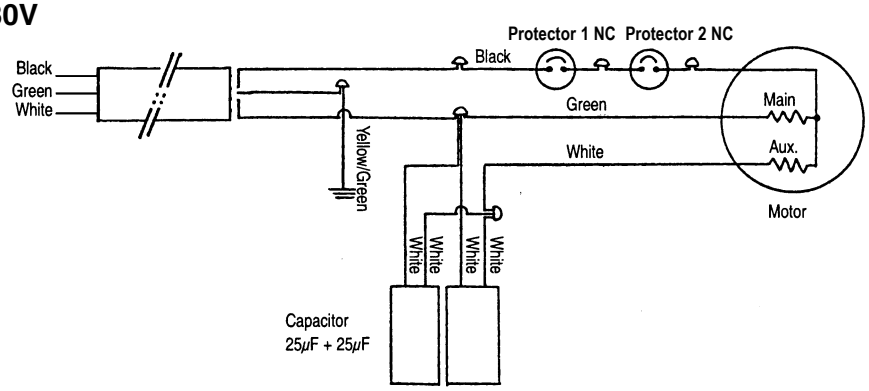
- **Output ½ to 1 HP (0.4kw to 0.75kw)**
  208/230V



- **Output 1½HP (1.1kw)**
  208/230V



- **Output 2HP (1.5kw)**
  208/230V

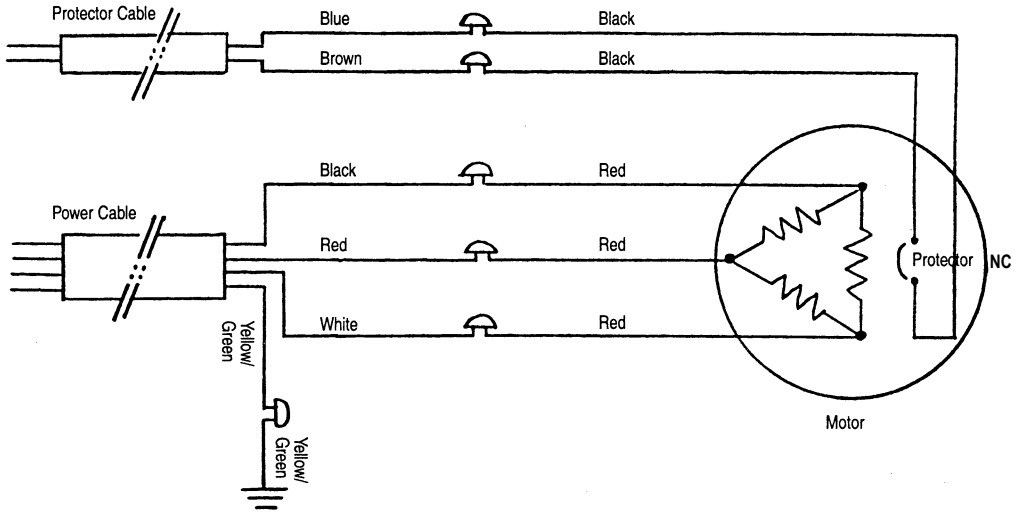


Motor Wiring Diagram

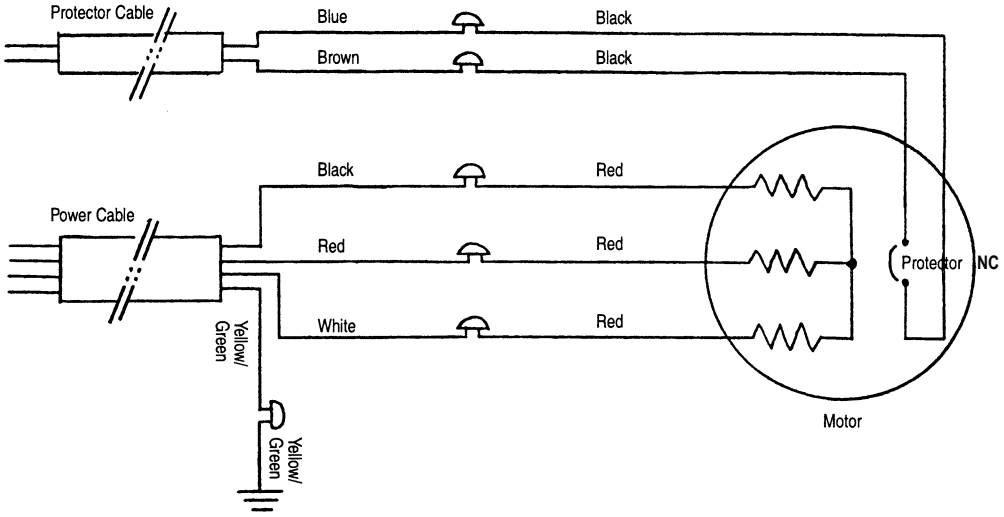
Project: Model: Chk'd: Date:

DWU, DWFU, DWXU, DWXFU
Manual Operation Type (Three Phase)

208/230V



460V

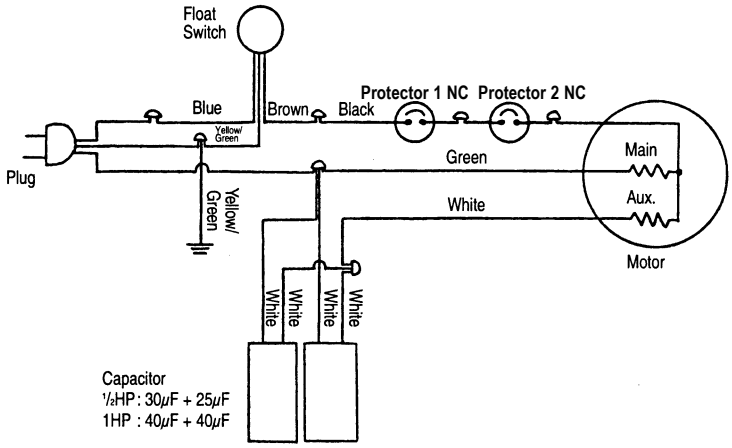


Motor Wiring Diagram

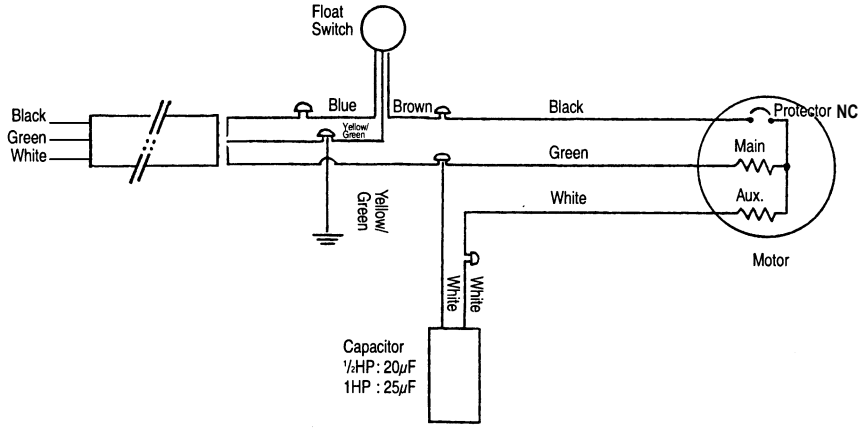
DWAU, DWFAU, DWXAU, DWXFAU
Automatic Operation Type (Single Phase)

- **Output ½ to 1 HP (0.4kw to 0.75kw)**

115V

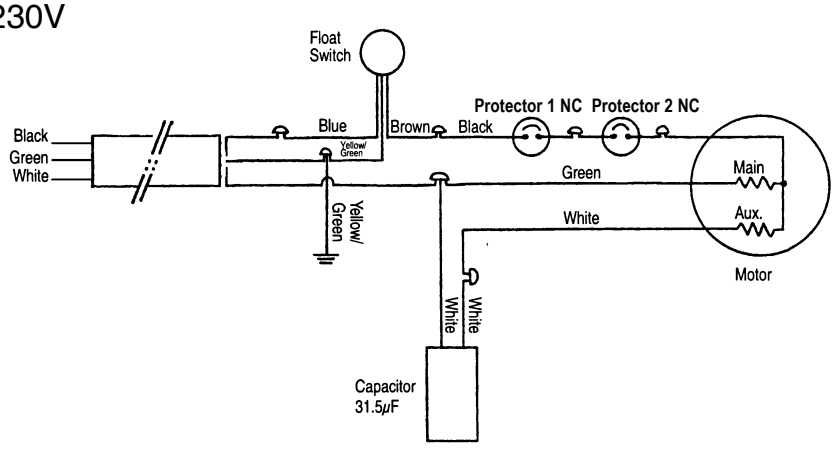


208/230V



- **Output 1½HP (1.1kw)**

208/230V



Electrical Data

Project: Model: Chk'd: Date:

Model DW(A)U, DWF(A)U
DWX(A)U, DWXF(A)U
½ to 1 HP, 60Hz, Single Phase, 115V

Name-Plate Rating	**Item No.**					
	Output (HP)	½	1			
	Phase	1	1			
	Poles	2	2			
	Volts	115	115			
	Amperes	8.3	11			
	Speed	3350	3375			
	Insulation Class	F	F			
Capacitor µ F	Start					
	Run	55	80			
No Load Test	Amperes	1.36	2.90			
	Watts	284	300			
Resistance at 20°C OHMS	Main Coil	0.66	0.495			
	Aux. Coil	1.973	1.183			
100% Load	Current Amp.	5.3	8.8			
	Efficiency %	63.3	74.6			
	Power Factor %	98.0	99.0			
	Speed RPM	3490	3435			
Locked Rotor Torque %		145	75.5			
Locked Rotor Current Amp.		33.7	46.8			
Number Starts Per Hour		20	20			
Voltage Tolerance %		±5				
Frequency Tolerance %		±5				
(Ref. data Mfr.'s Symbols)		EI	EI			

Electrical Data

Project: Model: Chk'd: Date:

Model DW(A)U, DWF(A)U
DWX(A)U, DWXF(A)U
½ to 2 HP, 60Hz, Single Phase, 208V

Name- Plate Rating	**Item No.**					
	Output (HP)		1/2	1	1 1/2	2*
	Phase		1	1	1	1
	Poles		2	2	2	2
	Volts		**208**	**208**	**208**	**208**
	Amperes		3.8	4.8	6.9	8.8
	Speed		3415	3451	3429	3468
	Insulation Class		F	F	F	F
Capacitor µ F	Start		-	-	-	-
	Run		20	25	32	50
No Load Test	Amperes		1.20	1.83	1.94	2.63
	Watts		189	188	240	376
Resistance at 20°C OHMS	Main Coil		2.45	1.54	1.176	0.758
	Aux. Coil		5.20	3.21	2.485	1.316
100% Load	Current	Amp.	3.8	4.8	6.9	8.8
	Efficiency	%	74.8	78.3	79.4	79.9
	Power Factor	%	0.98	0.94	0.96	0.98
	Speed	RPM	3415	3451	3429	3468
Locked Rotor Torque		Nm	0.79	0.66	1.12	1.45
Locked Rotor Current		Amp.	14.2	26.6	34.9	50.7
Number Starts Per Hour			20	20	20	20
Voltage Tolerance		%	±5			
Frequency Tolerance		%	±5			
(Ref. data Mfr.'s Symbols)			EI			

*Note: 2 hp not available in automatic operation

Electrical Data

Project: Model: Chk'd: Date:

Model DWXU, DWXFU
½ to 3 HP, 60Hz, Three Phase, 208V

Name- Plate Rating	**Item No.**						
	Output (HP)		1/2	1	11/2	2	3
	Phase		3	3	3	3	3
	Poles		2	2	2	2	2
	Volts		**208**	**208**	**208**	**208**	**208**
	Amperes		2.5	4.0	4.5	6.1	8.4
	Speed		3498	3484	3493	3506	3406
	Insulation Class		F	F	F	F	F
Capacitor µ F	Start		—	—	—	—	—
	Run		—	—	—	—	—
No Load Test	Amperes		1.7	3.1	2.5	3.4	4.4
	Watts		72	143	112	127	150
Resistance at 20°C OHMS	R Delta		4.16	3.00	1.97	1.29	0.88
	R phase		6.24	4.50	2.95	1.94	1.32
100% Load	Current	Amp.	2.5	4.0	4.5	6.1	8.4
	Efficiency	%	82.8	79.4	84.2	83.5	86.3
	Power Factor	%	0.74	0.65	0.82	0.80	0.84
	Speed	RPM	3498	3484	3493	3506	3406
Locked Rotor Torque		Nm	5.6	7.2	11.6	18.2	25.1
Locked Rotor Current		Amp.	19.6	28.0	39.4	59.2	82.8
Number Starts Per Hour			20	20	20	20	20
Voltage Tolerance		%	±5				
Frequency Tolerance		%	±5				
(Ref. data Mfr.'s Symbols)			EI	EI	EI	EI	EI

Electrical Data

Project: Model: Chk'd: Date:

Model DW(A)U, DWF(A)U
DWX(A)U, DWXF(A)U
½ to 2 HP, 60Hz, Single Phase, 230V

	Item No.					
Name-Plate Rating	Output (HP)	½	1	1½	2*	
	Phase	1	1	1	1	
	Poles	2	2	2	2	
	Volts	230	230	230	230	
	Amperes	4.4	6.5	7.5	11.1	
	Speed	3350	3375	3380	3479	
	Insulation Class	F	F	F	F	
Capacitor µ F	Start					
	Run	20	25	31.5	45	
No Load Test	Amperes	1.65	2.22	2.40	2.73	
	Watts	293	330	370	420	
Resistance at 20°C OHMS	Main Coil	2.38	1.54	1.11	0.62	
	Aux. Coil	5.11	3.47	2.34	1.30	
100% Load	Current Amp.	2.73	4.75	6.40	8.8	
	Efficiency %	62.3	72.8	77.6	79.5	
	Power Factor %	95.8	94.3	96.3	96.0	
	Speed RPM	3490	3460	3440	3440	
Locked Rotor Torque %		151	67	58	55	
Locked Rotor Current Amp.		10.7	28.5	36.8	66	
Number Starts Per Hour		20	20	20	20	
Voltage Tolerance %		±5				
Frequency Tolerance %		±5				
(Ref. data Mfr's Symbols)		EI	EI	EI	EI	

*Note: 2 hp not available in automatic operation

Electrical Data

Project: Model: Chk'd: Date:

Model DWU, DWFU, DWXU, DWXFU
½ to 3HP, 60Hz, Three Phase, 230V

	Item No.					
Name-Plate Rating	Output (HP)	½	1	1½	2	3
	Phase	3	3	3	3	3
	Poles	2	2	2	2	2
	Volts	230	230	230	230	230
	Amperes	3.00	4.2	5.1	7.3	8.5
	Speed	3425	3475	3500	3475	3475
	Insulation Class	F	F	F	F	F
Capacitor µ F	Start	—	—	—	—	—
	Run	—	—	—	—	—
No Load Test	Amperes	1.64	1.87	2.68	3.78	2.68
	Watts	122	146	165	238	120
Resistance at 20°C OHMS	Coil	4.15	2.82	1.94	1.30	0.884
100% Load	Current Amp.	1.99	3.14	4.50	6.06	7.5
	Efficiency %	76.5	80.4	81.7	81.8	83.6
	Power Factor %	62.0	75.9	75.9	75.1	87.3
	Speed RPM	3530	3510	3480	3510	3470
Locked Rotor Torque %		592	500	440	415	521
Locked Rotor Current Amp.		23.0	32.3	47.0	68.7	89.2
Number Starts Per Hour		20	20	20	20	20
Voltage Tolerance %		±5				
Frequency Tolerance %		±5				
(Ref. data Mfr's Symbols)		EI	EI	EI	EI	EI

Electrical Data

Project: Model: Chk'd: Date:

Model DWU, DWFU, DWXU, DWXFU
½ to 3HP, 60Hz, Three Phase, 460V

Name-Plate Rating	**Item No.**					
	Output (HP)	½	1	1½	2	3
	Phase	3	3	3	3	3
	Poles	2	2	2	2	2
	Volts	460	460	460	460	460
	Amperes	1.4	2	2.5	3.6	4.2
	Speed	3450	3450	3450	3450	3500
	Insulation Class	F	F	F	F	F
Capacitor µ F	Start	—	—	—	—	—
	Run	—	—	—	—	—
No Load Test	Amperes	0.63	0.91	1.35	1.37	2.04
	Watts	111	140	171	214	162
Resistance at 20°C OHMS	Coil	20.0	13.05	7.43	5.57	3.53
100% Load	Current Amp.	0.877	1.52	2.23	2.86	4.0
	Efficiency %	76.8	81.0	82.6	82.0	84.4
	Power Factor %	70.0	76.7	75.4	81.3	81.3
	Speed RPM	3525	3505	3515	3505	3505
Locked Rotor Torque %		549	475	584	546	521
Locked Rotor Current Amp.		9.9	18.7	24.4	32.5	48.5
Number Starts Per Hour		20	20	20	20	20
Voltage Tolerance %		±5				
Frequency Tolerance %		±5				
(Ref. data Mfr.'s Symbols)		EI	EI	EI	EI	EI

Project: Model: Chk'd: Date:

Mechanical Sectional View

Since the mechanical seal is the most critical part of submersible pumps, EBARA provides the most reliable mechanical seal available for submersible pumps.

DOUBLE MECHANICAL SEALS with SUPER-HARD seal face are provided on all EBARA Dominator submersible pumps.

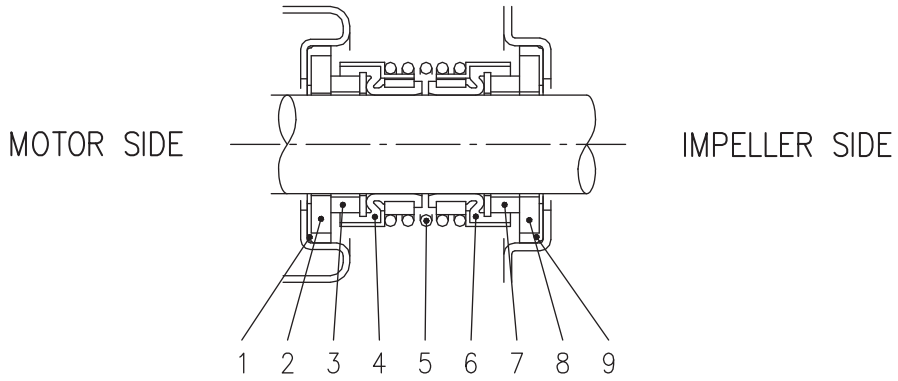
The double mechanical seal in oil chamber provides long life and friction-free sealing of the motor shaft.

Typical construction and materials are as follows:

- **Mechanical Seal**

Type: MG91-D1/15-G54
Motor side material: Ceramic/Carbon/NBR
Impeller side material: SiC/SiC/FPM

Lubricating Oil:
Type: ESSO MARCOL 152

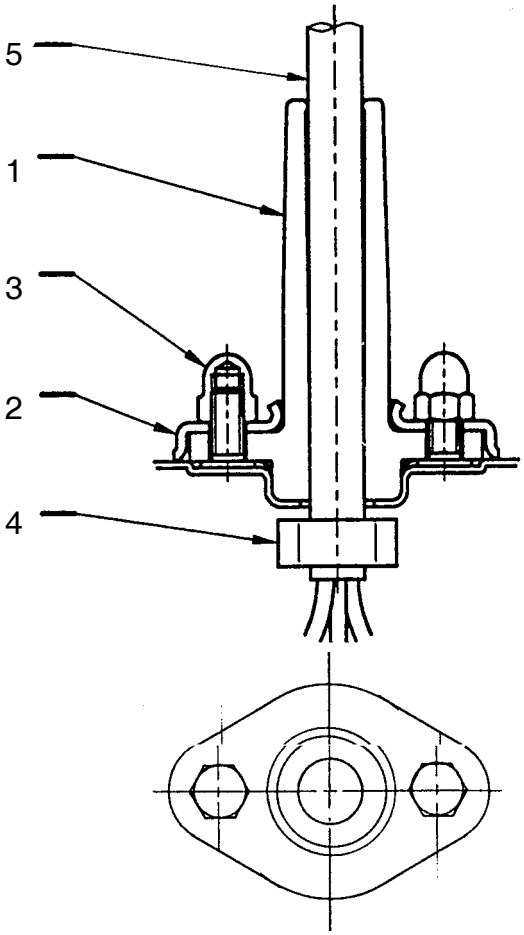


No.	Part Name	Material
1	Rubber seat	NBR
2	Stationary ring	Ceramic
3	Rotary ring	Graphite
4	Rotary seal	Rubber NBR
5	Coil Spring	AISI 304 stainless steel
6	Rotary seal	Rubber FPM
7	Rotary ring	Silicon carbide
8	Stationary ring	Silicon carbide
9	Rubber seat	FPM

Project: Model: Chk'd: Date:

Details of Cable Entry

Based on the years of experience, EBARA provides the most dependable cable entry construction of any submersible pump. Its features are as follows:



Part No.	Part Name	Material	ASTM, AISI Code	Remarks
1	Cable Connector	Rubber (NBR)		
2	Flange	304SS	AISI 304	
3	Cap Nut	304SS	AISI 304	Size: M5
4	Cable Stopper	Steel	A283 Grade D	
5	Submersible Cable	—		SOW-A
	for Float Switch	—		H05RN-F

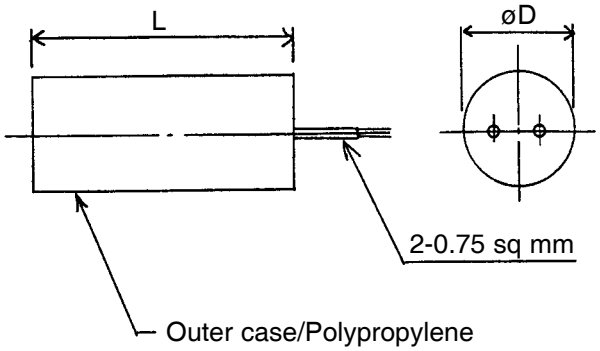
Technical Information

Project: Model: Chk'd: Date:

Mechanical Seal and Ball Bearing

Model	Output		Mechanical Seal	Lubricating Oil			Ball Bearing	
	HP	kW	Type	Capacity		Name	Bottom	Top
				Ozs	CC			
DWU-DWFU	1/2	0.4	MG91-D1/15-G54	14	385	White Mineral Oil	6303 ZZ	6203 ZZ
DWXU-DWXFU	1	0.75	MG91-D1/15-G54	14	385	Esso Marcol 152	6303 ZZ	6203 ZZ
	1 1/2	1.1	MG91-D1/15-G54	14	385		6303 ZZ	6203 ZZ
	2	1.5	MG91-D1/15-G54	14	385		6303 ZZ	6203 ZZ
	3	2.2	MG91-D1/15-G54	14	385		6303 ZZ	6203 ZZ

Capacitor



Phase	Output		Voltage (V)	Specification			Dimension		Remarks
	kW	HP		Capacity (µF)	Rated Voltage (V)	Max. Temp. (°F)	D	L	
Single	0.4	1/2	115	25	250	185	1 7/16	2 7/8	
				30	250	185	1 9/16	2 7/8	
			208/230	20	450	185	1 9/16	2 7/8	
	0.75	1	115	40	250	185	1 7/16	3 13/16	Use 2 pcs.
			208/230	25	450	185	1 7/16	3 13/16	
	1.1	1 1/2	208/230	31.5	450	185	1 9/16	3 13/16	
	1.5	2	208/230	25	450	185	1 9/16	2 7/8	
				25	450	185	1 7/16	3 13/16	

Project: Model: Chk'd: Date:

Maximum Submergence of Pumps

EBARA submersible pumps shall be capable of continuous submergence underwater without loss of watertight integrity to the following depths:

Model	Operation	Maximum Submergence
DWU DWFU DWXU DWXFU	Manual Operation	33 ft.
DWAU DWFAU DWXAU DWXFAU	Automatic Operation (A)	33 ft.