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# Submersible Sewage Pump

## Model DWU/DWXU Dominator



## Technical Specification

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**EBARA**

EBARA Pumps Americas Corporation

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| 50DWXFU6.4S2  |                |                 |                   |            |               |                |
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| 50DWAU61.1S2                          |                |                 |                   |            |               |                |
| 50DWFAU6.4S                           | 1-129          | 1-130           | 1-132             | 1-143      | 1-148 – 1-158 | 1-146          |
| 50DWFAU6.75S                          |                |                 |                   |            |               |                |
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## Model Designation

|                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 50 | DW | U | 6 | 1.5 | S | 2 | SS |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----|----|---|---|-----|---|---|----|
| <b>DISCHARGE SIZE – mm</b><br>50mm – 2"                                                                                                                                                                                                                                                                                                                                                                                                                   |    |    |   |   |     |   |   |    |
| <b>MODEL TYPE</b><br>DW – single channel, threaded connection, manual<br>DWA – single channel, threaded connection, automatic<br>DWF – single channel, flanged connection, manual<br>DWFA – single channel, flanged connection, automatic<br>DWX – vortex type, threaded connection, manual<br>DWXA – vortex type, threaded connection, automatic<br>DWXF – vortex type, flanged connection, manual<br>DWXFA – vortex type, flanged connection, automatic |    |    |   |   |     |   |   |    |
| <b>GEOGRAPHIC DESIGNATION</b><br>U-U.S.A market                                                                                                                                                                                                                                                                                                                                                                                                           |    |    |   |   |     |   |   |    |
| <b>HERTZ</b><br>6 – 60                                                                                                                                                                                                                                                                                                                                                                                                                                    |    |    |   |   |     |   |   |    |
| <b>RATED KW</b><br>.4    ½ HP<br>.75   1HP<br>1.1   1½ HP<br>1.5   2HP<br>2.2   3HP                                                                                                                                                                                                                                                                                                                                                                       |    |    |   |   |     |   |   |    |
| <b>PHASE</b><br>none – three phase<br>S – single phase                                                                                                                                                                                                                                                                                                                                                                                                    |    |    |   |   |     |   |   |    |
| <b>Voltage</b><br>(none) – 115<br>2 – 208-230<br>4 – 460                                                                                                                                                                                                                                                                                                                                                                                                  |    |    |   |   |     |   |   |    |
| <b>BRACKET (2HP &amp; 3HP models only)</b><br>(none) – Cast Iron<br>SS – 304 Stainless Steel                                                                                                                                                                                                                                                                                                                                                              |    |    |   |   |     |   |   |    |

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



**Specifications**

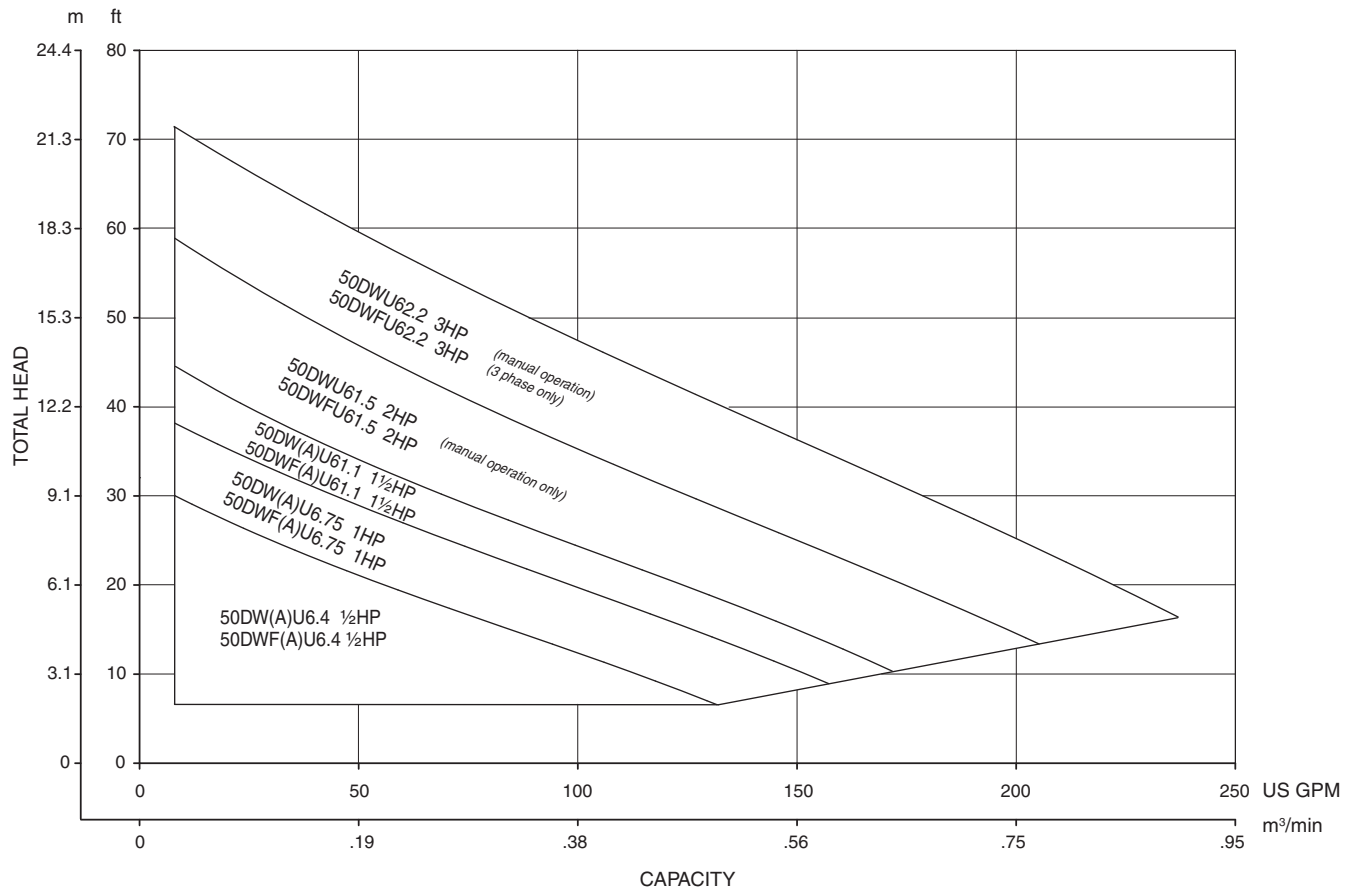
|                                                                                                                                                                                                               | Manual                                                                                    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

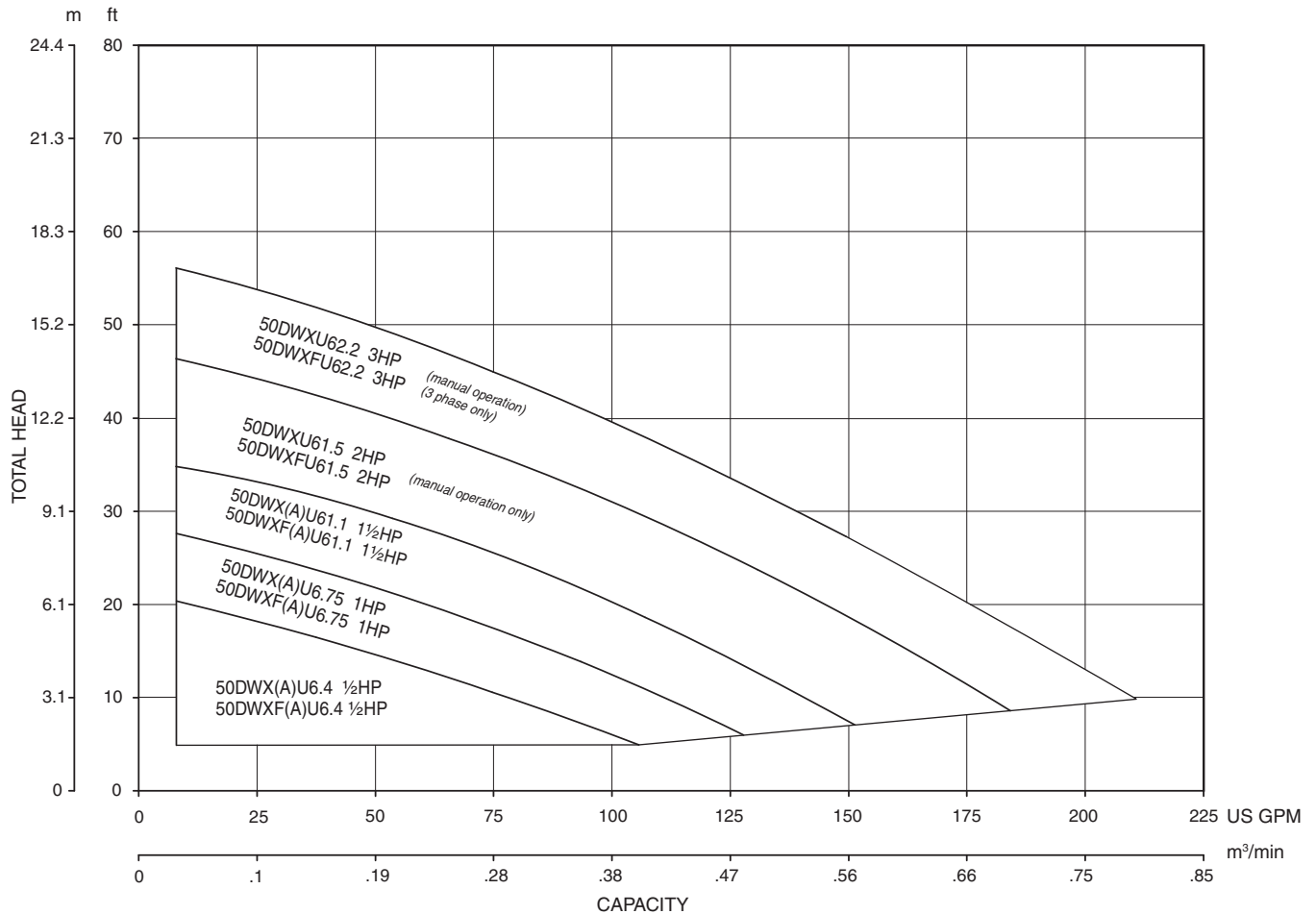
Single Channel Impeller



Selection Chart

Model DWX(A)U  
DWXF(A)U

Vortex Impeller

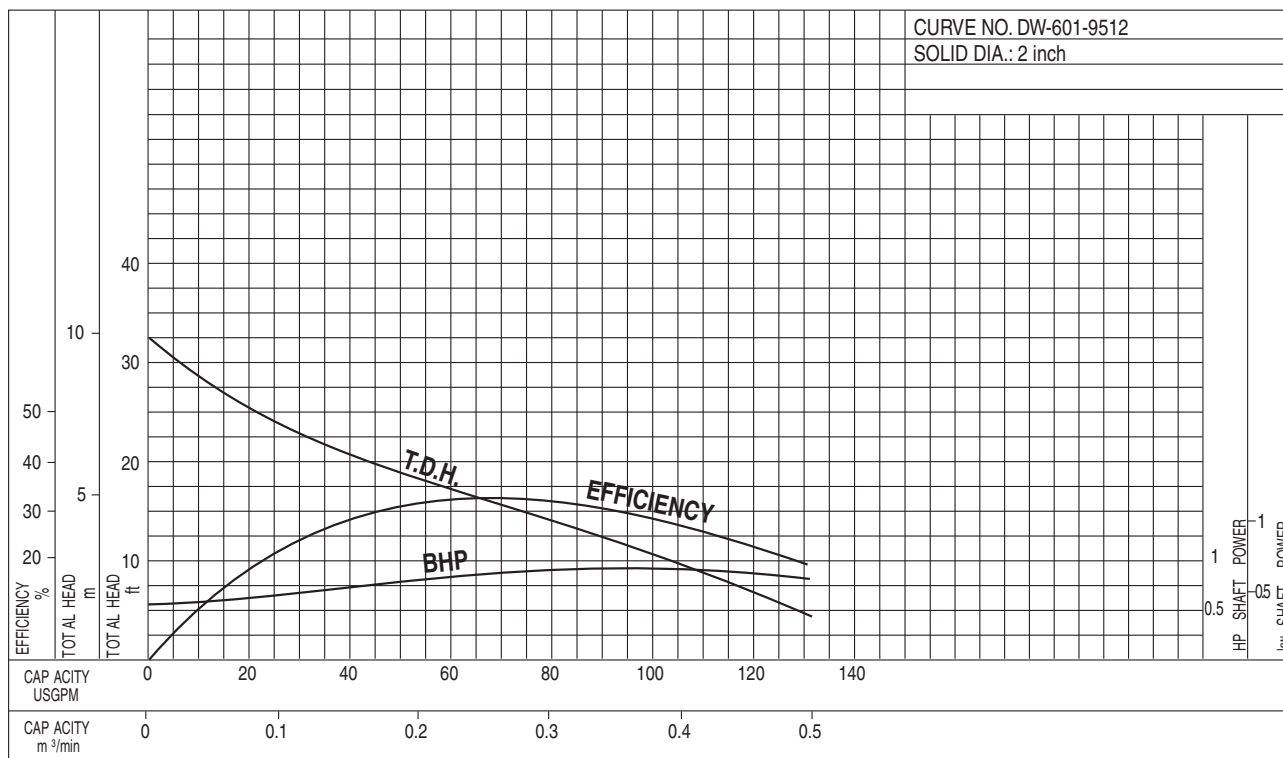


Performance Curves

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

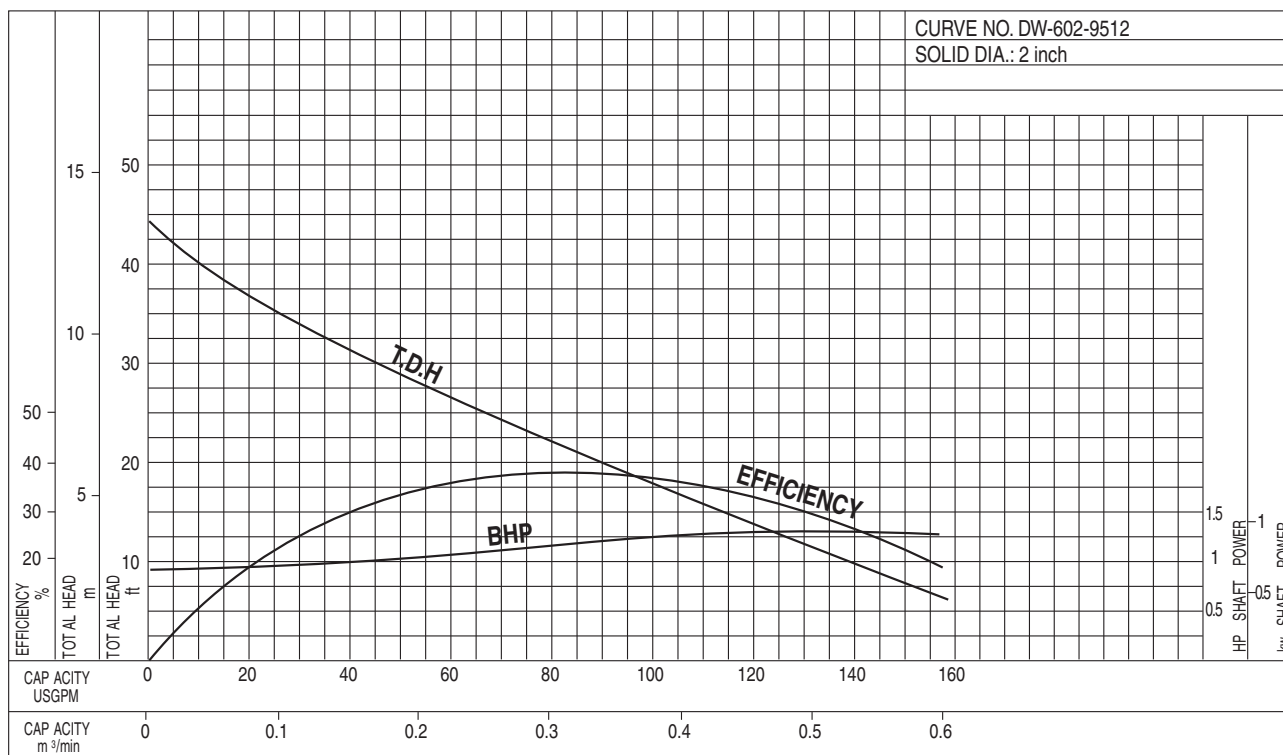
50DW6.4 (1/2HP) Synchronous Speed: 3600 RPM

2 inch Discharge



50DW6.75 (1HP) Synchronous Speed: 3600 RPM

2 inch Discharge

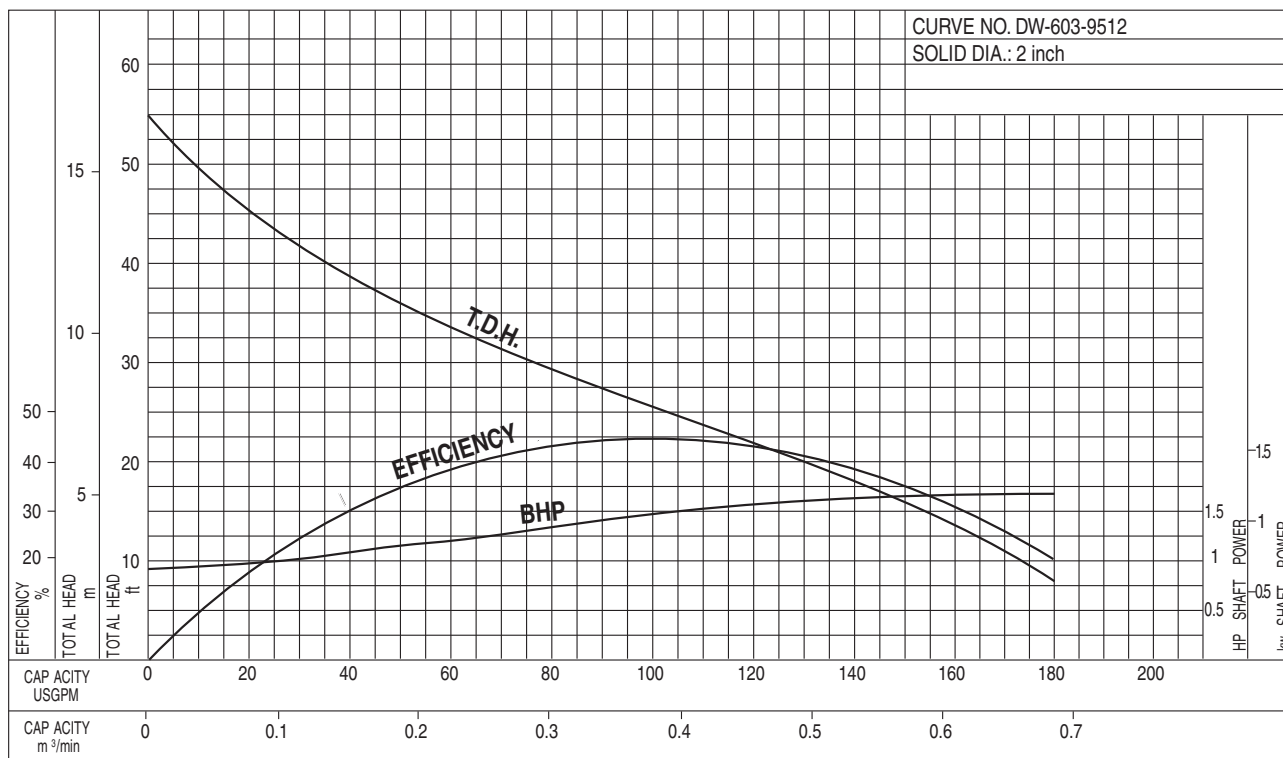


Performance Curves

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

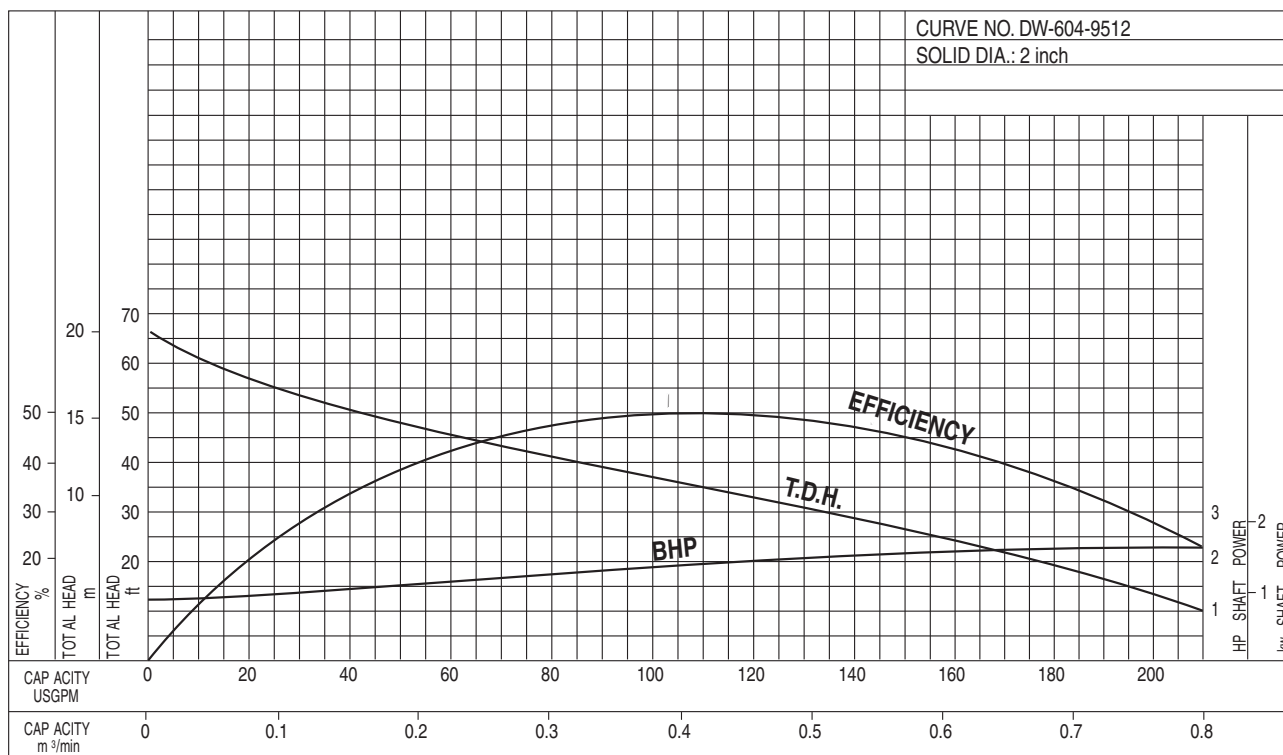
50DW61.1 (1½HP) Synchronous Speed: 3600 RPM

2 inch Discharge



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

2 inch Discharge



Performance Curves

Project:

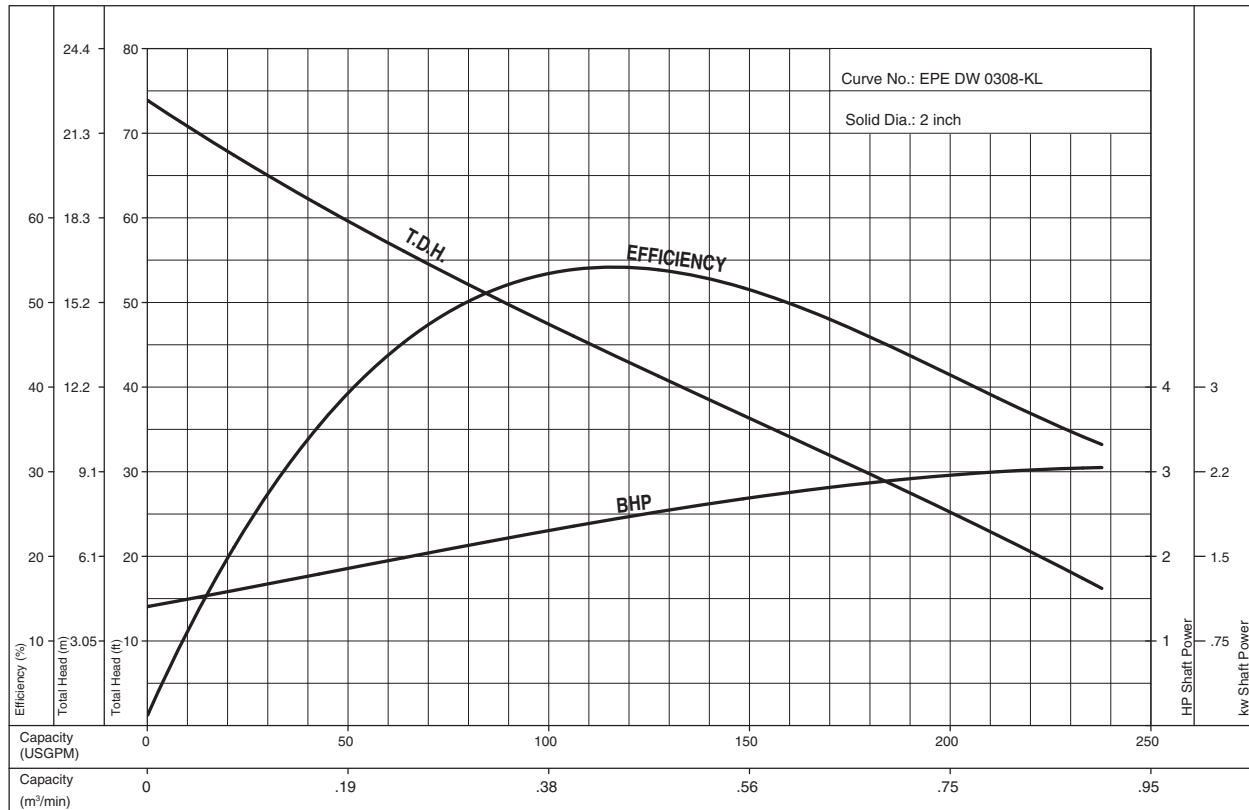
Model:

Chk'd:

Date:

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

2 inch Discharge

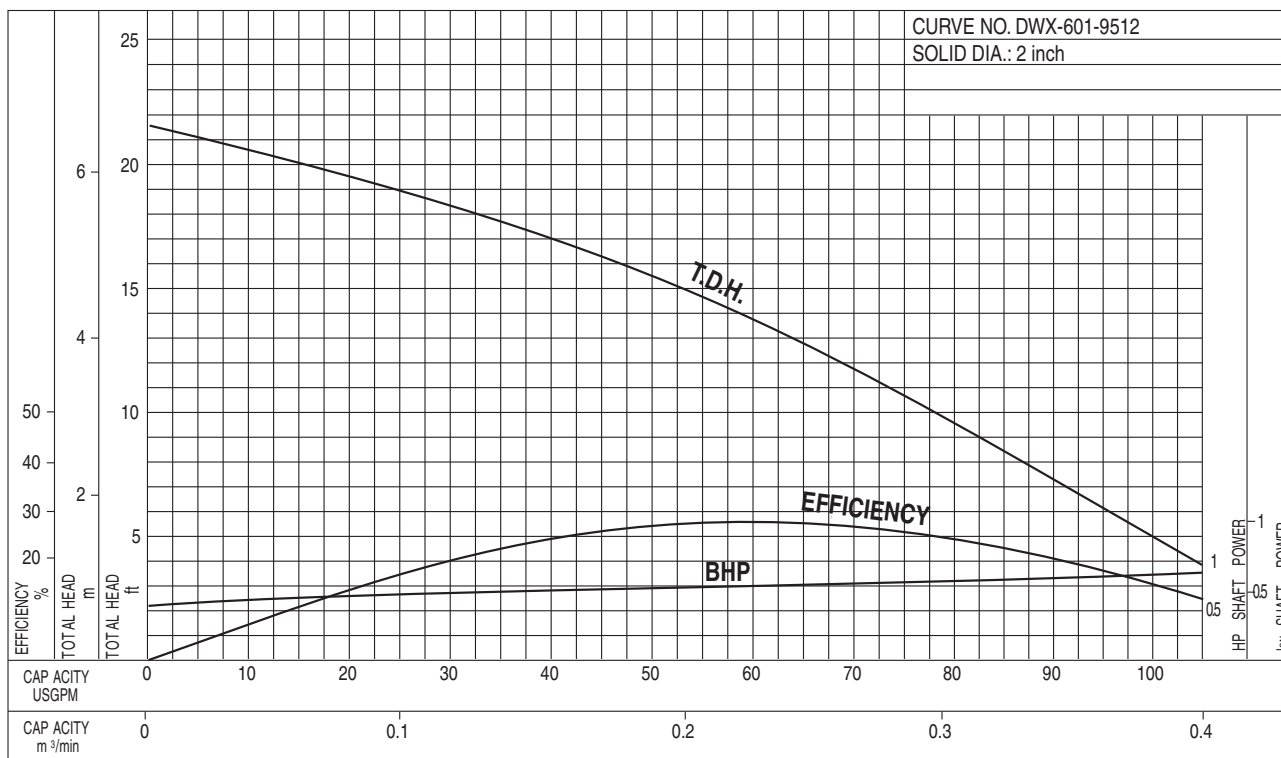


Performance Curves

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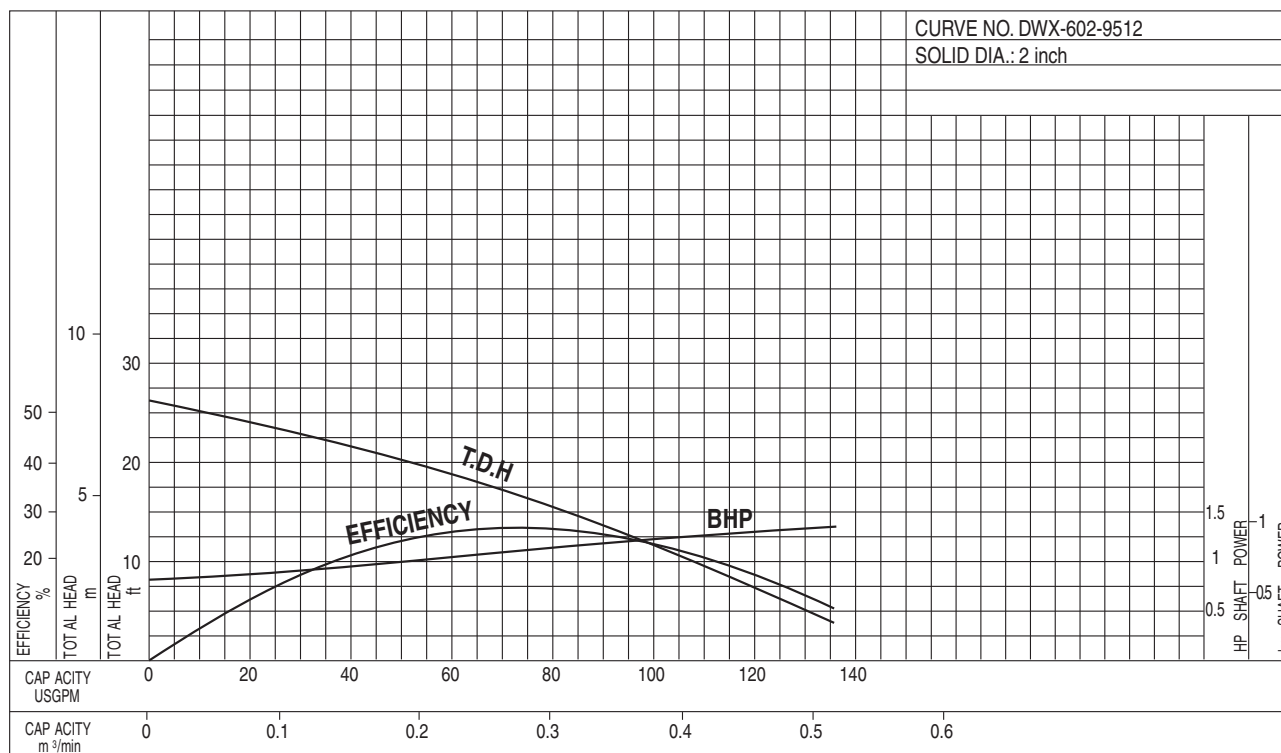
50DWX6.4 (1/2HP) Synchronous Speed: 3600 RPM

2 inch Discharge



50DWX6.75 (1HP) Synchronous Speed: 3600 RPM

2 inch Discharge

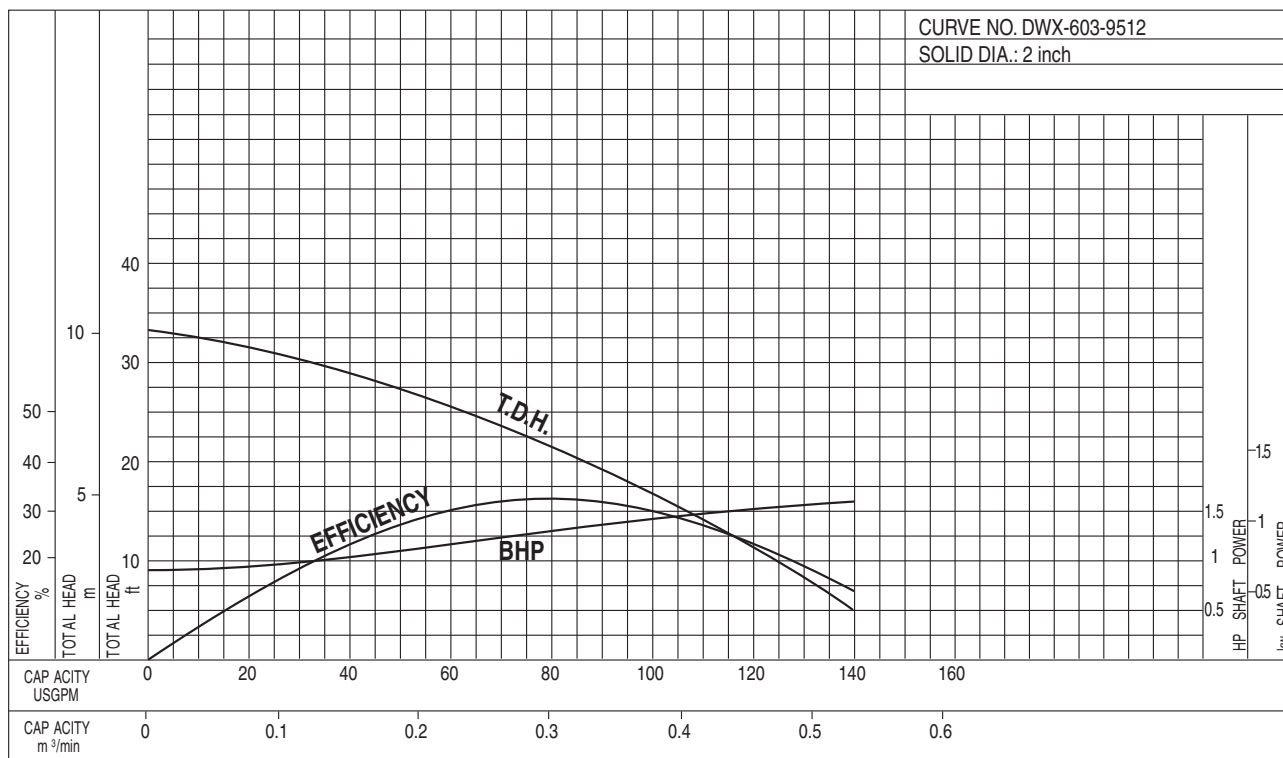


Performance Curves

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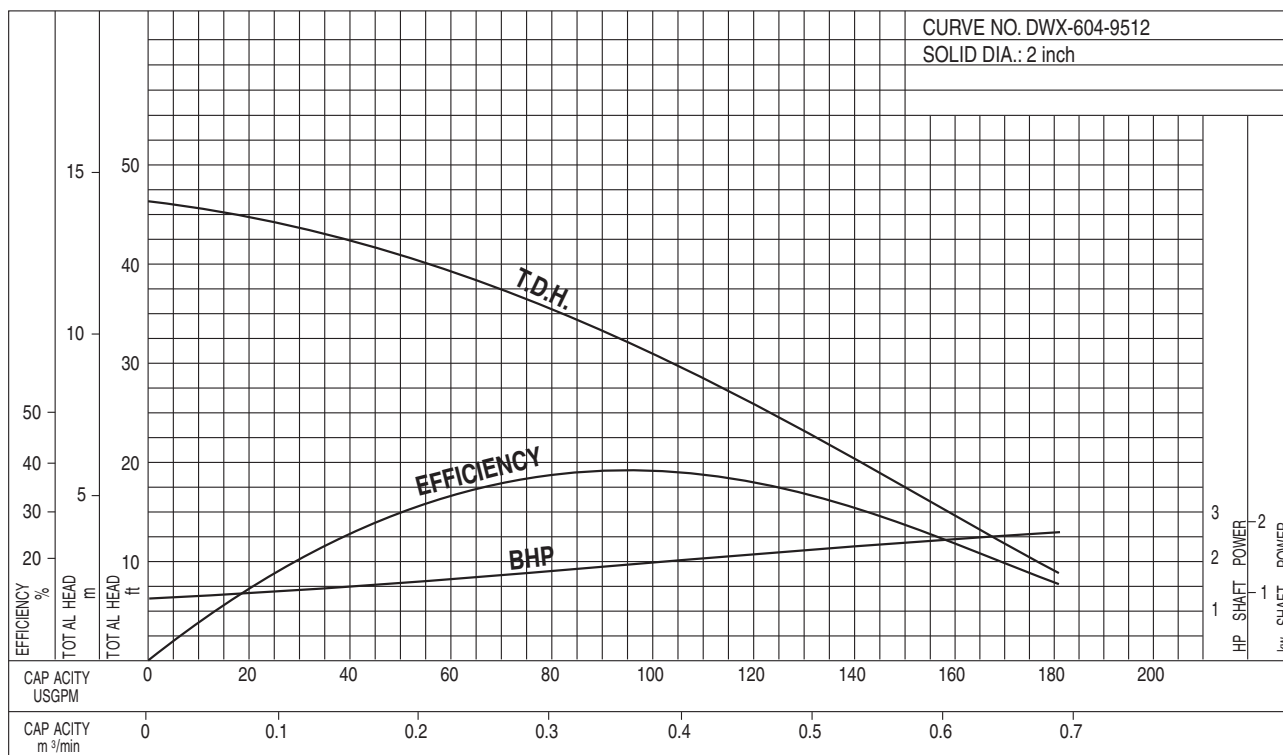
50DWX61.1 (1½HP) Synchronous Speed: 3600 RPM

2 inch Discharge



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

2 inch Discharge



**Performance Curves**

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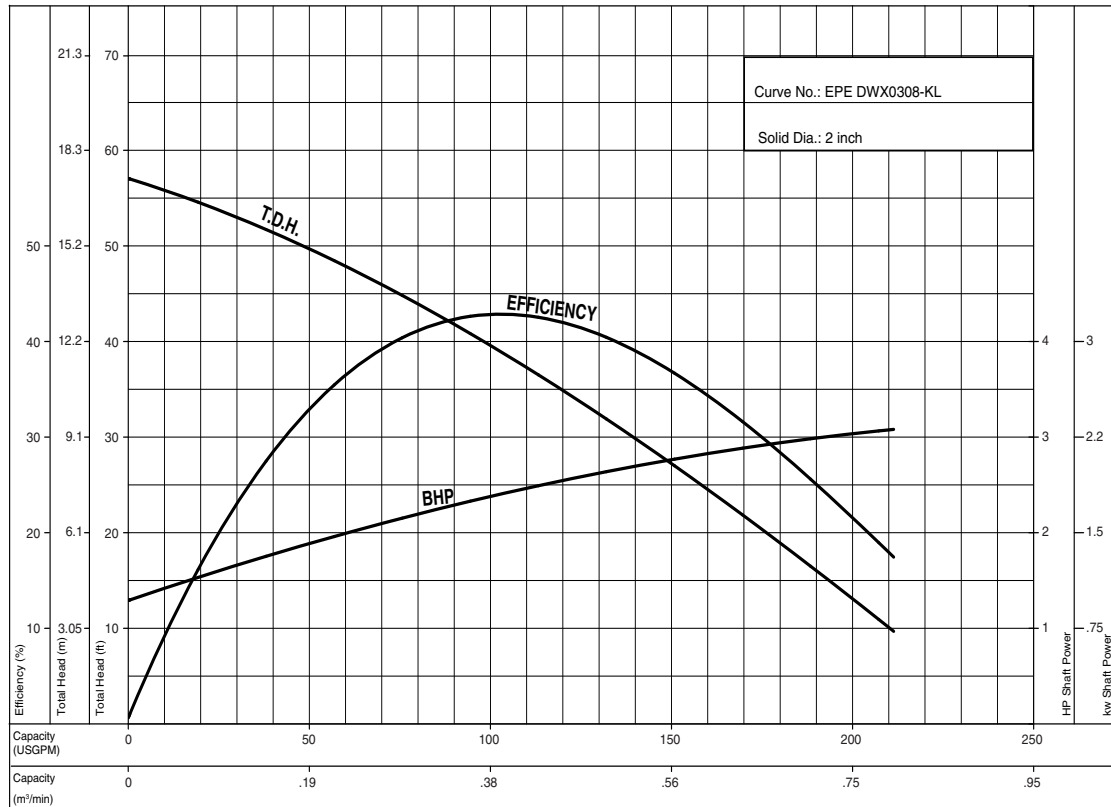
Model:

Chk'd:

Date:

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

**2 inch Discharge**



**Dimensions**

Project:

Model:

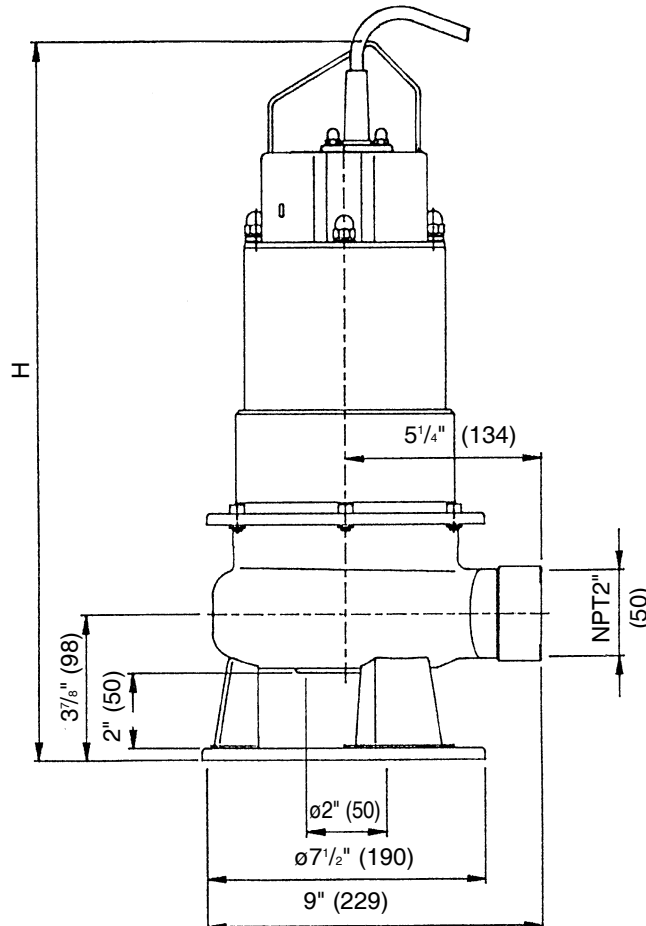
Chk'd:

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<br>ø    | Model       | Output |       | Pump                                   | Weight<br>Lbs (kg) |
|--------|--------------|-------------|--------|-------|----------------------------------------|--------------------|
|        |              |             | kw     | HP    | H                                      |                    |
| Single | 2"<br>(50mm) | 50DWU6.4S   | 0.4    | 1/2   | 21 <sup>5</sup> / <sub>8</sub> (550)   | 35 (16)            |
|        |              | 50DWU6.75S  | 0.75   | 1     | 22 <sup>13</sup> / <sub>16</sub> (580) | 40 (18)            |
|        |              | 50DWU6.4S2  | 0.4    | 1/2   | 19 <sup>1</sup> / <sub>8</sub> (485)   | 35 (16)            |
|        |              | 50DWU6.75S2 | 0.75   | 1     | 20 <sup>1</sup> / <sub>4</sub> (515)   | 40 (18)            |
|        |              | 50DWU61.1S2 | 1.1    | 1 1/2 | 20 <sup>1</sup> / <sub>4</sub> (515)   | 44 (20)            |
|        |              | 50DWU61.5S2 | 1.5    | 2     | 24 (610)                               | 51 (23)            |
| Three  | 2"<br>(50mm) | 50DWU6.4    | 0.4    | 1/2   | 19 <sup>1</sup> / <sub>8</sub> (485)   | 33 (15)            |
|        |              | 50DWU6.75   | 0.75   | 1     | 19 <sup>1</sup> / <sub>8</sub> (485)   | 35 (16)            |
|        |              | 50DWU61.1   | 1.1    | 1 1/2 | 20 <sup>1</sup> / <sub>4</sub> (515)   | 40 (18)            |
|        |              | 50DWU61.5   | 1.5    | 2     | 20 <sup>1</sup> / <sub>4</sub> (515)   | 44 (20)            |
|        |              | 50DWU62.2   | 2.2    | 3     | 21 <sup>7</sup> / <sub>16</sub> (545)  | 55 (25)            |



**Dimensions**

Project:

Model:

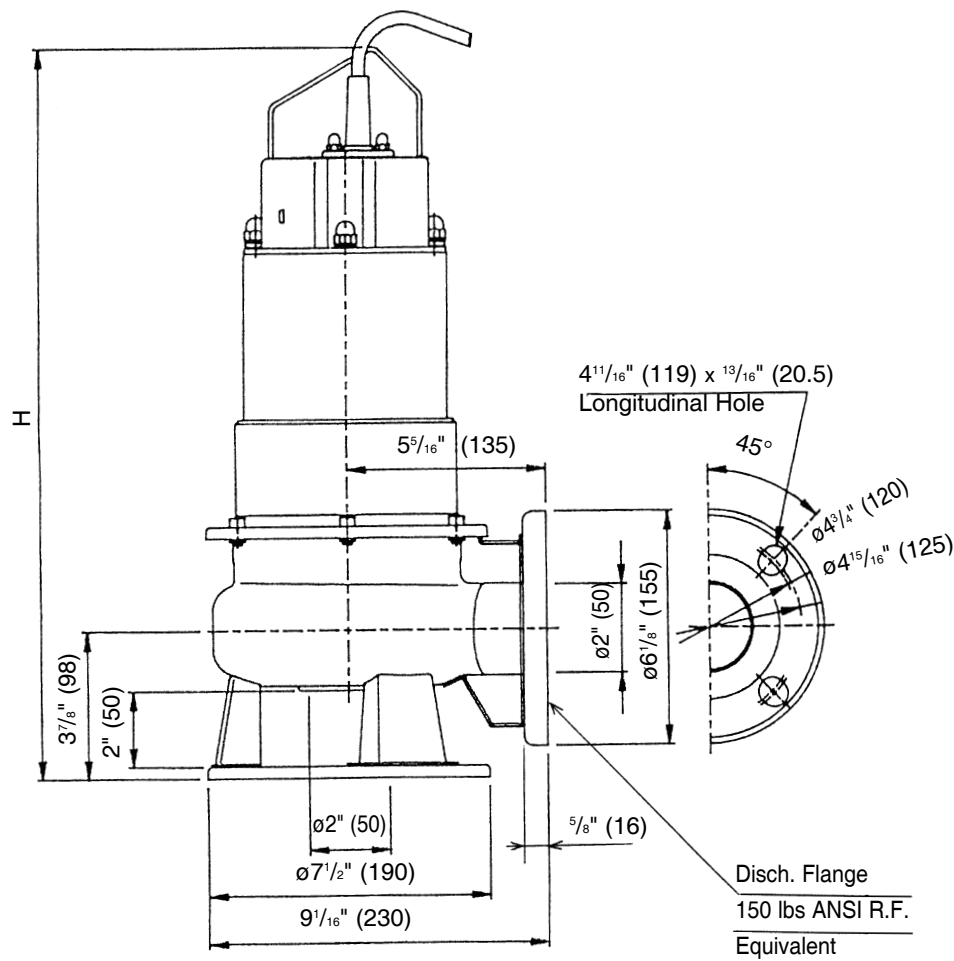
Chk'd:

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<br>$\phi$ | Model        | Output |                | Pump                     | Weight<br>Lbs (kg) |
|--------|----------------|--------------|--------|----------------|--------------------------|--------------------|
|        |                |              | kw     | HP             | H                        |                    |
| Single | 2"<br>(50mm)   | 50DWFU6.4S   | 0.4    | $\frac{1}{2}$  | $21\frac{5}{8}" (550)$   | 37 (17)            |
|        |                | 50DWFU6.75S  | 0.75   | 1              | $22\frac{13}{16}" (580)$ | 42 (19)            |
|        |                | 50DWFU6.4S2  | 0.4    | $\frac{1}{2}$  | $19\frac{1}{8}" (485)$   | 37 (17)            |
|        |                | 50DWFU6.75S2 | 0.75   | 1              | $20\frac{1}{4}" (515)$   | 42 (19)            |
|        |                | 50DWFU61.1S2 | 1.1    | $1\frac{1}{2}$ | $20\frac{1}{4}" (515)$   | 46 (21)            |
|        |                | 50DWFU61.5S2 | 1.5    | 2              | 24 (610)                 | 53 (24)            |
| Three  | 2"<br>(50mm)   | 50DWFU6.4    | 0.4    | $\frac{1}{2}$  | $19\frac{1}{8}" (485)$   | 35 (16)            |
|        |                | 50DWFU6.75   | 0.75   | 1              | $19\frac{1}{8}" (485)$   | 37 (17)            |
|        |                | 50DWFU61.1   | 1.1    | $1\frac{1}{2}$ | $20\frac{1}{4}" (515)$   | 42 (19)            |
|        |                | 50DWFU61.5   | 1.5    | 2              | $20\frac{1}{4}" (515)$   | 46 (21)            |
|        |                | 50DWFU62.2   | 2.2    | 3              | $21\frac{7}{16}" (545)$  | 57 (26)            |



**Dimensions**

Project:

Model:

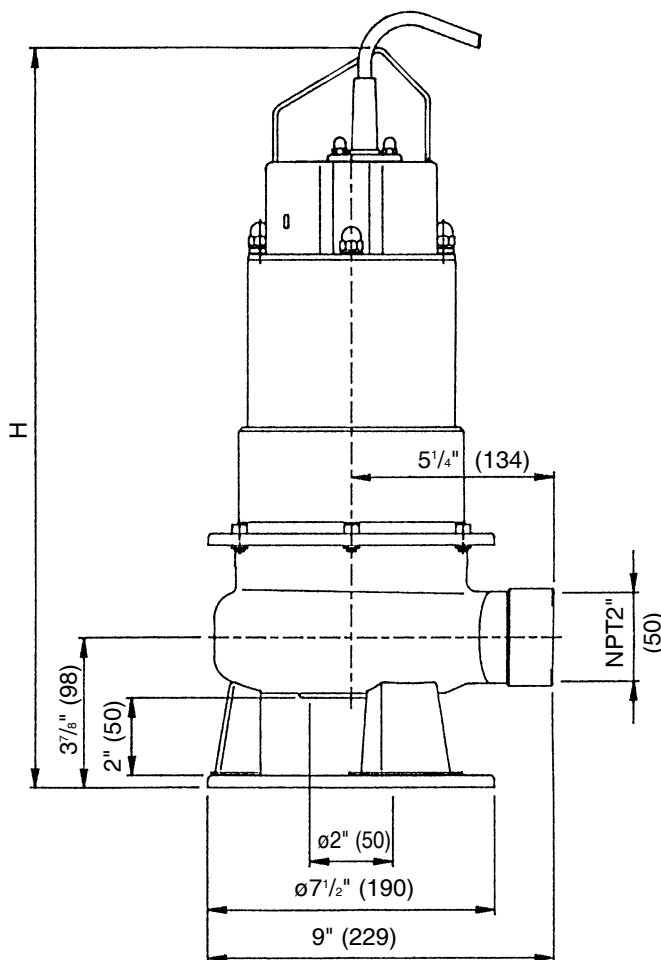
Chk'd:

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<br>ø    | Model        | Output |       | Pump                                   | Weight<br>Lbs (kg) |
|--------|--------------|--------------|--------|-------|----------------------------------------|--------------------|
|        |              |              | kw     | HP    | H                                      |                    |
| Single | 2"<br>(50mm) | 50DWXU6.4S   | 0.4    | 1/2   | 21 <sup>5</sup> / <sub>8</sub> (550)   | 35 (16)            |
|        |              | 50DWXU6.75S  | 0.75   | 1     | 22 <sup>13</sup> / <sub>16</sub> (580) | 40 (18)            |
|        |              | 50DWXU6.4S2  | 0.4    | 1/2   | 19 <sup>1</sup> / <sub>8</sub> (485)   | 35 (16)            |
|        |              | 50DWXU6.75S2 | 0.75   | 1     | 20 <sup>1</sup> / <sub>4</sub> (515)   | 40 (18)            |
|        |              | 50DWXU61.1S2 | 1.1    | 1 1/2 | 20 <sup>1</sup> / <sub>4</sub> (515)   | 44 (20)            |
|        |              | 50DWXU61.5S2 | 1.5    | 2     | 24 (610)                               | 51 (23)            |
| Three  | 2"<br>(50mm) | 50DWXU6.4    | 0.4    | 1/2   | 19 <sup>1</sup> / <sub>8</sub> (485)   | 33 (15)            |
|        |              | 50DWXU6.75   | 0.75   | 1     | 19 <sup>1</sup> / <sub>8</sub> (485)   | 35 (16)            |
|        |              | 50DWXU61.1   | 1.1    | 1 1/2 | 20 <sup>1</sup> / <sub>4</sub> (515)   | 40 (18)            |
|        |              | 50DWXU61.5   | 1.5    | 2     | 20 <sup>1</sup> / <sub>4</sub> (515)   | 44 (20)            |
|        |              | 50DWXU62.2   | 2.2    | 3     | 21 <sup>7</sup> / <sub>16</sub> (545)  | 55 (25)            |



**Dimensions**

Project:

Model:

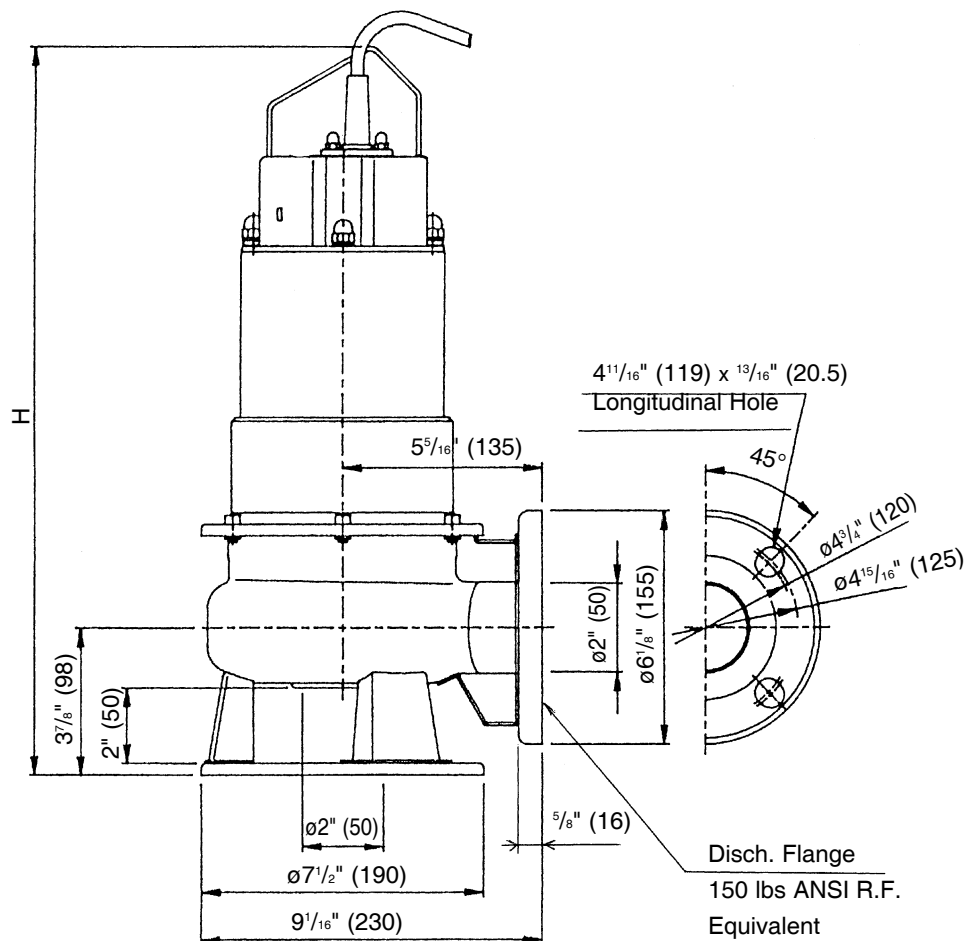
Chk'd:

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<br>$\phi$ | Model         | Output |                | Pump                     | Weight<br>Lbs (kg) |
|--------|----------------|---------------|--------|----------------|--------------------------|--------------------|
|        |                |               | kw     | HP             | H                        |                    |
| Single | 2"<br>(50mm)   | 50DWXFU6.4S   | 0.4    | $\frac{1}{2}$  | $21\frac{5}{8}" (550)$   | 37 (17)            |
|        |                | 50DWXFU6.75S  | 0.75   | 1              | $22\frac{13}{16}" (580)$ | 42 (19)            |
|        |                | 50DWXFU6.4S2  | 0.4    | $\frac{1}{2}$  | $19\frac{1}{8}" (485)$   | 37 (17)            |
|        |                | 50DWXFU6.75S2 | 0.75   | 1              | $20\frac{1}{4}" (515)$   | 42 (19)            |
|        |                | 50DWXFU61.1S2 | 1.1    | $1\frac{1}{2}$ | $20\frac{1}{4}" (515)$   | 46 (21)            |
|        |                | 50DWXFU61.5S2 | 1.5    | 2              | 24 (610)                 | 53 (24)            |
| Three  | 2"<br>(50mm)   | 50DWXFU6.4    | 0.4    | $\frac{1}{2}$  | $19\frac{1}{8}" (485)$   | 35 (16)            |
|        |                | 50DWXFU6.75   | 0.75   | 1              | $19\frac{1}{8}" (485)$   | 37 (17)            |
|        |                | 50DWXFU61.1   | 1.1    | $1\frac{1}{2}$ | $20\frac{1}{4}" (515)$   | 42 (19)            |
|        |                | 50DWXFU61.5   | 1.5    | 2              | $20\frac{1}{4}" (515)$   | 46 (21)            |
|        |                | 50DWXFU62.2   | 2.2    | 3              | $21\frac{7}{16}" (545)$  | 57 (26)            |



## Dimensions

Project:

Model:

Chk'd:

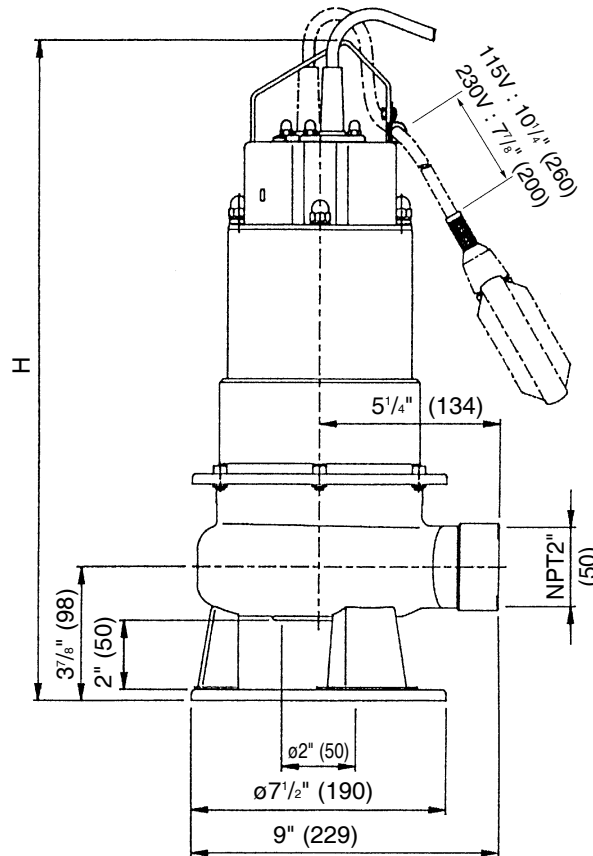
Date:

## Model DWAU

## Model DWXAU

## Automatic Operation Pumps

Unit: inch (mm)



## Model DWAU

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

## Model DWXAU

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



## Dimensions

Project:

Model:

Chk'd:

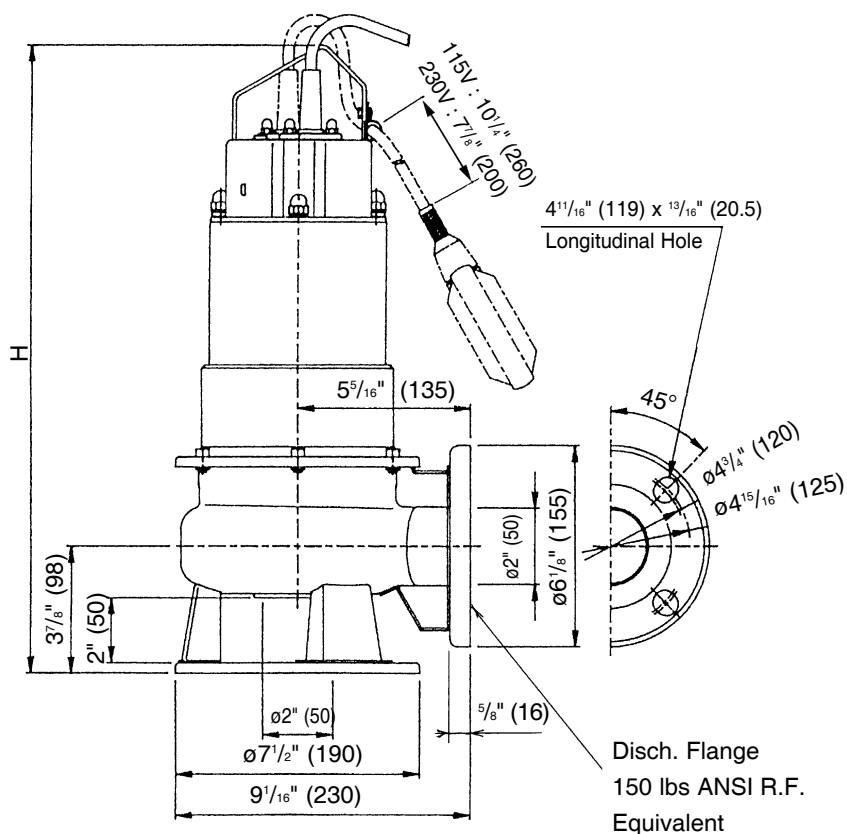
Date:

## Model DWFAU

## Model DWXFAU

## Automatic Operation Pumps

Unit: inch (mm)



## Model DWFAU

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

## Model DWXFAU

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



## Dimensions

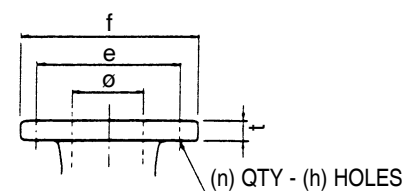
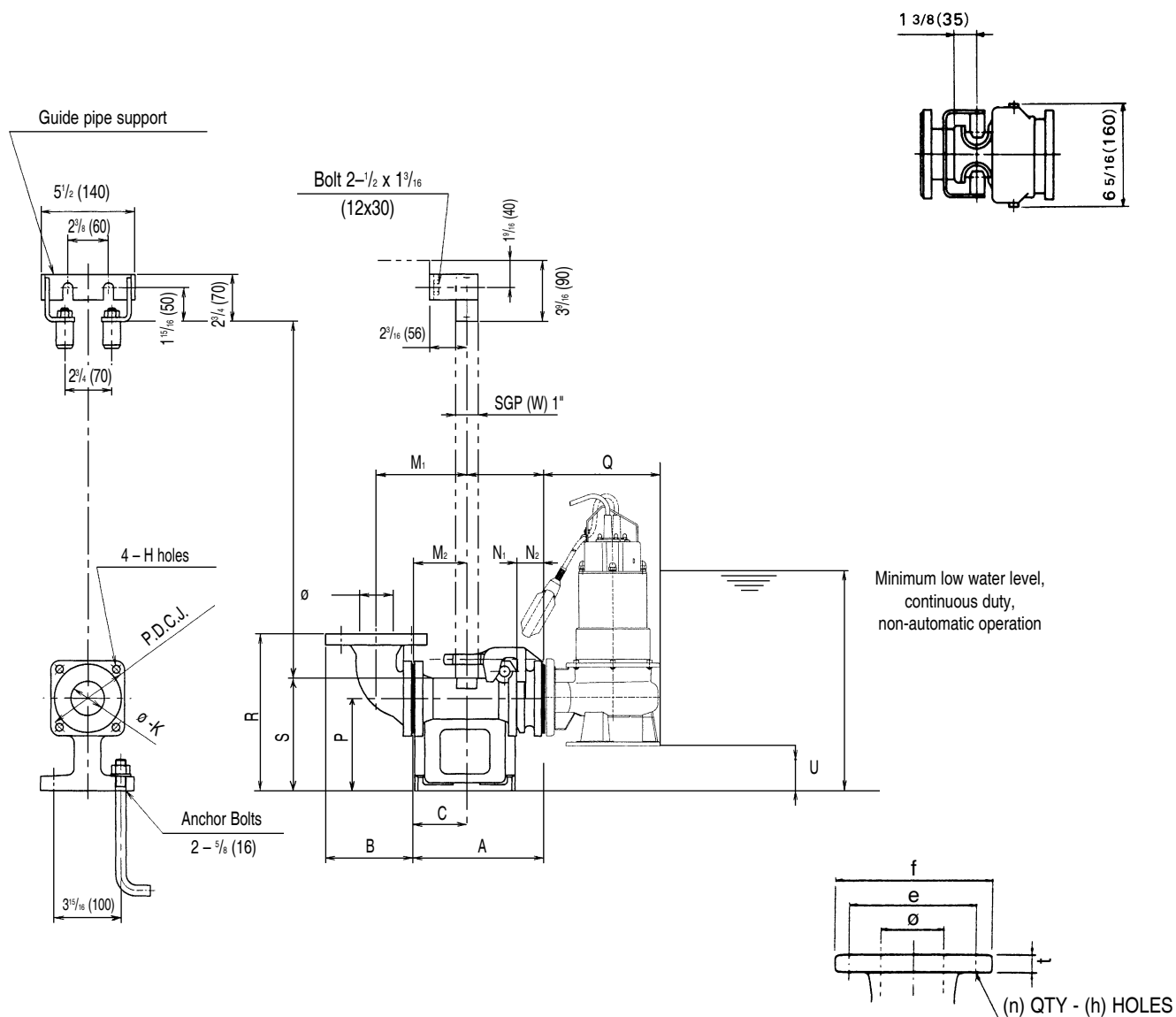
Project:

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 | M <sub>1</sub> | M <sub>2</sub> | N <sub>1</sub> | N <sub>2</sub> | P      | Q     | R      | S     | U      | QDC WEIGHT Lb |
|-------|---------|-------|-------|-----|-------|---|----------------|----------------|----------------|----------------|--------|-------|--------|-------|--------|---------------|
| LM50  | 7 11/16 | 5 1/4 | 3 3/8 | 1/2 | 4 3/4 | 2 | 5 5/16         | 3 3/8          | 4 1/2          | 1 9/16         | 5 5/16 | 9 1/8 | 9 1/16 | 6 1/2 | 2 3/16 | 25            |

## Dimensions: mm

| MODEL | A   | B   | C  | H  | J   | K | M <sub>1</sub> | M <sub>2</sub> | N <sub>1</sub> | N <sub>2</sub> | 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            |



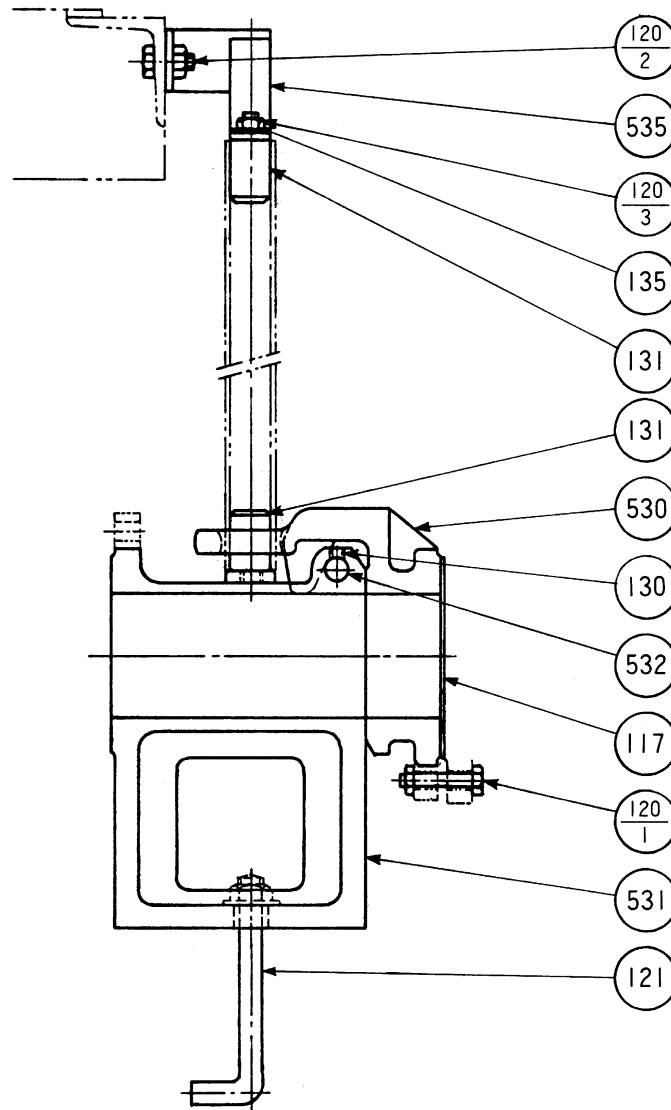
**Dimensions**

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              |



# EBARA Submersible Stainless Steel Pumps DWU, DWAU, DWXU, DWXAU – Dominator

## Sectional View

Project:

Model:

Chk'd:

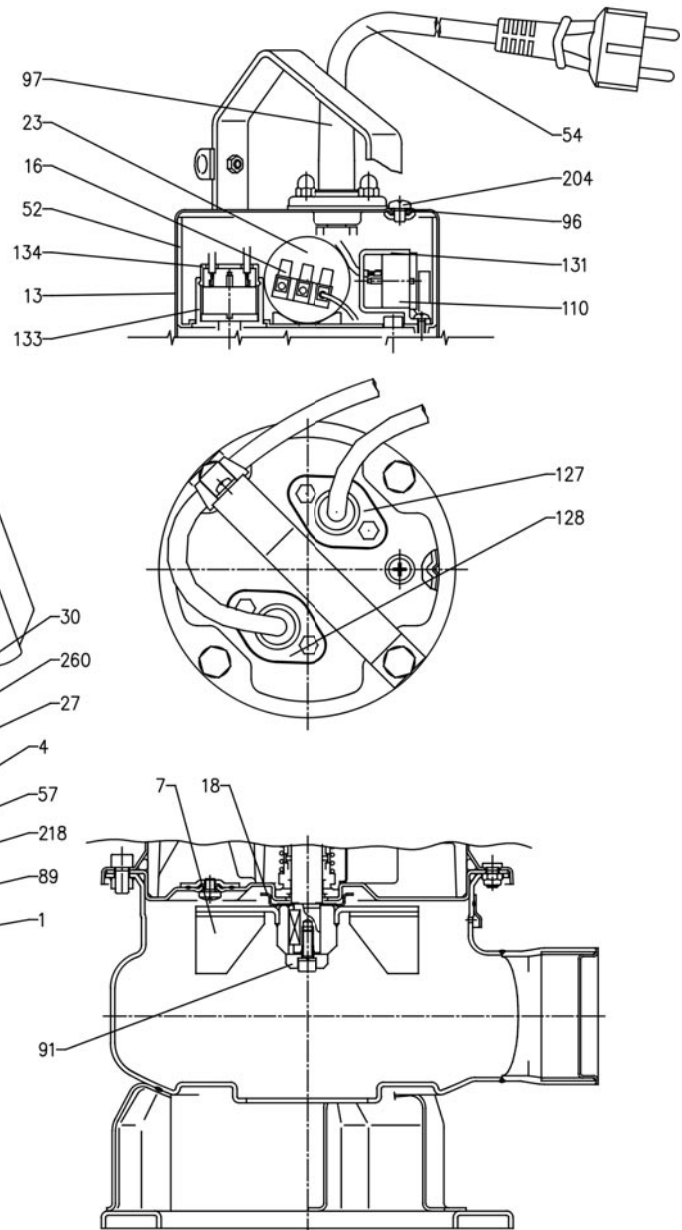
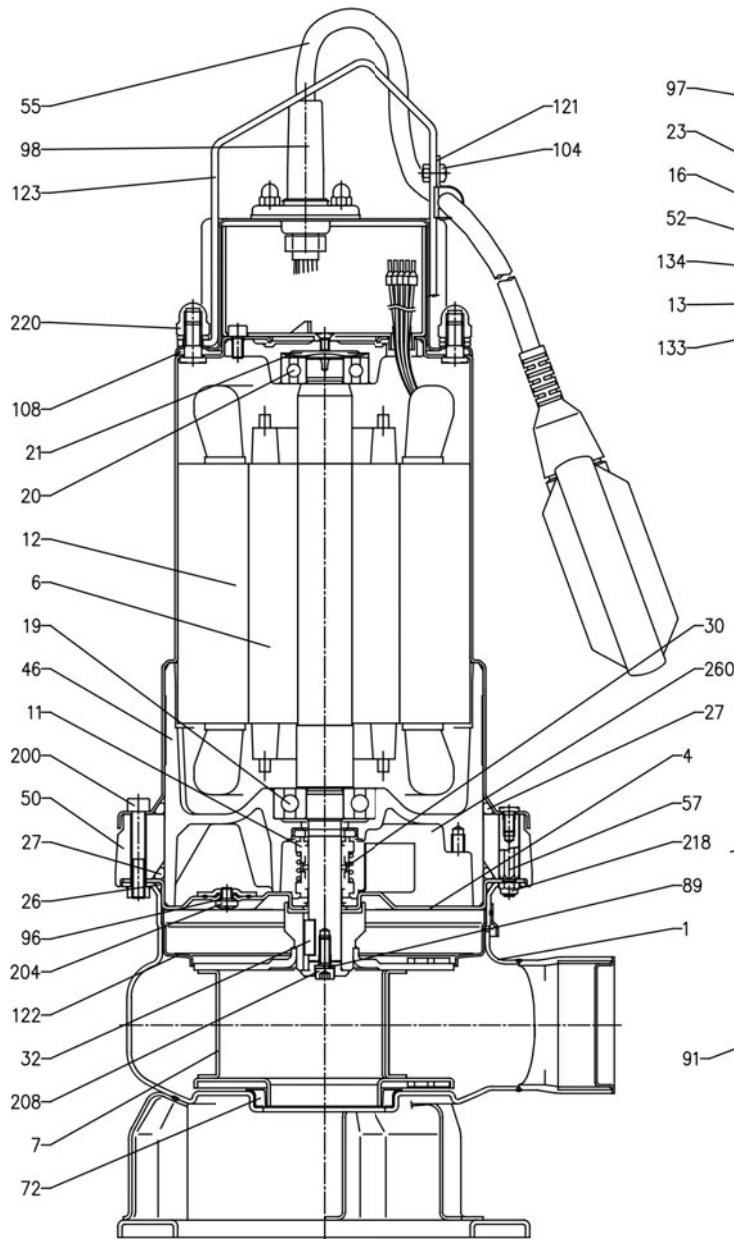
Date:

**Model DWU, DWXU Manual Type**

**Model DWAU, DWXAU Automatic Type**

**DWU, DWAU Single Phase Motor**

**Three Phase Motor**



**EBARA Pumps Americas Corporation**  
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1-146  
rev. 03/24

# EBARA Submersible Stainless Steel Pumps DWU, DWAU, DWXU, DWXAU – Dominator

## 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<br>A2 UNI 7323 | 6   |
| 204 | Screw                            | Stainless Steel<br>A2 UNI 7323 | 3   |
| 208 | Screw                            | Stainless Steel<br>A2 UNI 7323 | 1   |
| 218 | Nut                              | Stainless Steel<br>A2 UNI 7323 | 4   |
| 220 | Nut                              | Stainless Steel<br>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 | mm <sup>2</sup> | AWG  | Length Ft | Efficiency %                     | Power Factor % |                         |           |
| ½      | 0.4  | Single | 115       | 8.3       | 3350         | 33.7                   | F                | Built-In Auto Cut   |                | 3           | 1.25            | #16  | 25        | 63.3                             | 98.0           | 0.66                    | EI        |
|        |      |        | 208       | 3.8       | 3415         | 14.2                   |                  |                     |                |             |                 |      |           | 74.8                             | 98.0           | 2.45                    | 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        |
|        |      |        | 208       | 4.8       | 3451         | 26.6                   |                  |                     |                |             |                 |      |           | 78.3                             | 94.0           | 1.54                    | EI        |
|        |      |        | 230       | 6.5       | 3375         | 28.5                   |                  |                     |                |             |                 |      |           | 72.8                             | 94.3           | 1.54                    | EI        |
| 1½     | 1.1  |        | 208       | 6.9       | 3429         | 34.9                   |                  |                     |                |             | 1.25            | #16  |           | 79.4                             | 96.0           | 1.17                    | EI        |
|        |      |        | 230       | 7.5       | 3380         | 36.8                   |                  |                     |                |             |                 |      |           | 77.6                             | 96.3           | 1.11                    | EI        |
|        |      |        | 208       | 8.8       | 3468         | 50.7                   |                  |                     |                |             |                 |      |           | 79.9                             | 98.0           | 0.76                    | EI        |
| 2      | 1.5  |        | 230       | 11.1      | 3479         | 66.0                   |                  |                     |                |             | 2.0             | #14  |           | 79.5                             | 96.0           | 0.62                    | EI        |
|        |      |        | 208       | 2.5       | 3498         | 19.6                   |                  | 82.8                | 74.0           | 4.16        |                 |      |           | EI                               |                |                         |           |
| ½      | 0.4  |        | Three     | 230       | 3.0          | 3425                   |                  | 23.0                | Thermal Sensor | S00W        | 4               | 1.25 |           | #16                              | 76.5           | 62.0                    | 4.15      |
|        |      | 460    |           | 1.4       | 3450         | 9.9                    | 76.8             | 70.0                |                |             |                 |      | 20.0      |                                  | EI             |                         |           |
|        |      | 208    |           | 4.0       | 3484         | 28.0                   | 79.4             | 65.0                |                |             |                 |      | 3.0       |                                  | EI             |                         |           |
| 230    | 4.2  | 3475   |           | 32.3      | 80.4         | 75.9                   | 2.82             | EI                  |                |             |                 |      |           |                                  |                |                         |           |
| 1      | 0.75 | 460    |           | 2.0       | 3450         | 18.7                   | 81.0             | 76.7                |                |             |                 |      | 13.05     |                                  | EI             |                         |           |
|        |      | 208    |           | 4.5       | 3493         | 39.4                   | 84.2             | 82.0                |                |             |                 |      | 1.97      |                                  | EI             |                         |           |
|        |      | 230    |           | 5.1       | 3500         | 47.0                   | 81.7             | 75.9                |                |             |                 |      | 1.94      |                                  | EI             |                         |           |
| 1½     | 1.1  | 460    |           | 2.5       | 3450         | 24.4                   | 82.6             | 75.4                |                |             |                 |      | 7.43      |                                  | EI             |                         |           |
|        |      | 208    |           | 6.1       |              |                        |                  |                     |                |             |                 |      |           |                                  |                |                         |           |



# EBARA Submersible Stainless Steel Pumps DWU, DWFU, DWXU, DWXFU – Dominator

## Motor Wiring Diagram

Project:

Model:

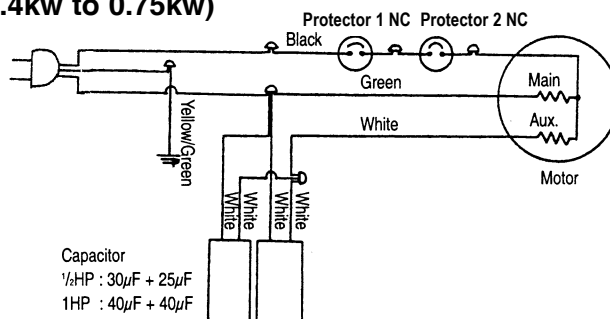
Chk'd:

Date:

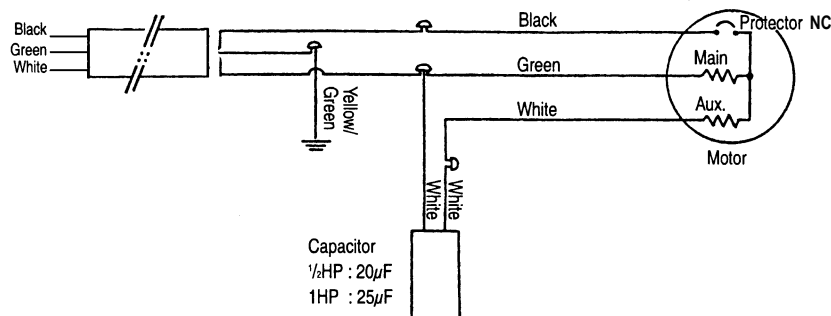
### DWU, DWFU, DWXU, DWXFU

### Manual Operation Type (Single Phase)

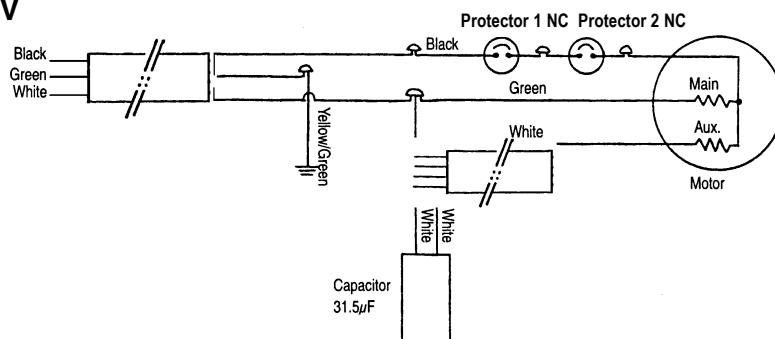
- Output 1/2 to 1 HP (0.4kw to 0.75kw)  
115V



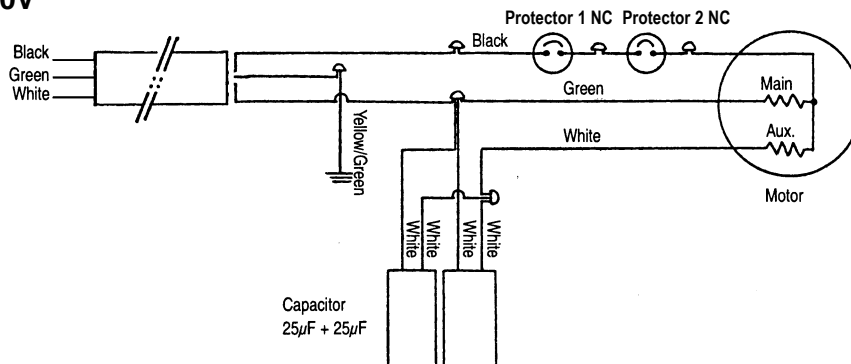
- Output 1/2 to 1 HP (0.4kw to 0.75kw)  
208/230V



- Output 1 1/2 HP (1.1kw)  
208/230V



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



# EBARA Submersible Stainless Steel Pumps DWU, DWFU, DWXU, DWXFU – Dominator

## Motor Wiring Diagram

Project:

Model:

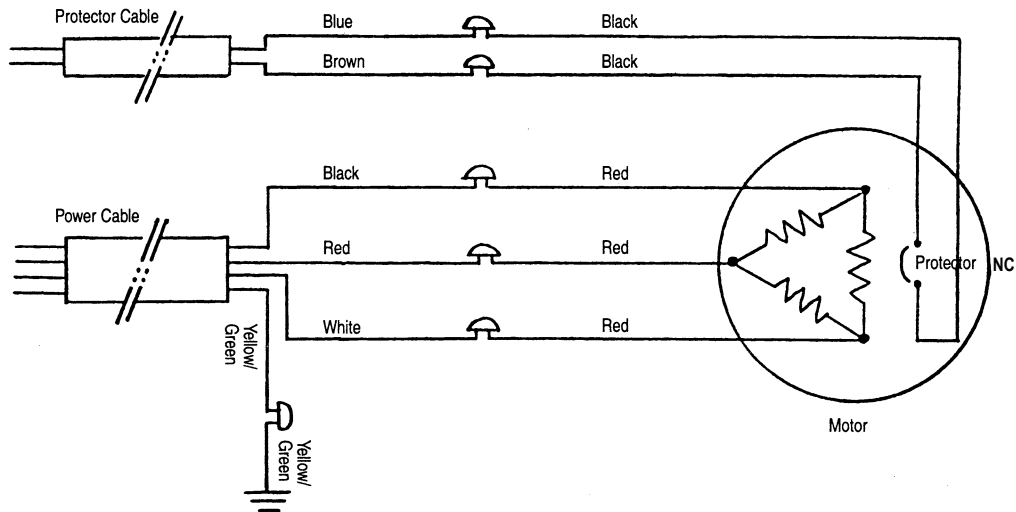
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Date:

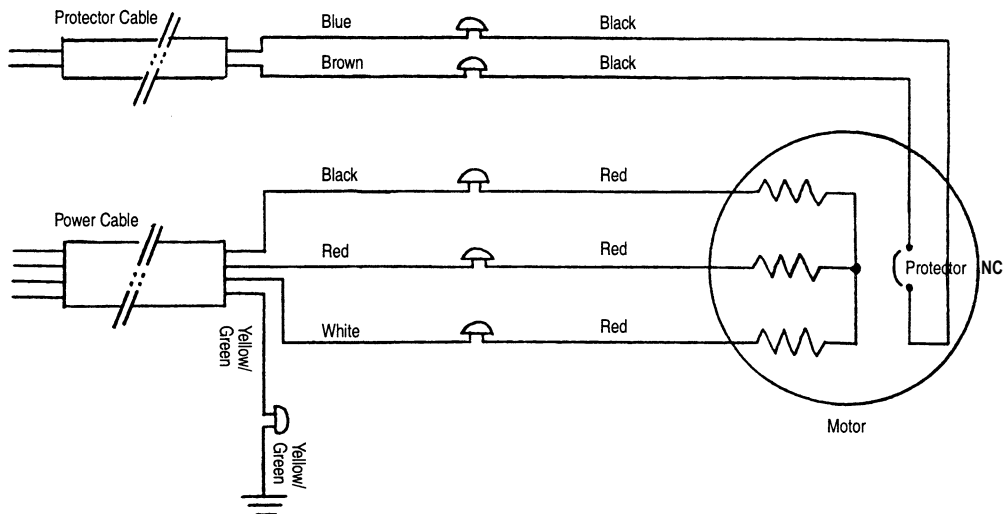
### DWU, DWFU, DWXU, DWXFU

#### Manual Operation Type (Three Phase)

208/230V



460V



# EBARA Submersible Stainless Steel Pumps DWAU, DWFAU, DWXAU, DWXFAU –

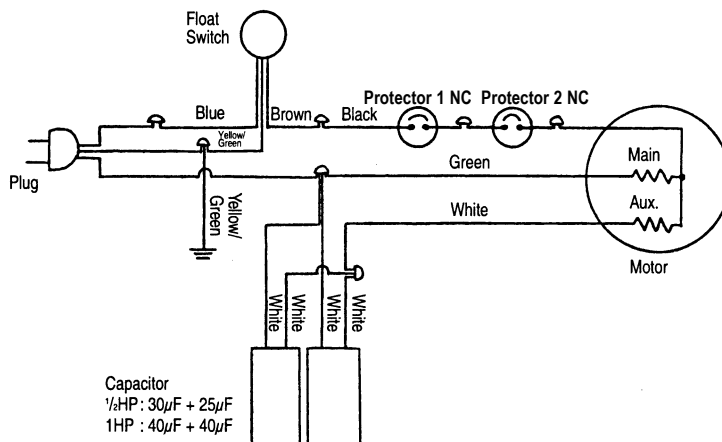
## Dominator

### Motor Wiring Diagram

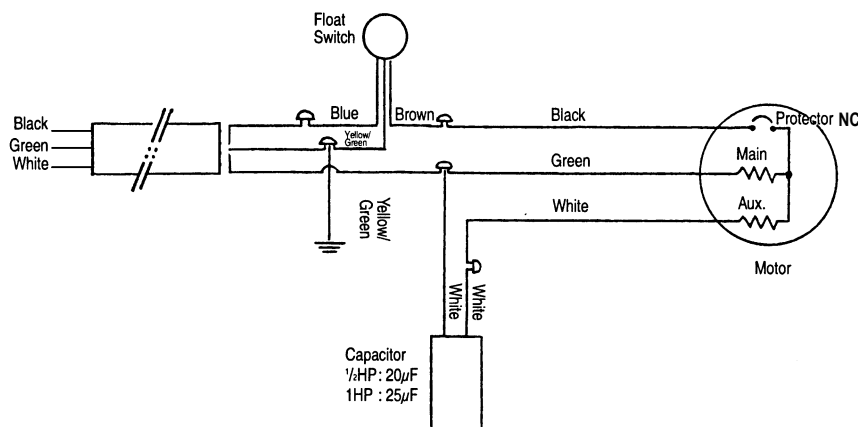
#### DWAU, DWFAU, DWXAU, DWXFAU

#### Automatic Operation Type (Single Phase)

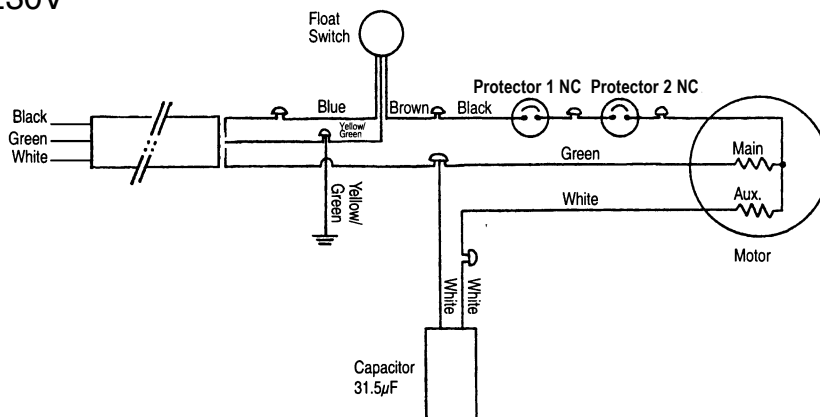
- Output  $\frac{1}{2}$  to 1 HP (0.4kw to 0.75kw)  
115V



208/230V



- Output  $1\frac{1}{2}$ HP (1.1kw)  
208/230V



**Electrical Data**

Project: \_\_\_\_\_ Model: \_\_\_\_\_ Chk'd: \_\_\_\_\_ Date: \_\_\_\_\_

**Model DW(A)U, DWF(A)U****DWX(A)U, DWXF(A)U****1/2 to 1 HP, 60Hz, Single Phase, 115V**

|                            |                  |         |       |  |  |  |
|----------------------------|------------------|---------|-------|--|--|--|
| Name-<br>Plate<br>Rating   | Item No.         |         |       |  |  |  |
|                            | Output (HP)      | 1/2     | 1     |  |  |  |
|                            | Phase            | 1       | 1     |  |  |  |
|                            | Poles            | 2       | 2     |  |  |  |
|                            | Volts            | 115     | 115   |  |  |  |
|                            | Amperes          | 8.3     | 11    |  |  |  |
|                            | Speed            | 3350    | 3375  |  |  |  |
|                            | Insulation Class | F       | F     |  |  |  |
| Capacitor $\mu$ F          | Start            |         |       |  |  |  |
|                            | Run              | 55      | 80    |  |  |  |
| No Load<br>Test            | Amperes          | 1.36    | 2.90  |  |  |  |
|                            | Watts            | 284     | 300   |  |  |  |
| Resistance at<br>20°C OHMS | Main Coil        | 0.66    | 0.495 |  |  |  |
|                            | Aux. Coil        | 1.973   | 1.183 |  |  |  |
| 100%<br>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 %        |                  | $\pm 5$ |       |  |  |  |
| Frequency Tolerance %      |                  | $\pm 5$ |       |  |  |  |
| (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**
**1/2 to 2 HP, 60Hz, Single Phase, 208V**

|                                |                     |            |            |            |            |
|--------------------------------|---------------------|------------|------------|------------|------------|
| Name- Plate<br>Rating          | Item No.            |            |            |            |            |
|                                | Output (HP)         | 1/2        | 1          | 1 1/2      | 2*         |
|                                | Phase               | 1          | 1          | 1          | 1          |
|                                | Poles               | 2          | 2          | 2          | 2          |
|                                | Volts               | <b>208</b> | <b>208</b> | <b>208</b> | <b>208</b> |
|                                | Amperes             | 3.8        | 4.8        | 6.9        | 8.8        |
|                                | Speed               | 3415       | 3451       | 3429       | 3468       |
|                                | Insulation Class    | F          | F          | F          | F          |
| Capacitor $\mu$ F              | Start               | -          | -          | -          | -          |
|                                | Run                 | 20         | 25         | 32         | 50         |
| No Load<br>Test                | Amperes             | 1.20       | 1.83       | 1.94       | 2.63       |
|                                | Watts               | 189        | 188        | 240        | 376        |
| Resistance at<br>20°C OHMS     | Main Coil           | 2.45       | 1.54       | 1.176      | 0.758      |
|                                | Aux. Coil           | 5.20       | 3.21       | 2.485      | 1.316      |
| 100%<br>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****1/2 to 3 HP, 60Hz, Three Phase, 208V**

|                            |                  |            |            |            |            |            |
|----------------------------|------------------|------------|------------|------------|------------|------------|
| Name- Plate<br>Rating      | Item No.         |            |            |            |            |            |
|                            | Output (HP)      | 1/2        | 1          | 1 1/2      | 2          | 3          |
|                            | Phase            | 3          | 3          | 3          | 3          | 3          |
|                            | Poles            | 2          | 2          | 2          | 2          | 2          |
|                            | Volts            | <b>208</b> | <b>208</b> | <b>208</b> | <b>208</b> | <b>208</b> |
|                            | 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 $\mu$ F          | Start            | —          | —          | —          | —          | —          |
|                            | Run              | —          | —          | —          | —          | —          |
| No Load<br>Test            | Amperes          | 1.7        | 3.1        | 2.5        | 3.4        | 4.4        |
|                            | Watts            | 72         | 143        | 112        | 127        | 150        |
| Resistance at<br>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%<br>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**

**1/2 to 2 HP, 60Hz, Single Phase, 230V**

| Name-<br>Plate<br>Rating   | Item No.         |      |      |         |       |      |    |
|----------------------------|------------------|------|------|---------|-------|------|----|
|                            | Output (HP)      |      | 1/2  | 1       | 1 1/2 | 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 $\mu$ F          | Start            |      |      |         |       |      |    |
|                            | Run              |      | 20   | 25      | 31.5  | 45   |    |
| No Load<br>Test            | Amperes          |      | 1.65 | 2.22    | 2.40  | 2.73 |    |
|                            | Watts            |      | 293  | 330     | 370   | 420  |    |
| Resistance at<br>20°C OHMS | Main Coil        |      | 2.38 | 1.54    | 1.11  | 0.62 |    |
|                            | Aux. Coil        |      | 5.11 | 3.47    | 2.34  | 1.30 |    |
| 100%<br>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          |                  |      | %    | $\pm 5$ |       |      |    |
| Frequency Tolerance        |                  |      | %    | $\pm 5$ |       |      |    |
| (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**

|                              |                    |      |      |      |      |       |
|------------------------------|--------------------|------|------|------|------|-------|
| Name-<br>Plate<br>Rating     | Item No.           |      |      |      |      |       |
|                              | 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<br>Test              | Amperes            | 1.64 | 1.87 | 2.68 | 3.78 | 2.68  |
|                              | Watts              | 122  | 146  | 165  | 238  | 120   |
| Resistance at<br>20°C OHMS   | Coil               | 4.15 | 2.82 | 1.94 | 1.30 | 0.884 |
|                              |                    |      |      |      |      |       |
| 100%<br>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  
1/2 to 3HP, 60Hz, Three Phase, 460V**

|                            |                  |         |       |       |       |      |      |
|----------------------------|------------------|---------|-------|-------|-------|------|------|
| Name-<br>Plate<br>Rating   | Item No.         |         |       |       |       |      |      |
|                            | Output (HP)      |         | 1/2   | 1     | 1 1/2 | 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<br>Test            |                  | Amperes | 0.63  | 0.91  | 1.35  | 1.37 | 2.04 |
|                            |                  | Watts   | 111   | 140   | 171   | 214  | 162  |
| Resistance at<br>20°C OHMS |                  | Coil    | 20.0  | 13.05 | 7.43  | 5.57 | 3.53 |
|                            |                  |         |       |       |       |      |      |
| 100%<br>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   |



**Technical Information**

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.

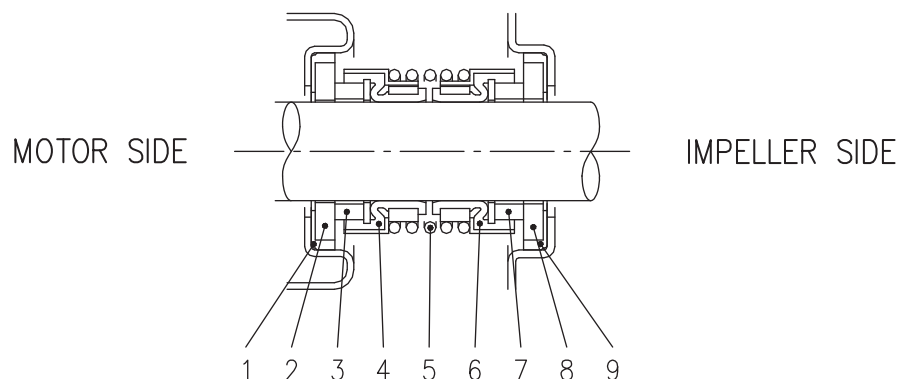
The double mechanical seal in oil chamber provides long life and friction-free sealing of the motor shaft.

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                      |

**Technical Information**

Project:

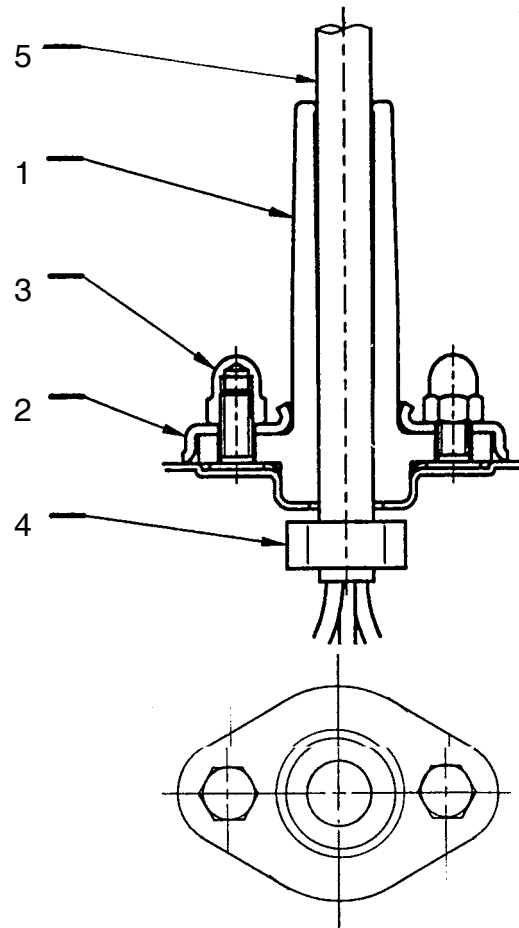
Model:

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:

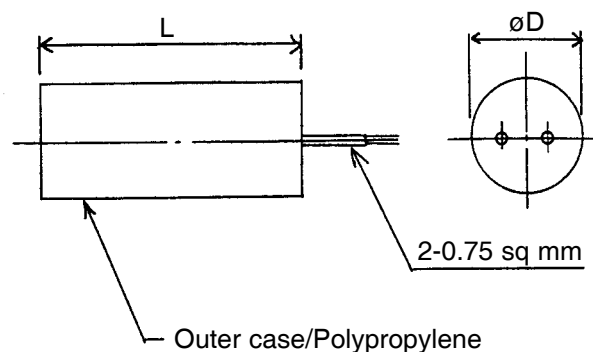
Model:

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 <sup>7</sup> / <sub>16</sub> | 2 <sup>7</sup> / <sub>8</sub>   |            |
|        |        |       |             | 30            | 250               | 185             | 1 <sup>9</sup> / <sub>16</sub> | 2 <sup>7</sup> / <sub>8</sub>   |            |
|        |        |       | 208/230     | 20            | 450               | 185             | 1 <sup>9</sup> / <sub>16</sub> | 2 <sup>7</sup> / <sub>8</sub>   |            |
|        | 0.75   | 1     | 115         | 40            | 250               | 185             | 1 <sup>7</sup> / <sub>16</sub> | 3 <sup>13</sup> / <sub>16</sub> | Use 2 pcs. |
|        |        |       | 208/230     | 25            | 450               | 185             | 1 <sup>7</sup> / <sub>16</sub> | 3 <sup>13</sup> / <sub>16</sub> |            |
|        | 1.1    | 1 1/2 | 208/230     | 31.5          | 450               | 185             | 1 <sup>9</sup> / <sub>16</sub> | 3 <sup>13</sup> / <sub>16</sub> |            |
|        | 1.5    | 2     | 208/230     | 25            | 450               | 185             | 1 <sup>9</sup> / <sub>16</sub> | 2 <sup>7</sup> / <sub>8</sub>   |            |
|        |        |       |             | 25            | 450               | 185             | 1 <sup>7</sup> / <sub>16</sub> | 3 <sup>13</sup> / <sub>16</sub> |            |

**Technical Information**

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<br>DWFU<br>DWXU<br>DWXFU     | Manual Operation        | 33 ft.              |
| DWAU<br>DWFAU<br>DWXAU<br>DWXFAU | Automatic Operation (A) | 33 ft.              |

