



|          |       |
|----------|-------|
| SECTION  | 2C    |
| PAGE     | 12    |
| ISSUED   | 2/03  |
| REPLACES | 12/01 |

## FEATURES

- FOUR POSITION CASING**  
 Discharge can be located in any of four positions. Back pull-out design eliminates the need to disturb piping should the pump ever require service - the casing stays in the line.
- ENCLOSED IMPELLER**  
 Of the latest hydraulic design for maximum efficiency, impeller is balanced for vibration-free operation. It is precision fit to shaft with key drive and cap screw lock.
- MECHANICAL SHAFT SEAL**  
 Standard self-adjusting shaft seal for temperatures to 225°F (107°C) and pressures to 150 psi (1034kpa). Ceramic seat and carbon seal face for long trouble-free service. Special seals are available for higher temperatures and fluids other than water.
- SHAFT SLEEVE**  
 Gasketed and keyed hook-type sleeve protects shaft from wear and corrosion in seal area.
- FACTORY TESTED**  
 After careful assembly and inspection, **EVERY** pump is factory tested and will meet Hydraulic Institute standards.
- MOTORS**  
 JM Type motors have NEMA standard mounting flange, extended steel shaft and dual bearings. These motors offer the advantages of quiet operation, controlled shaft deflection for longer seal life, and bearings sized to provide good service life. All motors are supplied by manufacturers with national field service facilities.

| MAXIMUM OPERATING CONDITIONS              |                   |
|---|-------------------|
| TEMPERATURE<br>(For Standard Buna-N Seal) | 225°F (107°C)     |
| INLET PRESSURE                            | 100 PSI (433kpa)  |
| CASING WORKING PRESSURE                   | 200 PSI (1379kpa) |

## MOTOR INFORMATION

60 Hz - 1750 RPM - ODP

50 Hz - 1450 RPM - ODP

**Single Phase:** 115/230 V.

**Three Phase:** 208-230/460 V

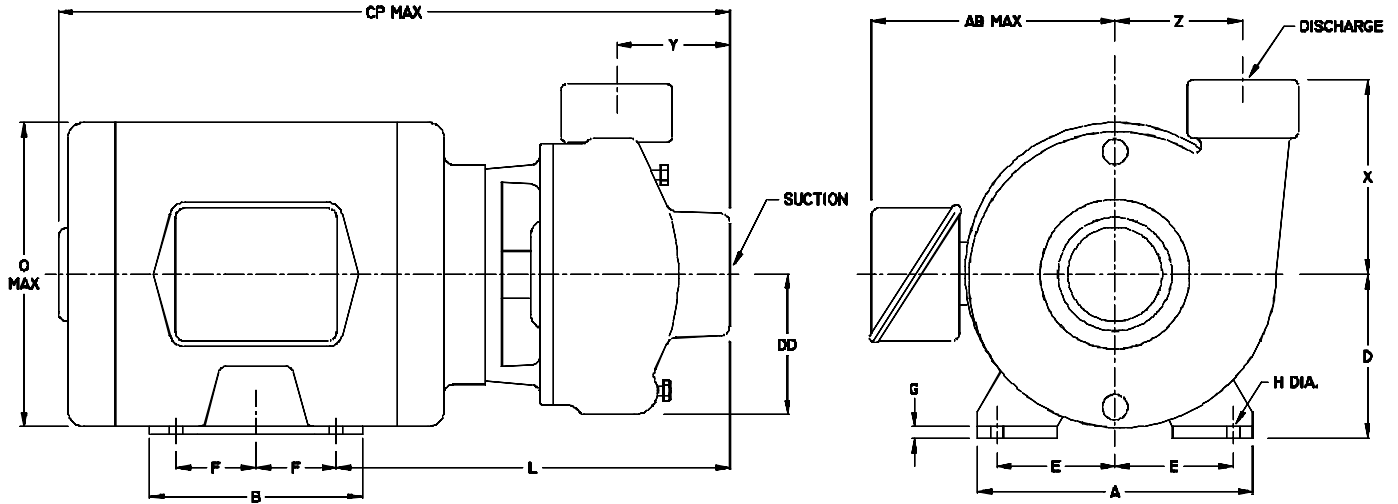
Voltages may differ from some suppliers. Consult factory.

**Overload Protection:** All single phase ODP and Totally Enclosed motors have built-in overload protection. All three phase motors and all explosion proof motors must be installed with a magnetic starter which provides full 3-leg protection. Failure to use correct starter and overloads will void motor warranty.

## MATERIALS OF CONSTRUCTION

| PART         | ALL IRON                          | BRONZE FITTED                     | ALL BRONZE                        |
|--------------|-----------------------------------|-----------------------------------|-----------------------------------|
| Adapter      | Cast Iron                         | Cast Iron                         | Bronze                            |
| Casing       | Cast Iron                         | Cast Iron                         | Bronze                            |
| Shaft        | Steel                             | Steel                             | Steel                             |
| Impeller     | Cast Iron                         | Bronze                            | Bronze                            |
| Shaft Sleeve | #316 Stainless                    | Bronze                            | Bronze                            |
| Shaft Seal   | Carbon-Ceramic<br>S. Steel-Buna-N | Carbon-Ceramic<br>S. Steel-Buna-N | Carbon-Ceramic<br>S. Steel-Buna-N |

## DIMENSIONS



| DIMENSIONS IN INCHES              |                               |                  |                               |           |                               |                                |                               |                                  |                               |                                |                               |                               |      |       |                                  |                                 |                                |                                |                                |  |
|-----------------------------------|-------------------------------|------------------|-------------------------------|-----------|-------------------------------|--------------------------------|-------------------------------|----------------------------------|-------------------------------|--------------------------------|-------------------------------|-------------------------------|------|-------|----------------------------------|---------------------------------|--------------------------------|--------------------------------|--------------------------------|--|
| MODEL                             | HP                            | MOTOR FRAME SIZE | DISC NPT                      | SUCT. NPT | A                             | AB                             | B                             | CP                               | D                             | DD                             | E                             | F                             | G    | H     | L                                | O                               | X                              | Y                              | Z                              |  |
| DF6-2 <sup>1</sup> / <sub>2</sub> | 1                             | 143JM            | 2 <sup>1</sup> / <sub>2</sub> | 3         | 7                             | 6 <sup>3</sup> / <sub>16</sub> | 6 <sup>1</sup> / <sub>2</sub> | 17 <sup>15</sup> / <sub>16</sub> | 3 <sup>1</sup> / <sub>2</sub> | 5 <sup>3</sup> / <sub>16</sub> | 2 <sup>3</sup> / <sub>4</sub> | 2                             | 1/8  | 11/32 | 10 <sup>15</sup> / <sub>16</sub> | 7 <sup>3</sup> / <sub>8</sub>   | 6 <sup>1</sup> / <sub>16</sub> | 3 <sup>7</sup> / <sub>16</sub> | 4 <sup>5</sup> / <sub>16</sub> |  |
|                                   | 1 <sup>1</sup> / <sub>2</sub> | 145JM            | 2 <sup>1</sup> / <sub>2</sub> | 3         | 7                             | 6 <sup>3</sup> / <sub>16</sub> | 6 <sup>1</sup> / <sub>2</sub> | 18 <sup>7</sup> / <sub>16</sub>  | 3 <sup>1</sup> / <sub>2</sub> | 5 <sup>3</sup> / <sub>16</sub> | 2 <sup>3</sup> / <sub>4</sub> | 2 <sup>1</sup> / <sub>2</sub> | 1/8  | 11/32 | 10 <sup>15</sup> / <sub>16</sub> | 7 <sup>3</sup> / <sub>8</sub>   | 6 <sup>1</sup> / <sub>16</sub> | 3 <sup>7</sup> / <sub>16</sub> | 4 <sup>5</sup> / <sub>16</sub> |  |
|                                   | 2                             | 182JM            | 2 <sup>1</sup> / <sub>2</sub> | 3         | 8 <sup>3</sup> / <sub>4</sub> | 8 <sup>9</sup> / <sub>16</sub> | 5 <sup>3</sup> / <sub>4</sub> | 20 <sup>3</sup> / <sub>8</sub>   | 4 <sup>1</sup> / <sub>2</sub> | 5 <sup>3</sup> / <sub>16</sub> | 3 <sup>3</sup> / <sub>4</sub> | 2 <sup>1</sup> / <sub>4</sub> | 3/16 | 13/32 | 11 <sup>11</sup> / <sub>16</sub> | 9 <sup>11</sup> / <sub>16</sub> | 6 <sup>1</sup> / <sub>16</sub> | 3 <sup>7</sup> / <sub>16</sub> | 4 <sup>5</sup> / <sub>16</sub> |  |
|                                   | 3                             | 184JM            | 2 <sup>1</sup> / <sub>2</sub> | 3         | 8 <sup>3</sup> / <sub>4</sub> | 8 <sup>9</sup> / <sub>16</sub> | 6 <sup>3</sup> / <sub>4</sub> | 21 <sup>7</sup> / <sub>8</sub>   | 4 <sup>1</sup> / <sub>2</sub> | 5 <sup>3</sup> / <sub>16</sub> | 3 <sup>3</sup> / <sub>4</sub> | 2 <sup>3</sup> / <sub>4</sub> | 3/16 | 13/32 | 11 <sup>11</sup> / <sub>16</sub> | 9 <sup>11</sup> / <sub>16</sub> | 6 <sup>1</sup> / <sub>16</sub> | 3 <sup>7</sup> / <sub>16</sub> | 4 <sup>5</sup> / <sub>16</sub> |  |

| DIMENSIONS IN MILLIMETERS         |                               |                  |                               |           |     |     |     |     |     |     |    |    |     |      |     |     |     |    |     |  |
|-----------------------------------|-------------------------------|------------------|-------------------------------|-----------|-----|-----|-----|-----|-----|-----|----|----|-----|------|-----|-----|-----|----|-----|--|
| MODEL                             | HP                            | MOTOR FRAME SIZE | DISC NPT                      | SUCT. NPT | A   | AB  | B   | CP  | D   | DD  | E  | F  | G   | H    | L   | O   | X   | Y  | Z   |  |
| DF6-2 <sup>1</sup> / <sub>2</sub> | 1                             | 143JM            | 2 <sup>1</sup> / <sub>2</sub> | 3         | 178 | 157 | 165 | 456 | 89  | 132 | 70 | 51 | 3   | 8.7  | 278 | 187 | 154 | 87 | 110 |  |
|                                   | 1 <sup>1</sup> / <sub>2</sub> | 145JM            | 2 <sup>1</sup> / <sub>2</sub> | 3         | 178 | 157 | 165 | 468 | 89  | 132 | 70 | 64 | 3   | 8.7  | 278 | 187 | 154 | 87 | 110 |  |
|                                   | 2                             | 182JM            | 2 <sup>1</sup> / <sub>2</sub> | 3         | 222 | 217 | 146 | 518 | 114 | 132 | 95 | 57 | 4.7 | 10.3 | 297 | 246 | 154 | 87 | 110 |  |
|                                   | 3                             | 184JM            | 2 <sup>1</sup> / <sub>2</sub> | 3         | 222 | 217 | 171 | 556 | 114 | 132 | 95 | 70 | 4.7 | 10.3 | 297 | 246 | 154 | 87 | 110 |  |

DIMENSIONS SHOWN ABOVE ARE APPROXIMATE MAXIMUM DIMENSIONS FOR STANDARD PUMPS EQUIPPED WITH ODP MOTORS.

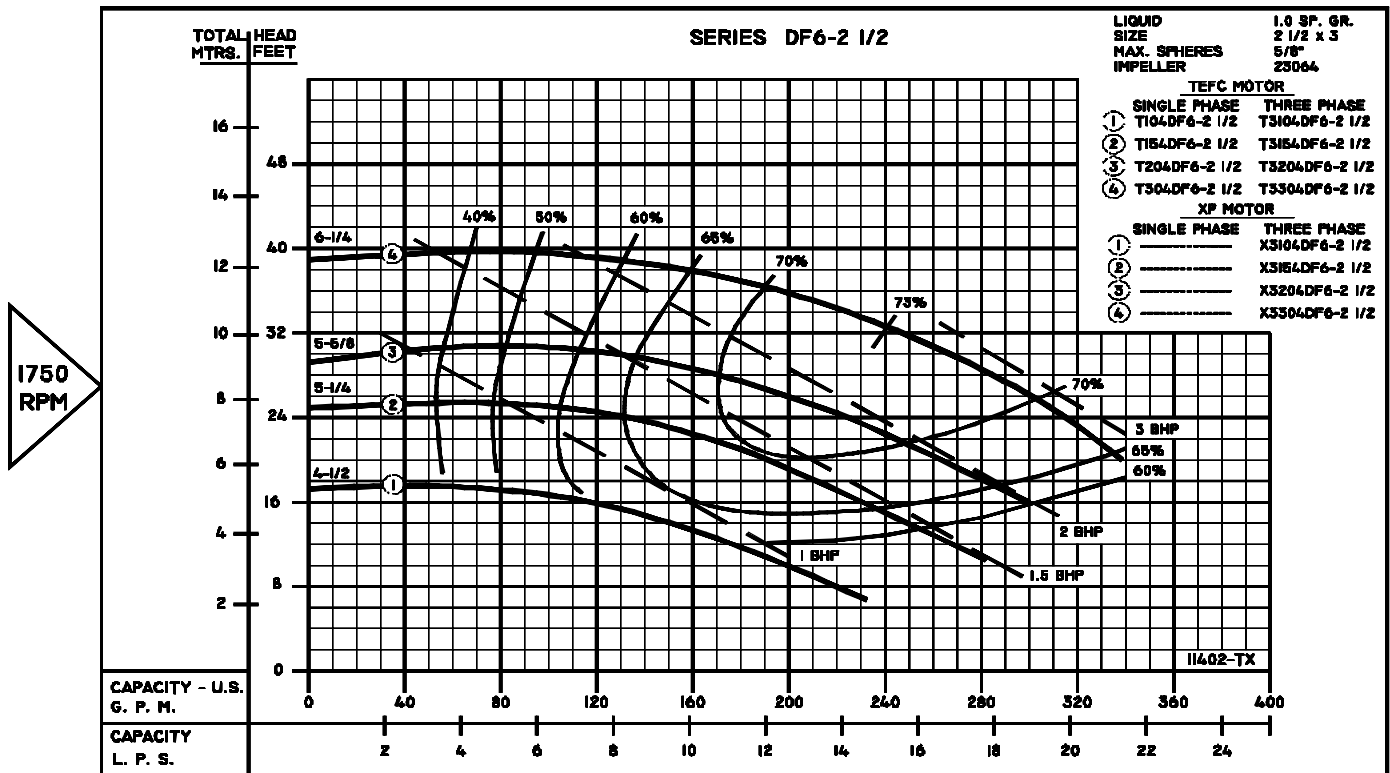
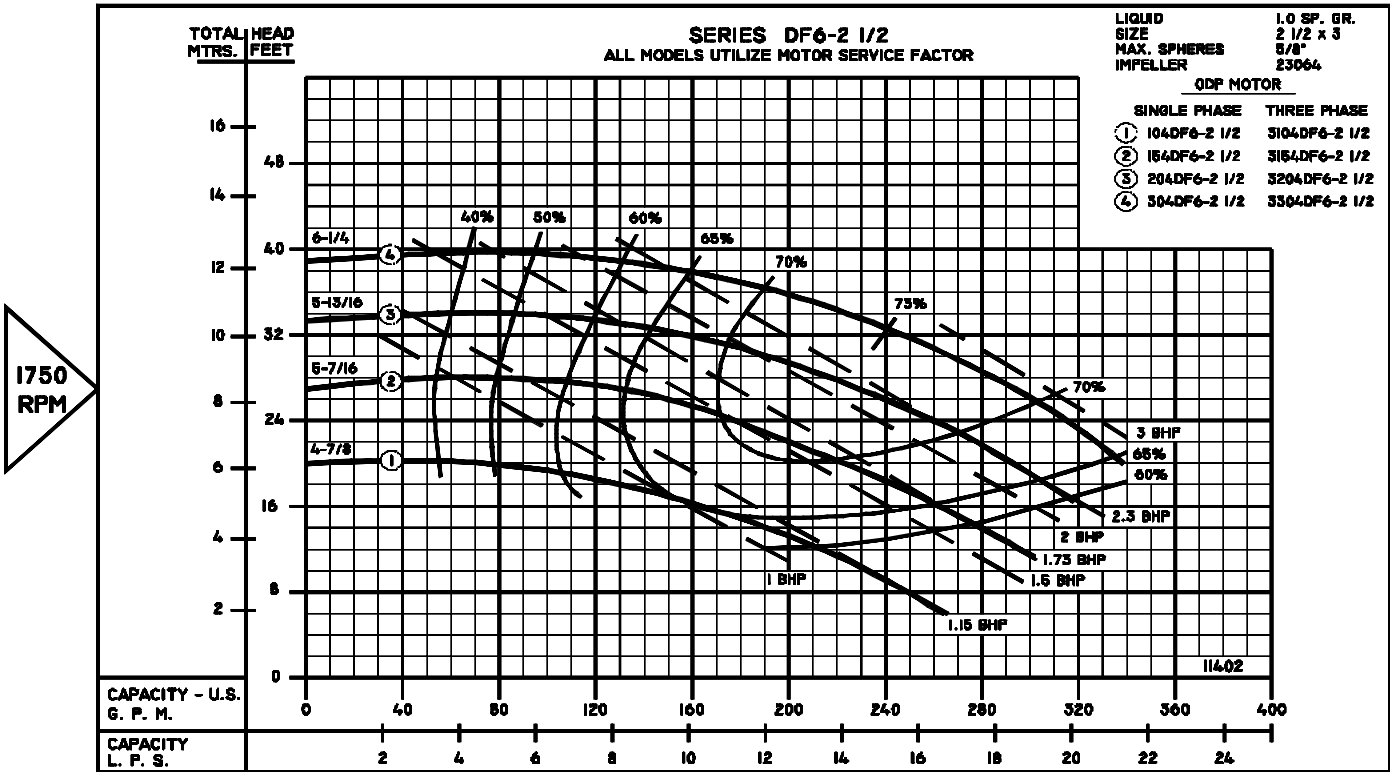
|          |       |
|----------|-------|
| SECTION  | 2C    |
| PAGE     | 14    |
| ISSUED   | 2/03  |
| REPLACES | 12/01 |

# 60HZ PERFORMANCE CURVE



420 Third Street  
Piqua, Ohio 45356-0603  
Phone: (937) 778-8947 Fax: (937) 773-7157

## END SUCTION CENTRIFUGAL PUMPS



PUMPS & SYSTEMS

A Crane Co. Company

**END SUCTION CENTRIFUGAL PUMPS**

