



Series 4302 IVS Design Envelope

Models: 10DH4, 10DI4, 10DJ4

| | |
|-------------|---------------|
| FILE NO: | 100.594 |
| DATE: | Feb. 09, 2009 |
| SUPERSEDES: | New |
| DATE: | New |

10D_4

SUBMITTAL

| | |
|-------------------|---------------------------------|
| JOB: _____ | REPRESENTATIVE: _____ |
| ENGINEER: _____ | ORDER NO: _____ DATE: _____ |
| CONTRACTOR: _____ | SUBMITTED BY: _____ DATE: _____ |
| | APPROVED BY: _____ DATE: _____ |

| PUMP DESIGN DATA | | | |
|------------------|-------------|-------------------|---------|
| NO. OF PUMPS: | | | |
| TAG: | | | |
| CAPACITY: | USgpm (L/s) | HEAD: | ft. (m) |
| LIQUID: | VISCOSITY: | | |
| TEMPERATURE: | °F (°C) | SPECIFIC GRAVITY: | |

| MOTOR DESIGN DATA | | |
|--------------------------|---------------------|-----------------------|
| HP: | | |
| FRAME SIZE: | ENCLOSURE: | |
| VOLTS: | HERTZ: 60 Hz | Phase: 3 |
| EFFICIENCY: NEMA PREMIUM | | |
| FLANGE SIZE: | SUCTION: 8" (80 mm) | DISCHARGE: 8" (80 mm) |

| DESIGN ENVELOPE CAPABILITY DATA | | | | | |
|---------------------------------|---------------------|----------------|------|-------------|------|
| MODEL | FLOW USgpm (Lps) | HEAD ft (m) | EFF% | MOTOR HP | RPM |
| <input type="checkbox"/> 10DH4 | 443 (28.0) | 41 (12.4) | 83.4 | 10 | 1185 |
| <input type="checkbox"/> 10DI4 | 580 (36.6) | 70 (21.3) | 83.4 | 15 | 1550 |
| <input type="checkbox"/> 10DJ4 | 683 (43.1) | 97 (29.5) | 83.4 | 20 | 1825 |

| DRIVE DATA | |
|--|---|
| SENSORLESS CONTROL: | <input type="checkbox"/> REQUIRED <input type="checkbox"/> NOT REQUIRED |
| *MINIMUM SYSTEM PRESSURE TO BE MAINTAINED _____ ft (m) | |
| FIELD BUS PROTOCOL: <input type="checkbox"/> ModBUS RTU (standard) <input type="checkbox"/> LonWorks <input type="checkbox"/> BACnet | |
| VFD BRIDGE: <input type="checkbox"/> Automatic Standby - Alternation Control | |
| ENCLOSURE: UL Type 12 | |
| EMI/RFI CONTROL: Integrated Filter designed to meet EN61800-3 | |
| HARMONIC SUPPRESSION: Integrated DC Link Reactors (<5% THD) | |
| COOLING: Fan-cooled through back channel | |
| AMBIENT TEMPERATURE: -10°C to +45°C up to 1000 meters above sea level (-14°F TO +113°F, 3280ft) | |
| ANALOG INPUTS: 2, current or voltage | |
| ANALOG OUTPUTS: 1, current | |
| DIGITAL INPUTS: 4 Programmable | |
| DIGITAL OUTPUTS: 2 Programmable (can be configured as additional digital inputs) | |
| PULSE INPUTS: 2 Programmable | |
| RELAY OUTPUTS: 2 Programmable | |
| COMMUNICATION PORT: RS 485 | |

| MATERIALS OF CONSTRUCTION | | |
|---------------------------|--|---|
| ANSI FLANGE RATING | <input type="checkbox"/> 125 lb. CAST IRON | <input type="checkbox"/> 250 lb. DUCTILE IRON |
| CONSTRUCTION | <input type="checkbox"/> BF | <input type="checkbox"/> DBF |
| CASING | CAST IRON | DUCTILE IRON |
| IMPELLER | BRONZE | BRONZE |
| FLUSH LINE | COPPER | COPPER |
| PUMP SHAFT | 416 STAINLESS STEEL | |
| COUPLING | HIGH TENSILE ALUMINUM | |
| GASKET | CONFINED NON-ASBESTOS | |

| MAXIMUM PUMP OPERATING CONDITIONS | |
|--|---|
| 125 lb. CAST IRON | 250 lb. DUCTILE IRON |
| 175 psig at 140°F (12 bars at 60°C) 100 psig at 300°F (7 bars at 149°C) | 375 psig at 100°F (26 bars at 38°C) 275 psig at 500°F (19 bars at 260°C) |
| SEE FILE NO. 43.50 FOR MAXIMUM SEAL OPERATING CONDITIONS | |

| MECHANICAL SEAL DESIGN DATA |
|---|
| See File No. 43.50 for standard mechanical |
| Armstrong Seal Reference Number |
| <input type="checkbox"/> C1 (a) Other _____ |

| SEAL DATA OPTIONS |
|-------------------|
| |

| OPTIONAL EQUIPMENT |
|--|
| |
| SEE FILE NO. 43.50 FOR ENVIRONMENTAL ACCESSORIES |

| CHASSIS SIZE: | | | | |
|---------------|----|------------------|-----------|------|
| MODEL | hp | VFD Chassis Size | | |
| | | 200V-240V | 380V-480V | 600V |
| 10DH4 | 10 | B1 | A5 | A5 |
| 10DI4 | 15 | B1 | B1 | B1 |
| 10DJ4 | 20 | B2 | B1 | B1 |

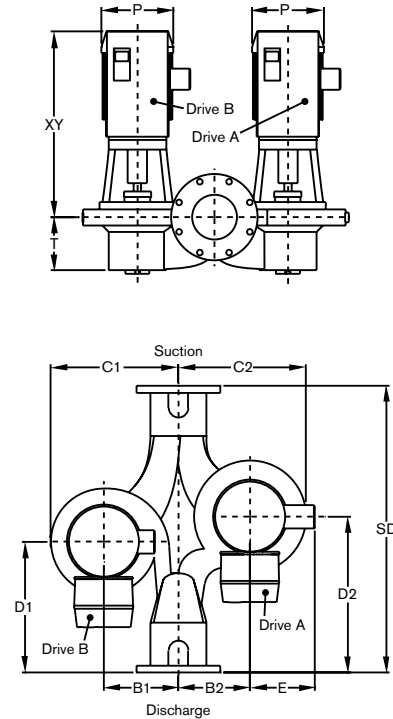
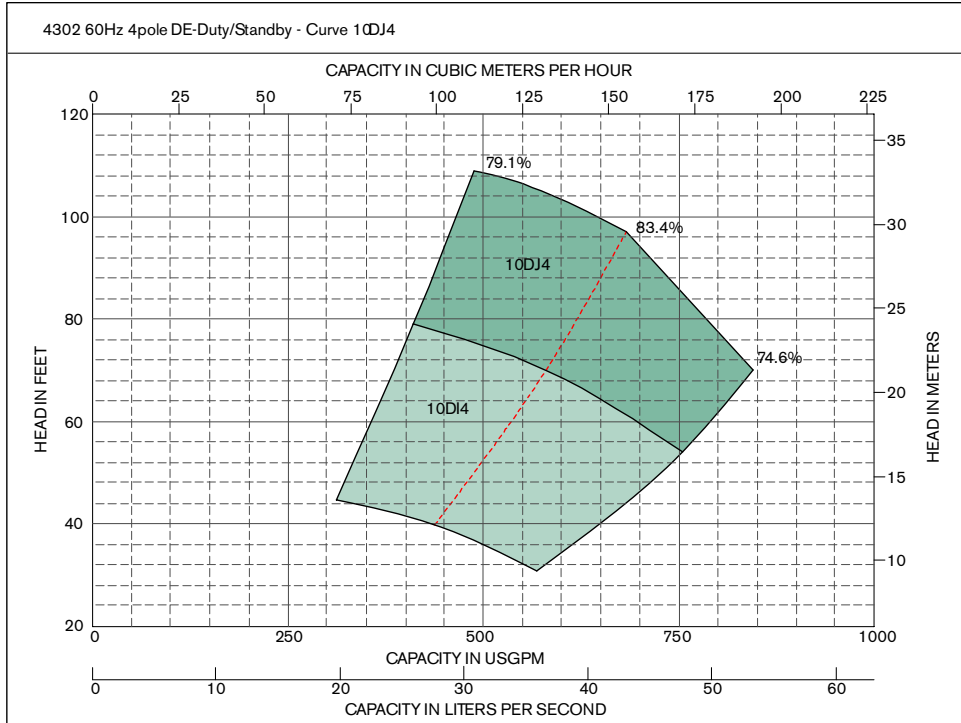
*If minimum maintained system pressure is not known: Default to 40% of design head



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10D_4



DIMENSION DATA - inches (mm)

| Curve No. | Size | Power (HP) | Motor Frame | | C1 | C2 | D1 | D2 | B1 | B2 | T | SD | ODP motors with UL Type 12 drives | | | TEFC motors with UL Type 12 drives | | | Weight in lbs (Kg) | |
|-----------|--------|------------|-------------|-------|-------------|-------------|-------------|-------------|-------------|-------------|------------|--------------|-----------------------------------|------------|-------------|------------------------------------|------------|-------------|--------------------|--------------|
| | | | ODP | TEFC | | | | | | | | | P | E | XY | P | E | XY | ODP | TEFC |
| 10DH4 | 8X8X10 | 10 | 215TC | 215TC | 20.56 (522) | 21.00 (533) | 21.00 (533) | 25.00 (635) | 12.00 (305) | 11.50 (292) | 8.85 (225) | 46.00 (1168) | 12.13 (308) | 7.59 (193) | 28.00 (711) | 11.25 (286) | 8.25 (210) | 29.13 (740) | 1140 (517.0) | 1180 (535.1) |
| 10DI4 | 8X8X10 | 15 | 254TC | 254TC | 20.56 (522) | 21.00 (533) | 21.00 (533) | 25.00 (635) | 12.00 (305) | 11.50 (292) | 8.85 (225) | 46.00 (1168) | 13.38 (340) | 9.94 (252) | 34.00 (864) | 13.38 (340) | 8.90 (226) | 34.07 (865) | 1240 (562.4) | 1320 (598.6) |
| 10DJ4 | 8X8X10 | 20 | 256TC | 256TC | 20.56 (522) | 21.00 (533) | 21.00 (533) | 25.00 (635) | 12.00 (305) | 11.50 (292) | 8.85 (225) | 46.00 (1168) | 13.38 (340) | 9.94 (252) | 34.00 (864) | 13.38 (340) | 8.90 (226) | 34.07 (865) | 1260 (571.4) | 1400 (634.9) |

- COUPLING GUARD (NOT SHOWN) IS SUPPLIED.
- TOLERANCE OF ±0.125" (±3 mm) SHOULD BE USED.
- FOR EXACT INSTALLATION DATA PLEASE WRITE FACTORY FOR CERTIFIED DIMENSIONS.
- PUMP EQUIPPED WITH CASING DRAIN PLUG AND 1/4" NPT SUCTION AND DISCHARGE GAUGE PORTS

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