# HCP PUMP

| | |
|---|---|
| **Series** | **AF** |
| **Modelo** | **100(150)AFE422** |
| **Frecuencia** | **50** |
| **Fase / Voltaje** | **3 Ø / 380 V** |
| **Corriente Nominal** | **43.8 A** |
| **Descarga** | **150 mm (6")** |




## Datos del Motor

| | |
|---|---|
| Potencia de Entrada - P1 | 25.2 kW |
| Potencia Nominal - P2 | 22 kW |
| Clase de Aislamiento | H |
| Cantidad Máxima de Arranques por Hora | 5 |
| Velocidad de Rotación Estándar | 1450 |
| Método de Arranque | STAR-DELTA/DOL |
| Índice de Protección IP | IP68 |
| A Prueba de Explosiones | NO |

## Tecnología

| | |
|---|---|
| Tipo de Impulsor | Channel |
| Sello Mecánico | Double |
| Aceite Lubricante VG32 | 4000 CC |
| Paso Sólido | 76 mm (3") |
| Tipo de Refrigeración | External cooling |
| Camisa de Refrigeración | NO |

## Material

| | |
|---|---|
| Bastidor del Motor | FC200 (GG-20) |
| Eje | SUS420J2 (X30Cr13) |
| Carcasa | FC200 (GG-20) |
| Impulsor | FC200 (GG-20) |
| Sello Mecánico | CA/CE&SiC/SiC |
| Cable | VCT,H07RN-F |
| Rodamientos Superior e Inferior | 6309ZZ,6312ZZ |

## Fluido

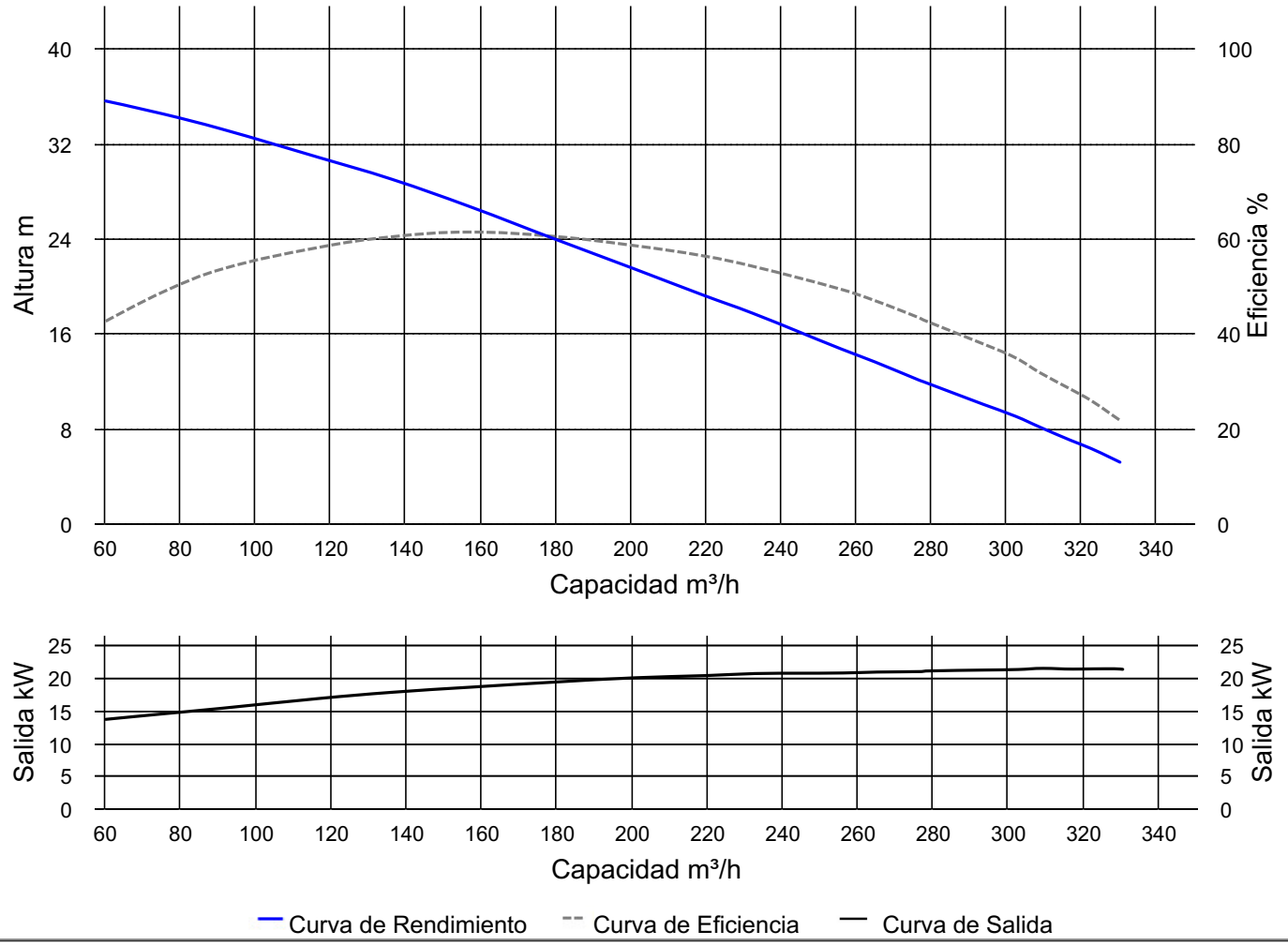
| | |
|---|---|
| Temperatura Ambiente Máxima | 0~40°C (32~104°F) |
| Profundidad Máxima de Instalación | 20m (66ft) |
| Temperatura Máxima del Fluido | 40 °C (104°F) |
| Fluido Bombeado | Sewage |

## Otros (Opcional)

| | |
|---|---|
| Dispositivo de Protección | MTS |
| Sensor de Humedad | MS |

# HCP PUMP

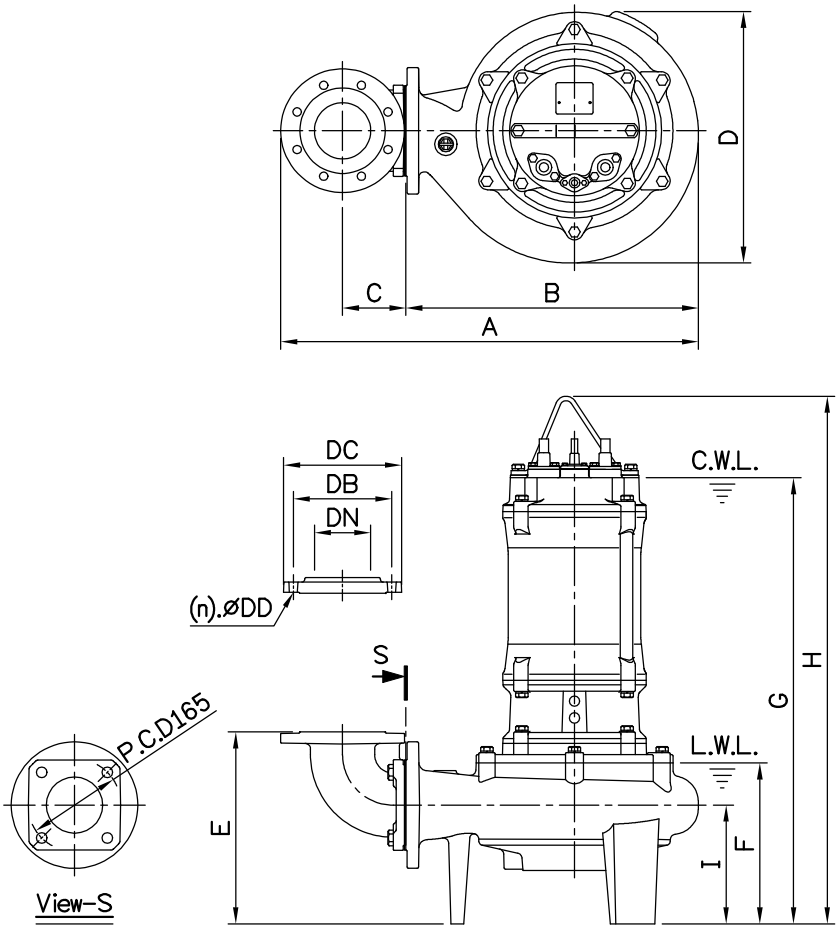
| PUMP PERFORMANCE CURVES | | | |
|---|---|---|---|
| **Modelo** | 100(150)AFE422 | **N.º de archivo** | 20261021204353 |
| **Frecuencia** | 50 Hz | **N.º de versión** | 202003060911 |
| **Descarga** | 6" / 150 mm | **REFERENCE SPECIFICATION** | |
| **Potencia** | 30 HP / 22 kW | **Salida** | 18.3 kW |
| **Altura Estándar** | 27.5 m | **Eficiencia** | 61 % |
| **Capacidad Estándar** | 150 m³/h | | |
| **Fase / Voltaje** | 3 Ø / 380 V | | |
| **Corriente Nominal** | 43.8 A | | |
| **Polo / rpm** | 4 P / 1450 rpm | | |
| **Método de Arranque** | STAR-DELTA/DOL | | |
| **Clase de Aislamiento** | H | | |




**HCP PUMP MANUFACTURER CO., LTD.**

## DIMENSIONS NO: S4AFE4C0030-01

## MODEL: 100(150)AFE411 / 415 / 422 / 430 50Hz 3Ø




Flange

| Female Thread | |
|---|---|
| PT | NPT |

Dimensions-mm

| Model | A | B | C | D | E | F | G | H | I | WT1 |
|---|---|---|---|---|---|---|---|---|---|---|
| 100(150)AFE411 | 743 | 520 | 113 | 447 | 341 | 286 | 793 | 938 | 211 | 164 |
| 100(150)AFE411 | 803 | 520 | 143 | 447 | 371 | 286 | 793 | 938 | 211 | 164 |
| 100(150)AFE415 | 743 | 520 | 113 | 447 | 341 | 286 | 793 | 938 | 211 | 176 |
| 100(150)AFE415 | 803 | 520 | 143 | 447 | 371 | 286 | 793 | 938 | 211 | 176 |
| 100(150)AFE422 | 778 | 555 | 113 | 476 | 352 | 297 | 834 | 979 | 222 | 229 |
| 100(150)AFE422 | 838 | 555 | 143 | 476 | 382 | 297 | 834 | 979 | 222 | 229 |
| 100(150)AFE430 | 778 | 555 | 113 | 476 | 352 | 297 | 874 | 1019 | 222 | 250 |
| 100(150)AFE430 | 838 | 555 | 143 | 476 | 382 | 297 | 874 | 1019 | 222 | 250 |

Weight:kg

| DN | JIS 10K | | | | | DIN PN10 | | | | | WT2 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | Elbow (Flange)Set | DB | DC | DD | (n) QTY | Elbow (Flange)Set | DB | DC | DD | (n) QTY | |
| 100 | EB4-175A | 175 | 210 | 15 | 8 | EB4-180A | 180 | 225 | 18 | 8 | 13 |
| 150 | EB6-240(165) | 240 | 280 | 23 | 8 | EB6-240(165) | 240 | 280 | 23 | 8 | 23 |
| 100 | EB4-175A | 175 | 210 | 15 | 8 | EB4-180A | 180 | 225 | 18 | 8 | 13 |
| 150 | EB6-240(165) | 240 | 280 | 23 | 8 | EB6-240(165) | 240 | 280 | 23 | 8 | 23 |
| 100 | EB4-175A | 175 | 210 | 15 | 8 | EB4-180A | 180 | 225 | 18 | 8 | 13 |
| 150 | EB6-240(165) | 240 | 280 | 23 | 8 | EB6-240(165) | 240 | 280 | 23 | 8 | 23 |
| 100 | EB4-175A | 175 | 210 | 15 | 8 | EB4-180A | 180 | 225 | 18 | 8 | 13 |
| 150 | EB6-240(165) | 240 | 280 | 23 | 8 | EB6-240(165) | 240 | 280 | 23 | 8 | 23 |

Dimensions-inch

| Model | A | B | C | D | E | F | G | H | I | WT1 |
|---|---|---|---|---|---|---|---|---|---|---|
| 100(150)AFE411 | 29¼ | 20½ | 4 7/16 | 17 5/8 | 13 7/16 | 11¼ | 31¼ | 36 15/16 | 8 5/16 | 362 |
| 100(150)AFE411 | 31 5/8 | 20½ | 5 5/8 | 17 5/8 | 14 5/8 | 11¼ | 31¼ | 36 15/16 | 8 5/16 | 362 |
| 100(150)AFE415 | 29¼ | 20½ | 4 7/16 | 17 5/8 | 13 7/16 | 11¼ | 31¼ | 36 15/16 | 8 5/16 | 388 |
| 100(150)AFE415 | 31 5/8 | 20½ | 5 5/8 | 17 5/8 | 14 5/8 | 11¼ | 31¼ | 36 15/16 | 8 5/16 | 388 |
| 100(150)AFE422 | 30 5/8 | 21 7/8 | 4 7/16 | 18¾ | 13 7/8 | 11 11/16 | 32 13/16 | 38 9/16 | 8¾ | 505 |
| 100(150)AFE422 | 33 | 21 7/8 | 5 5/8 | 18¾ | 15 1/16 | 11 11/16 | 32 13/16 | 38 9/16 | 8¾ | 505 |
| 100(150)AFE430 | 30 5/8 | 21 7/8 | 4 7/16 | 18¾ | 13 7/8 | 11 11/16 | 34 7/16 | 40 1/8 | 8¾ | 551 |
| 100(150)AFE430 | 33 | 21 7/8 | 5 5/8 | 18¾ | 15 1/16 | 11 11/16 | 34 7/16 | 40 1/8 | 8¾ | 551 |

Weight:lb

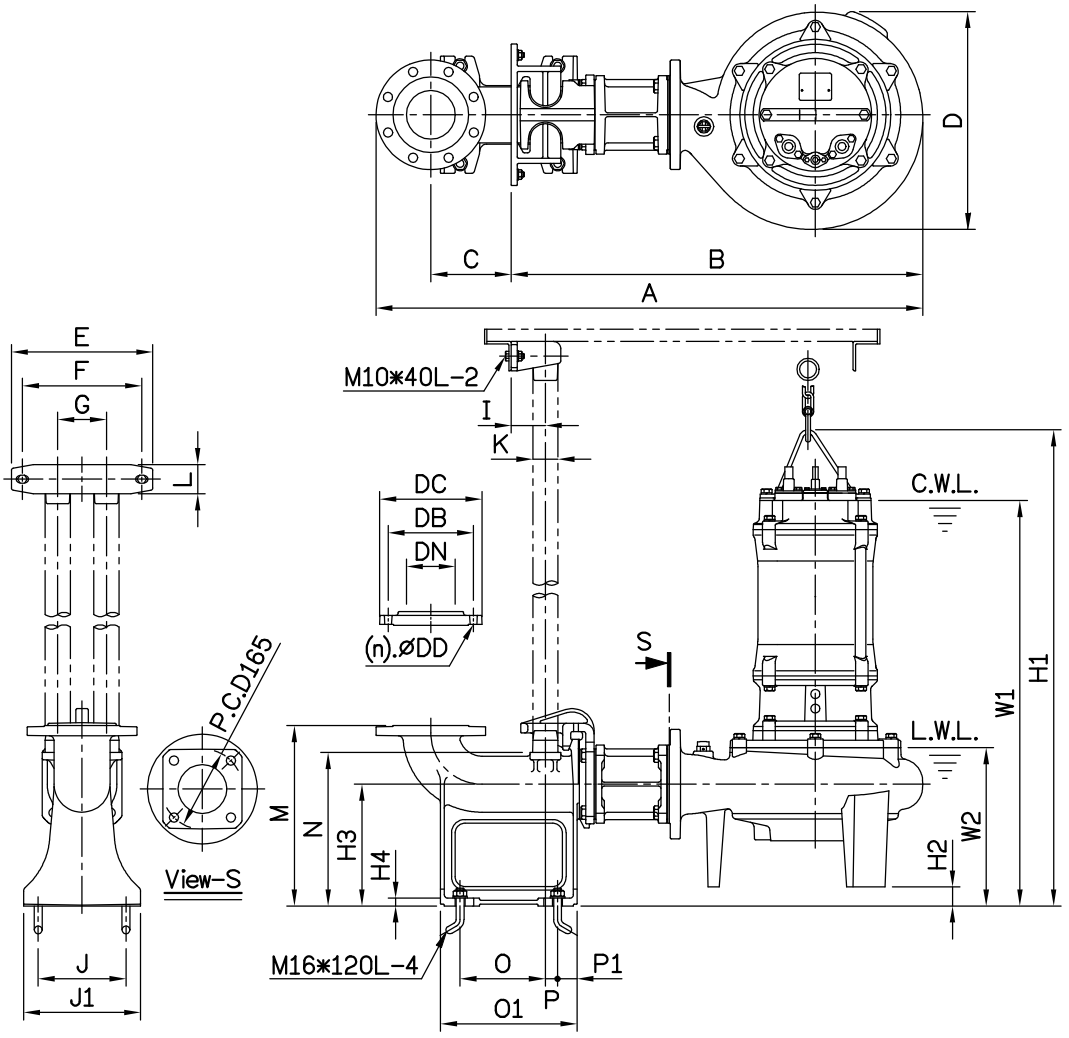
| DN | JIS 10K | | | | | DIN PN10 | | | | | WT2 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | Elbow (Flange)Set | DB | DC | DD | (n) QTY | Elbow (Flange)Set | DB | DC | DD | (n) QTY | |
| 4 | EB4-175A | 6 7/8 | 8¼ | 9/16 | 8 | EB4-180A | 7 1/16 | 8 7/8 | 11/16 | 8 | 29 |
| 6 | EB6-240(165) | 9 7/16 | 11 | 7/8 | 8 | EB6-240(165) | 9 7/16 | 11 | 7/8 | 8 | 51 |
| 4 | EB4-175A | 6 7/8 | 8¼ | 9/16 | 8 | EB4-180A | 7 1/16 | 8 7/8 | 11/16 | 8 | 29 |
| 6 | EB6-240(165) | 9 7/16 | 11 | 7/8 | 8 | EB6-240(165) | 9 7/16 | 11 | 7/8 | 8 | 51 |
| 4 | EB4-175A | 6 7/8 | 8¼ | 9/16 | 8 | EB4-180A | 7 1/16 | 8 7/8 | 11/16 | 8 | 29 |
| 6 | EB6-240(165) | 9 7/16 | 11 | 7/8 | 8 | EB6-240(165) | 9 7/16 | 11 | 7/8 | 8 | 51 |
| 4 | EB4-175A | 6 7/8 | 8¼ | 9/16 | 8 | EB4-180A | 7 1/16 | 8 7/8 | 11/16 | 8 | 29 |
| 6 | EB6-240(165) | 9 7/16 | 11 | 7/8 | 8 | EB6-240(165) | 9 7/16 | 11 | 7/8 | 8 | 51 |

C.W.L.:Continuous Running Water Level
L.W.L.:Lowest Running Water Level

WT1:Pump Weight(Without Cable)
WT2:Elbow Set Weight

## DIMENSIONS NO: T4AFE4C0035-02

## MODEL: 100(150)AFE411 / 415 / 422 / 430 50Hz 3Ø




Flange

| Female Thread | |
|---|---|
| PT | NPT |

Dimensions-mm

| DN | Elbow (Flange) Set | JIS 10K | | | |
|---|---|---|---|---|---|
| | | DB | DC | DD | (n)QTY |
| 100 | EF4-175 | 175 | 210 | 15 | 8 |
| DN | Elbow (Flange) Set | DIN PN10 | | | |
| | | DB | DC | DD | (n)QTY |
| 100 | EF4-180 | 180 | 225 | 19 | 8 |

Dimensions-inch

| DN | Elbow (Flange) Set | JIS 10K | | | |
|---|---|---|---|---|---|
| | | DB | DC | DD | (n)QTY |
| 4 | EF4-175 | 6 7/8 | 8 1/4 | 9/16 | 8 |
| DN | Elbow (Flange) Set | DIN PN10 | | | |
| | | DB | DC | DD | (n)QTY |
| 4 | EF4-180 | 7 1/16 | 8 7/8 | 3/4 | 8 |

Dimensions-mm Weight:kg

| Model | A | B | C | D | E | F | G | I | J | J1 | K | L | M | N | O | O1 | P | P1 | W1 | W2 | H1 | H2 | H3 | H4 | WT1 | GRS Set | WT2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 100(150)AFE411 | 1123 | 845 | 165 | 447 | 285 | 245 | 100 | 70 | 200 | 240 | 2" | 60 | 370 | 315 | 175 | 280 | 25 | 40 | 832 | 325 | 977 | 39 | 250 | 16 | 164 | T100CH | 53 |
| 100(150)AFE415 | 1123 | 845 | 165 | 447 | 285 | 245 | 100 | 70 | 200 | 240 | 2" | 60 | 370 | 315 | 175 | 280 | 25 | 40 | 832 | 325 | 977 | 39 | 250 | 16 | 176 | T100CH | 53 |
| 100(150)AFE422 | 1158 | 880 | 165 | 475 | 285 | 245 | 100 | 70 | 200 | 240 | 2" | 60 | 370 | 315 | 175 | 280 | 25 | 40 | 862 | 325 | 1007 | 28 | 250 | 16 | 229 | T100CH | 53 |
| 100(150)AFE430 | 1158 | 880 | 165 | 475 | 285 | 245 | 100 | 70 | 200 | 240 | 2" | 60 | 370 | 315 | 175 | 280 | 25 | 40 | 902 | 325 | 1047 | 28 | 250 | 16 | 250 | T100CH | 53 |

Dimensions-inch Weight:lb

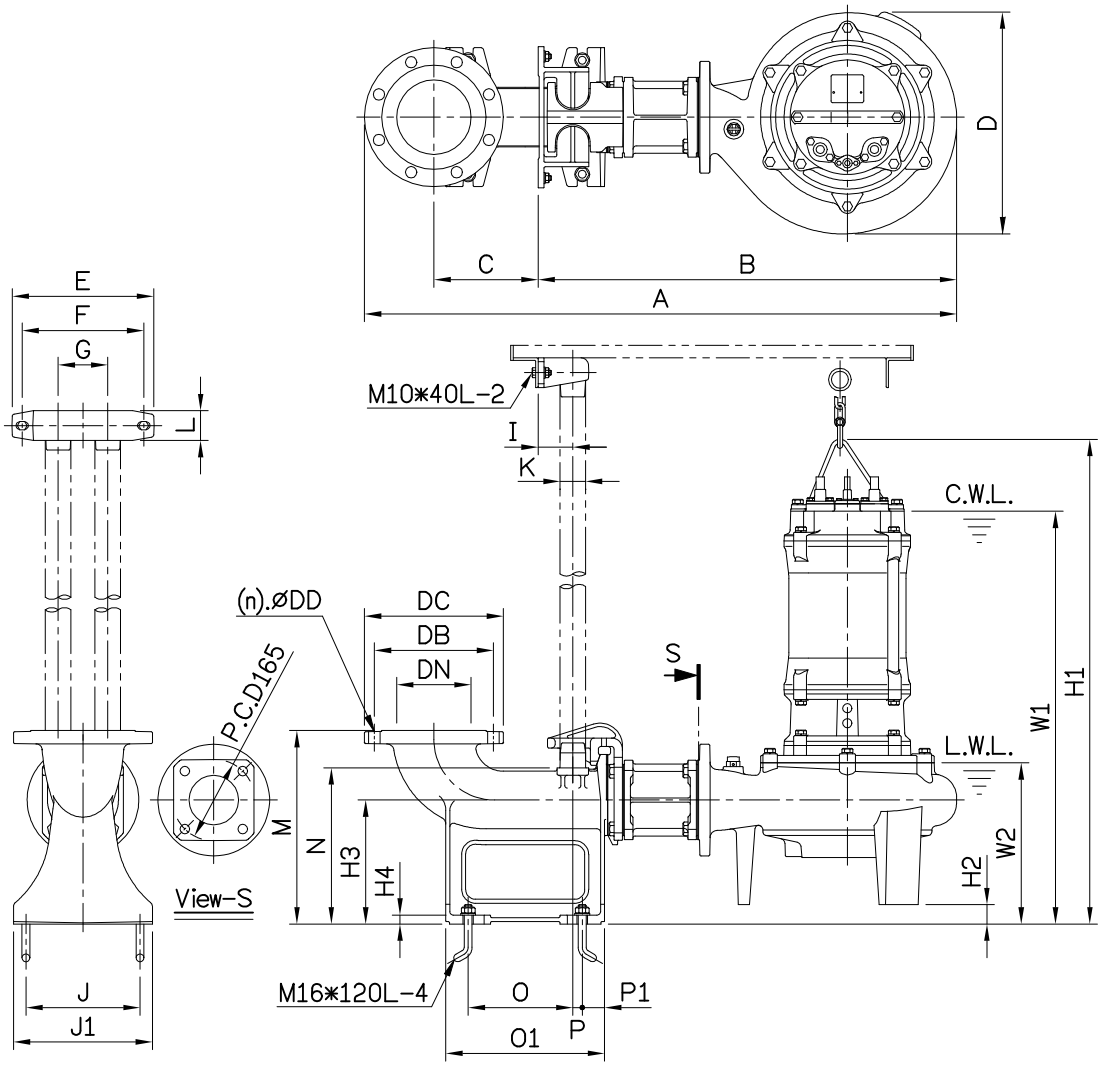
| Model | A | B | C | D | E | F | G | I | J | J1 | K | L | M | N | O | O1 | P | P1 | W1 | W2 | H1 | H2 | H3 | H4 | WT1 | GRS Set | WT2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 100(150)AFE411 | 44 3/16 | 33 1/4 | 6 1/2 | 17 5/8 | 11 1/4 | 9 5/8 | 3 15/16 | 2 3/4 | 7 7/8 | 9 7/16 | 2 | 2 3/8 | 14 9/16 | 12 3/8 | 6 7/8 | 11 | 1 | 1 9/16 | 32 3/4 | 12 13/16 | 38 7/16 | 1 3/16 | 9 13/16 | 5/8 | 362 | T100CH | 117 |
| 100(150)AFE415 | 44 3/16 | 33 1/4 | 6 1/2 | 17 5/8 | 11 1/4 | 9 5/8 | 3 15/16 | 2 3/4 | 7 7/8 | 9 7/16 | 2 | 2 3/8 | 14 9/16 | 12 3/8 | 6 7/8 | 11 | 1 | 1 9/16 | 32 3/4 | 12 13/16 | 38 7/16 | 1 3/16 | 9 13/16 | 5/8 | 388 | T100CH | 117 |
| 100(150)AFE422 | 45 5/16 | 34 5/8 | 6 1/2 | 18 11/16 | 11 1/4 | 9 5/8 | 3 15/16 | 2 3/4 | 7 7/8 | 9 7/16 | 2 | 2 3/8 | 14 9/16 | 12 3/8 | 6 7/8 | 11 | 1 | 1 9/16 | 33 15/16 | 12 13/16 | 39 5/8 | 1 1/8 | 9 13/16 | 5/8 | 505 | T100CH | 117 |
| 100(150)AFE430 | 45 5/16 | 34 5/8 | 6 1/2 | 18 11/16 | 11 1/4 | 9 5/8 | 3 15/16 | 2 3/4 | 7 7/8 | 9 7/16 | 2 | 2 3/8 | 14 9/16 | 12 3/8 | 6 7/8 | 11 | 1 | 1 9/16 | 35 1/2 | 12 13/16 | 41 1/4 | 1 1/8 | 9 13/16 | 5/8 | 551 | T100CH | 117 |

C.W.L.:Continuous Running Water Level
L.W.L.:Lowest Running Water Level

WT1:Pump Weight(Without Cable)
WT2:GRS Set Weight

## DIMENSIONS NO: T4AFE4C0030-03

## MODEL: 100(150)AFE411 / 415 / 422 / 430 50Hz 3Ø




Dimensions-mm

| DN | GRS Set | JIS 10K | | | |
|---|---|---|---|---|---|
| | | DB | DC | DD | (n)QTY |
| 150 | T150(100)CH | 240 | 280 | 23 | 8 |
| DN | GRS Set | DIN PN10 | | | |
| | | DB | DC | DD | (n)QTY |
| 150 | T150(100)CH | 240 | 280 | 23 | 8 |

Dimensions-inch

| DN | GRS Set | JIS 10K | | | |
|---|---|---|---|---|---|
| | | DB | DC | DD | (n)QTY |
| 6 | T150(100)CH | 9 7/16 | 11 | 7/8 | 8 |
| DN | GRS Set | DIN PN10 | | | |
| | | DB | DC | DD | (n)QTY |
| 6 | T150(100)CH | 9 7/16 | 11 | 7/8 | 8 |

Dimensions-mm Weight:kg

| Model | A | B | C | D | E | F | G | I | J | J1 | K | L | M | N | O | O1 | P | P1 | W1 | W2 | H1 | H2 | H3 | H4 | WT1 | GRS Set | WT2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 100(150)AFE411 | 1195 | 845 | 210 | 447 | 285 | 245 | 100 | 70 | 230 | 280 | 2" | 60 | 390 | 315 | 211 | 320 | 19 | 45 | 832 | 325 | 977 | 39 | 250 | 18 | 164 | T150(100)CH | 55 |
| 100(150)AFE415 | 1195 | 845 | 210 | 447 | 285 | 245 | 100 | 70 | 230 | 280 | 2" | 60 | 390 | 315 | 211 | 320 | 19 | 45 | 832 | 325 | 977 | 39 | 250 | 18 | 176 | T150(100)CH | 55 |
| 100(150)AFE422 | 1230 | 880 | 210 | 475 | 285 | 245 | 100 | 70 | 230 | 280 | 2" | 60 | 390 | 315 | 211 | 320 | 19 | 45 | 862 | 325 | 1007 | 28 | 250 | 18 | 229 | T150(100)CH | 55 |
| 100(150)AFE430 | 1230 | 880 | 210 | 475 | 285 | 245 | 100 | 70 | 230 | 280 | 2" | 60 | 390 | 315 | 211 | 320 | 19 | 45 | 902 | 325 | 1047 | 28 | 250 | 18 | 250 | T150(100)CH | 55 |

Dimensions-inch Weight:lb

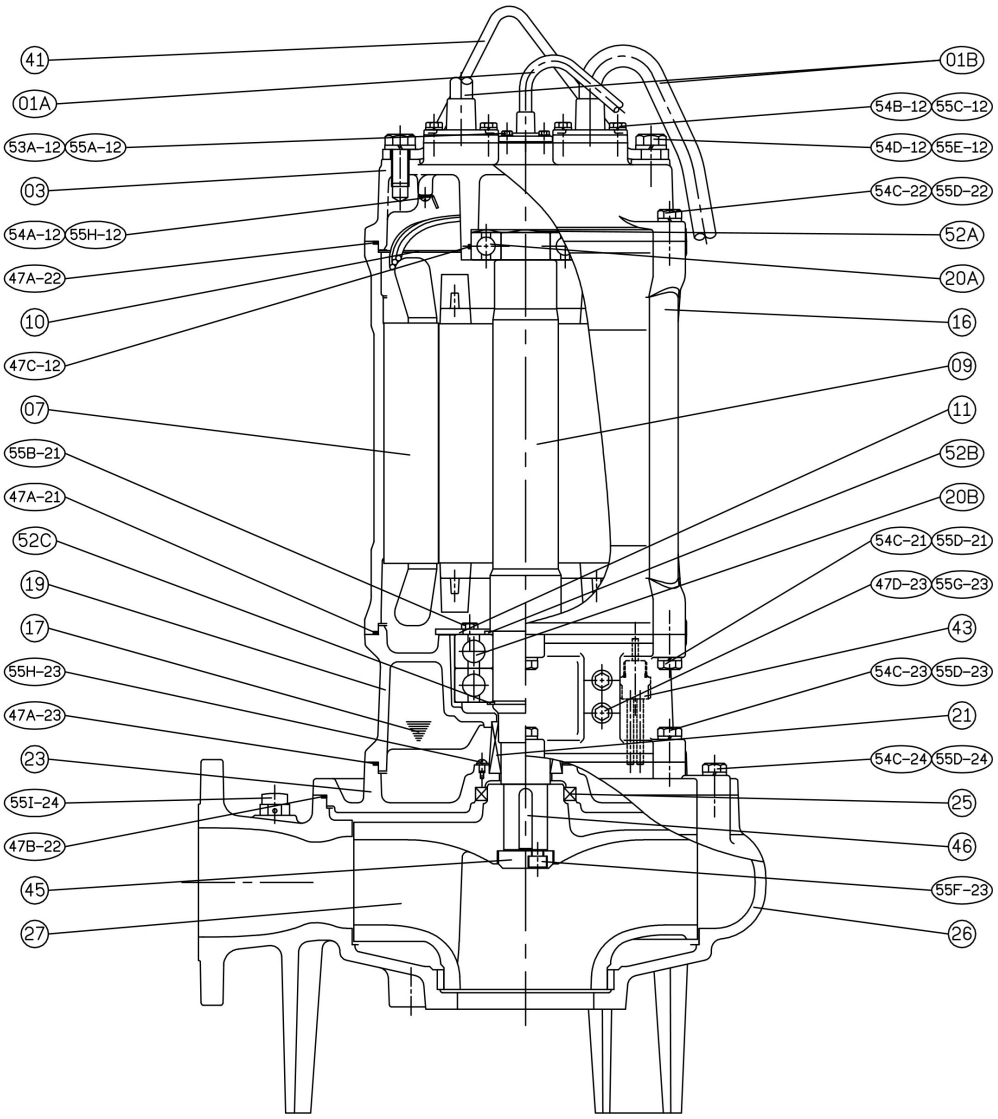
| Model | A | B | C | D | E | F | G | I | J | J1 | K | L | M | N | O | O1 | P | P1 | W1 | W2 | H1 | H2 | H3 | H4 | WT1 | GRS Set | WT2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 100(150)AFE411 | 47 1/16 | 33 1/4 | 8 1/4 | 17 5/8 | 11 1/4 | 9 5/8 | 3 15/16 | 2 3/4 | 9 1/16 | 11 | 2 | 2 3/8 | 15 3/8 | 12 3/8 | 8 5/16 | 12 5/8 | 3/4 | 1 3/4 | 32 3/4 | 12 13/16 | 38 7/16 | 1 3/16 | 9 13/16 | 11/16 | 362 | T150(100)CH | 121 |
| 100(150)AFE415 | 47 1/16 | 33 1/4 | 8 1/4 | 17 5/8 | 11 1/4 | 9 5/8 | 3 15/16 | 2 3/4 | 9 1/16 | 11 | 2 | 2 3/8 | 15 3/8 | 12 3/8 | 8 5/16 | 12 5/8 | 3/4 | 1 3/4 | 32 3/4 | 12 13/16 | 38 7/16 | 1 3/16 | 9 13/16 | 11/16 | 388 | T150(100)CH | 121 |
| 100(150)AFE422 | 48 7/16 | 34 5/8 | 8 1/4 | 18 11/16 | 11 1/4 | 9 5/8 | 3 15/16 | 2 3/4 | 9 1/16 | 11 | 2 | 2 3/8 | 15 3/8 | 12 3/8 | 8 5/16 | 12 5/8 | 3/4 | 1 3/4 | 33 5/16 | 12 13/16 | 39 5/8 | 1 1/8 | 9 13/16 | 11/16 | 505 | T150(100)CH | 121 |
| 100(150)AFE430 | 48 7/16 | 34 5/8 | 8 1/4 | 18 11/16 | 11 1/4 | 9 5/8 | 3 15/16 | 2 3/4 | 9 1/16 | 11 | 2 | 2 3/8 | 15 3/8 | 12 3/8 | 8 5/16 | 12 5/8 | 3/4 | 1 3/4 | 35 1/2 | 12 13/16 | 41 1/4 | 1 1/8 | 9 13/16 | 11/16 | 551 | T150(100)CH | 121 |

C.W.L.:Continuous Running Water Level
L.W.L.:Lowest Running Water Level

WT1:Pump Weight(Without Cable)
WT2:GRS Set Weight

## SECTIONAL VIEWS NO: 04AFE4C0030-3

## MODEL: 100(150)AFE422 / 430 3Ø




| Número | Nombre de la pieza | Material | Cantidad |
|---|---|---|---|
| 01A | Cable | | 1 |
| 01B | Cable | | 2 |
| 03 | Cubierta Superior | FC200 | 1 |
| 07 | Estator (With MTS) | | 1 |
| 09 | Extremo del Eje | SUS420J2 | 1 |
| 10 | Placa Protectora | | 1 |
| 11 | Fijador de Rodamiento | SPCC | 1 |
| 16 | Bastidor del Motor | FC200 | 1 |
| 17 | Lubricante | | |
| 19 | Soporte del Rodamiento | FC200 | 1 |
| 20A | Rodamiento | | 1 |
| 20B | Rodamiento | | 2 |
| 21 | Sello Mecánico | CA/CE & SiC/SiC | 1 |
| 23 | Soporte Sello Mecánico | FC200 | 1 |

| Número | Nombre de la pieza | Material | Cantidad |
|---|---|---|---|
| 25 | Sello de Aceite | SUS304+NBR | 1 |
| 26 | Carcasa+Anillo de Desgaste | FC200+SCS14 | 1 |
| 27 | Impulsor | FC200(50Hz) FCD500(60Hz) | 1 |
| 41 | Asa | SS400 | 1 |
| 43 | Sensor de Humedad | | 1 |
| 46 | Llave del Impulsor | SUS304 | 1 |
| 47 | Kit de Empaques | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |