

## Motor Specifications

|                         |                     |
|-------------------------|---------------------|
| <b>Motor design</b>     | Air-filled          |
| <b>Applications</b>     | Wastewater/effluent |
| <b>Insulation Class</b> | Class F             |
| <b>Max Liquid Temp</b>  | 0–40° C (32–104° F) |
| <b>Frequency</b>        | 60 Hz               |
| <b>RPM</b>              | 3600                |

## Pump & Motor Data

|                   |                                    |
|-------------------|------------------------------------|
| <b>Impeller</b>   | Semi-open, P type                  |
| <b>Solid Size</b> | 0.75"                              |
| <b>Discharge</b>  | 3"                                 |
| <b>Motor</b>      | 2 Pole                             |
| <b>kW • Hp</b>    | 5.5 kW • 7.5 Hp                    |
| <b>Phase</b>      | 3                                  |
| <b>Cable</b>      | VCT or H07RN-F or SJOW/SOW • 50 ft |
| <b>Protection</b> | Seal fail & thermal overload       |

## Materials of Construction

|                        |   |
|------------------------|---|
| <b>Motor Housing</b>   | FC-200  |
| <b>Upper Cover</b>     | FC-200  |
| <b>Shaft End</b>       | SUS 420J2   |
| <b>Casing</b>          | FC-200  |
| <b>Impeller</b>        | FC-200  |
| <b>Upper Bearing</b>   | Ball type   |
| <b>Lower Bearing</b>   | Ball type   |
| <b>Mechanical Seal</b> | Silicon/Silicon (Lower)<br>Carbon/Ceramic (Upper) |

## Dimensions & Weight

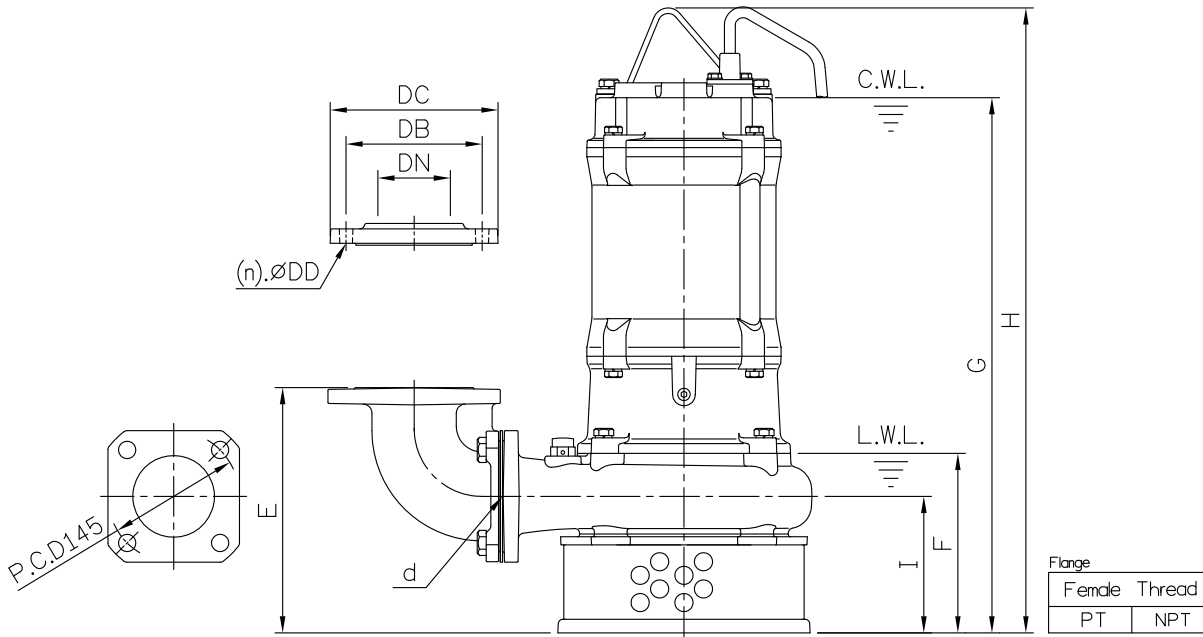
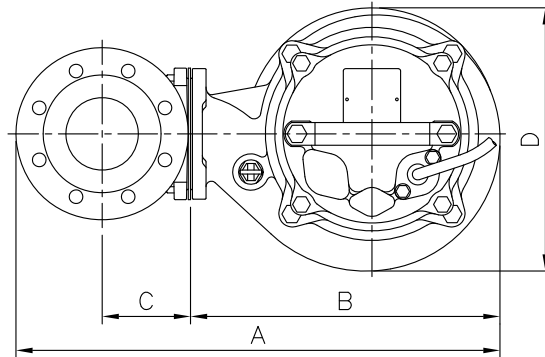
|                        |                                     |
|------------------------|-------------------------------------|
| <b>Pump Weight</b>     | 218 lbs                             |
| <b>Max Submergence</b> | 100 ft                              |
| <b>Optional</b>        | —                                   |
| <b>1Ø AMP</b>          | <b>115V</b> — <b>3Ø 230V</b> 19.0 A |
|                        | <b>208V</b> — <b>460V</b> 9.5 A     |
|                        | <b>230V</b> — <b>575V</b> 7.9 A     |

## DIMENSIONS

No: S3AL0275030-00

MODEL: 80(100)AL25.5 & 80(100)AL27.5

3Ø



Dimensions—mm

Weight:Kg

| Model         | d  | A   | B   | C   | D   | E   | F   | G   | H   | I   | WT1<br>50hz/60hz | Elbow<br>(Flange) Set | DN  | DB  | DC  | DD | (n)QTY | WT2 |
|---------------|----|-----|-----|-----|-----|-----|-----|-----|-----|-----|------------------|-----------------------|-----|-----|-----|----|--------|-----|
| 80(100)AL25.5 | 80 | 534 | 342 | 98  | 290 | 271 | 198 | 590 | 689 | 151 | 75/74            | EB3-150A              | 80  | 150 | 185 | 15 | 8      | 12  |
| 80(100)AL27.5 | 80 | 534 | 342 | 98  | 290 | 271 | 198 | 590 | 689 | 151 | 81/80            | EB3-150A              | 80  | 150 | 185 | 15 | 8      | 12  |
| 80(100)AL25.5 | 80 | 565 | 342 | 113 | 290 | 282 | 198 | 590 | 689 | 151 | 75/74            | EB4-175(145)          | 100 | 175 | 210 | 15 | 8      | 14  |
| 80(100)AL27.5 | 80 | 565 | 342 | 113 | 290 | 282 | 198 | 590 | 689 | 151 | 81/80            | EB4-175(145)          | 100 | 175 | 210 | 15 | 8      | 14  |

Dimensions—inch

Weight:Lbs

| Model         | d | A                              | B                               | C                              | D                               | E                               | F                             | G                              | H                              | I                              | WT1<br>50hz/60hz | Elbow<br>(Flange) Set | DN | DB                            | DC                             | DD                           | (n)QTY | WT2 |
|---------------|---|--------------------------------|---------------------------------|--------------------------------|---------------------------------|---------------------------------|-------------------------------|--------------------------------|--------------------------------|--------------------------------|------------------|-----------------------|----|-------------------------------|--------------------------------|------------------------------|--------|-----|
| 80(100)AL25.5 | 3 | 21                             | 13 <sup>3</sup> / <sub>16</sub> | 3 <sup>3</sup> / <sub>8</sub>  | 11 <sup>1</sup> / <sub>16</sub> | 10 <sup>3</sup> / <sub>16</sub> | 7 <sup>3</sup> / <sub>8</sub> | 23 <sup>3</sup> / <sub>4</sub> | 27 <sup>3</sup> / <sub>8</sub> | 5 <sup>5</sup> / <sub>16</sub> | 165/163          | EB3-150A              | 3  | 5 <sup>7</sup> / <sub>8</sub> | 7 <sup>3</sup> / <sub>16</sub> | <sup>9</sup> / <sub>16</sub> | 8      | 26  |
| 80(100)AL27.5 | 3 | 21                             | 13 <sup>3</sup> / <sub>16</sub> | 3 <sup>3</sup> / <sub>8</sub>  | 11 <sup>1</sup> / <sub>16</sub> | 10 <sup>3</sup> / <sub>16</sub> | 7 <sup>3</sup> / <sub>8</sub> | 23 <sup>3</sup> / <sub>4</sub> | 27 <sup>3</sup> / <sub>8</sub> | 5 <sup>5</sup> / <sub>16</sub> | 179/176          | EB3-150A              | 3  | 5 <sup>7</sup> / <sub>8</sub> | 7 <sup>3</sup> / <sub>16</sub> | <sup>9</sup> / <sub>16</sub> | 8      | 26  |
| 80(100)AL25.5 | 3 | 22 <sup>3</sup> / <sub>4</sub> | 13 <sup>3</sup> / <sub>16</sub> | 4 <sup>1</sup> / <sub>16</sub> | 11 <sup>1</sup> / <sub>16</sub> | 11 <sup>1</sup> / <sub>8</sub>  | 7 <sup>3</sup> / <sub>8</sub> | 23 <sup>3</sup> / <sub>4</sub> | 27 <sup>3</sup> / <sub>8</sub> | 5 <sup>5</sup> / <sub>16</sub> | 165/163          | EB4-175(145)          | 4  | 6 <sup>7</sup> / <sub>8</sub> | 8 <sup>3</sup> / <sub>4</sub>  | <sup>9</sup> / <sub>16</sub> | 8      | 30  |
| 80(100)AL27.5 | 3 | 22 <sup>3</sup> / <sub>4</sub> | 13 <sup>3</sup> / <sub>16</sub> | 4 <sup>1</sup> / <sub>16</sub> | 11 <sup>1</sup> / <sub>16</sub> | 11 <sup>1</sup> / <sub>8</sub>  | 7 <sup>3</sup> / <sub>8</sub> | 23 <sup>3</sup> / <sub>4</sub> | 27 <sup>3</sup> / <sub>8</sub> | 5 <sup>5</sup> / <sub>16</sub> | 179/176          | EB4-175(145)          | 4  | 6 <sup>7</sup> / <sub>8</sub> | 8 <sup>3</sup> / <sub>4</sub>  | <sup>9</sup> / <sub>16</sub> | 8      | 30  |

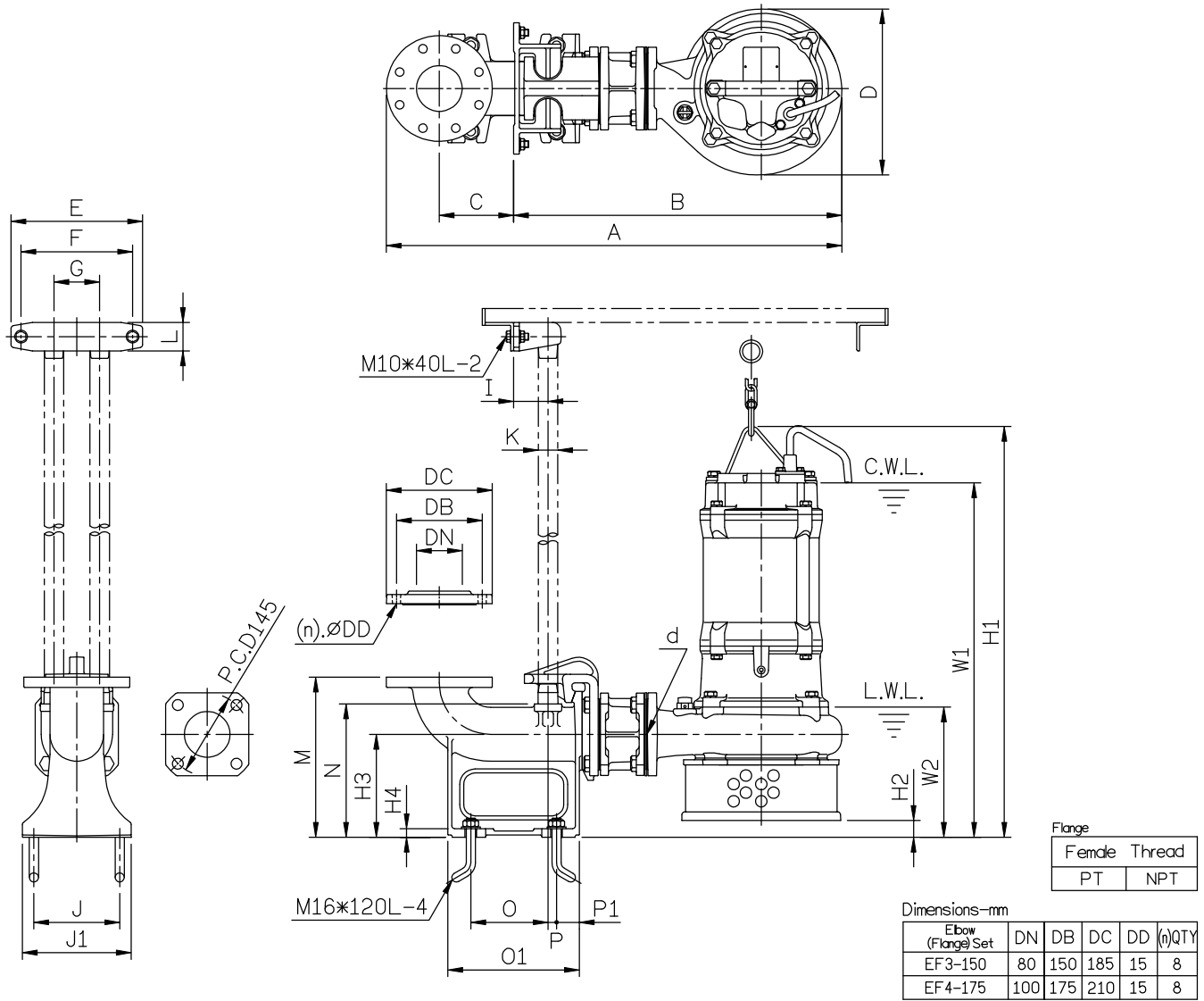
C.W.L.:Continuous Running Water Level WT1:Pump Weight(Without Cable)  
L.W.L.:Lowest Running Water Level WT2:Elbow Set Weight

## DIMENSIONS

No: S3AL027503T-00

MODEL: 80(100)AL25.5 & 80(100)AL27.5

3Ø



Dimensions-mm

| Model         | d  | 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<br>50Hz/60Hz | GRS<br>Set | WT2 |
|---------------|----|-----|-----|-----|-----|-----|-----|----|----|-----|-----|-------|----|-----|-----|-----|-----|----|----|-----|-----|-----|----|-----|----|------------------|------------|-----|
| 80(100)AL25.5 | 80 | 797 | 574 | 130 | 290 | 230 | 195 | 80 | 60 | 150 | 190 | 1 1/4 | 50 | 280 | 233 | 135 | 230 | 15 | 40 | 620 | 228 | 719 | 30 | 180 | 15 | 75/74            | T80DH      | 31  |
| 80(100)AL27.5 | 80 | 797 | 574 | 130 | 290 | 230 | 195 | 80 | 60 | 150 | 190 | 1 1/4 | 50 | 280 | 233 | 135 | 230 | 15 | 40 | 620 | 228 | 719 | 30 | 180 | 15 | 81/80            | T80DH      | 31  |
| 80(100)AL25.5 | 80 | 829 | 574 | 150 | 290 | 230 | 195 | 80 | 60 | 170 | 210 | 1 1/4 | 50 | 285 | 233 | 155 | 250 | 15 | 40 | 620 | 228 | 719 | 30 | 180 | 15 | 75/74            | T100(80)BH | 34  |
| 80(100)AL27.5 | 80 | 829 | 574 | 150 | 290 | 230 | 195 | 80 | 60 | 170 | 210 | 1 1/4 | 50 | 285 | 233 | 155 | 250 | 15 | 40 | 620 | 228 | 719 | 30 | 180 | 15 | 81/80            | T100(80)BH | 34  |

Weight:kg

Dimensions-inch

| Model         | d | 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<br>50Hz/60Hz | GRS<br>Set | WT2 |
|---------------|---|--------|--------|-------|---------|-------|-------|-------|-------|-------|-------|-------|---|--------|-------|-------|-------|------|-------|--------|----|--------|-------|-------|------|------------------|------------|-----|
| 80(100)AL25.5 | 3 | 31 3/8 | 22 5/8 | 5 1/8 | 11 1/16 | 9 1/8 | 7 1/8 | 3 1/8 | 2 3/8 | 5 7/8 | 7 1/2 | 1 1/4 | 2 | 11     | 9 1/8 | 5 1/8 | 9 1/8 | 9/16 | 1 1/8 | 24 1/8 | 9  | 28 5/8 | 1 1/8 | 7 1/8 | 9/16 | 165/163          | T80DH      | 68  |
| 80(100)AL27.5 | 3 | 31 3/8 | 22 5/8 | 5 1/8 | 11 1/16 | 9 1/8 | 7 1/8 | 3 1/8 | 2 3/8 | 5 7/8 | 7 1/2 | 1 1/4 | 2 | 11     | 9 1/8 | 5 1/8 | 9 1/8 | 9/16 | 1 1/8 | 24 1/8 | 9  | 28 5/8 | 1 1/8 | 7 1/8 | 9/16 | 179/176          | T80DH      | 68  |
| 80(100)AL25.5 | 3 | 32 3/8 | 22 5/8 | 5 1/8 | 11 1/16 | 9 1/8 | 7 1/8 | 3 1/8 | 2 3/8 | 6 1/8 | 8 1/4 | 1 1/4 | 2 | 11 1/4 | 9 1/8 | 6 1/8 | 9 1/8 | 9/16 | 1 1/8 | 24 1/8 | 9  | 28 5/8 | 1 1/8 | 7 1/8 | 9/16 | 165/163          | T100(80)BH | 75  |
| 80(100)AL27.5 | 3 | 32 3/8 | 22 5/8 | 5 1/8 | 11 1/16 | 9 1/8 | 7 1/8 | 3 1/8 | 2 3/8 | 6 1/8 | 8 1/4 | 1 1/4 | 2 | 11 1/4 | 9 1/8 | 6 1/8 | 9 1/8 | 9/16 | 1 1/8 | 24 1/8 | 9  | 28 5/8 | 1 1/8 | 7 1/8 | 9/16 | 179/176          | T100(80)BH | 75  |

Weight:lb

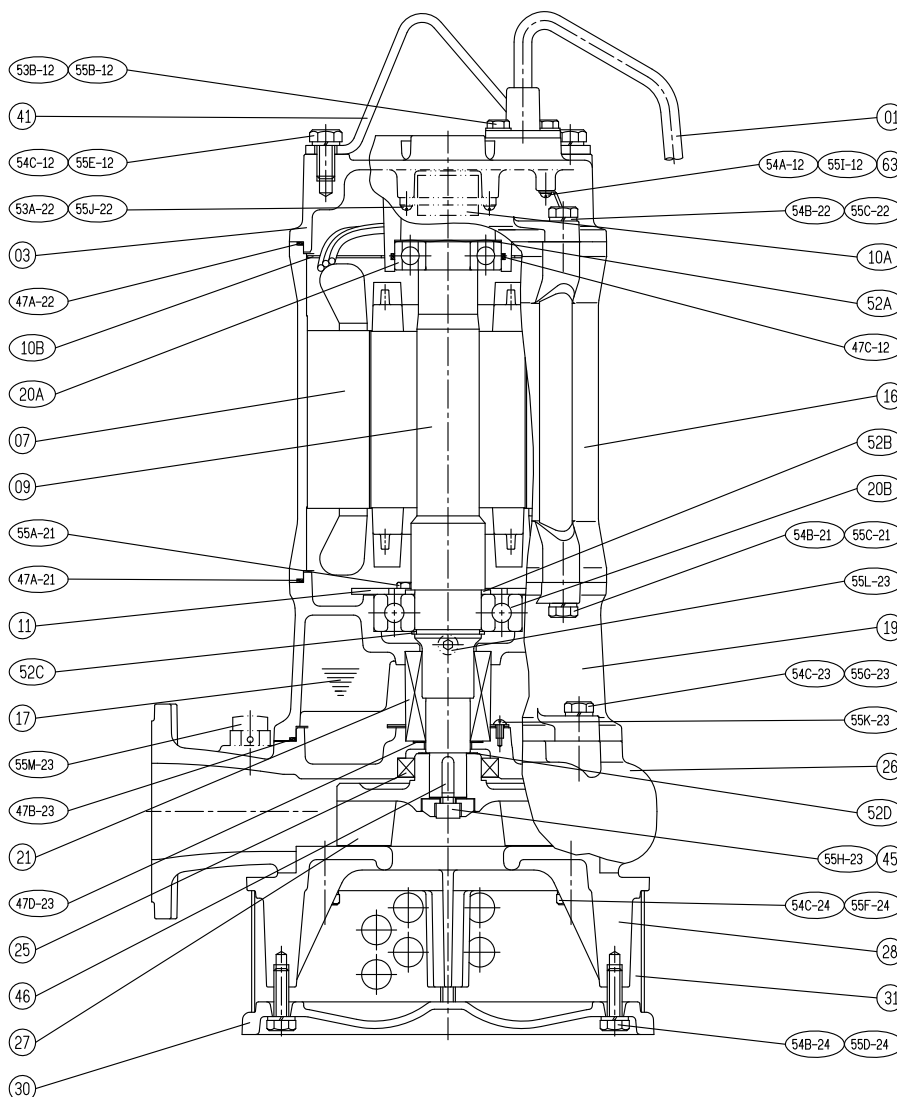
C.W.L.:Continuous Running Water Level WT1:Pump Weight(Without Cable)  
L.W.L.:Lowest Running Water Level WT2:GRS Set Weight

## SECTIONAL VIEWS

No: 03AL0275030-00

MODEL: 80(100)AL25.5 & 80(100)AL27.5

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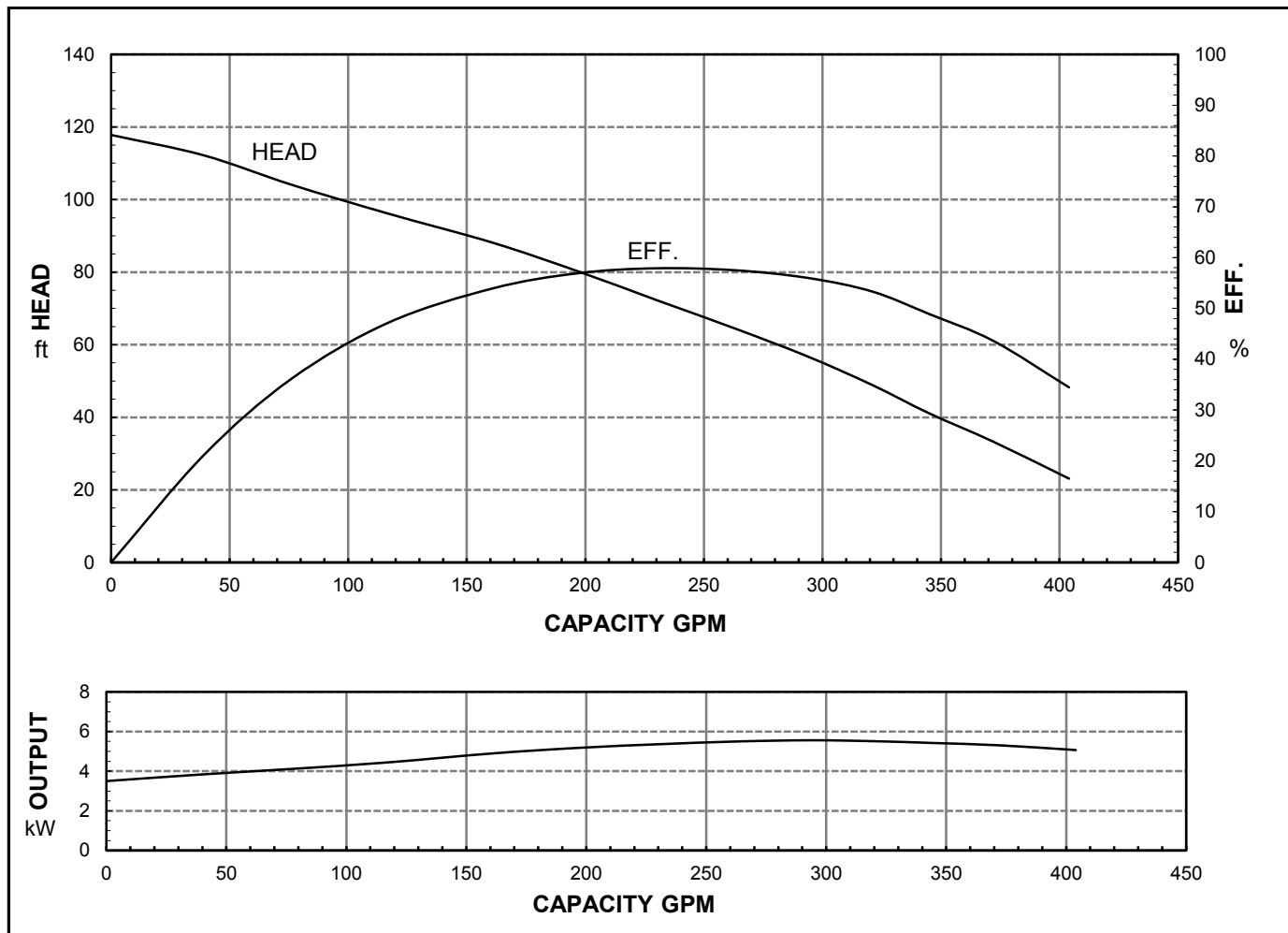
| No. | Part name       | Material            | QTY | Remark |
|-----|-----------------|---------------------|-----|--------|
| 01  | Cable           |                     | 1   |        |
| 03  | Upper cover     | FC200               | 1   |        |
| 07  | Stator          |                     | 1   |        |
| 09  | Shaft end       | SUS403              | 1   |        |
| 10A | Auto-cut        |                     | 1   |        |
| 10B | Auto-cut plate  |                     | 1   |        |
| 11  | Bearing fixer   | SPCC                | 1   |        |
| 16  | Motor frame     | FC200               | 1   |        |
| 17  | Lubricant       |                     |     |        |
| 19  | Bearing bracket | FC200               | 1   |        |
| 20A | Bearing         |                     | 1   |        |
| 20B | Bearing         |                     | 1   |        |
| 21  | M.seal          | CA / CE & SIC / SIC | 1   |        |

| No. | Part name    | Material | QTY | Remark |
|-----|--------------|----------|-----|--------|
| 25  | Oil seal     | NBR      | 1   |        |
| 26  | Casing       | FC200    | 1   |        |
| 27  | Impeller     | FC200    | 1   |        |
| 28  | Casing cover | FC200    | 1   |        |
| 30  | Footing      | FC200    | 1   |        |
| 31  | Strainer     | SUS304   | 1   |        |
| 41  | Handle       | SUS304   | 1   |        |
| 46  | Impeller key | SUS304   | 1   |        |
| 47  | Packing      |          |     |        |
|     |              |          |     |        |
|     |              |          |     |        |
|     |              |          |     |        |

# HCP Pumps *America*

FILE NO. PC-FT-E6-80(100)AL25.53

| PUMP PERFORMANCE CURVES |                        |        |            |       |       |                         |
|-------------------------|------------------------|--------|------------|-------|-------|-------------------------|
| MODEL                   | 80(100)AL25.5          |        |            |       |       | VER. NO. AG1219         |
|                         | STANDARD SPECIFICATION |        |            |       |       | REFERENCE SPECIFICATION |
| FREQUENCY               | 60 Hz                  |        |            |       |       |                         |
| DISCHARGE               | 3 inch                 |        | / 80 mm    |       |       |                         |
| OUTPUT                  | 7.5 HP                 |        | / 5.5 kW   |       |       | HP kW                   |
| HEAD                    | 87 ft                  |        |            |       |       |                         |
| CAPACITY                | 158 GPM                |        |            |       |       |                         |
| PHASE/VOLTAGE           | 3 Ø                    | 220 V  | 230 V      | 440 V | 460 V | 575 V                   |
| RATED CURRENT           |                        | 19.8 A | 19.0 A     | 9.9 A | 9.5 A | 7.9 A                   |
| POLE / rpm              | 2 P                    |        | / 3480 rpm |       |       |                         |
| START METHOD            | DIRECT                 |        |            |       |       |                         |
| INSULATION CLASS        | F                      |        |            |       |       |                         |
| REMARK                  |                        |        |            |       |       |                         |



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