

# ULTRA

## Multistage Horizontal

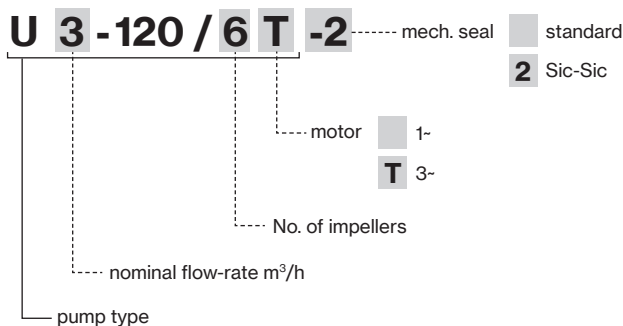
Stainless steel multistage horizontal pumps. Pumping of clean non-loaded fluids, pressurizing system, irrigation, drinking and glycol water, water treatment, heating and air conditioning, washing system.

### Construction features

|   |  |
|---|--|
| <b>Pump body, mechanical seal housing</b> | stainless steel AISI 304   |
| <b>Motor bracket</b>                      | aluminum   |
| <b>Impellers, diffusers</b>               | Noryl®   |
| <b>Mechanical seal</b>                    | ceramic-graphite-EPDM ≤ 6 impellers<br>graphite-silicon carbide-EPDM ≥ 7 impellers |
| <b>Motor shaft</b>                        | stainless steel AISI 303   |
| <b>Liquid temperature</b>                 | -5 ÷ +35 °C  |
| <b>Operating pressure</b>                 | max 8,5 bar  |

### Motor

|                                |   |
|--------------------------------|---|
|                                | 3~ 230/400V - 50Hz  |
| <b>2 poles induction motor</b> | 1~ 230V - 50Hz<br>(with thermal protection up to 1,85 kW) |
| <b>Insulation class</b>        | F   |
| <b>Protection degree</b>       | IPX4  |



ULTRA 3



ULTRA 5



ULTRA 7



ULTRA 9



ULTRA 18



| TYPE      |            | P2  |      | P1 (kW) |      | AMPERE           |                  | Q (m³/h - l/min) |      |      |      |      |      |      |
|-----------|------------|-----|------|---------|------|------------------|------------------|------------------|------|------|------|------|------|------|
| 1-        | 3-         |     |      |         |      | 1-               | 3-               | 0                | 0,6  | 1,2  | 1,8  | 2,4  | 3,6  | 4,8  |
|           |            |     |      |         |      | 1- 230V<br>50 Hz | 3- 400V<br>50 Hz | 0                | 10   | 20   | 30   | 40   | 60   | 80   |
|           |            | HP  | kW   | 1-      | 3-   | H (m)            |                  |                  |      |      |      |      |      |      |
| U 3-50/2  | U 3-50/2T  | 0,5 | 0,37 | 0,45    | 0,46 | 2                | 0,9              | 20,2             | 18,8 | 17,3 | 15,3 | 13,7 | 9,5  | 4,9  |
| U 3-70/3  | U 3-70/3T  | 0,7 | 0,51 | 0,65    | 0,63 | 2,9              | 1,2              | 30,0             | 27,9 | 25,4 | 23,0 | 20,3 | 14,0 | 6,7  |
| U 3-90/4  | U 3-90/4T  | 0,9 | 0,66 | 0,9     | 0,88 | 4                | 1,8              | 40,8             | 38,3 | 35,1 | 31,8 | 27,9 | 19,8 | 10,4 |
| U 3-100/5 | U 3-100/5T | 1   | 0,75 | 1,06    | 1,01 | 4,8              | 1,9              | 52,2             | 48,9 | 45,1 | 40,8 | 36,0 | 25,4 | 14,0 |
| U 3-120/6 | U 3-120/6T | 1,2 | 0,9  | 1,23    | 1,23 | 5,6              | 2,6              | 62,8             | 58,7 | 54,5 | 49,6 | 43,9 | 32,1 | 18,3 |
| U 3-150/7 | U 3-150/7T | 1,5 | 1,1  | 1,3     | 1,2  | 6,1              | 3,0              | 77,1             | 76,1 | 73,2 | 68,4 | 62,3 | 46,5 | 25,7 |

| TYPE      |            | P2  |      | P1 (kW) |      | AMPERE           |                  | Q (m³/h - l/min) |      |      |      |      |      |      |     |
|-----------|------------|-----|------|---------|------|------------------|------------------|------------------|------|------|------|------|------|------|-----|
| 1-        | 3-         |     |      |         |      | 1-               | 3-               | 0                | 1,8  | 2,4  | 3,6  | 4,8  | 6    | 7,2  | 8,4 |
|           |            |     |      |         |      | 1- 230V<br>50 Hz | 3- 400V<br>50 Hz | 0                | 30   | 40   | 60   | 80   | 100  | 120  | 140 |
|           |            | HP  | kW   | 1-      | 3-   | H (m)            |                  |                  |      |      |      |      |      |      |     |
| U 5-70/2  | U 5-70/2T  | 0,7 | 0,51 | 0,61    | 0,58 | 2,7              | 1,1              | 22,0             | 19,7 | 18,7 | 16,6 | 14,0 | 10,8 | 6,8  | 1,8 |
| U 5-80/3  | U 5-80/3T  | 0,8 | 0,6  | 0,86    | 0,79 | 3,9              | 1,5              | 33,4             | 30,3 | 29,0 | 26,0 | 22,5 | 17,6 | 12,0 | 3,9 |
| U 5-120/4 | U 5-120/4T | 1,2 | 0,9  | 1,13    | 1,13 | 5,2              | 2,5              | 45,3             | 41,3 | 39,6 | 35,6 | 30,8 | 24,9 | 17,6 | 6,4 |
| U 5-150/5 | U 5-150/5T | 1,5 | 1,1  | 1,4     | 1,4  | 6,6              | 3,1              | 57,6             | 55,6 | 54,2 | 50,5 | 45,0 | 37,0 | 27,4 |     |
| U 5-180/6 | U 5-180/6T | 2   | 1,5  | 1,6     | 1,6  | 7,4              | 3,3              | 69,1             | 66,5 | 64,8 | 60,1 | 53,2 | 43,8 | 32,0 |     |
| U 5-200/7 | U 5-200/7T | 2   | 1,5  | 1,9     | 1,8  | 8,6              | 3,6              | 80,6             | 77,1 | 75,1 | 69,6 | 61,3 | 50,4 | 35,8 |     |

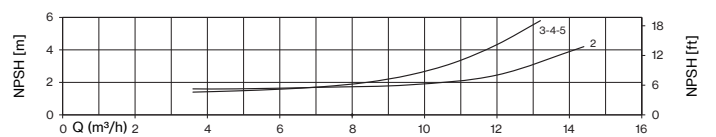
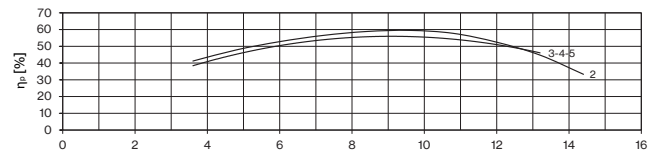
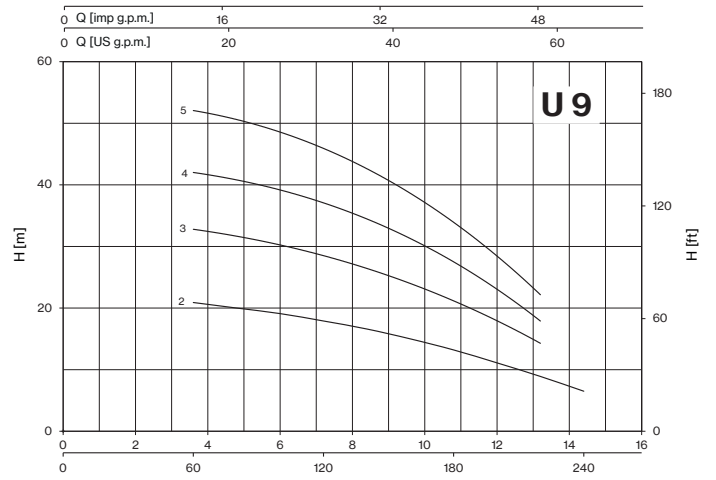
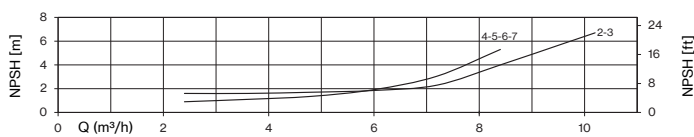
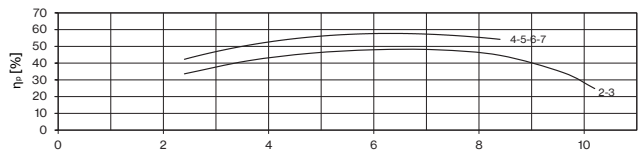
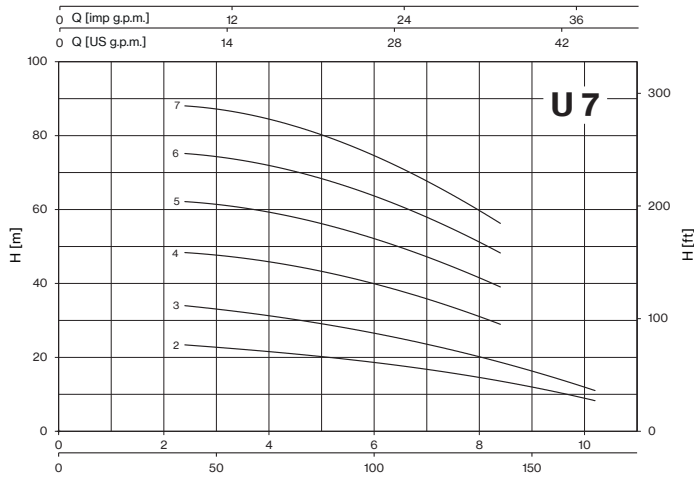
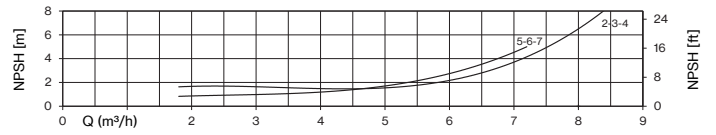
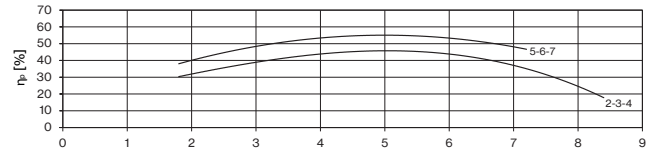
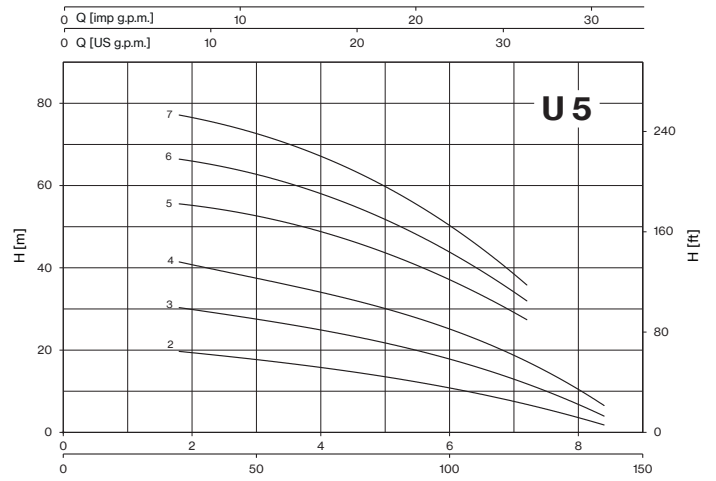
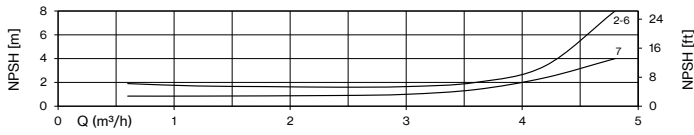
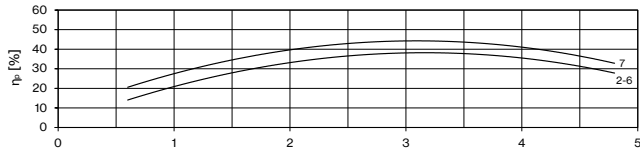
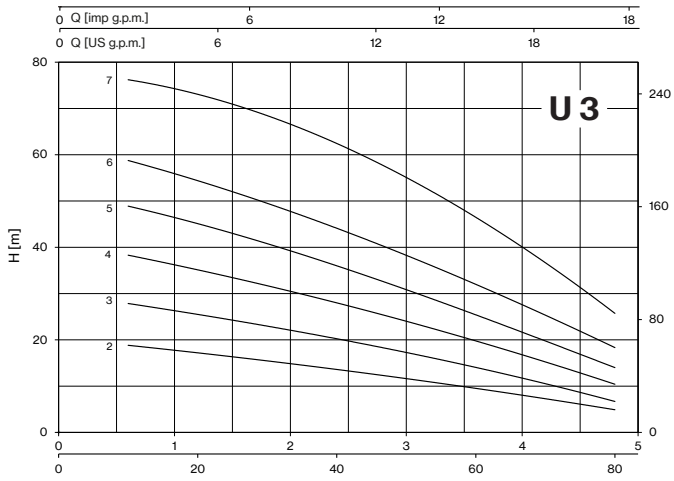
| TYPE      |            | P2  |      | P1 (kW) |     | AMPERE           |                  | Q (m³/h - l/min) |      |      |      |      |      |      |      |      |
|-----------|------------|-----|------|---------|-----|------------------|------------------|------------------|------|------|------|------|------|------|------|------|
| 1-        | 3-         |     |      |         |     | 1-               | 3-               | 0                | 2,4  | 3,6  | 4,8  | 6    | 7,2  | 8,4  | 9,6  | 10,2 |
|           |            |     |      |         |     | 1- 230V<br>50 Hz | 3- 400V<br>50 Hz | 0                | 40   | 60   | 80   | 100  | 120  | 140  | 160  | 170  |
|           |            | HP  | kW   | 1-      | 3-  | H (m)            |                  |                  |      |      |      |      |      |      |      |      |
| U 7-100/2 | U 7-100/2T | 1   | 0,75 | 0,97    | 0,9 | 4,4              | 1,7              | 24,8             | 23,4 | 22,0 | 20,5 | 18,7 | 16,3 | 13,6 | 10,2 | 8,3  |
| U 7-120/3 | U 7-120/3T | 1,2 | 0,9  | 1,32    | 1,3 | 5,9              | 2,6              | 36,7             | 34,0 | 32,0 | 29,6 | 26,5 | 23,0 | 18,6 | 13,8 | 11,0 |
| U 7-180/4 | U 7-180/4T | 2   | 1,5  | 1,7     | 1,6 | 7,9              | 3,3              | 49,6             | 48,4 | 46,7 | 43,8 | 39,9 | 34,9 | 28,9 |      |      |
| U 7-250/5 | U 7-250/5T | 2,5 | 1,85 | 2,2     | 2,0 | 9,9              | 4,0              | 63,2             | 62,1 | 60,3 | 56,9 | 52,1 | 46,2 | 39,0 |      |      |
| U 7-300/6 | U 7-300/6T | 3   | 2,2  | 2,5     | 2,4 | 11,5             | 4,7              | 76,0             | 75,1 | 73,1 | 69,2 | 63,6 | 56,8 | 48,2 |      |      |
| -         | U 7-350/7T | 3,5 | 2,57 | -       | 2,8 | -                | 5,1              | 89,0             | 88,0 | 85,8 | 81,2 | 74,5 | 66,3 | 56,2 |      |      |

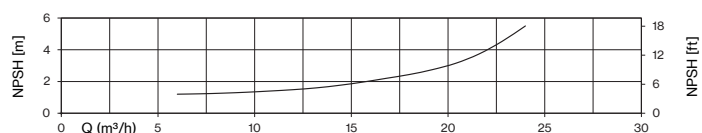
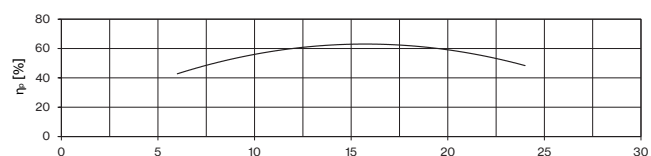
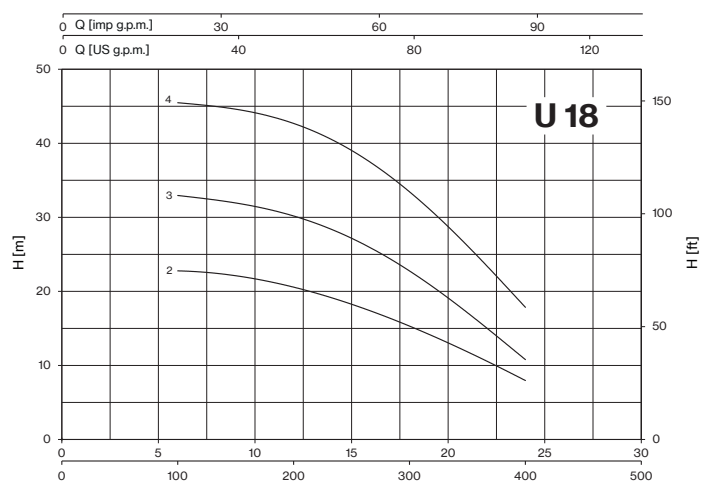
| TYPE      |            | P2  |      | P1 (kW) |      | AMPERE           |                  | Q (m³/h - l/min) |      |      |      |      |      |      |      |
|-----------|------------|-----|------|---------|------|------------------|------------------|------------------|------|------|------|------|------|------|------|
| 1-        | 3-         |     |      |         |      | 1-               | 3-               | 0                | 3,6  | 4,8  | 7,2  | 9,6  | 12   | 13,2 | 14,4 |
|           |            |     |      |         |      | 1- 230V<br>50 Hz | 3- 400V<br>50 Hz | 0                | 60   | 80   | 120  | 160  | 200  | 220  | 240  |
|           |            | HP  | kW   | 1-      | 3-   | H (m)            |                  |                  |      |      |      |      |      |      |      |
| U 9-100/2 | U 9-100/2T | 1   | 0,75 | 0,98    | 0,92 | 4,4              | 1,7              | 23,0             | 20,9 | 20,0 | 17,9 | 15,0 | 11,1 | 8,9  | 6,5  |
| U 9-150/3 | U 9-150/3T | 1,5 | 1,1  | 1,4     | 1,4  | 6,6              | 3,1              | 35,0             | 32,8 | 31,7 | 28,5 | 24,1 | 17,9 | 14,3 |      |
| U 9-200/4 | U 9-200/4T | 2   | 1,5  | 1,8     | 1,7  | 8,3              | 3,5              | 45,8             | 42,1 | 40,7 | 37,3 | 31,3 | 23,0 | 17,9 |      |
| U 9-250/5 | U 9-250/5T | 2,5 | 1,85 | 2,3     | 2,1  | 10,4             | 4,1              | 56,9             | 52,2 | 50,4 | 46,1 | 38,8 | 28,2 | 22,3 |      |

| TYPE        |     | P2   |     | P1 (kW) | A                | Q (m³/h - l/min) |      |      |      |      |      |      |      |      |  |
|-------------|-----|------|-----|---------|------------------|------------------|------|------|------|------|------|------|------|------|--|
| 3-          | 3-  |      |     |         | 0                | 6                | 7,2  | 9,6  | 12   | 14,4 | 16,8 | 19,2 | 21,6 | 24   |  |
|             |     |      |     |         | 0                | 100              | 120  | 160  | 200  | 240  | 280  | 320  | 360  | 400  |  |
|             |     | HP   | kW  | 3-      | 3- 400V<br>50 Hz | H (m)            |      |      |      |      |      |      |      |      |  |
| U 18-180/2T | 2   | 1,5  | 1,6 | 3,3     | 23,6             | 23,0             | 22,4 | 21,9 | 20,6 | 18,6 | 17,0 | 13,8 | 11,2 | 7,9  |  |
| U 18-250/3T | 2,5 | 1,85 | 2,2 | 4,2     | 34,7             | 32,9             | 32,6 | 31,6 | 30,1 | 28,0 | 24,7 | 20,6 | 15,9 | 10,7 |  |
| U 18-400/4T | 4   | 3    | 3,0 | 5,8     | 47,1             | 45,4             | 45,2 | 44,3 | 42,6 | 40,0 | 36,0 | 30,6 | 24,6 | 17,8 |  |



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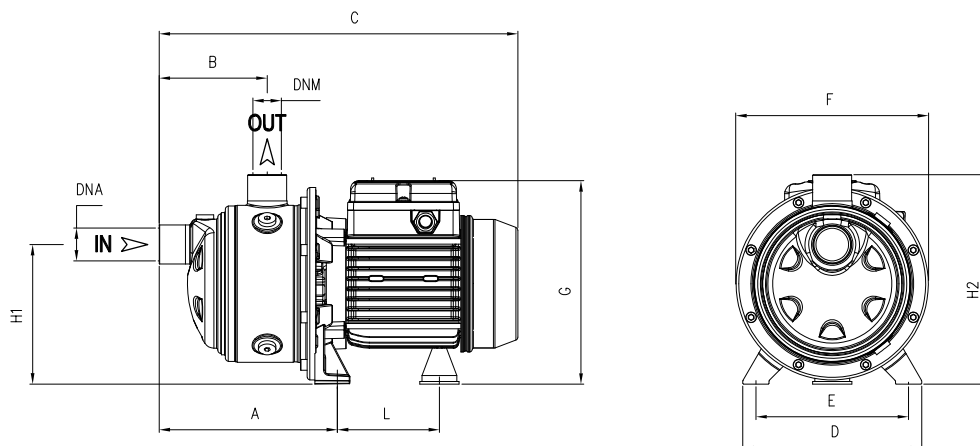




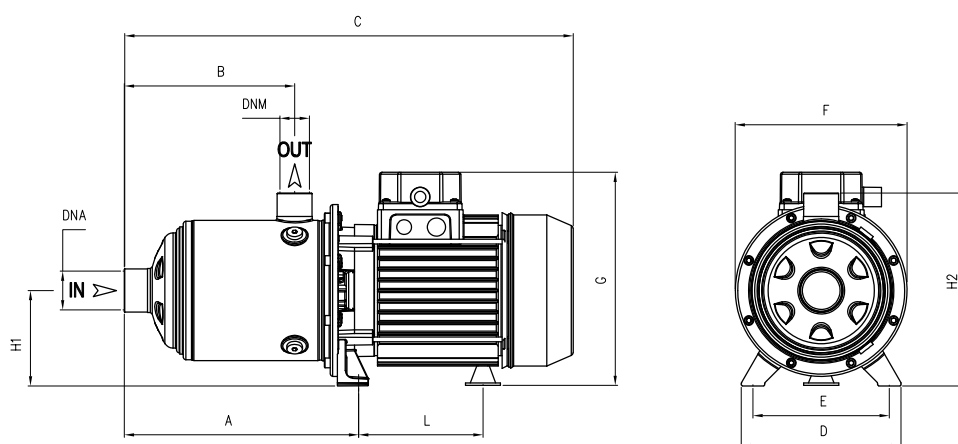
| LOTS               |             |          |             |          |
|--------------------|-------------|----------|-------------|----------|
| TYPE               | TRUCK       |          | CONTAINER   |          |
|                    | PALLET (cm) | N° pumps | PALLET (cm) | N° pumps |
| U 3-50/2-90/4      | 80×120×150  | 84       | 80×120×175  | 96       |
| U 3-100/5-120/6    | 85×110×160  | 70       | 85×110×185  | 80       |
| U 3-150/7          | 80×120×150  | 42       | 80×120×175  | 49       |
| U 5-70/2           | 80×120×150  | 84       | 80×120×175  | 96       |
| U 5-80/3-120/4     | 85×110×160  | 70       | 85×110×185  | 80       |
| U 5-150/5          | 90×110×150  | 54       | 90×110×170  | 63       |
| U 5-180/6-200/7    | 80×120×150  | 42       | 80×120×175  | 49       |
| U 7-100/2-120/3    | 85×110×160  | 70       | 85×110×185  | 80       |
| U 7-180/4-250/5    | 90×110×150  | 54       | 90×110×170  | 63       |
| U 7-300/6T         | 80×120×150  | 42       | 80×120×175  | 49       |
| U 7-300/6 M-350/7T | 80×120×145  | 35       | 80×120×170  | 42       |
| U 9-100/2          | 85×110×160  | 70       | 85×110×185  | 80       |
| U 9-150/3-200/4    | 90×110×150  | 54       | 90×110×170  | 63       |
| U 9-250/5          | 80×120×150  | 42       | 80×120×175  | 49       |
| U 18-180/2-250/3   | 90×110×150  | 54       | 90×110×170  | 63       |
| U 18-400/4         | 80×120×145  | 35       | 80×120×170  | 42       |



# ULTRA




| TYPE      |            | DIMENSIONS (mm) |     |     |     |     |     |     |       |     |     |      |      | Kg   |      |
|-----------|------------|-----------------|-----|-----|-----|-----|-----|-----|-------|-----|-----|------|------|------|------|
| -1        | -3         | A               | B   | C   | D   | E   | F   | G   | L     | H1  | H2  | DNA  | DNM  | -1   | -3   |
| U 3-50/2  | U 3-50/2T  | 166,8           | 103 | 333 | 164 | 140 | 178 | 190 | 93,7  | 128 | 192 | 1" G | 1" G | 6,5  | 6    |
| U 3-70/3  | U 3-70/3T  | 166,8           | 103 | 333 | 164 | 140 | 178 | 190 | 93,7  | 128 | 192 |      |      | 7    | 7    |
| U 3-90/4  | U 3-90/4T  | 190,8           | 127 | 357 | 164 | 140 | 178 | 190 | 93,7  | 128 | 192 |      |      | 8,5  | 8,5  |
| U 3-100/5 | U 3-100/5T | 214,8           | 151 | 404 | 164 | 140 | 178 | 203 | 104,7 | 128 | 192 |      |      | 10,5 | 10,5 |
| U 3-120/6 | U 3-120/6T | 238,8           | 175 | 428 | 164 | 140 | 178 | 203 | 104,7 | 128 | 192 |      |      | 11,5 | 11,5 |
| U 3-150/7 | U 3-150/7T | 262,8           | 199 | 513 | 164 | 140 | 201 | 211 | 128,2 | 134 | 198 |      |      | 14,5 | 14   |
| U 5-70/2  | U 5-70/2T  | 166,8           | 103 | 333 | 164 | 140 | 178 | 195 | 93,7  | 128 | 192 |      |      | 7    | 7    |
| U 5-80/3  | U 5-80/3T  | 166,8           | 103 | 357 | 164 | 140 | 178 | 203 | 93,7  | 128 | 192 |      |      | 9,5  | 10,5 |
| U 5-120/4 | U 5-120/4T | 190,8           | 127 | 380 | 164 | 140 | 178 | 203 | 104,7 | 128 | 192 |      |      | 11   | 11   |
| U 5-150/5 | U 5-150/5T | 214,8           | 151 | 466 | 164 | 140 | 201 | 211 | 128,2 | 134 | 198 |      |      | 17,5 | 17,5 |
| U 5-180/6 | U 5-180/6T | 238,8           | 175 | 489 | 164 | 140 | 201 | 211 | 128,2 | 134 | 198 |      |      | 17,5 | 18   |
| U 5-200/7 | U 5-200/7T | 262,8           | 199 | 513 | 164 | 140 | 201 | 211 | 128,2 | 134 | 198 |      |      | 17   | 18   |




| TYPE      |             | DIMENSIONS (mm) |       |              |     |     |     |     |       |     |     |          |      | Kg       |          |      |          |   |    |
|-----------|-------------|-----------------|-------|--------------|-----|-----|-----|-----|-------|-----|-----|----------|------|----------|----------|------|----------|---|----|
| -1        | -3          | A               | B     | C            | D   | E   | F   | G   | L     | H1  | H2  | DNA      | DNM  | -1       | -3       |      |          |   |    |
| U 7-100/2 | U 7-100/2T  | 166,8           | 103   | 356          | 164 | 140 | 178 | 203 | 104,7 | 92  | 192 | 1" 1/4 G | 1" G | 10       | 10       |      |          |   |    |
| U 7-120/3 | U 7-120/3T  | 166,8           | 103   | 356          | 164 | 140 | 178 | 203 | 104,7 | 92  | 192 |          |      | 10,5     | 10,5     |      |          |   |    |
| U 7-180/4 | U 7-180/4T  | 190,8           | 127   | 441          | 164 | 140 | 201 | 211 | 128,2 | 98  | 198 |          |      | 16       | 17       |      |          |   |    |
| U 7-250/5 | U 7-250/5T  | 214,8           | 151   | 466          | 164 | 140 | 201 | 211 | 128,2 | 98  | 198 |          |      | 17,5     | 16,5     |      |          |   |    |
| U 7-300/6 | U 7-300/6T  | 238,8           | 175   | 543<br>T 489 | 164 | 140 | 201 | 211 | 148,2 | 103 | 203 |          |      | 24,5     | 18       |      |          |   |    |
| -         | U 7-350/7T  | 262,8           | 199   | 567          | 164 | 140 | 201 | 229 | 148,2 | 103 | 203 |          |      | -        | 22       |      |          |   |    |
| U 9-100/2 | U 9-100/2T  | 185,8           | 118   | 375          | 164 | 140 | 178 | 203 | 104,7 | 98  | 192 |          |      | 1" 1/2 G | 1" 1/4 G | 10   | 10       |   |    |
| U 9-150/3 | U 9-150/3T  | 185,8           | 118   | 405          | 164 | 140 | 201 | 211 | 128,2 | 98  | 198 |          |      |          |          | 17   | 17       |   |    |
| U 9-200/4 | U 9-200/4T  | 215,8           | 148   | 466          | 164 | 140 | 201 | 211 | 128,2 | 98  | 198 |          |      |          |          | 16   | 17,5     |   |    |
| U 9-250/5 | U 9-250/5T  | 245,8           | 178   | 494          | 164 | 140 | 201 | 211 | 128,2 | 98  | 198 |          |      |          |          | 17,5 | 16,5     |   |    |
| -         | U 18-180/2T | 201             | 141   | 462          | 164 | 140 | 201 | 211 | 128,2 | 98  | 198 |          |      |          |          | -    | 14       |   |    |
| -         | U 18-250/3T | 238,5           | 141   | 462          | 164 | 140 | 201 | 211 | 128,2 | 98  | 198 |          |      |          |          | 2" G | 1" 1/2 G | - | 16 |
| -         | U 18-400/4T | 276             | 178,5 | 554          | 164 | 140 | 201 | 229 | 148,2 | 103 | 203 |          |      |          |          | -    | -        | - | 24 |



# ULTRA (S) Serie-Mechanical seal and bearings

| MECHANICAL SEAL   | PUMP MODEL   | SHAFT Ø  |  | STANDARD MATERIAL           | OPTIONAL           |
|---|--|----------|--|-----------------------------|--------------------|
|   |  |          |  |                             | 2                  |
|  | U3-50/2, U3-70/3, U3-90/4, U3-100/5, U3-120/6, U5-70/2, U5-80/3, U5-120/4, U5-150/5, U5-180/6, U7-100/2, U7-120/3, U7-180/4, U7-250/5, U7-300/6, U9-100/2, U9-150/3, U9-200/4, U9-250/5, U18-180/2, U18-250/3, U18-400/4 | 14mm / S | <b>Rotating face</b><br><b>Stationary face</b><br><b>Elastomer</b> | Graphite<br>Ceramic<br>EPDM | SiC<br>SiC<br>EPDM |
|   | U3-150/7, U5-200/7, U7-350/7   | 14mm     | <b>Rotating face</b><br><b>Stationary face</b><br><b>Elastomer</b> | Graphite<br>SiC<br>EPDM     | SiC<br>SiC<br>EPDM |

| BEARINGS  | PUMP MODEL  | TYPE    |            |
|---|---|---------|------------|
|   |   |         |            |
|  | U3-50/2, U3-70/3, U3-90/4, U5-70/2  | 6201-ZZ | 6202-ZZ    |
|   | U3-100/5, U3-120/6, U5-80/3, U5-120/4, U7-100/2, U7-120/3, U9-100/2   | 6202-ZZ | 6302-ZZ C3 |
|   | U3-150/7, U5-150/5, U5-180/6, U5-200/7, U7-180/4, U7-250/5, 3- U7-300/6, U9-150/3, U9-200/4, U9-250/5, U18-180/2, U18-250/3 | 6203-ZZ | 6304-ZZ C3 |
|   | 1- U7-300/6, U7-350/7, U18-400/4  | 6203-ZZ | 6305-ZZ C3 |



# ULTRA + VSD

Horizontal booster pump with variable speed drive



## DESCRIPTION

Horizontal pump of ULTRA series provided with single-phase variable speed drive EPIC or three-phase EPIC-A. This booster pump assures a desired pressure regardless of changes on flow demand making it suitable for low or missing pressure in domestic systems. A membrane tank downstream the system is required.

## FEATURES

- EPIC or EPIC-A variable speed drive provided on board
- Three-phase horizontal pump of ULTRA series
- Pressure sensor
- Cable with plug

## FUNCTIONING

If the pressure in the network drops the pump will start and gradually speeds up to provide with the set pressure. When the water demand decreases, the pressure will rise causing the pump speed to slow down and eventually to stop the pump if demand ceases. The pump will remain on standby waiting to start at the next water demand.

## SELECTION

The table below shows the horizontal ULTRA pump models available for the assembly with EPIC or EPIC-A. Consult the catalog at the ULTRA series for pump specifics and characteristic curves.

| 3- PUMP TYPE |              | VSD TYPE     |            |
|--------------|--------------|--------------|------------|
| ULTRA        | ULTRA S      | Power supply |            |
|              |              | 1- 230V      | 3- 400V    |
| U 3-50/2T    | U 3S-50/2T   | EPIC         | EPIC-A 304 |
| U 3-70/3T    | U 3S-70/3T   |              |            |
| U 3-90/4T    | U 3S-90/4T   |              |            |
| U 3-100/5T   | U 3S-100/5T  |              |            |
| U 3-120/6T   | U 3S-120/6T  |              |            |
| U 3-150/7T   | U 3S-150/7T  |              |            |
| U 5-70/2T    | U 5S-70/2T   |              |            |
| U 5-80/3T    | U 5S-80/3T   |              |            |
| U 5-120/4T   | U 5S-120/4T  |              |            |
| U 5-150/5T   | U 5S-150/5T  |              |            |
| U 5-180/6T   | U 5S-180/6T  |              |            |
| U 5-200/7T   | U 5S-200/7T  |              |            |
| U 7-100/2T   | U 7S-100/2T  |              |            |
| U 7-120/3T   | U 7S-120/3T  |              |            |
| U 7-180/4T   | U 7S-180/4T  |              |            |
| U 7-250/5T   | U 7S-250/5T  | -            | EPIC-A 306 |
| U 7-300/6T   | U 7S-300/6T  |              |            |
| U 7-350/7T   | U 7S-350/7T  |              |            |
| U 9-100/2T   | U 9S-100/2T  | EPIC         | EPIC-A 304 |
| U 9-150/3T   | U 9S-150/3T  |              |            |
| U 9-200/4T   | U 9S-200/4T  | -            | EPIC-A 306 |
| U 9-250/5T   | U 9S-250/5T  |              |            |
| U 18-180/2T  | U 18S-180/2T | EPIC         | EPIC-A 304 |
| U 18-250/3T  | U 18S-250/3T | -            | EPIC-A 306 |
| U 18-400/4T  | U 18S-400/4T |              | EPIC-A 309 |

