



EBARA

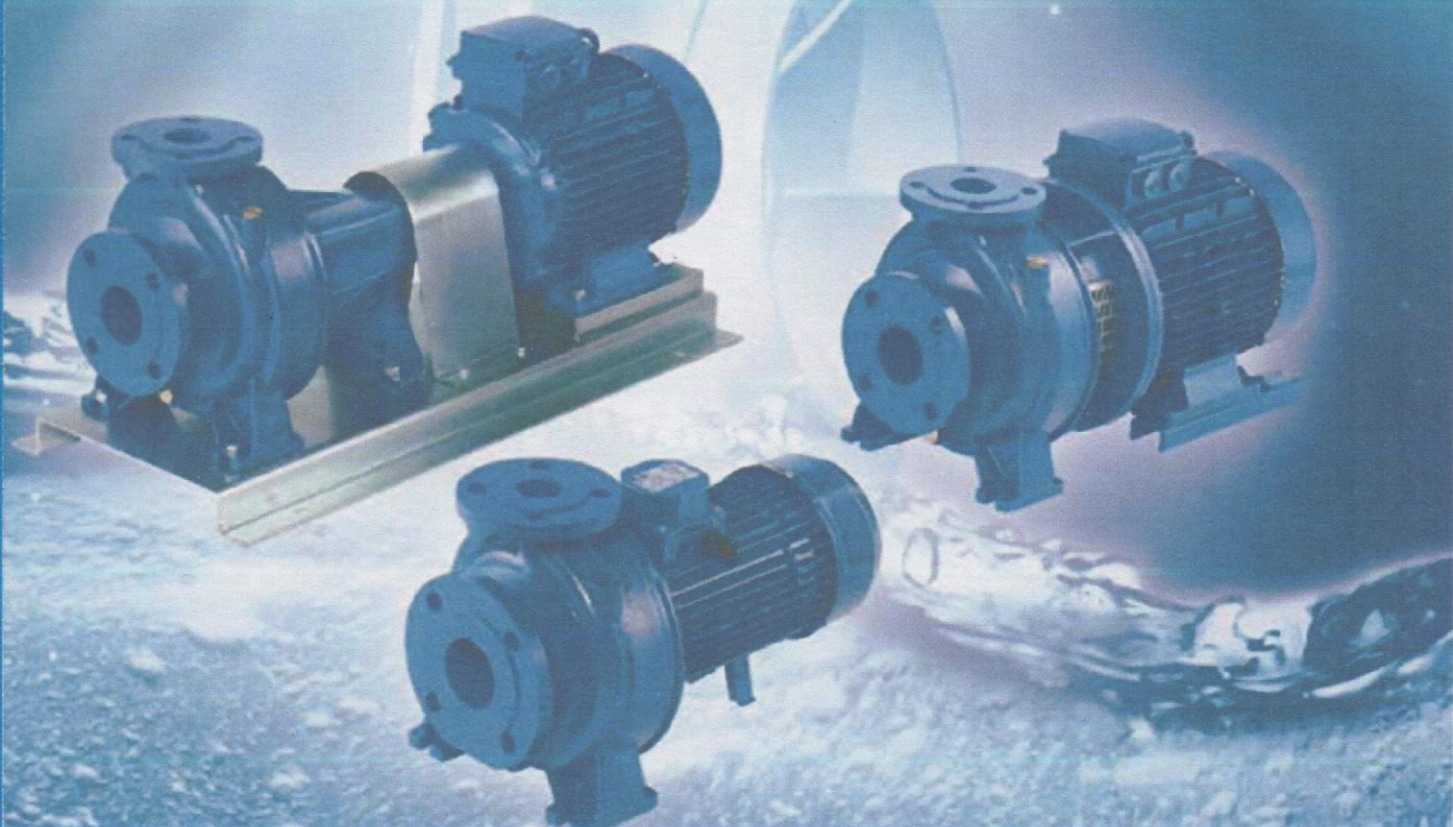
D SERIES

CENTRIFUGAL PUMPS CLOSE COUPLED

AND STANDARDIZED EN733

50/60 Hz

**3D
SERIES**



SPECIFICATION

50Hz

Rev. 0

| PUMP | | |
|--------------------------------|--------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Liquid Handled | Type of liquid | Clean water |
| | Working temperature [°C] | min. -5 max. +90 max. +110 (H, HS, HW, HSW version) max. +120 (E version) |
| Maximum working pressure [MPa] | | 1 |
| Construction | Impeller | Closed centrifugal type for 32, 40, 50 series Reinforced laser welding for 40-200/11, 50-200/15 Closed centrifugal three dimensional blades for 65 series |
| | Shaft seal type | Mechanical seal |
| | Bearing | Sealed ball bearing |
| Pipe Connection | Suction | Flange DN 50, 65 according to EN 1092-2 Flange DN 80 according to UNI 2236-67 (4 holes) |
| | Discharge | Flange DN 32, 40, 50, 65 according to EN 1092-2 |
| Material | Casing | Cast iron EN-GJL-250-EN 1561 |
| | Impeller | AISI 304 (32, 40, 50 series) AISI 316 made by precision casting (65 series) |
| | Shaft seal | Ceramic/Carbon/NBR (see Optionals on pag. 307-310) |
| | Shaft | AISI 304 (wet extension) |
| | Bracket | Aluminium/Cast iron |
| Accessory | Counterflange | DN 32, 40, 50, 65, 80 (see pag. 315) |
| Applicable standard of test | | ISO 9906 - Annex A |

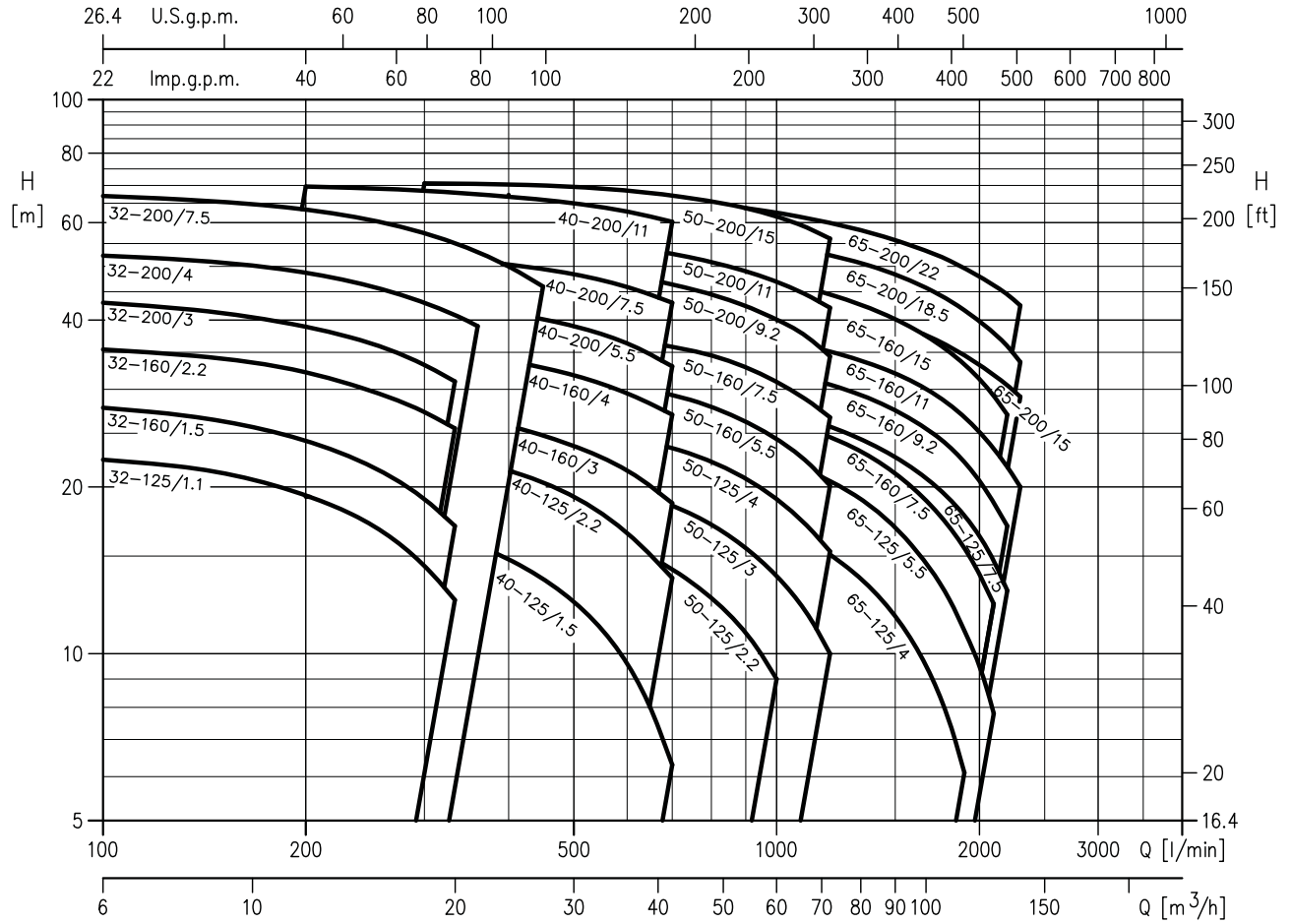
| MOTOR | | | | |
|-------------------------------------|-----------------------|--------------------------------------------------------------|---------------------------------------------------------|-------|
| Type | 3D | | 3DS | 3DP |
| | Electric - TEFC | | | |
| | Single Phase | Three Phase | | |
| Efficiency (Reg. 640/2009) | - | IE2 from 1.1 kW to 22 kW IE3 from 7.5 kW to 22 kW | | |
| No. of Poles | 2 | | | |
| Rotation speed [min ⁻¹] | ≈2900 | | | |
| Insulation Class | F | F (temperature rise class B) | | |
| Protection degree | IP 55 | | | |
| Power rating [kW] | 1.1 ÷ 2.2 | | 1.1 ÷ 22 | |
| | [HP] | | 1.5 ÷ 30 | |
| Frequency [Hz] | 50 | | | |
| Voltage [V] | 230 ±10% | 230/400 ±10% (up to 4 kW) 400/690 ±10% (5.5 kW and above) | | |
| Capacitor | Built in | | - | |
| Over load protection | Provided by the user | | | |
| Casing material | Aluminium | | | |
| Motor support | Cast iron / Aluminium | | | |
| Dimensions of cable entry | M20x1.5 | PG 13.5 | M20x1.5, M25x1.5, M32x1.5, M40x1.5 | |
| | | PG 16 PG 21 | | |
| Flange mount (IEC motor) | / | | IM B5 (up to 2.2 kW) IM B35 (3.0 kW and above) | IM B3 |

200

SELECTION CHART

50Hz

Rev. 0



SELECTION CHART

50Hz

Rev. 0

3D SERIES 32 SIZE

| Pump type | kW | HP | l/min | 100 | 150 | 200 | 250 | 300 | 333 | 360 | 400 | 450 |
|-----------------|-----|-----|-------|------|------|------|------|------|------|------|-----|-----|
| | | | 0 | 6 | 9 | 12 | 15 | 18 | 20 | 21.6 | 24 | 27 |
| 32-125/1.1(M) * | 1.1 | 1.5 | 23 | 22.4 | 21.2 | 19.3 | 17.1 | 14.4 | 12.5 | - | - | - |
| 32-160/1.5(M) * | 1.5 | 2 | 28.5 | 27.5 | 25.9 | 23.7 | 21.3 | 18.5 | 16.4 | - | - | - |
| 32-160/2.2(M) * | 2.2 | 3 | 36.7 | 35.4 | 34.1 | 32.2 | 29.8 | 27.3 | 25.5 | - | - | - |
| 32-200/3.0 | 3 | 4 | 44 | 43 | 41 | 39 | 36.5 | 33 | 31 | - | - | - |
| 32-200/4.0 | 4 | 5.5 | 53 | 52.5 | 51 | 49 | 46 | 43 | 41 | 39 | - | - |
| 32-200/7.5 | 7.5 | 10 | 68 | 67 | 65 | 63 | 61 | 57 | 55 | 53 | 50 | 46 |

3D SERIES 40 SIZE

| Pump type | kW | HP | l/min | 200 | 250 | 300 | 350 | 400 | 450 | 500 | 600 | 700 |
|-----------------|-----|-----|-------|------|------|------|------|------|------|------|------|------|
| | | | 0 | 12 | 15 | 18 | 21 | 24 | 27 | 30 | 36 | 42 |
| 40-125/1.5(M) * | 1.5 | 2 | 19 | 18.2 | 17.6 | 16.8 | 15.9 | 14.8 | 13.7 | 12.4 | 9.6 | 6.3 |
| 40-125/2.2(M) * | 2.2 | 3 | 25 | 24.4 | 23.9 | 23.2 | 22.4 | 21.4 | 20.4 | 19.2 | 16.5 | 13.7 |
| 40-160/3.0 | 3 | 4 | 31 | 29.4 | 28.7 | 27.8 | 26.8 | 25.8 | 24.8 | 23.7 | 21.4 | 18.7 |
| 40-160/4.0 | 4 | 5.5 | 38.8 | 37.2 | 36.5 | 35.7 | 34.8 | 33.8 | 32.8 | 31.8 | 29.5 | 27 |
| 40-200/5.5 | 5.5 | 7.5 | 45.5 | 44.5 | 44 | 43 | 42 | 41 | 40 | 39 | 36.3 | 33 |
| 40-200/7.5 | 7.5 | 10 | 55 | 53.5 | 53 | 52 | 51.5 | 50.5 | 49.5 | 48.5 | 46 | 43 |
| 40-200/11 | 11 | 15 | 71 | 70 | 69 | 68.5 | 67.5 | 67 | 66 | 65 | 63 | 60 |

3D SERIES 50 SIZE

| Pump type | kW | HP | l/min | 400 | 500 | 600 | 700 | 800 | 900 | 1000 | 1100 | 1200 |
|-----------------|-----|------|-------|------|------|------|------|------|------|------|------|------|
| | | | 0 | 24 | 30 | 36 | 42 | 48 | 54 | 60 | 66 | 72 |
| 50-125/2.2(M) * | 2.2 | 3 | 19.5 | 18 | 17 | 15.7 | 14.2 | 12.6 | 10.9 | 9 | - | - |
| 50-125/3.0 | 3 | 4 | 22.5 | 21.5 | 20.8 | 19.8 | 18.5 | 17.1 | 15.5 | 13.8 | 12 | 10 |
| 50-125/4.0 | 4 | 5.5 | 26.5 | 25.8 | 25.3 | 24.5 | 23.5 | 22.2 | 20.7 | 19 | 17.2 | 15.3 |
| 50-160/5.5 | 5.5 | 7.5 | 33 | 32 | 31.5 | 30.5 | 29.3 | 27.9 | 26.2 | 24.4 | 22.4 | 20 |
| 50-160/7.5 | 7.5 | 10 | 39.5 | 38.2 | 37.6 | 36.9 | 35.8 | 34.5 | 32.9 | 30.9 | 28.9 | 26.7 |
| 50-200/9.2 | 9.2 | 12.5 | 51.5 | - | 49.5 | 48 | 46.5 | 44.5 | 42.5 | 40 | 37.6 | 34.4 |
| 50-200/11 | 11 | 15 | 57.5 | - | 55.5 | 54.5 | 52.5 | 51 | 49 | 47 | 44.5 | 42 |
| 50-200/15 | 15 | 20 | 71 | - | 69.5 | 68.5 | 67 | 65.5 | 63.5 | 61.5 | 59 | 56 |

3D SERIES 65 SIZE

| Pump type | kW | HP | l/min | 600 | 700 | 1000 | 1300 | 1600 | 1900 | 2100 | 2200 | 2300 |
|-------------|------|------|-------|------|------|------|------|------|------|------|------|------|
| | | | 0 | 36 | 42 | 60 | 78 | 96 | 114 | 126 | 132 | 138 |
| 65-125/4.0 | 4 | 5.5 | 22 | 20.4 | 19.8 | 17.2 | 14 | 10.4 | 6 | - | - | - |
| 65-125/5.5 | 5.5 | 7.5 | 26 | - | 25 | 22.5 | 19.4 | 15.5 | 11 | 8 | - | - |
| 65-125/7.5 | 7.5 | 10 | 31 | - | 29.6 | 27.5 | 24.7 | 21.5 | 17.8 | 14.7 | 13 | - |
| 65-160/7.5 | 7.5 | 10 | 31.6 | - | 29 | 26.6 | 23.5 | 19.8 | 15.5 | 12.3 | - | - |
| 65-160/9.2 | 9.2 | 12.5 | 36.5 | - | 34.7 | 32.4 | 29.6 | 26.3 | 22.2 | 18.8 | 17 | - |
| 65-160/11 | 11 | 15 | 40.5 | - | 39 | 37 | 34 | 31 | 27 | 23 | 22 | 20 |
| 65-160/15 | 15 | 20 | 48 | - | 46 | 44 | 41.5 | 38.4 | 34.6 | 31.9 | 30.5 | 29 |
| 65-200/15 | 15 | 20 | 54 | - | 51 | 47 | 43 | 38.6 | 33.3 | 29.2 | 27 | - |
| 65-200/18.5 | 18.5 | 25 | 60 | - | 58 | 55 | 51 | 47 | 41.5 | 37.9 | 35.9 | 33.6 |
| 65-200/22 | 22 | 30 | 68 | - | 65.5 | 62.5 | 58.5 | 54.5 | 49.5 | 46 | 44.5 | 42.5 |

* Single phase version only for 3D type