

TFM TF (WITH FLANGED CONNECTIONS) STANDARDIZED CENTRIFUGAL PUMPS



TFM 32I160A



TF65I160C

WORKING PRINCIPLE

TFM & TF pumps are CENTRIFUGAL SINGLE-IMPELLER PUMPS manufactured to EN733-DIN24255 standards. The impeller, mounted on the end of the drive shaft, directly faces the suction opening machined in the pump body. The shape of the impeller is designed, with minimal hydraulic losses, to impart radial motion from the centre outwards. During this operation the blades inside the impeller channel transfer energy to the fluid both in the form of pressure and increased speed. The fluid leaves the impeller is conveyed into the volute which, together with the cone diffuser, transforms part of the kinetic energy into pressure energy.

PUMPS INSTALLATION AND APPLICATIONS

These pumps are recommended for clean water and fluids which are not chemically aggressive to the pump components. They are principally used for industrial, agricultural and civil applications, where they make the most of their sturdiness and dependability. They are manufactured to EN733-DIN24255 standards. Overall dimensions, sizes and positions of suction and delivery openings, support feet and other dimensional characteristics comply with these standards. This means that users can be sure these pumps will meet even the most demanding heavy-duty needs and that they can be perfectly interchanged with other standardized pumps. Their structural shape allows dismantling without disconnecting the pump body from the pipeline (back pullout), making them easy to use in widely varying conditions. They should be installed in a covered area, protected against the weather.

PERFORMANCE

TFM pumps come in a wide and well-diversified range. Characteristic curves for the different models are distributed in a rational manner, making it easy to select the model most suited to each specific user requirement. This, together with high performance efficiency, means big savings in operating costs since these are powerful machines often intended for continuous duty.

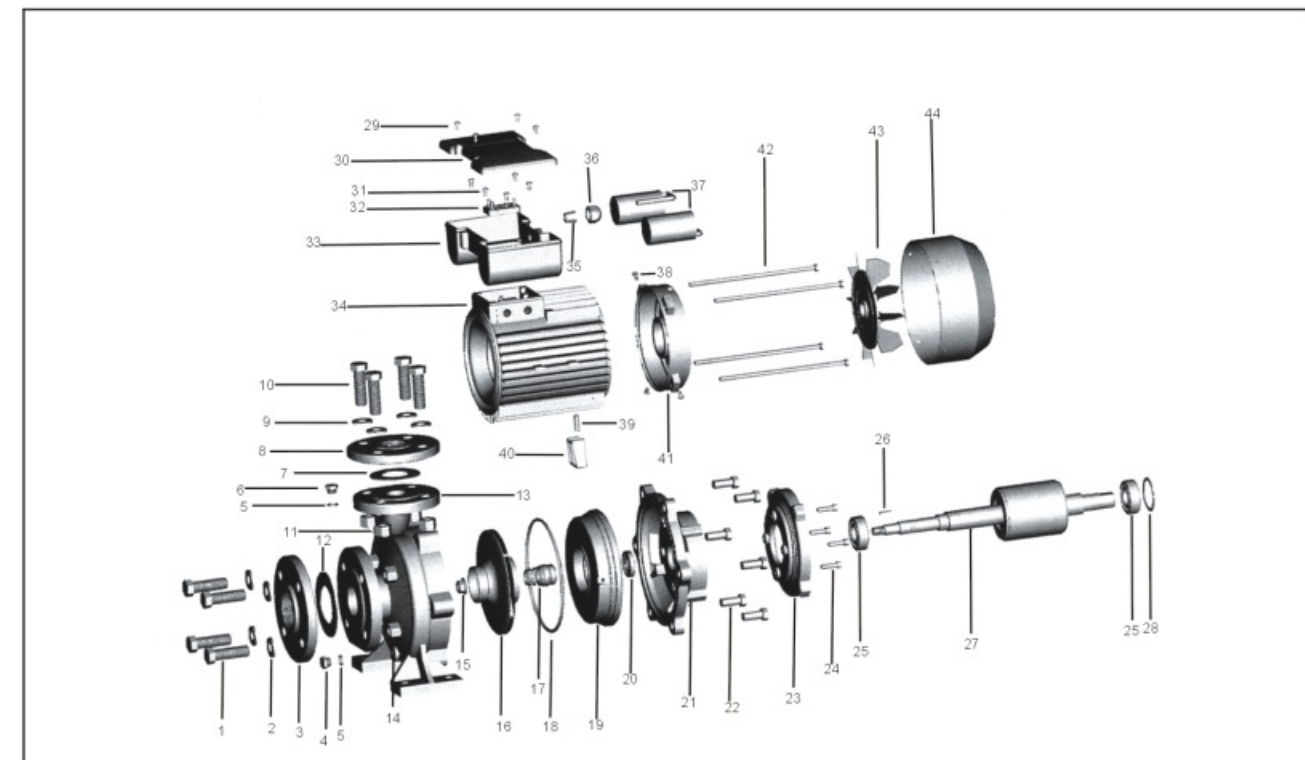
This series of pumps is characterized by:

- Highly stable and broad characteristic curves;
- Performance characterized by high absolute values over the majority of the curve;
- Flat absorption curves at high delivery rates, preventing motor overloading even during prolonged use;
- Good suction capacities at both low and high delivery rates.

STRUCTURAL CHARACTERISTICS

- PUMP BODY manufactured to EN733-DIN24255 and UNI7467-NF E-44-111 standards, built with flanged suction and delivery openings (UNI2236 Pn10).
- Pump body cover which closes the rear pump body and houses the mechanical seal.
- Brass IMPELLER centrifugal radial flow type.
- Anti-rust shaft (HI-Cr plated 45# steel shaft)
- Mechanical seal (graphite to ceramic or graphite)
- Protection Ip55
- With thermal overload protector in single phase motor
- C&U bearing or local bearing.

WARRANTY: 1 YEAR (according to our general sales conditions)

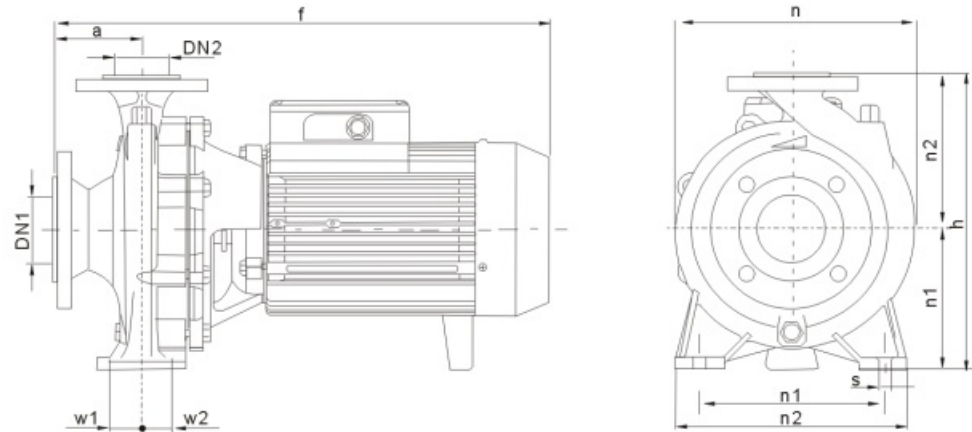


| N. | DESCRIPTION | N. | DESCRIPTION | N. | DESCRIPTION | N. | DESCRIPTION |
|----|-----------------|----|-----------------|----|--------------------------|----|-------------|
| 1 | Bolt | 13 | Pump casing | 25 | Bearing | 37 | Capacitor |
| 2 | Washer | 14 | Nut | 26 | Key | 38 | Screw |
| 3 | Suction flange | 15 | Nut | 27 | Rotor | 39 | Stand pin |
| 4 | Discharge plug | 16 | Impeller | 28 | Split ring | 40 | Stand |
| 5 | "O" ring | 17 | Mechanical seal | 29 | Screw | 41 | Driving cap |
| 6 | Charge plug | 18 | "O" ring | 30 | Terminal cover | 42 | Tie-rod |
| 7 | Delivery gasket | 19 | Seal hold disc | 31 | Screw | 43 | Fan |
| 8 | Delivery flange | 20 | Oil seal | 32 | Terminal board | 44 | Fan cover |
| 9 | Washer | 21 | Pump support | 33 | Terminal box | | |
| 10 | Bolt | 22 | Bolt | 34 | Casing with wound stator | | |
| 11 | Nut | 23 | Connector | 35 | Fairlead | | |
| 12 | Suction gasket | 24 | Bolt | 36 | Nut | | |

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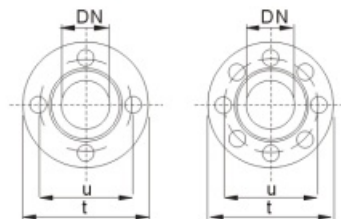
TFM32 TF32 SERIES

DIMENSIONS



| Type | | Ports | | DIMENSIONS (mm) | | | | | | | | | |
|------------|-----------|-------|-----|-----------------|---------|-----|-----|-----|-----|-----|-----|------|------|
| 1~mot | 3~mot | DN1 | DN2 | a | f | h | h1 | h2 | n | n1 | n2 | w1 | w2 |
| TFM32/160C | TF32/160C | 50 | 32 | 80 | 412 | 292 | 132 | 160 | 242 | 190 | 240 | 35 | 35 |
| TFM32/160B | TF32/160B | | | | 431/412 | | | | | | | | |
| TFM32/160A | TF32/160A | | | | 465/431 | | | | | | | | |
| | TF32/200C | | | | 469 | | | | | | | | |
| | TF32/200B | | | | 515 | | | | | | | | |
| | TF32/200A | | | | 515 | | | | | | | | |
| TFM40/160C | TF40/160C | 65 | 40 | 100 | 431/412 | 292 | 132 | 160 | 240 | 212 | 265 | 47.5 | 47.5 |
| TFM40/160B | TF40/160B | | | | 465/431 | | | | | | | | |
| | TF40/160A | | | | 465 | | | | | | | | |
| | TF40/200B | | | | 535 | | | | | | | | |
| | TF40/200A | | | | 535 | | | | | | | | |
| | TF40/250D | | | | 606 | | | | | | | | |
| TFM50/125C | TF50/125C | 65 | 50 | 100 | 450/431 | 292 | 132 | 160 | 242 | 190 | 240 | 47.5 | 47.5 |
| TFM50/125B | TF50/125B | | | | 484 | | | | | | | | |
| | TF50/125A | | | | 484 | | | | | | | | |
| | TF50/160C | | | | 489 | | | | | | | | |
| | TF50/160B | | | | 535 | | | | | | | | |
| | TF50/160A | | | | 616 | | | | | | | | |
| | TF50/250D | | | | 606 | | | | | | | | |
| | TF50/250C | | | | 606 | | | | | | | | |
| | TF50/250B | | | | 701 | | | | | | | | |
| | TF50/250A | | | | 701 | | | | | | | | |
| | TF65/160C | | | | 621 | | | | | | | | |
| | TF65/160B | | | | 621 | | | | | | | | |
| | TF65/160A | 716 | | | | | | | | | | | |

| DN Flanges | t | u | Holes | |
|------------|-----|-----|-------|------|
| Mm | mm | mm | N° | φ mm |
| 32 | 140 | 100 | 4 | 18 |
| 40 | 150 | 110 | | |
| 50 | 165 | 125 | | |
| 65 | 185 | 145 | | |



PERFORMANCE RANGE

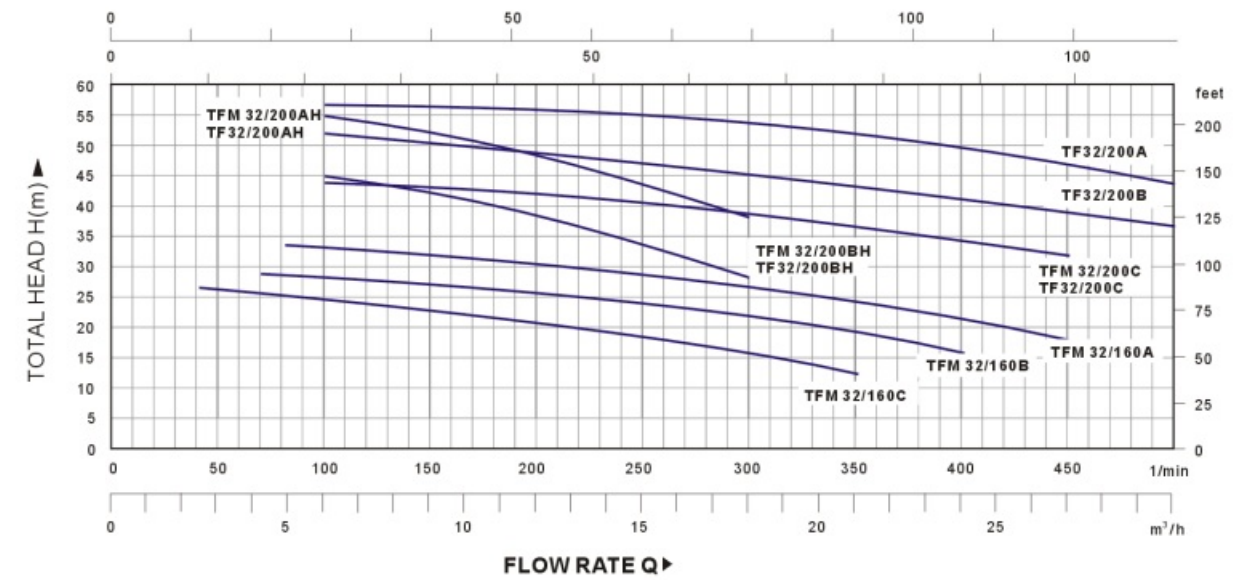
- Flow rate up to 500l/min (30m³/h)
- Head up to 57m

OPERATING LIMITS

- Suction lift up to 7M
- Fluid temperature up to 40° C
- Maximum ambient temperature 40° C



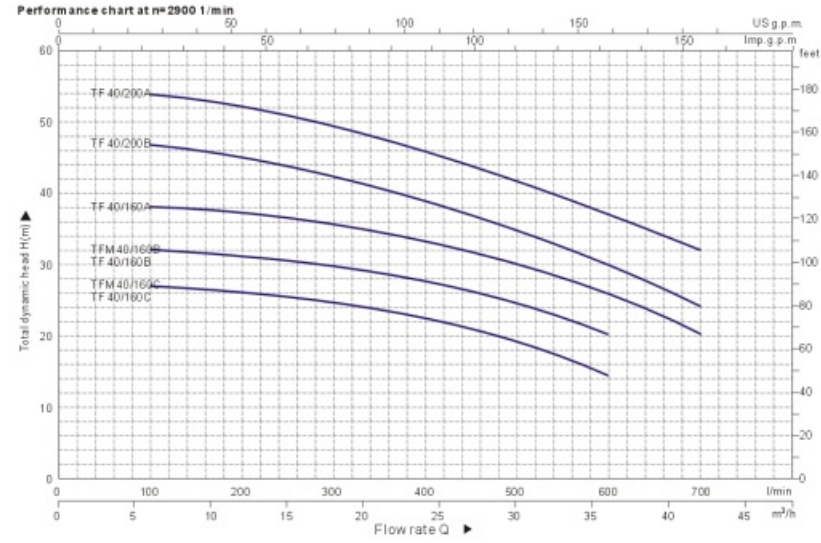
PERFORMANCE CHART AT n=2900 l/min



| MODEL | | INLET/OUTLET | | POWER | | Q | | 6 | 9 | 12 | 15 | 18 | 21 | 24 | 27 | 30 | | |
|--------------|-------------|--------------|-----|-------|-------------------|-------|---|-----|-----|------|------|-----|-----|------|-----|------|----|--|
| Single phase | Three phase | Inch | KW | HP | m ³ /h | L/min | H | 100 | 150 | 200 | 250 | 300 | 350 | 400 | 450 | 500 | | |
| | | 2*1.25 | 1.5 | 2 | H | M | | 27 | 24 | 21 | 18 | 15 | 14 | | | | | |
| | | 2*1.25 | 2.2 | 3 | | | | | 29 | 27 | 26 | 25 | 20 | 17 | 16 | | | |
| | | 2*1.25 | 3 | 4 | | | | | 33 | 31 | 30 | 29 | 28 | 20.5 | 19 | 18 | | |
| | TF32/200BH | 2*1.25 | 3 | 4 | | | | | 45 | 42 | 39 | 34 | 28 | | | | | |
| | TF32/200AH | 2*1.25 | 4 | 5.5 | | | | | 55 | 52 | 49 | 44 | 38 | | | | | |
| | TF32/200C | 2*1.25 | 4 | 5.5 | | | | | 44 | 43 | 41.5 | 40 | 38 | 36 | 34 | 31.5 | | |
| | TF32/200B | 2*1.25 | 5.5 | 7.5 | | | | | 52 | 50.5 | 49 | 47 | 45 | 43 | 41 | 38.5 | 36 | |
| | TF32/200A | 2*1.25 | 7.5 | 10 | | | | | 57 | 56.5 | 56 | 55 | 53 | 52 | 50 | 47 | 44 | |

H=TOTAL HEAD IN METERS. Q=FLOW RATE

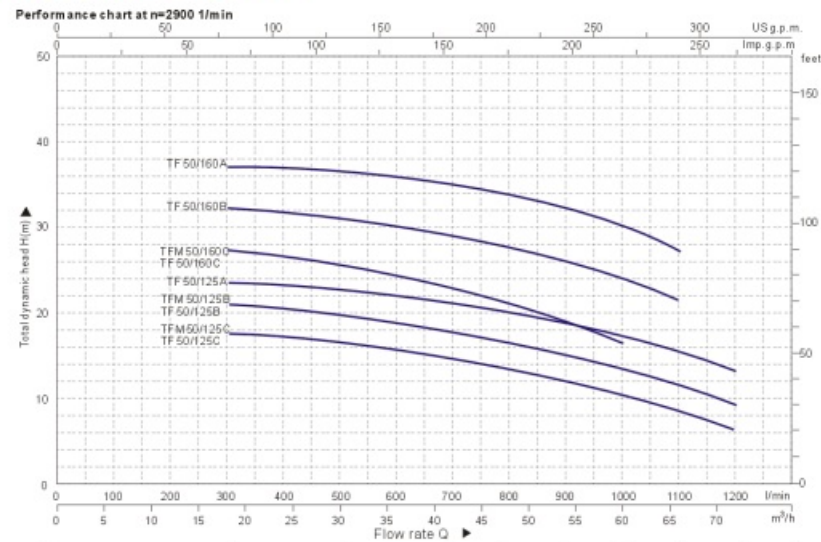
TFM40 TF40 SERIES



| MODEL | | INLET/OUTLET | POWER | | Q | 6 | 9 | 12 | 15 | 18 | 24 | 30 | 36 | 42 |
|--------------|-------------|--------------|-------|-----|-------|-----|------|-----|------|-----|------|-----|-----|-----|
| Single phase | Three phase | Inch | KW | HP | L/min | 100 | 150 | 200 | 250 | 300 | 400 | 500 | 600 | 700 |
| TFM40/160C | TF40/160C | 2.5*1.5 | 2.2 | 3 | H | 27 | 26.5 | 26 | 25.5 | 25 | 22.5 | 19 | 14 | |
| TFM40/160B | TF40/160B | 2.5*1.5 | 3 | 4 | | 32 | 31.5 | 31 | 30.5 | 30 | 27.5 | 24 | 20 | |
| | TF40/160A | 2.5*1.5 | 4 | 5.5 | M | 38 | 37.8 | 37 | 36.5 | 36 | 33.5 | 30 | 26 | 20 |
| | TF40/200B | 2.5*1.5 | 5.5 | 7.5 | | 47 | 46 | 45 | 43.5 | 42 | 39 | 35 | 30 | 24 |
| | TF40/200A | 2.5*1.5 | 7.5 | 10 | 54 | 53 | 52 | 51 | 49 | 45 | 42 | 37 | 32 | |

H=TOTAL HEAD IN METERS.Q=FLOW RATE

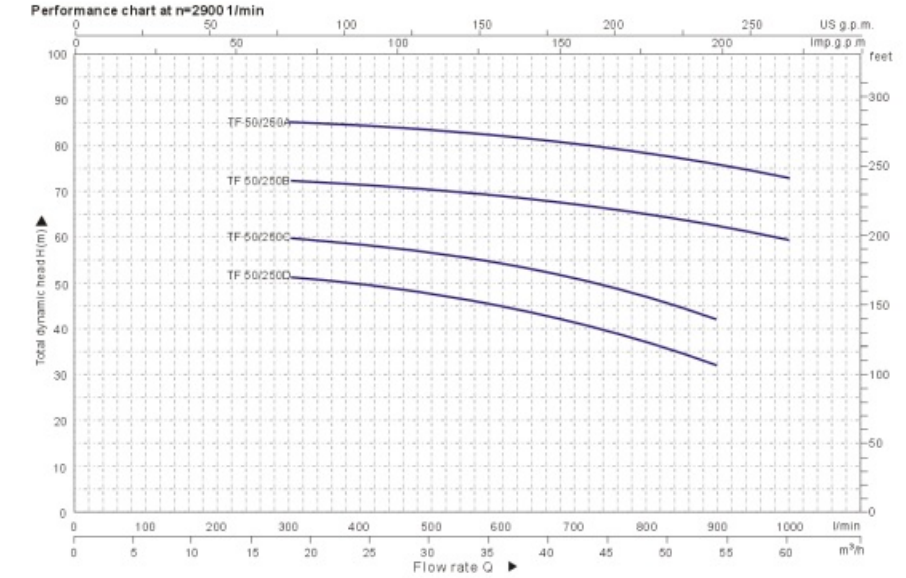
TFM50 TF50SEIRES



| MODEL | | INLET/OUTLET | POWER | | Q | 18 | 24 | 30 | 36 | 42 | 48 | 54 | 60 | 66 | 72 |
|--------------|-------------|--------------|-------|-----|-------|------|------|------|------|------|------|------|------|------|------|
| Single phase | Three phase | Inch | KW | HP | L/min | 300 | 400 | 500 | 600 | 700 | 800 | 900 | 1000 | 1100 | 1200 |
| TFM50/125C | TF50/125C | 2.5*2 | 2.2 | 3 | H | 17.5 | 17 | 16.5 | 15.5 | 14.8 | 13.5 | 12 | 10.5 | 8.2 | 6 |
| TFM50/125B | TF50/125B | 2.5*2 | 3 | 4 | | 20.7 | 20 | 19.5 | 18.8 | 17.8 | 16.5 | 15 | 13.5 | 11.2 | 9 |
| | TF50/125A | 2.5*2 | 4 | 5.5 | M | 23.5 | 23 | 22.5 | 21.8 | 20.8 | 19.5 | 18.3 | 16.8 | 15 | 13 |
| TFM50/160C | TF50/160C | 2.5*2 | 4 | 5.5 | | 27 | 26.5 | 25 | 24.5 | 23 | 20 | 18.5 | 16 | | |
| | TF50/160B | 2.5*2 | 5.5 | 7.5 | 32 | 31.7 | 31 | 30 | 29 | 27 | 26 | 24 | 21 | | |
| | TF50/160A | 2.5*2 | 7.5 | 10 | 36 | 35.8 | 35.5 | 35 | 34 | 33 | 32 | 30 | 27 | | |

H=TOTAL HEAD IN METERS.Q=FLOW RATE

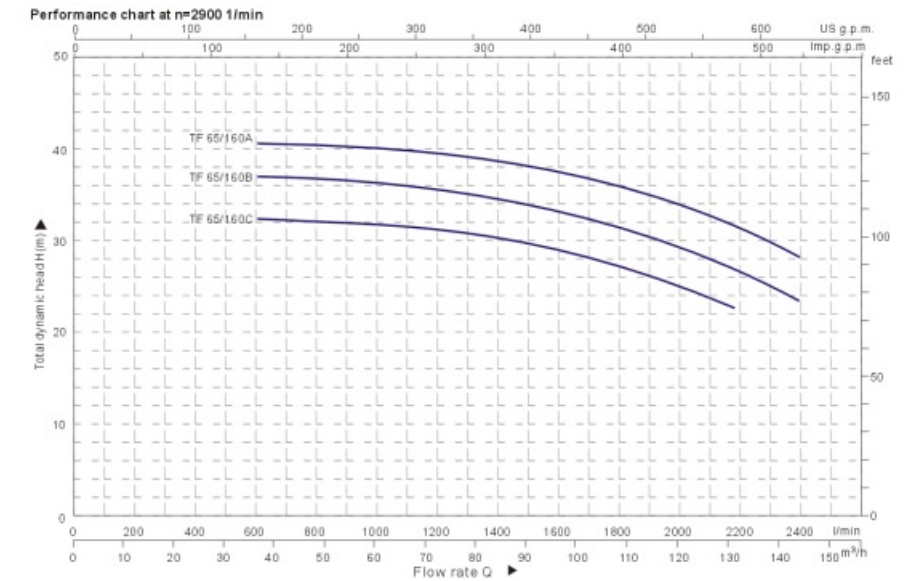
TF50/250 SERIES



| MODEL | | INLET/OUTLET | POWER | | Q | 18 | 24 | 30 | 36 | 42 | 48 | 54 | 60 |
|-------------|--|--------------|-------|------|-------|-----|-----|-----|-----|-----|-----|-----|------|
| Three phase | | Inch | KW | HP | L/min | 300 | 400 | 500 | 600 | 700 | 800 | 900 | 1000 |
| TF50/250D | | 2.5*2 | 9.2 | 12.5 | H | 51 | 49 | 47 | 44 | 41 | 37 | 32 | |
| TF50/250C | | 2.5*2 | 11 | 15 | | 59 | 58 | 57 | 54 | 51 | 47 | 42 | |
| TF50/250B | | 2.5*2 | 15 | 20 | M | 72 | 71 | 70 | 69 | 67 | 65 | 62 | 59 |
| TF50/250A | | 2.5*2 | 18.5 | 25 | | 85 | 84 | 83 | 82 | 80 | 77 | 76 | 73 |

H=TOTAL HEAD IN METERS.Q=FLOW RATE

TF65/160 SEIRES



| MODEL | | INLET/OUTLET | POWER | | Q | 36 | 48 | 60 | 72 | 84 | 96 | 108 | 120 | 132 | 144 |
|-------------|--|--------------|-------|------|-------|------|------|------|------|------|------|------|------|------|------|
| Three phase | | Inch | KW | HP | L/min | 600 | 800 | 1000 | 1200 | 1400 | 1600 | 1800 | 2000 | 2200 | 2400 |
| TF65/160C | | 3.2*2.5 | 9.2 | 12.5 | H | 32 | 31.8 | 31.5 | 31 | 30 | 29 | 27 | 25 | 22 | |
| TF65/160B | | 3.2*2.5 | 11 | 15 | | 36 | 35.8 | 35.5 | 35 | 34 | 33 | 31 | 29 | 26 | 23 |
| TF65/160A | | 3.2*2.5 | 15 | 20 | M | 40.5 | 40.3 | 40 | 39.5 | 38.5 | 37 | 35.5 | 33.5 | 31 | 28 |

H=TOTAL HEAD IN METERS.Q=FLOW RATE