

Series:

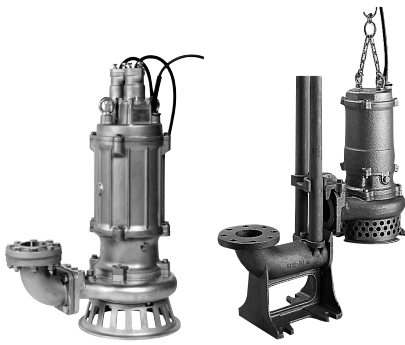
**SFQ**

Discharge Bore:

**50·80mm**

Motor Output / Pole:

**0.4 - 11kW / 2-pole**



The SFQ-series is a submersible stainless steel casting high head corrosion-resistant pump designed for handling aggressive and corrosive liquids. The all wetted parts are made of 316 stainless steel, enables it to withstand demanding conditions found in construction, aggregate and mining applications. The pump with 5.5kW and above motor incorporates seal pressure relief port that prevents the pumping pressure from applying to the shaft seal.

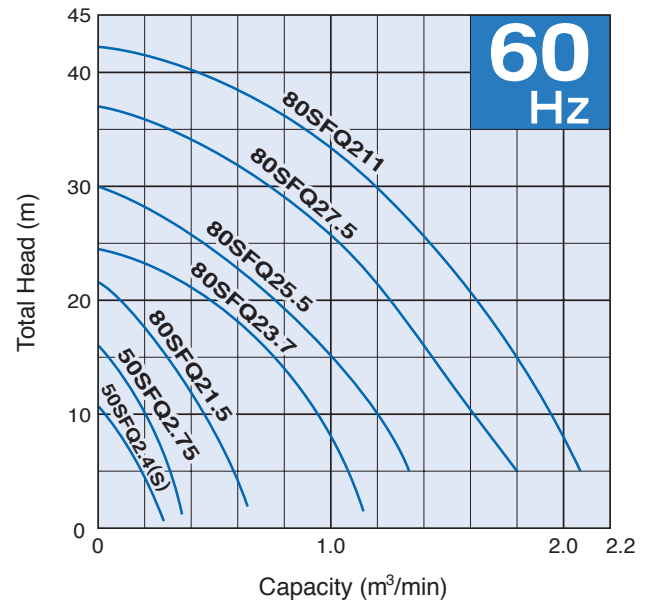
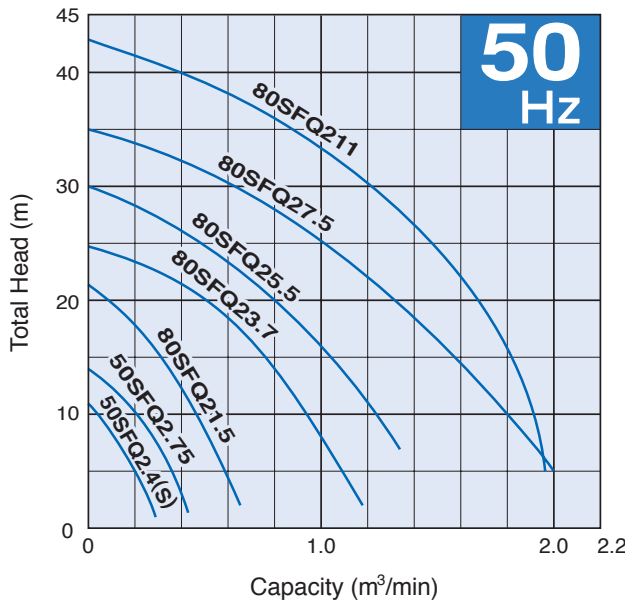
**Guide Rail Fitting System**

The guide rail fitting system connects the pump to and from the piping easily just by lowering or hoisting the pump, allowing easy maintenance and inspection without the need to enter the sump. 5.5kW and above are available in the guide rail fitting type, and they can be identified by the prefix “TOS”.

**Selection Table**

Model	Discharge Bore mm	Motor Output kW	Phase	Pole	Types of Installation	
					Free Standing	Guide Rail Fitting
50SFQ2.4S	50	0.4	1-phase	2	50SFQ2.4S	—
50SFQ2.4	50	0.4	3-phase	2	50SFQ2.4	—
50SFQ2.75	50	0.75	3-phase	2	50SFQ2.75	—
80SFQ21.5	80	1.5	3-phase	2	80SFQ21.5	—
80SFQ23.7	80	3.7	3-phase	2	80SFQ23.7	—
80SFQ25.5	80	5.5	3-phase	2	80SFQ25.5	TOS80SFQ25.5
80SFQ27.5	80	7.5	3-phase	2	80SFQ27.5	TOS80SFQ27.5
80SFQ211	80	11	3-phase	2	80SFQ211	TOS80SFQ211

**Performance Curves**



SPECIFICATIONS	Model	50SFQ2.4S							
		SFQ-series							
		0.4kW, 1-phase							
<p><b>Type of Pump</b> Submersible 316 stainless steel casting corrosion-resistant pump suitable for pumping aggressive or corrosive liquids</p> <p><b>Type of Fluid</b> Wastewater and water with corrosive nature</p> <p>Temperature: 0 to 40°C</p> <p><b>Discharge Bore &amp; Connection</b> 50mm, Threaded Oval Flange</p> <p><b>Motor Output</b> 0.4kW</p> <p><b>Power Supply</b> Single-phase</p> <p><b>Starting Method</b> Capacitor Start</p> <p><b>Motor</b> Continuous-duty rated, dry-type induction motor</p> <p>Insulation Class: E (available in F on special request) Degree of Protection: IP68</p> <p>No. of Poles &amp; Speed (Synchronous Speed) 2-pole, 3000/3600min<sup>-1</sup> (50/60Hz)</p> <p>Power Supply Voltages &amp; Rated Currents</p> <table border="0"> <tr> <td>50Hz</td> <td>60Hz</td> </tr> <tr> <td>220V – 3.3A</td> <td>110V – 6.3A</td> </tr> <tr> <td>230V – 3.2A</td> <td>220V – 3.2A</td> </tr> <tr> <td>240V – 2.9A</td> <td></td> </tr> </table> <p><b>Power Cable</b> Sheath: PVC Standard Length: 5m 100 to 240V supply: 1 × 3 × 1.25mm<sup>2</sup>, O.D. 10.1mm</p> <p><b>Dry Weight (excluding cable)</b> 21kg</p>	50Hz	60Hz	220V – 3.3A	110V – 6.3A	230V – 3.2A	220V – 3.2A	240V – 2.9A		<p><b>Impeller</b> Semi-open multi-vane impeller made of 316 stainless steel casting, dynamically balanced</p> <p>Solids Passage 50Hz – <math>\phi</math>6mm 60Hz – <math>\phi</math>6mm</p> <p><b>Cable Entry with Anti-Wicking Block</b> Watertight cable entry with strain-relief device. The anti-wicking block prevents water incursion due to capillary action should the power cable be damaged or the end submerged.</p> <p><b>Bearing</b> Permanently lubricated, deep-groove, double-shielded C3 ball bearings</p> <p><b>Shaft</b> 316 stainless steel</p> <p><b>Shaft Seal (Mechanical Seal)</b> Furnished with a double-face mechanical seal located in oil chamber. Both upper and lower seal faces always run in a clean environment.</p> <p>Upper Seal Face: SiC + SiC Lower Seal Face: SiC + SiC</p> <p><b>OIL LIFTER</b> Equipped in oil chamber. It forcibly supplies lubricating oil to the mechanical seal and continues to supply the oil to the upper seal faces even if lubricant falls below the rated volume.</p> <p>Type of Lubricating Oil &amp; Volume Turbine Oil (ISO VG32), 125ml</p> <p><b>Motor Protection Device</b> A circle thermal protector built in the motor housing. Directly cuts the motor circuit if excessive heat builds up or an overcurrent condition occurs in the motor.</p> <p><b>Rubber Parts</b> Rubber parts of the mechanical seal, oil seal, O-ring and packings are made of FPM (FKM) which provides higher resistance to heat and chemicals.</p>
50Hz	60Hz								
220V – 3.3A	110V – 6.3A								
230V – 3.2A	220V – 3.2A								
240V – 2.9A									
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SPECIFICATIONS	Model	50SFQ2.4	
		SFQ-series	
		0.4kW, 3-phase	

<p><b>Type of Pump</b> Submersible 316 stainless steel casting corrosion-resistant pump suitable for pumping aggressive or corrosive liquids</p> <p><b>Type of Fluid</b> Wastewater and water with corrosive nature</p> <p>Temperature: 0 to 40°C</p> <p><b>Discharge Bore &amp; Connection</b> 50mm, Threaded Oval Flange</p> <p><b>Motor Output</b> 0.4kW</p> <p><b>Power Supply</b> Three-phase</p> <p><b>Starting Method</b> Direct on Line</p> <p><b>Motor</b> Continuous-duty rated, dry-type induction motor</p> <p>Insulation Class: E (available in F on special request) Degree of Protection: IP68</p> <p>No. of Poles &amp; Speed (Synchronous Speed) 2-pole, 3000/3600min<sup>-1</sup> (50/60Hz)</p> <p>Power Supply Voltages &amp; Rated Currents</p> <table border="0"> <tr> <td>50Hz</td> <td>60Hz</td> </tr> <tr> <td>380V – 1.22A</td> <td>220V – 2.0 A</td> </tr> <tr> <td>400V – 1.16A</td> <td>380V – 1.2 A</td> </tr> <tr> <td>415V – 1.12A</td> <td>440V – 0.85A</td> </tr> </table> <p><b>Power Cable</b> Sheath: PVC Standard Length: 6m 200 to 600V supply: 1 × 4 × 1.25mm<sup>2</sup>, O.D. 11.1mm</p> <p><b>Dry Weight (excluding cable)</b> 20kg</p>	50Hz	60Hz	380V – 1.22A	220V – 2.0 A	400V – 1.16A	380V – 1.2 A	415V – 1.12A	440V – 0.85A	<p><b>Impeller</b> Semi-open multi-vane impeller made of 316 stainless steel casting, dynamically balanced</p> <p>Solids Passage 50Hz – ϕ6mm 60Hz – ϕ6mm</p> <p><b>Cable Entry with Anti-Wicking Block</b> Watertight cable entry with strain-relief device. The anti-wicking block prevents water incursion due to capillary action should the power cable be damaged or the end submerged.</p> <p><b>Bearing</b> Permanently lubricated, deep-groove, double-shielded C3 ball bearings</p> <p><b>Shaft</b> 316 stainless steel</p> <p><b>Shaft Seal (Mechanical Seal)</b> Furnished with a double-face mechanical seal located in oil chamber. Both upper and lower seal faces always run in a clean environment.</p> <p>Upper Seal Face: SiC + SiC Lower Seal Face: SiC + SiC</p> <p><b>OIL LIFTER</b> Equipped in oil chamber. It forcibly supplies lubricating oil to the mechanical seal and continues to supply the oil to the upper seal faces even if lubricant falls below the rated volume.</p> <p>Type of Lubricating Oil &amp; Volume Turbine Oil (ISO VG32), 125ml</p> <p><b>Motor Protection Device</b> A circle thermal protector built in the motor housing. Directly cuts the motor circuit if excessive heat builds up or an overcurrent condition occurs in the motor.</p> <p><b>Rubber Parts</b> Rubber parts of the mechanical seal, oil seal, O-ring and packings are made of FPM (FKM) which provides higher resistance to heat and chemicals.</p>
50Hz	60Hz								
380V – 1.22A	220V – 2.0 A								
400V – 1.16A	380V – 1.2 A								
415V – 1.12A	440V – 0.85A								

**Special Specifications**

**High Temperature Liquids Version (60°C)**

SPECIFICATIONS	Model	50SFQ2.75									
		SFQ-series									
		0.75kW, 3-phase									
<p><b>Type of Pump</b> Submersible 316 stainless steel casting corrosion-resistant pump suitable for pumping aggressive or corrosive liquids</p> <p><b>Type of Fluid</b> Wastewater and water with corrosive nature</p> <p>Temperature: 0 to 40°C</p> <p><b>Discharge Bore &amp; Connection</b> 50mm, Threaded Oval Flange</p> <p><b>Motor Output</b> 0.75kW</p> <p><b>Power Supply</b> Three-phase</p> <p><b>Starting Method</b> Direct on Line</p> <p><b>Motor</b> Continuous-duty rated, dry-type induction motor</p> <p>Insulation Class: E (available in F on special request) Degree of Protection: IP68</p> <p>No. of Poles &amp; Speed (Synchronous Speed) 2-pole, 3000/3600min<sup>-1</sup> (50/60Hz)</p> <p>Power Supply Voltages &amp; Rated Currents</p> <table border="0"> <tr> <td>50Hz</td> <td>60Hz</td> </tr> <tr> <td>380V – 2.5A</td> <td>220V – 3.5A</td> </tr> <tr> <td>400V – 2.0A</td> <td>380V – 2.0A</td> </tr> <tr> <td>415V – 2.1A</td> <td>440V – 1.6A</td> </tr> </table> <p><b>Power Cable</b> Sheath: PVC Standard Length: 6m 200 to 600V supply: 1 × 4 × 1.25mm<sup>2</sup>, O.D. 11.1mm</p> <p><b>Dry Weight (excluding cable)</b> 22kg</p>	50Hz	60Hz	380V – 2.5A	220V – 3.5A	400V – 2.0A	380V – 2.0A	415V – 2.1A	440V – 1.6A	<p><b>Impeller</b> Semi-open multi-vane impeller made of 316 stainless steel casting, dynamically balanced</p> <p>Solids Passage 50Hz – ϕ6mm 60Hz – ϕ6mm</p> <p><b>Cable Entry with Anti-Wicking Block</b> Watertight cable entry with strain-relief device. The anti-wicking block prevents water incursion due to capillary action should the power cable be damaged or the end submerged.</p> <p><b>Bearing</b> Permanently lubricated, deep-groove, double-shielded C3 ball bearings</p> <p><b>Shaft</b> 316 stainless steel</p> <p><b>Shaft Seal (Mechanical Seal)</b> Furnished with a double-face mechanical seal located in oil chamber. Both upper and lower seal faces always run in a clean environment.</p> <p>Upper Seal Face: SiC + SiC Lower Seal Face: SiC + SiC</p> <p><b>OIL LIFTER</b> Equipped in oil chamber. It forcibly supplies lubricating oil to the mechanical seal and continues to supply the oil to the upper seal faces even if lubricant falls below the rated volume.</p> <p>Type of Lubricating Oil &amp; Volume Turbine Oil (ISO VG32), 125ml</p> <p><b>Motor Protection Device</b> A circle thermal protector built in the motor housing. Directly cuts the motor circuit if excessive heat builds up or an overcurrent condition occurs in the motor.</p> <p><b>Rubber Parts</b> Rubber parts of the mechanical seal, oil seal, O-ring and packings are made of FPM (FKM) which provides higher resistance to heat and chemicals.</p>		
50Hz	60Hz										
380V – 2.5A	220V – 3.5A										
400V – 2.0A	380V – 2.0A										
415V – 2.1A	440V – 1.6A										
<p><b>Optional Accessory</b></p> <p>External Leakage Sensor (Electrode)</p>		<p><b>Special Specifications</b></p> <p>High Temperature Liquids Version (60°C)</p>									
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SPECIFICATIONS	Model	80SFQ21.5	SFQ-series
			1.5kW, 3-phase

<p><b>Type of Pump</b> Submersible 316 stainless steel casting corrosion-resistant pump suitable for pumping aggressive or corrosive liquids</p> <p><b>Type of Fluid</b> Wastewater and water with corrosive nature</p> <p>Temperature: 0 to 40°C</p> <p><b>Discharge Bore &amp; Connection</b> 80mm, Threaded Oval Flange</p> <p><b>Motor Output</b> 1.5kW</p> <p><b>Power Supply</b> Three-phase</p> <p><b>Starting Method</b> Direct on Line</p> <p><b>Motor</b> Continuous-duty rated, dry-type induction motor</p> <p>Insulation Class: F Degree of Protection: IP68</p> <p>No. of Poles &amp; Speed (Synchronous Speed) 2-pole, 3000/3600min<sup>-1</sup> (50/60Hz)</p> <p>Power Supply Voltages &amp; Rated Currents</p> <table border="0"> <tr> <td>50Hz</td> <td>60Hz</td> </tr> <tr> <td>380V – 3.7A</td> <td>220V – 6.7A</td> </tr> <tr> <td>400V – 3.8A</td> <td>380V – 3.6A</td> </tr> <tr> <td>415V – 3.8A</td> <td>440V – 3.4A</td> </tr> </table> <p><b>Power Cable</b> Sheath: PVC Standard Length: 6m 200 to 600V supply: 1 × 4 × 1.25mm<sup>2</sup>, O.D. 11.1mm</p> <p><b>Dry Weight (excluding cable)</b> 38kg</p>	50Hz	60Hz	380V – 3.7A	220V – 6.7A	400V – 3.8A	380V – 3.6A	415V – 3.8A	440V – 3.4A	<p><b>Impeller</b> Semi-open multi-vane impeller made of 316 stainless steel casting, dynamically balanced</p> <p>Solids Passage 50Hz – ϕ6mm 60Hz – ϕ6mm</p> <p><b>Cable Entry with Anti-Wicking Block</b> Watertight cable entry with strain-relief device. The anti-wicking block prevents water incursion due to capillary action should the power cable be damaged or the end submerged.</p> <p><b>Bearing</b> Permanently lubricated, deep-groove, double-shielded C3 ball bearings</p> <p><b>Shaft</b> 316 stainless steel</p> <p><b>Shaft Seal (Mechanical Seal)</b> Furnished with a double-face mechanical seal located in oil chamber. Both upper and lower seal faces always run in a clean environment.</p> <p>Upper Seal Face: SiC + SiC Lower Seal Face: SiC + SiC</p> <p><b>OIL LIFTER</b> Equipped in oil chamber. It forcibly supplies lubricating oil to the mechanical seal and continues to supply the oil to the upper seal faces even if lubricant falls below the rated volume.</p> <p>Type of Lubricating Oil &amp; Volume Turbine Oil (ISO VG32), 900ml</p> <p><b>Motor Protection Device</b> A circle thermal protector built in the motor housing. Directly cuts the motor circuit if excessive heat builds up or an overcurrent condition occurs in the motor.</p> <p><b>Rubber Parts</b> Rubber parts of the mechanical seal, oil seal, O-ring and packings are made of FPM (FKM) which provides higher resistance to heat and chemicals.</p>
50Hz	60Hz								
380V – 3.7A	220V – 6.7A								
400V – 3.8A	380V – 3.6A								
415V – 3.8A	440V – 3.4A								

**Optional Accessory**

**External Leakage Sensor (Electrode)**

**Special Specifications**

**High Temperature Liquids Version (60-80°C)\***

\* For Rank 80 (80°C) of this model, when motor is not completely submerged, continuous pump operation should not exceed 20 minutes.

<b>SPECIFICATIONS</b>	Model	<b>80SFQ23.7</b>	<b>SFQ-series</b>
			<b>3.7kW, 3-phase</b>

<p><b>Type of Pump</b> Submersible 316 stainless steel casting corrosion-resistant pump suitable for pumping aggressive or corrosive liquids</p> <p><b>Type of Fluid</b> Wastewater and water with corrosive nature</p> <p>Temperature: 0 to 40°C</p> <p><b>Discharge Bore &amp; Connection</b> 80mm, Threaded Oval Flange</p> <p><b>Motor Output</b> 3.7kW</p> <p><b>Power Supply</b> Three-phase</p> <p><b>Starting Method</b> Direct on Line</p> <p><b>Motor</b> Continuous-duty rated, dry-type induction motor</p> <p>Insulation Class: F Degree of Protection: IP68</p> <p>No. of Poles &amp; Speed (Synchronous Speed) 2-pole, 3000/3600min<sup>-1</sup> (50/60Hz)</p> <p>Power Supply Voltages &amp; Rated Currents</p> <table border="0"> <tr> <td>50Hz</td> <td>60Hz</td> </tr> <tr> <td>380V – 7.6A</td> <td>220V – 13.0A</td> </tr> <tr> <td>400V – 7.3A</td> <td>380V – 7.5A</td> </tr> <tr> <td>415V – 7.1A</td> <td>440V – 6.5A</td> </tr> </table> <p><b>Power Cable</b> Sheath: PVC Standard Length: 6m 380 to 600V supply: 1 × 4 × 2.0mm<sup>2</sup>, O.D. 11.8mm 200 to 240V supply: 1 × 4 × 3.5mm<sup>2</sup>, O.D. 13.9mm</p> <p><b>Dry Weight</b> (excluding cable) 52kg</p>	50Hz	60Hz	380V – 7.6A	220V – 13.0A	400V – 7.3A	380V – 7.5A	415V – 7.1A	440V – 6.5A	<p><b>Impeller</b> Semi-open multi-vane impeller made of 316 stainless steel casting, dynamically balanced</p> <p>Solids Passage 50Hz – φ15mm 60Hz – φ15mm</p> <p><b>Cable Entry with Anti-Wicking Block</b> Watertight cable entry with strain-relief device. The anti-wicking block prevents water incursion due to capillary action should the power cable be damaged or the end submerged.</p> <p><b>Bearing</b> Permanently lubricated, deep-groove, double-shielded C3 ball bearings</p> <p><b>Shaft</b> 316 stainless steel</p> <p><b>Shaft Seal (Mechanical Seal)</b> Furnished with a double-face mechanical seal located in oil chamber. Both upper and lower seal faces always run in a clean environment.</p> <p>Upper Seal Face: SiC + SiC Lower Seal Face: SiC + SiC</p> <p><b>OIL LIFTER</b> Equipped in oil chamber. It forcibly supplies lubricating oil to the mechanical seal and continues to supply the oil to the upper seal faces even if lubricant falls below the rated volume.</p> <p>Type of Lubricating Oil &amp; Volume Turbine Oil (ISO VG32), 850ml</p> <p><b>Motor Protection Device</b> A circle thermal protector built in the motor housing. Directly cuts the motor circuit if excessive heat builds up or an overcurrent condition occurs in the motor.</p> <p><b>Rubber Parts</b> Rubber parts of the mechanical seal, oil seal, O-ring and packings are made of FPM (FKM) which provides higher resistance to heat and chemicals.</p>
50Hz	60Hz								
380V – 7.6A	220V – 13.0A								
400V – 7.3A	380V – 7.5A								
415V – 7.1A	440V – 6.5A								

**Optional Accessory**

**External Leakage Sensor** (Electrode)

**Special Specifications**

**High Temperature Liquids Version (60-80°C)\***

\* For Rank 80 (80°C) of this model, when motor is not completely submerged, continuous pump operation should not exceed 20 minutes.

SPECIFICATIONS	Model	80SFQ25.5							
		SFQ-series							
		5.5kW, 3-phase							
<p><b>Type of Pump</b> Submersible 316 stainless steel casting corrosion-resistant pump suitable for pumping aggressive or corrosive liquids</p> <p><b>Type of Fluid</b> Wastewater and water with corrosive nature</p> <p>Temperature: 0 to 40°C</p> <p><b>Discharge Bore &amp; Connection</b> 80mm, Threaded JIS 10kg/cm<sup>2</sup> Flange</p> <p><b>Motor Output</b> 5.5kW</p> <p><b>Power Supply</b> Three-phase</p> <p><b>Starting Method</b> Direct on Line (Star-Delta available on special request)</p> <p><b>Motor</b> Continuous-duty rated, dry-type induction motor</p> <p>Insulation Class: F Degree of Protection: IP68</p> <p>No. of Poles &amp; Speed (Synchronous Speed) 2-pole, 3000/3600min<sup>-1</sup> (50/60Hz)</p> <p>Power Supply Voltages &amp; Rated Currents</p> <table border="0"> <tr> <td>50Hz</td> <td>60Hz</td> </tr> <tr> <td>380V – 11.5A</td> <td>220V – 18.6A</td> </tr> <tr> <td>400V – 11.3A</td> <td>380V – 10.8A</td> </tr> <tr> <td>415V – 11.2A</td> <td>440V – 9.6A</td> </tr> </table> <p><b>Power Cable</b> Sheath: Chloroprene rubber Standard Length: 8m 200 to 600V supply: 1 × 4 × 3.5mm<sup>2</sup>, O.D. 14.1mm</p> <p><b>Dry Weight</b> (excluding cable) Free Standing Type: 124kg Guide Rail Fitting Type: 113kg</p>	50Hz	60Hz	380V – 11.5A	220V – 18.6A	400V – 11.3A	380V – 10.8A	415V – 11.2A	440V – 9.6A	<p><b>Impeller</b> Semi-open multi-vane impeller made of 316 stainless steel casting, dynamically balanced</p> <p>Solids Passage 50Hz – φ18mm 60Hz – φ18mm</p> <p><b>Cable Entry with Anti-Wicking Block</b> Watertight cable entry with strain-relief device. The anti-wicking block prevents water incursion due to capillary action should the power cable be damaged or the end submerged.</p> <p><b>Bearing</b> Permanently lubricated, deep-groove, double-shielded C3 ball bearings</p> <p><b>Shaft</b> 316 stainless steel</p> <p><b>Shaft Seal (Mechanical Seal)</b> Furnished with a double-face mechanical seal located in oil chamber. Both upper and lower seal faces always run in a clean environment.</p> <p>Upper Seal Face: SiC + SiC Lower Seal Face: SiC + SiC</p> <p><b>Oil Seal (Lip Seal)</b> Used as a “Dust Seal”, it protects the mechanical seal from abrasive particles.</p> <p><b>Pressure Relief Port</b> Protects the mechanical seal against excessive pressure, and also protects the seal faces from abrasive particles by drawing the particles away.</p> <p><b>OIL LIFTER</b> Equipped in oil chamber. It forcibly supplies lubricating oil to the mechanical seal and continues to supply the oil to the upper seal faces even if lubricant falls below the rated volume.</p> <p>Type of Lubricating Oil &amp; Volume Turbine Oil (ISO VG32), 2250ml</p> <p><b>Motor Protection Device</b> A circle thermal protector built in the motor housing. Directly cuts the motor circuit if excessive heat builds up or an overcurrent condition occurs in the motor.</p> <p><b>Rubber Parts</b> Rubber parts of the mechanical seal, oil seal, O-ring and packings are made of FPM (FKM) which provides higher resistance to heat and chemicals.</p>
50Hz	60Hz								
380V – 11.5A	220V – 18.6A								
400V – 11.3A	380V – 10.8A								
415V – 11.2A	440V – 9.6A								
<p><b>Optional Accessory</b></p> <p><b>External Leakage Sensor</b> (Electrode)</p> <p><b>Special Specifications</b></p> <p><b>High Temperature Liquids Version (60-80°C)*</b> * For Rank 80 (80°C) of this model, when motor is not completely submerged, continuous pump operation should not exceed 20 minutes.</p>									
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SPECIFICATIONS	Model	SFQ-series							
	80SFQ27.5	7.5kW, 3-phase							
<p><b>Type of Pump</b> Submersible 316 stainless steel casting corrosion-resistant pump suitable for pumping aggressive or corrosive liquids</p> <p><b>Type of Fluid</b> Wastewater and water with corrosive nature</p> <p>Temperature: 0 to 40°C</p> <p><b>Discharge Bore &amp; Connection</b> 80mm, Threaded JIS 10kg/cm<sup>2</sup> Flange</p> <p><b>Motor Output</b> 7.5kW</p> <p><b>Power Supply</b> Three-phase</p> <p><b>Starting Method</b> Direct on Line (Star-Delta available on special request)</p> <p><b>Motor</b> Continuous-duty rated, dry-type induction motor</p> <p>Insulation Class: F Degree of Protection: IP68</p> <p>No. of Poles &amp; Speed (Synchronous Speed) 2-pole, 3000/3600min<sup>-1</sup> (50/60Hz)</p> <p>Power Supply Voltages &amp; Rated Currents</p> <table border="0"> <tr> <td>50Hz</td> <td>60Hz</td> </tr> <tr> <td>380V – 14.8A</td> <td>220V – 24.6A</td> </tr> <tr> <td>400V – 14.3A</td> <td>380V – 14.1A</td> </tr> <tr> <td>415V – 14.2A</td> <td>440V – 12.3A</td> </tr> </table> <p><b>Power Cable</b> Sheath: Chloroprene rubber Standard Length: 8m 200 to 600V supply: 1 × 4 × 5.5mm<sup>2</sup>, O.D. 16.8mm</p> <p><b>Dry Weight (excluding cable)</b> Free Standing Type: 128kg Guide Rail Fitting Type: 117kg</p>	50Hz	60Hz	380V – 14.8A	220V – 24.6A	400V – 14.3A	380V – 14.1A	415V – 14.2A	440V – 12.3A	<p><b>Impeller</b> Semi-open multi-vane impeller made of 316 stainless steel casting, dynamically balanced</p> <p>Solids Passage 50Hz – <math>\phi</math>23mm 60Hz – <math>\phi</math>20mm</p> <p><b>Cable Entry with Anti-Wicking Block</b> Watertight cable entry with strain-relief device. The anti-wicking block prevents water incursion due to capillary action should the power cable be damaged or the end submerged.</p> <p><b>Bearing</b> Permanently lubricated, deep-groove, double-shielded C3 ball bearings</p> <p><b>Shaft</b> 316 stainless steel</p> <p><b>Shaft Seal (Mechanical Seal)</b> Furnished with a double-face mechanical seal located in oil chamber. Both upper and lower seal faces always run in a clean environment.</p> <p>Upper Seal Face: SiC + SiC Lower Seal Face: SiC + SiC</p> <p><b>Oil Seal (Lip Seal)</b> Used as a “Dust Seal”, it protects the mechanical seal from abrasive particles.</p> <p><b>Pressure Relief Port</b> Protects the mechanical seal against excessive pressure, and also protects the seal faces from abrasive particles by drawing the particles away.</p> <p><b>OIL LIFTER</b> Equipped in oil chamber. It forcibly supplies lubricating oil to the mechanical seal and continues to supply the oil to the upper seal faces even if lubricant falls below the rated volume.</p> <p>Type of Lubricating Oil &amp; Volume Turbine Oil (ISO VG32), 2250ml</p> <p><b>Motor Protection Device</b> A circle thermal protector built in the motor housing. Directly cuts the motor circuit if excessive heat builds up or an overcurrent condition occurs in the motor.</p>
50Hz	60Hz								
380V – 14.8A	220V – 24.6A								
400V – 14.3A	380V – 14.1A								
415V – 14.2A	440V – 12.3A								
<p><b>Optional Accessory</b></p> <p><b>External Leakage Sensor (Electrode)</b></p> <p><b>Special Specifications</b></p> <p><b>High Temperature Liquids Version (60-80°C)*</b></p> <p>* For Rank 80 (80°C) of this model, when motor is not completely submerged, continuous pump operation should not exceed 20 minutes.</p>	<p><b>Rubber Parts</b> Rubber parts of the mechanical seal, oil seal, O-ring and packings are made of FPM (FKM) which provides higher resistance to heat and chemicals.</p>								
TSURUMI MANUFACTURING CO., LTD.									



SPECIFICATIONS	Model	80SFQ211							
		SFQ-series							
		11kW, 3-phase							
<p><b>Type of Pump</b> Submersible 316 stainless steel casting corrosion-resistant pump suitable for pumping aggressive or corrosive liquids</p> <p><b>Type of Fluid</b> Wastewater and water with corrosive nature</p> <p>Temperature: 0 to 40°C</p> <p><b>Discharge Bore &amp; Connection</b> 80mm, Threaded JIS 10kg/cm<sup>2</sup> Flange</p> <p><b>Motor Output</b> 11kW</p> <p><b>Power Supply</b> Three-phase</p> <p><b>Starting Method</b> Star-Delta</p> <p><b>Motor</b> Continuous-duty rated, dry-type induction motor</p> <p>Insulation Class: F Degree of Protection: IP68</p> <p>No. of Poles &amp; Speed (Synchronous Speed) 2-pole, 3000/3600min<sup>-1</sup> (50/60Hz)</p> <p>Power Supply Voltages &amp; Rated Currents</p> <table border="0"> <tr> <td>50Hz</td> <td>60Hz</td> </tr> <tr> <td>380V – 22.5A</td> <td>220V – 39.7A</td> </tr> <tr> <td>400V – 21.0A</td> <td>380V – 20.8A</td> </tr> <tr> <td>415V – 21.0A</td> <td>440V – 17.9A</td> </tr> </table> <p><b>Power Cable</b> Standard Length: 8m 200 to 600V supply: 1 × 4 × 3.5mm<sup>2</sup>, O.D. 14.1mm, Chloroprene rubber 1 × 3 × 3.5mm<sup>2</sup>, O.D. 12.9mm, Chloroprene rubber 1 × 2 × 1.25mm<sup>2</sup>, O.D. 9.8mm, PVC</p> <p><b>Dry Weight (excluding cable)</b> Free Standing Type: 148kg Guide Rail Fitting Type: 137kg</p>	50Hz	60Hz	380V – 22.5A	220V – 39.7A	400V – 21.0A	380V – 20.8A	415V – 21.0A	440V – 17.9A	<p><b>Impeller</b> Semi-open multi-vane impeller made of 316 stainless steel casting, dynamically balanced</p> <p>Solids Passage 50Hz – <math>\phi</math>23mm 60Hz – <math>\phi</math>23mm</p> <p><b>Cable Entry with Anti-Wicking Block</b> Watertight cable entry with strain-relief device. The anti-wicking block prevents water incursion due to capillary action should the power cable be damaged or the end submerged.</p> <p><b>Bearing</b> Permanently lubricated, deep-groove, double-shielded C3 ball bearings</p> <p><b>Shaft</b> 316 stainless steel</p> <p><b>Shaft Seal (Mechanical Seal)</b> Furnished with a double-face mechanical seal located in oil chamber. Both upper and lower seal faces always run in a clean environment.</p> <p>Upper Seal Face: SiC + SiC Lower Seal Face: SiC + SiC</p> <p><b>Oil Seal (Lip Seal)</b> Used as a “Dust Seal”, it protects the mechanical seal from abrasive particles.</p> <p><b>Pressure Relief Port</b> Protects the mechanical seal against excessive pressure, and also protects the seal faces from abrasive particles by drawing the particles away.</p> <p><b>OIL LIFTER</b> Equipped in oil chamber. It forcibly supplies lubricating oil to the mechanical seal and continues to supply the oil to the upper seal faces even if lubricant falls below the rated volume.</p> <p>Type of Lubricating Oil &amp; Volume Turbine Oil (ISO VG32), 2250ml</p> <p><b>Motor Protection Device</b> A miniature thermal protector is embedded in each winding of the motor. Should excessive heat builds up, the bimetal strip opens to cause the control panel to shut the power supply.</p> <p><b>Rubber Parts</b> Rubber parts of the mechanical seal, oil seal, O-ring and packings are made of FPM (FKM) which provides higher resistance to heat and chemicals.</p>
50Hz	60Hz								
380V – 22.5A	220V – 39.7A								
400V – 21.0A	380V – 20.8A								
415V – 21.0A	440V – 17.9A								
<p><b>Optional Accessory</b></p> <p><b>External Leakage Sensor (Electrode)</b></p> <p><b>Special Specifications</b></p> <p><b>High Temperature Liquids Version (60-80°C)*</b> * For Rank 80 (80°C) of this model, when motor is not completely submerged, continuous pump operation should not exceed 20 minutes.</p>									
<b>TSURUMI MANUFACTURING CO., LTD.</b>									

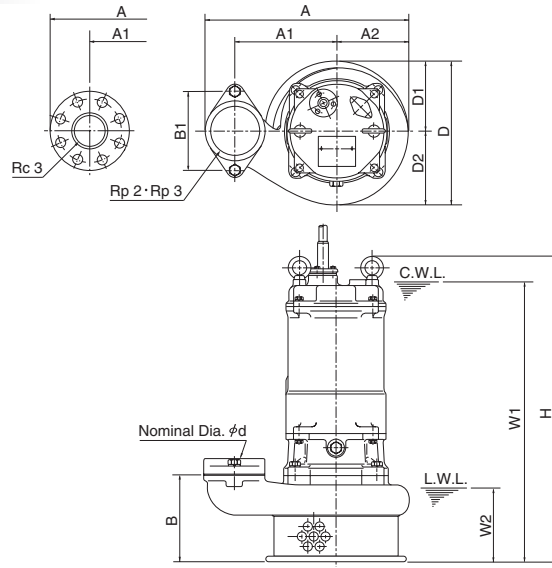
**DIMENSIONS**

Model **50SFQ2.4S to (TOS)80SFQ211**

**SFQ-series**

**50·80mm**

**Free Standing Type**

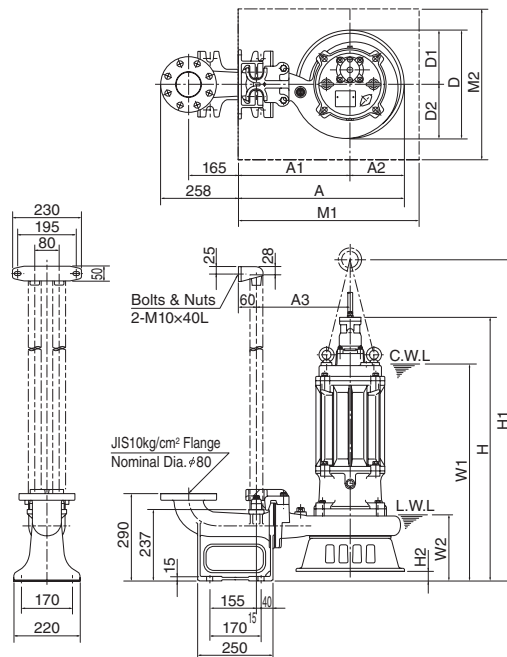


C. W. L. : Continuous Running Water Level  
L. W. L. : Lowest Running Water Level

Unit: mm

Model	d	A	A1	A2	B	B1	D	D1	D2	W1	W2	H
50SFQ2.4S	50	251	120	98	108	84	196	98	98	390	90	427
50SFQ2.4	50	251	120	98	108	84	196	98	98	360	90	398
50SFQ2.75	50	251	120	98	108	84	196	98	98	360	90	398
80SFQ21.5	80	329	165	110	109	140	221	110	111	415	95	484
80SFQ23.7	80	359	180	125	153	140	257	125	132	495	130	542
80SFQ25.5	80	635	362	180	287	—	360	180	180	690	190	844
80SFQ27.5	80	635	362	180	287	—	360	180	180	690	190	844
80SFQ211	80	635	362	180	287	—	360	180	180	710	190	892

**Guide Rail Fitting Type: TOS Set**



Unit: mm

Model	A	A1	A2	A3	D	D1	D2	W1	W2	H	H1	H2	M1	M2
TOS80SFQ25.5	550	370	180	310	360	180	180	720	220	875	1067	31	600	500
TOS80SFQ27.5	550	370	180	310	360	180	180	720	220	875	1067	31	600	500
TOS80SFQ211	550	370	180	310	360	180	180	745	320	923	1111	31	600	500