

Series:

GPN

Discharge Bore:

80 - 200mm

Motor Output / Pole:

5.5 - 37kW / 4·6-pole



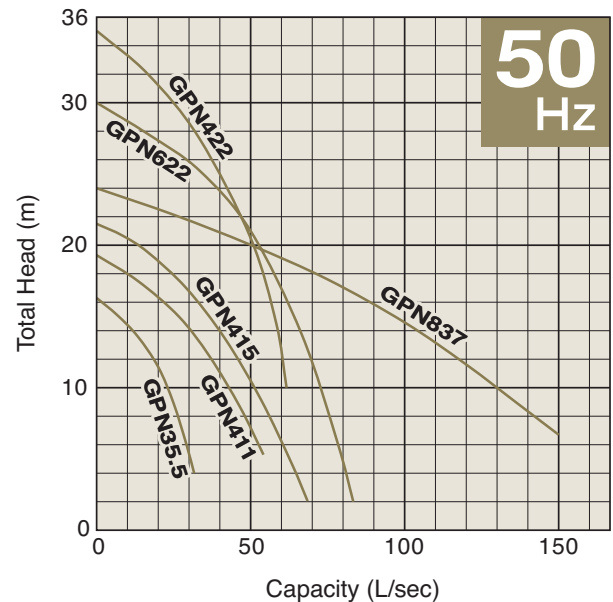
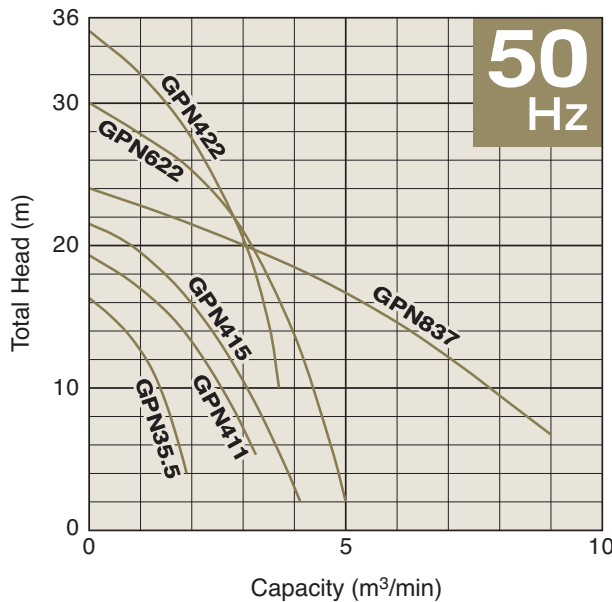
The GPN-series is a submersible three-phase high power and extra heavy-duty slurry pump driven by a 4-pole or 6-pole motor. It is equipped with a high-chromium cast iron agitator that assists smooth suction of the settled matters. The other wear parts such as the impeller and the suction plate are also made of high-chromium cast iron for extra durability. The side discharge, spiral design allows smoother passage of the sucked solid matters. The motor is cooled by a water jacket that assures efficient motor cooling even when it operates with its motor exposed to air.

Selection Table

Model	Discharge Bore mm	Motor Output kW	Phase	Starting Method	Pole	Dry Weight kg
GPN35.5	80	5.5	3-phase	Direct on Line	4	160
GPN411 (*)	100	11	3-phase	Direct on Line	4	239
GPN415	100	15	3-phase	Direct on Line	4	242
GPN422 (*)	100	22	3-phase	Direct on Line	4	410
GPN622 (*)	150	22	3-phase	Direct on Line	4	415
GPN837	200	37	3-phase	Star-Delta	6	815

* : available for 1000V supply

Performance Curves



SPECIFICATIONS	Model	GPN35.5	
		GPN-series 5.5kW, 3-phase	
<p>Type of Pump Submersible slurry pump for construction and foundation works, mining, and quarries, etc.</p> <p>Water Jacket Equipped with a water jacket, around the motor frame. A portion of the pumped liquid is allowed to flow into the water jacket to cool the motor.</p> <p>Type of Fluid Water containing sand, mud, and slurry</p> <p>Temperature: 0 to 40°C</p> <p>Discharge Bore & Connection 80mm (3"), Hose Nipple</p> <p>Motor Output 5.5kW</p> <p>Power Supply Three-phase</p> <p>Starting Method Direct on Line</p> <p>Motor Continuous-duty rated, dry-type induction motor</p> <p>Insulation Class: 415V: F Degree of Protection: IP68</p> <p>No. of Poles & Speed (Synchronous Speed) 4-pole, 1500min⁻¹ (50Hz)</p> <p>Power Supply Voltages & Rated Currents 50Hz 415V – 11.7A</p> <p>Power Cable 415V: PCP sheathed 600V cable (H07RN-F equiv.) Standard Length: 8m x 1 cable 4 x 2.5mm², O.D. 12.4mm (60245 IEC 66) or 4 x 3.5mm², O.D. 16.8mm</p> <p>Dry Weight (excluding cable) 160kg</p>		<p>Impeller Semi-open impeller made of high-chromium cast iron</p> <p>Solids Passage: ϕ30mm</p> <p>Agitator High-chromium cast iron</p> <p>Suction Plate Made of high-chromium cast iron, excellent in abrasion-resistance</p> <p>Cable Entry with Anti-Wicking Block 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>Bearing Permanently lubricated, deep-groove, double-shielded C3 ball bearings</p> <p>Shaft Chromium molybdenum steel</p> <p>Shaft Seal (Mechanical Seal) 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>Oil Seal (Lip Seal) Used as a "Dust Seal"; it protects the mechanical seal from abrasive particles.</p> <p>OIL LIFTER 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 & Volume Turbine Oil (ISO VG32), 1100ml</p> <p>Motor Protection Device 415V: Circle Thermal Protector (CTP) 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>Optional Accessory BSPT Male Threaded Coupling</p>		<p>Special Specifications (415V only) High Temperature Liquids Version (60•80°C)</p>	

SPECIFICATIONS	Model	GPN411	
		GPN-series 11kW, 3-phase	
<p>Type of Pump Submersible slurry pump for construction and foundation works, mining, and quarries, etc.</p> <p>Water Jacket Equipped with a water jacket, around the motor frame. A portion of the pumped liquid is allowed to flow into the water jacket to cool the motor.</p> <p>Type of Fluid Water containing sand, mud, and slurry</p> <p>Temperature: 0 to 40°C</p> <p>Discharge Bore & Connection 100mm (4"), Hose Nipple</p> <p>Motor Output 11kW</p> <p>Power Supply Three-phase</p> <p>Starting Method Direct on Line</p> <p>Motor Continuous-duty rated, dry-type induction motor</p> <p>Insulation Class: 415V: F, 1000V: F or H Degree of Protection: IP68</p> <p>No. of Poles & Speed (Synchronous Speed) 4-pole, 1500min⁻¹ (50Hz)</p> <p>Power Supply Voltages & Rated Currents 50Hz 415V – 22.5A 1000V – (9.1)A</p> <p>Power Cable 415V: PCP sheathed 600V cable (H07RN-F equiv.) Standard Length: 8m x 1 cable 4 x 4mm², O.D. 13.8mm (60245 IEC 66) or 4 x 5.5mm², O.D. 19.8mm</p> <p>1000V: PCP sheathed, overall screened 1.1kV Mining cable PLATINUM®, 1.1/1.1kV, MES5G2.5SCR Standard Length: 20m x 1 cable 3 x 2.5mm² + GC control + 2 x Ground, O.D. 18.8mm (acceptable Macey® 4-pin Plug)</p> <p>Dry Weight (excluding cable) 239kg</p>	<p>Impeller Semi-open impeller made of high-chromium cast iron</p> <p>Solids Passage: φ30mm</p> <p>Agitator High-chromium cast iron</p> <p>Suction Plate Made of high-chromium cast iron, excellent in abrasion-resistance</p> <p>Cable Entry with Anti-Wicking Block 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>Bearing Permanently lubricated, deep-groove, double-shielded C3 ball bearings</p> <p>Shaft Chromium molybdenum steel</p> <p>Shaft Seal (Mechanical Seal) 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>Oil Seal (Lip Seal) Used as a "Dust Seal"; it protects the mechanical seal from abrasive particles.</p> <p>OIL LIFTER 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 & Volume Turbine Oil (ISO VG32), 2500ml</p> <p>Motor Protection Device 415V: Circle Thermal Protector (CTP) 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>1000V: MTP & Ground-Check Diode The MTPs are connected with a diode (3A-1000V) in series into the Ground-Check circuit in the motor. If excessive heat builds up and the bimetal strip opens, or Ground-fault happens, the power supply can be shut off by using an external control panel.</p>		
<p>Optional Accessory BSPT Male Threaded Coupling</p>	<p>Special Specifications (415V only) High Temperature Liquids Version (60•80°C)</p>		

SPECIFICATIONS	Model	GPN415	
		GPN-series 15kW, 3-phase	
<p>Type of Pump Submersible slurry pump for construction and foundation works, mining, and quarries, etc.</p> <p>Water Jacket Equipped with a water jacket, around the motor frame. A portion of the pumped liquid is allowed to flow into the water jacket to cool the motor.</p> <p>Type of Fluid Water containing sand, mud, and slurry</p> <p>Temperature: 0 to 40°C</p> <p>Discharge Bore & Connection 100mm (4"), Hose Nipple</p> <p>Motor Output 15kW</p> <p>Power Supply Three-phase</p> <p>Starting Method Direct on Line</p> <p>Motor Continuous-duty rated, dry-type induction motor</p> <p>Insulation Class: 415V: F Degree of Protection: IP68</p> <p>No. of Poles & Speed (Synchronous Speed) 4-pole, 1500min⁻¹ (50Hz)</p> <p>Power Supply Voltages & Rated Currents 50Hz 415V – 27.0A</p> <p>Power Cable 415V: PCP sheathed 600V cable (H07RN-F equiv.) Standard Length: 10m x 1 cable 4 x 6mm², O.D. 19.0mm (60245 IEC 66) or 4 x 8mm², O.D. 21.7mm</p> <p>Dry Weight (excluding cable) 242kg</p>	<p>Impeller Semi-open impeller made of high-chromium cast iron</p> <p>Solids Passage: ϕ30mm</p> <p>Agitator High-chromium cast iron</p> <p>Suction Plate Made of high-chromium cast iron, excellent in abrasion-resistance</p> <p>Cable Entry with Anti-Wicking Block 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>Bearing Permanently lubricated, deep-groove, double-shielded C3 ball bearings</p> <p>Shaft Chromium molybdenum steel</p> <p>Shaft Seal (Mechanical Seal) 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>Oil Seal (Lip Seal) Used as a "Dust Seal", it protects the mechanical seal from abrasive particles.</p> <p>OIL LIFTER 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 & Volume Turbine Oil (ISO VG32), 2500ml</p> <p>Motor Protection Device 415V: Circle Thermal Protector (CTP) 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>Optional Accessory</p> <p>BSPT Male Threaded Coupling</p>			

SPECIFICATIONS	Model	GPN-series
	GPN422	
22kW, 3-phase		
<p>Type of Pump Submersible slurry pump for construction and foundation works, mining, and quarries, etc.</p> <p>Water Jacket Equipped with a water jacket, around the motor frame. A portion of the pumped liquid is allowed to flow into the water jacket to cool the motor.</p> <p>Type of Fluid Water containing sand, mud, and slurry</p> <p>Temperature: 0 to 40°C</p> <p>Discharge Bore & Connection 100mm (4"), Hose Nipple</p> <p>Motor Output 22kW</p> <p>Power Supply Three-phase</p> <p>Starting Method Direct on Line</p> <p>Motor Continuous-duty rated, dry-type induction motor</p> <p>Insulation Class: 415V: F, 1000V: F or H Degree of Protection: IP68</p> <p>No. of Poles & Speed (Synchronous Speed) 4-pole, 1500min⁻¹ (50Hz)</p> <p>Power Supply Voltages & Rated Currents 50Hz 415V – 42A 1000V – (17.5)A</p> <p>Power Cable 415V: PCP sheathed 600V cable (H07RN-F equiv.) Standard Length: 10m x 1 cable 4 x 14mm² + 3 x 2mm², O.D. 25.6mm</p> <p>1000V: PCP sheathed, overall screened 1.1kV Mining cable PLATINUM®, 1.1/1.1kV, MES5G2.5SCR Standard Length: 20m x 1 cable 3 x 2.5mm² + GC control + 2 x Ground, O.D. 18.8mm (acceptable Macey® 4-pin Plug)</p> <p>Dry Weight (excluding cable) 410kg</p>	<p>Impeller Semi-open impeller made of high-chromium cast iron</p> <p>Solids Passage: φ30mm</p> <p>Agitator High-chromium cast iron</p> <p>Adjustable Suction Plate Made of high-chromium cast iron, excellent in abrasion-resistance. It can be improved by adjusting impeller clearance.</p> <p>Cable Entry with Anti-Wicking Block 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>Bearing Permanently lubricated, deep-groove, double-shielded C3 ball bearings</p> <p>Shaft Chromium molybdenum steel</p> <p>Shaft Seal (Mechanical Seal) 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>Oil Seal (Lip Seal) Used as a "Dust Seal", it protects the mechanical seal from abrasive particles.</p> <p>OIL LIFTER 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 & Volume Turbine Oil (ISO VG32), 3600ml</p> <p>Motor Protection Device 415V: Miniature Thermal Protector (MTP) 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>1000V: MTP & Ground-Check Diode The MTPs are connected with a diode (3A-1000V) in series into the Ground-Check circuit in the motor. If excessive heat builds up and the bimetal strip opens, or Ground-fault happens, the power supply can be shut off by using an external control panel.</p> <p>Leakage Sensor (415V only) Made of 304 stainless steel. It can be wired to a control panel to alert operators of water incursion into the oil chamber.</p>	
<p>Optional Accessory</p> <p>BSPT Male Threaded Coupling</p> <p>Special Specifications (415V only)</p> <p>High Temperature Liquids Version (60•80°C)</p>		

SPECIFICATIONS	Model	GPN622	
		GPN-series 22kW, 3-phase	
<p>Type of Pump Submersible slurry pump for construction and foundation works, mining, and quarries, etc.</p> <p>Water Jacket Equipped with a water jacket, around the motor frame. A portion of the pumped liquid is allowed to flow into the water jacket to cool the motor.</p> <p>Type of Fluid Water containing sand, mud, and slurry</p> <p>Temperature: 0 to 40°C</p> <p>Discharge Bore & Connection 150mm (6"), Hose Nipple</p> <p>Motor Output 22kW</p> <p>Power Supply Three-phase</p> <p>Starting Method Direct on Line</p> <p>Motor Continuous-duty rated, dry-type induction motor</p> <p>Insulation Class: 415V: F, 1000V: F or H Degree of Protection: IP68</p> <p>No. of Poles & Speed (Synchronous Speed) 4-pole, 1500min⁻¹ (50Hz)</p> <p>Power Supply Voltages & Rated Currents 50Hz 415V – 42A 1000V – (17.5)A</p> <p>Power Cable 415V: PCP sheathed 600V cable (H07RN-F equiv.) Standard Length: 10m x 1 cable 4 x 14mm² + 3 x 2mm², O.D. 25.6mm</p> <p>1000V: PCP sheathed, overall screened 1.1kV Mining cable PLATINUM®, 1.1/1.1kV, MES5G2.5SCR Standard Length: 20m x 1 cable 3 x 2.5mm² + GC control + 2 x Ground, O.D. 18.8mm (acceptable Macey® 4-pin Plug)</p> <p>Dry Weight (excluding cable) 415kg</p>	<p>Impeller Semi-open impeller made of high-chromium cast iron</p> <p>Solids Passage: ϕ30mm</p> <p>Agitator High-chromium cast iron</p> <p>Adjustable Suction Plate Made of high-chromium cast iron, excellent in abrasion-resistance. It can be improved by adjusting impeller clearance.</p> <p>Cable Entry with Anti-Wicking Block 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>Bearing Permanently lubricated, deep-groove, double-shielded C3 ball bearings</p> <p>Shaft Chromium molybdenum steel</p> <p>Shaft Seal (Mechanical Seal) 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>Oil Seal (Lip Seal) Used as a "Dust Seal", it protects the mechanical seal from abrasive particles.</p> <p>OIL LIFTER 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 & Volume Turbine Oil (ISO VG32), 3600ml</p> <p>Motor Protection Device 415V: Miniature Thermal Protector (MTP) 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>1000V: MTP & Ground-Check Diode The MTPs are connected with a diode (3A-1000V) in series into the Ground-Check circuit in the motor. If excessive heat builds up and the bimetal strip opens, or Ground-fault happens, the power supply can be shut off by using an external control panel.</p> <p>Leakage Sensor (415V only) Made of 304 stainless steel. It can be wired to a control panel to alert operators of water incursion into the oil chamber.</p>		
<p>Optional Accessory</p> <p>BSPT Male Threaded Coupling</p> <p>Special Specifications (415V only)</p> <p>High Temperature Liquids Version (60•80°C)</p>			

SPECIFICATIONS	Model	GPN837	
		GPN-series 37kW, 3-phase	

Type of Pump

Submersible slurry pump for construction and foundation works, mining, and quarries, etc.

Water Jacket

Equipped with a water jacket, around the motor frame. A portion of the pumped liquid is allowed to flow into the water jacket to cool the motor.

Type of Fluid

Water containing sand, mud, and slurry

Temperature: 0 to 40°C

Discharge Bore & Connection

200mm (8"), Hose Nipple

Motor Output

37kW

Power Supply

Three-phase

Starting Method

Star-Delta

Motor

Continuous-duty rated, dry-type induction motor

Insulation Class: 415V: F

Degree of Protection: IP68

No. of Poles & Speed (Synchronous Speed)

6-pole, 1000min⁻¹ (50Hz)

Power Supply Voltages & Rated Currents

50Hz

415V – 73A

Power Cable

415V:

PCP sheathed 600V cable (H07RN-F equiv.)

Standard Length: 10m x 3 cables

Cable 1: 4 x 14mm², O.D. 25.6mm

Cable 2: 4 x 14mm², O.D. 25.6mm (cut-off 1 wire)

Cable 3: 4 x 1.25mm², O.D. 11.1mm (cut-off 1 wire)

Dry Weight (excluding cable)

815kg

Impeller

Semi-open impeller made of high-chromium cast iron

Solids Passage: ϕ 46mm

Agitator

High-chromium cast iron

Adjustable Suction Plate

Made of high-chromium cast iron, excellent in abrasion-resistance. It can be improved by adjusting impeller clearance.

Cable Entry with Anti-Wicking Block

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.

Bearing

Permanently lubricated, deep-groove, double-shielded C3 ball bearings

Shaft

Chromium molybdenum steel

Shaft Seal (Mechanical Seal)

Furnished with a double-face mechanical seal located in oil chamber. Both upper and lower seal faces always run in a clean environment.

Upper Seal Face: SiC + SiC

Lower Seal Face: SiC + SiC

Oil Seal (Lip Seal)

Used as a "Dust Seal", it protects the mechanical seal from abrasive particles.

OIL LIFTER

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.

Type of Lubricating Oil & Volume

Turbine Oil (ISO VG32), 9200ml

Motor Protection Device

415V: Miniature Thermal Protector (MTP)

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.

Leakage Sensor (415V only)

Made of 304 stainless steel. It can be wired to a control panel to alert operators of water incursion into the oil chamber.

Optional Accessory

BSPT Female Threaded JIS 10kg/cm² Flange

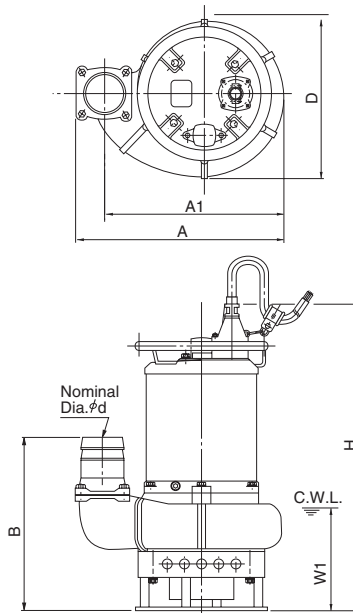
DIMENSIONS

Model

GPN35.5 to GPN837

GPN-series

80 - 200mm



C. W. L. : Continuous Running Water Level

Unit: mm

Model	d	A	A1	B	D	H	W1
GPN35.5	80	487	425	449	390	841	290
GPN411 (*)	100	617	518	500	452	924	315
GPN415	100	617	518	500	452	924	315
GPN422 (*)	100	725	625	488	572	1102	300
GPN622 (*)	150	725	625	528	572	1102	300
GPN837	200	1015	850	898	749	1606	560

* : available for 1000V supply