

Series: LH-W	Discharge Bore: 50 - 100mm	Motor Output / Pole: 3 - 30kW / 2-pole
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The LH-W-series is a submersible three-phase cast iron extra high head drainage pump having dual impellers. Being the pump cylindrical and slim, it can be installed in a well casing for deep well dewatering. The center flange construction assures a stable installation even if it is fixed by the discharge pipe. The top discharge, flow-thru design provides maximum motor cooling efficiency allowing continuous operation at low water levels and extended dry-run capability. The pump incorporates seal pressure relief ports that prevent the pumping pressure from applying to the shaft seal.*

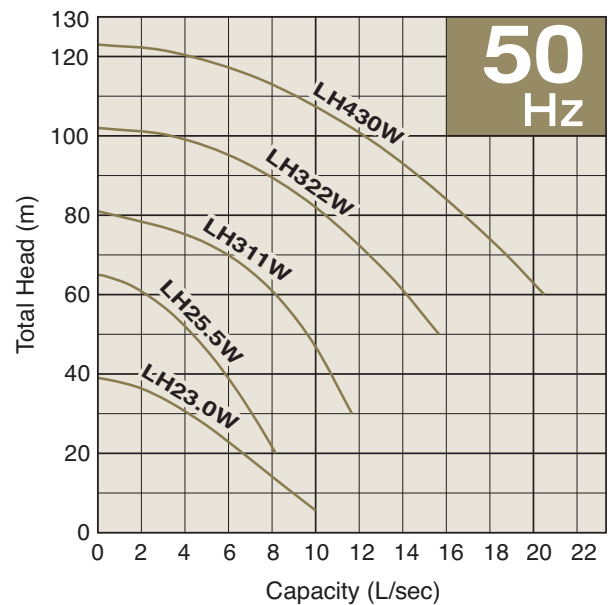
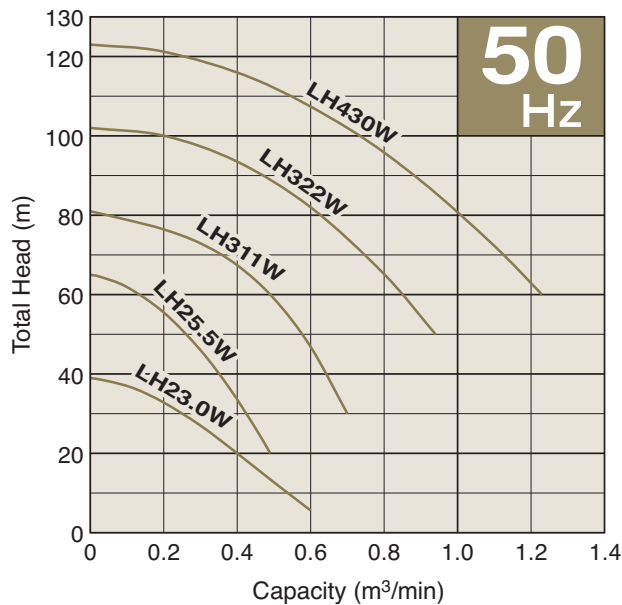
* excluding LH23.0W

Selection Table

Model	Discharge Bore mm	Motor Output kW	Phase	Starting Method	Pole	Dry Weight kg
LH23.0W	50	3	3-phase	Direct on Line	2	46
LH25.5W	50	5.5	3-phase	Direct on Line	2	80
LH311W (*)	80	11	3-phase	Direct on Line	2	130
LH322W	80	22	3-phase	Direct on Line	2	304
LH430W (*)	100	30	3-phase	415V: Star-Delta 1000V: Direct on Line	2	324

* : available for 1000V supply

Performance Curves



SPECIFICATIONS	Model	LH23.0W	LH-W-series
			3kW, 3-phase

<p>Type of Pump Submersible high head drainage pump for construction and foundation works, floodwater drainage, etc.</p> <p>Type of Fluid Stormwater, groundwater, wash water, and sand-carrying water</p> <p>Temperature: 0 to 40°C</p> <p>Discharge Bore & Connection 50mm (2"), BSPT Male Threaded Coupling</p> <p>Motor Output 3kW</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) 2-pole, 3000min⁻¹ (50Hz)</p> <p>Power Supply Voltages & Rated Currents 50Hz 415V – 6.5A</p> <p>Power Cable 415V: PCP sheathed 600V cable (H07RN-F equiv.) Standard Length: 20m x 1 cable 4 x 2.0mm², O.D. 14.4mm</p> <p>Dry Weight (excluding cable) 46kg</p>	<p>Impeller Dual semi-open impellers made of high-chromium cast iron</p> <p>Solids Passage: ϕ6mm</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 420 stainless 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>Labyrinth Ring Made of 304 stainless steel, equipped to provide a better countermeasure against wear caused by high pressure generated in the casing.</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), 380ml</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>
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<p>Optional Accessories</p> <p>Center Flanged Pipe & BSPT Female Threaded Flange</p>	<p>Special Specifications (415V only)</p> <p>Tandem Operation Version & Kit</p>
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SPECIFICATIONS	Model LH25.5W	LH-W-series
		5.5kW, 3-phase
<p>Type of Pump Submersible high head drainage pump for construction and foundation works, floodwater drainage, etc.</p> <p>Type of Fluid Stormwater, groundwater, wash water, and sand-carrying water</p> <p>Temperature: 0 to 40°C</p> <p>Discharge Bore & Connection 50mm (2"), JIS 10kg/cm² Flange</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: B Degree of Protection: IP68</p> <p>No. of Poles & Speed (Synchronous Speed) 2-pole, 3000min⁻¹ (50Hz)</p> <p>Power Supply Voltages & Rated Currents 50Hz 415V – 10.5A</p> <p>Power Cable 415V: PCP sheathed 600V cable (H07RN-F equiv.) Standard Length: 20m x 1 cable 4 x 3.5mm², O.D. 16.8mm</p> <p>Dry Weight (excluding cable) 80kg</p>	<p>Impeller Dual closed impellers made of high-chromium cast iron</p> <p>Solids Passage: ϕ6mm</p> <p>Mouth Ring 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 420 stainless 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 + Carbon Lower Seal Face: SiC + SiC</p> <p>Labyrinth Ring Made of 304 stainless steel, equipped to provide a better countermeasure against wear caused by high pressure generated in the casing.</p> <p>Pressure Relief Ports Protect the mechanical seal against excessive pressure, and also protect the seal faces from abrasive particles by drawing the particles away.</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), 720ml</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 Accessories</p> <p>BSPT Female Threaded Flange</p> <p>Special Specifications (415V only)</p> <p>Tandem Operation Version & Kit High Temperature Liquids Version (60°C)</p>	<p>Galvanic Anode Made of zinc. It protects the pump from electric corrosion.</p>	

SPECIFICATIONS	Model	LH311W	
		LH-W-series 11kW, 3-phase	
<p>Type of Pump Submersible high head drainage pump for construction and foundation works, floodwater drainage, etc.</p> <p>Type of Fluid Stormwater, groundwater, wash water, and sand-carrying water</p> <p>Temperature: 0 to 40°C</p> <p>Discharge Bore & Connection 80mm (3"), JIS 10kg/cm² Flange w/ BSPT Female Threaded Flange (Option for 415V)</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: B, 1000V: F or H Degree of Protection: IP68</p> <p>No. of Poles & Speed (Synchronous Speed) 2-pole, 3000min⁻¹ (50Hz)</p> <p>Power Supply Voltages & Rated Currents 50Hz 415V – 22A 1000V – 8.8A</p> <p>Power Cable 415V: PCP sheathed 600V cable (H07RN-F equiv.) Standard Length: 20m x 1 cable 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) 130kg</p>		<p>Impeller Dual closed impellers made of high-chromium cast iron</p> <p>Solids Passage: ϕ8.5mm</p> <p>Mouth Ring 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 Upper: Permanently lubricated, deep-groove, double-shielded C3 ball bearing Lower: Duplex angular contact ball bearing mounted back-to-back</p> <p>Shaft 420 stainless 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 + Carbon Lower Seal Face: SiC + SiC</p> <p>Labyrinth Ring Made of 304 stainless steel, equipped to provide a better countermeasure against wear caused by high pressure generated in the casing.</p> <p>Pressure Relief Ports Protect the mechanical seal against excessive pressure, and also protect the seal faces from abrasive particles by drawing the particles away.</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), 800ml</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>Galvanic Anode Made of zinc. It protects the pump from electric corrosion.</p>	
<p>Optional Accessories</p> <p>BSPT Female Threaded Flange (Standard for 1000V) Seawater-Resistant Kit</p> <ul style="list-style-type: none"> Galvanic Anodes (with Fittings, Seal Putty) Seawater-Resistant Special Cast Iron Impeller <p>Special Specifications (415V only)</p> <p>Tandem Operation Version & Kit All Stainless Steel Version (316 Stainless Steel) High Temperature Liquids Version (60°C)</p>			

SPECIFICATIONS	Model	LH-W-series
	LH322W	22kW, 3-phase
<p>Type of Pump Submersible high head drainage pump for construction and foundation works, floodwater drainage, etc.</p> <p>Type of Fluid Stormwater, groundwater, wash water, and sand-carrying water</p> <p>Temperature: 0 to 40°C</p> <p>Discharge Bore & Connection 80mm (3"), JIS 20kg/cm² Flange</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: B Degree of Protection: IP68</p> <p>No. of Poles & Speed (Synchronous Speed) 2-pole, 3000min⁻¹ (50Hz)</p> <p>Power Supply Voltages & Rated Currents 50Hz 415V – 38A</p> <p>Power Cable 415V: PCP sheathed 600V cable (H07RN-F equiv.) Standard Length: 20m x 1 cable 4 x 14mm², O.D. 25.6mm</p> <p>Dry Weight (excluding cable) 304kg</p>	<p>Impeller Dual closed impellers made of high-chromium cast iron</p> <p>Solids Passage: ϕ8.5mm</p> <p>Mouth Ring 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 Upper: Permanently lubricated, deep-groove, double-shielded C3 ball bearing Lower: Duplex angular contact ball bearing mounted back-to-back</p> <p>Shaft 420 stainless 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 + Carbon Lower Seal Face: SiC + SiC</p> <p>Labyrinth Ring Made of 304 stainless steel, equipped to provide a better countermeasure against wear caused by high pressure generated in the casing.</p> <p>Pressure Relief Ports Protect the mechanical seal against excessive pressure, and also protect the seal faces from abrasive particles by drawing the particles away.</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), 2350ml</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>Galvanic Anode Made of aluminium alloy. It protects the pump from electric corrosion.</p>	
<p>Optional Accessories</p> <p>Female Threaded Flange</p> <p>Special Specifications (415V only)</p> <p>Tandem Operation Version & Kit All Stainless Steel Version (316 Stainless Steel) High Temperature Liquids Version (60°C)</p>		

SPECIFICATIONS	Model	LH-W-series
	LH430W	30kW, 3-phase
<p>Type of Pump Submersible high head drainage pump for construction and foundation works, floodwater drainage, etc.</p> <p>Type of Fluid Stormwater, groundwater, wash water, and sand-carrying water</p> <p>Temperature: 0 to 40°C</p> <p>Discharge Bore & Connection 100mm (4"), JIS 20kg/cm² Flange w/ BSPT Female Threaded Flange (Option for 415V)</p> <p>Motor Output 30kW</p> <p>Power Supply Three-phase</p> <p>Starting Method 415V: Star-Delta, 1000V: 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) 2-pole, 3000min⁻¹ (50Hz)</p> <p>Power Supply Voltages & Rated Currents 50Hz 415V – 53A 1000V – 22A</p> <p>Power Cable 415V: PCP sheathed 600V cable (H07RN-F equiv.) Standard Length: 20m x 1 cable 6 x 22mm² + 1 x 14mm² + 2 x 2mm², O.D. 38.8mm</p> <p>1000V: PCP sheathed, Type 241.1, 1.1kV Mining cable PLATINUM®, Type 241.1G10PCP Standard Length: 20m x 1 cable 3 x 10mm² + GC control + 3 x Ground, O.D. 31.6mm (acceptable Macey® 4-pin Plug)</p> <p>Dry Weight (excluding cable) 324kg</p>	<p>Impeller Dual closed impellers made of high-chromium cast iron</p> <p>Solids Passage: ϕ8.5mm</p> <p>Mouth Ring 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 Upper: Permanently lubricated, deep-groove, double-shielded C3 ball bearing Lower: Duplex angular contact ball bearing mounted back-to-back</p> <p>Shaft 420 stainless 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 + Carbon Lower Seal Face: SiC + SiC</p> <p>Labyrinth Ring Made of 304 stainless steel, equipped to provide a better countermeasure against wear caused by high pressure generated in the casing.</p> <p>Pressure Relief Ports Protect the mechanical seal against excessive pressure, and also protect the seal faces from abrasive particles by drawing the particles away.</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), 2350ml</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>Galvanic Anode Made of aluminium alloy. It protects the pump from electric corrosion.</p>	
<p>Optional Accessories</p> <p>BSPT Female Threaded Flange (Standard for 1000V)</p> <p>Special Specifications (415V only)</p> <p>Tandem Operation Version & Kit High Temperature Liquids Version (60°C)</p>		

Series: LH-W	Discharge Bore: 100mm	Motor Output / Pole: 110kW / 2-pole
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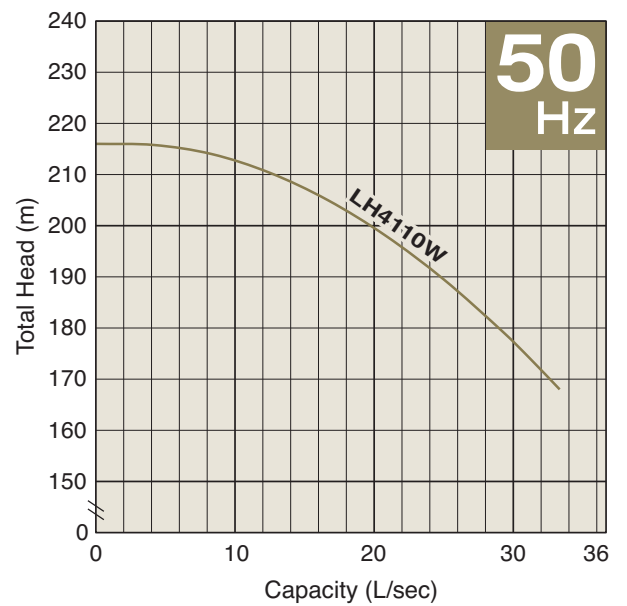
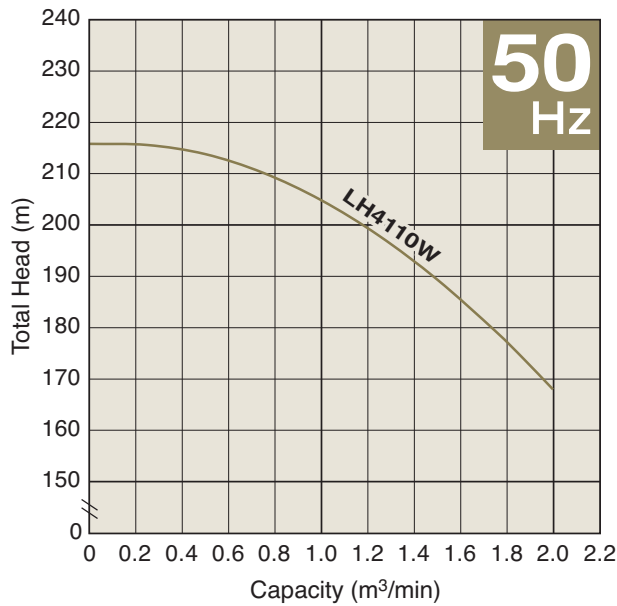
The LH-W-series is a submersible three-phase cast iron extra high head drainage pump having dual impellers. Being the pump cylindrical and slim, it can be installed in a well casing for deep well dewatering. The top discharge, flow-thru design provides maximum motor cooling efficiency allowing continuous operation at low water levels and extended dry-run capability. The pump incorporates seal pressure relief ports that prevent the pumping pressure from applying to the shaft seal.

Selection Table

Model	Discharge Bore mm	Motor Output kW	Phase	Starting Method	Pole	Dry Weight kg
LH4110W (*)	100	110	3-phase	415V: Star-Delta 1000V: Direct on Line	2	1270

* : available for 1000V supply

Performance Curves



SPECIFICATIONS	Model LH4110W	LH-W-series
		110kW, 3-phase
<p>Type of Pump Submersible high head drainage pump for construction and foundation works, floodwater drainage, etc.</p> <p>Type of Fluid Stormwater, groundwater, wash water, and sand-carrying water</p> <p>Temperature: 0 to 40°C</p> <p>Discharge Bore & Connection 100mm (4"), JIS 20kg/cm² Flange w/ BSPT Female Threaded Flange (Option for 415V)</p> <p>Motor Output 110kW</p> <p>Power Supply Three-phase</p> <p>Starting Method 415V: Star-Delta, 1000V: 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) 2-pole, 3000min⁻¹ (50Hz)</p> <p>Power Supply Voltages & Rated Currents 50Hz 415V – 204A 1000V – 82.5A</p> <p>Power Cable 415V: PCP sheathed 600V cable (H07RN-F equiv.) Standard Length: 20m x 2 cables Cable 1: 3 x 38mm² + 1 x 22mm² + 3 x 2mm², O.D. 35.8mm Cable 2: 3 x 38mm², O.D. 35.9mm</p> <p>1000V: PCP sheathed, Type 241.1, 1.1kV Mining cable PLATINUM®, Type 241.1G35PCP Standard Length: 20m x 1 cable 3 x 35mm² + GC control + 3 x Ground, O.D. 41.7mm (acceptable Macey® 4-pin Plug)</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>Dry Weight (excluding cable) 1270kg</p>	<p>Impeller Dual back-to-back closed impellers made of high-chromium cast iron</p> <p>Solids Passage: φ8mm</p> <p>Mouth Ring Made of high-chromium cast iron, excellent in abrasion-resistance</p> <p>Bearing Upper: Cylindrical roller bearing Lower: Duplex angular contact ball bearing mounted back-to-back</p> <p>Shaft 420 stainless 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>Labyrinth Ring Made of 630 stainless steel, equipped to provide a better countermeasure against wear caused by high pressure generated in the casing.</p> <p>Pressure Relief Ports Protect the mechanical seal against excessive pressure, and also protect the seal faces from abrasive particles by drawing the particles away.</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), 7800ml</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>Optional Accessories</p> <p>BSPT Female Threaded Flange (Standard for 1000V)</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>Galvanic Anode Made of aluminium alloy. It protects the pump from electric corrosion.</p>	

DIMENSIONS

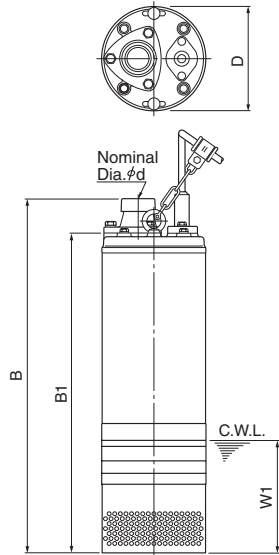
Model

LH23.0W to LH4110W

LH-W-series

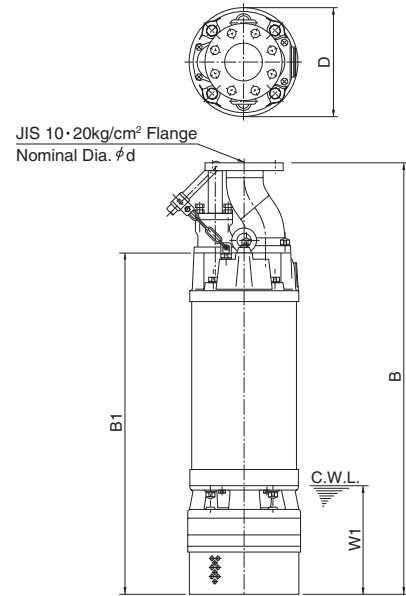
50 - 100mm

LH23.0W



LH25.5W
LH311W
LH322W
LH430W
LH4110W

C. W. L. : Continuous Running Water Level



Unit: mm

Model	d	B	B1	D	W1
LH23.0W	50	630	569	185	200
LH25.5W	50	750	574	254	170
LH311W (*)	80	1024	809	270	200
LH322W	80	1235	978	330	300
LH430W (*)	100	1375	1018	365	300
LH4110W (*)	100	1825	1626	616	380

* : available for 1000V supply