



Stainless Steel Magnetic Pump


Professional manufacturer
of high and low
temperature pumps



-196°C ~ +420°C

BTS
ENGINEERING

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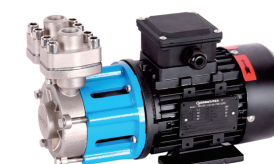
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QWW Series



05-06

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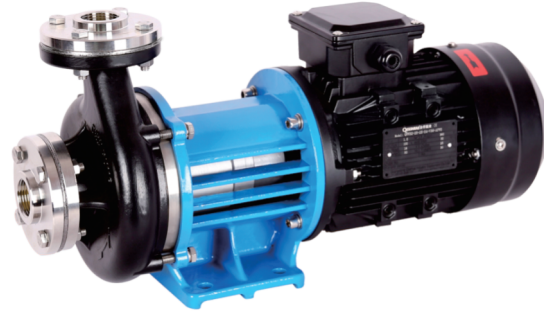
After-Sales Service

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Fault cause and solution

QWW Series

Stainless Steel Magnetic Pump



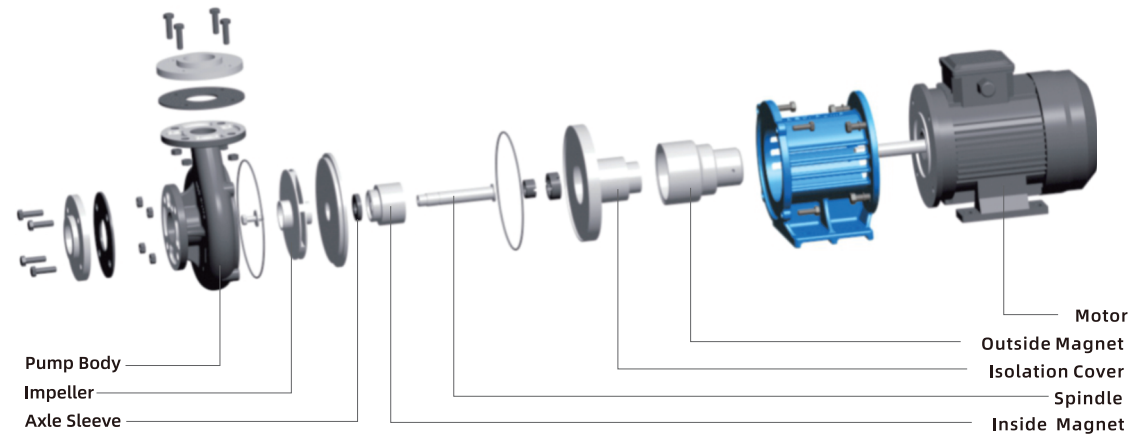
Features

- ◆ Application Area: High temperature mold temperature control high and low temperature test equipment chemical equipment template temperature control, high-end cleaning equipment, high-end printing and dyeing equipment, TCU temperature control system, high temperature condensate water recovery, etc.
- ◆ Circulation Medium: water, ethylene glycol, alcohol, heat transfer oil, hydrocarbon solution, silicone oil, glacial refrigerant, gasoline, dye, chemical solution and other liquids without particles and fibers.

Model Description

QWW32 - 25 - 1 - 5 - S4 - V38 - A - F - G - A - B - S
 ① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ ⑩ ⑪ ⑫ ⑬

- ① Model No.: QWW
- ② Inlet Caliber: 32-32mm; 50-50mm;
- ③ Outlet Caliber: 25-25mm; 32-32mm; 40-40mm
- ④ Power: 1-1HP; 2-2HP; 3-3HP; 4-4HP; 5-5HP; 6-6HP; 7.5-7.5 HP; 10-10HP; 15-15HP
- ⑤ Frequency: 5-50HZ; 6-60HZ
- ⑥ Material Of Pump Head: S4-SUS304 S6-SUS316
- ⑦ Voltage: V38-3Ø/380V; V41-3Ø/415V; V 44-3Ø/440V; V 48-3Ø/480V; V66-3Ø/660V; V32-3Ø/220V; V 22-1Ø/220V
- ⑧ Specific Gravity Of Liquid: A-1. 0-1.2; B-1. 3; C-1. 4; D-1. 5; E-1. 6; F-1. 7; G-1. 8; H-1. 9; I-2.0
- ⑨ Inlet And Outlet Form: F-welded flange; T- Female thread
- ⑩ Motor Brand: G-Kingdom; W-Guangwei; Q-Other
- ⑪ Motor Requirements: A-IE3 Normal Motor; B-IE4 Normal Motor; C-IE5 Normal Motor; D-Variable Frequency Motor; E-IE3, BT4 Ex-Proof Motor; F-IE4, BT4 Ex-Proof Motor; G-IE5, BT4 Ex-Proof Motor; H-IE3, CT4 Ex-Proof Motor; I-IE4, CT4 Ex-Proof Motor; J-IE5, CT4 Ex-Proof Motor; K-Permanent magnet variable frequency motor; L-BT4 Ex-Proof Variable Frequency Motor; M-CT4 Ex-Proof Variable Frequency Motor
- ⑫ Motor Protection Level: A-IP54; B-IP55; C-IP56; D-IP65
- ⑬ S-Standard; N-Non-Standard



Working Condition

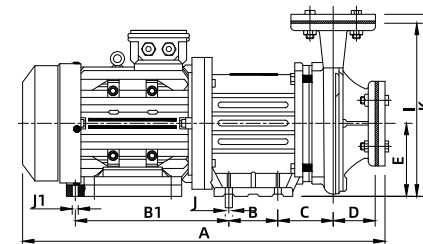
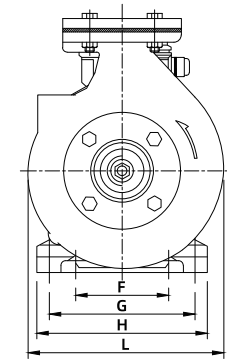
Medium Temperature	Medium Density	Working Temperature	Max Elevation	Max Working Pressure
-196°C ~ +420°C	0.6 ~ 2	-5°C ~ +70°C	5000m	20bar

Technical Parameter

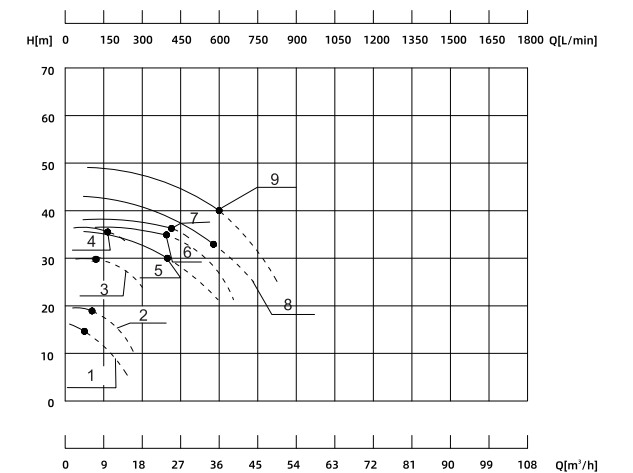
Model	Diameter		Motor				Performance Parameter				Pump Weight (Kg)	Curve Code	
	Inlet	Outlet	Power (KW)	(Hp)	Voltage (V)	Frequency (Hz)	Speed (r/min)	50HZ		60HZ			
								Max./Rated Head(m)	Max./Rated Capacity(m³/h)	Max./Rated Head(m)			Max./Rated Capacity(m³/h)
QWW32-25-1	DN32	DN25	0.75	1	3Ø-380	50	2760	18/15	15/4.2	20.7/17.3	17.3/4.8	28	1
QWW32-25-2	DN32	DN25	1.5	2	3Ø-380	50	2760	20/18	18/6	23/20.7	20.7/6.9	30	2
QWW50-32-3	DN50	DN32	2.2	3	3Ø-380	50	2760	32/30	30/6.8	36.8/34.5	34.5/7.8	42	3
QWW50-32-4	DN50	DN32	3	4	3Ø-380	50	2900	37/35	32/9.5	42.6/40.3	36.8/10.9	45	4
QWW50-40-5	DN50	DN40	4	5	3Ø-380	50	2900	35/30	45/25	40.3/34.5	51.8/28.8	60	5
QWW50-40-6	DN50	DN40	4.5	6	3Ø-380	50	2900	37/35	45/25	42.6/40.3	51.8/28.8	67	6
QWW50-40-7.5	DN50	DN40	5.5	7.5	3Ø-380	50	2900	37/35	46/26	42.6/40.3	52.9/29.9	88	7
QWW50-40-10	DN50	DN40	7.5	10	3Ø-380	50	2900	43/35	54/32	49.5/40.3	62.1/36.8	116	8
QWW50-40-15	DN50	DN40	11	15	3Ø-380	50	2900	48/40	56/36	55.2/46	64.4/41.4	145	9

The above performance parameters correspond to the normal-speed transportation of water at 20°C, and the performance errors are ± 10%. The performance of the pump varies with the specific gravity and density of the transported fluid medium.

Installation Drawing



Characteristic Curve



50Hz

Installation Size

Unit: mm

Model	A	B	C	B1	D	E	F	G	H	I	K	J	J1	L
QWW32-25-1	503	70	72	-	50	100	100	-	-	224	239	4-Φ12	-	180
QWW32-25-2	503	70	72	-	50	100	100	-	-	224	239	4-Φ12	-	180
QWW50-32-3	562	70	72	256	55	110	100	140	180	245	261	4-Φ12	2-Φ10	195
QWW50-32-4	592	70	72	256	55	110	100	140	180	245	261	4-Φ12	2-Φ10	195
QWW50-40-5	660	90	100	280	90	132	120	190	220	315	332	4-Φ12	2-Φ10	255
QWW50-40-6	660	90	100	280	90	132	120	190	220	315	332	4-Φ12	2-Φ10	255
QWW50-40-7.5	716	90	100	263	90	132	120	215	220	315	332	4-Φ12	2-Φ10	255
QWW50-40-10	727	90	100	-	100	135	120	-	235	300	318	4-Φ12	2-Φ14	275
QWW50-40-15	727	90	100	-	100	135	120	-	235	300	318	4-Φ12	2-Φ14	275

QLL Series

Vertical Stainless Steel Magnetic Pump



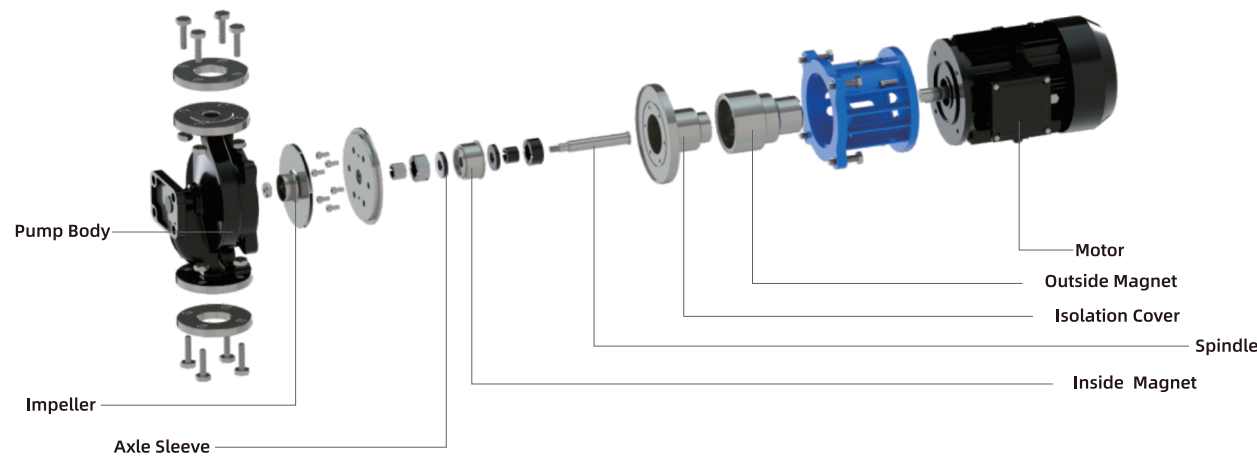
Features

- ◆ Application Area: High temperature mold temperature control high and low temperature test equipment chemical equipment template temperature control, high-end cleaning equipment, high-end printing and dyeing equipment, TCU temperature control system, high temperature condensate water recovery, etc.
- ◆ Circulation Medium: water, ethylene glycol, alcohol, heat transfer oil, hydrocarbon solution, silicone oil, glacial refrigerant, gasoline, dye, chemical solution and other liquids without particles and fibers.

Model Description

QLL32 - 1 - 5 - S4 - V38 - A - F - G - A - B - S
 ① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ ⑩ ⑪ ⑫

- ① Model No.: QLL
- ② Inlet And Outlet Caliber: 32-32mm; 40-40mm; 50-50mm; 65-65mm; 80-80mm
- ③ Power: 1-1HP; 2-2HP; 3-3HP; 4-4HP; 5-5HP; 6-6HP; 7.5-7.5 HP; 10-10HP; 15-15HP; 20-20HP; 25-25HP; 30-30HP
- ④ Frequency: 5-50HZ; 6-60HZ
- ⑤ Material Of Pump Head: S4-SUS304 S6-SUS316
- ⑥ Voltage: V38-3Ø/380V; V41-3Ø/415V; V44-3Ø/440V; V48-3Ø/480V; V66-3Ø/660V; V32-3Ø/220V; V22-1Ø/220V
- ⑦ Specific Gravity Of Liquid: A-1. 0-1.2; B-1. 3; C-1. 4; D-1. 5; E-1. 6; F-1. 7; G-1. 8; H-1. 9; I-2.0
- ⑧ Inlet And Outlet Form: F-welded flange; T- Female thread
- ⑨ Motor Brand: G-Kingdom; W-Guangwei; Q-Other
- ⑩ Motor Requirements: A-IE3 Normal Motor; B-IE4 Normal Motor; C-IE5 Normal Motor; D-Variable Frequency Motor; E-IE3, BT4 Ex-Proof Motor; F-IE4, BT4 Ex-Proof Motor; G-IE5, BT4 Ex-Proof Motor; H-IE3, CT4 Ex-Proof Motor; I-IE4, CT4 Ex-Proof Motor; J-IE5, CT4 Ex-Proof Motor; K-Permanent magnet variable frequency motor; L-BT4 Ex-Proof Variable Frequency Motor; M-CT4 Ex-Proof Variable Frequency Motor
- ⑪ Motor Protection Level: A-IP54; B-IP55; C-IP56; D-IP65
- ⑫ S-Standard; N-Non-Standard



Working Condition

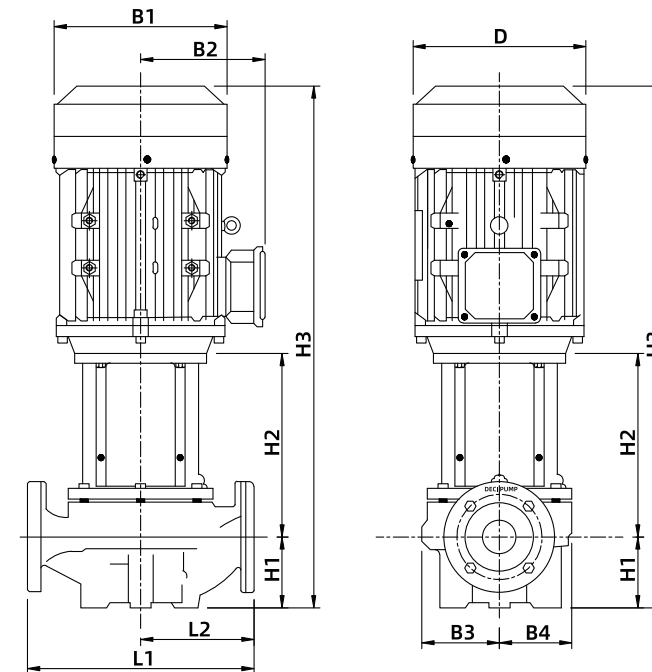
Medium Temperature	Medium Density	Working Temperature	Max Elevation	Max Working Pressure
-196°C ~ +420°C	0.6 ~ 2	-5°C ~ +70°C	5000m	20bar

Technical Parameter

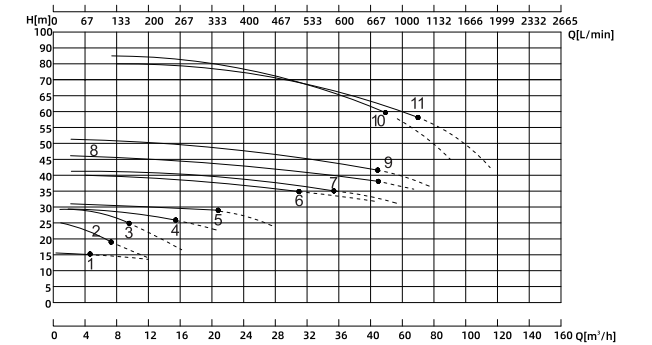
Model	Diameter		Motor				Performance Parameter				Pump Weight (Kg)	Curve Code	
	Inlet	Outlet	Power (KW)	(Hp)	Voltage (V)	Frequency (Hz)	Speed (r/min)	50HZ		60HZ			
								Max./ Rated Head(m)	Max./ Rated Capacity(m³/h)	Max./ Rated Head(m)			Max./ Rated Capacity(m³/h)
QLL32-1	DN32	DN32	0.75	1	3ø-380	50	2900	16/14	12/4.5	18.4/16.1	13.8/5.2	40	1
QLL32-2	DN32	DN32	1.5	2	3ø-380	50	2900	25/18	18/6	28.8/20.7	20.7/6.9	43	2
QLL40-3	DN40	DN40	2.2	3	3ø-380	50	2900	28/25	24/9.5	32.2/28.8	27.6/10.9	48	3
QLL50-4	DN50	DN50	3	4	3ø-380	50	2900	28/26	30/15	32.2/29.9	34.5/17.3	60	4
QLL40-5	DN40	DN40	4	5	3ø-380	50	2900	32/28	40/22	36.8/32.2	46.0/25.3	71	5
QLL50-7.5	DN50	DN50	5.5	7.5	3ø-380	50	2900	40/35	80/30	46/40.3	92.0/34.5	90	6
QLL40-10	DN40	DN40	7.5	10	3ø-380	50	2900	42/35	90/35	48.3/40.3	103.5/40.3	104	7
QLL65-15	DN65	DN65	11	15	3ø-380	50	2900	46/38	120/42	52.9/43.7	138.0/48.3	160	8
QLL80-20	DN80	DN80	15	20	3ø-380	50	2900	52/42	140/42	59.8/48.3	161.0/48.3	175	9
QLL80-25	DN80	DN80	18.5	25	3ø-380	50	2900	85/60	150/50	97.8/69	172.5/57.5	221	10
QLL80-30	DN80	DN80	22	30	3ø-380	50	2900	80/58	165/70	92/66.7	189.8/80.5	238	11

The above performance parameters correspond to the normal-speed transportation of water at 20°C, and the performance errors are ± 10%. The performance of the pump varies with the specific gravity and density of the transported fluid medium.

Installation Drawing



Characteristic Curve



50Hz

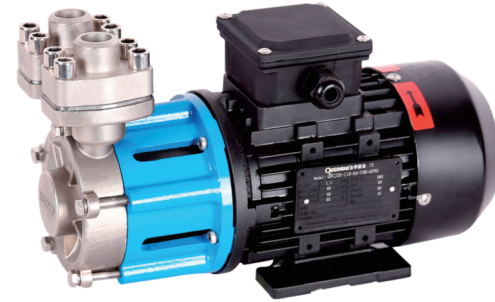
Installation Size

Model	L1	L2	H1	H2	H3	B1	B2	D	B3	B4
QLL32-1	260	130	72	180	500	150	115	150	100	100
QLL32-2	260	130	72	180	534	171	137	173	100	100
QLL40-3	320	160	90	200	561	171	137	140	105	95
QLL50-4	320	160	105	230	645	196	150	160	115	100
QLL40-5	320	160	105	230	655	215	170	160	118	110
QLL50-7.5	320	160	105	230	741	257	187	253	133	110
QLL40-10	430	215	125	300	730	257	260	253	171	128
QLL65-15	430	215	125	300	905	315	388	350	171	163
QLL80-20	430	215	125	300	905	315	388	350	173	165
QLL80-25	480	240	135	300	905	315	388	350	173	165
QLL80-30	480	240	135	300	905	315	388	350	173	165

Unit: mm

QWC Series

High head stainless steel magnetic pump



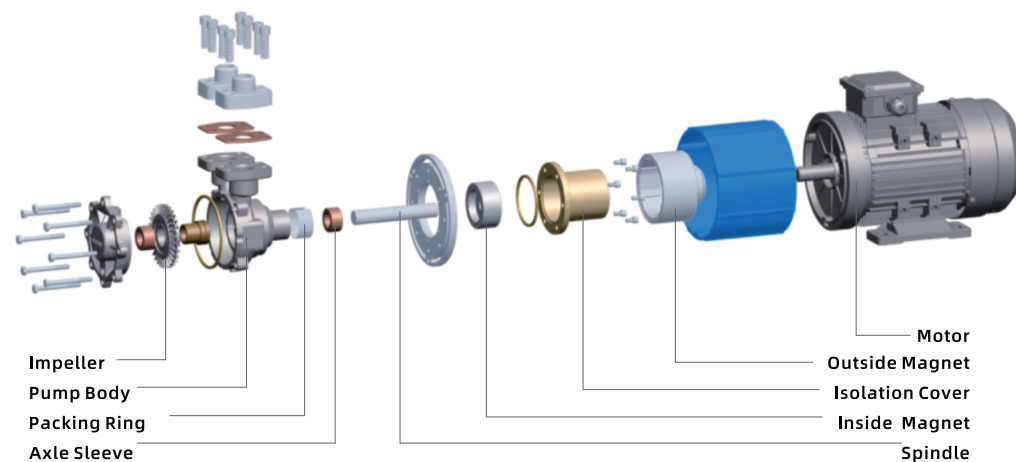
Features

- ◆ Application Area: High temperature mold temperature control high and low temperature test equipment chemical equipment template temperature control, high-end cleaning equipment, high-end printing and dyeing equipment, TCU temperature control system, high temperature condensate water recovery, etc.
- ◆ Circulation Medium: water, ethylene glycol, alcohol, heat transfer oil, hydrocarbon solution, silicone oil, glacial refrigerant, gasoline, dye, chemical solution and other liquids without particles and fibers.

Model Description

QWC25 - 17 - 5 - S4 - V38 - A - F - G - A - B - S
 ① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ ⑩ ⑪ ⑫

- ① Model No.: QWC
- ② Inlet And Outlet Caliber: 15-15 mm; 20-20mm; 25-25mm; 32-32mm
- ③ Power: 018-0.18KW; 025-0.25KW; 037-0.37KW; 05-0.5KW; 075-0.75KW; 11-1.1KW; 17-1.7KW; 25-2.5KW; 30-3.0KW; 40-4.0KW
- ④ Frequency: 5-50HZ; 6-60HZ
- ⑤ Material Of Pump Head: S4-SUS304 S6-SUS316
- ⑥ Voltage: V38-3 ϕ /380V; V41-3 ϕ /415V; V 44-3 ϕ /440V; V 48-3 ϕ /480v; V66-3 ϕ /660V; V32-3 ϕ /220V; V22-1 ϕ /220V
- ⑦ Specific Gravity Of Liquid: A-1. 0-1.2; B-1. 3; C-1. 4; D-1. 5; E-1. 6; F-1. 7; G-1. 8; H-1. 9; I-2. 0
- ⑧ Inlet And Outlet Form: F-welded flange; T- Female thread
- ⑨ Motor Brand: G-Kingdom; W-Guangwei; Q-Other
- ⑩ Motor Requirements: A-IE3 Normal Motor; B-IE4 Normal Motor; C-IE5 Normal Motor; D-Variable Frequency Motor; E-IE3, BT4 Ex-Proof Motor; F-IE4, BT4 Ex-Proof Motor; G-IE5, BT4 Ex-Proof Motor; H-IE3, CT4 Ex-Proof Motor; I-IE4, CT4 Ex-Proof Motor; J-IE5, CT4 Ex-Proof Motor; K-Permanent magnet variable frequency motor; L-BT4 Ex-Proof Variable Frequency Motor; M-CT4 Ex-Proof Variable Frequency Motor
- ⑪ Motor Protection Level: A-IP54; B-IP55; C-IP56; D-IP65
- ⑫ S-Standard; N-Non-Standard



Working Condition

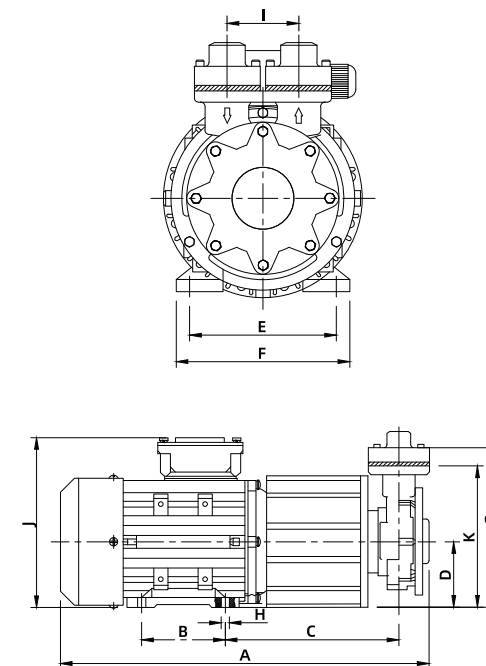
Medium Temperature	Medium Density	Working Temperature	Max Elevation	Max Working Pressure
-196°C ~ +420°C	0.6 ~ 2	-5°C ~ +70°C	5000m	40bar

Technical Parameter

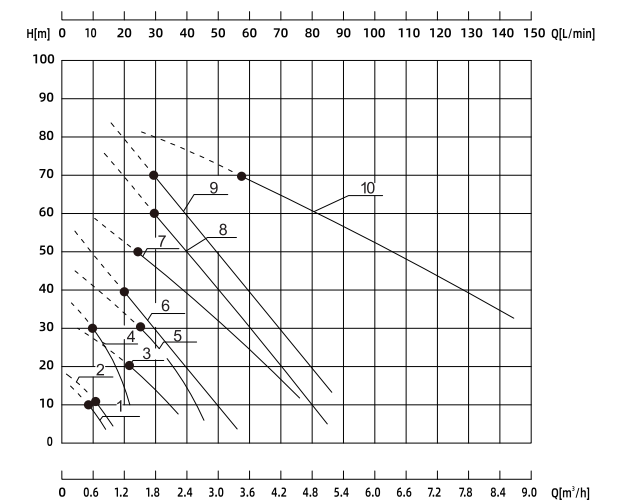
Model	Diameter		Motor					Performance Parameter				Pump Weight (Kg)	Curve Code
	Inlet	Outlet	Power (KW)	(Hp)	Voltage (V)	Frequency (Hz)	Speed (r/min)	50HZ		60HZ			
								Max./ Rated Head(m)	Max./ Rated Capacity(m ³ /h)	Max./ Rated Head(m)	Max./ Rated Capacity(m ³ /h)		
QWC15-018	DN15	DN15	0.18	0.24	3 ϕ -380	50	2760	15/10	15/8	17.3/11.5	17.3/9.2	7.5	1
QWC15-025	DN15	DN15	0.25	0.33	3 ϕ -380	50	2760	20/12	15/11	23.0/13.8	17.3/12.7	9	2
QWC15-037	DN15	DN15	0.37	0.5	3 ϕ -380	50	2760	30/20	30/21	34.5/23.0	34.5/24.2	9.5	3
QWC15-05	DN15	DN15	0.5	0.7	3 ϕ -380	50	2760	40/30	38/25	46.0/34.5	43.7/28.8	10	4
QWC20-075	DN20	DN20	0.75	1	3 ϕ -380	50	2760	45/30	45/30	51.8/34.5	51.8/34.5	10	5
QWC20-11	DN20	DN20	1.1	1.5	3 ϕ -380	50	2760	60/40	60/40	69.0/46.0	69.0/46.0	17	6
QWC25-17	DN25	DN25	1.7	2.3	3 ϕ -380	50	2760	65/50	90/50	74.8/57.5	103.5/57.5	22	7
QWC25-25	DN25	DN25	2.5	3.3	3 ϕ -380	50	2760	90/60	95/70	103.5/69.0	109.3/80.5	26	8
QWC25-30	DN25	DN25	3	4	3 ϕ -380	50	2900	100/70	110/100	115.0/80.5	126.5/115.0	35	9
QWC32-40	DN32	DN32	4	5	3 ϕ -380	50	2900	90/70	200/120	103.5/80.5	230.0/138.0	55	10

The above performance parameters correspond to the normal-speed transportation of water at 20°C, and the performance errors are $\pm 10\%$. The performance of the pump varies with the specific gravity and density of the transported fluid medium.

Installation Drawing



Characteristic Curve



Installation Size

Unit: mm

Model	A	B	C	D	E	F	G	H	I	J	K
QWC15-018	280	71	115	56	90	112	153	4- ϕ 8	35	137	117
QWC15-025	320	80	120	63	100	125	160	4- ϕ 8	35	169	124
QWC15-037	320	80	120	63	100	125	160	4- ϕ 8	35	169	124
QWC15-05	323	80	135	63	100	125	160	4- ϕ 8	35	169	124
QWC20-075	379	90	178	71	112	132	190	4- ϕ 8	55	183	153
QWC20-11	390	90	178	71	112	132	190	4- ϕ 8	55	183	153
QWC25-17	410	100	180	80	125	153	195	4- ϕ 10	55	205	163
QWC25-25	485	125	185	90	140	175	205	4- ϕ 10	55	215	171
QWC25-30	556	70	80	100	100	130	240	4- ϕ 12	60	235	200
QWC32-40	647	107	82	103	100	130	247	4- ϕ 12	60	248	203

QWH Series

High head self-priming stainless steel magnetic pump



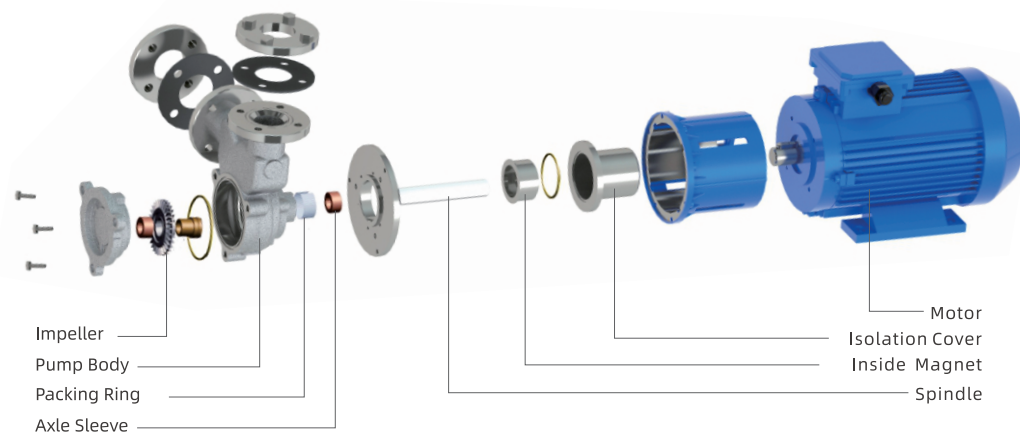
Features

- ◆ Application Area: High temperature mold temperature control high and low temperature test equipment chemical equipment template temperature control, high-end cleaning equipment, high-end printing and dyeing equipment, TCU temperature control system, high temperature condensate water recovery, etc.
- ◆ Circulation Medium: water, ethylene glycol, alcohol, heat transfer oil, hydrocarbon solution, silicone oil, glacial refrigerant, gasoline, dye, chemical solution and other liquids without particles and fibers.

Model Description

QWH25 - 20 - 1 - 5 - S4 - V38 - A - F - G - A - B - S
 ① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ ⑩ ⑪ ⑫ ⑬

- ① Model No.: QWH
- ② Inlet Caliber: 20-20mm; 25-25mm; 40-40mm; 50-50mm
- ③ Outlet Caliber: 15-15mm; 20-20mm; 32-32mm; 40-40mm
- ④ Power: 0.7-0.7 HP; 1-1HP; T5-1.5HP; 2-2HP; 3-3HP; 4-4HP; 5-5HP; 7.5-7.5 HP; 10-10HP
- ⑤ Frequency: 5-50HZ; 6-60HZ
- ⑥ Material Of Pump Head: S4-SUS304 S6-SUS316
- ⑦ Voltage: V38-3Ø/380V; V41-3Ø/415V; V44-3Ø/440V; V48-3Ø/480V; V66-3Ø/660V; V32-3Ø/220V; V22-1Ø/220V
- ⑧ Specific Gravity Of Liquid: A-1. 0-1.2; B-1. 3; C-1. 4; D-1. 5; E-1. 6; F-1. 7; G-1. 8; H-1. 9; I-2. 0
- ⑨ Inlet And Outlet Form: F-welded flange; T- Female thread
- ⑩ Motor Brand: G-Kingdom; W-Guangwei; Q-Other
- ⑪ Motor Requirements: A-IE3 Normal Motor; B-IE4 Normal Motor; C-IE5 Normal Motor; D-Variable Frequency Motor; E-IE3, BT4 Ex-Proof Motor; F-IE4, BT4 Ex-Proof Motor; G-IE5, BT4 Ex-Proof Motor; H-IE3, CT4 Ex-Proof Motor; I-IE4, CT4 Ex-Proof Motor; J-IE5, CT4 Ex-Proof Motor; K-Permanent magnet variable frequency motor; L-BT4 Ex-Proof Variable Frequency Motor
- ⑫ Motor Protection Level: A-IP54; B-IP55; C-IP56; D-IP65
- ⑬ S-Standard; N-Non-Standard



Working Condition

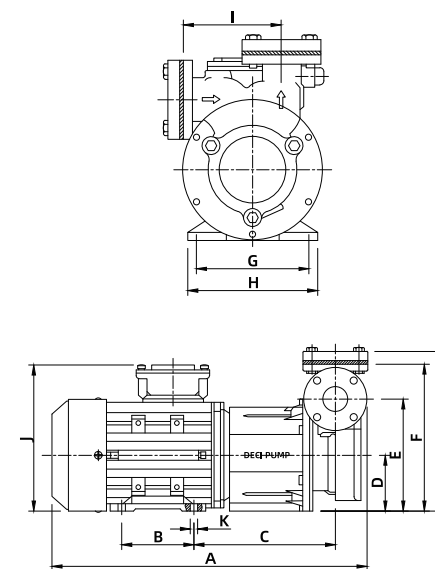
Medium Temperature	Medium Density	Working Temperature	Max Elevation	Max Working Pressure
-196°C ~ +420°C	0.6 ~ 2	-5°C ~ +70°C	5000m	30bar

Technical Parameter

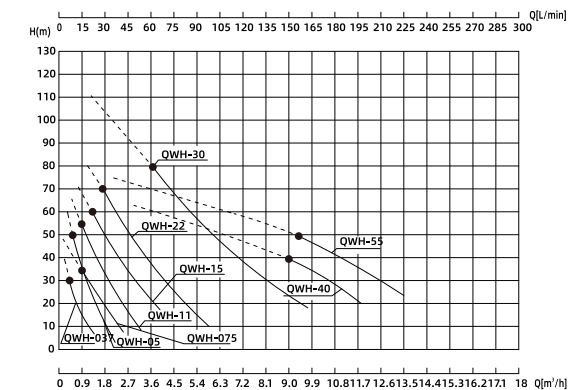
Model	Diameter		Motor					Performance Parameter				Pump Weight (Kg)
	Inlet	Outlet	Power (KW)	(Hp)	Voltage (V)	Frequency (Hz)	Speed (r/min)	50HZ		60HZ		
								Max. Rated Head (m)	Max. Rated Capacity (m³/h)	Max. Rated Head (m)	Max. Rated Capacity (m³/h)	
QWH20-15-07	Dn20	Dn15	0.5	0.7	3Φ-380	50	2760	80/50	45/2.7	57.5/34.5	40.3/28.8	12
QWH25-20-1	DN25	DN20	0.75	1	3Φ-380	50	2760	60/37.5	50/3	92.0/57.5	51.8/40.3	16
QWH25-20-1.5	DN25	DN20	1.1	1.5	3Φ-380	50	2760	80/50	65/3.9	69.0/34.5	57.5/43.7	18.5
QWH40-32-2	DN40	DN32	1.5	2	3Φ-380	50	2760	90/56	90/5.4	92.0/63.3	74.8/57.5	26
QWH40-32-3	DN40	DN32	2.2	3	3Φ-380	50	2760	100/62.5	120/7.2	103.5/69.0	103.5/74.8	29
QWH40-32-4	DN40	DN32	3	4	3Φ-380	50	2760	120/75	160/9.6	115.0/80.5	138.0/115.0	37
QWH50-40-5	DN50	DN40	4	5	3Φ-380	50	2900	65/40	195/11.7	138.0/92.0	184.0/155.3	67
QWH50-40-7.5	DN50	DN40	5.5	7.5	3Φ-380	50	2900	80/50	225/13.5	74.8/46.0	224.3/195.5	69
QWH50-40-10	DN50	DN40	7.5	10	3Φ-380	50	2900	95/60	248/14.9	92.0/57.5	258.8/230.0	75

The above performance parameters correspond to the normal-speed transportation of water at 20°C, and the performance errors are ± 10%. The performance of the pump varies with the specific gravity and density of the transported fluid medium.

Installation Drawing



Characteristic Curve



50Hz

Installation Size

Unit: mm

Model	A	B	C	D	E	F	G	H	I	J	K	L
QWH20-15-07	340	80	143	63	128	170	100	120	86	169	4-Φ8	183
QWH25-20-1	340	80	143	63	128	170	100	120	86	169	4-Φ8	183
QWH25-20-1.5	384	90	177	71	142	187	112	132	98	183	4-Φ8	202
QWH40-32-2	395	90	177	71	142	187	112	132	98	183	4-Φ8	202
QWH40-32-3	450	100	190	80	161	213	125	153	112	205	4-Φ10	228
QWH40-32-4	503	105	196	90	171	223	140	180	112	225	4-Φ10	238
QWH50-40-5	570	70	80	100	185	244	100	130	125	235	4-Φ12	259
QWH50-40-7.5	654	380	34.5	171	271.5	340	300	330	137	320	4-Φ14	352
QWH50-40-10	654	380	34.5	171	271.5	340	300	330	137	320	4-Φ14	352

After -Sales Service

■ If the user chooses the model correctly and has quality problems within the specified use time, the company is responsible for the three guarantees.

■ Three Guarantees Principle

Thinking that repair is the main thing, repair what can be repaired, replace what cannot be repaired and return if not replaced.

■ Three Guarantees Range

Due to the delivery, the pump is damaged (such as big noisy, not running). The voltage, frequency and leading wire way are right, but the pump is hard to drive. The guarantee period is one year.

■ The following situations are not covered by warranty

- ◆ If problems are caused by inappropriate installations or operations.
- ◆ If the problems are caused by exceeding the using range.
- ◆ If the problems are caused by the wrong wire connection or abnormal electric power, the switch being damaged or lack of phase, the pump's motor will be damaged.
- ◆ The impeller and sealing will be damaged by the hard substance getting into the pump's body.
- ◆ The sealing will be damaged by the idle running.
- ◆ The pump's body, impeller and shaft will be damaged by the corrosive medium.

Fault cause and solution

Fault phenomenon	Possible reason	Solution
Be not bibulous	<ul style="list-style-type: none"> - There in no enough water enter into the pump - Input pipe air leakage or bottom valve water leakage - There is air in pipe 	<ul style="list-style-type: none"> - Open the air plug, fill water, excluding air in the pump, and then close the air lock - Checking the connection parts .sealing again and repairing the bottom valve - Correct installing
Pressure gauge reaches a predetermined pressure, but water is shortage	<ul style="list-style-type: none"> - Resistance of water outlet is loss much - The output height is more than pump capacity 	<ul style="list-style-type: none"> - horted water outlet pipe or expending the diameter of the pipe - Choose the new suitable pump
Less water	<ul style="list-style-type: none"> - The air enter into the pump - The radial clearance in impeller month is large, the water flow back the pump - Bottom valve and pipe is blocked - The rate speed lower cases by the low voltage 	<ul style="list-style-type: none"> - Checking the leak place and seal it well - Changing impeller - Stop machine and check - Stable voltage power
Vibration or noisy	<ul style="list-style-type: none"> - Unite do not fasten well - Suction pipe leaking or socked depth is not enough, which make the air enter the pump - Impeller produce NPSH - Deviating from the real working condition 	<ul style="list-style-type: none"> - Fasten the pump well - Plug the leak place or lengthen depth of the suction pipe - Installing height or enlarge the pipe's diameter or increase the input pressure and change the impeller - Adjusting the high efficiency (rated point)to run .avoiding the pump running under high flow rate condition
Motor heating	<ul style="list-style-type: none"> - Environment temperature is high, Motor heatdissipationis bad - Motor is overload - Voltage is much higjer or lower or faulty phase - The water enter the motor 	<ul style="list-style-type: none"> - Improve the working environment of the pump, checking the fan is well or not, Ventilation is clogging or not. - Pump is stocked,stopit andcheck; Bearingis damaged,change the new bearing pump works under mass flow condition, adjust the pump's rated Point and high efficiency area to run - Checking the Electrical components, make the Voltage is stable - Disassemble the pump, drying it, prevent the water enter the motor
Water leakage	<ul style="list-style-type: none"> - Sealing is damaged 	<ul style="list-style-type: none"> - Changing the sealing (shaft seal or O ring)