

Pump Model: **K4VB****Physical Data:**

Discharge Size	ANSI 4" Horizontal
Solids Size	3-3/16"
Impeller Type	Balanced, Enclosed, 2 Vane
Power/Control Cable Length	40' Standard
Paint	Blue, Water Reducible Enamel, One Coat, Air Dried – Standard

Motor Construction:

Motor Type	Enclosed Submersible Oil Filled
NEMA Insulation Code	Class H
Service Factor	1.2
NEMA Design Type	B (3Ø)
Motor Protection	Thermal Sensors Embedded in the Windings
Maximum Stator Temperature	311°F (155°C)
Power Cord Type	SOOW - 600V, 90° C; Type W - 2000V, 90° C
Control Cord Type	16-4 or 18-5 - SOOW - 600V, 90° C

Materials of Construction:

Cord Entry	Cast Iron, ASTM A48, Class 35
Motor Housing	Cast Iron, ASTM A48, Class 35
Bearing Housing	Cast Iron, ASTM A48, Class 35
Volute	Cast Iron, ASTM A48, Class 35
Wear Ring	Bronze, CDA 836
Impeller	Ductile Iron, ASTM A536, 60-40-18
Shaft	ANSI 400 Stainless Steel
Inboard Mechanical Seal	Silicone Carbide / Silicone Carbide
Outboard Mechanical Seal	Silicone Carbide / Silicone Carbide
Fasteners	ANSI 18-8 Stainless Steel
O-Rings	Nitrile Rubber
Upper Bearing	Conrad Style Single Row Deep Groove Ball Bearing
Lower Bearing	Single Row Angular Contact Ball Bearing
Labyrinth Seal	Bronze, CDA 836



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Dated MAY 2013

Pump Model: **K4VB – 870 RPM**

Thermal Data:

Maximum Liquid	140° F (60° C) Intermittent
Maximum Stator	311° F (155° C)
Heat Sensor	Open: 257° F (125° C) Max. / 239° F (115° C) Min.
	Closed: 194° F (90° C) Max. / 119° F (48° C) Min.
Oil Flash Point	390° F (199° C)

Electrical Data:

RPM	870			
Electrical Ratings	Heat Sensor	24VDC 5AMPS	115VAC 5AMPS	230VAC 5AMPS
	Seal Fail	300VAC 5mAMPS		
Voltage Tolerance	± 10%			

HP	Voltage	Phase	NEC Code	Service Factor	Full Load AMPS	SF Amps	Locked Rotor AMPS	Run KW	Start KVA	Run KVA
3	208	3	N	1.2	16.9	20.3	97.2	5.5	34.9	6.1
	230				15.2	18.3	87.6			
	460				7.6	9.1	43.8			
	575				6.1	7.3	35.0			
5	208	3	H	1.2	24.3	29.2	97.2	7.9	34.9	8.8
	230				21.9	26.3	87.6			
	460				10.9	13.1	43.8			
	575				8.8	10.5	35.0			
7.5	208	3	G	1.2	30.5	36.6	122.0	9.9	43.9	11.0
	230				27.5	33.0	109.9			
	460				13.7	16.5	55.0			
	575				11.0	13.2	44.0			

Motor Efficiencies & Power Factor

HP	Phase	Motor Efficiency %				Power Factor %			
		Service Factor Load	100% Load	75% Load	50% Load	Service Factor Load	100% Load	75% Load	50% Load
3	3	72	71	70	66	73	71	67	59
5	3	83	80	76	69	74	72	67	60
7.5	3	82	81	77	68	74	71	68	61



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Dated MAY 2013

Pump Model: **K4VB – 1150 RPM**

Thermal Data:

Maximum Liquid	140° F (60° C) Intermittent
Maximum Stator	311° F (155° C)
Heat Sensor	Open: 257° F (125° C) Max. / 239° F (115° C) Min.
	Closed: 194° F (90° C) Max. / 119° F (48° C) Min.
Oil Flash Point	390° F (199° C)

Electrical Data:

RPM	1150			
Electrical Ratings	Heat Sensor	24VDC 5AMPS	115VAC 5AMPS	230VAC 5AMPS
	Seal Fail	300VAC 5mAMPS		
Voltage Tolerance	± 10%			

HP	Voltage	Phase	NEC Code	Service Factor	Full Load AMPS	SF Amps	Locked Rotor AMPS	Run KW	Start KVA	Run KVA
5	208	3	J	1.2	19.6	23.5	100.0	6.4	36.0	7.0
	230				17.7	21.2	90.1			
	460				8.8	10.6	45.0			
	575				7.1	8.5	36.0			
7.5	208	3	K	1.2	27.3	32.8	176.0	8.9	63.3	9.8
	230				24.6	29.5	158.5			
	460				12.3	14.8	79.3			
	575				9.8	11.8	63.4			
10	208	3	G	1.2	34.5	41.4	176.0	11.2	63.3	12.4
	230				31.1	37.3	158.5			
	460				15.5	18.6	79.3			
	575				12.4	14.9	63.4			
15	208	3	K	1.2	48.2	57.8	339.2	15.6	122.5	17.4
	230				43.4	52.1	305.5			
	460				21.7	26.1	152.8			
	575				17.4	20.8	122.2			
20	208	3	G	1.2	66.5	79.8	339.2	21.6	122.5	24.0
	230				59.9	71.9	305.5			
	460				30.0	35.9	152.8			
	575				24.0	28.8	122.2			



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Dated MAY 2013

Pump Model: **K4VB – 1150 RPM**

Motor Efficiencies & Power Factor									
HP	Phase	Motor Efficiency %				Power Factor %			
		Service Factor Load	100% Load	75% Load	50% Load	Service Factor Load	100% Load	75% Load	50% Load
5	3	84	83	79	72	86	83	80	70
7.5	3	85	84	80	73	87	84	82	74
10	3	87	86	81	74	86	84	81	75
15	3	86	85	80	73	88	86	83	78
20	3	87	86	81	74	87	86	82	78



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Dated AUGUST 23

Pump Model: **K4VB – 1750 RPM**

Thermal Data:

Maximum Liquid	140° F (60° C) Intermittent
Maximum Stator	311° F (155° C)
Heat Sensor	Open: 257° F (125° C) Max. / 239° F (115° C) Min.
	Closed: 194° F (90° C) Max. / 119° F (48° C) Min.
Oil Flash Point	390° F (199° C)

Electrical Data:

RPM	1750			
Electrical Ratings	Heat Sensor	24VDC 5AMPS	115VAC 5AMPS	230VAC 5AMPS
	Seal Fail	300VAC 5mAMPS		
Voltage Tolerance	± 10%			

HP	Voltage	Phase	NEC Code	Service Factor	Full Load AMPS	SF Amps	Locked Rotor AMPS	Run KW	Start KVA	Run KVA
15	208	3	H	1.2	53.8	64.6	277.2	16.5	99.7	18.3
	230				48.9	58.7	249.7			
	460				24.5	29.4	124.9			
	575				19.6	23.5	99.9			
20	208	3	E	1.2	69.3	83.2	277.2	22.4	99.7	25.0
	230				62.4	74.9	249.7			
	460				31.2	37.5	124.9			
	575				25.0	30.0	99.9			
25	208	3	G	1.2	78.5	94.2	417.6	25.5	150.3	28.3
	230				70.7	84.9	376.2			
	460				35.4	42.4	188.1			
	575				28.3	33.9	150.5			
30	208	3	F	1.2	104.4	125.3	417.6	33.8	150.3	37.6
	230				94.1	112.9	376.2			
	460				47.0	56.4	188.1			
	575				37.6	45.1	150.5			
40	208	3	E	1.2	135.6	162.7	542.4	43.9	195.1	48.8
	230				122.2	146.6	488.6			
	460				61.1	73.3	244.3			
	575				48.9	58.6	195.5			
50	230	3	D	1.2	135.2	162.3	540.9	48.6	215.8	54.0
	460				67.6	81.1	270.5			
	575				54.1	64.9	216.4			



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Dated AUGUST 23

60	460	3	C	1.0	81.1	81.1	270.5	58.2	215.8	64.6
	575				64.9	64.9	216.4			

Pump Model: **K4VB – 1750 RPM**

HP	Phase	Motor Efficiency %			
		Service Factor Load	100% Load	75% Load	50% Load
15	3	91	91	85.5	77.9
20	3	91	91	85.5	78.1
25	3	92.4	92.4	85.9	78.5
30	3	92.4	92.4	85.9	78.4
40	3	93	93	86.5	79.1
50	3	93	93	87.4	80.1
60	3	93.6	93.6	91.7	88.1