



8" Discharge – 2-Vane Enclosed Impeller

4" Solids Handling

1750 & 1150 & 870 RPM

This section contains the following material:

**1. Pump Family Curves &
Technical Data**

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- K8VK

**2. Individual
Performance Curves**

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- K8VK

3. Dimensional Drawings
Pump
Lift-Out & Base Elbow
Wet Well Installations

-
- K8VK
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8" Solids-Handling Pumps

Model Number Identification Chart

	K	8	VK	50	-	21	M	2	Y
Keen Pump									
Discharge Size:									
6 = 6"									
8 = 8"									
Pump Model									
Horsepower (HP x 10)									
30 = 3 HP									
50 = 5 HP									
75 = 7-1/2 HP									
100 = 10 HP									
150 = 15 HP									
200 = 20 HP									
250 = 25 HP									
300 = 30 HP									
400 = 40 HP									
500 = 50 HP									
Voltage/Phase									
01 = 208/1									
21 = 230/1									
03 = 208/3									
23 = 230/3									
43 = 460/3									
53 = 575/3									
Manual Pump Operation									
Speed									
2 = 3450 RPM									
4 = 1750 RPM									
6 = 1150 RPM									
8 = 870 RPM									
Frequency									
Blank = 60 Hz									
Y = 50 Hz									

Pump Model: **K8VK****Physical Data:**

Discharge Size	ANSI 8" Horizontal
Solids Size	4"
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) L (1Ø)
Single Phase Configuration	External Start and Run Components if Applicable
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



Section ENCLOSED

Dated MAY 2013

Pump Model: **K8VK – 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
15	208	3	K	1.2	54.2	65.0	346.3	17.6	124.5	19.5
	230				48.8	58.6	312.0			
	460				24.4	29.3	156.0			
	575				19.5	23.4	124.8			
20	208	3	G	1.2	67.9	81.5	346.3	22.0	124.5	24.5
	230				61.2	73.4	312.0			
	460				30.6	36.7	156.0			
	575				24.5	29.4	124.8			
25	208	3	H	1.2	82.1	98.5	484.0	26.6	173.9	29.6
	230				74.0	88.8	436.0			
	460				37.0	44.4	218.0			
	575				29.6	35.5	174.4			

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
15	3	84	83	79	72	76	73	70	64
20	3	85	84	80	73	77	74	72	64
25	3	86	84	81	74	76	74	71	65



Section ENCLOSED

Dated MAY 2013

Pump Model: **K8VK – 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
30	208	3	J	1.2	98.3	118.0	651.8	31.9	234.1	35.4
	230				88.6	106.3	587.2			
	460				44.3	53.1	293.6			
	575				35.4	42.5	234.9			
40	208	3	G	1.2	127.8	153.4	651.8	41.4	234.1	45.9
	230				115.1	138.2	587.2			
	460				57.6	69.1	293.6			
	575				46.1	55.3	234.9			
50	208	3	G	1.2	164.8	197.8	840.5	53.3	301.9	59.3
	230				148.5	178.2	575.2			
	460				74.2	89.1	378.6			
	575				59.4	71.3	302.9			
60	460	3	H	1.2	84.5	101.4	507.7	60.6	404.5	67.3
	575				67.6	81.1	406.2			

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
30	3	87	85	79	75	83	82	77	70
40	3	85	84	80	76	84	82	79	74
50	3	83	82	81	77	86	81	81	75
60	3	84	83	80	78	86	84	83	78



Section ENCLOSED

Dated MAY 2013

Pump Model: **K8VK – 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
75	460	3	F	1.2	99.5	119.5	507.7	71.4	404.5	79.3
	575				79.6	95.6	406.2			
100	460	3	F	1.2	132.9	159.5	691.0	95.3	550.5	105.9
	575				106.3	127.6	552.8			
125	460	3	G	1.2	172.1	206.5	962.2	123.4	766.5	137.1
	575				137.7	165.2	769.7			
150	460	3	F	1.2	200.5	240.5	962.2	143.7	766.5	159.7
	575				160.4	192.4	769.7			

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
75	3	84	83	79	72	86	83	80	70
100	3	85	84	80	73	87	84	82	74
125	3	83	82	81	74	86	84	81	75
150	3	84	83	80	73	86	86	83	78