



14" Discharge – 2-Vane Enclosed Impeller

6" Solids Handling

1750 & 1150 & 870 RPM

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This section contains the following material:

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

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- K14VK

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**2. Individual  
Performance Curves**

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- K14VK

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

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- K14VK
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## 14" Solids-Handling Pumps

### Model Number Identification Chart

	K	14	VK	50	-	21	M	2	Y
<b>Keen Pump</b>									
<b>Discharge Size:</b> 14 = 14"									
<b>Pump Model</b>									
<b>Horsepower (HP x 10)</b> 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									
<b>Voltage/Phase</b> 01 = 208/1 21 = 230/1 03 = 208/3 23 = 230/3 43 = 460/3 53 = 575/3									
<b>Manual Pump Operation</b>									
<b>Speed</b> 2 = 3450 RPM 4 = 1750 RPM 6 = 1150 RPM 8 = 870 RPM									
<b>Frequency</b> Blank = 60 Hz Y = 50 Hz									



Pump Model: **K14VK**

**Physical Data:**

<b>Discharge Size</b>	ANSI 14" Horizontal
<b>Solids Size</b>	6"
<b>Impeller Type</b>	Balanced, Enclosed, 2 Vane
<b>Power/Control Cable Length</b>	40' Standard
<b>Paint</b>	Blue, Water Reducible Enamel, One Coat, Air Dried – Standard

**Motor Construction:**

<b>Motor Type</b>	Enclosed Submersible Oil Filled
<b>NEMA Insulation Code</b>	Class H
<b>Service Factor</b>	1.2
<b>NEMA Design Type</b>	B (3Ø) L (1Ø)
<b>Single Phase Configuration</b>	External Start and Run Components if Applicable
<b>Motor Protection</b>	Thermal Sensors Embedded in the Windings
<b>Maximum Stator Temperature</b>	311°F (155°C)
<b>Power Cord Type</b>	SOOW - 600V, 90° C; Type W - 2000V, 90° C
<b>Control Cord Type</b>	16-4 or 18-5 - SOOW - 600V, 90° C

**Materials of Construction:**

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



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Dated MAR 2015

Pump Model: **K14VK – 870 RPM**

**Thermal Data:**

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

**Electrical Data:**

<b>RPM</b>					<b>870</b>						
<b>Electrical Ratings</b>					Heat Sensor	24VDC 5AMPS	115VAC 5AMPS	230VAC 5AMPS			
					Seal Fail	300VAC 5mAMPS					
<b>Voltage Tolerance</b>					± 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				
30	208	3	G	1.2	94.9	113.9	484.0	30.8	173.9	34.2	
	230				85.5	102.6	436.0				
	460				42.7	51.3	218.0				
	575				34.2	41.0	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
30	3	87	86	85	81	79	78	73	67



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Dated MAR 2015

Pump Model: **K14VK – 1150 RPM**

**Thermal Data:**

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

**Electrical Data:**

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

HP	Voltage	Phase	NEC Code	Service Factor	Full Load AMPS	SF Amps	Locked Rotor AMPS	Run KW	Start KVA	Run KVA
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			
75	460	3	F	1.2	99.5	119.5	507.7	71.4	404.5	79.4
	575				79.6	95.6	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
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
75	3	84	83	80	73	86	86	83	78



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Dated MAR 2015

Pump Model: **K14VK – 1750 RPM**

**Thermal Data:**

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

**Electrical Data:**

<b>RPM</b>	<b>1750</b>			
<b>Electrical Ratings</b>	Heat Sensor	24VDC 5AMPS	115VAC 5AMPS	230VAC 5AMPS
	Seal Fail	300VAC 5mAMPS		
<b>Voltage Tolerance</b>	± 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