

# PENTEK® XE-6 6" SUBMERSIBLE MOTORS

**LOWER OPERATING COSTS\* —  
LOWER AMPS, LOWER WATTS,  
HIGHER EFFICIENCIES**

**THREE LAYERS OF DEFENSE AGAINST  
SAND AND DEBRIS INTRUSION**



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\*SOURCES: Table 8 "Characteristics of Irrigation Wells Used on Farms: 2013" - 2013 Farm and Ranch Irrigation Survey, (from the 2012 Census of Agriculture) United States Department of Agriculture (USDA) National Agricultural Statistics Service (NASS); Table 5.6.A. "Average Retail Price of Electricity to Ultimate Customer by End-Use Sector"; Electric Power Monthly, United States Electric Information Administration (U.S. EIA) data from May 2015; competitors' published data; Pentek XE-6 data tested and published in Pentek XE-6 Owner's Manual PN989 (Rev. 10/01/15).  
Based on the motor's watts at full service factor; average hours of operation for irrigation wells used on farms; average retail price of electricity for farms

# PENTEK® XE-6 6" SUBMERSIBLE MOTORS

For high-thrust water well applications; encapsulated design

Delivers outstanding performance through lower amp draw and higher efficiencies, which yields lower operating costs. Combined with many durable, innovative, and advanced design features, the Pentek XE-6 is the perfect solution for your submersible motor needs.

- Exceptional insulation rating (Class F) and temperature rating (95 F / 35 C)
- IP68 protection rating
- VFD-compatible
- Vertical or Horizontal operation



**Shaft – 17-4 stainless steel**

- High strength / high corrosion resistance
- Outstanding mechanical properties at high temps
- NEMA splined - spline detail includes chamfered edges for easier assembly to the pump

**Motor casing – 304 stainless steel**

- The most versatile and widely-used stainless steel
- Excellent forming and welding characteristics
- Excellent corrosion resistance

**Upper and lower bracket**

- Epoxy-coated cast iron – coating is TNEMEC 140, an NSF-certified coating

**Upper bracket – “dual-flange” design**

- Faster and easier assembly to the pump

**Motor Lead – XLPE (not shown)**

- 17’ – potted connection, including ground wire
- Non-jacketed wire assembly for easier handling and connections
- Fully field replaceable

**Thrust bearing**

- Water-lubricated, Kingsbury-type
- Thrust ratings are between 3% and 35% **better** than leading 6” submersible motors



**Pressure equalizing diaphragm**

- Utilizes static pressure to regulate internal pressure, and minimize expansion pressure
- Spring-less design – less parts, less complexity

## EXCLUSIVE ADVANCED PROTECTION SYSTEM

Provides **THREE** layers of defense against sand and debris intrusion



**1) External sand slinger boot**

- Features a labyrinth seal design to better capture any sand or debris, keeping it away from the shaft

**2) Lip seal**

- Located below the sand slinger, providing an extra layer of protection

**3) Mechanical seal – silicon carbide**

- Excellent abrasion, wear, and corrosion resistance
- Resists deflection in high-pressure, high-heat, and high-speed conditions
- High thermal conductivity (heat dissipation)
- Provides superior protection against sand intrusion

# Motor Performance and Dimensional Data

Nominal Diameter - 6" / 152.4mm  
 Effective Diameter - 5.43" / 138mm  
 60Hz • 2 POLE • 3450 RPM  
 CLASS F INSULATION  
 Shaft Extension - 2.87" / 73mm

PHASE	MODEL #	HP	KW	VOLTS	FULL LOAD				SERVICE FACTOR 1.15				LOCKED ROTOR AMPS	THRUST LOAD (LBS)	KVA CODE	LENGTH (includes shaft ext)		WEIGHT		CRATE						WEIGHT MOTOR+CRATE																
					AMPS	WATTS	EFF %	PF %	AMPS	WATTS	EFF %	PF %				IN	MM	LBS	KG	L		W		H		LBS	KG															
																IN	MM	IN	MM	IN	MM	IN	MM	IN	MM																	
1	P60A0050A2	5	3.70	230	22.8	4975	74.5	97.0	26.0	5625	75.5	97.0	104	E	25.6	650	104	47.2	32	813	10	254	13.5	343	134	60.8																
	P60A0075A2	7.5	5.60		35.2	7300	77.0	92.0	40.0	8300	77.5	92.5	162		28.1	714	117	53.1							151	68.5																
	P60A0100A2	10	7.50		45.7	9700	76.5	94.0	52.4	11175	76.5	94.0	202		30.3	770	132	59.9							48	1219	10	254	13.5	343	166	75.3										
	P60A0150A2	15	11.20		62.4	13725	81.5	98.0	72.5	15825	81.5	98.0	296		32.8	833	144	65.3							178	80.7																
2	P60A0050A8	5	3.7	200-208	16.1	4830	77.5	86.5	18.0	5490	78.5	88.0	96	H	23.0	583	87	39.5	32	813	10	254	13.5	343	115	52.2																
	P60A0075A8	7.5	5.5		23.3	7000	80.0	87.5	26.8	8070	80.0	88.5	140		24.3	618	97	44.0							127	57.6																
	P60A0100A8	10	7.5		31.5	9090	82.5	86.5	35.0	10400	82.5	88.0	187		25.6	650	104	47.2							134	60.8																
	P60A0150A8	15	11		44.9	13440	83.5	87.0	50.8	15460	83.5	88.5	268		28.1	713	117	53.1							151	68.5																
	P60A0200A8	20	15		59.0	17850	83.0	87.5	67.1	20630	83.0	89.0	354		30.3	770	132	59.9							48	1219	10	254	13.5	343	166	75.3										
	P60A0250A8	25	19		76.8	22110	84.0	85.5	86.5	25520	84.0	87.5	445		32.8	834	144	65.3							180	81.6																
	P60A0300A8	30	22		91.7	26420	84.5	86.0	103.3	30450	84.5	87.5	530		35.6	904	165	74.8							207	93.9																
	P60A0050A3	5	3.7		230	14.4	4830	77.5	86.5	16.1	5490	78.5	88.0		87	H	23.0	583							87	39.5	32	813	10	254	13.5	343	115	52.2								
	P60A0075A3	7.5	5.5			21.5	7000	80.0	87.5	24.1	8070	80.0	88.5		127		24.3	618							97	44.0							127	57.6								
	P60A0100A3	10	7.5			28.0	9090	82.5	86.5	31.5	10400	82.5	88.0		164		25.6	650							104	47.2							134	60.8								
	P60A0150A3	15	11			40.9	13440	83.5	87.0	46.3	15460	83.5	88.5		237		28.1	713							117	53.1							151	68.5								
	P60A0200A3	20	15			53.2	17850	83.0	87.5	60.8	20630	83.0	89.0		312		30.3	770							132	59.9							48	1219	10	254	13.5	343	166	75.3		
	P60A0250A3	25	19			66.7	22110	84.0	85.5	76.0	25520	84.0	87.5		387		32.8	834							144	65.3							180	81.6								
	P60A0300A3	30	22			79.3	26420	84.5	86.0	90.2	30450	84.5	87.5		458		35.6	904							165	74.8							207	93.9								
	P60A0050A4	5	3.7			460	7.0	4830	77.5	86.5	8.0	5490	78.5		88.0		44	H							23.0	583							87	39.5	32	813	10	254	13.5	343	115	52.2
	P60A0075A4	7.5	5.5				10.0	7000	80.0	87.5	11.3	8070	80.0		88.5		62								24.3	618							97	44.0							127	57.6
P60A0100A4	10	7.5	13.1	9090			82.5	86.5	14.8	10400	82.5	88.0	82	25.6	650		104		47.2	134	60.8																					
P60A0150A4	15	11	20.4	13440			83.5	87.0	23.0	15460	83.5	88.5	117	28.1	713		117		53.1	151	68.5																					
P60A0200A4	20	15	25.8	17850			83.0	87.5	29.4	20630	83.0	89.0	151	30.3	770		132		59.9	48	1219	10	254	13.5	343	166							75.3									
P60A0250A4	25	19	32.8	22110			84.0	85.5	36.8	25520	84.0	87.5	187	32.8	834		144		65.3	180	81.6																					
P60A0300A4	30	22	39.3	26420			84.5	86.0	44.6	30450	84.5	87.5	226	35.6	904		165		74.8	207	93.9																					
P60A0400A4	40	30	51.3	35030			85.0	87.5	58.6	40500	85.0	89.0	302	G	28.1		713		117	53.1	64	1626	10	254	13.5	343							229	103.9								
P60A0500A4	50	37	65.8	44350			84.0	87.0	75.1	51200	84.0	88.0	385	G	30.3		770		132	59.9	64	1626	10	254	13.5	343							319	144.7								
P60A0050A5	5	3.7	575	5.8	4830		77.5	86.5	6.5	5490	78.5	88.0	35	H	23.0	584	87		39.5	32	813	10	254	13.5	343	115	52.2															
P60A0075A5	7.5	5.5		8.2	7000		80.0	87.5	9.3	8070	80.0	88.5	51		24.3	617	97		44.0							127	57.6															
P60A0100A5	10	7.5		10.5	9090		82.5	86.5	11.8	10400	82.5	88.0	61		25.6	650	104		47.2							134	60.8															
P60A0150A5	15	11		15.0	13440		83.5	87.0	17.1	15460	83.5	88.5	88		28.1	714	117		53.1							151	68.5															
P60A0200A5	20	15		20.9	17850		83.0	87.5	23.7	20630	83.0	89.0	122		30.3	770	132		59.9							48	1219	10	254	13.5	343	166	75.3									
P60A0250A5	25	19		26.2	22110		84.0	85.5	29.7	25520	84.0	87.5	153		32.8	833	144		65.3							180	81.6															
P60A0300A5	30	22		31.0	26420		84.5	86.0	35.0	30450	84.5	87.5	179		35.6	904	165		74.8							207	93.9															
P60A0400A5	40	30		41.5	35030	85.0	87.5	47.3	40500	85.0	89.0	247	G		28.1	714	117	53.1	64							1626	10	254	13.5	343	229	103.9										



# PENTEK® CONTROL BOXES

For PENTEK XE-6 single phase motors

## 14 ga steel enclosure with polyester powder-coated paint

- Heavy-duty construction, high durability and corrosion-resistance

## Continuous hinge door

- Easy access – no need to remove during installation or service
- Opens past 180° for easy access

## Integral mounting flange

- Easy to wall-mount while maintaining NEMA 4 rating

## Multiple knockout (embossed) options

- 2 - dual 1/2" - 3/4"
- 2 - dual 3/4" - 1"
- 2 - dual 1-1/4" - 1- 1/2"

## Seamless, foamed-in-place door gasket

- Excellent protection against intrusion from dirt, dust, rain, sleet, snow or wind-directed water

## Bonding provision on door

- When required by code



**NEMA 4 rated enclosure (compare to competition at only NEMA 3)**

**IP66 Ingress Protection rating**

**Opens with two quarter-turn latches**

- No risk of lost door fasteners, no tools needed

**Locking Hasp**

- Added security

**Size - 16" x 14"**

- Generous size allows for more room to work inside the box
- Easier conduit attachment, wire pulling, and wire connections

**Terminals accept up to 4AWG wire**

**Magnetic line contactors**

- Included standard on each box

**Removable back panel**

- All electric components mounted on panel
- Easy installation and servicing, when downtime is critical

## PENTEK single phase control boxes for PENTEK XE-6 single phase motors 60Hz 2 POLE

PHASE	MODEL #	HP	KW	VOLTS	CONTROL BOX DIMENSIONS						LBS	KG
					HEIGHT		WIDTH		DEPTH			
					IN	MM	IN	MM	IN	MM		
1	PTKX-5SCB	5	3.70	230	14.0	356	12.0	304.8	6.0	152.4	30	13.6
	PTKX-7SCB	7.5	5.60								32	14.5
	PTKX-10SCB	10	7.50								33.2	15.1
	PTKX-15SCB	15	11.20									

### FAST SHIPPING

Available same day from the following Pentair locations:  
Fresno, CA; Grand Island, NE; Delavan, WI; Jacksonville, FL; Lubbock, TX  
Motors not stocked at your nearest facility will be drop shipped from another stocking location

### PRE-PAID FREIGHT

Pre-paid freight to distributor location on one or more motors.  
If motor order is combined with other Pentair products, standard pre-paid freight terms apply.

### WARRANTY

12 months from Date of Installation / 24 months from Date of Manufacture  
For members of the Pro Dealer program, warranty is 24 months from Date of Installation / 36 months from Date of Manufacture



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