



## VARIABLE SPEED PUMP

### Boiler Pump Controlled by Lochinvar Smart System

#### Designed for use with Crest, FTXL and Knight XL Boilers

Lochinvar's variable speed pump integrates seamlessly with the Smart Touch™ and Smart System™ control keeping the boiler temperature rise at a designated temperature. Boiler systems are designed with a specific temperature rise across the boiler. Using a fixed speed pump on a modulating boiler causes the temperature rise to constantly change. Gain more system efficiency utilizing the new variable speed pump with the Crest, FTXL and Knight XL boiler.

The internal control of the boiler sends a 0 – 10 VDC signal to control the pump speed. The pump speed signal is calculated by monitoring the system temperature, boiler modulation rate, inlet temperature and outlet temperature. Each pump has a digital display and operational indication light for simple pump set up and monitoring.



#### Variable Speed Pump Sizing Charts

##### Crest Temperature Rise Applications

Model	20°F			40°F			60°F		
	GPM	FT/HD	Part #	GPM	FT/HD	Part #	GPM	FT/HD	Part #
FB 0751	72	2.9	PUM20078	48*	1.2	PUM20077	N/A	N/A	N/A
FB 1001	96	4.4	PUM20078	48	1.2	PUM20077	N/A	N/A	N/A
FB 1251	120	6.5	PUM20078	60	1.8	PUM20077	40	0.9	PUM20077
FB 1501	144	4.6	PUM20078	72	1.3	PUM20077	48	0.6	PUM20077
FB 1751	168	5.9	PUM20079	84	1.7	PUM20078	56	0.8	PUM20077
FB 2001	192	6.9	PUM20079	96	2	PUM20078	64	1	PUM20077
FB 2500	230	4.6	PUM20079	115	1.4	PUM20078	77	0.7	PUM20077
FB 3000	277	5.6	PUM20079	138	1.7	PUM20078	92	0.8	PUM20078
FB 3500	323	7.5	PUM20080	161	2.2	PUM20078	108	1.1	PUM20078
FB 4000	350*	4.2	PUM20080	186	1.8	PUM20079	124	0.9	PUM20078
FB 5000	350**	4.5	PUM20080	233	0.1	PUM20079	155	0.5	PUM20078

\*21° Temperature Rise. \*\*26° Temperature Rise.

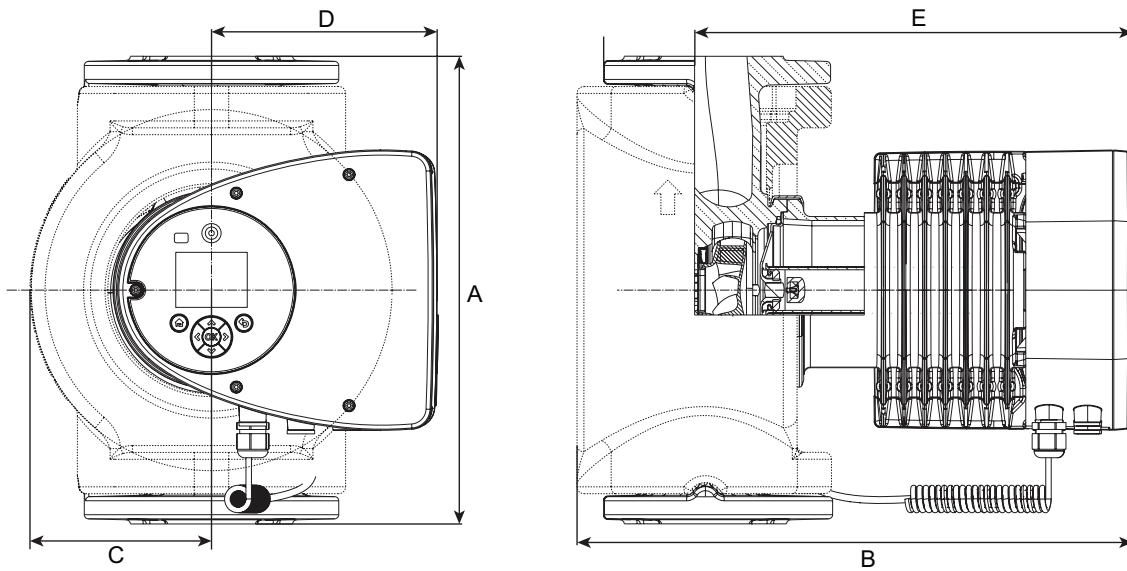
##### FTXL Temperature Rise Applications

Model	20°F			30°F			40°F		
	GPM	FT/HD	Part #	GPM	FT/HD	Part #	GPM	FT/HD	Part #
FTX400	38	3.4	PUM20077	N/A	N/A	N/A	N/A	N/A	N/A
FTX500	48	5.3	PUM20077	32	3.5	PUM20077	N/A	N/A	N/A
FTX600	57	6.7	PUM20077	38	4.8	PUM20077	N/A	N/A	N/A
FTX725	69	5.3	PUM20077	46	3.5	PUM20077	34	2.1	PUM20077
FTX850	81	6.5	PUM20078	55	5	PUM20077	40	2.5	PUM20077

##### Knight XL Temperature Rise Applications

Model	20°F			25°F		
	GPM	FT/HD	Part #	GPM	FT/HD	Part #
KB 400	37	21	PUM20077	30	14	PUM20077
KB 501	46	23	PUM20077	37	16	PUM20078
KB 601	55	31	PUM20077	44	22	PUM20078
KB 701	65	30	PUM20077	52	20	PUM20078
KB 801	74	33	PUM20078	60	23	PUM20078

## Variable Speed Pump Dimensions & Specifications



Model Number	Volt	Max Amps	Pipe Size	A	B	C	D	E
PUM20077	115 VAC	2.5	1-1/2"	8-1/2"	14-3/4"	4-1/4"	6-1/2"	12"
PUM20078	115 VAC	5.6	2"	11"	15-3/4"	5"	6-1/2"	12"
PUM20079	208/230 VAC 1PH	4.6	3"	14-1/4"	17"	6-1/2"	6-1/2"	12-1/2"
PUM20080	208/230 VAC 1PH	7.0	4"	17-3/4"	17-3/4"	7"	6-1/2"	13"

### Standard Features

- Digital Display
- Composite Rotor Can
- 316 L Stainless Steel Shaft
- Composite Impeller
- Cast Iron Housing
- Pump Status Indicator
- Alarm Contacts



Lochinvar, LLC  
 300 Maddox Simpson Parkway  
 Lebanon, Tennessee 37090  
 P: 615.889.8900 / F: 615.547.1000  
[Lochinvar.com](https://www.lochinvar.com)