## HVAC Market

## Plumbing Market

HVAC Systems are also called "closed systems", this is because no fresh water is introduced into the system. Circulating pumps installed in these systems should have cast iron construction. Cast iron pumps have a lower cost and due to no fresh water and oxygen being introduced into the system there is no risk of the pump rusting. Heating season is assumed to be 4,380 hours long.

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		IL Market (Estimate)		
		2013	2014	
	Pumps Sold w/o Timers (non-ECM Motors)	15,791	17,700	
	Non-ECM Pumps w/ Timers	0	0	
	Number of Timers	23	6	
	Number of Aquastats	63	51	
	Number of ECM, Smart Pumps	380	386	
	Total Pumps Sold	15,886	18,083	
	Take Away: Market size is calculated based	on sales, t	his is a	
	VERY conservative estimate.			
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		IL Market Stats				
		2013	2014			
	Pumps Sold w/o Controller:	99.4%	97.9%			
	Pumps Sold w/ Integrated Timer:	0%	0%			
	Smart Pump Market Share:	2.4%	2.1%			
	Pumps Sold w/ External Controller:	0.5%	0.3%			
	Take Away: The vast majority of pumps	s sold have eit	her no	6 t)		
	controlling mechanism or use other (no	n-timer, non-	aquastat)			
	mechanism for operation.					
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	· · · · · · · · · · · · · · · · · · ·	Sold wy Integrated Timler.  Ump Market Share:  2.4% 2.1% Sold w/ External Controller:  0.5% 0.3% way: The vast majority of pumps sold have either no ling mechanism or use other (non-timer, non-aquastat) hism for operation.				
Most Popular Grundfos Pump Sold Into Market						
	Grundfos UPS 15-58 FC Ma	x Watts: 87W				
	P/N: 59896341 kW	h/ Yr: 381 kW	'n			
	Full was a los a los a los a los dare / p					

Estimated Contractor Cost: \$75/ Pump No Control Integrated Controlling Mechanism Induction Type Motor

## Efficient Pump Solution Crossover

Grundfos Alpha 15-55 FC
P/N: 59896877
Estimated Contractor Cost: \$1
Self-Optimizing Ability
Electrically Commutated Moto

Due to self-optimizing ability, pump will typically run at 25W (0.025 kW x 4,380 hours/ year = 109.5 kWh/ year)

Max Watts: 45W



Plumbing Systems are called "open systems", this is due to fresh water being introduced in the system. Circulating pumps installed in these systems should have stainless steel or bronze constructions. These pumps have a higher cost but are necessary as due to the pump construction, the pump will not rust during operation. Running hours per year are assumed to be 8,760 due to no controller being applied.

	<b>↓</b>			
		IL Marke	et (Estimate)	
		2013	2014	
P	umps Sold w/o Timers (non-ECM Motors)	918	882	
P	Ion-ECM Pumps w/ Timers	32	10	
P	lumber of Timers	13	3	
P	lumber of Aquastats	37	30	
P	lumber of ECM, Smart Pumps	270	330	
Т	otal Pumps Sold	967	1,100	
T	ake Away: Market size is calculated base	d on sales,	this is a	
\ ا	/ERY conservative estimate.			
		IL Marke	et Stats	
		2013	2014	
F	Pumps Sold w/o Controller:	95.0%	80.2%	
F	Pumps Sold w/ Integrated Timer:	3.3%	0.9%	
S	mart Pump Market Share:	27.9%	30.0%	
F	Pumps Sold w/ External Controller:	5.4%	3.8%	
ΙI	ake Away: Smart pumps have some mar	ket share, k	out the vast	
r	najority of pumps do not have any contro	, Iling mecha	anism and	
c	lo not utilize electrically commutated mo	tors.		
	•			
	Most Popular Pump Sold Into Market			
	Grundfos UPS 15-35 SFC Max \	Vatts: 110V	v	
	P/N: 59896772 kWh/	Yr: 964 kW	'h	
	Estimated Contractor Cost: \$298.13/ Pu	ump		
	No Control Mechanism			
	Induction Type Motor			
nt Pı	Imp Solution Crossover			
fos C	Comfort PM Auto Max Watts: 8.5W	100		
842(	kWh/ Yr: 9.3 kWh		St.	
ated	Contractor Cost: \$335.78/ Pump			
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cally	Commutated Wotor			
self	-optimizing ability, pump will trypically			



year = 9.3 kWh/ year

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## Efficient Pump Solution Crossover

Grundfos Alpha 15-58 SFC Max Watts: 45W P/N: 59896879 kWh/ Yr: 219 kWh Estimated Contractor Cost: \$327.25/ Pump Self-Optimizing Ability Electrically Commutated Motor Due to self-optimizing ability, pump will typically run at 25W (0.025 kW x 8,760 hours/ year = 219 kWh/ year