QUANTUM™

ETS - Electric Thermal Storage Heating

AUTORYZOWANY PRZEDSTAWICIEL FIRMY DIMPLEX

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Dimplex renewables®

A new concept in electric heating

QUANTUM™

Dimplex, the world's largest manufacturer of electric heating products, is shaping the future of electric heating with the revolutionary Quantum Electric Thermal Storage Heating system; combining state-of-the-art electric heating technology with an economical energy management tool for an efficient way to enjoy high comfort heating using low-cost off-peak electricity.

Complete peace of mind with the world's most advanced electric space heater.

- **Reduced Operating Costs**
- **Greater Comfort**
- **Energy Efficient**
- **Easy to Install**
- **User Friendly Operation**
- **Works in the Coldest Environments**

Minimizes user costs. Maximizes efficiency.

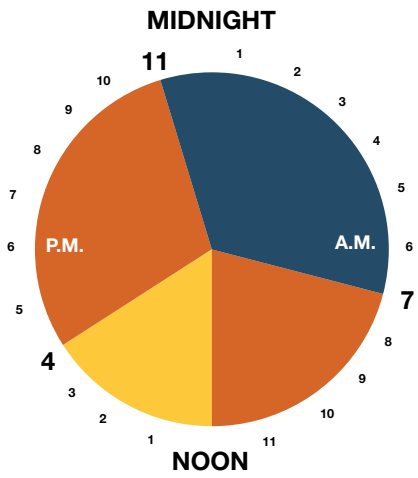
The Quantum ETS heating system is specially designed to work seamlessly with the grid and take advantage of “off-peak” rates, storing energy during these low-demand hours and turning it into efficient heat to be used only when you need it.

Time of Use (TOU) & Off-Peak Rates

Your electric utility charges more during “on-peak” and “mid-peak” hours. This is usually during high-demand hours, when more electricity is being used for businesses and public buildings.

Time of Use Rate Example

- On-Peak (100% of Rate) - 7 AM to 12 PM & 4 PM - 11 PM
- Mid-Peak (80% of Rate) - 12 PM to 4 PM
- Off-Peak (50% of Rate) - 11 PM to 7 AM



The Quantum Advantage

- Cuts your heating costs up to half by using low-cost off-peak electricity for your heating needs
- Uses up to 22% less energy than comparable storage heaters

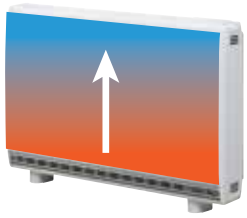
A closer look at Quantum

Through exceptional levels of insulation and sophisticated controls, Quantum interacts with the electrical grid to store energy during periods of low demand, releasing just the right amount of heat into your home to match your lifestyle and the changing climate conditions, intuitively and precisely.

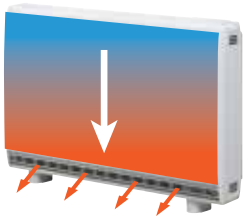
Up to 50 kWh of thermal heat energy is collected and stored within the heater during the times when rates are less expensive.

During the day, when energy rates are more expensive, stored heat is released evenly when you need it into the surrounding area through a thermostatically controlled fan.

Night Time
Off-Peak Rates



Day Time
On-Peak Rates



QSH Series

Single Room Applications (Lower Capacity)

- Designed for single or two heater applications with a maximum heat loss of 1.5kW for each heater
- All controls are built-in to each Quantum series heater to simplify installations with no need for an external charge control panel
- Perfect for single room applications and apartments
- Includes an auxiliary boost element

VFMQ Series

Whole Home High Capacity Applications (Higher Capacity)

- Designed for higher capacity heat outputs to meet heat losses as high as 4.5kW
- Uses an outdoor temperature sensing module to control multiple higher-capacity storage heaters to maximize your energy savings
- Perfect for high heat loss areas and multi-heater applications
- An auxiliary boost element is an option

Why choose Quantum?

The Quantum ETS is the world's most advanced and economical electric space heating system. Either as a supplementary heat source or as an advanced heating network, experience complete comfort and total control with Quantum.

Reduced Operating Costs

Stores low-cost energy during off-peak periods, turning it into more affordable and efficient heat for use only when it's needed.

Greater Comfort

Delivers precise and direct on-demand comfort through a combination of radiant and thermostatically controlled fan-forced heat.

Energy Efficient

Uses up to 22% less energy than comparable storage heaters, using only the required amount of energy needed to warm the areas you use most.

Easy to Install

No need to add duct work or piping. Installed and ready to use in a single day.

User Friendly Operation

Easy-to-use electronic interface is combined with responsive and adaptable heating technology for simple control and maximum comfort.

Adapts to Your Environment

Quickly responds to changing climate and room temperatures, continuing to deliver just the right amount of heat for complete comfort, even in the coldest of environments.

Technical Information

To properly size a storage heater installation and ensure you are comfortable and never run out of stored heat, two variables must be taken into account:
1) The heat loss of the room on the coldest day of the year;
2) The length of the Utility's off-peak period.

Quantum QSH Series Room Heater –
Technical Specifications (Based on 240V)

Model	Heating Elements (total)	Boost Elements (total)	Maximum Maintainable Heat Loss kW BTU/Hr			Wire Size[1] (AWG)	Breaker Size[1] (Amps)
			Off-peak Period 8hrs **(Most utilities)**	Off-peak Period 8+4 hrs **(NS Power)**	Off-peak Period 12 hrs **(Ontario)**		
QSH-70	1.56 kW	0.63 kW	0.7 kW	0.7 kW	0.7 kW	#14/2	15
QSH-100	2.22 kW	0.88 kW	1.0 kW	1.0 kW	1.0 kW	#14/2	15
QSH-125	2.76 kW	1.13 kW	1.25 kW	1.25 kW	1.25 kW	#14/2	15
QSH-150	3.30 kW	1.38 kW	1.5 kW	1.5 kW	1.5 kW	#12/2	20

Quantum VFMQ Series Room Heater –
Technical Specifications (Based on 240V)

Model	Heating Elements (total)	Maximum Maintainable Heat Loss kW BTU/Hr			Wire Size[1] (AWG)	Breaker Size[1] (Amps)
		Off-peak Period 8hrs **(Most utilities)**	Off-peak Period 8+4 hrs **(NS Power)**	Off-peak Period 12 hrs **(Ontario)**		
VFMQ20-220/227	2.0 or 2.7 kW	0.9 kW	1.4 kW	1.1 kW	#14/2	15
VFMQ30-330/340	3.0 or 3.4 kW	1.3 kW	2.1 kW	1.7 kW	#12/2	20
VFMQ40-440/452	4.0 or 5.2 kW	1.8 kW	2.7 kW	2.1 kW	#10/2	30
VFMQ50-550/564	5.0 or 6.4 kW	2.3 kW	3.7 kW	2.8 kW	#10/2 / #8/2	30 / 40
VFMQ60-660/676	6.0 or 7.6 kW	2.7 kW	4.3 kW	3.3 kW	#8/2	40
VFMQ70-770/790	7.0 or 9.0 kW	3.1 kW	4.7 kW	3.7 kW	#8/2 / #6/2	40 / 50

1. Wire and Breaker sizes should be confirmed based on the local electrical code

Technical Details

	QSH Series	VFMQ Series
Best Application	• Single room application • Under 1.5kW heating requirements	• Whole house, multiple heater applications • Higher heating capabilities
Thermostat & Controls	• LCD display interface for thermostat with 7-day, 4 event programmer and 3 pre-set timer profiles	• Simple to use, built-in thermostat with dial setting
Charge Control	• Built-in automatic charge controller incorporates self-learning algorithms to optimize daily energy storage	• Manual or automatic with central ZWM-CPE Charge Control module
Storage Core	• High density bonded magnetite energy cells	
Fan	• Low rev/low noise heat circulation fan	
Color	• White	
Power Supply	• 208V / 240V / 60 Hz	
Warranty	• 5 Years	

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