



# ICM870-9A/16A

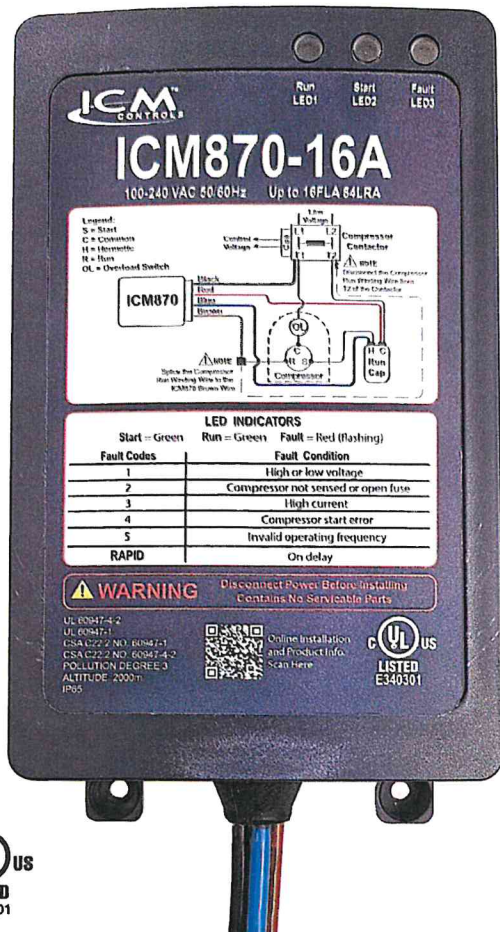
## Soft Start



Scan to see a full specifications, installation and agency certification information.

### APPLICATIONS:

APPLIANCE | ELECTRICAL | HVAC/R | MARINE | POOL & SPA | RV



## OVERVIEW

The **ICM870** is intended for marine, recreational vehicle (RV), residential and commercial applications. The **ICM870** integrates compressor or motor in-rush current over startup time, thus reducing peak current demand on a power supply source, such as a generator.

The **ICM870** will monitor system health including voltage, current, compressor startup and self integrity. Upon a fault condition, the **ICM870** will halt operation and initiate a 4-minute anti-short cycle routine while providing diagnostic fault information by means of an LED indicator.

## FEATURES

- ✓ Reduces in-rush current/draw necessary at startup by up to 70%
- ✓ Prolongs the life of A/C by reducing excessive torque, wear and tear
- ✓ Built-in dynamic start delay
- ✓ Reduces loud noises, light flickering, and breaker trips
- ✓ Built-in self-learning algorithm
- ✓ Over-current protection
- ✓ Over/under voltage monitoring
- ✓ Built-in start capacitor
- ✓ LED fault indicators
- ✓ Ultrasonically sealed tamper-proof enclosure
- ✓ Installation hardware is included

## SPECIFICATIONS

- **Inputs:** L1 & L2
- **Nominal voltage:** 120 VAC, 240 VAC
- **Over voltage limits:** 120 VAC nominal = 140 VAC, 240 VAC nominal = 264 VAC
- **Under voltage limits:** 120 VAC nominal = 95 VAC, 240 VAC nominal = 195 VAC
- **Outputs:** Compressor
- **Current:** Maximum nominal = 9A and 16A
- **Over current limits:**
  - ICM870-9A = 11.25A
  - ICM870-16A = 20A
- **Operating temperature:** -40°F to 131°F (-40°C to 55°C)
- **Storage temperature:** -40°F to 149°F (-40°C to 65°C)
- **Humidity:** 0-95% non-condensing
- **Enclosure:** IP65/Type 4X
- **Dimensions:** 7.94" x 4.20" x 2.10"

## REPLACES

The **ICM870-9A** and **ICM870-16A** models replace the amperage-corresponding models from the following manufacturers:

**Dometic** (SmartStart)  
**Hyper Engineering** (Sure-Start)  
**Micro-Air** (EasyStart)  
**Network RV** (SoftStartRV)  
**Carlo Gavazzi** (SmoothStarter)

Content and specifications on sell sheets subject to change without notice.



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# Features & Benefits

- ✓ Reduces in-rush current/draw necessary at startup by up to 70%
- ✓ Prolong the life of A/C by reducing excessive torque, wear and tear
- ✓ Reduced electrical draw allows for the use of a smaller generator or backup battery
- ✓ Reduce loud startup noises, light flickering, and breaker trips
- ✓ Built-in dynamic start delay
- ✓ Built-in self-learning algorithm
- ✓ Over-current protection
- ✓ Over/under voltage monitoring
- ✓ Built-in start capacitor
- ✓ LED fault indicators
- ✓ Ultrasonic sealed tamper-proof enclosure
- ✓ Installation hardware is included



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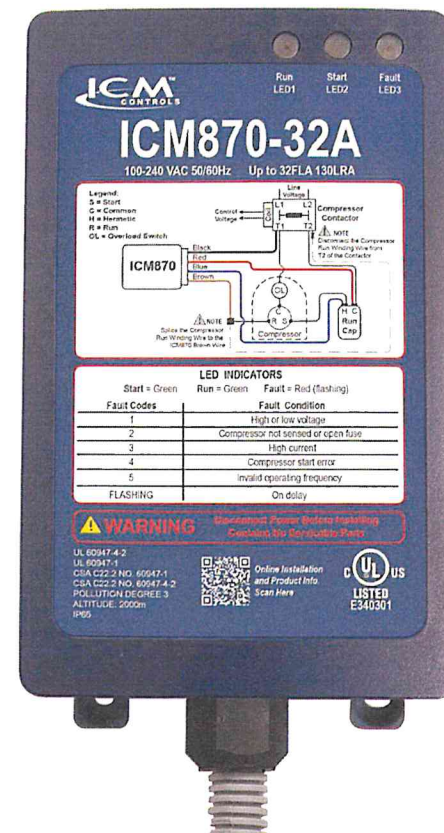


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## What is a soft start?





# Overview

ICM870 Series soft starters are intended for use in Residential, Commercial, RV and Marine applications. Using a soft start in a backup power storage application provides several benefits.

Firstly, it reduces the initial inrush current necessary to start a motor/compressor. Reducing the excessive electrical draw from the power source, in turn allows the generator or backup battery to operate more equipment without loading it down.

Secondly, the addition of the ICM soft start greatly reduces the dimming of household lights and the loud noise that occurs at motor/compressor startup.

Lastly, it minimizes stress on the connected equipment by gradually ramping up the voltage, reducing the risk of voltage spikes and equipment fatigue. This increases the overall lifespan of the A/C unit and backup power equipment via reduced wear and tear.



## Which Model do I need?

Refer to your service panel or user manual to determine your actual RLA rating

**ICM870-9A:** For use with a Compressor Load Amp Rating (RLA) of up to Maximum of 9A

**ICM870-16A:** For use with a Compressor Load Amp Rating (RLA) of 9.1-16A Maximum

**ICM870-32A:** For use with a Compressor Load Amp Rating (RLA) of 16.1-32A Maximum

### Air Conditioning & Heat Pump Loads – Average (for reference only)

Size	BTU	*RLA	ICM870 Model
1 ton	12,000	6	ICM870-9A
2 ton	24,000	12	ICM870-16A
3 ton	36,000	16	ICM870-16A
4 ton	48,000	22	ICM870-32A
5 ton	60,000	26	ICM870-32A
6 ton	72,000	32	ICM870-32A

\* This chart is for quick reference only. It reflects the average Single-Phase Air Conditioning and Heat Pump conversions of Tonnage, BTU's, and RLA. Please refer to your service panel or user manual to *determine your equipment's actual RLA rating* before deciding which model ICM870 you need.

### APPLICATIONS:

Appliance, Electrical,  
HVAC/R, Marine,  
Pool & Spa, RV



ICM870-9A

ICM870-16A

ICM870-32A

### Easy 4-Wire Installation



Scan here to watch the Intro/Installation Video

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