

PRODUCT APPLICATIONS

HVAC

SYSTEMS



HVAC SYSTEMS

\$2,285.34

PROJECTED ANNUAL SAVINGS

Recommended Product

PHASE PERFECT®



POWERING YOUR HVAC SYSTEM

Single-phase HVAC equipment is generally limited to around 5 tons (60,000 BTU) in capacity. For larger homes, custom builds, and light commercial applications, the industry standard is three-phase power. Most high-efficiency rooftop units, VRF systems, and large-capacity air handlers are only manufactured in three-phase configurations.

But what happens when your site doesn't have access to three-phase utility service? That's where Phase Perfect® steps in. The Phase Perfect® digital phase converter is the gold standard for HVAC applications, converting single phase to three phase while providing multiple load support and maintaining near-perfect voltage balance under all conditions.

Unlike Other Types of Phase Converters, Phase Perfect Offers:

- Low Standby Power Consumption
- Utility-Grade, True Three-Phase Output
- Support for Multiple Simultaneous Loads
- No Moving Parts for Maintenance-Free Operation



Why HVAC Pros Choose Phase Perfect®

1. Access Commercial Equipment Anywhere

Power rooftop units, scroll compressors, VRF systems, and multi-stage blowers even in rural areas.

2. Clean, Balanced Power

Maintain near-perfect voltage balance across all phases, even with variable loads.

3. Easy Installation

Install inside or outside. No programming required.

4. Reliable & Efficient

No noisy rotary motors or regular maintenance.

5. Scalable for Any System

Supports systems rated to 200 MCA or higher, able to power even the largest packaged RTUs.

Perfect For:

- Rural or Off-Grid Homes
- Pole Buildings, Barns, and Shops
- Equipment Change-Outs where Three-Phase Isn't Available
- HVAC Service Trucks with Mobile Power Needs
- High-End Residential or Commercial Installs Requiring Large BTU-Rated Systems

Flexibility

The Phase Perfect® Powers Virtually Any Three-Phase Load, Wherever You Are:

- Remote Rural Settings
- Detached Garages, Shops, and Pole Barns
- Commercial Facilities Without Three-Phase Access

Traditional utility extension can cost tens, sometimes hundreds, of thousands of dollars. With Phase Perfect, you get utility-grade power at a fraction of the cost—with zero infrastructure delays.

Reliability

With over 20 years of refinement, our solid-state converters are built to last:

No Moving Parts = Less Maintenance, Fewer Failures.

Phase Perfect ensures uninterrupted operation, lower energy costs, and longer equipment life.

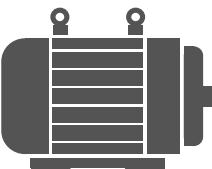


ANNUAL SAVINGS CALCULATOR

Most importantly, **WE SAVE YOU MONEY.** No costly utility upgrades, just efficient, reliable power for your HVAC system.

\$2,285.34/year

Typical HVAC System Installation, Estimated Annual Savings with Phase Perfect® versus Rotary:

| | | | |
|--|---|---|-----------------------------------|
|  | Phase Perfect® Digital Phase Converter |  | Rotary Phase Converter |
| Converter Horsepower Needed | 20 HP | 40 HP | |
| Max Load Amperage | 61 A | 61 A | |
| Standby Power Consumption | 80 W | 2260 W | |
| Idle Power Cost | \$111.82 | \$3,158.94 | |

Max Load Amperage:

61 A

Amperage rating of largest or combined load that will be connected to the Phase Perfect®

Electricity Cost (Per kWh):

\$0.16

The cost in cents per kilowatt/hour your utility charges you for electricity usage. You can estimate costs for your region by looking at the [Average Price Chart on eia.gov](#).

Estimated Power On Time:

52

Weeks per Year

7

Days per Week

Number of weeks per year and days per week you anticipate needing 3 Phase power available. For example: a business with typical operating hours might be 50 weeks per year and 5 days per week, while an elevator installation would require 52 weeks per year and 7 days per week.

Estimated Standby Time:

18

Hours per Day

The number of hours per day you anticipate not drawing a significant 3 Phase load. For example: a typical business might not draw a significant load right away in the morning, during breaks, or over the lunch hour, while an elevator might be idle 20 or more hours per day.




 PHASE CONVERTING | 230 V & 460 V | VOLTAGE DOUBLING
 NEMA 3R OUTDOOR ENCLOSURE | 5 - 175 HP

PHASE PERFECT®

DIGITAL PHASE CONVERTER


 World's Only
 Digital Phase
 Converter

 2X
 Voltage
 Doubling

 Phase-to-Phase
 Voltage Balance

 98.7% Efficient
 At Full Load

 508A
 Panel Shop
 (Options Available)

Utility Grade Three-Phase Output

Phase Perfect provides clean, utility-quality three-phase output for starting and stopping motors across the line while running transformers, contactors, circuit boards, lights, or heaters.



Panel Shop Options

- ▶ **MCCB Service Disconnect**
 Breaker equipped with external, service-rated, disconnect to support easy field serviceability
- ▶ **On/Off Switch**
 Allows toggling of device power without the need to remove it from the power source

- ▶ **50Hz Operation**
 Run three-phase equipment anywhere in the world
- ▶ **Strikesorb Surge Protection**
 Protect your drive from damaging input voltage spikes with a high-quality, surge protective device


\$2,221.86/year

 Estimated Annual Savings with
 Phase Perfect® versus Rotary:
 Savings based on 20 HP, 24/7 Operation

PT
**ANNUAL SAVINGS
 CALCULATOR**

 CALCULATE YOUR PROJECTED ANNUAL SAVINGS AT PHASETECHNOLOGIES.COM




Features

Voltage Balance Within 2%

Phase Technologies' Digital Phase Converters deliver line-to-line voltages balanced within 2%, improving equipment performance and lifespan. Balanced voltage is crucial for efficiency, power output, reliability, and longevity. Even slight imbalances cause excessive heat and motor wear.

Modbus Connectivity

New for 2026 - Built-in Modbus RTU enables remote monitoring and control. Integrate Phase Perfect into your automation system for real-time performance data and diagnostics.

2X Starting Capacity

With twice the starting capacity of rotary phase converters, a Phase Perfect's horsepower rating equals the motor size it will start—a 10 HP motor needs a 10 HP Phase Perfect. For multiple loads, select a converter rated for the total current of all connected loads. Phase Perfect converters can be flexibly configured—oversized or split into multiple units—to match almost any situation.

Utility Grade Three-Phase Output

Phase Perfect provides clean, utility-quality three-phase output for starting and stopping motors across the line while running transformers, contactors, circuit boards, lights, or heaters.

Simple Installation

With two wires in and three wires out, Phase Perfect converters are virtually "plug-and-play." Three-phase equipment connects to the output just like utility three-phase power.

Regenerative

Handles motor braking energy. Unity power factor maximizes available power while reducing utility bills.

Voltage Doubling Output

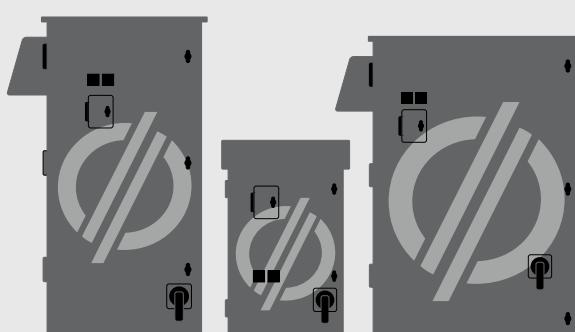
Eliminates the need for a transformer while minimizing motor lead wire size on 460 V systems running on a 230 V source, saving you hundreds on wire costs.

Product Specifications

| HP | Rated Current Input (Amps) | Rated Current Output (Amps) | Input Voltage (Volts) | Output Voltage (Volts) | Output (kVA) | Standby Power Consumption (Watts) |
|------------|----------------------------|-----------------------------|-----------------------|------------------------|--------------|-----------------------------------|
| 7.5 | 45 A | 26 A | 230 V | 230 V | 10.8 kVA | 70 W |
| 10 | 62 A | 36 A | 230 V | 230 V | 14.9 kVA | 74 W |
| 15 | 90 A | 52 A | 230 V | 230 V | 21.6 kVA | 77 W |
| 20 | 111 A | 64 A | 230 V | 230 V | 26.6 kVA | 80 W |
| 30 | 165 A | 95 A | 230 V | 230 V | 39.4 kVA | 175 W |
| 40 | 225 A | 130 A | 230 V | 230 V | 54.0 kVA | 190 W |
| 50 | 286 A | 165 A | 230 V | 230 V | 68.5 kVA | 235 A |
| 60 | 329 A | 190 A | 230 V | 230 V | 78.9 kVA | 260 W |
| 75 | 416 A | 240 A | 230 V | 230 V | 99.7 kVA | 300 W |
| 230V | | | | | | |
| 7.5 | 45 A | 13 A | 230 V | 460 V | 10.8 kVA | 200 W |
| 10 | 62 A | 18 A | 230 V | 460 V | 14.9 kVA | 320 W |
| 15 | 94 A | 27 A | 230 V | 460 V | 22.4 kVA | 435 W |
| 2X Voltage | | | | | | |
| 7.5 | 22 A | 13 A | 460 V | 460 V | 10.8 kVA | 52 W |
| 10 | 32 wA | 18 A | 460 V | 460 V | 14.9 kVA | 68 W |
| 15 | 47 A | 27 A | 460 V | 460 V | 22.4 kVA | 71 W |
| 20 | 55 A | 32 A | 460 V | 460 V | 26.6 kVA | 74 W |
| 30 | 80 A | 46 A | 460 V | 460 V | 38.2 kVA | 87 W |
| 40 | 105 A | 61 A | 460 V | 460 V | 50.7 kVA | 180 W |
| 50 | 134 A | 77 A | 460 V | 460 V | 64.0 kVA | 190 W |
| 60 | 157 A | 91 A | 460 V | 460 V | 75.6 kVA | 220 W |
| 75 | 185 A | 107 A | 460 V | 460 V | 88.9 kVA | 270 W |
| 100 | 246 A | 142 A | 460 V | 460 V | 118.0 kVA | 300 W |
| 150 | 343 A | 198 A | 460 V | 460 V | 164.4 kVA | 300 W |
| 175 | 381 A | 220 A | 460 V | 460 V | 182.9 kVA | 300 W |
| 460V | | | | | | |

PRODUCT BUILDER

PHASETECHNOLOGIES.COM/PRODUCTS



UP-TO-DATE

- LEAD TIMES**
- PRICING**
- DIMENSIONS**





**DIGITAL PHASE
CONVERTERS**

**VARIABLE
FREQUENCY
DRIVES**

**MOTOR
PROTECTION**

**SOFT
STARTER**

**508A
PANEL
SHOP**

OUR MISSION

Relentlessly seek to provide Uncommon Value, solutions, innovation, and support for the industries that we serve.



**INDUSTRY
BEST LEAD TIMES**



**MADE IN THE
USA**