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## AC890PX Series

High Power Modular AC Drive with  
Advanced Cooling Technology (300 - 2000kW)



ENGINEERING YOUR SUCCESS.

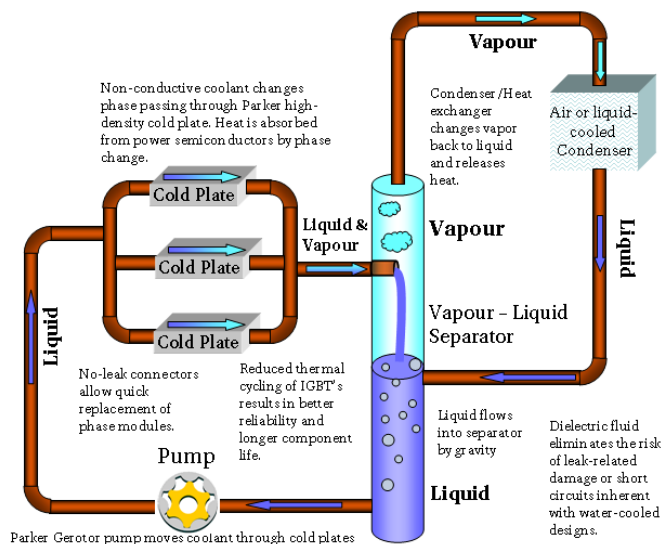
# Advanced Cooling System

More Power, Smaller Footprint

## Advanced Cooling Process

The AC890PX Series Advanced Cooling design draws from years of Parker experience in refrigeration technology combined with state of the art drive design to produce a truly high-performance AC drive range. The award-winning two-phase coolant system rapidly absorbs heat from drive IGBTs in the Vaporizable Dielectric

Fluid (VDF) coolant's change of phase from liquid to vapor. This requires less coolant flow to be pumped and reduces the thermal cycling of the drive electronics while maintaining performance. The system itself is hermetically sealed, requires no routine maintenance and uses a non-corrosive, non-conducting coolant.



Parker Gerotor pump moves coolant through cold plates



## AC890PX Features

### Pluggable power modules

- Sealed modules can be replaced in minutes
- Modules weigh under 25kg airfreight weight allowance

### Integrated bus system

- Power wiring minimized
- Keyed modules eliminate fitting errors

### Wide range of variants

- Active Front End (AFE) option for grid-tie or regenerative systems
- Suitable for use with induction, torque or permanent magnet motors
- Wide range of industry standard communications options
- Heat exchanger can be mounted remotely or on top of the drive

### Configuration Software

- Programmable through graphical configuration software (DSE Lite)
- Deterministic Object Oriented programming

## Comparison of Cooling Technologies

### Air Cooled

- Lowest efficiency
- Poor power density
- Subject to contamination

### Water/Glycol

- Requires coolant source
- High maintenance needs
- Leaks can be damaging to plant
- Subject to corrosion

### AC890PX

#### Pumped 2-phase system

- Non-conductive coolant
- High efficiency cooling
- Highest power density
- Hermetically sealed system
- No condensation
- No compressor
- No routine maintenance
- No -lead dry break fittings
- No derating for ambient temperature or altitude



# AC890PX Series

High Power Modular AC Drive with Advanced Cooling Technology

## Product Overview

The AC890PX is an innovative, modular, high power AC drive system, that has been developed to minimize drive footprint and reduce installation time and costs, for a range of motor control and power conversion applications. The AC890PX is delivered as a complete package, ready for connection to the power supply and downstream motor or power conversion connection.

## Increased Power Density with Advanced Cooling System

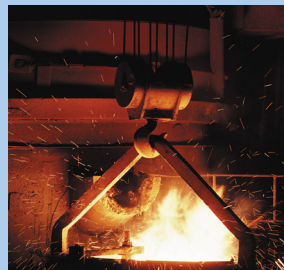
With the introduction of an innovative Parker-engineered cooling system, the AC890PX Series offers increased power output in the same compact drive footprint. The Advanced Cooling design uses a high efficiency hermetically sealed and maintenance-free system.

| Voltage (V) | Size (Stacks) | Current (A) | Power (kW) | Power (HP) | Part Number           |
|-------------|---------------|-------------|------------|------------|-----------------------|
| 400         | 1             | 480         | 250        | -          | 890PXAC/4/0480/X/XX/A |
| 400         | 1             | 580         | 315        | -          | 890PXAC/4/0580/X/XX/A |
| 400         | 2             | 960         | 500        | -          | 890PXAC/4/0960/X/XX/A |
| 400         | 2             | 1160        | 630        | -          | 890PXAC/4/1160/X/XX/A |
| 400         | 3             | 1440        | 750        | -          | 890PXAC/4/1440/X/XX/A |
| 400         | 3             | 1740        | 945        | -          | 890PXAC/4/1740/X/XX/A |
| 460         | 1             | 480         | -          | 400        | 890PXAC/4/0480/X/XX/A |
| 460         | 1             | 580         | -          | 500        | 890PXAC/4/0580/X/XX/A |
| 460         | 2             | 960         | -          | 800        | 890PXAC/4/0960/X/XX/A |
| 460         | 2             | 1160        | -          | 1000       | 890PXAC/4/1160/X/XX/A |
| 460         | 3             | 1440        | -          | 1200       | 890PXAC/4/1440/X/XX/A |
| 460         | 3             | 1740        | -          | 1500       | 890PXAC/4/1740/X/XX/A |
| 575         | 1             | 420         | -          | 400        | 890PXAC/6/0420/X/XX/A |
| 575         | 1             | 480         | -          | 500        | 890PXAC/6/0480/X/XX/A |
| 575         | 2             | 840         | -          | 800        | 890PXAC/6/0840/X/XX/A |
| 575         | 2             | 1400        | -          | 1500       | 890PXAC/6/1400/X/XX/A |
| 575         | 3             | 1260        | -          | 1200       | 890PXAC/6/1260/X/XX/A |
| 575         | 3             | 2100        | -          | 2200       | 890PXAC/6/2100/X/XX/A |
| 690         | 1             | 340         | 315        | -          | 890PXAC/7/0340/X/XX/A |
| 690         | 1             | 430         | 400        | -          | 890PXAC/7/0430/X/XX/A |
| 690         | 2             | 680         | 630        | -          | 890PXAC/7/0680/X/XX/A |
| 690         | 2             | 1400        | 1300       | -          | 890PXAC/7/1400/X/XX/A |
| 690         | 3             | 1020        | 945        | -          | 890PXAC/7/1020/X/XX/A |
| 690         | 3             | 2100        | 2000       | -          | 890PXAC/7/2100/X/XX/A |

Subject to change; additional specifications available from your Parker SSD representative



Paper and Pulp



Metals



Offshore and Marine



Alternative Energy

## Applications

The AC890PX is suited to many different motor control applications, where power density and compactness are key design considerations.

- Automotive Test Stands
- Extruders
- Decanter and batch centrifuges
- Hoists and cranes
- Winder / unwind stands
- Wind turbine grid-tie
- Solar energy capture
- Ocean / wave energy grid-tie
- Ski lifts and cable cars
- Offshore and marine



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Your local authorized Parker distributor

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