# ACS 550 Adjustable Speed AC Drive

The NEW ACS 550 Sensorless Vector AC Drive from ABB! For advanced speed control of 1 to 500 HP AC induction motors.

## ACS 550 Adjustable Speed AC Drives

The ABB ACS 550 AC drive combines a sophisticated microprocessor with an advanced IGBT power switching technology to deliver V/Hz, Closed Loop Flux Vector, and Sensorless Vector control of AC motors. Its Intuitive Control Panel offers numerous benefits making it the most user-friendly panel in the drives industry.

The extensive library of pre-programmed application macros maximizes convenience and minimizes start-up time.

This drive can handle the most demanding industrial applications in an efficient, dependable and economic manner.

A new Control Panel, included as standard, provides a real-time clock and full graphic display as well as a dedicated help button.

## Features Include:

- Control Panel with
  - Start-Up, Maintenance and Diagnostic Assistants
  - Support for 15 Languages
  - Full Graphic Display
  - "Help" Button
- Numerous internally mountable fieldbus adapters for serial communications
- Patent Pending Swinging Choke for Superior Harmonic Mitigation
- Internal Option Slots for additional I/O
- RS-485 Modbus Included as Standard
- Extensive Library of Pre-Programmed Application Macros
- Integral EMC Filter for 1st Environment, Restricted Distribution (30 m motor cable)
- UL, cUL and CE Approved
- Integral Braking Chopper up to 15 HP (480 VAC)

## Easily Integrated:

- Sinking or Sourcing Input Device Logic
- Galvanically Isolated Digital I/O

**Product Notes**

# ACS 550 Technical Data

## Input Connection

| | |
|---|---|
| Voltage: | 3-Phase |
| | 200 to 480 VAC |
| | +/- 10% permitted tolerance |
| Frequency: | 48 ... 63 Hz |
| | +/- 2 Hz |

## Output Connection

| | |
|---|---|
| Voltage: | 0 to max |
| Frequency: | 0 to 500 Hz |

## Environmental Limits

Ambient Operating Temperature: $0^\circ$ to $40^\circ$C

## Enclosure
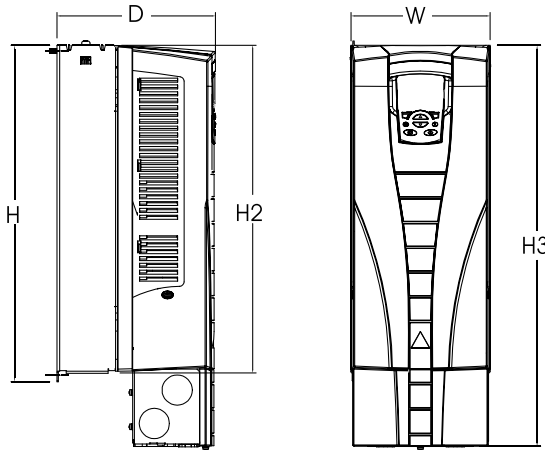
Type: NEMA 1, NEMA 12



## Standard Control Connection

- 2 Programmable Analog Inputs (voltage or current)
- 6 Programmable Digital Inputs
- 2 Programmable Analog Inputs
- 3 Programmable Relay Outputs

## Options

- External Braking Units (R3 - R8)
- DriveWindow Light Programing and Diagnostic Software
- Fieldbus Adapter Modules: DeviceNet, Profibus, ControlNet, CANopen

## Protection

- Overcurrent
- Ground Fault
- Overtemperature
- Auxiliary Voltage Short Circuit Protection
- Electronic Motor Overload (UL508C - $I^2t$)
- Overvoltage
- Undervoltage
- Microprocessor Fault
- Motor Stall
- Underload

| Frame | NEMA 1 Enclosure | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | R1 | | R2 | | R3 | | R4 | | R5 | | R6 | | R7 | | R8 | |
| | mm | in | mm | in | mm | in | mm | in | mm | in | mm | in | mm | in | mm | in |
| W | 125 | 4.9 | 125 | 4.9 | 203 | 8.0 | 203 | 8.0 | 265 | 10.4 | 300 | 11.8 | 609 | 23.9 | 800 | 31.5 |
| H | 330 | 13.0 | 430 | 16.9 | 490 | 19.3 | 596 | 23.4 | N/A | N/A | N/A | N/A | 1503 | 59.2 | 2130 | 83.9 |
| H2 | 315 | 12.4 | 415 | 16.3 | 478 | 18.8 | 583 | 23.0 | 602 | 23.7 | 700 | 27.6 | N/A | N/A | N/A | N/A |
| H3 | 369 | 14.5 | 469 | 18.5 | 583 | 23.0 | 689 | 27.1 | 739 | 29.1 | 880 | 34.6 | N/A | N/A | N/A | N/A |
| D | 212 | 8.3 | 222 | 8.7 | 231 | 9.1 | 262 | 10.3 | 286 | 11.3 | 400 | 15.8 | 495 | 19.5 | 585 | 23.0 |
| Weight | 6.17 kg | 13.6 lb | 8.85 kg | 19.5 lb | 19.2kg | 42.4 lb | 22.5kg | 49.5 lb | 29.9kg | 66 lb | 59.9kg | 132 lb | 195kg | 430 lb | 375kg | 827 lb |
| 230V HP | 1 - 5 | | 7.5 - 10 | | 15 - 20 | | 25 - 40 | | 50 | | 60 - 100 | | - | | - | |
| 480V HP | 1.5 - 7.5 | | 10 - 15 | | 20 - 25 | | 30 - 50 | | 60 - 75 | | 100 - 150 | | 150 - 250 | | 300 - 550 | |

N/A = Information not available at time of printing

Drawing is not for engineering purposes.

**ABB**