ABB micro drives
ACS55, 0.25 to 3 hp/0.18 to 2.2 kW

Micro drives are used in a wide variety of simple machines such as automatic gates, solar trackers, treadmills, whirlpool baths and other applications. They are used in both commercial and domestic environments.

ACS55 micro drives are designed for use in a wide variety of simple machinery applications where only single phase power is available. Feed-thru wiring with power leads entering at the top and motor cables exiting at the bottom allows for easy replacement of contactors and motor starters. These drives improve machine performance with the combined advantages of variable speed control and energy savings for small AC motors.

The ACS55 drive is ideal for those situations where a low cost, easy to install, and simple to operate variable frequency drive is needed.

**Highlights**
- Power range: 0.25 to 3 hp
- 150% peak overload capacity
- Compact and slim design
- Several installation alternatives
- Reduced motor noise with high switching frequency
- Easy configuration using switches and potentiometer
- Fast programming of drives without the need for a power connection
- Available with or without a built-in 1st environment EMC filter as standard
- Optional speed potentiometer and operator control switch kit
- Selectable for linear (constant torque) or squared (variable torque) scalar control
- RoHS
- Coated boards

**Voltage and power range**
- 1-phase, 110 to 120 V +10/-15%
  0.25 to 0.5 hp (0.18 to 0.37 kW)
- 1-phase, 200 to 240 V +10/-15%
  0.25 to 3 hp (0.18 to 2.2 kW)

**Options**
- Potentiometer
- DriveConfig kit

**Applications**
- Pumps and fans
- Conveyors
- Automatic gates
- Solar trackers
- Exercise equipment
- Whirlpools
- Printing and packaging machines
- Food and beverage machines
Technical data and types

<table>
<thead>
<tr>
<th>Type code</th>
<th>$P_n$ (hp)</th>
<th>$P_a$ (kW)</th>
<th>Output current $I_{in}$ (A)</th>
<th>Max. A</th>
<th>Input current A</th>
<th>Fuse* (A)</th>
<th>Heat loss ** Watts</th>
<th>Frame size</th>
<th>Height 1 (in)</th>
<th>Height 2 (in)</th>
<th>Width (in)</th>
<th>Depth (in)</th>
<th>Weight (lbs)</th>
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Built-in EMC filter

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Application parameters

- Motor nominal frequency: 50/60 Hz at 40 to 250 Hz
- Acceleration time: 0.1 to 30 s at 0.1 to 100 s
- Deceleration time: 0.1 to 30 s at 0.1 to 100 s
- Maximum frequency: 50 to 120 Hz at 0 to 250 Hz
- Relay output: Fault/Run at Fault/Fault (-1)/Run
- Load type: Pump/fan or constant
- Swtiching frequency: Standard at 5 kHz, adjustable up to 16 kHz with automatic switching frequency reduction
- Features available with DriveConfig kit: Application macro selection, IR compensation, constant speed selection, stop mode selection, reset mode selection

Product compliance

- Low Voltage Directive 2006/95/EC
- EMC Directive 2004/108/EC
- Machinery Directive 2006/42/EC
- Quality assurance system ISO 9001 and Environmental system ISO 14001
- CE, UL, cUL, C-Tick and GOST R approvals
- RoHS compliant

Environmental limits

- Degree of protection: IP20
- Ambient temperature: -20 to +40 °C (with nominal current and 5 kHz switching frequency, no frost allowed)
- up to +55 °C (With derating)
- Relative humidity: Lower than 95% (without condensation)

For more details see ACS55 catalog (3AUA0000163305).