

LOW VOLTAGE AC DRIVES

ABB micro drives

ACS55, 0.18 to 2.2 kW/0.25 to 3 hp



Micro drives are used in a wide variety of simple machines such as automatic gates, solar trackers, treadmills, whirlpool baths, fans, conveyors and other applications.

Add compact simplicity to your everyday applications

- Small and simple drive for OEMs**

The ACS55 micro drives can control a variety of simple applications in both commercial and domestic environments. They fit perfectly even in small spaces and guarantee reliable operation for your machines.
- Simple set-up**

Drive parameters are easily set by configuring the drive's DIP switches and potentiometers on the front panel. You can forget the head-scratching complexities with the ACS55 drives and focus on what matters.
- Easy and fast volume configuration**

For volume configuration, the optional DriveConfig kit, which includes PC software, can be used. DriveConfig provides advanced drive configuration options with different macros for default I/O connections. DriveConfig can even be used to configure unpowered drives.



Technical data

Mains connection		
Power range	0.18 to 2.2 kW	
Voltage	1-phase, 110 to 120 V and 200 to 240 V, +10/-15%	
Frequency	48 to 63 Hz	
Motor connection		
Voltage	3-phase, from 0 to U_{supply} (for 110/120 V from 0 to 230 V)	
Frequency	0 to 120/130 Hz	
Overload capacity	150% (60 s)	
Motor control method	Scalar U/f	
Control connections		
One analog input		
Voltage signal	0 (2) to 10 V, 200 k Ω single-ended	
Current signal	0 (4) to 20 mA, 100 Ω single-ended	
Potentiometer reference value	10 V \pm 2% max. 10 mA, 1 k Ω $\leq R \leq$ 10 k Ω	
Response time	\leq 60 ms	
Resolution	0.1%	
Accuracy	\pm 1%	
Three digital inputs		
	12 V DC with internal supply or 12 to 24 V DC external supply, PNP	
Input impedance	1.5 Ω	
Response time	\leq 9 ms	
One relay output		
Switching voltage	12 to 250 V AC or max 30 V DC	
Maximum continuous current	2 A	
Application parameters		
	As standard	With DriveConfig kit
Motor nominal frequency	50/60 Hz	40 to 250 Hz
Acceleration time	0.1 to 30 s	0.1 to 100 s
Deceleration time	0.1 to 30 s	0.1 to 100 s
Maximum frequency	50 to 120 Hz	0 to 250 Hz
Relay output	Fault/Run	Fault/Fault (-1)/Run
Load type	Pump/fan or constant	
Switching frequency		
Standard	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		
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 (3AFE68899842).

Highlights

- Built-in 1st environment EMC filter as standard: suitable for single phase residential and commercial applications
- Compact and slim design
- Several installation alternatives
- Reduced motor noise with high switching frequency
- Easy configuration using potentiometers and switches
- Fast programming of drives without the need for a power connection

For more information please contact your local ABB representative or visit:

abb.com/drives
abb.com/drivespartners

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