

ABB component drives

ACS55, 0.25 to 3 hp / 0.18 to 2.2 kW

ABB component drives are designed to be incorporated into a wide variety of simple machines such as automatic gates, conveyors, exercise equipment, industrial ovens and other applications in commercial environments. The drives work with single phase power supply and are widely available and through the ABB's distribution network



Drive parameters are easily set by configuring the drive's DIP switches and potentiometers on the front panel. 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.

Highlights

- Compact and slim
- Flexible installation
- Reduced motor noise with high switching frequency
- Integrated 1st environment EMC filter as standard
- Easy configuration via potentiometer and switches
- Flexible and fast configuration of powered and unpowered drives with DriveConfig kit

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

Applications

- Fans and pumps
- Exercise equipment
- Gate control
- Material handling
- Conveyors

Options

- Input/Output chokes
- Potentiometer
- DriveConfig kit

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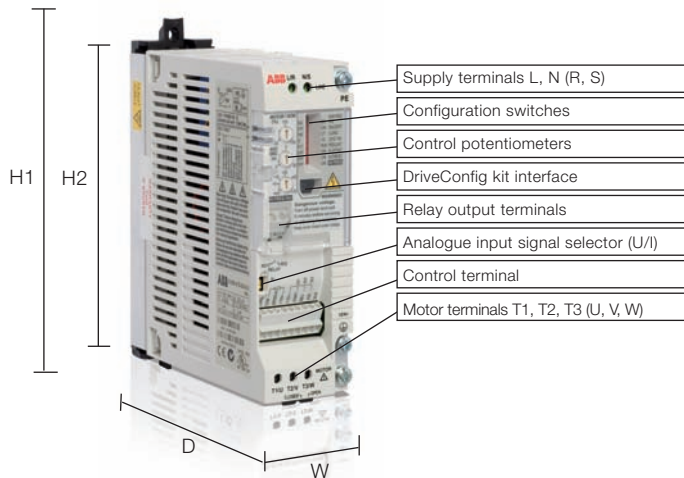
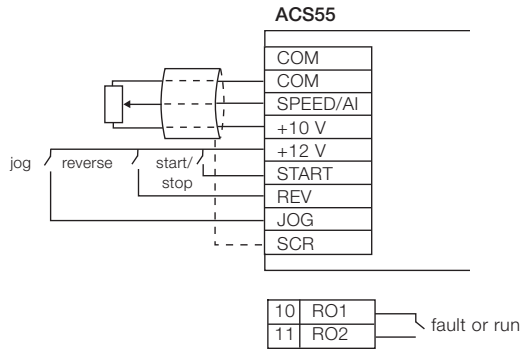


Technical data and types

Ratings		Output current		Input current	Type code	Frame size	H1	H2	W	D	Weight
P_N hp	P_N kW	nominal A	max A	A			mm	mm	mm	mm	kg
Built-in EMC filter, 1-phase supply voltage 200/240 V, +10/-15%, 3-phase output 200/240 V											
0.25	0.18	1.4	2.1	4.4	ACS55-01E-01A4-2	A	170	146.5	45	128	0.65
0.5	0.37	2.2	3.3	6.9	ACS55-01E-02A2-2	A	170	146.5	45	128	0.7
1.0	0.75	4.3	6.5	10.8	ACS55-01E-04A3-2	B	170	146.5	67.5	128	0.95
2	1.5	7.6	11.4	18.2	ACS55-01E-07A6-2	D	226	203	70	159	1.1
3	2.2	9.8	14.7	22	ACS55-01E-09A8-2	D	226	203	70	159	1.1
No EMC filter, 1-phase supply voltage 200/240 V, +10/-15%, 3-phase output 200/240 V											
0.25	0.18	1.4	2.1	4.4	ACS55-01N-01A4-2	A	170	146.5	45	128	0.65
0.5	0.37	2.2	3.3	6.9	ACS55-01N-02A2-2	A	170	146.5	45	128	0.7
1.0	0.75	4.3	6.5	10.8	ACS55-01N-04A3-2	B	170	146.5	67.5	128	0.95
2	1.5	7.6	11.4	18.2	ACS55-01N-07A6-2	C	194	171	70	159	1.1
3	2.2	9.8	14.7	22	ACS55-01N-09A8-2	C	194	171	70	159	1.1
Built-in EMC filter, 1-phase supply voltage 110/120 V, +10/-15%, 3-phase output 200/240 V											
0.25	0.18	1.4	2.1	6.4	ACS55-01E-01A4-1	A	170	146.5	45	128	0.65
0.5	0.37	2.2	3.3	9.5	ACS55-01E-02A2-1	A	170	146.5	45	128	0.7
No EMC filter, 1-phase supply voltage 110/120 V, +10/-15%, 3-phase output 200/240 V											
0.25	0.18	1.4	2.1	6.4	ACS55-01N-01A4-1	A	170	146.5	45	128	0.55
0.5	0.37	2.2	3.3	9.5	ACS55-01N-02A2-1	A	170	146.5	45	128	0.6

H1= Height with mounting clip
H2= Height without mounting clip
W = Width
D = Depth

ABB standard macro I/O configuration (default)



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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)

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 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

Environmental limits

Degree of protection	IP20	
Ambient temperature	-20 to 40 $^{\circ}$ C	with nominal current and 5 kHz switching frequency, no frost allowed
	up to 50 $^{\circ}$ C	with derating
Relative humidity	lower than 95% (without condensation)	

For more information see catalog ABB component drives, ACS55-PHTC01U-EN (3AUA000073307).

For more information please contact:

www.abb.us/drives

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