

# ABB component drives

ACS55, 0.18 to 2.2 kW / 0.25 to 3 hp

Technical catalogue

[efesotomasyon.com](http://efesotomasyon.com)

The image features a detailed view of an ABB ACS55 component drive unit on the left. The unit is white with various terminals and controls. Labels include 'ABB LR NS LINE PE', 'MOTOR I (A)', 'ACC', 'STOP', 'WARNING! Dangerous voltage. Turn off power and wait 5 minutes before servicing or adjusting the switches. Keep cover closed under voltage.', 'RELAY', '120V', 'MOTOR T1/U T2/V T3/W', and 'CLOSED OPEN'. The background is a blue-tinted industrial scene with a large circular structure. A navigation menu is overlaid on the right side of the image, consisting of several grey rectangular buttons with white text: 'PROFILE', 'INDUSTRIES', 'PRODUCTS' (highlighted in green), 'APPLICATIONS', 'EXPERTISE', 'PARTNERS', and 'SERVICES'.





## ABB component drives

ABB component drives meet the requirements of OEMs, installation companies and panel builders. These drives are components that are bought together with other components from a logistical distributor. The drives are stocked, and the number of options and variants is optimized for logistical distribution.

## Highlights

- Descriptive interface
- Compact and slim
- Fast and safe drive configuration with DriveConfig kit
- Ideal for DIN-rail mounting
- Suitable for domestic environment as standard
- Silent motor

## Applications

- Fans
- Pumps
- Gate control
- Material handling
- Conveyors

Features	Benefits	Notes
<b>Descriptive interface</b>	Faster set-up Easier configuration Easier drive for new users	Basic parameter settings are done with DIP switches and potentiometers
<b>Compact and slim</b>	Less space required for installation	0.18 to 0.37 kW 45 mm width 0.75 kW 67.5 mm width 1.5 to 2.2 kW 70 mm width
<b>DriveConfig kit</b>	Fast and safe configuration of unpowered drives	New drive configuration tool for volume manufacturing
<b>Removable mounting clip</b>	Flexible and easy mounting	Removable clip allows DIN-rail and wall mounting from back and side of the unit
<b>EMC</b>	Low EMC emissions	1 <sup>st</sup> environment EMC filters as standard
<b>Automatic switching frequency</b>	Provides lowest possible noise without decreased derating of the drive	Increases switching frequency automatically, when drive temperature is decreased

# Ratings, types and voltages

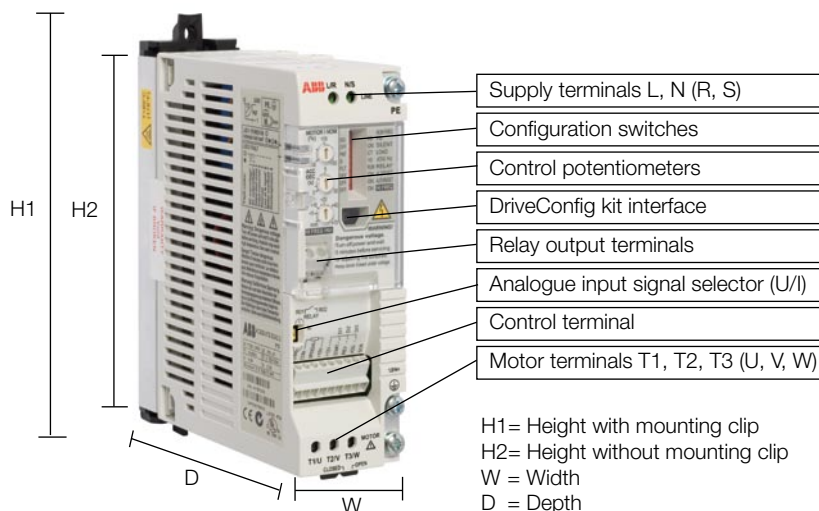


$P_N$ kW	$P_N$ hp	Output current		Input current A	Type code	Frame size	H1 mm	H2 mm	W mm	D mm	Weight kg
		nominal A	max A								
<b>Inbuilt EMC filter, 1-phase supply voltage 200/240 V, +10/-15%, 3-phase output 200/240 V</b>											
0.18	0.25	1.4	2.1	4.4	ACS55-01E-01A4-2	A	170	146.5	45	128	0.65
0.37	0.5	2.2	3.3	6.9	ACS55-01E-02A2-2	A	170	146.5	45	128	0.7
0.75	1.0	4.3	6.5	10.8	ACS55-01E-04A3-2	B	170	146.5	67.5	128	0.7
1.5	2	7.6	11.4	18.2	ACS55-01E-07A6-2	D	226	203	70	159	1.1
2.2	3	9.8	14.7	22	ACS55-01E-09A8-2	D	226	203	70	159	1.1

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

$P_N$ kW	$P_N$ hp	Output current		Input current A	Type code	Frame size	H1 mm	H2 mm	W mm	D mm	Weight kg
		nominal A	max A								
<b>Inbuilt EMC filter, 1-phase supply voltage 110/120 V, +10/-15%, 3-phase output 200/240 V</b>											
0.18	0.25	1.4	2.1	6.4	ACS55-01E-01A4-1	A	170	146.5	45	128	0.65
0.37	0.5	2.2	3.3	9.5	ACS55-01E-02A2-1	A	170	146.5	45	128	0.7

$P_N$ kW	$P_N$ hp	Output current		Input current A	Type code	Frame size	H1 mm	H2 mm	W mm	D mm	Weight kg
		nominal A	max A								
<b>No EMC filter, 1-phase supply voltage 110/120 V, +10/-15%, 3-phase output 200/240 V</b>											
0.18	0.25	1.4	2.1	6.4	ACS55-01N-01A4-1	A	170	146.5	45	128	0.55
0.37	0.5	2.2	3.3	9.5	ACS55-01N-01A4-1	A	170	146.5	45	128	0.6





# Options

## DriveConfig kit

The DriveConfig kit is a PC tool for volume configuration and control of ACS55 drives. The kit enables parameter setting and software updating without the need for a power connection. The drives can even remain in their delivery boxes during configuration. The DriveConfig kit features on-line drive control and monitoring of up to four signals simultaneously. Together with ACS55 drives, the DriveConfig kit brings additional value to processes by saving time and ensuring safety.

### DriveConfig kit includes:

- Hardware and cables
- PC software
- User's manual in English (hardcopy and PDF)
- Battery charger
- Serial port / USB adapter

### DriveConfig kit requirements:

- PC with Microsoft Windows 2000/XP operating system
- Free serial or USB port from the PC

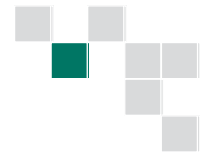


## Potentiometer

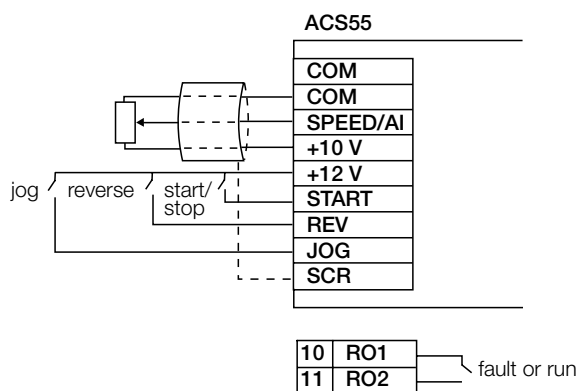
The ACS50-POT potentiometer is an option for ACS55 drives. Two switches are included in addition to the potentiometer for drive control; start / stop and forward / reverse. The ACS50-POT potentiometer does not require any external power source.



# Technical specification



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 $U_{\text{SUPPLY}}$ (for 110/120 V from 0 to 230 V)
Frequency	0 to 120/130 Hz
Overload capacity	150% (60 s)
Switching frequency	
Standard	5 kHz, adjustable up to 16 kHz with automatic switching frequency reduction
Acceleration time	0.1 to 30 s
Deceleration time	0.1 to 30 s
Environmental limits	
Ambient temperature	
0 to 40 °C	with nominal current and 5 kHz switching frequency
up to 50 °C	with derating
-20 °C	with restrictions
Altitude	
Output current	Nominal current : 0 to 1000 m reduced by 1% per 100 m over 1000 m to 2000 m
Relative humidity	lower than 95% (without condensation)
Degree of protection	IP20
Contamination levels	No conductive dust allowed, corrosive liquids or gases (IEC 60721-3-3)



Control connections		
<b>One analog input</b>		
Voltage signal	0 (2) to 10 V, 200 k $\Omega$ single-ended	
Current signal	0 (4) to 20 mA, 100 $\Omega$ single-ended	
Potentiometer reference value	10 V $\pm$ 2% max. 10 mA, 1 k $\Omega$ $\leq$ R $\leq$ 10 k $\Omega$	
Response time	$\leq$ 60 ms	
Resolution	0.1%	
Accuracy	$\pm$ 1%	
<b>Three digital inputs</b>		
	12 V DC with internal or 12 to 24 V DC external supply, PNP	
Input impedance	1.5 $\Omega$	
Response time	$\leq$ 9 ms	
<b>One relay output</b>		
Switching voltage	12 to 250 V AC or max 30 V DC	
Maximum continuous current	2 A	
Product compliance		
Low Voltage Directive 73/23/EEC with supplements		
EMC Directive 89/336/EEC with supplements		
Quality assurance system ISO 9001 and Environmental system ISO 14001		
CE, UL, cUL, C-Tick and GOST R approvals		
EMC standards in general		
<b>EN 61800-3/A11 (2000), product standard</b>	<b>EN 61800-3 (2004), product standard</b>	<b>EN 55011, product family standard for industrial, scientific and medical (ISM) equipment</b>
1 <sup>st</sup> environment, unrestricted distribution	Category C1	Group 1 Class B
1 <sup>st</sup> environment, restricted distribution	Category C2	Group 1 Class A
2 <sup>nd</sup> environment, unrestricted distribution	Category C3	Group 2 Class A
2 <sup>nd</sup> environment, restricted distribution	Category C4	Not applicable



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