

# ABB component drives

## ACS150, 0.37 to 4 kW / 0.5 to 5 hp



### ABB component drives

ABB component drives are designed for machine building. These drives are components that are bought together with other components from a logistical distributor. The drive are stocked, and the number of options and variants is optimized for logistical distribution.

### Highlights

- FlashDrop
- Integrated interface
- Integrated potentiometer
- Inbuilt C3 EMC filter
- Inbuilt brake chopper
- Side-by-side mounting
- Coated boards

### Voltage and power range

- 1-phase, 200 to 240 V  $\pm 10\%$   
0.37 to 2.2 kW (0.5 to 3 hp)
- 3-phase, 200 to 240 V  $\pm 10\%$   
0.37 to 2.2 kW (0.5 to 3 hp)
- 3-phase, 380 to 480 V  $\pm 10\%$   
0.37 to 4 kW (0.5 to 5 hp)

### Applications

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

### Options

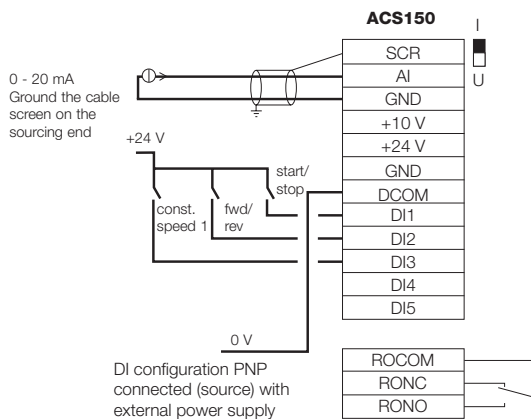
- FlashDrop
- Input/Output chokes
- C2 EMC filters
- NEMA 1 kit

# Ratings, types, voltages and dimensions



Ratings			Type code	Frame size	IP20 UL open				NEMA 1			
$P_N$ kW	$P_N$ hp	$I_{2N}$ A			H2 mm	W mm	D mm	Weight kg	H5 mm	W mm	D mm	Weight kg
<b>1-phase supply voltage 200 - 240 V units</b>												
0.37	0.5	2.4	ACS150-01X-02A4-2	R0	202	70	142	1.1	280	70	142	1.5
0.75	1	4.7	ACS150-01X-04A7-2	R1	202	70	142	1.3	280	70	142	1.7
1.1	1.5	6.7	ACS150-01X-06A7-2	R1	202	70	142	1.3	280	70	142	1.7
1.5	2	7.5	ACS150-01X-07A5-2	R2	202	105	142	1.5	282	105	142	1.9
2.2	3	9.8	ACS150-01X-09A8-2	R2	202	105	142	1.5	282	105	142	1.9
<b>3-phase supply voltage 200 - 240 V units</b>												
0.37	0.5	2.4	ACS150-03X-02A4-2	R0	202	70	142	1.1	280	70	142	1.5
0.55	0.75	3.5	ACS150-03X-03A5-2	R0	202	70	142	1.1	280	70	142	1.5
0.75	1	4.7	ACS150-03X-04A7-2	R1	202	70	142	1.3	280	70	142	1.7
1.1	1.5	6.7	ACS150-03X-06A7-2	R1	202	70	142	1.3	280	70	142	1.7
1.5	2	7.5	ACS150-03X-07A5-2	R1	202	70	142	1.3	280	70	142	1.7
2.2	3	9.8	ACS150-03X-09A8-2	R2	202	105	142	1.5	282	105	142	1.9
<b>3-phase supply voltage 380 - 480 V units</b>												
0.37	0.5	1.2	ACS150-03X-01A2-4	R0	202	70	142	1.1	280	70	142	1.5
0.55	0.75	1.9	ACS150-03X-01A9-4	R0	202	70	142	1.1	280	70	142	1.5
0.75	1	2.4	ACS150-03X-02A4-4	R1	202	70	142	1.3	280	70	142	1.7
1.1	1.5	3.3	ACS150-03X-03A3-4	R1	202	70	142	1.3	280	70	142	1.7
1.5	2	4.1	ACS150-03X-04A1-4	R1	202	70	142	1.3	280	70	142	1.7
2.2	3	5.6	ACS150-03X-05A6-4	R1	202	70	142	1.3	280	70	142	1.7
3	4	7.3	ACS150-03X-07A3-4	R1	202	70	142	1.3	280	70	142	1.7
4	5	8.8	ACS150-03X-08A8-4	R1	202	70	142	1.3	280	70	142	1.7

X within the type code stands for E or U.  
 E = EMC filter connected. U = EMC filter disconnected.  
 H2 = Height with fastenings but without clamping plate.  
 H5 = Height with fastenings, NEMA 1 connection box and hood.  
 W = Width, D = Depth



## Motor connection

<b>Voltage</b>	3-phase, from 0 to $U_{supply}$
<b>Frequency</b>	0 to 500 Hz
<b>Overload capability</b> (at a max. ambient temperature of 40°C)	At heavy duty use $1.5 \times I_{2N}$ for 1 minute every 10 minutes At start $1.8 \times I_{2N}$ for 2 s
<b>Switching frequency</b>	Default: 4 kHz Selectable: 4 to 16 kHz with 4 kHz steps
<b>Acceleration time</b>	0.1 to 1800 s
<b>Deceleration time</b>	0.1 to 1800 s
<b>Braking</b>	Inbuilt brake chopper as standard

## Programmable control connections

<b>One analog input</b>	
Voltage signal	0 (2) to 10 V, $R_{in} > 312 \text{ k}\Omega$
Current signal	0 (4) to 20 mA, $R_{in} = 100 \Omega$
Potentiometer reference value	10 V $\pm 1\%$ max. 10 mA, $R < 10 \text{ k}\Omega$
Resolution	0.1 %
Accuracy	$\pm 2\%$
<b>Auxiliary voltage</b>	24 V DC $\pm 10\%$ , max. 200 mA
<b>Five digital inputs</b>	12 to 24 V DC with internal or external supply, PNP and NPN, pulse train 0 to 10 kHz.
Input impedance	2.4 k $\Omega$
<b>One relay output</b>	
Type	NO + NC
Maximum switching voltage	250 V AC/30 V DC
Maximum switching current	0.5 A/30 V DC; 5 A/230 V AC
Maximum continuous current	2 A rms

## Product compliance

UL, cUL, CE, C-Tick and GOST R approvals

## Environmental limits

<b>Degree of protection</b>	IP20 / Optional NEMA 1 enclosure
<b>Ambient temperature</b>	-10 to 40 °C (14 to 104 °F), no frost allowed, 50 °C (122 °F) with 10% derating
<b>Relative humidity</b>	Lower than 95% (without condensation)



**ABB Oy**  
 Drives  
 P. O. Box 184  
 FI - 00381 Helsinki  
 Finland  
 Telephone +358 10 22 11  
 Fax +358 10 22 23764  
 Internet [www.abb.com/motors&drives](http://www.abb.com/motors&drives)

For more information see technical catalogue  
 ABB component drives, ACS150 (3AFE68596114).

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