

LOW VOLTAGE AC DRIVES

ABB general purpose drives

ACS550, 0.75 to 355 kW/1 to 500 hp



The ACS550 drives are simple to buy, install, configure and use, saving considerable time. The drives have common user and process interfaces with fieldbuses, common software tools for sizing, commissioning, maintenance and common spare parts.

All your energy saving options covered from the start

- **Simplicity for many needs**
 ABB general purpose drives can be used in a wide range of industries. Typical applications include pump, fan and constant torque use, such as conveyors.
- **Guaranteed easiness with built-in features**
 General purpose drives are ideal in those situations where there is a need for simplicity to install, commission and use and where customizing or special product engineering is not required. The drives include several features as standard, such as swinging choke, EMC filter and control panel. All drives are tested with full load at the factory ensuring premium quality.
- **Efficient operation**
 Energy efficiency achieved with general purpose drives can be easily monitored using the built-in counters, which display energy savings in kilowatt hours, carbon dioxide emissions or local currencies.



Technical data

Motor connection	
Voltage	3-phase, from 0 to U_{supply}
Frequency	0 to 500 Hz
Continuous loading capability (constant torque at a max. ambient temperature of 40 °C)	Rated output current I_{2N}
Overload capacity (at a max. ambient temperature of 40 °C)	At normal use $1.1 \times I_{2N}$ for 1 minute every 10 minutes At heavy duty use $1.5 \times I_{2hd}$ for 1 minute every 10 minutes Always $1.8 \times I_{2hd}$ for 2 seconds every 60 seconds
Switching frequency	1, 2, 4, 8, 12 kHz. 4 kHz as default.
Programmable control connections	
Two analog inputs	
Voltage signal	0 (2) to 10 V, $R_{in} > 312 \text{ k}\Omega$ single-ended
Current signal	0 (4) to 20 mA, $R_{in} = 100 \Omega$
Potentiometer reference value	10 V \pm 2% max. 10 mA, $R < 10 \text{ k}\Omega$
Resolution	0.1%
Maximum delay	12 to 32 ms
Accuracy	\pm 1%
Two analog outputs	
Accuracy	0 (4) to 20 mA, load $< 500 \Omega$ \pm 3%
Auxiliary voltage	24 V DC \pm 10%, max. 250 mA
Six digital inputs	
	12 to 24 V DC with internal or external supply, PNP and NPN
Input impedance	2.4 k Ω
Maximum delay	5 ms \pm 1ms
Three relay outputs	
Maximum switching voltage	250 V AC/30 V DC
Maximum switching current	6 A/30 V DC; 1500 V A/230 V AC
Maximum continuous current	2 A rms
Serial communication	EIA-485, Modbus protocol
Control and communication options	
Fieldbusses	
	DeviceNet™, RDNA-01
	DeviceNet™, RDNA-01
	PROFIBUS DP, RPBA-01
	CANopen®, RCAN-01
	ControlNet, RCNA-01
	Ethernet/IP™, RETA-01
	EtherCAT®, RECA-01
	Modbus TCP, RETA-01, RETA-02
	PROFINET IO, RETA-02
	PowerLink, REPL-01
Remote monitoring	Ethernet adapter, SREA-01
Encoder adapter	Encoder adapter, OTAC-01
Relay output extension	Extension module, 3 relay outputs, OREL-01
Product compliance	
UL, cUL, CE, C-Tick and GOST R approvals, RoHS compliant	
Environmental limits	
Degree of protection	IP21 or IP54 (\leq 160 kW)
Ambient temperature	-15 to +50 °C. No frost allowed. From +40 to 50 °C with derating.
Relative humidity	5 to 95%, no condensation allowed

For more details see ACS550 catalog (3AFE64792857).

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

abb.com/drives
abb.com/drivespartners

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Highlights

- Energy efficiency counters
- Intuitive use with assistant control panel
- Swinging choke for superior harmonic reduction
- Vector control
- Coated boards for harsh environments
- Built-in category C2 EMC filter (1st environment) as standard
- Flexible fieldbus system with built-in Modbus and numerous internally mountable fieldbus adapters
- Brake chopper as standard in the frames R1 and R2
- FlashDrop tool for cold configuration

Options

- Fieldbus adapters
- Panel mounting kits
- DriveWindow Light software
- Output chokes
- Brake units and resistors
- Encoder feedback module
- Relay output extension module
- Remote monitoring adapter
- Flange mounting kits
- FlashDrop tool
- Basic control panel