BROCHURE

ABB standard drives

ACS550, 0.75 to 550 hp (0.75 to 355 kW)

ABB standard 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.

ABB standard drives can be used in a wide range of industries. These 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.

Energy efficiency achieved with ABB standard drives can be easily monitored using the built-in counters, which display energy savings in kilowatt hours, carbon dioxide emissions or local currencies.

Highlights

- Advanced control panel permitting intuitive operation
- Patented swinging choke for superior harmonic reduction (R1-R6) and AC line reactor (R8)
- Sensorless vector control
- Integral EMC filter as standard
- Built-in Modbus RTU and numerous internally mountable fieldbus adapters
- FlashDrop
- Coated boards for harsh environments
- UL, cUL, C-Tick and Gost-R approved
- Built-in brake chopper (10Hp, 230V / 15Hp, 480V and 600 V)
- Many assistants including Start-up, Drive Optimizer, Real-time Clock, Diagnostics, Maint nance, Serial and PID
- Seismic Certification to ICC AC-156 Criteria

Voltage and power range

- 3-phase, 208 to 240 V, 0.75 - 100Hp
- 3-phase, 380 to 480 V, 1 - 550Hp
- 3-phase, 500 to 600V, 1.5 - 150Hp

Applications

- Pumps and Fans
- Conveyors

Options

- Fieldbus adapters
- Panel mounting kits
- DriveWindow Light 2 software
- Brake units and resistors
- Encoder feedback module
- Relay output extension module
- Flange mounting kits
- FlashDrop tool

ACS550 standard drives

ACS550-U1, wall mount
- NEMA 1 & 12 enclosures
  - 1.0 to 100 HP @ 240Vac
  - 1.5 to 200 HP @ 480Vac
  - 2.0 to 150 HP @ 600Vac

ACS550-PC/PD, wall-mount packaged
- NEMA 1, 12 & 3R enclosures
  - 0.75 to 100 HP @ 240Vac
  - 1 to 200 HP @ 480Vac
  - 1.5 to 150 HP @ 600Vac
- Circuit Breaker (PC)
- Fused disconnect (PD)

ACS550-PC, free standing packaged
- NEMA 1 & 12 enclosures (NEMA 12 std. 450-550 HP)
  - 250 to 550 HP @ 480Vac
- Circuit Breaker (PC)

ACS550-CC, wall mount & free standing
- Three contactor Bypass
- Wall mount
  - NEMA 1, 12 & 3R
  - 1 to 100 HP @ 240Vac
  - 1 to 400 HP @ 480Vac
  - 1.5 to 150 HP @ 600Vac
- Free standing
  - NEMA 1 & 12
  - 250 - 400 HP @ 480Vac

Input power connection	
Voltage and power range	3-phase, 208 to 240 V, +10/-15%, 0.75 - 100Hp 3-phase, 380 to 480 V, +10/-15%, 1 - 550Hp 3-phase, 500 to 600V, +10/-15%, 1.5 - 150Hp
Frequency	48 to 63 Hz
Power factor	0.98
Motor connection	
Frequency	0 to 500 Hz
Acceleration time	0.1 to 1800 s
Deceleration time	0.1 to 1800 s
Programmable control connections	
Two analog inputs	
Voltage signal	0 (2) to 10 V, Rin > 312 kΩ single-ended
Current signal	0 (4) to 20 mA, Rin = 100 Ω single-ended
Potentiometer reference value	10 V ±2% max. 10 mA, R < 10 kΩ
Maximum delay	12...32 ms
Resolution	0.1%
Accuracy	±1%
Two analog outputs	0 (4) to 20 mA, load < 500 Ω
Accuracy	±3%
Auxiliary voltage	24 V DC ±10%, max. 250 mA
Six digital inputs	12 V... 24 V DC with internal or external
Input impedance	supply, PNP and NPN
Maximum delay	2.4 kΩ
	5 ms ± 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 rm
Serial communication	
RS 485	Built-in Modbus RTU protocol
Product compliance	
240V products:	UL, cUL, CSA, CE, C-TICK, and GOST-R approvals
480V products:	UL, cUL, CSA, CE, C-TICK, and GOST-R approvals
600V products:	UL, cUL, CSA, C-TICK, and GOST-R approvals
Low Voltage Directive 73/23/EEC with supplements Machinery Directive 98/37/EC EMC Directive 89/336/EEC with supplements Quality assurance system ISO 9001 and Environmental system ISO 14001 Seismic Certification to ICC AC-156	
Environmental Limits	
Protection class	UL Type 1, 12 or 3R (NEMA 1, 12, or 3R)
Ambient temperature	15 to 40°C (5 to 104°F) 40 to 50°C (104 to 122°F) No frost allowed f_{switch} 4 kHz, P_N and I_2 derated to 90%
Relative humidity	lower than 95% (without condensation)

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ACS550-PHPB01U-EN REVD Effective: 05/20/2017