

ABB industrial drives ACS800, drive modules 0.55 to 2900 kW

ABB industrial drives are designed for applications in pulp and paper, metals, mining, cement, power, chemical, oil and gas and other industries. The drives can be easily programmed and configured to meet specific application routines.



ACS800 drive modules

ABB single drive and multidrive modules are designed to be installed into a customer's own cabinet. Drive modules enable machine builders, system integrators and panel builders to build their own drive packages using ABB drive technology. This gives many of the advantages of ABB drives including the motor control platform, direct torque control (DTC), adaptive programming and a wide range of options: both built-in and external. ABB provides detailed cabinet installation instructions and other support material to help customers build their own solutions. The single drive and multidrive modules can be connected to an AC or DC supply and cooled with dry clean air or liquid.

Highlights

- Optimized for system integrators and panel builders
- High flexibility
- Programmability
- Wide range of configurations and options
- Application programs for different industrial segments

Voltage and power range

- 3-phase 230 V: 0.55 to 200 kW
- 3-phase 400 V: 1.1 to 2400 kW
- 3-phase 500 V: 1.5 to 2900 kW
- 3-phase 690 V: 5.5 to 2800 kW

Applications

- Pumps and fans
- Cranes and winches
- Roller tables
- Winders
- Conveyors
- Extruders and compressors
- Test benches
- Processing lines
- Presses
- Mixers

Options

- Application control programs
- Assembly kits including Rittal TS8
- du/dt and sine filters
- Fieldbuses /input and output extensions
- PC tools

ACS800 single drive modules

Series ACS800-04/04LC

- Power range 0.55 to 1900 kW (230 to 690 V)
- IP00, IP20
- Marine type approved design available for frame sizes R2-R6

Series ACS800-14

- Power range 75 to 1700 kW (380 to 690 V)
- IP00
- Provides regenerative capability
- Low harmonic solutions

ACS800 multidrive modules

Inverter modules

- Series ACS800-104/104LC
- Power range 1.1 to 2800 kW (380 to 690 V)
- IP00

6-/12-pulse diode supply modules

- Series ACS800-304/304LC (6-pulse) and ACS800-704/704LC (6-/12-pulse)
- Power range 147 to 4200 kW (380 to 690 V)
- IP00

Thyristor supply modules

- Series ACS800-404
- Power range 470 to 3150 kW (380 to 690 V)
- IP00
- Provide regenerative capability

IGBT supply modules + LCL filters

- Series ACS800-204/204LC modules + LCL filters
- Power range 3 to 2700 kW (380 to 690 V)
- IP00
- Provides regenerative capability
- Low harmonic solutions

Mains connection	
Voltage and power range	3-phase, $U_{2IN} = 208$ to 240 V, $\pm 10\%$, only ACS800-04 3-phase, $U_{3IN} = 380$ to 415 V, $\pm 10\%$ 3-phase, $U_{5IN} = 380$ to 500 V, $\pm 10\%$ 3-phase, $U_{7IN} = 525$ to 690 V, $\pm 10\%$
Frequency	48 to 63 Hz
Power factor	$\cos\phi_1 = 0.98$ (fundamental) $\cos\phi = 0.93$ to 0.95 (total)
Power factor IGBT supply	$\cos\phi_1 = 1$ (fundamental) $\cos\phi = 0.99$ (total)
Efficiency (at nominal power)	
ACS800-04/04LC	98%
ACS800-x04/x04LC	98%
	97% with IGBT supply unit
Motors connection	
Frequency	0 to ± 300 Hz (0 to ± 120 Hz with external du/dt or sine filters) (0 to ± 300 Hz with built-in du/dt filters)
Field weakening point	8 to 300 Hz
Motor control	Direct torque control (DTC)
Environmental limits	
Ambient temperature	
Transport	-40 to +70 °C
Storage	-40 to +70 °C
Operation	
ACS800-04	-15 to +50 °C, no frost allowed 40 to 50 °C at reduced output current (1% / 1 °C)
ACS800-04, nxR8i, x04, -14	0 to +50 °C, no frost allowed 40 to 50 °C at reduced output current (1% / 1 °C)
ACS800-04LC, -x04LC	0 to +55 °C, no frost allowed 45 to 55 °C, at reduced output power (0,5% / 1 °C)
Cooling method	Dry clean air/liquid

Product compliance	
CE, UL*, CSA, C-Tick, GOST R	

EMC according to EN 61800-3:2004	
2 nd environment, unrestricted distribution category C3 - as option in ACS800-04 up to frame size R8	
1 st environment, restricted distribution category C2 as option up to 1000 A input current	

* Excluding TSU

For further information, see catalog "ABB industrial drives, ACS800, drive modules, 0.55 to 2900 kW", code: 3AFE68404592 EN

For more information please contact:

www.abb.com/drives
www.abb.com/drivespartners

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