



ACS800-US-00 Rev. B

ACS800 AC Drives for speed and torque control of 3 to 400Hp induction motors

Product Notes



Pictured: ABB's ACS800 family of drives for speed and torque control of induction motors.

Common Technology for Different Applications

One of the primary benefits of the ACS800 series is a wide range of drive products with common technologies like Start-Up Assistant, Adaptive Programming and DTC. The full line of ACS800 drives also share common features, common user and process interface with fieldbuses, common software tools for sizing, commissioning and maintenance, and common spare parts.

Premium Technology - DTC

The heart of the ACS800 is DTC - Direct Torque Control, its first class motor control system. The consistent excellent performance of the ACS800 guarantees that the drive will not be the limiting factor in your process. DTC technology has been proven in various applications and demanding environments, guaranteeing the high reliability of the drive.

Start-Up Assistant

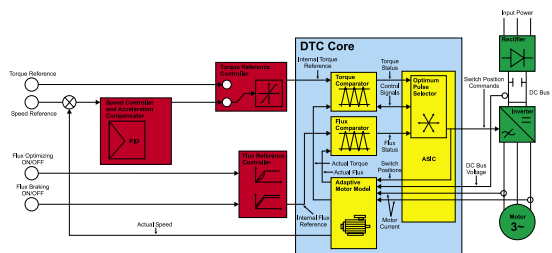
The ABB AC Drives have always been the top of their class in user-friendliness. The ACS800 series brings a whole new meaning to "user friendly." Thanks to the Start-Up Assistant, the commissioning and tuning of a high performance drive could not be easier.

Adaptive Programming

The ACS800 goes one step further compared to normal parameter programming with the addition of Adaptive Programming. It is like having PLC functions inside your drive. Adaptive Programming needs no additional hardware or software but is always there when needed.

Integration and Compact Design

ABB offers the slimmest profile AC drive today, requiring less than 10" of width for a 200Hp drive and less than 14" for 250 through 600Hp. Anything required for an AC drive, like EMC filters or chokes, are inside the drive, so no extra space or cabling is required. Furthermore, there is always space inside the ACS800 for three option modules for I/O extensions, fieldbus adapters, pulse encoder interface or PC connections.





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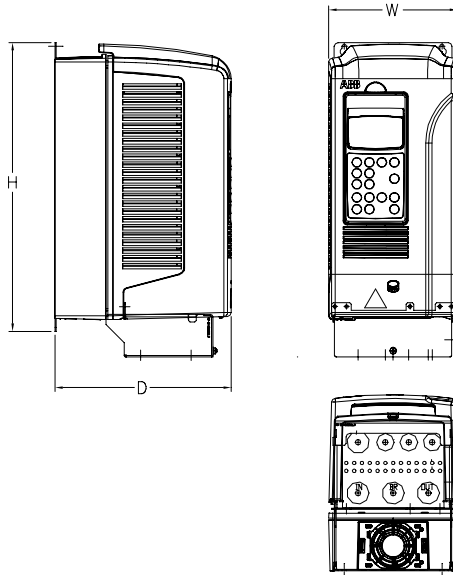
Product Notes

ABB is Committed to Drives

The ACS800 series provides a great deal of flexibility while remaining easy to work with. The ACS800 is programmed for 2-wire start/stop with an analog input signal right out of the box with no additional programming. ABB knows the importance of ease of use, minimized training requirements, minimal spare parts, commonality of programming methods across our drive product line and backwards compatibility with 'classic' products.

Easy Connection to PLC's or Upper Level Control Systems

ABB is an industry leader in drives and, as such, we also lead in fieldbus connectivity to different networks, offering fieldbus adapters that support all of today's popular protocols, such as: Modbus, Modbus Plus, DeviceNet, Profibus, Interbus-S, ControlNet, CANopen and Ethernet.



Technical Data

Input Power

Voltage 3 phase, 230 to 690V ±10% permitted tolerance
 Frequency 48 to 63 Hz

Output Power

Voltage 3 phase, from 0 to applied incoming supply voltage
 Frequency 0 to 3.2*f_{FWP}

Environmental Limits

Ambient Temp 0 to 40°C

Enclosure Classes

Chassis (IP 00)
 NEMA 1 (IP 21)
 NEMA 12 (IP54)

Standard Control Connections

- 3 programmable differential analog inputs (1 bipolar voltage signal, 2 current signals)
- 6 programmable digital inputs
- 2 programmable analog outputs (current signals)
- 3 programmable digital outputs (form C relays)

Optional analog and digital extension modules can be added as well as a wide range of fieldbus adapters.

Protection

Overcurrent, short circuit, ground fault, input phase loss, output phase loss, motor overload (I_{2t}), overvoltage, undervoltage, overtemperature, motor stall.

Frame Size	UL Type 1				UL Type 12				230V HP	480V HP
	Height in.	Width in.	Depth in.	Weight lbs.	Height in.	Width in.	Depth in.	Weight lbs.		
R2	14.57	6.50	8.89	20	20.78	10.35	9.49	34	1 - 3	3 - 10
R3	16.54	6.81	10.45	26	20.78	10.35	10.74	41	5 - 10	15 - 25
R4	19.29	9.45	10.79	57	30.49	14.84	10.94	71	15 - 20	30 - 40
R5	23.70	10.43	11.26	82	30.49	14.84	12.14	110	25 - 40	50 - 75
R6	27.56	11.81	15.75	148	36.34	16.52	16.54	170	50 - 75	100 - 150
R7	59.4	23.6	20.6	480	See ACS800-07 Cabinet Drive Documentation				Consult	150 - 250
R8	79.6	31.5	24.4	827					Factory	250 - 600

Drawing is NOT for engineering purposes.



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