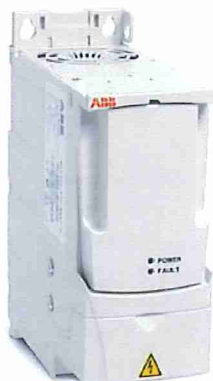


ACS310 AC Micro Drive



1/2 thru 3 Hp	230 Vac	1 Phase - 50/60 Hz
1/2 thru 15 Hp	230 Vac	3 Phase - 50/60 Hz
1/2 thru 30 Hp	460 Vac	3 Phase - 50/60 Hz

Applications: Pumps and fans - Applications not requiring vector speed control. Variable torque, constant torque or constant horsepower applications. New installations, replacements and original equipment manufactures (OEM).

Features: V/Hz control for linear (CT), squared (VT) or custom user defined curve. Peak overload capacity of 110%. Flexible mounting options - wall or DIN rail mount. IP20 enclosure standard. NEMA1 protection kit available. Ships with blank cover, advanced or basic control panel option available for operator interface and local speed control. Programming by groups makes it easy to navigate and find parameters. A quick start assistant enables users to program and start using the drive in minutes without need for a User Manual. Built-in PID controller, Pump protection, Pump and fan control (PFC) for pumps and fans run in parallel.

Performance Features	Control Modes	Scalar (V/Hz)
	Operator Interface Module	Basic and advanced control panel option kits are available. Drive Ships as shown with blank cover.
	Control Panel Display	LCD Graphical Display
	Programmable Preset Speeds	Seven
	Analog Outputs	One (0/4 - 20 mADC)
	Auto Restart	Yes -- Up to 5 attempts
	Frequency Avoidance	Three Bands
	Fault History	Last Three Faults
	Digital Inputs	Five Configurable Inputs
	Digital Outputs: Two Total	One Transistor Output
Drive Specifications	Analog Inputs: Two Total	0-10VDC, -10 to 10VDC or 0/4 - 20mADC
	Digital Outputs: Two Total	One Transistor Output
		Form C Relay
	Analog Outputs	0/4 - 20mADC
	Overload Capacity	Drive Output 110% for 1 min.
	Input Voltage Ranges:	Single phase: 200 - 240 VAC
		3-phase: 200 - 240 VAC; 380 - 480 VAC
	Input Voltage Tolerance	10% / -10%
	Rated Input Frequency	50-60Hz (±5%)
	Carrier Frequency:	4-16 kHz (4 kHz default)
	Operating Temperature:	-10° to 40°C; -10° to 50°C w/ 10% derate
	DC Injection Braking:	Standard
	Flux Optimization:	Can improve efficiency up to 10% on light loads
	Volts/Hz	Linear V/Hz (CT)
		Squared V/Hz (VT)
		Custom 4-Point V/Hz Curve
	Frequency Control Range:	0-599 Hz
	Accel/Decel:	Two independently adjustable sets of ramps
	Time Range:	0.0 to 1800 Seconds
	Keypad Speed Control	Yes
Protective Features	Sink/Source Inputs	Selectable, 24 VDC Logic
	Electronic Overload Trip	Electronic Motor Overload Inverse Time calculation
	Communications	Built-in MODBUS-RTU (RS-485) Communications
	PID Control	Built-in
	Under Voltage	Level Depends on Voltage Class (240, 480)
	Ground Fault Protection	Ground Fault protection active during run
	Output Short Circuit	Phase-to-Phase on Drive Output
	Over Temperature	Heatsink Monitor
	Motor Overtemp	Excessive estimated Motor Temperature
	DC Bus Overvoltage	DC Bus Level Trip
Agency Certifications	IGBT Overtemp	Drive Output IGBT Temp is too high
	Over Current	Over-current/short-Circuit protection
	Output Phase Loss	Trips on Motor Phase Loss
	Loss of Reference	Trips on Loss of Speed Command Signal
	Comm. Error	Detects a communication error (fault)
	Loss of Keypad	Drive will trip if under keypad control and keypad communication is lost
	Incorrect Wiring	Drive faults on output wiring fault when input power is connected to Motor terminals
	Motor Model Calc Fail	Drive will trip if Motor Model cannot be determined - Sensorless Vector Control
		UL, cUL, CE, C-tick, GOST-R
Service Conditions	Altitude:	1,000 m (3,300 ft.). Derate by 1% every 100 m (328 ft.) up to 2,000m (6,600 ft.)
	Ambient Temperature:	-10°C (14°F) to 40°C (104°F) - up to 50°C with 10% derate
	Relative Humidity:	0% to 95%, non-condensing
	Intermittent Overload:	110% overload capacity for up to 1 minute

ACS310 - Ratings & Pricing

240Vac Ratings Supply Voltage 200...240 V

Catalog Number	HP	kW	Ratings		Frame Size	IP20 with Blank Panel List Price	Multiplier Symbol
			50°C (122°F)	40°C (104°F)			
			Amps (110% OL)	Amps			
1-Phase, 200 - 240V (200, 208, 230, 240V)							
ACS310-01U-02A4-2	0.5	0.37	2.3	2.4	R0	258	EQ
ACS310-01U-04A7-2	1	0.75	4.5	4.7	R1	325	EQ
ACS310-01U-06A7-2	1.5	1.1	6.5	6.7	R1	385	EQ
ACS310-01U-07A5-2	2	1.5	7.2	7.5	R2	420	EQ
ACS310-01U-09A8-2	3	2.2	9.4	9.8	R2	475	EQ
3-Phase, 200 - 240V (200, 208, 230, 240V)							
ACS310-03U-02A6-2	0.5	0.37	2.4	2.6	R0	215	EQ
ACS310-03U-03A9-2	0.75	0.55	3.5	3.9	R0	239	EQ
ACS310-03U-05A2-2	1	0.75	4.7	5.2	R1	274	EQ
ACS310-03U-07A4-2	1.5	1.1	6.7	7.4	R1	303	EQ
ACS310-03U-08A3-2	2	1.5	7.5	8.3	R1	346	EQ
ACS310-03U-10A8-2	3	2.2	9.8	10.8	R2	415	EQ
ACS310-03U-19A4-2	5	4.0	17.6	19.4	R2	545	EQ
ACS310-03U-26A8-2	7.5	5.5	24.4	26.8	R3	739	EQ
ACS310-03U-34A1-2	10	7.5	31.0	34.1	R4	957	EQ
ACS310-03U-50A8-2	15	11.0	46.2	50.8	R4	1,235	EQ

480Vac Ratings 3-phase Supply Voltage 380...480V

Catalog Number	HP	kW	Ratings		Frame Size	IP20 with Blank Panel List Price	Multiplier Symbol
			50°C (122°F)	40°C (104°F)			
			Amps (110% OL)	Amps			
3-Phase Input Voltage = 380...480V (380, 400, 415, 440, 460, 480V)							
ACS310-03U-01A3-4	0.5	0.37	1.2	1.3	R0	342	EQ
ACS310-03U-02A1-4	0.75	0.55	1.9	2.1	R0	359	EQ
ACS310-03U-02A6-4	1	0.75	2.4	2.6	R1	376	EQ
ACS310-03U-03A6-4	1.5	1.1	3.3	3.6	R1	400	EQ
ACS310-03U-04A5-4	2	1.5	4.1	4.5	R1	415	EQ
ACS310-03U-06A2-4	3	2.2	5.6	6.2	R1	507	EQ
ACS310-03U-09A7-4	5	4.0	8.8	9.7	R1	606	EQ
ACS310-03U-13A8-4	7.5	5.5	12.5	13.8	R3	725	EQ
ACS310-03U-17A2-4	10	7.5	15.6	17.2	R3	867	EQ
ACS310-03U-25A4-4	15	11.0	23.1	25.4	R3	1,065	EQ
ACS310-03U-34A1-4	20	15.0	31.0	34.1	R4	1,402	EQ
ACS310-03U-41A8-4	25	18.5	38.0	41.8	R4	1,709	EQ
ACS310-03U-48A4-4	30	22.0	44.0	48.4	R4	2,055	EQ

ACS310 Option Kits

Catalog Number	Name	List Price	Mult. Sym.
ACS-CP-A	Advanced Control Panel The Advanced Control Panel includes a full graphic, backlite display capable of displaying three Actual Signal values or bar graphs. The Alpha-Numeric display supports thirteen languages. A Real Time Clock is also included. This panel supports the internal Sequence Programming Function.	150	ES
ACS-CP-C	Basic Control Panel The Basic Control Panel includes a single line numeric backlit LCD display.	75	ES
OPMP-01	Cabinet Panel Mounting Control Panel Mounting Platform allows remote mounting of the keypad on a large enclosure or remote panel. The kit maintains UL Type 12 integrity of the mounting location. Adapters, 3 m (10ft) cable and mounting hardware are included in this kit. With this mounting arrangement, the keypad is removable from the panel in a fashion identical to a drive-mounted keypad.	138	ES
ACS/H-CP-EXT	Control Panel Mounting Control Panel Mounting Kit for ACS310 drives allows remote mounting of the keypad on the door of an enclosure. The kit includes a 10 ft (3 m) CAT 5 patch cable, gasket for NEMA 12, mounting hardware and drilling template.	55	ES
ACS/H-CP-EXT-IP66	NEMA 4X Cabinet Panel Mounting Allows remote mounting of the ACS-CP-A or ACS-CP-C Operator Panels on a larger NEMA 4X (IP66) enclosure or remote panel. The kit maintains NEMA 4X integrity of the mounting location. All necessary hardware and a mounting template are provided in addition to a 3 m panel cable. When mounted, the operator is not removable from the front of the enclosure. The operator panel must be purchased separately.	63	ES
OCAT-01	Panel Extension Cable 7 foot CAT 5 patch cable allows remote operation of the standard panel or connection of the drive to a Personal Computer using the RJ45/DB9 Adapter which must be purchased separately.	40	ES
MREL-01	Relay Output Extension Module The Relay Output Extension module (MREL) is an interface for connecting three (3) FORM C relay outputs. The MREL-01 is supported from SW version 2.57C and onwards for the ACS355 and is supported by all SW version of ACS310 & ACS355.	105	ES
SREA-01-KIT	Ethernet Adapter (Gateway) SREA-01 is an optional device for web browser based remote interface to the ACS310 and ACS355 drives via ethernet. This din rail mounted adapter enables remote data acquisition through a standard web browser, utilizing an internal web server for drive configuration and access. Multiple drives (up to 10) can be connected to the Modbus-RTU or Modbus-TCP.	1,250	ES
MFD-01	Flashdrop FlashDrop is a powerful palm sized tool for fast and easy parameter selecting and setting. It gives the possibility to hide selected parameters to protect the machine. Only the parameters needed in the application are shown. The tool can upload/download parameters, copy parameters between two drives or between a PC and a drive. Includes DrivePM (Drive Parameter Manager) which is a software tool to create, edit and copy parameter sets for FlashDrop. The parameter sets can consist of all parameters or only a set of the user parameters.	600	ES
OPCA-01	RJ45/DB9 Adapter This adapter converts the drive's panel port RJ45 (CAT 5 cable connector) plug to a 9 pin RS-232 computer serial port connector for connecting the drive to a PC.	50	ES
MUL1-R1 MUL1-R3 MUL1-R4	NEMA 1 Enclosure Kit This option provides the necessary hardware to modify the ACS310, or ACS355 drive from the standard fingersafe protected chassis to NEMA 1 protection capable of landing conduit. MUL1-R1 kit is used with frame sizes R0 through R2, MUL1-R3 is used with frame size R3, and MUL1-R4 is used with frame size R4.	75 75 100	ES ES ES
3AFE64532871	DriveWindow Light 2.x DriveWindow Light is software designed for online drive commissioning and maintenance purposes. It is possible to adjust parameters, read the actual values and control the drive with DriveWindow Light instead of the drive control panel. It is also possible to follow trends and draw graphs. An RJ45 to DB9 adapter cable (OPCA-02) is provided to permit connection between the panel port and a PC.	275	ES
ACS310 DEMOCASE	ACS310 Demo Case Powered by 115VAC, the DemoCase includes and ACS310 drive mounted on a panel. Included is a motor and I/O board with switches, pots, meters and LEDs permitting remote operation of the drive and motor.	2,800	ES

ACS310 Dimensions



Frame Size	IP20 (cabinet) / UL Open				NEMA 1 / UL Type 1			
	H1 (in)	W (in)	D (in)	Wt. (lb)	H2 (in)	W (in)	D (in)	Wt. (lb)
R0	9.41	2.76	6.34	2.6	11.02	2.76	6.65	3.5
R1	9.41	2.76	6.34	2.6	11.02	2.76	6.65	3.5
R2	9.41	4.13	6.50	3.3	11.10	4.13	6.65	4.2
R3	9.29	6.65	6.65	5.5	11.77	6.65	6.97	6.8
R4	9.61	10.24	6.65	9.7	12.60	10.24	6.97	11.0

1) Height with fastenings and clamp plate

2) Height with fastenings, NEMA 1 connection box and hood.

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