

ACS355, machinery drive, UL Open

Data sheet



Input ratings	Input voltage range	1-phase, 200-240V 3-phase, 200-240V 3-phase, 380-480V
	Input voltage tolerance	± 10%
	Phase	Single or three phase
	Frequency	48 to 63 Hz
	Short circuit rating (UL 508c)	100,000 rms symmetrical amperage up to 600 V when input cables are protected by class T fuses or similar type fuses. 65,000 rms symmetrical amperage up to 600 V when input cables are protected by ABB MS series Manual Motor Protectors.
Output ratings	Horsepower	0.5-3 HP @ 240 VAC, 3PH 0.5-15 HP @ 240 VAC, 3PH 0.5-30 HP @ 480 VAC, 3PH
	Overload capacity	150% for 60 seconds every 10 minutes At starting, 180% for 2 seconds
	Frequency	0-599 Hz
	Voltage	0 to maximum input voltage RMS
	Motor types	Asynchronous AC induction motors or permanent magnet synchronous motors
Protective features	Overcurrent	Excessive output current
	DC overvoltage	High DC bus
	Overtemp	Supervision of IGBT temperature
	Short circuit	Short on motor terminals
	DC Undervoltage	Low voltage on drive input
	Loss of reference	Analog input programmed for 4-20ma but signal less than 4ma
	Motor overtemp	Excessive estimated motor temperature
	Loss of keypad	Default, drive will trip if under keypad control and keypad comm. is lost
	Motor stall	Motor cannot achieve commanded speed due to excessive load
	Ground fault	Ground fault detected in motor or motor cabling
Environmental	Motor phase fault	Loss at one of the motor phases
	Temperature	-10 to 40 °C (14 to 104 °F), no frost allowed, 50 °C (122 °F) with derating
	Cooling	Natural convection R0 frames, forced air R1-R4 frames
	Enclosure	UL Open (IP20), option NEMA 1 (IP20)
	Altitude	Sea level to 3300 ft. (1000 m), derate 1% per 330 ft. (100 m) up to 6600 ft. (2000 m)
	Humidity	0 to 95% RH non-condensing
	Vibration	Max 3.0 mm (0.12 in) 2 to 9 Hz, max 10 m/s ² (33 ft/s ²) 9 to 200 Hz sinusoidal
Keypad display	Display	LCD graphical display
	Keys	Eight (8) key keypad with tactical response
	Functions	Output status monitoring, digital speed control, parameter setting and display, diagnostic and fault log display, motor run, local/remote toggle
	Remote mount	Keypad may be mounted up to 9 ft. using appropriate cable (option kit)
	Trip	Basic CP, view last fault Assistant CP, view last fault and last three (3) faults stored in fault history
Control specifications	Switching frequency	4 (default) to 16 kHz, in 4 kHz steps
	Accel/decel	0 to 1800 s
	Speed control accuracy	Static: 20% of slip, 2% w/ pulse encoder; dynamic: < 1% s
	Skip frequencies	Three (3) configurable bands, 0 to 500 Hz
	PC setup software	DriveWindow Light, DriveBrowser, FlashDrop tool
	Maximum output frequency	599 Hz
Analog inputs	Selectable operating modes	2-wire, 3-wire, Motor potentiometer, Hand/Auto, PID, Torque, AC500 Modbus, User
	Two selectable current or voltage	Unipole: 0 (2) to 10 V, or bipolar -10 to 10 V; Rin = 675 kΩ Unipole 0 (4) to 20 mA or bipolar -20 to 20 mA; Rin = 100 Ω
	Resolution	0.1%
Analog outputs	One current output	0 (4) to 20 mA, load < 500 Ω
Digital inputs	Five (5) digital inputs	12 to 24 VDC with internal or external supply, 30 VDC maximum
	Input impedance	Pull-up or pull-down (PNP or NPN) (DI1 to DI4), Rin = 2 kΩ; NPN (DI5), Rin = 4 kΩ
	Filtering	Update time 2 ms
	Frequency input	DI5, pulse train 0 to 10 kHz w/ 50% duty cycle; 0 to 16 kHz between two ACS355
Digital outputs	One relay output	Form C, 250 VAC/30 VDC, 2 A rms
	One transistor output PNP	Max 30 VDC, 100 mA, short-circuited protected, frequency ability 10 Hz to 16 kHz, resolution 1 Hz, accuracy 0.2%
Safety	Safe torque off (STO)	SIL 3, STO standard input; 24 VDC, ± 10%, load 25 mA