

ACS580, general purpose drives

Data sheet

Input ratings	Input voltage range	208-240 V; 380-500 V; 525-600 V
	Input voltage tolerance	+10%/-15%
	Phase	Three phase
	Frequency	47 to 63 Hz
	Short circuit rating (UL 508c)	100,000 rms symmetrical amperes up to 600 V when input cables protected by class T or similar type fuses
Output ratings	Horsepower	0.75 - 100 HP @ 230 VAC 0.75 - 350 HP @ 480 VAC 1.5 - 300 HP @ 575/600 VAC
	Overload capacity	Heavy duty = 150% for 60 seconds every 5 minutes Light duty = 110% for 60 seconds every 5 minutes
	Frequency	0-500 Hz
	Voltage	0 to maximum input voltage (RMS)
	Motor types	Asynchronous AC induction motors, permanent magnet synchronous motors and synchronous reluctance motors
Protective features	Overcurrent	Excessive output current
	DC overvoltage	High DC bus
	Overtemp	Drive heatsink above operating temperature, max ambient temperature exceeded
	Short circuit	Short on motor output terminals
	Undervoltage	Low voltage on drive input
	Loss of reference	Analog input programmed for 4-20 ma but signal less than 4 ma
	Motor overtemp	Excessive estimated motor temperature
	Loss of keypad	Drive will trip if under keypad control and keypad communication 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	0 to 40°C (32 to 104°F). 0 to 55°C (32 to 131°F) w/ derate. No frost allowed.
	Cooling	Forced air
	Enclosure	UL type 1 (IP21), UL type 12 (IP55)
	Altitude	Sea level to 3300 ft. (1000 m) Derate 1% per 330 ft. (100 m) up to 13,128 ft. (4000 m)
	Humidity	0 to 95% RH non-condensing
Keypad display	Vibration	Max. 1 mm (0.04 in.) (5 to 13.2 Hz), max. 7 m/s ² (23 ft/s ²) (13.2 to 100 Hz) sinusoidal
	Display	LCD graphical
	Keys	8 key keypad with tactile response
	Functions	Output status monitoring, digital speed control, parameter setting and display, diagnostic and fault log display, motor run, local/remote toggle, graphical monitoring
	Remote mount	Keypad may be mounted up to 9 ft. using appropriate cable (see Options for kit)
Control specifications	Trip	Last three faults stored in fault history
	Switching frequency	1, 4, 8, 12kHz (up to 150hp): 1 or 4kHz (over 150hp)
	Accel/decel	0-1800 seconds
	Speed control accuracy	20% of motor slip
	Skip frequencies	Three configurable bands 0-max speed
	PC setup software	Drive composer, drive composer pro
	Maximum output frequency	500 Hz
	Selectable operating modes	2-Wire, 3-Wire, Motor Potentiometer, Hand/Auto, PID
Analog inputs	Two single ended	0 (2) to 10 V, Rin > 312kΩ single-ended 0 (4) to 20mA, Rin = 100 Ω single-ended
	Resolution	± 1%
Analog outputs	Two current outputs	0 to 20 mA, load < 500 Ω
	Resolution	± 3%
Digital inputs	Six digital inputs	15 V...24 VDC with internal or external supply
	Input impedance	Pull-up or pull-down (PNP or NPN) (DI1 to DI5); NPN (DI6) 2.4 kΩ
Digital outputs	Three relay outputs	Form C
	Maximum switching voltage	250 VAC/30 VDC
	Maximum continuous current	2 A/30 VDC or 250 VAC
Safety	Safe torque off (STO)	STO standard input; 17...30 VDC, 55 mA

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