OEM670X & 675X Specifications

	Parameter	Value
Power Input	Voltage	24–75 VDC
	Current	0–12 amps
Power Output- Motor	Peak Current	12 A (approx 2 sec max duration at 45°C ambient temperature)
	Continuous Current	6A
	Voltage	90 VDC max
	Peak Power	840 W (1.1 hp) @ 75 V supply voltage
	Continuous Power	420 W (0.56 hp)
	Switching Frequency	20 kHz
	Bandwidth	2 kHz typical (dependent on motor)
	Transconductance	1 volt = 1.2 amp
	Commutation	120° hall effect sensors for six-state commutation method or brushed DC motor
	Short-Circuit Protected	Yes
Power Output-Hall Effect Sensors	Voltage	+5 VDC ±0.5 VDC
	Current	50 mA max
	Short-Circuit Protected	No
Hall Inputs	Low State	0-0.8 V
	High State	Internal 1 kΩ pull-up resistor to +5 V
	Input Frequency	0–2 kHz max
Inputs	Programmable Inputs	5 user defined, TTL signal levels: low = 0–0.8 V, high = 2–5 V
	End-of-Travel Limits	CW/CCW, 0-5 TTL signal levels: low = 0–0.8 V, high = 2–5 V
	Enable Input	Active Low: 0-0.8V@2mA; when disabled: Internal 2.49W pull-up resistor to +5VDC
	Encoder	2-phase differential (recommended) or single-ended (+5VDC TTL compatible), 960 kHz max frequency
Outputs	Programmable Outputs	2 user-defined, TTL signal levels: low = 0–0.8 V, high = 2–5 V
	Fault Output	Active High: open collector output, max volts = 24 VDC; Inactive LOW: 0-0.4 VDC @ 0-20 mA
	Current Monitor	-10 V to +10 V analog voltage; scale: 1 V corresponds to 1.2 A output; Output Impedance: 10 KΩ
	LEDs	Green = power; Red = various fault conditions
Performance	Position Range	±1,073,741,823
	Velocity Range	0.01 to 200 rps
	Acceleration Range	0.01 to 9999 rps^2
	Velocity Accuracy	±0.02% of maximum rate
	Velocity Repeatability	±0.02% of set rate
	Resolution	400-65,532 encoder counts/rev
Digital Servo Loop	Update Time	266 µsec
	Output	12-bit DAC
	Servo Tuning	Digital, via RS232C
	Tuning Parameters	PID with digital filter
Protective Circuits	Short Circuit	Turns off outputs to motor; latched
	Overtemperature	55°C ±5°C trip temperature; latched
	Overvoltage	95 V ±5 V trip voltage; latched
	Undervoltage	21.5 V max; not latched
	Current Foldback	Configurable with 3 resistors
Motor Characteristics	Minimum Inductance	50 µH (micro Henrys)
	Minimum Resistance	0.25 Ω
	Loop Gain Adjustment	Configurable with one resistor
	Motor Type	Compumotor recommends the OEM670 Series with NeoMetric and J Series motors and the OEM675 Series with SM Series motors.
Environmental	Minimum Temperature	0°C (32°F)
	Max Temperature	45°C (113°F)
	Max Heatplate Temperature	45°C (113°F)
	Package Dissipation	Heatplate: 0–30 W, depending on motor current; P = (I_{AVG}/12 A) 30 W; Cover: 3 watts max
Physical	Power Connector	10-pin screw terminal; 14 awg max wire size
	Input/Output Connector	25-pin D connector
	Approx Dimensions	5" x 1.6" x 3.5" (127 x 41 x 90)
	Weight	14 oz