

Specifications

MicroLogix 1100 Controller Specifications

General Specifications

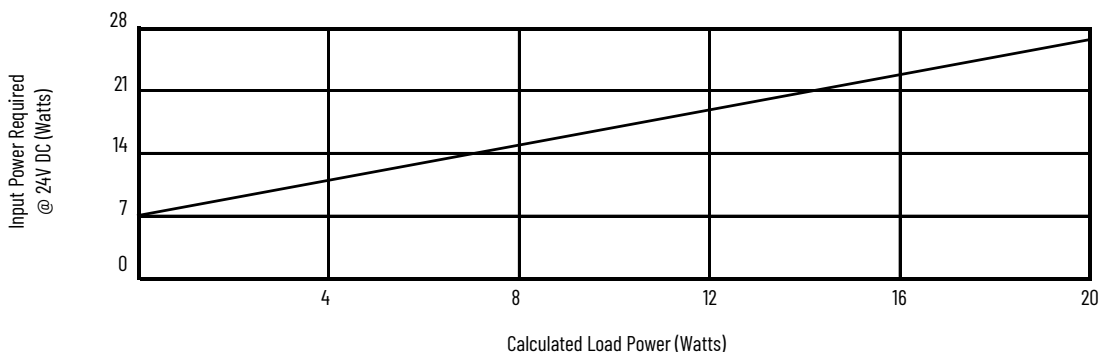
Description	1763-L16AWA	1763-L16BWA	1763-L16BBB	1763-L16DWD
Dimensions, HxWxD	90 x 110 x 87 mm 3.5 x 4.33 x 3.43 in. Height is 104 mm (4.09 in.) with DIN latch open			
Shipping weight	0.9 kg (2.0 lbs)			
Number of I/O	12 inputs (10 digital and 2 analog) and 6 outputs			
Power supply voltage	100...240V AC (-15%, +10%) @ 47...63 Hz		24V DC (-15%, +10%) Class 2 SELV	12...24V DC (-15%, +10%) Class 2 SELV
Heat dissipation	See System Loading and Heat Dissipation on page 165			
Power supply inrush current, max	120V AC: 25 A for 8 ms 240V AC: 40 A for 4 ms		24V DC: 15 A for 20 ms	
Maximum power consumption	46VA	52VA	35 W See Figure 82	
24V DC sensor power	None	250 mA @ 24V DC AC Ripple < 500 mV peak-to-peak 400 µF max	None	
Input circuit type	Digital: 120V AC Analog: 0...10V DC	Digital: 24V DC sinking/sourcing (standard and high-speed) Analog: 0...10V DC	Digital: 24V DC sinking/sourcing (standard and high-speed) Analog: 0...10V DC	
Output circuit type	Relay	Relay	Relay/FET	Relay
Pilot duty rating	Ordinary location - B300, R150 Hazardous location - C300, R150			
Temperature, operating	-20...+65 °C (-4...+149 °F) ambient			
Temperature, storage	-40...+85 °C (-40...+185 °F) ambient			
Relative humidity	5%...95% noncondensing			
Vibration	Operating: 10...500 Hz, 5 g, 0.015 in. max peak-to-peak, 2 hours each axis Relay Operation: 1.5 g			
Shock, operating	30 g; 3 pulses each direction, each axis Relay Operation: 10 g			
Shock, nonoperating	50 g panel mounted (40 g DIN Rail mounted); 3 pulses each direction, each axis			
Terminal screw torque	0.56 N•m (5.0 lb•in) rated			
Agency certification	UL Listed Industrial Control Equipment for use in Class 1 Division 2, Hazardous Locations, Groups A, B, C, D			
	cUL Listed Industrial Control Equipment for use in Canada			
	CE marked for all applicable directives			
	RCM marked for all applicable acts			
ESD immunity	EN 61000-4-2 4 kV contact, 8 kV air, 4 kV indirect			
Radiated RF immunity	EN 61000-4-3 10V/m, 26...1000 MHz (alternatively, 80...1000 MHz), 80% amplitude modulation, +900 MHz keyed carrier			
Fast transient immunity	EN 61000-4-4 2 kV, 5 kHz Communications cables such as Ethernet, RS-232, and RS-485: 1 kV, 5 kHz			

General Specifications (Continued)

Description	1763-L16AWA	1763-L16BWA	1763-L16BBB	1763-L16DWD
Surge transient immunity	EN 61000-4-5 Unshielded communications cable: 2 kV CM (common mode), 1 kV DM (differential mode) Shielded communications cable: 1 kV galvanic gun I/O: 2 kV CM (common mode), 1 kV DM (differential mode) AC power supply input: 4 kV CM (common mode), 2 kV DM (differential mode) DC power supply input: 500V CM (common mode), 500V DM (differential mode) AC/DC auxiliary output: 500V CM (common mode), 500V DM (differential mode)			
Conducted RF immunity	EN 61000-4-6 10V, 150 kHz...80 MHz			
Conducted emissions	EN 55011 AC power supply input: 150 kHz...30 MHz			
Radiated emissions	EN 55011 30...1000 MHz			
Line related tests	EN 61000-4-11 AC power supply input: • Voltage drop: -30% for 10 ms, -60% for 100 ms • Voltage interrupt: at voltage greater than -95% for 5 s • Voltage fluctuation: +10% for 15 min, -10% for 15 min DC power supply input: Voltage fluctuation: +20% for 15 min, -20% for 15 min			

Figure 82 - MicroLogix 1100 DC Input Power Requirements for 1763-L16BBB and 1763-L16DWD Unit

1763-L16BBB and 1763-L16DWD Typical Power Requirements



Digital Input Specifications

Description	1763-L16AWA	1763-L16BWA, 1763-L16BBB	
		Inputs 0...3 (4 high-speed DC inputs)	Inputs 4 and Higher (6 standard DC inputs)
On-state voltage range	79...132V AC	14...24V DC 14...26.4V DC (+10%) @ 65 °C/149 °F 14...30V DC (+25%) @ 30 °C/86 °F	10...24V DC 10...26.4V DC (+10%) @ 65 °C/149 °F 10...30V DC (+25%) @ 30 °C/86 °F
Off-state voltage range	0...20V AC	0...5V DC	
Operating frequency	47 Hz...63 Hz	0 Hz...20 kHz 0 Hz...40 kHz ⁽¹⁾	0 Hz...1 kHz (scan time dependent)
On-state current: Min Nom Max	5.0 mA @ 79V AC 12 mA @ 120V AC 16.0 mA @ 132V AC	2.5 mA @ 14V DC 9.8 mA @ 24V DC 12.0 mA @ 30V DC	2.0 mA @ 10V DC 8.5 mA @ 24V DC 12.0 mA @ 30V DC
Off-state leakage current, max	2.5 mA	1.5 mA	
Nominal impedance	12 kΩ @ 50 Hz 10 kΩ @ 60 Hz	3.1 kΩ	3.1 kΩ
Inrush current @ 120V AC, max	250 mA	Not applicable	

(1) OS series B FRN 4 or later