

Specifications

1769-PA2, 1769-PB2, 1769-PA4, 1769-PB4 - Technical Specifications

Attribute	1769-PA2	1769-PB2	1769-PA4	1769-PB4
Input voltage range	85...265V AC	19.2...31.2V DC	85...132V AC or 170...265V AC, switch selectable	19.2...32V DC
Input frequency range	47...63 Hz	N/A	47...63 Hz	N/A
Power supply distance rating ⁽¹⁾	8 (8 I/O modules can be connected on either side of the power supply for a maximum of 16 modules.)			
Operating altitude	2000 m (6562 ft)			
Isolation voltage	265V (continuous), Reinforced Insulation Type (IEC Class 1 grounding required) Routine tested at 2596V DC for 1s, AC Power Input to System and AC Power Input to 24V DC User Power	75V (continuous), Reinforced Insulation Type (IEC Class 1 grounding required) Routine tested at 1697V DC for 1s, DC Power Input to System	265V (continuous), Reinforced Insulation Type (IEC Class 1 grounding required) Routine tested at 2596V DC for 1s, AC Power Input to System	75V (continuous), Reinforced Insulation Type (IEC Class 1 grounding required) Routine tested at 1697V DC for 1s, DC Power Input to System
Power consumption	100 VA @ 120V AC 130 VA @ 240V AC	50 VA @ 24V DC	200 VA @ 120V AC 240 VA @ 240V AC	100 VA @ 24V DC
Power dissipation	8 W @ 60 °C	7.5 W @ 60 °C	18 W @ 60 °C	14.5 W @ 60 °C
Current capacity at 5V	2.0 A	2.0 A	4.0 A	4.0 A
Current capacity at 24V	0.8 A	0.8 A	2.0 A	2.0 A
Inrush current, max	25 A @ 132V AC	30 A @ 31.2V DC	25 A @ 132V AC	30 A @ 31.2V DC
Fuse type	Wickmann 19195-3.15A Littelfuse 02183.15MXP	Wickmann 19193-6.3A Littelfuse 021706.3MXP	Wickmann 19195-3.15A Littelfuse 02183.15MXP	Wickmann 19193-6.3A Littelfuse 021706.3MXP
Dimensions (HxWxD), approx.	118 x 70 x 87 mm (4.65 x 2.76 x 3.43 in.) height including mounting tabs is 138 mm (5.43 in.)			
Shipping weight, approx	525 g (1.16 lb)		630 g (1.39 lb)	
Wiring category ⁽²⁾	1 on power ports	2 on power ports	1 on power ports	2 on power ports

1769-PA2, 1769-PB2, 1769-PA4, 1769-PB4 - Technical Specifications

Attribute	1769-PA2	1769-PB2	1769-PA4	1769-PB4
Wire size	2.5 mm ² (14 AWG) solid copper wire rated at 90 °C (194 °F), or greater, 1.2 mm (3/64 in.) insulation max			
North American temp code	T3C			
IEC temp code	N/A	T4	N/A	T4
Enclosure type rating	None (open style)			

(1) When configuring your system using a MicroLogix 1500 controller, only one expansion cable, one expansion power supply and a total of eight I/O modules may be used in a maximum of two banks of I/O modules. The expansion power supply cannot be directly connected to the MicroLogix 1500 controller.

(2) Use this Conductor Category information for planning conductor routing. Refer to Industrial Automation Wiring and Grounding Guidelines, publication [1770-4.1](#).

1769-PA2, 1769-PB2, 1769-PA4, 1769-PB4 - Environmental Specifications

Attribute	1769-PA2	1769-PB2	1769-PA4	1769-PB4
Operating temperature IEC 60068-2-1 (Test Ad, Operating Cold) IEC 60068-2-2 (Test Bd, Operating Dry Heat) IEC 60068-2-14 (Test Nb, Operating Thermal Shock)	0...60 °C (32...140 °F)			
Nonoperating temperature IEC 60068-2-1 (Test Ab, Unpackaged Nonoperating Cold) IEC 60068-2-2 (Test Bb, Unpackaged Nonoperating Dry Heat) IEC 60068-2-14 (Test Na, Unpackaged Thermal Shock)	-40...85 °C (-40...185 °F)			
Relative humidity IEC 60068-2-30 (Test Db, Unpackaged Damp Heat)	5...95% noncondensing			

1769-PA2, 1769-PB2, 1769-PA4, 1769-PB4 - Environmental Specifications

Attribute	1769-PA2	1769-PB2	1769-PA4	1769-PB4
Vibration IEC 60068-2-6 (Test Fc, Operating)	5 g @ 10...500 Hz			
Operating shock IEC 60068-2-27 (Test Ea, Unpackaged Shock)	DIN rail mount: 20 g; Panel Mount 30 g			
Nonoperating shock IEC 60068-2-27 (Test Ea, Unpackaged Shock)	DIN rail mount: 30 g; Panel Mount 40 g			
Emissions CISPR 11	Group 1, Class A			
ESD immunity IEC61000-4-2	4 kV contact, 8 kV air discharges			
Radiated RF immunity IEC61000-4-3	10V/m with 1 kHz sine-wave 80% AM from 80...2000 MHz 3V/m with 1 kHz sine-wave 80% AM from 2000...2700 MHz 10V/m with 200 Hz 50% Pulse 100% AM at 900 MHz 10V/m with 200 Hz 50% Pulse 100% AM at 1890 MHz	10V/m with 1 kHz sine-wave 80%AM from 80...2000 MHz 10V/m with 200 Hz 50% Pulse 100%AM at 900 MHz	10V/m with 1 kHz sine-wave 80% AM from 80...2000 MHz 3V/m with 1 kHz sine-wave 80% AM from 2000...2700 MHz 10V/m with 200 Hz 50% Pulse 100% AM at 900 MHz 10V/m with 200 Hz 50% Pulse 100% AM at 1890 MHz	10V/m with 1 kHz sine-wave 80%AM from 80...2000 MHz 10V/m with 200 Hz 50% Pulse 100%AM at 900 MHz
EFT/B immunity IEC 61000-4-4	±2 kV at 5 kHz on AC power ports ±2 kV at 5 kHz on 24V DC PWR OUT ports	±2 kV at 5 kHz on DC power ports	±2 kV at 5 kHz on AC power ports	±2 kV at 5 kHz on DC power ports
Surge transient immunity IEC61000-4-5	±2 kV line-line (DM) and ±4 kV line-earth (CM) on AC power ports ±500V line-line (DM) and ±500V line-earth (CM) on 24V DC PWR OUT ports	±500V line-line (DM) and ±500V line-earth (CM) on DC power ports	±2 kV line-line (DM) and ±4 kV line-earth (CM) on AC power ports	±500V line-line (DM) and ±500V line-earth (CM) on DC power ports

1769-PA2, 1769-PB2, 1769-PA4, 1769-PB4 - Environmental Specifications

Attribute	1769-PA2	1769-PB2	1769-PA4	1769-PB4
Conducted RF Immunity IEC61000-4-6	10V rms with 1kHz sine-wave 80% AM from 150 kHz...80 MHz			
Voltage Variation IEC 61000-4-11	30% dips for 1 period at 0° and 180° on AC supply ports 60% dips for 5 and 50 periods on AC supply ports ±10% fluctuations for 15 min on AC supply ports >95% interruptions for 250 periods on AC supply ports	N/A	30% dips for 1 period at 0° and 180° on AC supply ports 60% dips for 5 and 50 periods on AC supply ports ±10% fluctuations for 15 min on AC supply ports >95% interruptions for 250 periods on AC supply ports	N/A

1769-PB2, 1769-PB4 - Certifications⁽¹⁾

Certifications ⁽²⁾	Value
c-UL-us	UL Listed for Class 1, Division 2 Group A,B,C,D Hazardous Locations, certified for U.S. and Canada. See UL File E10314
CE	European Union 2004/108/EC EMC Directive, compliant with: <ul style="list-style-type: none"> • EN 61000-6-2; Industrial Immunity • EN 61000-6-4; Industrial Emissions
C-Tick	Australian Radio Communications Act, compliant with: <ul style="list-style-type: none"> • AS/NZS CISPR 11; Industrial Emissions
Ex	European Union 94/9/EC ATEX Directive, compliant with: <ul style="list-style-type: none"> • EN 60079-15; Potentially Explosive Atmospheres, Protection “n” (II 3 G Ex nA IIC T4 X) • EN 60079-0; General Requirements (Zone 2)

⁽¹⁾ When product is marked.⁽²⁾ See the Product Certification link at <http://www.ab.com> for Declarations of Conformity, Certificates, and other certification details.**1769-PA2, 1769-PA4 - Certifications⁽¹⁾**

Certifications ⁽²⁾	Value
c-UL-us	UL Listed for Class 1, Division 2 Group A,B,C,D Hazardous Locations, certified for U.S. and Canada. See UL File E10314