Technical Data

Original Instructions

Allen-Bradley by ROCKWELL AUTOMATION

CompactLogix Power Supplies Specifications

1768 CompactLogix Catalog Numbers 1768-PA3, 1768-PB3

1769 Compact I/O Catalog Numbers 1769-PA2, 1769-PA2K, 1769-PA4, 1769-PA4K, 1769-PB2, 1769-PB2K, 1769-PB4, 1769-PB4K

Summary of Changes

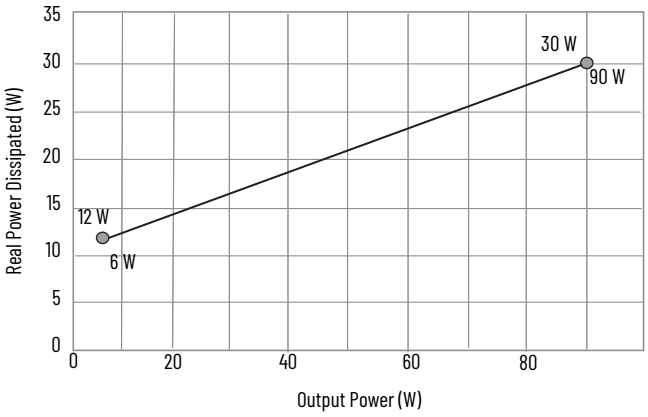
This publication contains the following new or updated information. This list includes substantive updates only and is not intended to reflect all changes.

Topic	Page
Added the following catalog numbers: 1769-PA2K, 1769-PB2K, 1769-PA4K, 1769-PB4K	Throughout
Updated the following 1768 CompactLogix™ power supplies certifications: RCM	4
Added the 1768 CompactLogix power supplies environmental specifications	4
Added the 1769 Compact I/O™ power supplies environmental specifications	7
Updated the following 1769 Compact I/O power supplies certifications: c-UL-us, CE, RCM, ATEX	8
Added the following 1769 Compact I/O power supplies certifications: UKEX, IECEx, UKCA, EAC, CCC, Morocco, KC	8

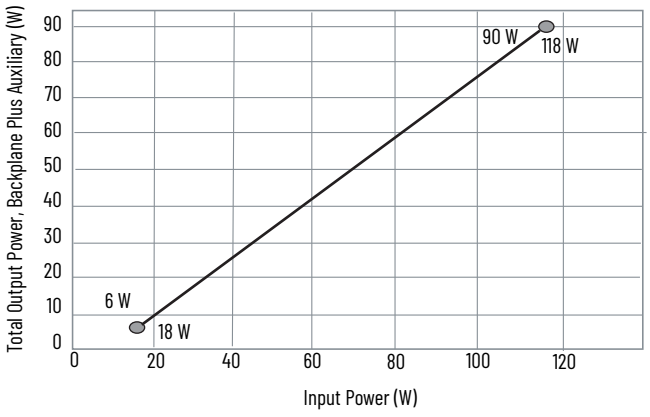
Power Dissipation and Requirements - 1768 CompactLogix Power Supplies

The following graphs show power dissipation and input power requirements for the 1768 power supplies.

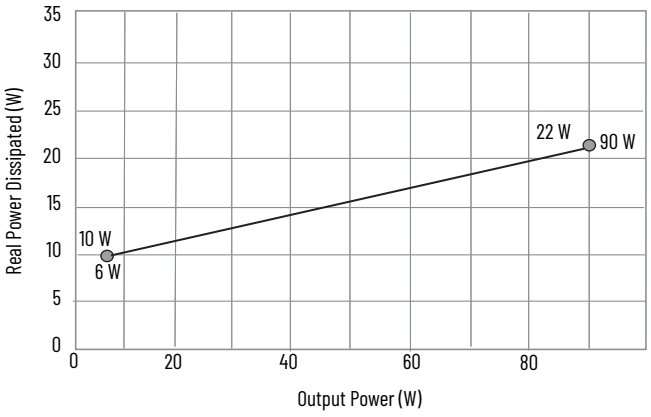
1768-PA3 Power Dissipation



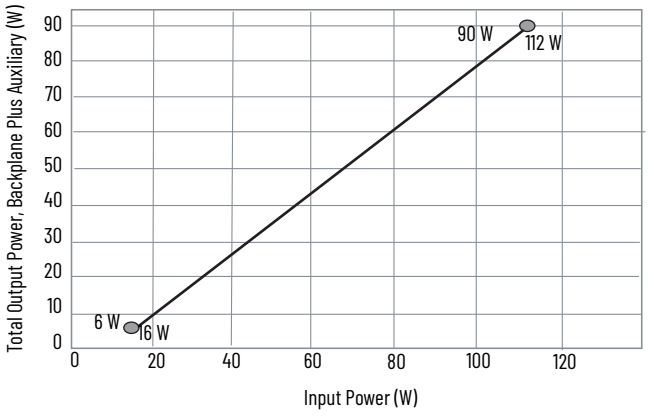
1768-PA3 Input Power Requirements



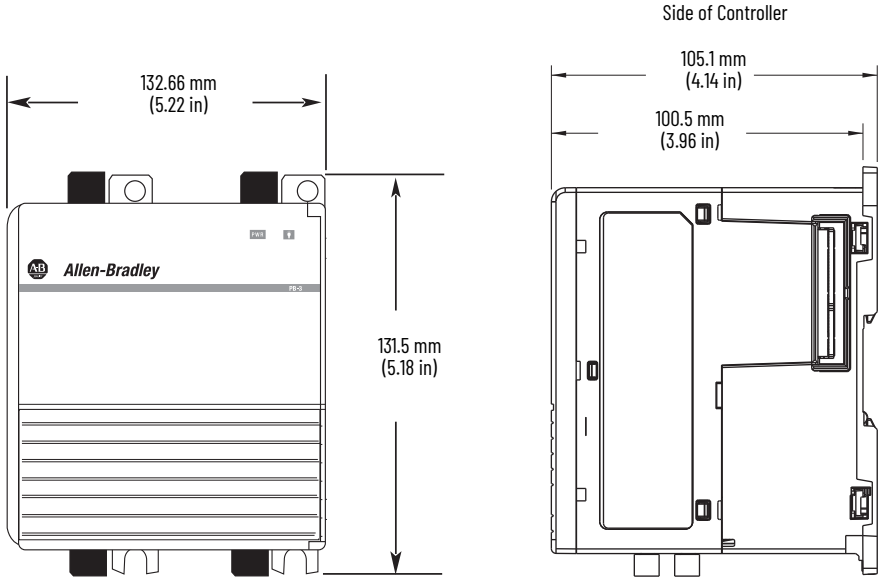
1768-PB3 Power Dissipation



1768-PB3 Input Power Requirements



Mounting Dimensions - 1768 CompactLogix Power Supplies



1769 Compact I/O Power Supplies

Each 1769-L3*x* controller and additional bank of I/O modules requires a 1769 power supply. Place 1769 I/O modules to the left or right of the 1769 power supply. As many as eight I/O modules can be placed on each side of the power supply.

Each 1769 module also has a power supply distance rating (the number of modules from the power supply). Each module must be located within its distance rating. See the specifications for the module to determine its distance rating.

Technical Specifications - 1769 Compact I/O Power Supplies

Attribute	1769-PA2, 1769-PA2K	1769-PA4, 1769-PA4K	1769-PB2, 1769-PB2K	1769-PB4, 1769-PB4K
Input voltage range	85...265V AC	85...265V AC or 170...265V AC, switch selectable	19.2...31.2V DC	
Input voltage, nom	120V/220V AC	120V/220V AC	24V DC	
Power consumption	100VA @ 120V AC 130VA @ 240V AC	200VA @ 120V AC 240VA @ 240V AC	50VA @ 24V DC	100VA @ 24V DC
Power dissipation	8 W @ 60° C (140° F)	18 W @ 60° C (140° F)	7.5 W @ 60° C (140° F)	14.5 W @ 60° C (140° F)
Current capacity @ 5V	2.0 A	4.0 A	2.0 A	4.0 A
Current capacity @ 24V	0.8 A	2.0 A	0.7 A	1.7 A
Inrush current, max	25 A @ 132V AC		30 A @ 31.2V DC	
Isolation voltage	265V (continuous), reinforced insulation type (IEC Class 1 grounding required) Routine tested @ 2596V DC for 1 s, AC power input to system and AC power input to 24V DC user power	265V (continuous), reinforced insulation type (IEC Class 1 grounding required) Routine tested at 2596V DC for 1 s, AC power input to system	75V (continuous), reinforced insulation type (IEC Class 1 grounding required) Routine tested at 1697V DC for 1 s, DC power input to system	
Fuse type	Wickmann 19195-3.15A Littelfuse 02183.15MXP		Wickmann 19193-6.3A Littelfuse 021706.3MXP	
Weight, approx.	525 g (1.16 lb)	630 g (1.39 lb)	525 g (1.16 lb)	630 g (1.39 lb)
Dimensions (HxWxD), approx.	118 x 70 x 87 mm (4.65 x 2.76 x 3.43 in.)			
Module location	DIN rail or panel mount			
Mounting screw torque	1.16 N•m (10 lb•in) - use M4 or #8 screws			
Power supply distance rating	8 8 I/O modules can be connected on either side of the power supply for a maximum of 16 modules			
Wire category[1]	1 - on power ports		2 - on power ports	
Wire size	14 AWG (2.5 mm^2) solid copper wire rated at 90 °C (194 °F) or greater, 1.2 mm (3/64 in.) insulation max			
North American temperature code	T3C			
IEC temperature code	—		T4	
Enclosure type rating	None (open-style)			

(1) Use this conductor category information to plan conductor routing as described in the system level installation manual. See the Industrial Automation Wiring and Grounding Guidelines, publication 1770-4.1.