



1756 ControlLogix Power Supplies Specifications

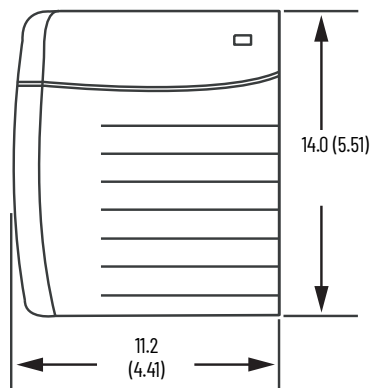
Standard Power Supplies	1756-PA72, 1756-PA72K, 1756-PA75, 1756-PA75K, 1756-PB72, 1756-PB72K, 1756-PB75, 1756-PB75K, 1756-PC75, 1756-PH75
Standard Slim Power Supplies	1756-PA50, 1756-PA50K, 1756-PB50, 1756-PB50K
ControlLogix-XT Power Supplies	1756-PAXT, 1756-PBXT
ControlLogix-XT Slim Power Supplies	1756-PA30XT, 1756-PB30XT
Redundant Power Supplies	1756-PA75R, 1756-PA75RK, 1756-PB75R, 1756-PB75RK
Redundant Power Supplies Chassis Adapter	1756-PSCA2, 1756-PSCA2K
ControlLogix-XT Redundant Power Supplies	1756-PAXTR, 1756-PBXTTR
ControlLogix-XT Redundant Power Supplies Chassis Adapter	1756-PSCA2XT
Redundant Power Supply Power Cable	1756-CPR2, 1756-CPR2D, 1756-CPR2U

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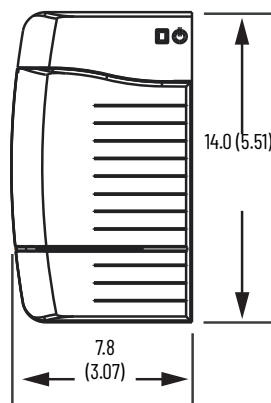
Standard DC Power Supplies

Mounting Dimensions

1756-PB72, 1756-PB72K, 1756-PB75,
1756-PB75K, 1756-PC75, 1756-PH75



1756-PB50, 1756-PB50K



Dimensions are in cm (in.).

Technical Specifications - Standard DC Power Supplies

Attribute	1756-PB50, 1756-PB50K	1756-PB72/C, 1756-PB72K/C	1756-PB75/B, 1756-PB75K/B	1756-PC75/B	1756-PH75/B
Input voltage range	18...32V DC ⁽²⁾			30...60V DC ⁽⁵⁾	90...143V DC ⁽⁶⁾
Input voltage, nom	24V DC			48V DC	125V DC
Input power, max	85 W @ 50 °C (122 °F) 70 W @ 60 °C (140 °F)	95 W			
Output power, max	60 W @ 0...50 °C (32...122 °F) 50 W @ 0...60 °C (32...140 °F)	75 W @ 0...60 °C (32...140 °F) ⁽⁴⁾			
Inrush current, max	30 A				
Hold up time ⁽¹⁾	30 ms @18...32V DC, 60 W 40 ms @18...32V DC, 50 W	35 ms @ 18V DC 40 ms @ 24V DC 40 ms @ 32V DC		50 ms @ 30...60V DC nom	50 ms @ 90...143V DC nom
Current capacity @ 1.2V	1.5 A				
Current capacity @ 3.3V	2 A	4 A			
Current capacity @ 5.1V	8 A @ 50 °C (122 °F) 6 A @ 60 °C (140 °F)	10 A	13 A		
Current capacity @ 24V	2.5 A @ 50 °C (122 °F) 2.0 A @ 60 °C (140 °F)	2.8 A			
Isolation voltage	250V (continuous), Reinforced Insulation Type, Power Input to Backplane Type tested @ 3150V DC for 60 s		250V (continuous), Reinforced Insulation Type, Power Input to Backplane Type tested @ 3500V DC for 60 s		
Weight, approx	0.77 kg (1.7 lb)		0.95 kg (2.10 lb)		
Dimensions (HxWxD), approx	14.0 x 7.8 x 14.5 cm (5.51 x 3.07 x 5.71 in.)		14.0 x 11.2 x 14.5 cm (5.51 x 4.41 x 5.71 in.)		
Module location	Left side of 1756 chassis				
Chassis	1756-A4, 1756-A7, 1756-A10, 1756-A13, 1756-A17				
Chassis compatibility	Series A Series B Series C		Series B Series C		
Wire size	2.5 mm ² (14 AWG) solid or stranded copper wire that is rated at 90 °C (194 °F), or greater, 1.2 mm (3/64 in.) insulation max				
Wire category	1 - on power ports ⁽³⁾				
Conductor screw torque	0.565 N•m (5 lb•in)				
North American temperature code	T4				

Technical Specifications - Standard DC Power Supplies (Continued)

Attribute	1756-PB50, 1756-PB50K	1756-PB72/C, 1756-PB72K/C	1756-PB75/B, 1756-PB75K/B	1756-PC75/B	1756-PH75/B
ATEX temperature code	T4			-	
IEC temperature code	T4			-	
Enclosure type rating	None (open-style)				

- (1) The hold up time is the time between input voltage removal and DC power failure.
- (2) UL certification for 24V DC nominal. Rockwell Automation specified 18...32V DC.
- (3) 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](#).
- (4) The combination of all output power (5.1V backplane, 24V backplane, 3.3V backplane, and 1.2V backplane) can't exceed 75 W.
- (5) UL Certification for 48V DC nominal. Rockwell Automation specified 30...60V DC.
- (6) UL certification for 125V DC nominal. Rockwell Automation specified 90...143V DC.

Environmental Specifications - Standard DC Power Supplies

Attribute	1756-PB50, 1756-PB50K	1756-PB72/C, 1756-PB72K/C 1756-PB75/B, 1756-PB75K/B	1756-PC75/B, 1756-PH75/B
Temperature, operating IEC 60068-2-1 (Test Ae, Operating Cold), IEC 60068-2-2 (Test Be, Operating Dry Heat), IEC 60068-2-14 (Test Nb, Operating Thermal Shock)	0 °C < Ta < +60 °C (+32 °F < Ta < +140 °F)		
Temperature, surrounding air, max	60 °C (140 °F)		
Temperature, nonoperating 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 Nonoperating Thermal Shock)	-40...+85 °C (-40...+185 °F)		
Relative humidity IEC 60068-2-30 (Test Db, Unpackaged Damp Heat)	5...95% noncondensing		
Vibration IEC 60068-2-6 (Test Fc, Operating)	2 g @ 10...500 Hz		
Shock, operating IEC 60068-2-27 (Test Ea, Unpackaged Shock)	30 g		
Shock, nonoperating IEC 60068-2-27 (Test Ea, Unpackaged Shock)	50 g ⁽¹⁾		
Emissions	IEC 61000-6-4		
ESD immunity IEC 61000-4-2	6 kV contact discharges 8 kV air discharges		
Radiated RF immunity IEC 61000-4-3	10V/m with 1 kHz sine wave 80% AM from 80...2000 MHz 10V/m with 200 Hz 50% Pulse 100% AM @ 900 MHz 10V/m with 200 Hz 50% Pulse 100% AM @ 1890 MHz 3V/m with 1 kHz sine wave 80% AM from 2000...2700 MHz		
EFT/B immunity IEC 61000-4-4	±4 kV at 5 kHz on power ports		
Surge transient immunity IEC 61000-4-5	±1 kV line-line (DM) and ±2 kV line-earth (CM) on power ports		
Conducted RF immunity IEC 61000-4-6	10V rms with 1 kHz sine wave 80% AM from 150 kHz...80 MHz		
Voltage variation IEC 61000-4-29	10 ms interruption on DC supply ports ⁽²⁾ 60% dips for 100 ms on DC supply ports 100% dips for 50 ms on DC supply ports ±20% fluctuations for 15 min on DC supply ports 5 s interruptions on DC supply ports ⁽³⁾		

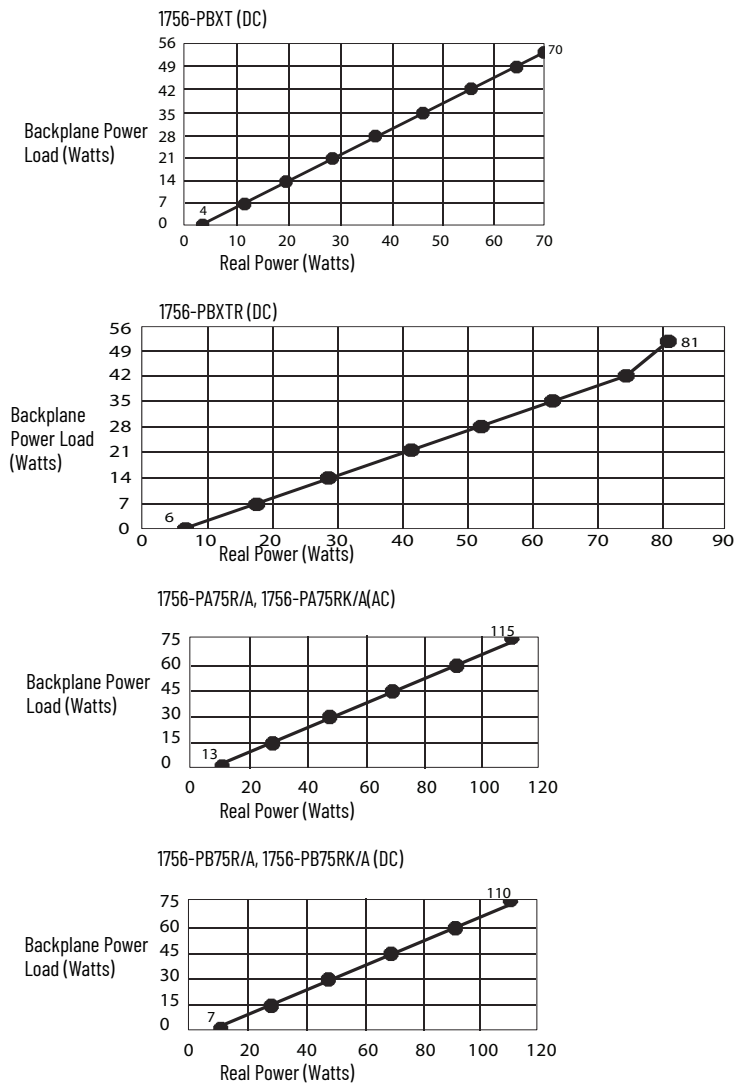
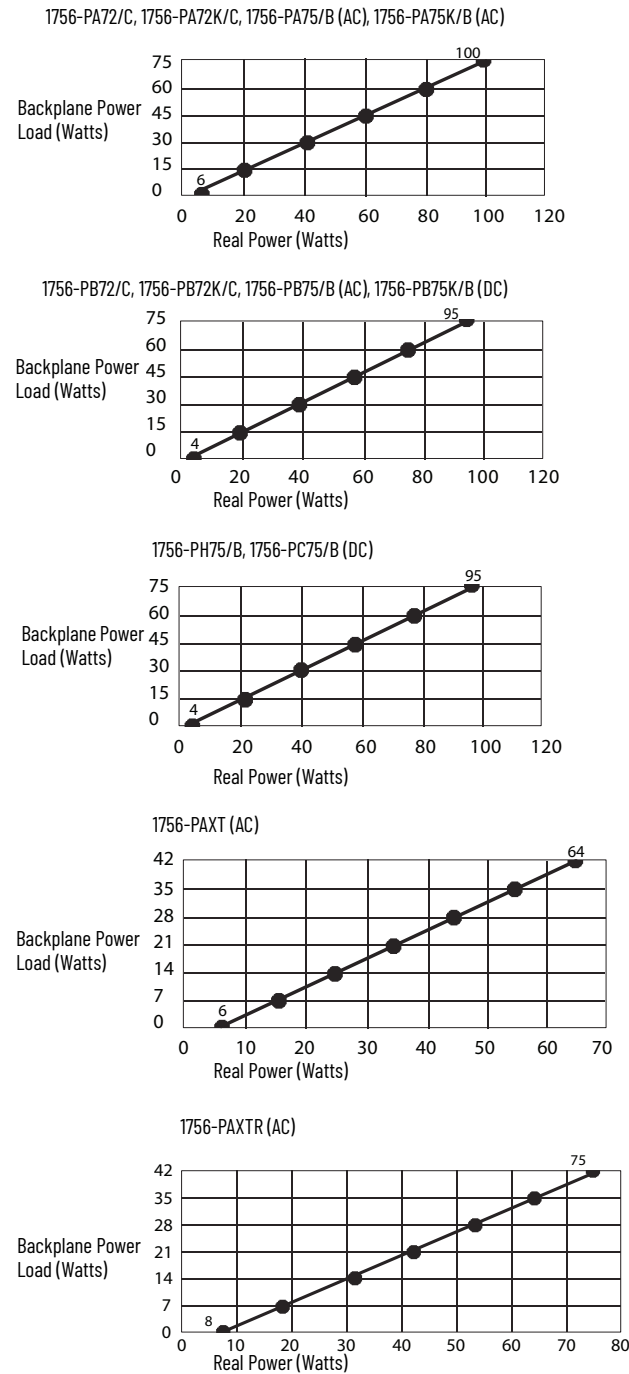
- (1) Series C chassis have a maximum nonoperating shock value of 30 g. If you select a Series C chassis for use with your power supply, you're limited to a maximum nonoperating shock value of 30 g.
- (2) Short interruption test verifies ride-through. The supply remains fully functional under this condition.
- (3) Long interruption test verifies that repetitive inrush surge currents do not create any unsafe conditions. The supply fully shuts down and starts up in this test.

Certifications - Standard DC Power Supplies

Certification ⁽¹⁾	1756-PB50, 1756-PB50K	1756-PB72/C, 1756-PB72K/C 1756-PB75/B, 1756-PB75K/B	1756-PC75/B, 1756-PH75/B
UL	-		UL Listed Industrial Control Equipment. See UL File E65584.
c-UL-us	UL Listed Industrial Control Equipment, which is certified for US and Canada. See UL File E65584. UL Listed for Class I, Division 2 Group A,B,C,D Hazardous Locations, which are certified for US and Canada. See UL File E194810.		-
UKCA	In conformity with the following UK Statutory Instruments and their amendments: • 2016 No. 1091, Electromagnetic Compatibility Regulations • 2016 No. 1101, Electrical Equipment (Safety) Regulations • 2016 No. 1107, Equipment and Protective Systems Intended for Use in Potentially Explosive Atmospheres Regulations • 2012 No. 3032, Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment		
CSA	-	CSA Certified Process Control Equipment. See CSA File LR54689C. CSA Certified Process Control Equipment for Class I, Division 2 Group A,B,C,D Hazardous Locations. See CSA File LR69960C.	
FM	FM Approved Equipment for use in Class I Division 2 Group A,B,C,D Hazardous Locations		-
CE	European Union 2014/30/EU EMC Directive, compliant with: • EN 61326-1; Meas./Control/Lab., Industrial Requirements • EN 61000-6-2; Industrial Immunity • EN 61131-2; Programmable Controllers (Clause 8, Zone A & B) • EN 61000-6-4; Industrial Emissions European Union 2014/35/EU LVD, compliant with: • EN 61010-2-201; Control Equipment Safety Requirements	European Union 2014/30/EU EMC Directive, compliant with: • EN 61326-1; Meas./Control/Lab., Industrial Requirements • EN 61000-6-2; Industrial Immunity • EN 61000-6-4; Industrial Emissions • EN 61131-2; Programmable Controllers (Clause 8, Zone A & B) European Union 2014/35/EU LVD, compliant with: • EN 61131-2; Programmable Controllers (Clause 11)	
RCM	Australian Radiocommunications Act, compliant with: • EN 61000-6-4; Industrial Emissions		
Ex	European Union 2014/34/EU ATEX Directive, compliant with: • IEC 60079-0 Edition 7; General Requirements • EN IEC 60079-7; Potentially Explosive Atmospheres, Protection "e" • II 3 G Ex ec IIC T4 X Gc • UL 22 ATEX 2819X		-
IECEX	IECEX System, compliant with: • IEC 60079-0 Edition 7; General Requirements • IEC 60079-7; Potentially Explosive Atmospheres, Protection "e" • II 3 G Ex ec IIC T4 Gc • IECEx UL 22.0064X		-
UKex	In conformity with the following UKex Statutory Instruments and their amendments: • Schedule 1 of the UKEX Regulation 2016 No. 1107 • Equipment protection by increased safety "e", reference certificate number UL22UKEX2605X • Zone 2 classification according to UKEX Regulation 2016 No. 1107		-
KC	Korean Registration of Broadcasting and Communications Equipment, compliant with: • Article 58-2 of Radio Waves Act, Clause 3		
EAC	Russian Customs Union TR CU 020/2011 EMC Technical Regulation Russian Customs Union TR CU 004/2011 LV Technical Regulation		
CCC	CCC 202012230911830, 202012230911998, 2020122309113868 CNCA-C23-01 强制性产品认证实施规则 防爆电气 CNCA-C23-01 CCC Implementation Rule Explosion-Proof Electrical Products		

(1) See the Product Certification link at rok.auto/certifications for Declarations of Conformity, Certificates, and other certification details.

Standard Power Supply Power Requirements



Apparent Power (Watts) = Transformer Load (VA) = Real Power (Watts)