Specifications

General Specifications

Attribute	1794-PS13, 1794-PS13K	1794-PS3, 1794-PS3K
Dimensions, approx. H x W x D	87 x 69 x 69 mm (3.4 x 2.7 x 2.7 in.)	87 x 94 x 69 mm (3.4 x 3.7 x 2.7 in.)
Enclosure type rating	None (open-style)	
Wire Size	0.34…2.5 mm^2 (22…12 AWG) solid or stranded copper wire rated at 75 °C (167 °F), or greater, 1.2 mm (3/64 in.) insulation max	
Wiring category(1)	2 – on power ports	
North American temp code	T3C	T3
Terminal screw torque	0.8 N•m (7 lb•in)	

(1) Use this conductor category information for planning conductor routing as described in Industrial Automation Wiring and Grounding Guidelines, publication 1770-4.1.

Input Specifications – 1794-PS13, 1794-PS13K, 1794-PS3, 1794-PS3K

Attribute	1794-PS13, 1794-PS13K	1794-PS3, 1794-PS3K
Nominal supply voltage	120V AC, 50/60 Hz; 0.62 A max 230V AC, 50/60 Hz; 0.42 A max	120V AC, 50/60 Hz; 1.7 A max 230V AC, 50/60 Hz; 1.1 A max
Voltage range	85…265V AC	
Frequency range	47…63 Hz	
Input current, max	0.7 A	1.9 A
Inrush current	40 A typical, 1 AC cycle @ V_{in} 265V AC, 55 °C (131 °F)	
Interruption	The output stays within specification when input drops out for 1/2 cycle @ 47 Hz, 85V AC with max load.	

Output Specifications – 1794-PS13, 1794-PS13K, 1794-PS3, 1794-PS3K

Attribute	1794-PS13, 1794-PS13K	1794-PS3, 1794-PS3K
Nominal output	+24V DC	
Voltage range	20.4…27.6V DC (includes noise and 5% AC ripple)	
Output current, max	1.3 A	3 A (horizontal mounting) 2.8 A all other mountings (see Derating Curve for 1794-PS3 and 1794-PS3K)
Output power	31.2 W	72 W
Output ripple, max	1200 mV peak-to-peak	
Minimum load	0 mA	50 mA
Output surge	Sufficient to drive 4 adapters	Sufficient to drive 10 adapters
Overvoltage protection	The output is internally limited to 35V DC. Cycle power to re-energize.	
Leakage current, max	0.5 mA rms @ rated input and output	
Isolation voltage	Tested @ 2500V DC for 1 s	
Overcurrent protection, min	1.4 A	3.2 A
Thermal dissipation	23.9 BTU/hr	41.0 BTU/hr
Power dissipation, max	7 W	12 W

Environmental Specifications

Attribute	Value
Temperature, operating	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 °C ≤ Ta ≤ +55 °C (+32 °F ≤ Ta ≤ +131 °F)
Temperature, surrounding air, max	55 °C (131 °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-condensing
Vibration	IEC60068-2-6 (Test Fc, Operating): 5 g @ 10…500 Hz
Shock, operating	IEC60068-2-27 (Test Ea, Unpackaged shock): 30 g
Shock, nonoperating	IEC60068-2-27 (Test Ea, Unpackaged shock) 50 g

Environmental Specifications (Continued)

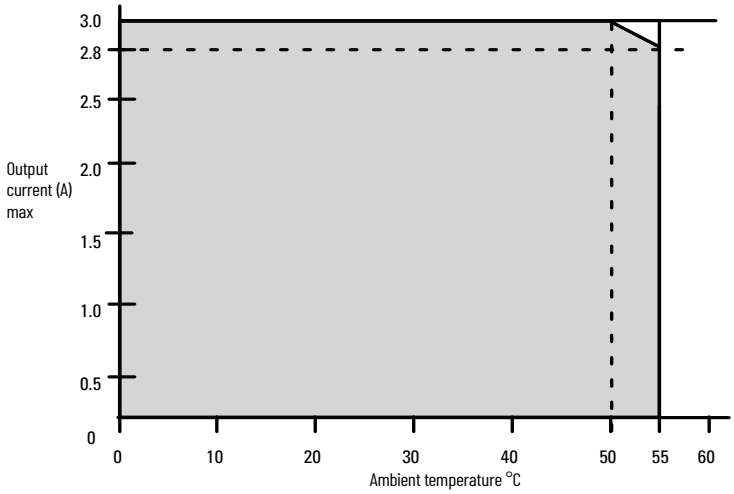
Attribute	Value
Emissions	IEC 61000-6-4
ESD immunity	IEC 61000-4-2: 6 kV contact discharges 8 kV air discharges
Radiated RF immunity	IEC 61000-4-3: 10V/m with 1 kHz sine-wave 80% AM from 80...2700 MHz 10V/m with 200 Hz 50% Pulse 100% AM @ 900 MHz 10V/m with 200 Hz 50% Pulse 100% AM @ 1890 MHz
EFT/B immunity	IEC 61000-4-4: ± 2 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 61000-4-11: 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 or 15 min on AC supply ports > 95% interruptions for 250 periods on AC supply ports

Certifications

Certifications (when product is marked)(1)	Value
c-UL-us	UL Listed for Class I Division 2 Group A,B,C,D Hazardous Locations, certified for U.S. and Canada. See UL File E334470. UL Listed Industrial Control Equipment, certified for US and Canada. See UL File E322657.
UK and CE	UK Statutory Instrument 2016 No. 1091 and 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) UK Statutory Instrument 2016 No. 1101 and European Union 2014/35/EU LVD, compliant with: EN 61010-2-201; Control Equipment Safety Requirements UK Statutory Instrument 2012 No. 3032 and European Union 2011/65/EU RoHS, compliant with: EN IEC 63000; Technical Documentation
RCM	Australian Radiocommunications Act, compliant with: EN 61000-6-4; Industrial Emissions
KC	Korean Registration of Broadcasting and Communications Equipment, compliant with: Article 58-2 of Radio Waves Act, Clause 3
Morocco	Arrêté ministériel n° 6404-15 du 29 ramadan 1436 Arrêté ministériel n° 6404-15 du 1 er muharram 1437

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

Derating Curve for 1794-PS3 and 1794-PS3K

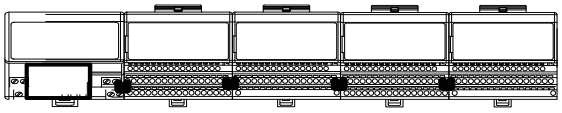


The area within the curve represents the safe operating range for the module under various conditions of user supplied 24V DC supply voltages and ambient temperatures.

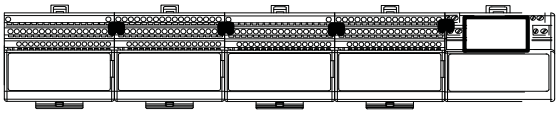
= Normal mounting safe operating range, (includes)

= Other mounting positions (including inverted horizontal) safe operating range

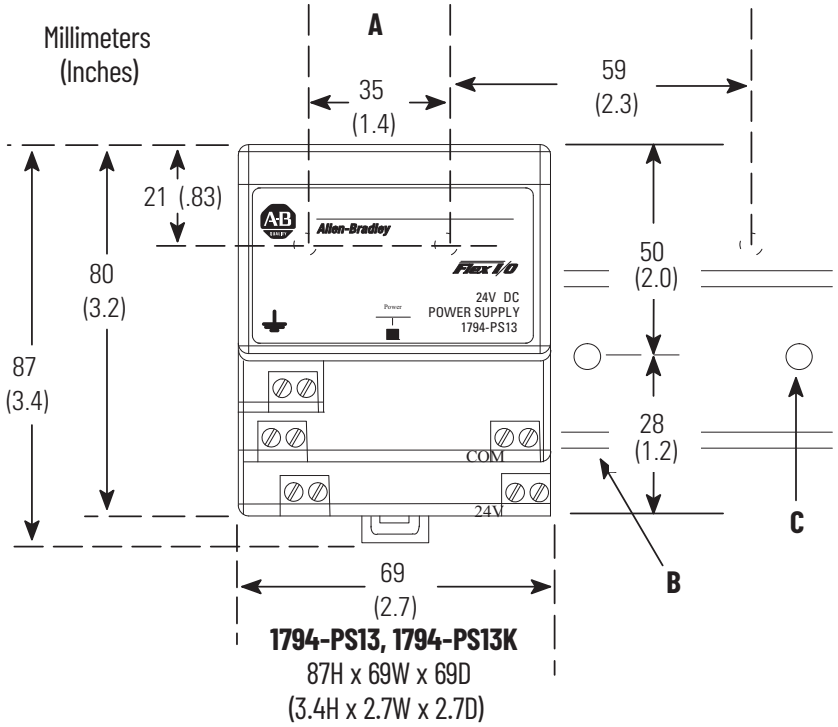
Normal mounting – Horizontal



Other mounting (including vertical and inverted horizontal mounting)



Mounting Dimensions — 1794-PS13, 1794-PS13K

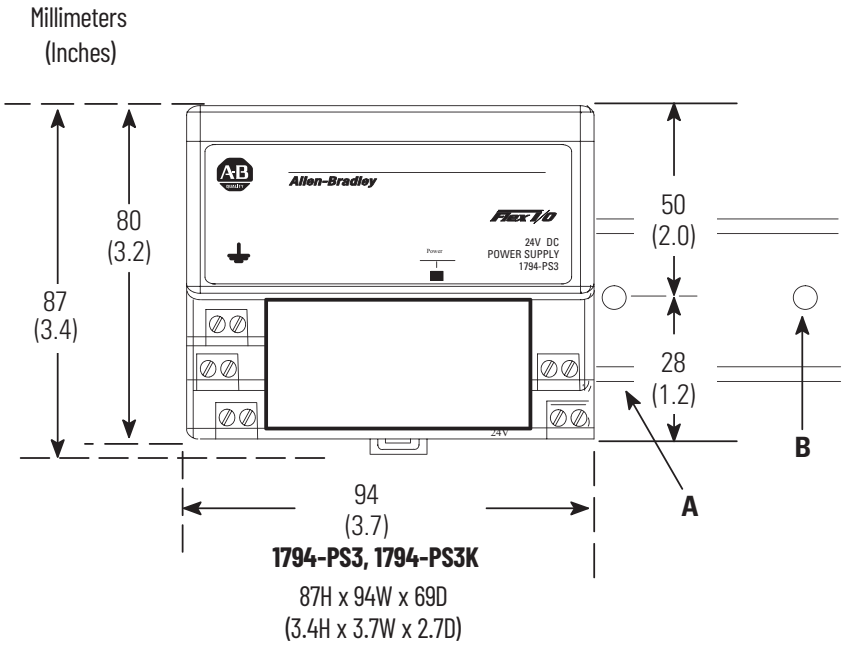


A = Mounting hole dimensions for optional mouting kit

B = DIN rail

C = Secure DIN rail approximately every 200 mm (7.87 in.)

Mounting Dimensions — 1794-PS3, 1794-PS3K



A = DIN rail

B = Secure DIN rail approximately every 200 mm (7.87 in.)