

APK120 Series

120W Hi-Rel Industrial Isolated DC-DC Converters

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In Stock

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Features

- Convection cooled & ruggedised, fully encapsulated.
 - EMC hardened for "dirty" electrical environments.
 - Reliable and durable with field-proven MTBF (260,000hrs) & 100% burn-in test.
 - Fully isolated input / output.
 - Simple installation with top-down mounting and pluggable I/O connections, DIN rail ready.
- More input / output voltages available on request. Standard lead times apply.



120W APK120 Series Specifications

Model	Input Voltage	Input Startup / Shutdown (Typ.)	Input Fusing Recommended	Output Rating
APK120-1212	12V nominal (10–20V continuous)	11V startup / 9.5V shutdown	16AF	12V 10A
APK120-1224				24V 5A
APK120-1248				48V 2.5A
APK120-2412	24V nominal (18–40V continuous)	20V startup / 17V shutdown	10AF	12V 10A
APK120-2424				24V 5A
APK120-2448				48V 2.5A
APK120-4812	48V nominal (36–72V continuous)	37V startup / 33V shutdown	5AF	12V 10A
APK120-4824				24V 5A
APK120-4848				48V 2.5A

More input / output voltages available on request. Standard lead times apply.

Input	
Reverse Polarity Protection	Blow input fuse (see recommended input fusing above)
Input Surge, Transient, and Immunity	IEC61000-4-2, IEC61000-4-3, IEC61000-4-4, IEC61000-4-6
Output	
Setup Accuracy	better than 0.5%
Line & Load Regulation	better than 0.25%
Noise & Ripple (20MHz BW)	better than 0.25%
Efficiency	91% (typical)
Current Limit	120% I_{rated} (@90% $V_{nominal}$)
Overload Trip	150% I_{rated} (0.4s on / 4s off, auto-restart)
Over-voltage Latch	125% $V_{nominal}$ (Input Power Cycle Reset)
Mechanical	
Dimensions	150(W) x 90(H) x 22(D)mm
Enclosure / Casing	Black anodised aluminium extrusion
Weight	0.55kg
Isolation	
Input to Output	1000Vdc
Input to Chassis	1000Vdc
Output to Chassis	500Vdc

Operating Conditions	
Operating Temperature T_{max} (no derating)	
Standalone Free Air Convection Cooling	55°C T_{amb}
Chassis Conduction Cooling	90°C $T_{chassis}$
Over-Temperature Protection	100°C $T_{chassis}$ (auto-recovery)
MTBF (G_{rr} , $T_{amb}=25^{\circ}C$)	260,000hrs (designed to meet MIL-SPEC 217K)
Shock and Vibration	Fully Encapsulated Designed to Meet MIL-STD 810E & IEC61373
Relative Humidity	95%
Power-On Indication	Green LED (on output side panel)
Input & Output Mating Connectors <i>Note: Mating connectors supplied with converter.</i>	Wurth Type 3405 Series) Input - 5.08mm 3-way Locking Output - 5.08mm 4-way Locking
Options	
Adjustable Output	-adj (+/-7% typical via pot)
DC OK Alarm Contact	-Al (60V 0.5A 1formA SSR)

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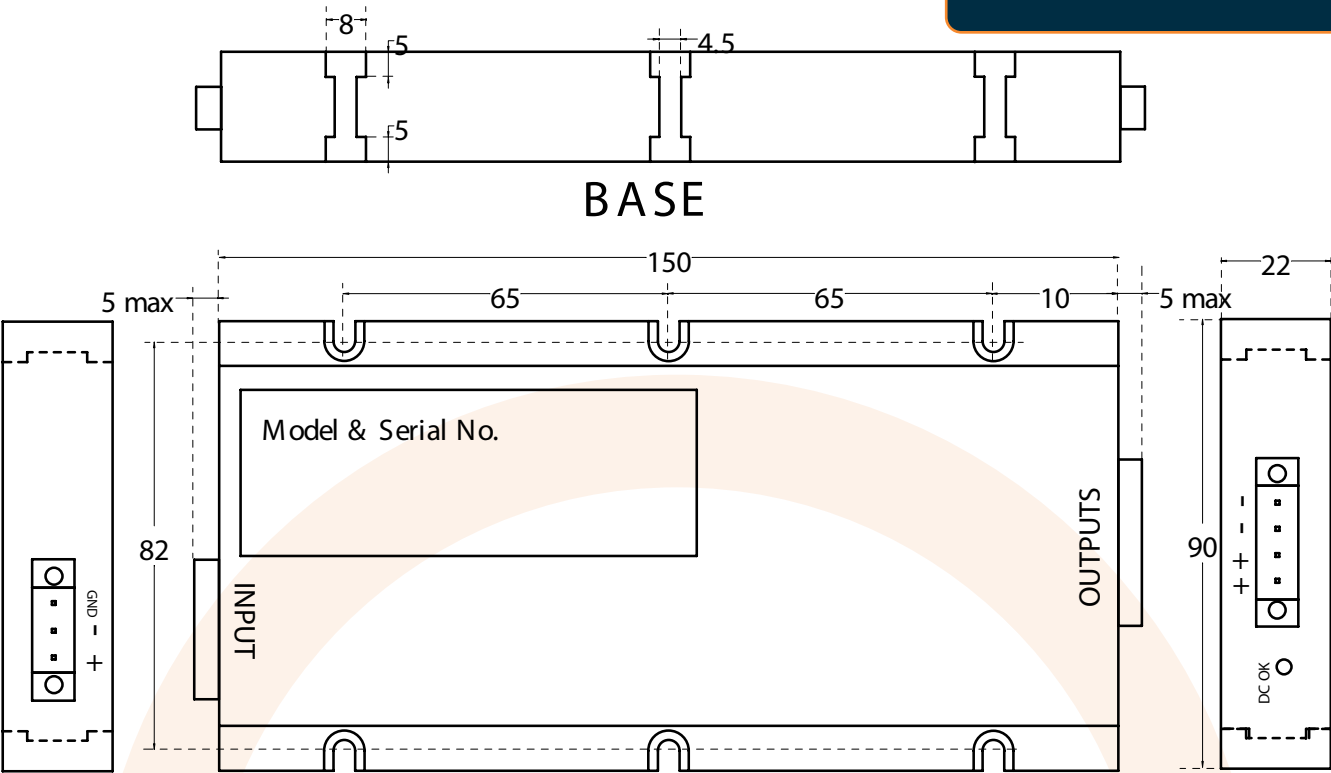
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120W APK120 Series Mechanical Diagram



Finish: Black anodised.
 Note: Remove all burr and shape edges
 All dimensions in mm unless otherwise stated.

Title APK 120 Mechanical outline		Doc No APK 120-Outline		Issue A	
	Drawn By : RC	Chkd :	Appvd :		
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