



07072010

ITE / EMBEDDED POWER SUPPLY

## PRODUCT FEATURES:

- 110VAC / 220VAC Input, Auto-ranging (No Manual Switch)
- 138 Watt Power Module (DC & AC Outputs):  
+24VDC (3A), +12VDC (5A), 12VAC (0.25A)
- Field-Replaceable Input/Output Fuse Protection
- Locking Output Connector
- Vented Enclosure; Convection-Cooled Operation
- Active PFC for EN61000-3-2 Class D Compliance
- Designed to fit Traffic Control Systems Application



## INPUT SPECIFICATIONS:

VOLTAGE	Auto-ranging (89~131 VAC / 179~264 VAC)
FREQUENCY	47~63 Hz
PROTECTION	Single 5A Fuse, 250VAC Rated (Front Panel)
LEAKAGE CURRENT	3.5mA max @ 264 VAC
HOLD-UP	≥80ms (+24V), ≥180ms (+12V)
EFFICIENCY	84%, typical (Full Load)
ISOLATION	1440 VDC Withstand Dielectric
HARMONICS	EN61000-3-2 Class D Compliant (≥0.95 PF)

## OUTPUT SPECIFICATIONS:

DC OUTPUTS	+24VDC (3A); +12VDC (5A); fused
AC OUTPUTS	12VAC (0.25A); fused
MINIMUM LOAD	+24VDC: 0.3A; +12VDC: 0.5A; 12VAC: none
LINE REGULATION	0.5% max, across full input range
LOAD REGULATION	2.0% (+24VDC); 0.5% (+12VDC)
RIPPLE/NOISE	1.0% p-p, max (20MHz BW)

## STATUS & CONTROL SPECIFICATIONS:

DC POWER GOOD	Green LEDs for +24VDC, +12VDC, 12VAC
LINE FREQ GOOD	Green LED for LINE FREQ
24VDC TEST POINTS	BLACK (-), RED (+); on Front Panel

## GENERAL SPECIFICATIONS:

OPERATING TEMPERATURE	-37°C to +74°C
STORAGE TEMPERATURE	-40°C to +80°C
OPERATING HUMIDITY	0% ~ 90% (non-condensing)
STORAGE HUMIDITY	5% ~ 95% (non-condensing)
COOLING	Free-Air Conduction-Cooled
VIBRATION	10-55Hz, 2G, 3Min Period, 60 min each (3 axes)
SHOCK	20G Peak Acceleration
RELIABILITY	>100,000 Hours (per MIL STD 217F)
SIZE (W x H x D)	225mm x 102mm x 169mm (8.86" x 4.02" x 6.65")
WEIGHT	2.54 kg (5.6 lbs)

## EMISSIONS:

EMISSIONS	EN55022 Level B (Conducted EMI)
ELECTROSTATIC DISCHARGE	EN61000-4-2, 4KV Contact / 8KV Air
RADIATED SUSCEPTIBILITY	EN61000-4-3, 26MHz-2000MHz, 10V/m, 80%AM
EFT/BURSTS	EN61000-4-4, 2KV
SURGES	EN61000-4-5, 2KV Earth, 1KV Line-Line
CONDUCTED IMMUNITY	EN61000-4-6, 150KHz-80MHz, 10Vrms, 80%AM
VOLTAGE DIPS	EN61000-4-10, 95% Dip, 10ms / 30% Dip, 500ms
VOLTAGE INTERRUPTIONS	EN61000-4-11, 95% reduction, 5ms
FLUCTUATIONS & FLICKER	EN61000-3-3

## SAFETY STANDARDS:

BUILT TO MEET	IEC 60950-1, EN 60950-1 (Approved inside end-user system)
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## OUTPUT CONNECTOR PIN ASSIGNMENT:

Pin	Signal
A	AC NEUTRAL
B	LINE-SYNC
C	AC LINE
D	+12 VDC
E	+24 VDC
F	NO CONNECTION
G	LOGIC GROUND
H	AC EARTH GROUND
I	12 VAC
J	NO CONNECTION

## OUTLINE DRAWING:

