1 TS 0 WAI

• EN 60950-1 ITE Certification

 Class B Emissions per EN 55011/22 • Harmonic Current per EN 61000-3-2

• EMC to EN 61000-6-2 & EN 60601-1-2

REL-110 SERIES AC-DC

FEATURES:

- RoHS Compliant
- Universal 85-264 VAC Input
 EN 60601-1 Medical Certification
- High EfficiencyAdvanced SMT Design
- Compact 3" x 5" x 1.3" Size
- 2 Year Warranty
- Fits 1U Applications
- Optional Chassis and Cover • One to Four Outputs



CHASSIS/COVER

OPEN FRAME

SAFETY SPECIFICATIONS

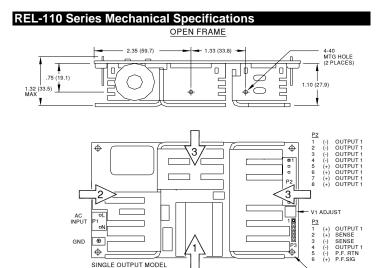
| SAFETY S | PECIFICATIO | ONS | | | | |
|------------------------------|-------------------------|------------------------------|-------------------------------------|----------------------------|--|--|
| | | | Protection Clas | s: | | |
| General | | | Overvoltage Category: II | | | |
| General | | | Pollution Degre | 5 5 | | |
| | | | 5 | | | |
| | Underwriters | | UL 60950-1 2 ^r | | | |
| c Laboratories | | UL 60601-1 1st Edition, 2006 | | | | |
| | File E137708/E | 140259 | AAMI/ANSI ES | 60601-1, 2005 | | |
| | | | CB Reports/Ce | ertificates (including all | | |
| TEREE | | | National and G | roup Deviations) | | |
| IECEE | | | IEC 60950-1/A1:2009, Second Edition | | | |
| SCHEME | | | IEC 60601-1:1 | 988 +A1:1991 +A2:1995 | | |
| | | | IEC 60601-1:2 | 005 Third Edition | | |
| | | _ | CAN/CSA-C22 | .2 No. 60950-1-07, | | |
| | UL Recognition | | 2 nd Edition | | | |
| c 🔁 us | Mark for Canada | | CAN/CSA-C22.2 No. 601-1-M90, 2005 | | | |
| | File E137708/E | 140259 | | .2 No. 60601-1:2008 | | |
| 3 | | | EN 60950-1/A1 | | | |
| TUV | TUV | | EN 60601-1/A2 | | | |
| SUD | 101 | | EN 60601-1:20 | | | |
| | | | | | | |
| (| Low Voltage Dir | | | December 2006) | | |
| | RoHS Directive | (Recast) | (2011/65/EU of | June 2011) | | |
| MODEL LI | STING | | | | | |
| MODEL | OUTPUT 1(8) | OUTPUT | 2 ₍₈₎ OUTPUT 3 | OUTPUT 4(7) | | |
| REL-110-4001 | +3.3V/10A(1) | +5V/6A | +12V/2A | -12V/2A | | |
| REL-110-4002 | +5V/10A(1) | +3.3V/6A | +12V/2A | -12V/2A | | |
| REL-110-4003 | +5V/10A(1) | +3.3V/6A | +15V/2A | -15V/2A | | |
| REL-110-4004 | +5V/10A(1) | -5V/6A | +12V/2A | -12V/2A | | |
| REL-110-4005 | +5V/10A(1) | -5V/6A | +15V/2A | -15V/2A | | |
| REL-110-4006 | +5V/10A(1) | +24V/2A | +12V/2A | -12V/2A | | |
| REL-110-4007 | +5V/10A(1) | +24V/2A | +15V/2A | -15V/2A | | |
| REL-110-4009 | +5V/10A ₍₁₎ | +24V/2A | +7V/2.5A | -7V/2.5A | | |
| REL-110-3001 | +5V/10A(1) | +12V/3A | | -12V/3A | | |
| REL-110-3002 | +5V/10A ₍₁₎ | +15V/2A | | -15V/2A | | |
| REL-110-3003 | +8V/6A | -8V/1A | | +30V/1A | | |
| REL-110-3004 | +9V/3A | -24V/3A | +13V/2A | | | |
| REL-110-2001 | +3.3V/10A(1) | +5V/6A | | | | |
| REL-110-2002 | +5V/10A(1) | +12V/5A | | | | |
| REL-110-2003 | +5V/10A(1) | +24V/3A | | | | |
| REL-110-2004 | +12V/5A | -12V/4A | | | | |
| REL-110-2005 REL-110-2006 | +15V/4A +18V/4A | -15V/3A -18V/3A | | | | |
| REL-110-2000 | 2.5V/22A ₍₂₎ | -10V/3A | | | | |
| REL-110-1001 | 3.3V/22A(2) | | | | | |
| REL-110-1002 | 5V/22A(2) | | | | | |
| REL-110-1003 | 12V/9.2A | | | | | |
| REL-110-1004 | 15V/7.3A | | | | | |
| REL-110-1005 | 24V/4.6A | | | | | |
| REL-110-1007 | 28V/3.9A | | | | | |
| REL-110-1008 | 48V/2.3A | | | | | |
| | | | | | | |
| | | | | | | |

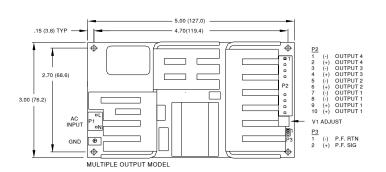
| OUTPUT SPECIFICAT | | | 0 1 1 | |
|--|--|---|--|--|
| Total Output Power at 50°C | 80W 110W | Convection Cooled 300 LFM Forced Air | | |
| Output Voltage Centering | Output 1: | ± 0.5% | (All outputs | |
| output voltage contening | Output 2: | ± 5.0% | at 50% load) | |
| | Output 3: | + 5.0% | , | |
| | Output 4: | ± 5.0% | | |
| Output Voltage Adjust Range | Output 1: | 95-105% | | |
| Load Regulation | Output 1: | 0.5% | (10-100% load change) | |
| | Output 2: | 5.0% | (| |
| | (4001-5 Models) | 8.0% | | |
| | (2001 Model) | 6.0% | | |
| | Output 3: | 5.0% | | |
| | Output 4: | 5.0% | | |
| Source Regulation | Outputs 1 – 4: | 0.5% | | |
| Cross Regulation | Outputs 2 – 4: | 5.0% | | |
| Output Noise | Outputs 1 – 4: | 1.0% | | |
| Furn on Overshoot | None | | | |
| Fransient Response | Outputs 1 – 4 | | | |
| Voltage Deviation | 5.0% | | | |
| Recovery Time | 500µS | | | |
| Load Change | 50% to 100% | 1100/ +- 1 | IE00/ | |
| Dutput Overvoltage Protection | Output 1: 110% to 150% | | | |
| Dutput Overpower Protection | 110-160% rated Pout, cycle on/off, auto recovery 16 mS min., Full Power, 85V Input | | | |
| Hold Up Time | 10 mS min., Full | Power, 85V | Input | |
| Start Up Time | 4 Seconds, 120V | input | | |
| NPUT SPECIFICATIO | | 0 | | |
| Source Voltage | 85 - 264 Volts A | L. | | |
| Frequency Range | 47 – 63 Hz | | | |
| Peak Inrush Current | 40A | | | |
| Efficiency | 82% Typ., Full P | ower, 230V | varies by model | |
| Power Factor | 0.95 (Full Power, | | | |
| ENVIRONMENTAL SP | | 15 | | |
| AMBIENT OPERATING | 0° C TO + 70° C | | o | |
| Temperature Range | Derating: See Po | | Chart | |
| Ambient Storage Temp. Range | - 40° C to + 85° | | | |
| | | 0 0 20/ | 6/°C | |
| | Outputs 1 – 4: | 0.02% | 51 0 | |
| GENERAL SPECIFICA | | 0.02% | | |
| GENERAL SPECIFICA Means of Protection | TIONS | | | |
| GENERAL SPECIFICA Means of Protection Primary to Secondary | 2MOPP (Means | of Patient P | rotection) | |
| GENERAL SPECIFICA Means of Protection Primary to Secondary Primary to Ground | 2MOPP (Means 1MOPP (Means | of Patient P of Patient P | rotection) rotection) | |
| GENIERAL SPECIFICA Means of Protection Primary to Secondary Primary to Ground Secondary to Ground | 2MOPP (Means 1MOPP (Means | of Patient P of Patient P | rotection) rotection) | |
| Primary to Ground Secondary to Ground Dielectric Strength(17) | 2MOPP (Means 1MOPP (Means Operational Insul | of Patient P of Patient P ation(Consu | rotection) rotection) ılt factory for 1MOOP or 1MOF | |
| GENIERAL SPECIFICA Means of Protection Primary to Secondary Primary to Ground Secondary to Ground Dielectric Strength(17) Reinforced Insulation | TIONS 2MOPP (Means 1MOPP (Means Operational Insul 5656 VDC, Prima | of Patient P of Patient P ation(Consu | rotection) rotection) Ilt factory for 1MOOP or 1MOF ndary, 1 Sec. | |
| GENERAL SPECIFICA Means of Protection Primary to Secondary Primary to Ground Secondary to Ground Secondary to Ground Dielectric Strength(17) Reinforced Insulation Basic Insulation | 2MOPP (Means) 1MOPP (Means) Operational Insul 5656 VDC, Prima 2545 VDC, Prima | of Patient P of Patient P ation(Consu ary to Secor ary to Grour | rotection) rotection) ilt factory for 1MOOP or 1MOF ndary, 1 Sec. nd, 1 Sec. | |
| GENERAL SPECIFICA Veans of Protection Primary to Secondary Primary to Ground Secondary to Ground Dielectric Strength(17) Reinforced Insulation Basic Insulation Operational Insulation | TIONS 2MOPP (Means 1MOPP (Means Operational Insul 5656 VDC, Prima | of Patient P of Patient P ation(Consu ary to Secor ary to Grour | rotection) rotection) ilt factory for 1MOOP or 1MOF ndary, 1 Sec. nd, 1 Sec. | |
| GENIERAL SPECIFICA Means of Protection Primary to Secondary Primary to Ground Secondary to Ground Dielectric Strength(17) Reinforced Insulation Basic Insulation Operational Insulation Leakage Current | 2MOPP (Means 1MOPP (Means Operational Insul 5656 VDC, Prima 2545 VDC, Prima 707 VDC, Secon | of Patient P of Patient P ation(Consu ary to Secor ary to Grour dary to Grou | rotection) rotection) ilt factory for 1MOOP or 1MOF ndary, 1 Sec. nd, 1 Sec. | |
| GENIERAL SPECIFICA Means of Protection Primary to Secondary Primary to Ground Secondary to Ground Dielectric Strength(17) Reinforced Insulation Basic Insulation Operational Insulation Leakage Current Earth Leakage | 2MOPP (Means of 1MOPP (Means of Operational Insult 5656 VDC, Prima 2545 VDC, Prima 707 VDC, Secon <300uA NC, <10 | of Patient P of Patient P ation(Consu ary to Secor ary to Grour dary to Grou dary to Grou 00uA SFC | rotection) rotection) ilt factory for 1MOOP or 1MOF ndary, 1 Sec. nd, 1 Sec. | |
| GENERAL SPECIFICA Means of Protection Primary to Secondary Primary to Ground Secondary to Ground Dielectric Strength(17) Reinforced Insulation Basic Insulation Operational Insulation Operational Insulation Leakage Current Earth Leakage Touch Current | TIONS 2MOPP (Means of 1MOPP (Means of Operational Insul- 5656 VDC, Prima 2545 VDC, Prima 707 VDC, Secon <300uA NC, <10 <100uA NC, <50 | of Patient P of Patient P ation(Consu ary to Secor ary to Grour dary to Grour dary to Grou 00uA SFC 0uA SFC | rotection) rotection) Ilt factory for 1MOOP or 1MOF ndary, 1 Sec. Id, 1 Sec. und, 1 Sec. | |
| GENERAL SPECIFICA Means of Protection Primary to Secondary Primary to Ground Secondary to Ground Dielectric Strength(17) Reinforced Insulation Basic Insulation Operational Insulation Operational Insulation Leakage Current Earth Leakage Touch Current | TIONS 2MOPP (Means of 1MOPP (Means of Operational Insul 5656 VDC, Prima 2545 VDC, Prima 707 VDC, Secon <300uA NC, <10 <100uA NC, <50 Logic low with inp | of Patient P of Patient P ation(Consu ary to Secor ary to Grour dary to Grou dary to Grou 00uA SFC 0uA SFC out power fa | rotection) rotection) Ilt factory for 1MOOP or 1MOF ndary, 1 Sec. nd, 1 Sec. und, 1 Sec. | |
| GENIERAL SPECIFICA Means of Protection Primary to Secondary Primary to Ground Secondary to Ground Secondary to Ground Dielectric Strength(n) Reinforced Insulation Basic Insulation Operational Insulation Leakage Current Earth Leakage Touch Current Power Fail Signal | TIONS 2MOPP (Means 1MOPP (Means Operational Insul 5656 VDC, Prima 2545 VDC, Prima 707 VDC, Secon <300uA NC, <10 <100uA NC, <50 Logic low with in minimum prior to | of Patient P of Patient P ation(Consu- ary to Secor ary to Grour dary to Grour dary to Grou 00uA SFC 0uA SFC Dut power fa Output 1 di | rotection) rotection) ilt factory for 1MOOP or 1MOF ndary, 1 Sec. nd, 1 Sec. und, 1 Sec. ailure 10 mS ropping 1% | |
| GENERAL SPECIFICA Veans of Protection Primary to Secondary Primary to Ground Secondary to Ground Secondary to Ground Dielectric Strength(17) Reinforced Insulation Basic Insulation Operational Insulation Leakage Current Earth Leakage Touch Current Power Fail Signal Remote Sense (singles only) | TIONS 2MOPP (Means of 1MOPP (Means of Operational Insul- 5656 VDC, Prima 2545 VDC, Prima 707 VDC, Secon <300uA NC, <10 <100uA NC, <50 Logic low with in minimum prior to 250mV compens | of Patient P of Patient P ation(Consu ary to Secor rry to Grour dary to Grour dary to Grour 00uA SFC 00uA SFC 00uA SFC 00upt 11 du power fa 00upt 11 du ation of out | rotection) rotection) Ilt factory for 1MOOP or 1MOF ndary, 1 Sec. nd, 1 Sec. und, 1 Sec. illure 10 mS ropping 1% put cable losses | |
| GENIERAL SPECIFICA Veans of Protection Primary to Secondary Primary to Ground Secondary to Ground Dielectric Strength(17) Reinforced Insulation Basic Insulation Operational Insulation Leakage Current Earth Leakage Touch Current Power Fail Signal Remote Sense (singles only) Vean-Time Between Failures | TIONS 2MOPP (Means of 1MOPP (Means of Operational Insul- 5656 VDC, Prima 2545 VDC, Prima 707 VDC, Secon <300uA NC, <10 <100uA NC, <10 Logic low with inj minimum prior to 250mV compens 100,000 Hours m | of Patient P of Patient P ation(Consu- ary to Secor ary to Grour dary to Grour dary to Grou OuA SFC Out SFC Out power fa Output 1 di ation of out in., MIL-HC | rotection) rotection) Iltfactory for 1MOOP or 1MOF ndary, 1 Sec. nd, 1 Sec. und, 1 Sec. und, 1 Sec. und, 1 Sec. und, 1 Sec. und, 1 Sec. solution of the sec ropping 1% put cable losses BK-217F, 25° C, GB | |
| GENIERAL SPECIFICA Means of Protection Primary to Secondary Primary to Ground Secondary to Ground Dielectric Strength(n) Reinforced Insulation Basic Insulation Operational Insulation Leakage Current Earth Leakage Touch Current Power Fail Signal Remote Sense (singles only) Mean-Time Between Failures | TIONS 2MOPP (Means of 1MOPP (Means of Operational Insul- 5656 VDC, Prima 2545 VDC, Prima 707 VDC, Secon <300uA NC, <10 <100uA NC, <10 Logic low with inp minimum prior to 250mV compens 100,000 Hours m 0.80 Lbs. Open | of Patient P of Patient P ation(Consu- ary to Secor ary to Grour dary to Grour dary to Grou OuA SFC OuA SFC Out power fa Output 1 du ation of out ation of out fin., MIL-HE Frame/ 1.28 | rotection) rotection) iltfactory for 1MOOP or 1MOF ndary, 1 Sec. id, 1 Sec. und, 1 Sec. und, 1 Sec. und, 1 Sec. und, 1 Sec. und, 1 Sec. sillure 10 mS ropping 1% put cable losses BK-217F, 25° C, GB B Lbs. Chassis and Cover | |
| GENIERAL SPECIFICA Means of Protection Primary to Secondary Primary to Ground Secondary to Ground Dielectric Strength(17) Reinforced Insulation Basic Insulation Operational Insulation Leakage Current Earth Leakage Touch Current Power Fail Signal Remote Sense (singles only) Mean-Time Between Failures Neight ELECTROMAGNETIC | TIONS 2MOPP (Means of 1MOPP (Means of Operational Insul- 5656 VDC, Prima 2545 VDC, Prima 707 VDC, Secon <300uA NC, <10 <100uA NC, <10 Logic low with inp minimum prior to 250mV compens 100,000 Hours m 0.80 Lbs. Open COMPATIBIL | of Patient P of Patient P ation(Consu- ary to Secor- ary to Grour dary to Grour dary to Grour dary to Grou 004 SFC 004 SFC 004 power fa 004 power fa 004 power fa 004 put 1 di ation of out in, MIL-HE Frame/ 1.28 LITY SP | rotection) rotection) iltfactory for 1MOOP or 1MOF ndary, 1 Sec. nd, 1 Sec. und, 1 Sec. State Composition State Composit | |
| GENIERAL SPECIFICA Means of Protection Primary to Secondary Primary to Ground Secondary to Ground Dielectric Strength(n) Reinforced Insulation Basic Insulation Operational Insulation Leakage Current Earth Leakage Touch Current Power Fail Signal Remote Sense (singles only) Mean-Time Between Failures Weight ELECTROMAGNETIC | TIONS 2MOPP (Means 1MOPP (Means Operational Insul 5656 VDC, Prima 2545 VDC, Prima 707 VDC, Secon <300uA NC, <10 <100uA NC, <10 Logic low with inp minimum prior to 250mV compens 100,000 Hours m 0.80 Lbs. Open COMPATIBIL EN 61000-4-2 | of Patient P of Patient P ation(Consu- ary to Secor ary to Grour dary to Grour dary to Grou OuA SFC Out SFC Out power fa Output 1 du ation of out ation of out tinn., MIL-HE Frame/ 1.28 LITY SP ±8kV Cor | rotection) rotection) iltfactory for 1MOOP or 1MOF ndary, 1 Sec. id, 1 Sec. und, 1 Sec. und, 1 Sec. und, 1 Sec. und, 1 Sec. und, 1 Sec. sture 10 mS ropping 1% put cable losses BK-217F, 25° C, GB BLbs. Chassis and Cover ECIFICATIONS ttact/ ±8kV Air Discharge | |
| GENERAL SPECIFICA Means of Protection Primary to Secondary Primary to Ground Secondary to Ground Dielectric Strength(r) Reinforced Insulation Basic Insulation Operational Insulation Leakage Current Earth Leakage Touch Current Power Fail Signal Remote Sense (singles only) Mean-Time Between Failures Neight ELECTROMAGNETIC Readiated Electromagnetic Field | TIONS 2MOPP (Means 1MOPP (Means Operational Insul- 5656 VDC, Prima 2545 VDC, Prima 707 VDC, Secon <300uA NC, <10 <100uA NC, <10 <100uA NC, <50 Logic low with inp minimum prior to 250mV compens 100,000 Hours m 0.80 Lbs. Open COMPATIBIL EN 61000-4-2 En 61000-4-3 | of Patient P of Patient P ation(Consu- ary to Secor ary to Grour dary to Grour dary to Grour dary to Grou 004 SFC 004 SFC 004 power fa 004 stron of out ation of out in, MIL-HE Frame/ 1.28 LITY SP ±8kV Cor 80MHz-2 | rotection) rotection) iltfactory for 1MOOP or 1MOF ndary, 1 Sec. nd, 1 Sec. und, 1 Sec. State Composition State Composit | |
| GENIERAL SPECIFICA Means of Protection Primary to Secondary Primary to Ground Secondary to Ground Dielectric Strength(r) Reinforced Insulation Basic Insulation Operational Insulation Leakage Current Earth Leakage Touch Current Power Fail Signal Remote Sense (singles only) Mean-Time Between Failures Neight ELECTROMAGNETIC Elactrostatic Discharge Radiated Electromagnetic Field ET/Bursts | TIONS 2MOPP (Means of 1MOPP (Means of 1MOPP (Means of 0) 5656 VDC, Prima 2545 VDC, Prima 2545 VDC, Prima 707 VDC, Secon <300uA NC, <10 | of Patient P of Patient P ation(Consu- ary to Secor ary to Grour dary to Grour dary to Grour dary to Grou OuA SFC Out SPC Out SPC Out put 1 di ation of out in, MIL-HE Frame/ 1.28 LIY SP ±8kV Cor 80MHz-2 ±2 kV | rotection) rotection) Iltfactory for 1MOOP or 1MOF ndary, 1 Sec. d, 1 Sec. und, 1 Sec. und, 1 Sec. und, 1 Sec. und, 1 Sec. und, 1 Sec. Subs. Chassis and Cover ECIFICATIONS ttact/ ±8kV Air Discharge .5GHz, 10/m, 80% AM | |
| GENIERAL SPECIFICA Means of Protection Primary to Secondary Primary to Ground Secondary to Ground Dielectric Strength(r) Reinforced Insulation Basic Insulation Operational Insulation Leakage Current Earth Leakage Touch Current Power Fail Signal Remote Sense (singles only) Mean-Time Between Failures Neight ELECTROMAGNETIC Elactrostatic Discharge Radiated Electromagnetic Field ET/Bursts | TIONS 2MOPP (Means 1MOPP (Means Operational Insul- 5656 VDC, Prima 2545 VDC, Prima 707 VDC, Secon <300uA NC, <10 <100uA NC, <10 <100uA NC, <50 Logic low with inp minimum prior to 250mV compens 100,000 Hours m 0.80 Lbs. Open COMPATIBIL EN 61000-4-2 En 61000-4-3 | of Patient P of Patient P ation(Consu- ary to Secor ary to Grour dary to Grour dary to Grour dary to Grou OuLA SFC Output 1 du ation of out inin, MIL-HE Frame/ 1.22 LITY SP ±8kV Cor 80MHz-2 ±2 kV ± 1 kV Co | rotection) rotection) Itt factory for 1MOOP or 1MOP adary, 1 Sec. id, 1 Sec. und, 1 Sec. silure 10 mS ropping 1% put cable losses BK-217F, 25° C, GB BLS. Chassis and Cover ECIFICATIONS tact/ ±8kV Air Discharge .5GHz, 10/m, 80% AM | |
| GENERAL SPECIFICA Means of Protection Primary to Secondary Primary to Ground Secondary to Ground Dielectric Strength(17) Reinforced Insulation Basic Insulation Operational Insulation Leakage Current Earth Leakage Touch Current Power Fail Signal Remote Sense (singles only) Mean-Time Between Failures Weight Electrostatic Discharge Radiated Electromagnetic Field Ert/Bursts Surges | TIONS 2MOPP (Means of the text of the text of the text of tex of text of text of tex of tex of text of tex of text | of Patient P of Patient P ation(Consu- ary to Secor ary to Grour dary to Grour dary to Grour dary to Grou OuLA SFC Output 1 di ation of out in, MIL-HE Frame/ 1.22 LITY SP ±8kV Cor 80MHz-2 ±2 kV ± 1 kV Co ±2 kV Diff | rotection) rotection) Itt factory for 1MOOP or 1MOP indary, 1 Sec. id, 1 Sec. und, 1 Sec. islure 10 mS ropping 1% put cable losses BK-217F, 25° C, GB 3 Lbs. Chassis and Cover ECIFICATIONS Itact/ ±8kV Air Discharge .5GHz, 10/m, 80% AM | |
| GENIERAL SPECIFICA Means of Protection Primary to Secondary Primary to Ground Secondary to Ground Secondary to Ground Dielectric Strength(n) Reinforced Insulation Basic Insulation Operational Insulation Leakage Current Earth Leakage Touch Current Power Fail Signal Remote Sense (singles only) Mean-Time Between Failures Weight ElectroRomAGNETIC Electrostatic Discharge Radiated Electromagnetic Field EFT/Bursts Surges | TIONS 2MOPP (Means 1 1MOPP (Means 1 Operational Insul 5656 VDC, Prima 2545 VDC, Prima 707 VDC, Secon <300uA NC, <10 | of Patient P of Patient P ation(Consu ary to Secor ary to Grour dary to Grour dary to Grour dary to Grour dary to Grour dary to Grou UOUA SFC Output 1 di ation of out in., MIL-HE Frame, 1.28 EITY SP ±8kV Cor 800Hz-2 ±2 kV ±1 kV Cor ±2 kV Diff .15 to 80N | rotection) rotection) ill factory for 1MOOP or 1MOF ndary, 1 Sec. ad, 1 Sec. und, 1 Sec. Solution State ropping 1% put cable losses IBK-217F, 25° C, GB 3 Lbs. Chassis and Cover ECIFICATIONS tact/ ±8kV Air Discharge .5GHz, 10/m, 80% AM | |
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| GENIERAL SPECIFICA Means of Protection Primary to Secondary Primary to Ground Secondary to Ground Secondary to Ground Dielectric Strength(n) Reinforced Insulation Basic Insulation Operational Insulation Leakage Current Earth Leakage Touch Current Power Fail Signal Remote Sense (singles only) Mean-Time Between Failures Neight ElectroRomAGNETIC Electrostatic Discharge Radiated Electromagnetic Field EFT/Bursts Surges | TIONS 2MOPP (Means 1 1MOPP (Means 1 Operational Insul 5656 VDC, Prima 2545 VDC, Prima 707 VDC, Secon <300uA NC, <10 | of Patient P of Patient P ation(Consu- ary to Seconary to Grour dary to Grour dary to Grour dary to Grour 00uA SFC 00uA SFC 00uB SFC 00uB SFC 00uB SFC 00uB SFC 00uB SFC 00uB SFC 00uB SFC 1.28 ±2 kV ± 1 kV Cc ±2 kV Diff .15 to 800 .30% Red 95% Red 60% Red | rotection) rotection) alt factory for 1MOOP or 1MOP indary, 1 Sec. and, 2 Sec. | |
| GENIERAL SPECIFICA Means of Protection Primary to Secondary Primary to Ground Secondary to Ground Secondary to Ground Dielectric Strength(n) Reinforced Insulation Basic Insulation Operational Insulation Leakage Current Earth Leakage Touch Current Power Fail Signal Remote Sense (singles only) Mean-Time Between Failures Neight ElectroRomAGNETIC Electrostatic Discharge Radiated Electromagnetic Field EFT/Bursts Surges | TIONS 2MOPP (Means 1 1MOPP (Means 1 Operational Insul 5656 VDC, Prima 2545 VDC, Prima 707 VDC, Secon <300uA NC, <10 | of Patient P of Patient P ation(Consu- ary to Seconary to Grour dary to Group dary to | rotection) rotection) ill factory for 1MOOP or 1MOF adary, 1 Sec. add, 1 Sec. und, 1 Sec. und, 1 Sec. illure 10 mS ropping 1% put cable losses BK-217F, 25° C, GB 3 Lbs. Chassis and Cover ECIFICATIONS Itact/ ±8kV Air Discharge .5GHz, 10/m, 80% AM immon Mode rerential Mode Hz, 10V, 80% AM uction, 500ms uction, 10ms | |
| GENIERAL SPECIFICA Veans of Protection Primary to Secondary Primary to Ground Secondary to Ground Dielectric Strength(17) Reinforced Insulation Dasic Insulation Operational Insulation Operational Insulation Leakage Current Earth Leakage Touch Current Power Fail Signal Remote Sense (singles only) Vean-Time Between Failures Neight ELECTROMAGNETIC Electrostatic Discharge Radiated Electromagnetic Field EFT/Bursts Surges Conducted Immunity /ottage Dips and Interruptions Radiated Emissions | TIONS 2MOPP (Means of the construction of the c | of Patient P of Patient P ation(Consu- ary to Secon ray to Grour dary to Group dary to | rotection) rotection) alt factory for 1MOOP or 1MOP indary, 1 Sec. and, 2 Sec. | |
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| GENIERAL SPECIFICA Means of Protection Primary to Secondary Primary to Ground Secondary to Ground Dielectric Strength(n) Reinforced Insulation Basic Insulation Operational Insulation Leakage Current Earth Leakage Touch Current Power Fail Signal Remote Sense (singles only) Mean-Time Between Failures Neight ELECTROMAGNETIC Electrostatic Discharge Radiated Electromagnetic Field ET/Bursts Surges Conducted Immunity /oltage Dips and Interruptions Radiated Emissions Conducted Emissions Conducted Emissions | TIONS 2MOPP (Means (1MOPP (Means)) Operational Insul- 5656 VDC, Prima 2545 VDC, Prima 707 VDC, Secon <300uA NC, <10 | of Patient P of Patient P ation(Consu- ary to Seconary to Grour dary to Group dary to | rotection) rotection) ill factory for 1MOOP or 1MOP indary, 1 Sec. ind, 1 Sec. und, 1 Sec. und, 1 Sec. illure 10 mS ropping 1% put cable losses BK-217F, 25° C, GB B Lbs. Chassis and Cover ECIFICATIONS Itact/ ±8kV Air Discharge .5GHz, 10/m, 80% AM immon Mode rerential Mode AHz, 10V, 80% AM uction, 500ms uction, 10ms uction, 1s (Criteria B) | |
| GENIERAL SPECIFICA Veans of Protection Primary to Secondary Primary to Ground Secondary to Ground Dielectric Strength(rr) Reinforced Insulation Basic Insulation Operational Insulation Leakage Current Earth Leakage Touch Current Power Fail Signal Remote Sense (singles only) Vean-Time Between Failures Weight ELECTROMAGNETIC Electrostatic Discharge Radiated Electromagnetic Field EFT/Bursts Surges Conducted Immunity /oltage Dips and Interruptions Radiated Emissions Conducted Emissions | TIONS 2MOPP (Means of the second s | of Patient P of Patient P ation(Consu- ary to Seconary to Grour dary to Group dary to | rotection) rotection) ill factory for 1MOOP or 1MOP indary, 1 Sec. ind, 1 Sec. und, 1 Sec. und, 1 Sec. illure 10 mS ropping 1% put cable losses BK-217F, 25° C, GB B Lbs. Chassis and Cover ECIFICATIONS Itact/ ±8kV Air Discharge .5GHz, 10/m, 80% AM immon Mode rerential Mode AHz, 10V, 80% AM uction, 500ms uction, 10ms uction, 1s (Criteria B) | |

Consult factory for positive, negative or floating outputs.

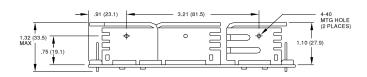
Refer to Applications Information for complete output power ratings. All specifications are maximum at 25° C, 110W unless otherwise stated, may vary by model and are subject to change without notice.



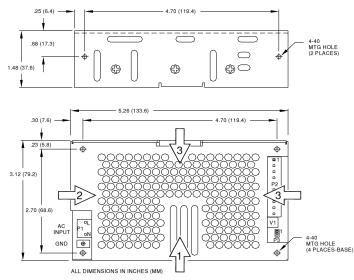




.128 DIA MTG HOLE (4 PLACES)







ORDERING INFORMATION

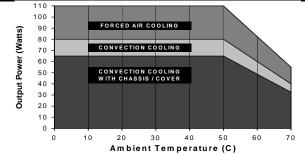
Please specify the following optional features when ordering:

CH - Chassis CO - Cover I/O - Isolated outputs TS - Terminal Strip

APPLICATIONS INFORMATION

- 1. Rated 8A maximum with convection cooling.
- 2. Rated 16A maximum with convection cooling.
- 3. Total power must not exceed 80 watts with convection cooling on open frame models except where noted.
- Total power must not exceed 110 watts with 300 LFM forced air cooling on open frame models.
- 5. Total power must not exceed 65 watts with convection cooling and chassis/cover option.
- Total power must not exceed 110 watts with 300 LFM forced air cooling and chassis/cover option.
- 7. Total current from Outputs 3 & 4 must not exceed 3 amps with convection cooling.
- 8. Total current from Outputs 1 & 2 must not exceed 12 amps with convection cooling.
- 9. Semiconductor case temperatures must not exceed 110°C.
- 10. Each output can deliver its rated current but total output power must not exceed maximum power as determined by the cooling method stated above.
- Sufficient area must be provided around convection cooled power supplies to allow natural movement of air to develop.
- 12. 300 linear feet per minute of airflow must be maintained one inch above any point of the heatsink in the direction shown when forced air cooling is required.
- 13. This product is intended for use as a professionally installed component within information technology and medical equipment.
- 14. A minimum load of 10% is required on output one to ensure proper regulation of remaining outputs.
- Remote sense terminals may be used to compensate for cable losses up to 250mV (single output models only). The use of a twisted pair is recommended as well as a decoupling capacitor (0.1 - 10μF) and a capacitor of 100μF/amp connected across the load side.
- Peak to peak output ripple and noise is measured directly at the output terminals of the power supply, without the use of the probe ground lead or retractable tip, 20 MHz bandwidth.
- 17. This product was type tested and safety certified using the dielectric strength test voltages listed in Table 6 of IEC 60601-1:2005. In consideration of Clause 8.8.3, care must be taken to insure that the voltage applied to a reinforced insulation does not overstress different types and levels of insulation. Primary and secondary to ground capacitors may need to be disconnected prior to performing a dielectric strength test on the power supply or the end product. It is highly recommended that the DC test voltages listed in DVB.1, Annex DVB of UL 60601-1 1st Edition are not exceeded during a production-line dielectric strength test of the assembled end product. Please consult factory for further information.
- 18. This power supply has been safety approved and final tested using a DC dielectric
- strength test. Please consult factory before performing an AC dielectric strength test.Maximum screw penetration into bottom chassis mounting holes is .100 inches.
- Maximum screw penetration into bottom chassis mounting holes is .100 mche
 Maximum screw penetration into side chassis mounting holes is .250 inches.
- To meet emissions specifications, all four mounting hole pads must be electrically
- connected to a common metal chassis. Chassis/cover option recommended.
- 22. This product includes only one fuse in the input circuit. In consideration of Clause 8.11.5 of IEC 60601-1:2005, a second fuse may be required in the end product.

MAXIMUM OUTPUT POWER VS. AMBIENT TEMPERATURE



| 21 | AC Input | .156 friction lock header mates with Tyco 640250-3 or equivalent crimp terminal housing with Tyco 3-640706-1 or equivalent crimp terminal. |
|---------|-------------------------|--|
| P2 | DC Output (Single) | .156 friction lock header mates with Tyco 770849-8 or equivalent crimp terminal housing with Tyco 3-640707-1 or equivalent crimp terminal. |
| P2 | DC Output (Multiple) | .156 friction lock header mates with Tyco 1-770849-0 or equivalent crimp terminal housing with Tyco 3-640707-1 or equivalent crimp terminal. |
| G P3 | Ground | .187 quick disconnect terminal. |
| P3 | P.F./Sense (Single) | .100 breakaway header mates with Molex 50-57-9006 or equivalent crimp terminal housing with Molex type 71851 or equivalent crimp terminal. |
| P3 | P.F. (Multiple) | .100 breakaway header mates with Molex 50-57-9002 or equivalent crimp terminal housing with Molex type 71851 or equivalent crimp terminal. |

1 – Optimum 2 – Good 3 – Fair

