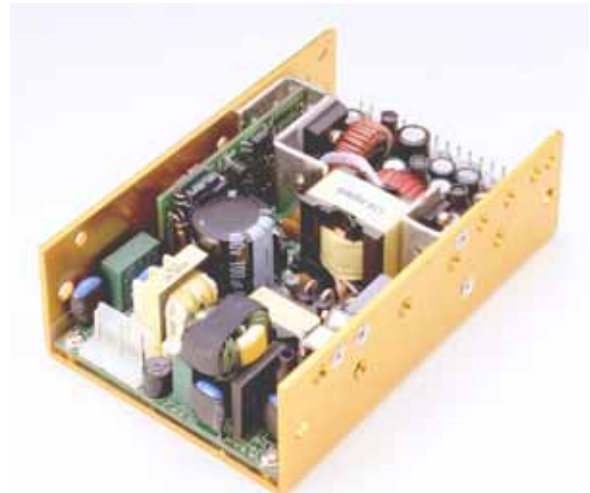


LTE 100U SERIES 100W MULTIPLE OUTPUT SWITCHING POWER SUPPLY

LTE 120U SERIES 120W MULTIPLE OUTPUT SWITCHING POWER SUPPLY

FEATURES :

DIMENSIONS : 5"x3.3"x1.5"
 DOUBLE SIDE PCB FOR HIGH RELIABILITY
 BUILT-IN CLASS B EMI FILTER (AC OR DC INPUT)
 EN61000-3-2 CLASS D (POWER FACTOR CORRECTION)
 ADJUSTABLE MAIN OUTPUT
 OVERLOAD PROTECTION
 OVERVOLTAGE PROTECTION
 BUILT-IN BROWN-OUT PROTECTION
 SHORT CIRCUIT PROTECTION
 REMOTE SENSE ON MAIN OUTPUT
 OVERTEMPERATURE PROTECTION (OPTIONAL)
 DC INPUTS 48VDC FOR DC/DC TYPE (OPTIONAL)
 LOW LEAKAGE CURRENT MEDICAL MODEL (OPTIONAL)
 POWER GOOD SIGNAL (OPTIONAL)
 CE MARKED TO LOW VOLTAGE DIRECTIVE (LVD)



APPLICATION :

COMPUTER PERIPHERALS/LAN & HUB
 TEST & INDUSTRIAL EQUIPMENTS
 MEDICAL INSTRUMENTS
 TELECOMMUNICATIONS

ENVIRONMENTAL :

OPERATING TEMPERATURE : 0°C TO 40°C AMBIENT, DERATED EACH OUTPUT AT 2.5% PER °C FROM 40°C TO 70°C
 STORAGE TEMPERATURE : -40°C TO 85°C
 HUMIDITY : OPERATING, NON-CONDENSING, 5% TO 95%
 VIBRATION : RANDOM OPERATING 2.4 GRMS/MAX. 3 AXES 50~500Hz 10 MINUTES/AXIS
 SHOCK : OPERATING HALF SINE 20 GPK/MAX. 3 AXES 10ms 6 SHOCKS TOTAL

INPUT SPECIFICATIONS :

| | |
|----------------------|------------------------------------------------------------------------------------------------------------------------------------------------------|
| VOLTAGE | 90-264 VAC, UNIVERSAL |
| FREQUENCY | 47-63Hz |
| CURRENT | 2 ARMS. MAX. @115VAC 100W LOAD / 2.5 ARMS. MAX. @115VAC 100W / 120W LOAD 1 ARMS. MAX. @230VAC 100W LOAD / 1.5 ARMS. MAX. @230VAC 100W / 120W LOAD |
| INRUSH SURGE CURRENT | 35A TYPICAL, COLD START @25°C, 115VAC |

OUTPUT SPECIFICATIONS :

| | |
|----------------------|-------------------------------------------------------------------------|
| OUTPUT WATTAGE | 100 WATTS MAX.(CONVECTION RATING)/120 WATTS MAX.(WITH 15CFM FORCED AIR) |
| VOLTAGE | SEE TABLE |
| CURRENT | SEE TABLE |
| LINE REGULATION | +/- 0.5% TYPICAL |
| LOAD REGULATION | MAIN OUTPUTS +/- 5%, AUX. OUTPUTS +/- 10% TYPICAL (NOTE1) |
| NOISE & RIPPLE | 1% TYPICAL AT FULL LOAD (NOTE2) |
| OVERSHOOT/UNDERSHOOT | 5% MAX. @ TURN-ON/ TURN-OFF |

GENERAL SPECIFICATIONS :

EFFICIENCY : >65% TYPICAL AT FULL LOAD
 TURN-ON TIME : 2SEC MAX. AT FULL LOAD @ 115VAC
 HOLD-UP TIME : 16ms TYPICAL AT FULL LOAD @ 115VAC
 REMOTE SENSE : 250mV +/- 50mV @ V1 AT FULL LOAD
 MTBF DEMONSTRATED : >100,000 HOURS AT FULL LOAD AND 25°C AMBIENT CONDITIONS

ELECTROMAGNETIC COMPATIBILITY SPECIFICATIONS :

EMI CONDUCTED/RADIATED : FCC & CISPR CLASS B
 DESIGNED TO MEET EN61000-3-3,-4-2,-3,-4,-5,-6,-8,-11



| #MODEL | NO. | VOLTAGE (VDC) | LOAD RANGE (A) | | | | LOAD REGULATION (%) (NOTE 1) | RIPPLE & NOISE (PARD)(mVp-p) (NOTE 2) | | |
|-------------------------------------------------------------------|-----|---------------|----------------|---------------|---------------|-------|------------------------------|---------------------------------------|-----------|-----------|
| | | | MIN. | MAX. (NOTE 2) | PEAK (NOTE 3) | | | | | |
| LTE100U / 120U SINGLE OUTPUT VOLTAGE/CURRENT RATING CHARTS | | | | | | | | | | |
| | | | 100U/120U | 100U/120U | 100U | 120U | 100U | 120U | 100U/120U | 100U/120U |
| S0 | 1 | +3.3V | 0 | 0 | 18.2 | 24.25 | 27.6 | 27.6 | +/- 3% | 100mV |
| S1 | 1 | +5V | 0 | 0 | 18 | 24 | 27.6 | 27.6 | +/- 3% | 100mV |
| S2 | 1 | +12V | 0 | 0 | 8.34 | 10 | 11.5 | 11.5 | +/- 3% | 180mV |
| S3 | 1 | +15V | 0 | 0 | 6.67 | 8 | 9.2 | 9.2 | +/- 3% | 225mV |
| S4 | 1 | +24V | 0 | 0 | 4.17 | 5 | 5.75 | 5.75 | +/- 3% | 240mV |
| S5 | 1 | +48V | 0 | 0 | 2.084 | 2.5 | 2.875 | 2.875 | +/- 3% | 480mV |
| S6 | 1 | +9V | 0 | 0 | 11.11 | 13.33 | 12.8 | 13.33 | +/- 3% | 180mV |
| LTE100U / 120U DUAL OUTPUT VOLTAGE/CURRENT RATING CHARTS | | | | | | | | | | |
| D12 | 1 | +5.0V | 1.2 | 1.0 | 12 | 14 | 16.1 | 16.1 | +/- 5% | 100mV |
| | 2 | +12V | 0.5 | 0.4 | 5.0 | 6.0 | 6.9 | 6.9 | +/- 5% | 180mV |
| D14 | 1 | +5.0V | 1.2 | 1.0 | 12 | 14 | 16.1 | 16.1 | +/- 5% | 100mV |
| | 2 | +24V | 0.25 | 0.2 | 2.5 | 3 | 3.45 | 3.45 | +/- 5% | 240mV |
| D1B | 1 | +5V | 1.2 | 1.0 | 12 | 14 | 16.1 | 16.1 | +/- 5% | 100mV |
| | 2 | -5V | 1.2 | 1.0 | 12 | 14 | 16.1 | 16.1 | +/- 10% | 150mV |
| D2C | 1 | +12V | 0.6 | 0.42 | 6 | 7 | 8.05 | 8.05 | +/- 5% | 180mV |
| | 2 | -12V | 0.42 | 0.42 | 4.2 | 5 | 5.75 | 5.75 | +/- 10% | 180mV |
| D24 | 1 | +12V | 0.6 | 0.42 | 6.0 | 7 | 8.05 | 8.05 | +/- 5% | 180mV |
| | 2 | +24V | 0.2 | 0.21 | 2.0 | 2.5 | 2.875 | 2.875 | +/- 10% | 240mV |
| LTE100U / 120U TRIPLE OUTPUT VOLTAGE/CURRENT RATING CHARTS | | | | | | | | | | |
| T12C | 1 | +5V | 1.0 | 0.9 | 10 | 12 | 13.8 | 13.8 | +/- 5% | 100mV |
| | 2 | +12V | 0.4 | 0.35 | 4.0 | 5 | 5.75 | 5.75 | +/- 5% | 180mV |
| | 3 | -12V | 0.1 | 0.1 | 1.0 | 1.2 | 1.38 | 1.38 | +/- 10% | 180mV |
| T12B | 1 | +5V | 1.0 | 1.0 | 10 | 12 | 13.8 | 13.8 | +/- 5% | 100mV |
| | 2 | +12V | 0.4 | 0.34 | 4.0 | 5 | 5.75 | 5.75 | +/- 5% | 180mV |
| | 3 | -5V | 0.2 | 0.15 | 2.0 | 2.5 | 2.875 | 2.875 | +/- 10% | 100mV |
| T124 | 1 | +5V | 1.0 | 0.9 | 10 | 12 | 13.8 | 13.8 | +/- 5% | 100mV |
| | 2 | +12V | 0.4 | 0.35 | 4.0 | 5 | 5.75 | 5.75 | +/- 5% | 180mV |
| | 3 | +24V | 0.05 | 0.05 | 0.5 | 0.6 | 0.69 | 0.69 | +/- 10% | 240mV |
| T012 | 1 | +3.3V | 1.0 | 1.2 | 10 | 12 | 13.8 | 13.8 | +/- 5% | 100mV |
| | 2 | +5V | 0.8 | 0.8 | 8.0 | 10 | 11.5 | 11.5 | +/- 5% | 100mV |
| | 3 | +12V | 0.15 | 0.15 | 1.5 | 2 | 2.3 | 2.3 | +/- 10% | 180mV |
| T14C | 1 | +5V | 1.0 | 0.9 | 10 | 12 | 13.8 | 13.8 | +/- 5% | 100mV |
| | 2 | +24V | 0.2 | 0.18 | 2.0 | 2.5 | 2.875 | 2.875 | +/- 5% | 240mV |
| | 3 | -12V | 0.1 | 0.1 | 1.0 | 1.2 | 1.38 | 1.38 | +/- 10% | 180mV |
| LTE100U / 120U QUAD OUTPUT VOLTAGE/CURRENT RATING CHARTS | | | | | | | | | | |
| Q12CB | 1 | +5V | 0.8 | 0.8 | 8.0 | 10 | 11.5 | 11.5 | +/- 5% | 100mV |
| | 2 | +12V | 0.4 | 0.3 | 4.0 | 4.5 | 5.175 | 5.175 | +/- 5% | 180mV |
| | 3 | -12V | 0.12 | 0.15 | 1.2 | 1.5 | 1.725 | 1.725 | +/- 10% | 180mV |
| | 4 | -5V | 0.1 | 0.1 | 1.0 | 1.2 | 1.38 | 1.38 | +/- 10% | 100mV |
| Q12C4 | 1 | +5V | 0.8 | 0.8 | 8.0 | 10 | 11.5 | 11.5 | +/- 5% | 100mV |
| | 2 | +12V | 0.35 | 0.3 | 3.5 | 4 | 4.6 | 4.6 | +/- 5% | 180mV |
| | 3 | -12V | 0.12 | 0.1 | 1.2 | 1.5 | 1.725 | 1.725 | +/- 10% | 180mV |
| | 4 | +24V | 0.05 | 0.05 | 0.5 | 0.6 | 0.69 | 0.69 | +/- 10% | 240mV |
| Q12C5 | 1 | +5V | 0.8 | 0.8 | 8.0 | 10 | 11.5 | 11.5 | +/- 5% | 100mV |
| | 2 | +12V | 0.35 | 0.3 | 3.5 | 4 | 4.6 | 4.6 | +/- 5% | 180mV |
| | 3 | -12V | 0.12 | 0.1 | 1.2 | 1.5 | 1.725 | 1.725 | +/- 10% | 180mV |
| | 4 | +48V | 0.025 | 0.025 | 0.25 | 0.3 | 0.345 | 0.345 | +/- 10% | 480mV |
| Q012C | 1 | +3.3V | 0.9 | 1.0 | 9.0 | 11 | 12.65 | 12.65 | +/- 5% | 100mV |
| | 2 | +5.0V | 0.7 | 0.3 | 7.0 | 9 | 10.35 | 10.35 | 3+/- 5% | 180mV |
| | 3 | +12V | 0.15 | 0.2 | 1.5 | 2 | 2.3 | 2.3 | +/- 10% | 180mV |
| | 4 | -12V | 0.1 | 0.1 | 1.0 | 1.5 | 1.725 | 1.725 | +/- 10% | 100mV |
| Q13D4 | 1 | +5V | 0.8 | 0.8 | 8.0 | 10 | 11.5 | 11.5 | +/- 5% | 100mV |
| | 2 | +15V | 0.3 | 0.24 | 3.0 | 3.5 | 4.025 | 4.025 | +/- 5% | 225mV |
| | 3 | -15V | 0.1 | 0.12 | 1.0 | 1.2 | 1.38 | 1.38 | +/- 10% | 225mV |
| | 4 | +24V | 0.03 | 0.05 | 0.3 | 0.4 | 0.46 | 0.46 | +/- 10% | 240mV |

NOTE: 1. CROSS/LOAD REGULATION IS TESTED AT 10% TO 100% OF RATED LOAD AND OTHER OUTPUTS ARE SET AT 50% OF RATED LOAD.
 2. PEAK-TO-PEAK FOR 100W(CONVECTION RATING) / 120W(WITH 15CFM FORCED AIR) @115VAC MIN. ; MEASUREMENTS WITH A 20MHZ BANDWIDTH AND TERMINATED WITH A 10uF ELECTROLYTIC CAP. IN PARALLEL WITH A 0.1uF CERAMIC CAP.
 3. PEAK CURRENT LASTING <30 SECONDS WITH A MAXIMUM 10% DUTY CYCLE. (FOR REFERENCE)

PIN ASSIGNMENTS

MECHANICAL DRAWING (5"x3.3"x1.5")

I/O CONNECTORS : MOLEX EQUIVALENT

| J1 | | AC INPUT VERSION | | DC INPUT VERSION | |
|--------------------------------|---------|----------------------------------|-------------|------------------|--|
| PIN1 | FG | PIN1 | NC | | |
| PIN2 | NEUTRAL | PIN2 | NEUTRAL(-) | | |
| PIN3 | LINE | PIN3 | POSITIVE(+) | | |
| J2 | | | | | |
| 1 OUTPUT | | 3,4 OUTPUTS (V4 POSITIVE) | | | |
| PIN1-PIN7 | V1 | PIN1-PIN3 | V1 | | |
| PIN8-PIN14 | RET | PIN4-PIN7 | RET | | |
| 2 OUTPUTS (V2 POSITIVE) | | PIN8-PIN9 | | | |
| PIN1-PIN4 | V1 | | | | |
| PIN5-PIN8 | RET | PIN11 | V3 | | |
| PIN9-PIN11 | RET | PIN13 | RET | | |
| PIN12-PIN14 | V2(+) | PIN14 | V4(+) | | |
| 2 OUTPUTS (V2 NEGATIVE) | | 3,4 OUTPUTS (V4 NEGATIVE) | | | |
| PIN1-PIN4 | V1 | PIN1-PIN3 | V1 | | |
| PIN5-PIN8 | RET | PIN4-PIN7 | RET | | |
| PIN9-PIN11 | V2(-) | PIN8-PIN9 | V2 | | |
| PIN12-PIN14 | RET | | | | |
| 2 OUTPUTS (V2 ISOLATED) | | PIN11 | | | |
| PIN1-PIN4 | V1 | PIN13 | V4(-) | | |
| PIN5-PIN8 | V1 RET | PIN14 | RET | | |
| PIN9-PIN11 | V2 RET | 3,4 OUTPUTS (V4 ISOLATED) | | | |
| PIN12-PIN14 | V2 | PIN1-PIN3 | V1 | | |
| | | PIN4-PIN7 | RET | | |
| | | PIN8-PIN9 | V2 | | |
| J3 | | | | | |
| PIN1 | S- | PIN11 | V3 | | |
| PIN2 | S+ | PIN13 | V4 RET | | |
| PIN3 | RET | PIN14 | V4 | | |
| PIN4 | PG | ALL PIN10,12 | NC | | |

