

MEDICAL LINEARS



FEATURES

- World-wide AC input ranges and safety standards
- Industry standard packages
- Approved to UL544, IEC601 and CSA234 L3
- Burn-in with cycling; 3-year warranty
- MTBF over 200,000 hours per Mil-Hdbk 217E
- Medical leakage current does not exceed 10 μ A
- All electrolytic caps rated at 105°C
- Transformer insulation meets Class F (155°C)
- Exceed FCC and CISPR11 Class B conducted emissions
- **CE** marked to LVD

SPECIFICATIONS

AC Input

100, 120, 220 and 240Vac: +10%, -13%, 47-63Hz. Tolerance for 230Vac operation is +15%, -10%. Derate output current 10% for 50Hz operation. L and LL case units have AC input of 95-132/190-264Vac, 47-63Hz. Range can be extended to 90-132/180-264Vac by derating output current 20%.

DC Output

See voltage rating chart. Adjustment range $\pm 5\%$ minimum.

Line Regulation

$\pm 0.05\%$ for a 10% change.

Load Regulation

$\pm 0.05\%$ for a 50% load change.

Output Ripple

3mV +0.05% of output voltage, peak to peak maximum.

Transient Response

≤ 50 microseconds for 50% load change.

Overvoltage Protection

Built-in on all 5V models, set at 6.2V ± 0.4 V. Other models use optional

overvoltage protection. OVP is not optional on L and LL case units; however, it is built in on 5V models.

Short Circuit Protection

Automatic current limit/foldback.

Remote Sensing

Provided on all models 3 amps and above; open sense lead protection built-in.

Stability

$\pm 0.05\%$ for 24 hours after warmup.

Temperature Rating

0 to 50°C full rated, derated linearly to 40% at 70°C.

Temperature Coefficient

$\pm 0.01\%/^{\circ}\text{C}$ maximum.

Efficiency

5V units: 45%; 12 and 15V units: 55%; 20 and 24V units: 60%.

Vibration

Per Mil-Std-810D, Method 514.3, Category 1, Procedure 1.

Shock

Per Mil-Std-810D, Method 516.3, Procedure III.

Model (Single)	Voltage	Current	Leakage Current	Case
ML5-OV-A	5V	1.0A	2.0μA	L
MB5-3-OV-A	5V	3.0A	6.0μA	B
MC5-6-OV-A	5V	6.0A	6.0μA	C
MD5-12/OV-A	5V	12.0A	7.5μA	D
ML12-0.5-A	12V	0.5A	2.0μA	L
MB12-1.7-A	12V	1.7A	6.0μA	B
MC12-3.4-A	12V	3.4A	6.0μA	C
MD12-6.8-A	12V	6.8A	7.5μA	D
ML15-0.4-A	15V	0.4A	2.0μA	L
MB15-1.5-A	15V	1.5A	6.0μA	B
MC15-3-A	15V	3.0A	6.0μA	C
MD15-6-A	15V	6.0A	7.5μA	D
ML24-0.28-A	24V	0.28A	2.0μA	L
MB24-1.2-A	24V	1.2A	6.0μA	B
MC24-2.4-A	24V	2.4A	6.0μA	C
MD24-4.8-A	24V	4.8A	7.5μA	D
MB28-1-A	28V	1.0A	6.0μA	B
MC28-2-A	28V	2.0A	6.0μA	C
MD28-4-A	28V	4.0A	7.5μA	D

Model (Dual)	Output 1	Output 2	Leakage Current	Case
MLL12-0.25-A	+12V@0.25A	-12V@0.25A	2.0μA	L
MLL15-0.2-A	+15V@0.20A	-15V@0.20A	2.0μA	L
MAA15-0.8-A	+12/15V@1.0/0.8A	12/15V@1.0/0.8A	6.0μA	AA
MBB15-1.5-A	+12/15V@1.7/1.5A	-12/15V@1.7/1.5A	6.0μA	BB
MCC15-3-A	+12/15V@3.43/3.0A	-12/15V@3.43/3.0A	7.5μA	CC
MAA512-A	5V@2.0A	9-15V@0.5A	6.0μA	AA
MBB512-A	5V@3.0A	9-15V@1.25A	6.0μA	BB
MCC512-A	5V@6.0A	9-15V@2.5A	7.5μA	CC
MAA524-A	5V@2.0A	18-24V@0.3A	6.0μA	AA
MBB524-A	5V@3.0A	18-24V@0.8A	6.0μA	BB
MCC524-A	5V@6.0A	18-24V@2.0A	7.5μA	CC

Model (Triple)	Output 1	Output 2	Output 3	Leakage Current	Case
MTLL-5W-A	+5V@0.5A	+12 to 15V@0.1A	-12 to 15V@0.1A	2.0μA	L
MTAA-16W-A	5V@2.0A	+12 to 15V@0.4A	-12 to 15V@0.4A	2.0μA	AA
MBAA40W-A	5V@3.0A	+12/15V@1.0/0.8A	-12/15V@1.0/0.8A	6.0μA	BAA
MCAA60W-A	5V@6.0A	+12/15V@1.0/0.8A	-12/15V@1.0/0.8A	6.0μA	D
MCBB75W-A	5V@6.0A	+12/15V@1.71/1.5A	-12/15V@1.7/1.5A	7.5μA	CBB

NOTE: For medical linear mechanical specifications, see pp. 56-59.