



- Universal 90-264VAC Input
- High Efficiency
- Improved EMI Performance
- 5656VDC Isolation
- Single, Dual and Triple Outputs
- Full Safety Approvals



Model Number	Output Voltage	Output Amps FL	Ripple/Noise max.	Efficiency at nom. I/P
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### SINGLE OUTPUT - PCB Mount

ESMA-0100	3.3 VDC	2.5A	100mV pk-pk	67%, typ.
ESMA-0101	5 VDC	2A	100mV pk-pk	72%, typ.
ESMA-0122	9 VDC	1.1A	100mV pk-pk	72%, typ.
ESMA-0102	12 VDC	0.85A	100mV pk-pk	75%, typ.
ESMA-0103	15 VDC	0.67A	100mV pk-pk	76%, typ.
ESMA-0118	18 VDC	0.55A	120mV pk-pk	77%, typ.
ESMA-0105	24VDC	0.42A	160mV pk-pk	78%, typ.

### SINGLE OUTPUT - Chassis Mount

ESMC-0100	3.3 VDC	2.5A	100mV pk-pk	67%, typ.
ESMC-0101	5 VDC	2A	100mV pk-pk	72%, typ.
ESMC-0122	9 VDC	1.1A	100mV pk-pk	72%, typ.
ESMC-0102	12 VDC	0.85A	100mV pk-pk	75%, typ.
ESMC-0103	15VDC	0.67A	100mV pk-pk	76%, typ.
ESMC-0118	18 VDC	0.55A	120mV pk-pk	77%, typ.
ESMC-0105	24VDC	0.42A	160mV pk-pk	78%, typ.

### SINGLE OUTPUT - DIN Rail Mount

ESMC-0100/DRL	3.3 VDC	2.5A	100mV pk-pk	67%, typ.
ESMC-0101/DRL	5 VDC	2A	100mV pk-pk	72%, typ.
ESMC-0122/DRL	9 VDC	1.1A	100mV pk-pk	72%, typ.
ESMC-0102/DRL	12 VDC	0.85A	100mV pk-pk	75%, typ.
ESMC-0103/DRL	15VDC	0.67A	100mV pk-pk	76%, typ.
ESMC-0118/DRL	18 VDC	0.55A	120mV pk-pk	77%, typ.
ESMC-0105/DRL	24VDC	0.42A	160mV pk-pk	78%, typ.



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Model Number	Output Voltage	Output Amps FL	Ripple/Noise	Efficiency at nom. I/P
<b>DUAL OUTPUT - PCB Mount</b>				
EDMA-0106	±12 VDC	±0.42A	±100 mV pk-pk	75%, typ.
EDMA-0107	±15 VDC	±0.34A	±100 mV pk-pk	75%, typ.
EDMA-0108	5/12 VDC	1/0.42A	±100 mV pk-pk	74%, typ.
<b>DUAL OUTPUT - Chassis Mount</b>				
EDMC-0106	±12 VDC	±0.42A	±100 mV pk-pk	75%, typ.
EDMC-0107	±15 VDC	±0.34A	±100 mV pk-pk	75%, typ.
EDMC-0108	5/12 VDC	1/0.42A	±100 mV pk-pk	74%, typ.
<b>DUAL OUTPUT - DIN Rail Mount</b>				
EDMC-0106/DRL	±12 VDC	±0.42A	±100 mV pk-pk	75%, typ.
EDMC-0107/DRL	±15 VDC	±0.34A	±100 mV pk-pk	75%, typ.
EDMC-0108/DRL	5/12 VDC	1/0.42A	±100 mV pk-pk	74%, typ.
<b>TRIPLE OUTPUT - PCB Mount</b>				
ETMA-0109	5 ±12 VDC	1.5 ±0.1 A / 1.8 ±0.13 A	50 ±75 mV pk-pk	71%, typ.
ETMA-0111	5 ±15 VDC	1.4 ±0.1 A / 1.8 ±0.13 A	50 ±75 mV pk-pk	71%, typ.
<b>TRIPLE OUTPUT - Chassis Mount</b>				
ETMC-0109	5 ±12 VDC	1.5 ±0.1 A / 1.8 ±0.13 A	50 ±75 mV pk-pk	71%, typ.
ETMC-0111	5 ±15 VDC	1.4 ±0.1 A / 1.8 ±0.13 A	50 ±75 mV pk-pk	71%, typ.
<b>TRIPLE OUTPUT - DIN Rail Mount</b>				
ETMC-0109/DRL	5 ±12 VDC	1.5 ±0.1 A / 1.8 ±0.13 A	50 ±75 mV pk-pk	71%, typ.
ETMC-0111/DRL	5 ±15 VDC	1.4 ±0.1 A / 1.8 ±0.13 A	50 ±75 mV pk-pk	71%, typ.

**INPUT SPECIFICATIONS**

Input Voltage Range	90-264 VAC (100-240VAC nom.)
Frequency Range	47-63 Hz
Inrush Current, typ:	20A@115V, 40A@230V Input *
Leakage Current	<0.3mA @ 264VAC, 50Hz

**OUTPUT SPECIFICATIONS**

Voltage and Current	See Selection Chart
Load Regulation (Note7)	Single/Duals $\pm 3\%$ , Triple: $0.5 / \pm 0.5\%$ (max)
Line Regulation (Note 8)	Single 0.1~1%, typ Duals $\pm 0.3\sim 1\%$ , typ Triple: $0.6 / \pm 0.2\%$ (max)
Cross Regulation (Note 11)	Duals 2% Triple NA / $\pm 0.1\%$
Preset Accuracy (Note 9)	Single: $\pm 1\%$ Duals: $\pm 1.5\%$ Triples: $\pm 1\% / \pm 5\%$
Temperature Coefficient	$\pm 0.03\%/^{\circ}\text{C}$
Ripple/Noise at nom. I/P	(Note 1,2,10) See Selection Chart
Over Voltage Protection	Clamp*
Short Circuit Protection (Note 3)	Continuous self-recovering*
Hold Up Time	30 mS, typ (Nom. Input, 100% load)

**GENERAL SPECIFICATIONS**

Isolation (Note 4)*	5656VDC Input-Output 3535VDC I/P-Ground 1414VDC O/P-Ground
Efficiency	See Selection Chart
Switching Frequency	100Khz, (fixed, typical)
Safety UL/cUL:	ANSI/AAMI ES60601-1 3rd ed. CSA C22.2 No. 60601-1 3rd ed.
UL-EU:	EN60601-1 3rd ed.
CB:	IEC60601-1 3rd ed.
CE:	EN60601-1-2
EMC	EN55011 Class B

**PHYSICAL SPECIFICATIONS**

Size PCB Mount	2.56L" x 1.77W" x 0.85H"
Chassis Mount	3.77L" x 2.16W" x 1.0H"
Din Rail	3.77L" x 2.16W" x 1.35H"
Case Material	Rynite, 94V-0 Rated
Construction	Encapsulated. Soft Pot
Weight	
PCB / CHA	4 oz (113g) / 8.5 oz (241g)
Din Rail	11.5 oz (326g)

**ENVIRONMENTAL SPECIFICATIONS**

Oper. Temperature (Note 5)	0 to +40°C (See Derate)
Storage Temperature	-25 to +71°C *
Relative Humidity	0 to +95%, non-cond *
MTBF	(Mil Std 217, 25°C) 270,000 Hrs

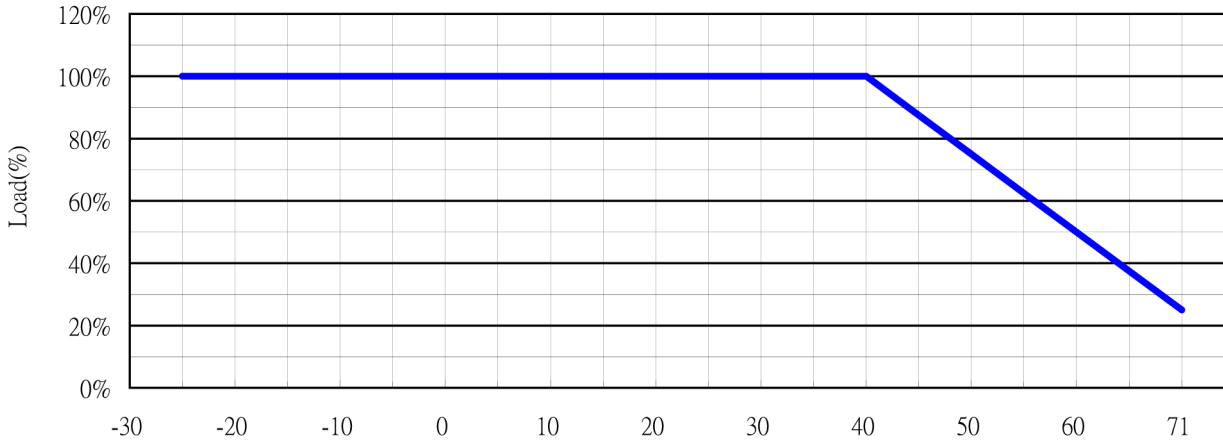
**NOTES**

1. All measurements should be made directly at the terminals of the power supply.
2. Ripple and Noise depend upon output voltage as specified par particular model.
3. Short Circuit Protection is self-recovering when overcurrent condition is removed.
4. Isolation for up to 1minute duration.
5. Specified for free-air convection cooling.
6. Minimum load is NOT required for proper operation. However, auxiliary outputs should be reduced as a function of primary output minimum load or load regulation will be higher.
7. Load regulation measured from 20% to FL.
8. Line regulation measured from 90VAC 264VAC.
9. Preset accuracy measured at nominal load, 120 VAC input.
10. O/P noise measured directly at pins/terminals at nom. load, 0.1uF bypass, pk-pk @20MHz bandwidth.
11. Cross Reg.: Measured output (5V for Triples) at nominal load with the other output varied between 60% to 100% load.
12. 100% Production Tested.

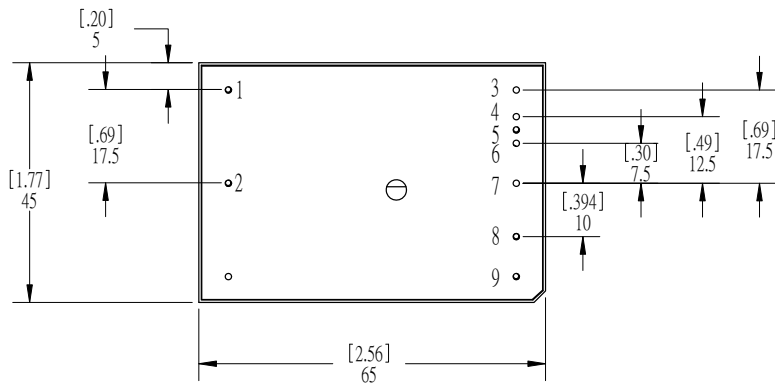
*All specifications are typical at nominal input, full load, and 25°C unless otherwise noted*

\* These are stress ratings. Exposure of the devices to any of these conditions may adversely affect long term reliability. Proper operation under conditions other than the standard operating conditions is neither warranted nor implied.

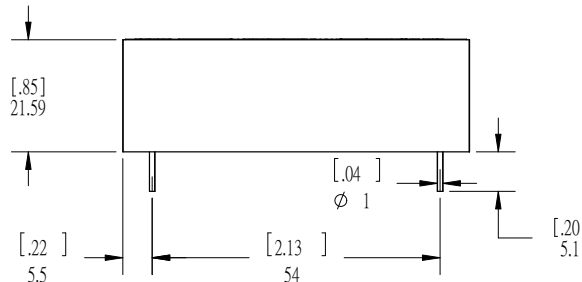
**OUTPUT DERATING CURVE**



**MECHANICAL DIMENSIONS**



PIN-OUT VIEWED FROM BOTTOM

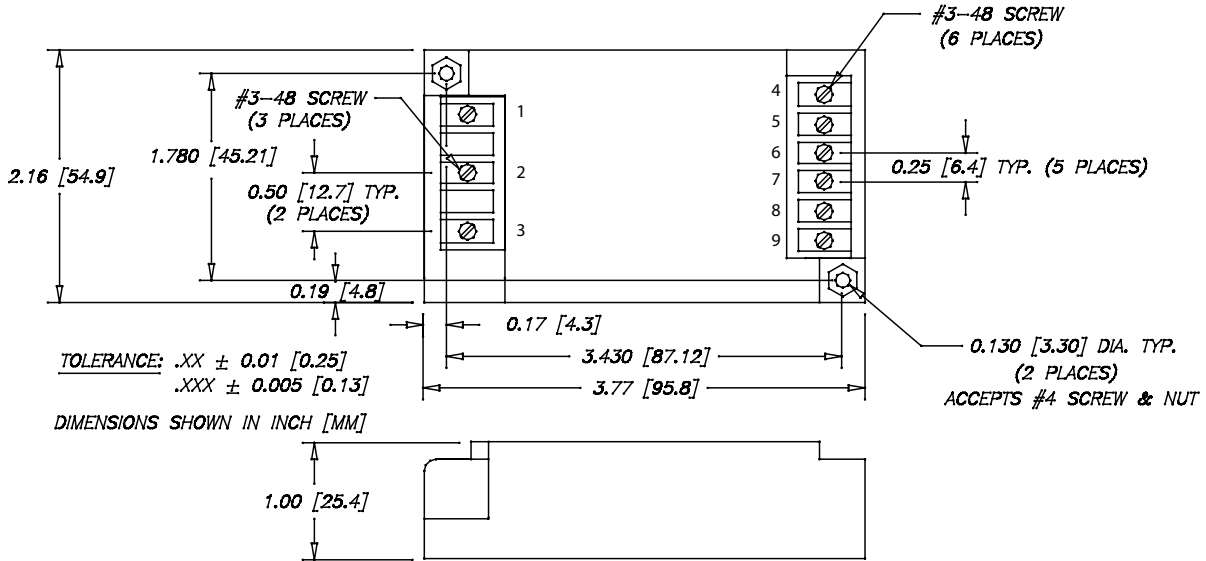


Model Type/Pin#	Single	Dual	Dual(0108)	Triple
1	ACL	ACL	ACL	ACL
2	ACN	ACN	ACN	ACN
3	No Pin	No Pin	No Pin	+Vout
4	No Pin	No Pin	No Pin	Com
5	+Vout	+Vout	+12V	No Pin
6	No Pin	No Pin	No Pin	-Vout
7	No Pin	Com	+5Vout	+5Vout
8	-Vout	-Vout	Com	+5VRTN
9	No Pin	No Pin	No Pin	No Pin

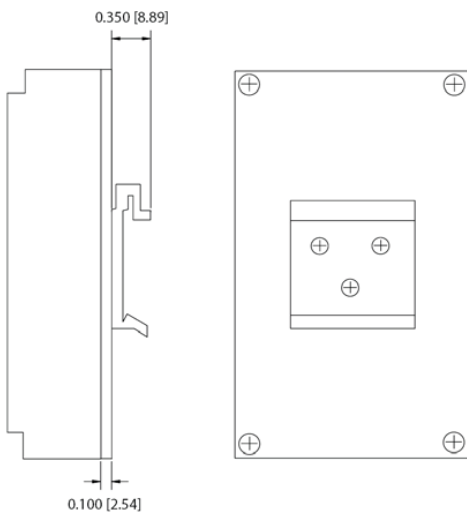
**NOTES :**

1. All dimension in mm [ inch ] .
2. tolerance : .XX±0.508 [0.02] .  
.XXX±0.254[0.01].

**MECHANICAL DIMENSIONS - CHASSIS MOUNT**



**MECHANICAL DIMENSIONS - DIN RAIL**



Model Type / Pin#	Single	Dual	Dual (0108)	Triple
1	ACN	ACN	ACN	ACN
2	N/C	N/C	N/C	N/C
3	ACL	ACL	ACL	ACL
4	N/C	N/C	N/C	N/C
5	-Vout	-Vout	Com	+5VRTN
6	-Vout	Com	Com	+5Vout
7	+Vout	Com	+5V	-Vout
8	+Vout	+Vout	+12V	Com
9	N/C	N/C	N/C	+Vout

DIN Rail mounting kit available for Chassis-mount modules, specify part # M-DRL-01. Kit includes mounting plate, DIN Rail clip and assembly hardware.