

TRN-AA25N-048L-050S

Electrical characteristics are guaranteed over the ambient temperature range (-40 to 60°C), for the full range of input voltage (V_I), and for the full load range ($I_{O\ min}$ to $I_{O\ rated}$) unless otherwise noted.

V_I , V_O and I_O are actual operating conditions, $I_{O\ rated}$ is nominal rating.

Electrical Specifications - AA25N-048L-050S 36-75V in; 5V/5A out

Symbol	Parameter	Conditions	Min	Typ	Max	Units
Input Characteristics						
V_I	Input voltage		36	48	75	V
P_{IL}	No load input power	$V_I = V_{Inom}$		0.25		W
I_{IN}	Input current Per ETS300-132.2	$V_{IN} < 36V_{dc}$ (See note 1)			150	% I_{in} at V_{nom}
C_{IN}	Input capacitance (internal)			1.8		μF
I_I	Input ripple current	$V_I = V_{nom}$, $I_O = I_{O\ rated}$		10		mA p-p
Output Characteristics						
$P_{O\ max}$	Total output power				25	W
$V_{O1\ nom}$ $V_{O2\ nom}$ $V_{O3\ nom}$	Nominal (factory set) output voltage Output 1 Output 2 Output 3		4.95	5.0	5.05	V V V
$I_{O1\ rated}$ $I_{O2\ rated}$ $I_{O3\ rated}$	Rated output current Output 1 Output 2 Output 3	$T_{Ambient} = 60^\circ C$	0.5		5.0	A A A
	Noise and ripple Output 1 Output 2 Output 3	Pk-pk, 20MHz bandwidth with a 0.1 μF ceramic capacitor connected across +V out and -V out.		35	50	mV mV mV
V_{O1} V_{O2} V_{O3}	Load regulation	From 10% to 100% of rated output current			0.50	% V_{O1} % V_{O2} % V_{O3}
V_{O1} V_{O2} V_{O3}	Line regulation	$V_{I\ min}$ to $V_{I\ max}$ $I_O = I_{O\ typ}$			0.1	% V_{O1} % V_{O2} % V_{O3}
$I_{O1\ lim}$ $I_{O2\ lim}$ $I_{O3\ lim}$	Current limit			6		A A A
	Temperature coefficient	Per $^\circ C$ baseplate temperature			± 0.02	% $V_{O\ nom}/^\circ C$
	Input - Output Capacitance			100		pF
η	Efficiency	$V_I = 48V$, $I_O = I_{O\ rated}$	81	83.5		%

Symbol	Parameter	Conditions	Min	Typ	Max	Units
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Output Characteristics - continued

t_{on}	Turn-on time	$V_I = 0$ to V_{Inom}		75		mS
		$V_I = 0$ to V_{Imin}		100		mS
		$V_I = 0$ to V_{Imax}		50		mS
	Transient response (V_{O1} only) positive or negative step	$I_O = 25$ to $75\% I_{O rated}$ @ $15 \mu s/A$		1.5%		$\%V_{O1 nom}$
				150		μS

Isolation

	Input-output isolation resistance	1500 VDC	50			M Ohm
	Input-case isolation resistance	N/A				M Ohm
	Output-case isolation resistance	1500 VDC	50			M Ohm

Control Signals

V_{Out}	Output Voltage	$2.5 < V_C < 5.5$ or open circuit $V_C < 0.8V$		5 0		V V
V adj	Output Voltage	External resistor attached	4.75	5.0	5.5	V

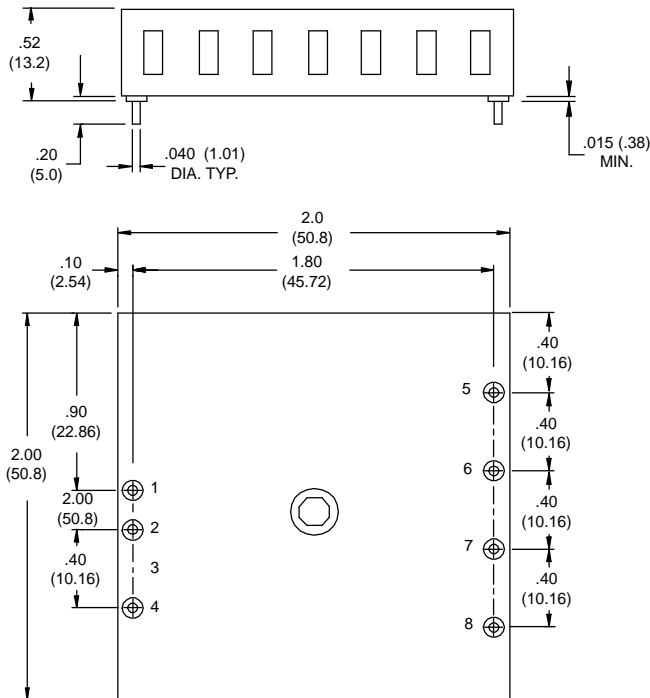
Environmental

$T_{baseplate}$	Overttemperature shutdown	Operating temp exceeds max rating		105		$^{\circ}C$
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Notes:

1. Converter employs and undervoltage lockout circuit. $V_o = 0$ when $V_{in} < 32Vdc$

Figure 1



Bottom View

All dimensions are inches (mm)

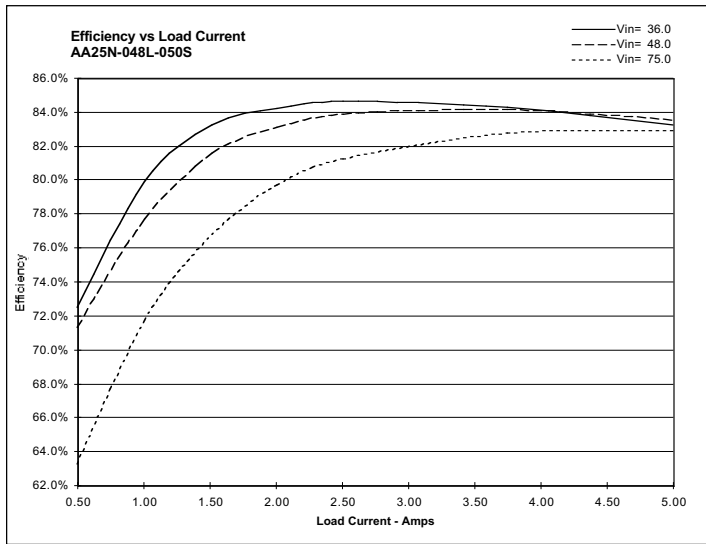
Pin Assignment

Single Output

1. +Vin
2. -Vin
3. No pin
4. Enable
5. No pin
6. +5V Out
7. +5V Rtn
8. Trim

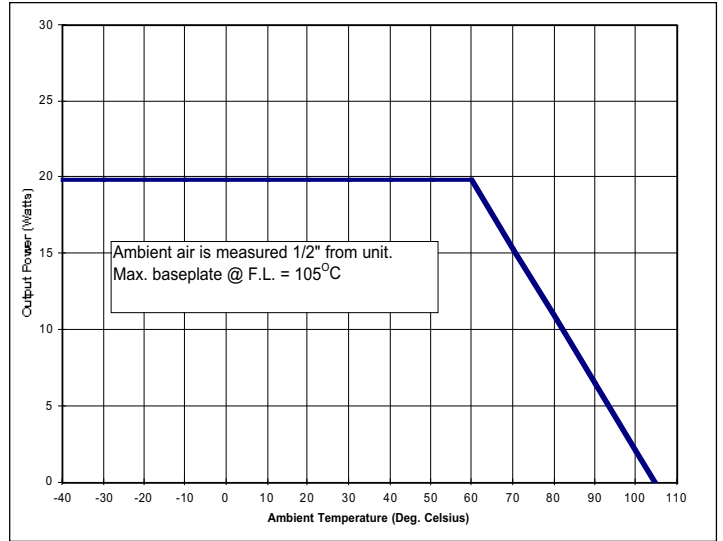
**Efficiency
(Typ)**

Figure 2



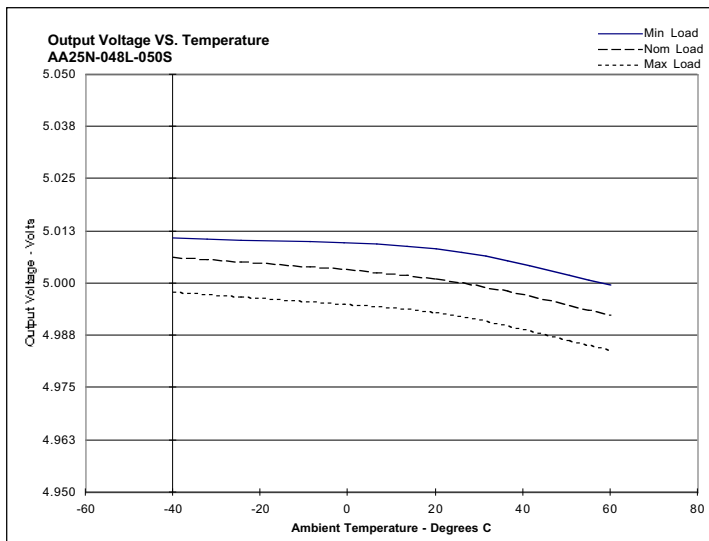
Output Power Derating

Figure 3



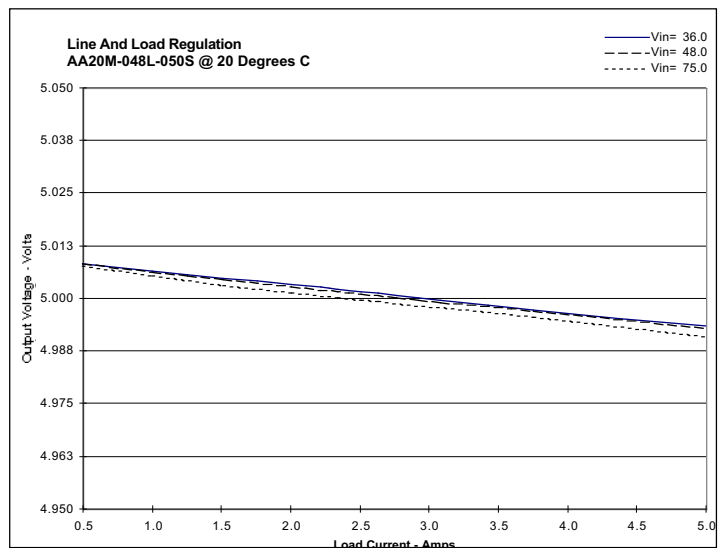
Output Regulation vs. Temperature and Loading (Typ)

Figure 4



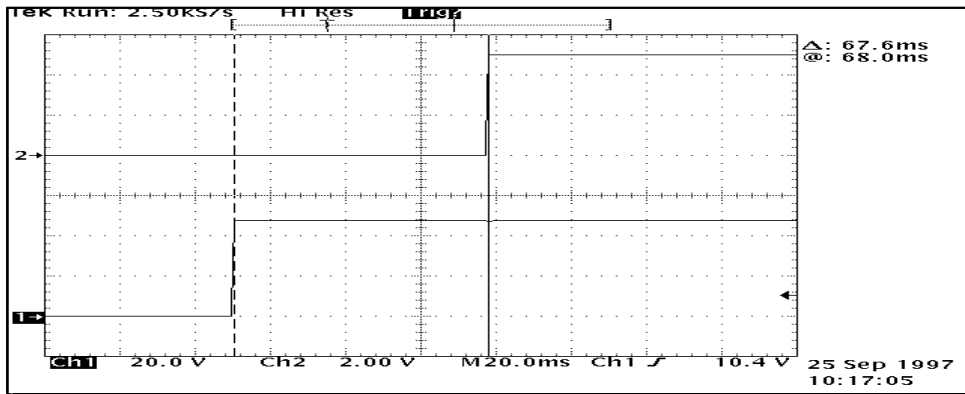
Output line and load regulation (20°C Typ)

Figure 5



Turn on Characteristics (Typ)

Figure 6



Output Trim Methods

Figure 7

