

TDD40 SERIES



DC - DC CONVERTER
33 ~ 42W SINGLE & DUAL OUTPUT

FEATURES

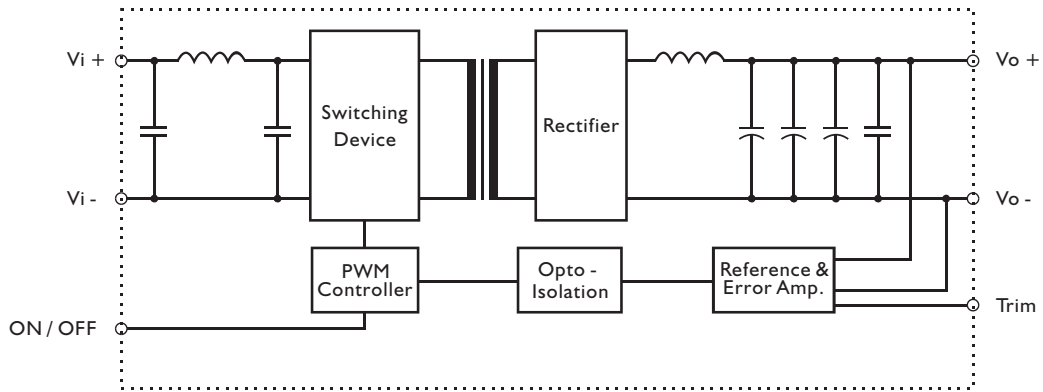
- LOW COST
- 2:1 AND 3:1 WIDE INPUT RANGE
- I/O ISOLATION
- INPUT Pi FILTER
- SHORT CIRCUIT PROTECTION
- HIGH PERFORMANCE
- 2 YEARS WARRANTY

MODEL LIST

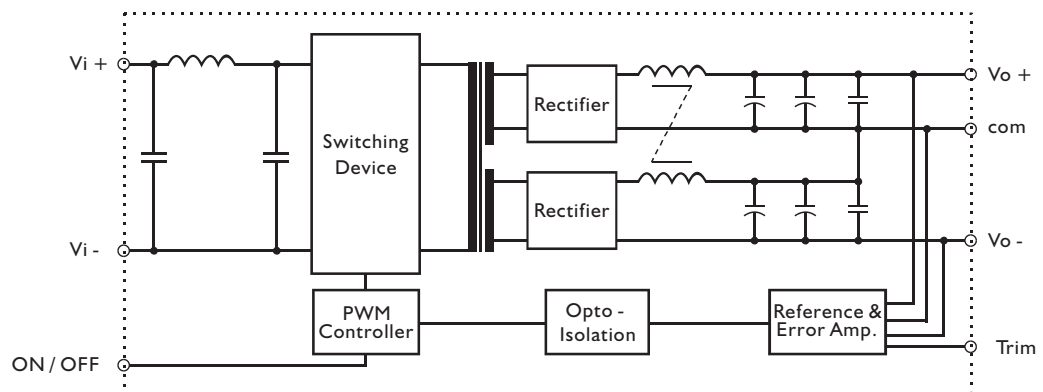
MODEL NO.	INPUT VOLTAGE	OUTPUT WATTAGE	OUTPUT VOLTAGE	OUTPUT CURRENT	EFF. (min.)
Single Output Models					
TDD40 - 03S2	18~60 VDC	33 WATTS	+3.3 VDC	10000 mA	76%
TDD40 - 05S2	18~60 VDC	40 WATTS	+ 5 VDC	8000 mA	82%
TDD40 - 12S2	18~60 VDC	42 WATTS	+ 12 VDC	3500 mA	85%
TDD40 - 15S2	18~60 VDC	42 WATTS	+ 15 VDC	2800 mA	85%
TDD40 - 03S3	35~75 VDC	33 WATTS	+3.3 VDC	10000 mA	76%
TDD40 - 05S3	35~75 VDC	40 WATTS	+ 5 VDC	8000 mA	82%
TDD40 - 12S3	35~75 VDC	42 WATTS	+ 12 VDC	3500 mA	85%
TDD40 - 15S3	35~75 VDC	42 WATTS	+ 15 VDC	2800 mA	85%
Dual Output Models					
TDD40 - 12D2	18~60 VDC	40 WATTS	± 12 VDC	± 1700 mA	84%
TDD40 - 15D2	18~60 VDC	42 WATTS	± 15 VDC	± 1400 mA	84%
TDD40 - 12D3	35~75 VDC	40 WATTS	± 12 VDC	± 1700 mA	84%
TDD40 - 15D3	35~75 VDC	42 WATTS	± 15 VDC	± 1400 mA	84%

CIRCUIT SCHEMATIC

- Block diagram for TDD40 series with single output



- Block diagram for TDD40 series with dual output



SPECIFICATION

All Specifications Typical At Nominal Line, Full Load, 25°C Unless Otherwise Noticed

GENERAL

Characteristics	Conditions	min.	typ.	max.	unit
Switching frequency	Vi nom, Io nom		200		KHz
Isolation voltage	Input / Output	1,500			VDC
Isolation resistance	Input / Output, @ 500VDC	100			MΩ
Ambient temperature	Vi nom, 3.3V & 5V output models	-25		+ 60	°C
	Io nom 12V, 15V & dual output models	-25		+ 71	°C
Case temperature	Operating at Vi nom, Io nom			+ 100	°C
Derating	Vi nom	See derating curve			% / °C
Storage temperature	Non operational	-40		+ 100	°C
Dimension	L50.8 x W76.2 x H24				mm
Cooling	Free air convection				
Case material	Metal				

INPUT SPECIFICATIONS

Characteristics	Conditions	min.	typ.	max.	unit
Input voltage range	Ta min ... Ta max, 3 : 1 models Io nom	18	24	60	VDC
	2 : 1 models	35	48	75	VDC
No load input current	Vi nom, Io=0		15		mA
	48V models		10		mA
Input voltage w/o damage	Io nom			65	VDC
	48V models			80	VDC
Startup voltage	Io nom		16		VDC
	48V models		30		VDC
Input filter	Pi type				

OUTPUT SPECIFICATIONS

Characteristics	Conditions	min.	typ.	max.	unit
Output voltage accuracy	Vi nom, Io nom			± 2	%
Minimum load	Vi nom single output models	0			%
	dual output models (each output)	6			%
Line regulation	Io nom, Vi min ... Vi max			± 1	%
Load regulation	Vi nom, Io 0 ... Io nom, single output models			± 2	%
	Vi nom, Io min ... Io nom, dual output models			± 5	%
Transient recovery time	Vi nom, Io nom ... 1/2 Io nom		500		μs
Temperature coefficient	Vi nom, Io nom			± 0.02	% / °C
Ripple & noise	Vi nom, Io nom, 3.3V & 5V models BW = 20MHz			150	mV
	12V & ±12V			240	mV
	15V & ±15V			300	mV
Voltage trim range	Vi nom 3.3V output models		± 5		%
	5V, 12V, 15V & dual		± 10		%
Efficiency	Vi nom, Io nom, Po / Pi	Up to 85%, See model list			

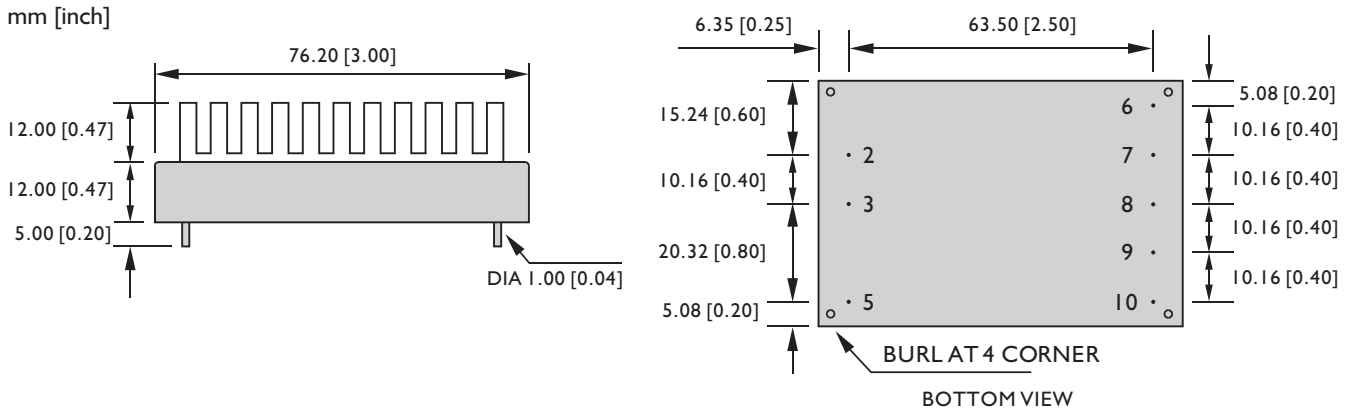
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CONTROL AND PROTECTION

Remote ON / OFF	ON: opened or 8 ~ 10VDC applied, reference to input GND OFF: -0.3 ~ 2VDC applied, reference to input GND
Input reversed	Shunt diode built in, external fuse recommended
Output short circuit	Continuous

MECHANISM & PIN CONFIGURATION



PHYSICAL CHARACTERISTICS

CASE SIZE	50.8 x 76.2 x 24 mm 2 x 3 x 0.94 inches
CASE MATERIAL	Metal
WEIGHT	175 g

PIN ASSIGNMENT

GENERAL

PIN NO.	2	3	5	6	7	8	9	10
SINGLE	Vi -	Vi +	ON / OFF	N. C.	N. C.	Vo -	Vo +	Trim
DUAL	Vi -	Vi +	ON / OFF	Vo -	N. C.	com	Vo +	Trim

DERATING

