



key features

- high power package
- wide input range
- 4 input voltage ranges
- water washable
- trim and enable pins
- remote sense pins
- 500 VDC isolation
- short circuit protection

The XWD series are high powered dual output DC to DC converters that cover a wide range of applications. Available input voltages include 12V, 24V, 48V, and 60V, output voltages are available from 5V to 15V. The XWD features remote sense leads for accurate point of load regulation, and has short circuit and over current protection. For single and triple output high power solutions, see IPD's XWS and XWT series of converters.

technical specifications

input

voltage range	
12 VDC nominal	10 - 20 VDC
24 VDC nominal	18 - 36 VDC
48 VDC nominal	36 - 72 VDC
40 VDC nominal (wide input)	20 - 60 VDC
input ripple current	20% lin max
reverse input current	100% lin max

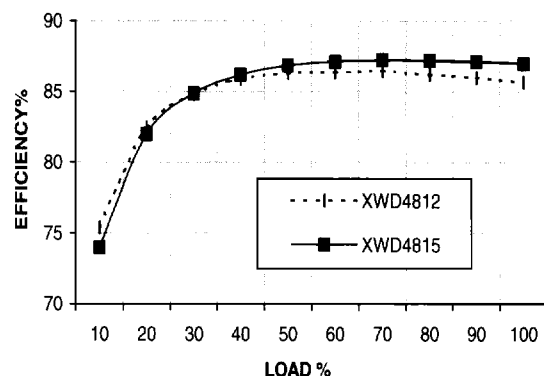
output

setpoint accuracy	±1%
line regulation V_{in} min. - V_{in} max., I_{out} rated	±1% V_o
load regulation I_{out} min. - I_{out} max., V_{in} nom.	±1% V_o
minimum output current	10 %
dynamic regulation, loadstep	25% I_o
Pk deviation	4% V_o
settling time	500 μ S
voltage trim range	±10%
current limit threshold range, % I_o rated	110% - 130%

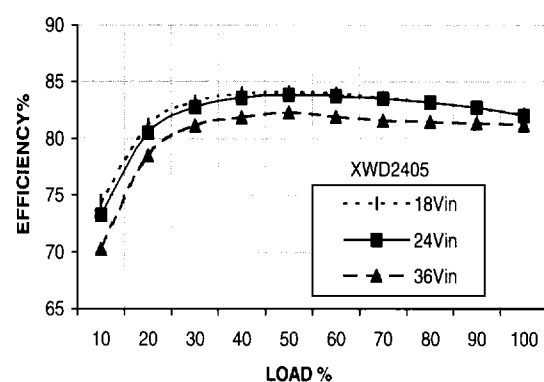
general

turn-on time	10 ms
remote shutdown	TTL and CMOS compatible, positive logic
switching frequency	200 KHz
isolation	
input - output	500 VDC
temperature coefficient	±0.02%/°C
case temperature	
operating range	-25 to +85°C ^{††}
storage range	-40 to +125°C
thermal shutdown range	105 to 115°C
humidity max, non-condensing	95%
vibration, 3 axes, 5 min each	5 g, 10 - 55Hz
MTBF [†] (Bellcore TR-NWT-000332)	consult factory
safety	consult factory
weight (approx.)	15.4 oz.

eff vs load (48 VIN)



eff vs load (24 VIN)



notes

[†] MTBF predictions may vary slightly from model to model.
^{††} industrial temp range of -40 to +85C available

Specifications typically at 25°C, normal line, and full load - unless otherwise stated.

Specifications subject to change without notice.

models

V _N (volts)	V _N range (volts)	I _{IN} max (amps)	V _{OUT} (volts)	I _{OUT} rated (amps)	ripple & noise pk-pk (mV)	efficiency typ **	model
12	10 - 20	14.0	±5	±10	50	79%	XWD1205
12	10 - 20	16.9	±12	± 5.2	120	81%	XWD1212
12	10 - 20	16.7	±15	± 4.15	150	82%	XWD1215
24	18 - 36	11.3	±5	±15	50	82%	XWD2405
24	18 - 36	13.3	±12	± 7.5	120	83%	XWD2412
24	18 - 36	13.3	±15	± 6.0	150	83%	XWD2415
48	36 - 72	5.5	±5	±15	50	84%	XWD4805
48	36 - 72	6.5	±12	± 7.5	120	85%	XWD4812
48	36 - 72	6.5	±15	± 6.0	150	85%	XWD4815
40	20 - 60	10.3	±5	±15	50	80%	XWD6005
40	20 - 60	12.2	±12	± 7.5	120	81%	XWD6012
40	20 - 60	12.2	±15	± 6.0	150	81%	XWD6015

* max input current an minimum input voltage, maximum rated output power

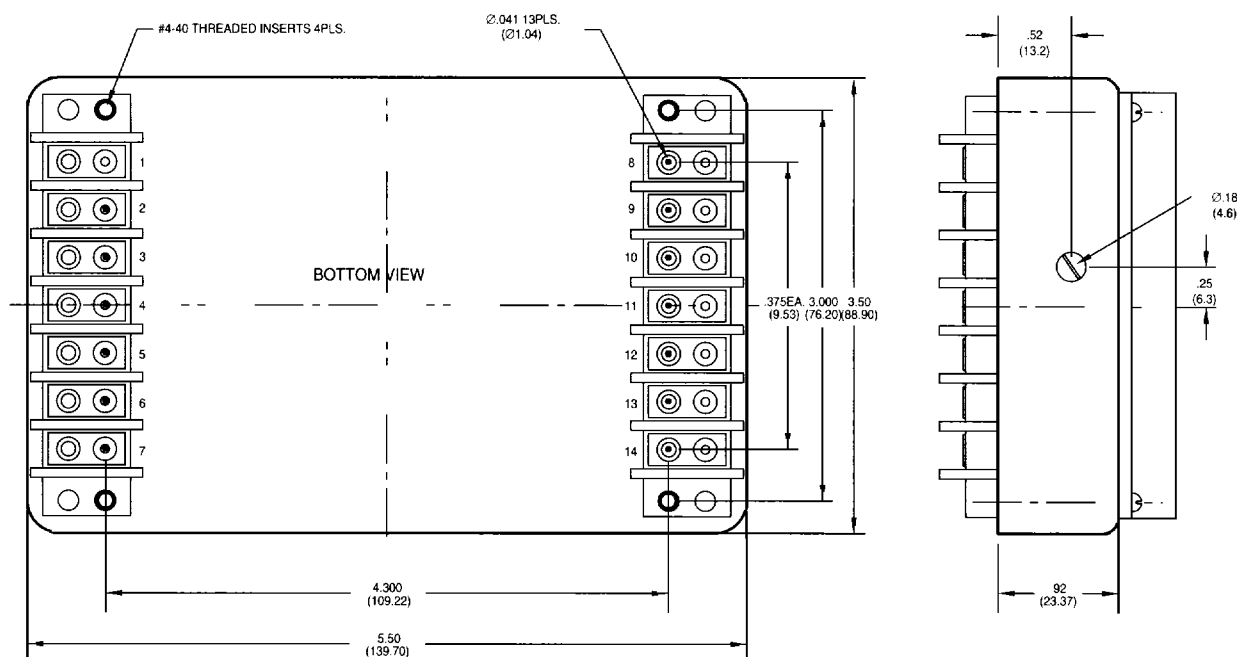
** at nominal V_{IN}, rated output.

specifications are subject to change without notice.

for terminal strip add suffix -TS to part number

for heatsink add suffix -HS to part number

mechanical drawing



thermal impedance	
natural convection	2.5 C/W
100 LFM	2.1 C/W
200 LFM	1.7 C/W
300 LFM	1.3 C/W
400 LFM	1.1 C/W

Thermal impedance data is dependant on many environmental factors. The exact thermal performance should be validated for specific application.

pin	function
1	No pin
2	-V _{IN}
3	-V _{IN}
4	+V _{IN}
5	+V _{IN}
6	enable
7	case
8	-V ₁ sense
9	-V ₁ OUT
10	+V ₁ OUT
11	+V ₁ sense1
12	- V ₂ OUT
13	trim
14	+ V ₂ OUT

tolerances (unless otherwise specified)	
Inches	(Millimeters)
.XX ± .040	.X ± 1.0
.XXX ± .010	.XX ± .25
Pin:	
± .002	± .05