

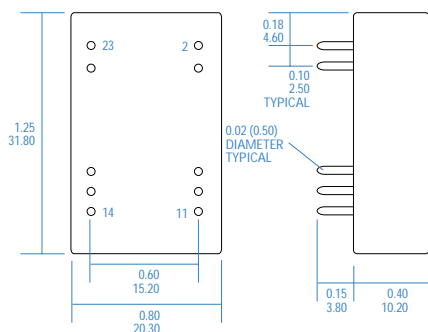
Additional Features

Optional (-A1) Footprint, consult factory

Available Models

Model	Nominal Input Voltage (VDC)	Input Voltage Range (VDC)	Output Voltage (VDC)	Max. Output Current (mA)	Efficiency @ Full-Load (%)	Input Current No-Load (mA) typ.
303S5WFR	5	4.5-9.0	3.3	600	70	40
305S5WFR	5	4.5-9.0	5.0	500	73	40
312S5WFR	5	4.5-9.0	12.0	250	77	40
315S5WFR	5	4.5-9.0	15.0	200	77	40
305D5WFR	5	4.5-9.0	+/-5.0	+/-250	72	40
312D5WFR	5	4.5-9.0	+/-12.0	+/-125	75	40
315D5WFR	5	4.5-9.0	+/-15.0	+/-100	75	40
303S12WFR	12	9-18	3.3	600	74	20
305S12WFR	12	9-18	5.0	500	78	20
312S12WFR	12	9-18	12.0	250	82	20
315S12WFR	12	9-18	15.0	200	82	20
305D12WFR	12	9-18	+/-5.0	+/-250	77	20
312D12WFR	12	9-18	+/-12.0	+/-125	80	20
315D12WFR	12	9-18	+/-15.0	+/-100	80	20
303S24WFR	24	18-36	3.3	600	76	5
305S24WFR	24	18-36	5.0	500	79	5
312S24WFR	24	18-36	12.0	250	84	5
315S24WFR	24	18-36	15.0	200	84	5
305D24WFR	24	18-36	+/-5.0	+/-250	79	5
312D24WFR	24	18-36	+/-12.0	+/-125	82	5
315D24WFR	24	18-36	+/-15.0	+/-100	82	5
303S48WFR	48	36-72	3.3	600	76	3
305S48WFR	48	36-72	5.0	500	79	3
312S48WFR	48	36-72	12.0	250	84	3
315S48WFR	48	36-72	15.0	200	84	3
305D48WFR	48	36-72	+/-5.0	+/-250	80	3
312D48WFR	48	36-72	+/-12.0	+/-125	84	3
315D48WFR	48	36-72	+/-15.0	+/-100	84	3

Outline Drawing



Pinout Chart

Pin	Pin Connections Standard		Pin Connections (-A1)	
	Single	Dual	Single	Dual
2,3	-Vin	-Vin	-Vin	-Vin
9	NC	Common	No Pin	Common
11	NC	-Vout	No Pin	-Vout
14	+Vout	+Vout	+Vout	+Vout
16	-Vout	Common	-Vout	Common
10,15	NC	NC	No Pin	No Pin
22,23	+Vin	+Vin	+Vin	+Vin

NC : No Connection with Pin

All specifications are typical at 25 degrees C with nominal input voltage and full output unless otherwise noted. Specifications are subject to change without notice. All dimensions are typical.

500WFR series

3 to 5 watts

Key Features:

- *Single & Dual Output Models*
- *2:1 Input Voltage range*
- *Low Profile, 24 pin DIP package*
- *Industry Standard Pinout*

Ideally Suited For:

- *Telecom equipment*
- *Mixed analog/digital subsystems*
- *Data Communications*



Input Characteristics

Input Voltage Range:	9-18, 18-36, 36-72 VDC
Input Filtering:	Pi Filter
Efficiency:	See Available Models Chart
No Load Input Current:	See Available Models Chart

Output Characteristics

Output Voltage Accuracy:	+/-2% Max.
Output Voltage Balance:	+/-1% Max, Dual Output Models (Equal loads)
Minimum Load Requirements:	10% Min Load
Line Regulation:	+/-0.5%, Max (Singles & Duals)
Load Regulation:	Singles: +/-0.5%, Max (10% to FL) Duals: +/-1% Max. (25% to FL)
Ripple and Noise:	100mV or 1% pk-pk Max., 20MHz Bandwidth
Temperature Coefficient:	+/-0.05%/°C
Short Circuit Protection:	Continuous; Auto-recovery

Environmental Characteristics

Operating Temperature Range	-25°C to +85°C, derate 3.5%/°C above 71°C
Storage Temperature Range:	-40°C to +125°C
Maximum Case Temperature	95°C
Humidity:	Up to 95%, Non-condensing
Cooling:	Free-air Convection
Reliability (MTBF per Mil-HDBK-217):	>900,000 hours, +25°C, Ground Benign

General Characteristics

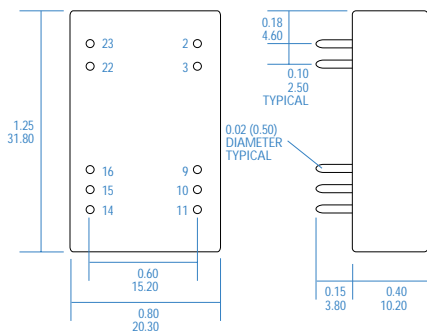
Switching Frequency:	100kHz, Min.
Isolation Voltage (Input to Output):	500VDC, (1 minute); <i>(Consult factory for 1500VDC option)</i>
Isolation Resistance:	10 ⁹ Ohms
Isolation Capacitance:	150pF, Max.
Weight:	0.50 oz (14g)
Case Material:	Non-conductive black plastic
Flammability:	UL 94-V0 (Materials)



Available Models

Model	Nominal Input Voltage (VDC)	Input Voltage Range (VDC)	Output Voltage (VDC)	Max. Output Current (mA)	Efficiency @ Full-Load (%)	Input Current No-Load (mA) typ.
503S12WFR	12	9-18	3.3	1000	70	7.5
505S12WFR	12	9-18	5.0	1000	76	7.5
512S12WFR	12	9-18	12.0	470	80	7.5
515S12WFR	12	9-18	15.0	400	80	7.5
505D12WFR	12	9-18	+/-5.0	+/-500	70	12
512D12WFR	12	9-18	+/-12.0	+/-230	80	12
515D12WFR	12	9-18	+/-15.0	+/-190	80	12
503S24WFR	24	18-36	3.3	1000	70	7.5
505S24WFR	24	18-36	5.0	1000	78	5
512S24WFR	24	18-36	12.0	470	82	5
515S24WFR	24	18-36	15.0	400	82	5
505D24WFR	24	18-36	+/-5.0	+/-500	78	12
512D24WFR	24	18-36	+/-12.0	+/-230	81	7.5
515D24WFR	24	18-36	+/-15.0	+/-190	81	7.5
503S48WFR	48	36-72	3.3	1000	70	7.5
505S48WFR	48	36-72	5.0	1000	78	2
512S48WFR	48	36-72	12.0	470	81	2
515S48WFR	48	36-72	15.0	400	81	2
505D48WFR	48	36-72	+/-5.0	+/-500	78	7.5
512D48WFR	48	36-72	+/-12.0	+/-230	81	3
515D48WFR	48	36-72	+/-15.0	+/-190	81	3

Outline Drawing



Pinout Chart

Pin	Single	Dual
2	-Vin	-Vin
3	-Vin	-Vin
9	NC	Common
10	NC	NC
11	NC	- Vout
14	+Vout	+Vout
15	NC	NC
16	-Vout	Common
22	+Vin	+Vin
23	+Vin	+Vin

NC : No Connection with Pin

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