

FAW-N SERIES

10W WIDE INPUT RANGE

DANUBE

FEATURES

- 10W DIL PACKAGE
- INDUSTRY STANDARD PACKAGE
- 9-18V,18-36V,36-75V,9-36V,18-75V WIDE INPUT RANGE
- REGULATED OUTPUT
- SHORT CIRCUIT PROTECTION
- RoHS COMPLIANT
- UL 94V-0 PACKAGE MATERIAL
- CUSTOM SOLUTIONS AVAILABLE
- 3 YEARS WARRANTY



OUTPUT SPECIFICATIONS

Voltage Set-point Accuracy	+/-2% max.
Temperature Coefficient	+/-0.05%/°C
Ripple & Noise(20MHz BW) ¹	150mVp-p max.
Line Regulation ²	+/-0.5% max.
Load Regulation ³	+/-0.5% max.
Minimum Load	10% of Full Load
Short Circuit Protection	Continuous
Short Circuit Restart	Automatic
Over Load Protection	130%~180%
Transient Response ⁵	200uS max.

ENVIRONMENTAL SPECIFICATIONS

Operating Temperature	-40°C to +80°C
Case Temperature	+105°C max.
Storage Temperature	-55°C to +125°C
Humidity	95% max.
Cooling	Free-Air Convection

INPUT SPECIFICATIONS

Input Voltage Range	2:1 or 4:1	Input Range
Input Filter		Pi Network
Protection		Fuse Recommended

GENERAL SPECIFICATIONS

Efficiency	82% typ.
Isolation Voltage ⁴	1500VDC min.
Isolation Resistance	10 ⁹ ohms min.
Isolation Capacitance	2000pF max.
Switching Frequency	300 KHz typ.
MTBF ⁶	>220,000 Hours
Weight	31.2g typ.
Case Material	Six-Side Shielded Case
Case Size	50.8mm*25.4mm*11.2mm
Radiated Emissions	EN55032 Class A

ALL SPECIFICATIONS TYPICAL AT NOMINAL LINE, FULL LOAD, AND 25 °C UNLESS OTHERWISE NOTED.

¹ Measured with 1uF ceramic capacitor connect to the output pins.

² High Line to Low Line.

³ Load Regulation is for output load current change from 10% to 100%.

⁴ For 10 seconds.

⁵ 25% Step Load Change.

⁶ MIL-HDBK-217F @25 °C, Ground Benign.

● SELECTION GUIDE

2:1 10W OUTPUT

MODEL NUMBER	INPUT VOLTAGE (VDC)	OUTPUT VOLTAGE (VDC)	OUTPUT CURRENT (mA)	INPUT ⁷ CURRENT(mA)		EFF (%) ⁸	CAPACITOR LOAD (Max)	PACKAGE
				FULL LOAD	NO LOAD			
FAWS-1205-N	9-18	5	2000	1016	55	82	1000uF	A
FAWS-1212-N	9-18	12	833	1004	35	83	220uF	
FAWS-1215-N	9-18	15	667	1005	35	83	100uF	
FAWS-2405-N	18-36	5	2000	502	30	83	1000uF	
FAWS-2412-N	18-36	12	833	502	25	83	220uF	
FAWS-2415-N	18-36	15	667	496	25	84	100uF	
FAWS-4805-N	36-75	5	2000	254	20	82	1000uF	
FAWS-4812-N	36-75	12	833	254	20	82	220uF	
FAWS-4815-N	36-75	15	667	251	20	83	100uF	
FAWD-1205-N	9-18	+/-5	+/-1000	1015	30	82	820uF	
FAWD-1212-N	9-18	+/-12	+/-416	1015	20	82	100uF	
FAWD-1215-N	9-18	+/-15	+/-333	1015	20	82	47uF	
FAWD-2405-N	18-36	+/-5	+/-1000	508	30	82	820uF	
FAWD-2412-N	18-36	+/-12	+/-416	501	20	83	100uF	
FAWD-2415-N	18-36	+/-15	+/-333	502	20	83	47uF	
FAWD-4805-N	36-75	+/-5	+/-1000	254	30	82	820uF	
FAWD-4812-N	36-75	+/-12	+/-416	254	20	82	100uF	
FAWD-4815-N	36-75	+/-15	+/-333	254	20	82	47uF	

Note: Other input to output voltages may be available. Please contact factory.

⁷ NOMINAL INPUT VOLTAGE.

⁸ NOMINAL INPUT VOLTAGE, FULL LOAD.

● **SELECTION GUIDE**
4:1 10W OUTPUT

MODEL NUMBER	INPUT VOLTAGE (VDC)	OUTPUT VOLTAGE (VDC)	OUTPUT CURRENT (mA)	INPUT ⁹ CURRENT(mA)		EFF (%) ¹⁰	CAPACITOR LOAD (Max)	PACKAGE
				FULL LOAD	NO LOAD			
FAWS-1205T-N	9-36	5	2000	1016	55	82	1000uF	A
FAWS-1212T-N	9-36	12	833	1016	35	82	220uF	
FAWS-1215T-N	9-36	15	667	1016	35	82	100uF	
FAWS-2405T-N	18-75	5	2000	508	30	82	1000uF	
FAWS-2412T-N	18-75	12	833	508	25	82	220uF	
FAWS-2415T-N	18-75	15	667	508	25	82	100uF	
FAWD-1205T-N	9-36	+/-5	+/-1000	1015	30	82	820uF	
FAWD-1212T-N	9-36	+/-12	+/-416	1015	20	82	100uF	
FAWD-1215T-N	9-36	+/-15	+/-333	1015	20	82	47uF	
FAWD-2405T-N	18-75	+/-5	+/-1000	508	30	82	820uF	
FAWD-2412T-N	18-75	+/-12	+/-416	507	20	82	100uF	
FAWD-2415T-N	18-75	+/-15	+/-333	508	20	82	47uF	

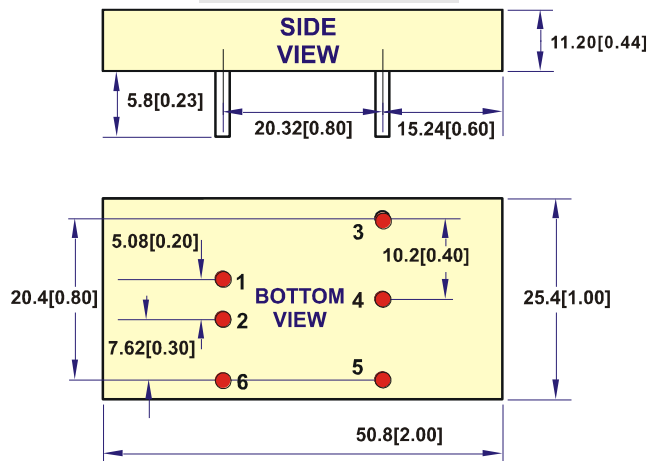
Note: Other input to output voltages may be available. Please contact factory.

⁹ NOMINAL INPUT VOLTAGE.

¹⁰ NOMINAL INPUT VOLTAGE, FULL LOAD.

MECHANICAL DIMENSIONS

PACKAGE "A"



PIN	SINGLE	DUAL
1	+Vin	+Vin
2	-Vin	-Vin
3	+Vout	+Vout
4	NP	COM
5	-Vout	-Vout
6	NP	NP

NOTE: Pin Size is Tolerance 1.0Φ ±0.10mm

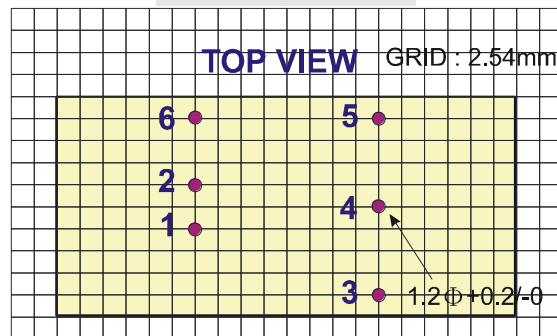
All Dimensions In mm(Inches)

Tolerance .X or .XX= ±0.80mm

All dimensions are in millimeters[inches]

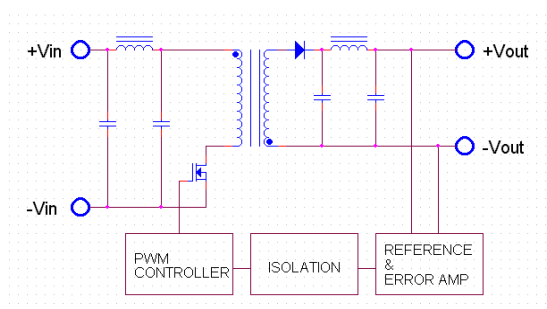
RECOMMENDED FOOTPRINT DETAILS

PACKAGE "A"

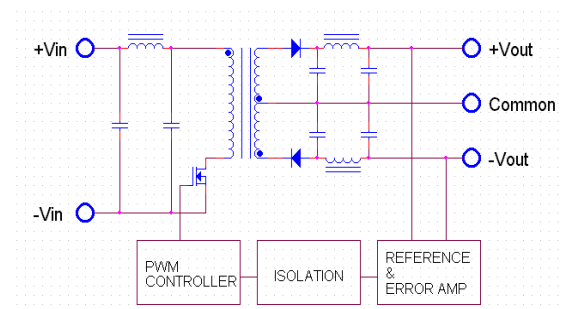


SIMPLIFIED SCHEMATIC

SINGLE OUTPUT



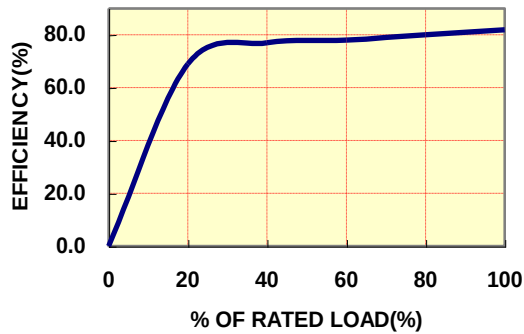
DUAL OUTPUT



● TYPICAL PERFORMANCE CURVES

Specifications typical at $T_a=25^{\circ}\text{C}$, nominal input voltage, rated output current unless otherwise specified.

OUTPUT LOAD VS EFFICIENCY



TEMPERATURE DERATING



● INPUT FUSE SELECTION GUIDE

9-18V or 9-36V INPUT VOLTAGE(VDC)	18-36V or 18-75V INPUT VOLTAGE(VDC)	36-75V INPUT VOLTAGE(VDC)
3000mA Slow-Blow Type	1500mA Slow-Blow Type	1000mA Slow-Blow Type

The diagram shows a yellow rectangular block labeled 'DC-DC CONVERTER'. On the left side, there are two input terminals: '+Vin' (top) and '-Vin' (bottom). On the right side, there are two output terminals: '+Vout' (top) and '-Vout' (bottom). A blue line labeled 'INPUT' enters from the left, passing through a 'Fuse' symbol before connecting to the '+Vin' terminal. A blue line labeled 'OUTPUT' exits from the right, connecting to the '+Vout' terminal. The '-Vin' and '-Vout' terminals are also connected to their respective lines.

Note: Certain applications may require the installation of external fuse in front of the input.

FAW-N SERIES APPLICATION NOTES:

EXTERNAL CAPACITANCE REQUIREMENTS:

No external capacitance is required for operation of the FAW-N series.

External output capacitance is not required for operation; however it is recommended that 10 μF tantalum and 0.1 μF ceramic capacitance be selected for reduced system noise.

Negative Outputs:

A negative output voltage may be obtained by connecting the +OUT to circuit ground and connecting -OUT as the negative output.

FOR MORE INFORMATION CALL:

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Home Page

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