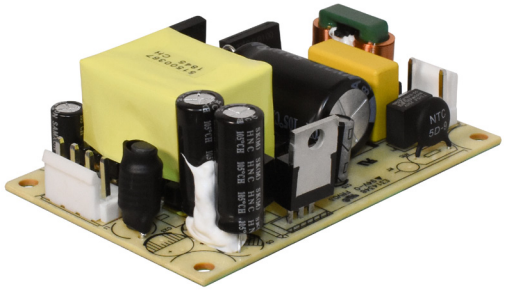
SERIES: VOF-40C | DESCRIPTION: AC-DC POWER SUPPLY

FEATURES

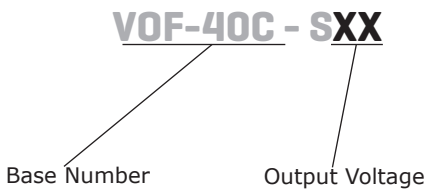
- universal input voltage range (85~264 VAC)
- 3 × 2 x 1.2 in (76.2 x 50.8 x 30 mm)
- class B EMI performance, meets CISPR32 / EN55032
- output short circuit, overcurrent & overvoltage protection
- safety certified: IEC/EN/UL 62368



MODEL	output voltage	output current		output power	ripple and noise[1]	efficiency[2]
		min	max	max	max	typ
	(Vdc)	(mA)	(mA)	(W)	(mVp-p)	(%)
VOF-40C-S3	3.3	0	8000	26.4	100	76
VOF-40C-S5	5	0	8000	40	100	82
VOF-40C-S9	9	0	4444	40	100	84
VOF-40C-S12	12	0	3333	40	100	84
VOF-40C-S15	15	0	2667	40	100	86
VOF-40C-S24	24	0	1667	40	100	86
VOF-40C-S48	48	0	833	40	100	87

Notes:
1. At full load, nominal input, 20 MHz bandwidth oscilloscope, with 1 µF ceramic and 10 µF electrolytic capacitors on the output.
2. At 230 Vac input.
3. All specifications are measured at Ta=25°C, humidity <75%, nominal input voltage, and rated output load unless otherwise specified.

PART NUMBER KEY



Please read our datasheet & drawing disclaimer here.

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INPUT

parameter	conditions/description	min	typ	max	units
voltage		85 100		264 370	Vac Vdc
frequency		47		63	Hz
current	at 115 Vac at 230 Vac			1200 700	mA mA
inrush current	at 115 Vac at 230 Vac		35 50		A A
no load power consumption				0.5	W

OUTPUT

parameter	conditions/description	min	typ	max	units
capacitive load	3.3 Vdc output models 5 Vdc output models 9 Vdc output models 12 Vdc output models 15 Vdc output models 24 Vdc output models 48 Vdc output models			30,000 20,000 6,000 4,000 3,500 1,000 600	µF
initial set point accuracy	3.3 Vdc output models all other models		±3 ±2		% %
line regulation	at full load		±0.5		%
load regulation	from 0~100% load		±1		%
hold-up time	at 230 Vac, full load		50		ms
switching frequency			65		kHz
temperature coefficient			±0.02		%/°C

PROTECTIONS

parameter	conditions/description	min	typ	max	units
over voltage protection	output voltage clamp, auto recovery 3.3 Vdc output models 5 Vdc output models 9 Vdc output models 12 Vdc output models 15 Vdc output models 24 Vdc output models 48 Vdc output models			 7.5 9 16 20 24 35 60	Vdc
over current protection	hiccup, auto-recovery	150		300	%
short circuit protection	hiccup, continuous, auto-recovery				

SAFETY & COMPLIANCE

parameter	conditions/description	min	typ	max	units
isolation voltage	input to output electric strength test for 1 minute, leakage current <5 mA	3,000			Vac
safety approvals	IEC/UL/EN 62368-1 certified				
safety class	Class II				
conducted emissions	CISPR32/EN55032, Class B				
radiated emissions	CISPR32/EN55032, Class B				
ESD	IEC/EN61000-4-2, Contact ±6KV, Perf. Criteria B				
radiated immunity	IEC/EN61000-4-3 10V/m perf. Criteria A				

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SAFETY & COMPLIANCE (CONTINUED)

parameter	conditions/description	min	typ	max	units
EFT/burst	IEC/EN61000-4-4, ±2 kV, perf. Criteria B				
surge	IEC/EN61000-4-5, line to line ±1KV, perf. Criteria B				
conducted immunity	IEC/EN61000-4-6, 10 Vrms, Perf. Criteria A				
voltage dips & interruptions	IEC/EN61000-4-11 , 0%,70%, perf. Criteria B				
MTBF	as per MIL-HDBK-217F at 25°C	300,000			hours
RoHS	yes				

Notes: 4. The power supply is considered a component which will be installed into final equipment. The final equipment still must be tested to meet the necessary EMC directives.

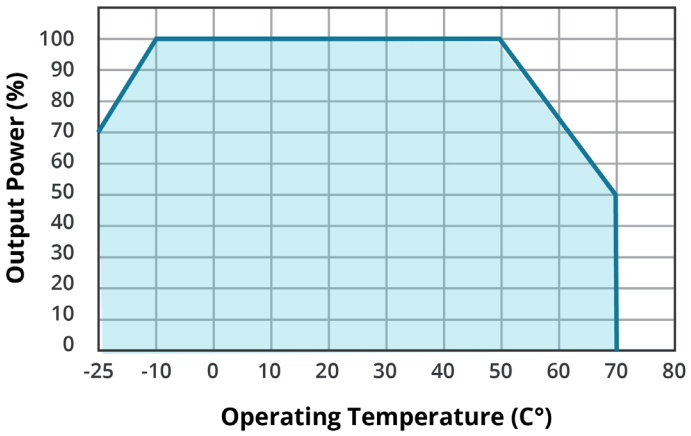
ENVIRONMENTAL

parameter	conditions/description	min	typ	max	units
operating temperature	see derating curves	-25		70	°C
storage temperature		-25		85	°C
storage humidity	non-condensing			90	%

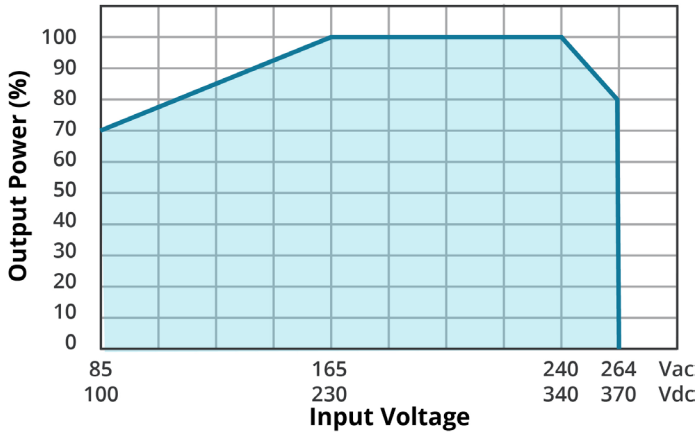
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DERATING CURVES

TEMPERATURE DERATING CURVE (at 85~264 Vac / 100~370 Vdc)

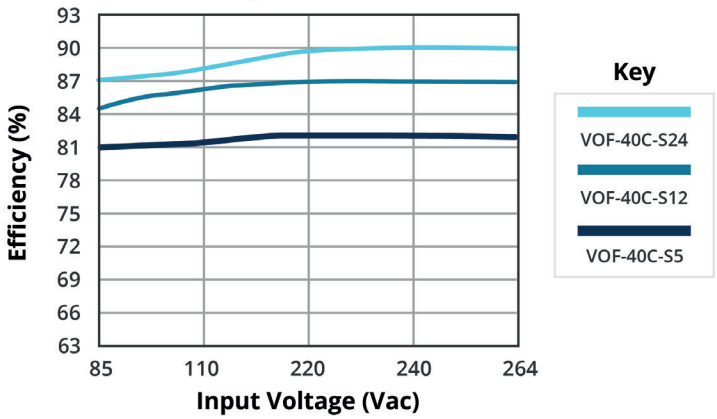


INPUT VOLTAGE DERATING CURVE (at 25°C)

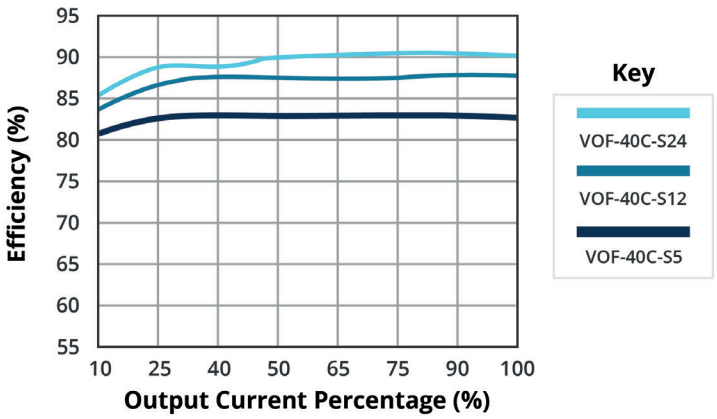


EFFICIENCY CURVES

EFFICIENCY VS INPUT LOAD (full load)



EFFICIENCY VS OUTPUT LOAD (at 230 Vac)



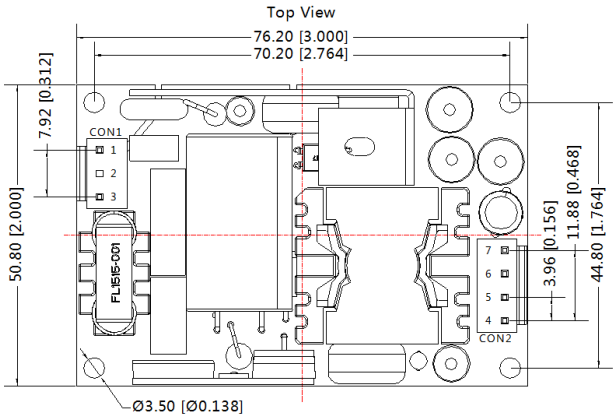
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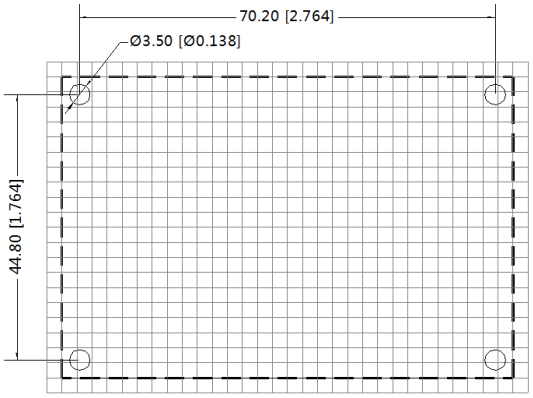
MECHANICAL

parameter	conditions/description	min	typ	max	units
dimensions	76.20 x 50.80 x 30.00				mm
weight			90		g

MECHANICAL DRAWING

units: mm[inch]
tolerance: ±0.50[±0.020]
In CON1 model: VH-3A, Recommended terminal: VH-3Y
Out CON2 model: VH-4A, recommended terminal: VH-4Y
Mounting hole screwing torque: Max 0.4 N·m





Note: Grid 2.54*2.54mm

PIN-Out			
PIN	Function	Connector	Terminal
1	AC(L)	VH-3A or B2P3-VH or the same Spec.	VH-3Y or VHR-3N or the same Spec.
2	NoPin		
3	AC(N)		
4	-Vo	VH-4A or B4P-VH or the same Spec.	VH-4Y or VHR-4N or the same Spec.
5	-Vo		
6	+Vo		
7	+Vo		

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REVISION HISTORY

rev.	description	date
1.0	initial release	10/25/2019
1.01	company logo updated	11/30/2020
1.02	derating and efficiency curves updated	05/13/2021
1.03	output current of 12V model updated	05/19/2022

The revision history provided is for informational purposes only and is believed to be accurate.

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