

V1-1W Series

1W Unregulated Single & Dual output



Features

- 7 Pin SIL / 14 Pin DIL Package
- 1000 VDC Isolation
- Up to 6000 VDC Isolation
- Low Ripple and Noise
- Efficiency up to 86%
- -40 ~ 85°C Operation Temperature Range
- Non-Conductive Black Plastic Case
- EMI Complies With EN55032 Class B



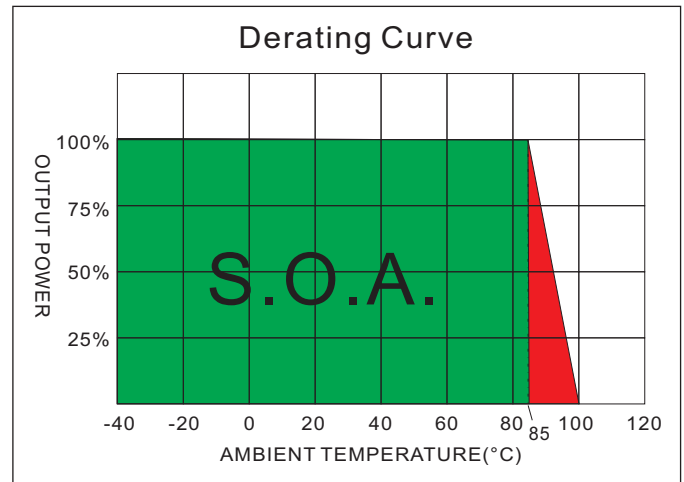
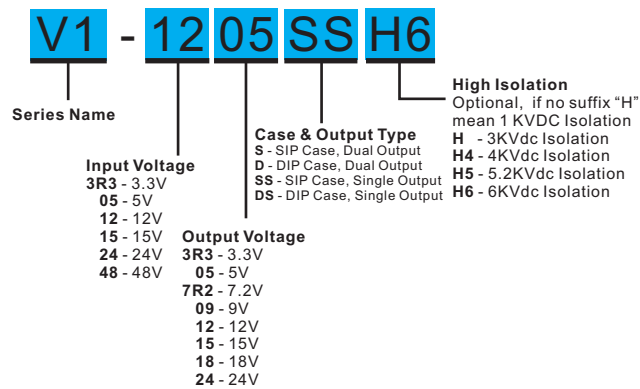
The V1 series is a family of cost effective 1W single & dual output DC-DC converters. These converters achieve low cost and ultra-miniature SIP 7 pin or DIP 14 pin size. Devices are encapsulated using flame retardant resin. The models operate from input voltage of 3.3, 5, 12, 15, 24, 48 Vdc with output voltage of 3.3, 5, 7.2, 9, 12, 15, 18, 24, ± 3.3 , ± 5 , ± 7.2 , ± 9 , ± 12 , ± 15 , ± 18 , ± 24 Vdc. High performance features include 1000Vdc~6000Vdc input/output isolation, high efficiency operation and output voltage accuracy of $\pm 3\%$ maximum. Standard features include an input range of $\pm 10\%$ tolerance and low output noise and ripple.

All specifications typical at Ta=25°C, nominal input voltage and full load unless otherwise specified

OUTPUT SPECIFICATIONS	
Output Voltage accuracy	$\pm 3\%$, max.
Line regulation	$\pm 1.2\%$ / Per 1% Vin Change
Load regulation	(From 20% to 100% Load) $\pm 10\%$, max. (Output 3.3V Model) $\pm 20\%$, max.
Ripple & noise (20 MHz bandwidth)(1)	75mVpk-pk, max.
Temperature coefficient	$\pm 0.02\%/^{\circ}\text{C}$
Capacitor load(2)	See table, max.
INPUT SPECIFICATIONS	
Input Voltage Range	$\pm 10\%$
Input Current (Full Load)	See table, max.
Input Current (No Load)	See table, typ.
Input Filter	Capacitors
Input Reflected Ripple Current(3)	20mA _{pk-pk} , typ.
ENVIRONMENT SPECIFICATIONS	
Operating Temperature	-40°C~85°C
Maximum Case Temperature	100°C
Storage Temperature	-40°C~125°C
Cooling	Nature Convection
GENERAL SPECIFICATIONS	
Efficiency	See table, typ.
I/O Isolation Voltage(60sec)	
Input/Output	1000~6000Vdc
I/O Isolation Capacitance	60 pF Typ.
I/O Isolation Resistance	1000M Ω , min.
Switching Frequency	Variable 80kHz, typ.
Humidity	95% rel H
Reliability Calculated MTBF(MIL-HDBK-217 F)	>1.121 Mhrs
Safety Standard	IEC/EN 60950-1, 62368-1 UL/cUL 60950-1, 62368-1
Safety Approvals	IEC/EN 60950-1, 62368-1 UL/cUL 60950-1, 62368-1
EMC SPECIFICATIONS	
Radiated Emissions	EN55032 CLASS B
Conducted Emissions (4)	EN55032 CLASS B
ESD	IEC 61000-4-2 Perf. Criteria A
RS	IEC 61000-4-3 Perf. Criteria A
EFT (5)	IEC 61000-4-4 Perf. Criteria A
Surge (5)	IEC 61000-4-5 Perf. Criteria A
CS	IEC 61000-4-6 Perf. Criteria A
PFMF	IEC 61000-4-8 Perf. Criteria A
PHYSICAL SPECIFICATIONS	
Case Material	Non-conductive Black Plastic(UL94V-0 rated)
Pin Material	0.5mm Alloy42 Solder-coated
Potting Material	Epoxy (UL94V-0 rated)
Weight	(SIP/2.3g) (SIP/2.7g)(DIP/2.7g)
Dimensions	SIP Case 0.76"x0.24"x0.39" SIP Case 0.76"x0.28"x0.39" DIP Case 0.80"x0.40"x0.27"
ABSOLUTE MAXIMUM RATINGS(6)	
These are stress ratings. Exposure of devices to any of these conditions may adversely affect long-term reliability.	
Input Surge Voltage(100mS)	
3.3 Models	6 Vdc, max.
5 Models	7 Vdc, max.
12 Models	15 Vdc, max.
15 Models	18 Vdc, max.
24 Models	28 Vdc, max.
48 Models	54 Vdc, max.
Soldering Temperature (1.5mm from case 10sec max.)	260°C, max.

V1 - 1W Unregulated Single & Dual output

PART NUMBER STRUCTURE



MODEL SELECTION GUIDE

MODEL NUMBER	INPUT Voltage Range (Vdc)	INPUT Current		OUTPUT Voltage (Vdc)	OUTPUT Current Full load (mA)	EFFICIENCY @FL (% ,typ.)	Capacitor Load @FL (μF ,max.)
		No-Load (mA ,max.)	Full Load (mA ,typ.)				
V1-3R3R3SS	2.97-3.3-3.63	28	399	3.3	303	76	220
V1-3R305SS	2.97-3.3-3.63	22	389	5	200	78	220
V1-3R37R2SS	2.97-3.3-3.63	25	388.50	7.2	139	78	220
V1-3R309SS	2.97-3.3-3.63	35	379	9	111	80	220
V1-3R312SS	2.97-3.3-3.63	30	393.55	12	83	77	220
V1-3R315SS	2.97-3.3-3.63	30	389	15	67	78	220
V1-3R318SS	2.97-3.3-3.63	30	415	18	56	73	220
V1-3R324SS	2.97-3.3-3.63	30	415	24	42	73	220
V1-053R3SS	4.5-5-5.5	15	256	3.3	303	78	220
V1-0505SS	4.5-5-5.5	17	247	5	200	81	220
V1-057R2SS	4.5-5-5.5	16	247	7.2	139	81	220
V1-0509SS	4.5-5-5.5	15	244	9	111	82	220
V1-0512SS	4.5-5-5.5	17	253	12	83	79	220
V1-0515SS	4.5-5-5.5	17	233	15	67	86	220
V1-0518SS	4.5-5-5.5	16	241	18	56	83	220
V1-0524SS	4.5-5-5.5	20	244	24	42	82	220
V1-123R3SS	10.8-12-13.2	12	111	3.3	303	75	220
V1-1205SS	10.8-12-13.2	14	105	5	200	79	220
V1-127R2SS	10.8-12-13.2	14	111	7.2	139	75	220
V1-1209SS	10.8-12-13.2	9	104	9	111	80	220
V1-1212SS	10.8-12-13.2	13	105	12	83	79	220
V1-1215SS	10.8-12-13.2	10	102	15	67	82	220
V1-1218SS	10.8-12-13.2	11	103	18	56	81	220
V1-1224SS	10.8-12-13.2	20	110	24	42	76	220
V1-153R3SS	13.5-15-16.5	10	83	3.3	303	80	220
V1-1505SS	13.5-15-16.5	7	82	5	200	81	220
V1-157R2SS	13.5-15-16.5	10	85	7.2	139	78	220
V1-1509SS	13.5-15-16.5	10	85	9	111	78	220
V1-1512SS	13.5-15-16.5	8	83	12	83	80	220
V1-1515SS	13.5-15-16.5	12	84	15	67	79	220
V1-1518SS	13.5-15-16.5	10	83	18	56	80	220
V1-1524SS	13.5-15-16.5	5	80	24	42	83	220

Suffix "H" means 3 KVdc isolation Suffix "H4" means 4 KVdc isolation
 Suffix "H5" means 5.2 KVdc isolation Suffix "H6" means 6 KVdc isolation

The models listed above is just for standard type. If you need the special specification product, please contact our service member by telephone presented in shortform cover or e-mail to : sales@motien.com.tw

V1 - 1W Unregulated Single & Dual output

MODEL NUMBER	INPUT Voltage Range (Vdc)	INPUT Current		OUTPUT Voltage (Vdc)	OUTPUT Current Full load (mA)	EFFICIENCY @FL (% .typ.)	Capacitor Load @FL (μF ,max.)
		No-Load (mA ,max.)	Full Load (mA ,typ.)				
V1-243R3SS	21.6-24-26.4	8	56	3.3	303	74	220
V1-2405SS	21.6-24-26.4	6	54	5	200	77	220
V1-247R2SS	21.6-24-26.4	6	57	7.2	139	73	220
V1-2409SS	21.6-24-26.4	6	55	9	111	76	220
V1-2412SS	21.6-24-26.4	6	53	12	83	78	220
V1-2415SS	21.6-24-26.4	5	52	15	67	80	220
V1-2418SS	21.6-24-26.4	5	51	18	56	82	220
V1-2424SS	21.6-24-26.4	8	52	24	42	80	220
V1-483R3SS	43.2-48-52.8	5	29	3.3	303	73	220
V1-4805SS	43.2-48-52.8	5	29	5	200	73	220
V1-487R2SS	43.2-48-52.8	5	28	7.2	139	75	220
V1-4809SS	43.2-48-52.8	5	27	9	111	76	220
V1-4812SS	43.2-48-52.8	5	27	12	83	76	220
V1-4815SS	43.2-48-52.8	5	27	15	67	77	220
V1-4818SS	43.2-48-52.8	5	28	18	56	75	220
V1-4824SS	43.2-48-52.8	6	27	24	42	76	220
V1-3R33R3S	2.97-3.3-3.63	30	459	±3.3	±152	66	±100
V1-3R305S	2.97-3.3-3.63	30	433	±5.0	±100	70	±100
V1-3R37R2S	2.97-3.3-3.63	30	421	±7.2	±69	72	±100
V1-3R309S	2.97-3.3-3.63	26	404	±9.0	±56	75	±100
V1-3R312S	2.97-3.3-3.63	30	394	±12	±42	77	±100
V1-3R315S	2.97-3.3-3.63	25	389	±15	±33	78	±100
V1-3R318S	2.97-3.3-3.63	25	404	±18	±28	75	±100
V1-3R324S	2.97-3.3-3.63	25	404	±24	±21	75	±100
V1-053R3S	4.5-5-5.5	20	299	±3.3	±152	67	±100
V1-0505S	4.5-5-5.5	20	270	±5.0	±100	74	±100
V1-057R2S	4.5-5-5.5	15	253	±7.2	±69	79	±100
V1-0509S	4.5-5-5.5	15	247	±9.0	±56	81	±100
V1-0512S	4.5-5-5.5	20	250	±12	±42	80	±100
V1-0515S	4.5-5-5.5	20	244	±15	±33	82	±100
V1-0518S	4.5-5-5.5	22	247	±18	±28	81	±100
V1-0524S	4.5-5-5.5	22	247	±24	±21	81	±100
V1-123R3S	10.8-12-13.2	13	123	±3.3	±152	68	±100
V1-1205S	10.8-12-13.2	10	123	±5.0	±100	74	±100
V1-127R2S	10.8-12-13.2	10	110	±7.2	±69	76	±100
V1-1209S	10.8-12-13.2	13	110	±9.0	±56	78	±100
V1-1212S	10.8-12-13.2	10	102	±12	±42	82	±100
V1-1215S	10.8-12-13.2	10	102	±15	±33	82	±100
V1-1218S	10.8-12-13.2	20	103	±18	±28	81	±100
V1-1224S	10.8-12-13.2	20	111	±24	±21	75	±100
V1-153R3S	13.5-15-16.5	20	89	±3.3	±152	75	±100
V1-1505S	13.5-15-16.5	20	89	±5.0	±100	75	±100
V1-157R2S	13.5-15-16.5	18	89	±7.2	±69	75	±100
V1-1509S	13.5-15-16.5	18	87	±9.0	±56	77	±100
V1-1512S	13.5-15-16.5	20	87	±12	±42	77	±100
V1-1515S	13.5-15-16.5	20	87	±15	±33	77	±100
V1-1518S	13.5-15-16.5	15	89	±18	±28	75	±100
V1-1524S	13.5-15-16.5	15	89	±24	±21	75	±100

Suffix "H" means 3 KVdc isolation Suffix "H4" means 4 KVdc isolation
 Suffix "H5" means 5.2 KVdc isolation Suffix "H6" means 6 KVdc isolation

The models listed above is just for standard type. If you need the special specification product, please contact our service member by telephone presented in shortform cover or e-mail to : sales@motien.com.tw

V1 - 1W Unregulated Single & Dual output

MODEL NUMBER	INPUT Voltage Range (Vdc)	INPUT Current		OUTPUT Voltage (Vdc)	OUTPUT Current Full load (mA)	EFFICIENCY @FL (% ,typ.)	Capacitor Load @FL (μ F ,max.)
		No-Load (mA ,max.)	Full Load (mA ,typ.)				
V1-243R3S	21.6-24-26.4	7	62	± 3.3	± 152	67	± 100
V1-2405S	21.6-24-26.4	6	56	± 5.0	± 100	74	± 100
V1-247R2S	21.6-24-26.4	7	56	± 7.2	± 69	78	± 100
V1-2409S	21.6-24-26.4	7	56	± 9.0	± 56	78	± 100
V1-2412S	21.6-24-26.4	6	52	± 12	± 42	80	± 100
V1-2415S	21.6-24-26.4	8	52	± 15	± 33	80	± 100
V1-2418S	21.6-24-26.4	6	51	± 18	± 28	81	± 100
V1-2424S	21.6-24-26.4	8	51	± 24	± 21	82	± 100
V1-483R3S	43.2-48-52.8	6	34	± 3.3	± 152	62	± 100
V1-4805S	43.2-48-52.8	5	31	± 5.0	± 100	68	± 100
V1-487R2S	43.2-48-52.8	5	29	± 7.2	± 69	72	± 100
V1-4809S	43.2-48-52.8	5	29	± 9.0	± 56	73	± 100
V1-4812S	43.2-48-52.8	6	28	± 12	± 42	74	± 100
V1-4815S	43.2-48-52.8	5	27	± 15	± 33	77	± 100
V1-4818S	43.2-48-52.8	5	28	± 18	± 28	75	± 100
V1-4824S	43.2-48-52.8	6	28	± 24	± 21	74	± 100
V1-3R33R3DS	2.97-3.3-3.63	35	427	3.3	303	71	220
V1-3R305DS	2.97-3.3-3.63	35	404	5	200	75	220
V1-3R37R2DS	2.97-3.3-3.63	35	404.04	7.2	139	75	220
V1-3R309DS	2.97-3.3-3.63	30	394	9	111	77	220
V1-3R312DS	2.97-3.3-3.63	30	398.72	12	83	76	220
V1-3R315DS	2.97-3.3-3.63	30	399	15	67	76	220
V1-3R318DS	2.97-3.3-3.63	35	415	18	56	73	220
V1-3R324DS	2.97-3.3-3.63	35	415	24	42	73	220
V1-053R3DS	4.5-5-5.5	20	260	3.3	303	77	220
V1-0505DS	4.5-5-5.5	20	244	5	200	82	220
V1-057R2DS	4.5-5-5.5	20	244	7.2	139	82	220
V1-0509DS	4.5-5-5.5	20	250	9	111	80	220
V1-0512DS	4.5-5-5.5	16	247	12	83	81	220
V1-0515DS	4.5-5-5.5	20	250	15	67	80	220
V1-0518DS	4.5-5-5.5	25	250	18	56	80	220
V1-0524DS	4.5-5-5.5	22	244	24	42	82	220
V1-123R3DS	10.8-12-13.2	20	111	3.3	303	75	220
V1-1205DS	10.8-12-13.2	14	104	5	200	80	220
V1-127R2DS	10.8-12-13.2	15	110	7.2	139	76	220
V1-1209DS	10.8-12-13.2	10	104	9	111	80	220
V1-1212DS	10.8-12-13.2	13	108	12	83	77	220
V1-1215DS	10.8-12-13.2	15	110	15	67	76	220
V1-1218DS	10.8-12-13.2	20	114	18	56	73	220
V1-1224DS	10.8-12-13.2	25	114	24	42	73	220
V1-153R3DS	13.5-15-16.5	10	89	3.3	303	75	220
V1-1505DS	13.5-15-16.5	7	82	5	200	81	220
V1-157R2DS	13.5-15-16.5	10	89	7.2	139	75	220
V1-1509DS	13.5-15-16.5	10	89	9	111	75	220
V1-1512DS	13.5-15-16.5	10	83	12	83	80	220
V1-1515DS	13.5-15-16.5	10	84	15	67	79	220
V1-1518DS	13.5-15-16.5	10	83	18	56	80	220
V1-1524DS	13.5-15-16.5	10	83	24	42	80	220

Suffix "H" means 3 KVdc isolation Suffix "H4" means 4 KVdc isolation
 Suffix "H5" means 5.2 KVdc isolation Suffix "H6" means 6 KVdc isolation

The models listed above is just for standard type. If you need the special specification product, please contact our service member by telephone presented in shortform cover or e-mail to : sales@motien.com.tw

V1 - 1W Unregulated Single & Dual output

MODEL NUMBER	INPUT Voltage Range (Vdc)	INPUT Current		OUTPUT Voltage (Vdc)	OUTPUT Current Full load (mA)	EFFICIENCY @FL (% ,typ.)	Capacitor Load @FL (μF ,max.)
		No-Load (mA ,max.)	Full Load (mA ,typ.)				
V1-243R3DS	21.6-24-26.4	7	55	3.3	303	76	220
V1-2405DS	21.6-24-26.4	7	52	5	200	80	220
V1-247R2DS	21.6-24-26.4	8	57	7.2	139	73	220
V1-2409DS	21.6-24-26.4	7	56	9	111	75	220
V1-2412DS	21.6-24-26.4	6	53	12	83	78	220
V1-2415DS	21.6-24-26.4	6	52	15	67	80	220
V1-2418DS	21.6-24-26.4	5	52	18	56	80	220
V1-2424DS	21.6-24-26.4	5	51	24	42	81	220
V1-483R3DS	43.2-48-52.8	10	30	3.3	303	70	220
V1-4805DS	43.2-48-52.8	6	29	5	200	73	220
V1-487R2DS	43.2-48-52.8	6	28	7.2	139	74	220
V1-4809DS	43.2-48-52.8	6	28	9	111	75	220
V1-4812DS	43.2-48-52.8	5	27	12	83	76	220
V1-4815DS	43.2-48-52.8	4	26	15	67	79	220
V1-4818DS	43.2-48-52.8	5	28	18	56	75	220
V1-4824DS	43.2-48-52.8	6	29	24	42	72	220
V1-3R33R3D	2.97-3.3-3.63	35	481	±3.3	±152	63	±100
V1-3R305D	2.97-3.3-3.63	25	452	±5.0	±100	67	±100
V1-3R37R2D	2.97-3.3-3.63	30	432	±7.2	±69	70	±100
V1-3R309D	2.97-3.3-3.63	30	415	±9.0	±56	73	±100
V1-3R312D	2.97-3.3-3.63	30	415	±12	±42	73	±100
V1-3R315D	2.97-3.3-3.63	30	399	±15	±33	76	±100
V1-3R318D	2.97-3.3-3.63	30	404	±18	±28	75	±100
V1-3R324D	2.97-3.3-3.63	30	404	±24	±21	75	±100
V1-053R3D	4.5-5-5.5	20	308	±3.3	±152	65	±100
V1-0505D	4.5-5-5.5	20	259	±5.0	±100	70	±100
V1-057R2D	4.5-5-5.5	20	274	±7.2	±69	73	±100
V1-0509D	4.5-5-5.5	16	253	±9.0	±56	79	±100
V1-0512D	4.5-5-5.5	20	250	±12	±42	80	±100
V1-0515D	4.5-5-5.5	20	247	±15	±33	81	±100
V1-0518D	4.5-5-5.5	18	244	±18	±28	82	±100
V1-0524D	4.5-5-5.5	20	244	±24	±21	82	±100
V1-123R3D	10.8-12-13.2	15	128	±3.3	±152	65	±100
V1-1205D	10.8-12-13.2	7	113	±5.0	±100	74	±100
V1-127R2D	10.8-12-13.2	13	111	±7.2	±69	75	±100
V1-1209D	10.8-12-13.2	15	104	±9.0	±56	80	±100
V1-1212D	10.8-12-13.2	14	103	±12	±42	81	±100
V1-1215D	10.8-12-13.2	11	102	±15	±33	82	±100
V1-1218D	10.8-12-13.2	15	111	±18	±28	75	±100
V1-1224D	10.8-12-13.2	20	110	±24	±21	76	±100
V1-153R3D	13.5-15-16.5	20	89	±3.3	±152	75	±100
V1-1505D	13.5-15-16.5	20	89	±5.0	±100	75	±100
V1-157R2D	13.5-15-16.5	18	89	±7.2	±69	75	±100
V1-1509D	13.5-15-16.5	18	87	±9.0	±56	77	±100
V1-1512D	13.5-15-16.5	20	87	±12	±42	77	±100
V1-1515D	13.5-15-16.5	20	87	±15	±33	77	±100
V1-1518D	13.5-15-16.5	15	89	±18	±28	75	±100
V1-1524D	13.5-15-16.5	15	89	±24	±21	75	±100

Suffix "H" means 3 KVdc isolation Suffix "H4" means 4 KVdc isolation
 Suffix "H5" means 5.2 KVdc isolation Suffix "H6" means 6 KVdc isolation

The models listed above is just for standard type. If you need the special specification product, please contact our service member by telephone presented in shortform cover or e-mail to : sales@motien.com.tw

V1 - 1W Unregulated Single & Dual output

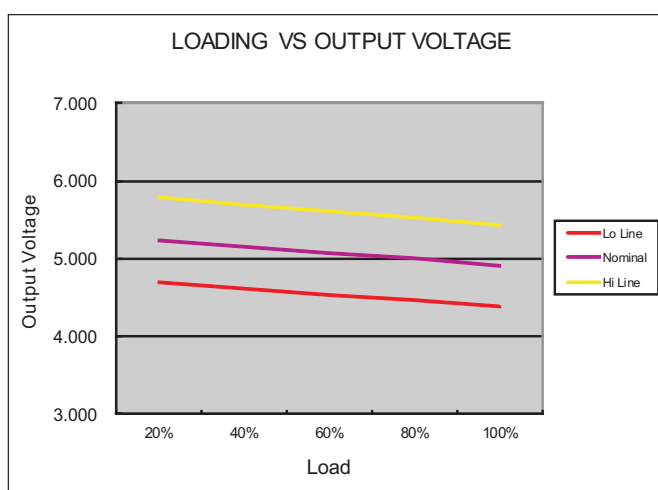
MODEL NUMBER	INPUT Voltage Range (Vdc)	INPUT Current		OUTPUT Voltage (Vdc)	OUTPUT Current	EFFICIENCY @FL (% ,typ.)	Capacitor Load @FL (μF ,max.)
		No-Load (mA ,max.)	Full Load (mA ,typ.)		Full load (mA)		
V1-243R3D	21.6-24-26.4	10	65	±3.3	±152	64	±100
V1-2405D	21.6-24-26.4	5	56	±5.0	±100	75	±100
V1-247R2D	21.6-24-26.4	7	56	±7.2	±69	75	±100
V1-2409D	21.6-24-26.4	5	52	±9.0	±56	80	±100
V1-2412D	21.6-24-26.4	6	53	±12	±42	79	±100
V1-2415D	21.6-24-26.4	8	51	±15	±33	81	±100
V1-2418D	21.6-24-26.4	10	53	±18	±28	78	±100
V1-2424D	21.6-24-26.4	9	53	±24	±21	78	±100
V1-483R3D	43.2-48-52.8	8	32	±3.3	±152	65	±100
V1-4805D	43.2-48-52.8	6	32	±5.0	±100	65	±100
V1-487R2D	43.2-48-52.8	5	31	±7.2	±69	68	±100
V1-4809D	43.2-48-52.8	5	30	±9.0	±56	70	±100
V1-4812D	43.2-48-52.8	6	29	±12	±42	71	±100
V1-4815D	43.2-48-52.8	6	29	±15	±33	72	±100
V1-4818D	43.2-48-52.8	8	30	±18	±28	70	±100
V1-4824D	43.2-48-52.8	8	29	±24	±21	72	±100

Suffix "H" means 3 KVdc isolation

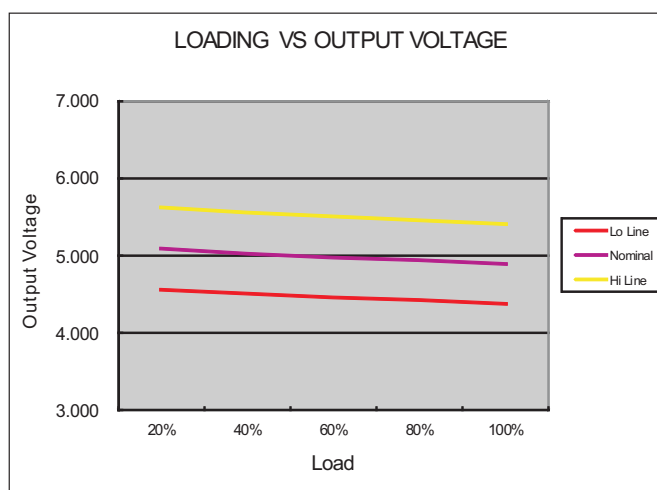
Suffix "H4" means 4 KVdc isolation

Suffix "H5" means 5.2 KVdc isolation

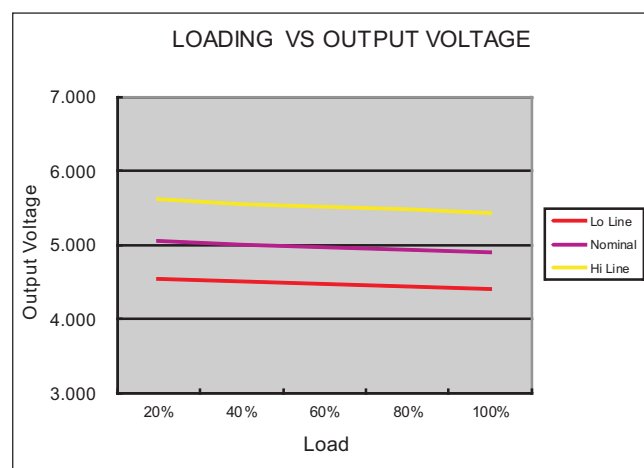
Suffix "H6" means 6 KVdc isolation



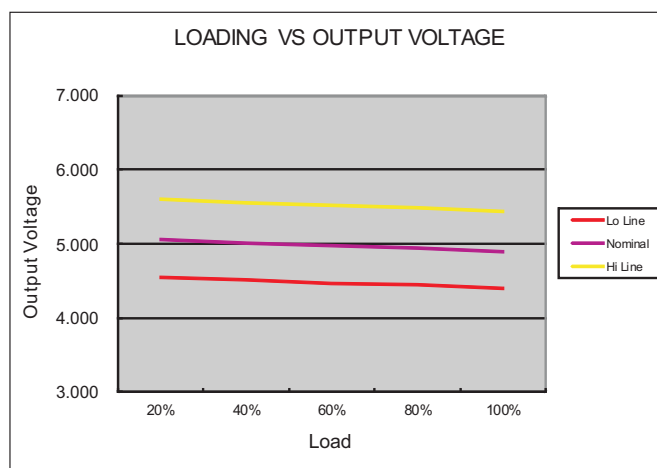
5 Models



12 Models



24 Models



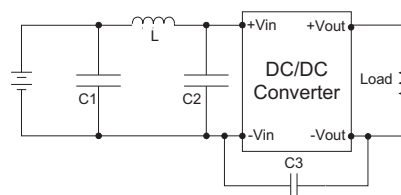
48 Models

The models listed above is just for standard type. If you need the special specification product, please contact our service member by telephone presented in shortform cover or e-mail to : sales@motien.com.tw

TEST CONFIGURATIONS

EMI Filter

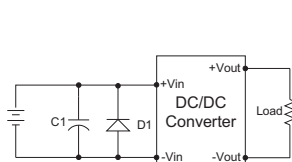
Input filter components (C1, L, C2, C3) are used to help meet conducted emissions requirement for the module. These components should be mounted as close as possible to the module; and all leads should be minimized to decrease radiated noise.



	C1	L	C2	C3
V1-3R3XXXXX	1210, 2.2μF/100V	18μH		
V1-05XXXXXX	1210, 2.2μF/100V	18μH		
V1-12XXXXXX	1210, 2.2μF/100V	18μH		
V1-15XXXXXX	1210, 2.2μF/100V	18μH		
V1-24XXXXXX	1210, 2.2μF/100V	18μH	1210, 2.2μF/100V	1206, 470pF/2KV
V1-48XXXXXX	Electrolytic capacitor, 10μF/100V	18μH	1210, 2.2μF/100V	1206, 470pF/2KV

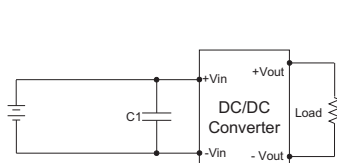
EFT/Surge Filter

Input filter components (C1, D1) are used to help meet IEC 61000-4-4 and IEC 61000-4-5.



V1-SIP	C1	D1
V1-3R3XXXXX	2200uF, 100V	SMAJ5A
V1-05XXXXXX		SMAJ6.5A
V1-12XXXXXX		SMAJ14A
V1-15XXXXXX		SMAJ18A
V1-24XXXXXX		SMAJ26A
V1-48XXXXXX		SMAJ51A

V1-SIP Models

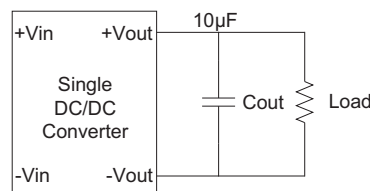


V1-DIP	C1
V1-3R3XXXXX	470uF, 100V
V1-05XXXXXX	
V1-12XXXXXX	
V1-15XXXXXX	
V1-24XXXXXX	
V1-48XXXXXX	

V1-DIP Models

Output Ripple & Noise Reduction

To reduce ripple and noise, it is recommended to use a 10μF electrolytic capacitor to at the output.



NOTE

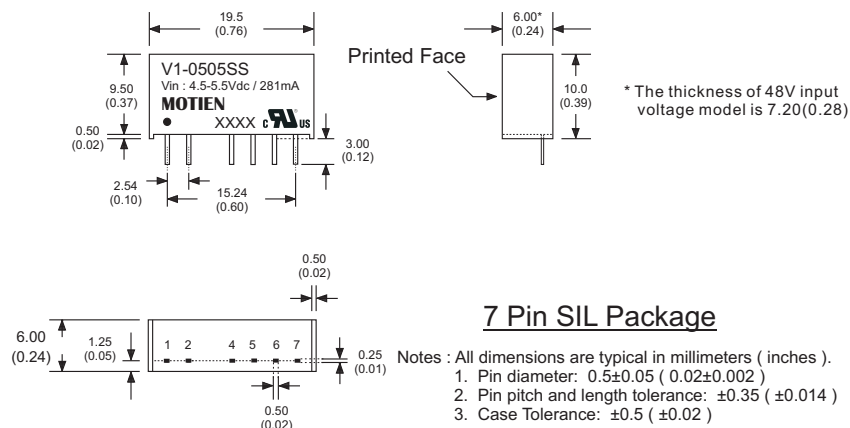
1. Ripple/Noise measured with 20MHz bandwidth.
2. Tested by minimal Vin and constant resistive load.
3. Measured Input reflected ripple current with a simulated source inductance of 12μH and a source capacitor Cin(47μF, ESR<1.0Ω at 100KHz).
4. Input filter components are required to help meet conducted emission class B, which application refer to the EMI Filter of design & feature configuration.
5. An external filter capacitor is required if the module has to meet IEC61000-4-4/IEC61000-4-5.
The V1-SIP recommended an aluminum electrolytic capacitor and TVS to connect in parallel.
The V1-DIP recommended an aluminum electrolytic capacitor to connect in parallel.
Which application refer to the EFT/Surge Filter of design & feature configuration.
6. Exceeding the absolute ratings of the unit could cause damage. It is not allowed for continuous operating.
7. Operation under no-load conditions will not damage these devices, however they may not meet all listed specifications.
8. All Models should be externally fused at the front end for protection.

Input Voltage	Slow Burning Fuses
3.3 Vin	800mA
5 Vin	500mA
12, 15, 24, 48Vin	300mA

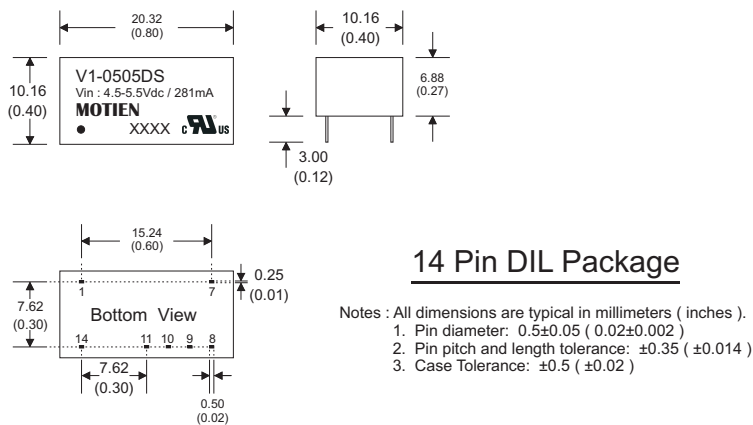
The models listed above is just for standard type. If you need the special specification product, please contact our service member by telephone presented in shortform cover or e-mail to : sales@motien.com.tw

V1 - 1W Unregulated Single & Dual output

MECHANICAL SPECIFICATIONS



PIN CONNECTIONS				
PIN NUMBER	SINGLE	DUAL	SINGLE-H	DUAL-H
1	+V Input	+V Input	+V Input	+V Input
2	-V Input	-V Input	-V Input	-V Input
4	-V Output	-V Output	N.P.	N.P.
5	N.P.	Common	-V Output	-V Output
6	+V Output	+V Output	N.P.	Common
7	N.P.	N.P.	+V Output	+V Output



PIN CONNECTIONS				
PIN NUMBER	SINGLE	DUAL	SINGLE-H	DUAL-H
1	-V Input	-V Input	-V Input	-V Input
7	N.C.	N.C.	N.C.	N.C.
8	N.P.	Common	+V Output	+V Output
9	+V Output	+V Output	N.P.	Common
10	N.P.	N.P.	-V Output	-V Output
11	-V Output	-V Output	N.P.	N.P.
14	+V Input	+V Input	+V Input	+V Input