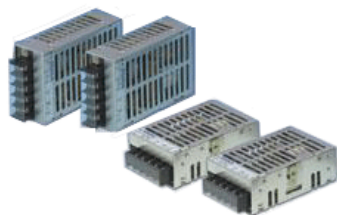




## NVD-SC/NVD-SD

100W



### FEATURES

- Light weight, compact size
- High efficiency, high reliability
- Input under voltage protection
- Over current, over voltage, thermal protection
- UL, cUL, CE
- **Isolated Power Supply**



MODEL/CHANNEL		Unit	NVD3.3-SC24-U1	NVD05-SC24-U1	NVD12-SC24-U1	NVD15-SC24-U1	NVD24-SC24-U1
OUTPUT (Single)	Output Current 24VDC	Vdc	3.3	5	12	15	24
	Output Current	A	20	20	9	7	5
MODEL/CHANNEL		Unit	NVD3.3-SC48-U1	NVD05-SC48-U1	NVD12-SC48-U1	NVD15-SC48-U1	NVD24-SC48-U1
OUTPUT (Single)	Output Current 48VDC	Vdc	3.3	5	12	15	24
	Output Current	A	20	20	9	7	5
MODEL/CHANNEL		Unit	NVD3.3-SD-U1	NVD05-SD-U1	NVD12-SD-U1	NVD15-SD-U1	NVD24-SD-U1
OUTPUT (Single)	Output Current 110VDC	Vdc	3.3	5	12	15	24
	Output Current	A	20	20	9	7	5
MODEL/CHANNEL		Unit	NVD3.3-SC12-U1	NVD05-SC12-U1	NVD12-SC12-U1	NVD15-SC12-U1	NVD24-SC12-U1
OUTPUT (Single)	Output Voltage	Vdc	3.3	5	12	15	24
	Output Current 12VDC	A	20	15	6.8	5.4	3.4
	Line Regulation	mV	26	40	96	120	190
	Load Regulation	mVp	30	45	108	135	216
	Ripple and Noise	mVp	150	150	220	250	350
	Voltage Adjustment Range	-	10% of Rated Output Voltage				
	Rise Time	-	200mS(500mS for NVDxSD Series)(maximum) at 25C and rated input/output				
	Temp. Coefficient	°C	0.03%/°C				
	Drift	mV	32	40	75	90	135
	Dynamic Load Regulation	mV	±150	±200	±360	±450	±720
Recovery Time	mS	20					
MODEL/CHANNEL		Unit	NVD3.3-SC12-U1	NVD05-SC12-U1	NVD12-SC12-U1	NVD15-SC12-U1	NVD24-SC12-U1
INPUT	Input Voltage 12V	Vdc	12				
	Input Voltage Range	Vdc	9.6-16				
	Input Current	A	6.18	8.33	8.24	8.33	8.26
	Efficiency	%	89	90	91	90	92
	Ref. MTB	H	495,000		560,000	576,000	549,000
	Switching Frequency	kHz	125fix.				





MODEL/CHANNEL		Unit	NVD3.3-SC24-U1	NVD05-SC24-U1	NVD12-SC24-U1	NVD15-SC24-U1	NVD24-SC24-U1
	Input Voltage <b>24V</b>	Vdc	24				
	Input Voltage Range	Vdc	19~32				
	Input Current	A	3.3	4.53	4.89	4.75	5.4
	Efficiency	%	90	92	92	92	92
	Ref. MTBF	H	496,000		555,000	571,000	556,000
	Switching Frequency	kHz	125fix.				
MODEL/CHANNEL		Unit	NVD3.3-SC48-U1	NVD05-SC48-U1	NVD12-SC48-U1	NVD15-SC48-U1	NVD24-SC48-U1
	Input Voltage <b>48V</b>	Vdc	48				
	Input Voltage Range	Vdc	38V~63				
	Input Current	A	1.65	2.24	2.39	2.33	2.64
	Efficiency	%	91	93	94	94	94
	Ref. MTBF	H	554,000			569,000	562,000
	Switching Frequency	kHz	125fix.				
MODEL/CHANNEL		Unit	NVD3.3-SD-U1	NVD05-SD-U1	NVD12-SD-U1	NVD15-SD-U1	NVD24-SD-U1
	Input Voltage <b>110V</b>	Vdc	110				
	Input Voltage Range	Vdc	85~140				
	Input Current	A	0.725	0.977	1.055	1.02	1.16
	Efficiency	%	91	93	93	93	94
	Ref. MTBF	H	480,000			550,000	
	Switching Frequency	kHz	91fix.		125fix.		
MODEL/CHANNEL		Unit					
<b>Environment</b>	Operating Temperature	°C	-10 to 71°C				
	Operating Humidity	%	20-80%/RH (non-condensing)				
	Storage Temperature	°C	-20 to +85°C				
	Withstand Voltage Primary-Secondary	%	Primary-Secondary AC2,000V at 10mA for 1 minute/Primary-Frame Ground AC2,000V at 10mA for 1 minute/Secondary-Frame Ground AC1,000V at 10mA for 1 minute				
	Derating	-	3.5%/°C (50°C to 71°C)				
	Storage Humidity	-	20 to 90%/RH				
	Isolation Resistance	-	Primary-Secondary-Frame Ground 50MΩ(minimum) by DC500V insulation tester				
	Shock	-	196m/s <sup>2</sup>				
	Cooling	-	Convection				
	Vibration	-	5-10Hz: 10mm double amplitude, 10-55Hz: 19.6m/s <sup>2</sup> , 20minutes period for 30 minutes each along X, Y, Z axes(non-operating)				
Safety	-	UL60950, C-UL(CSA60950), CE					
<b>Protection</b>	Over Current Protection	A	Current Limiting				
	Over Voltage Protection	-	Latch Type (output shutdown)				
	Input Voltage Protection	-	Output shutdown when input voltage remains under the input range for 3 seconds (typ.)				
	Thermal Protection	-	Output shutdown when input voltage remains under the input range for 3 seconds (typ.)				
<b>Dimension</b>	Size(WxLxH) / Weight	mm/g	65Wx101Lx34H mm(Not include output terminal)/250g				

\* Input fuse is installed in unit

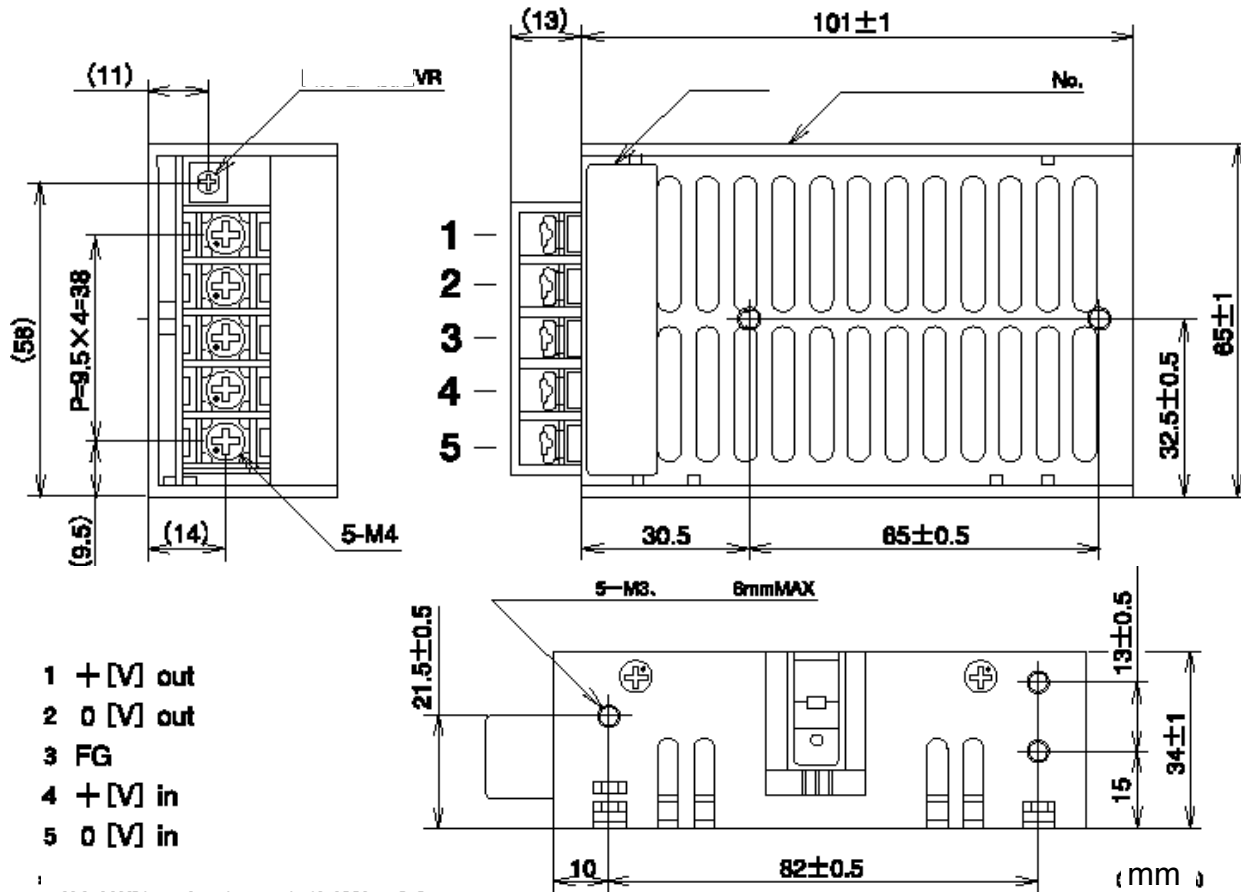
\* Common mode filter is installed at the input side of unit





## Dimension Diagram (mm)

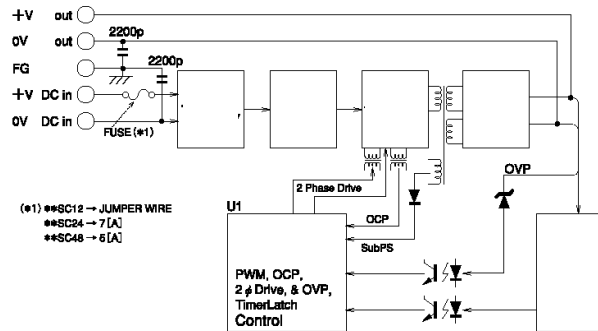
100W



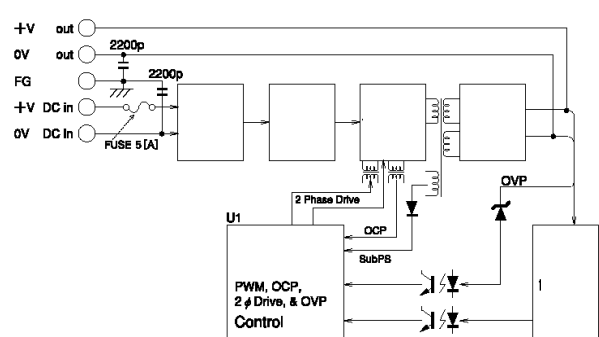
## Block Diagram

100W

### A. NVDxSCx BLOCK DIAGRAM



### B. NVDxSD BLOCK DIAGRAM

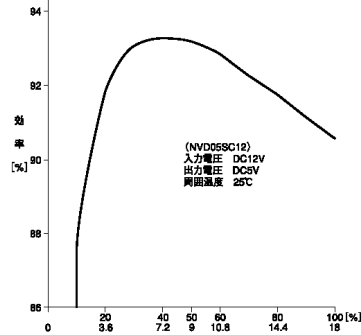




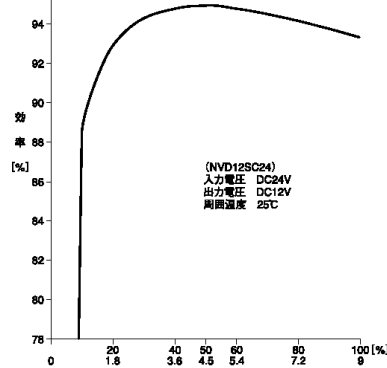
## Temperature Derating Curve

100W

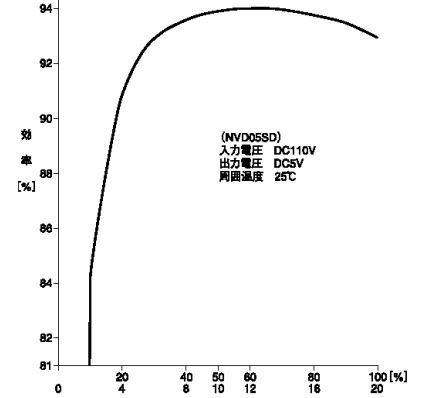
A. NVDxSC12



B. NVDxSC24



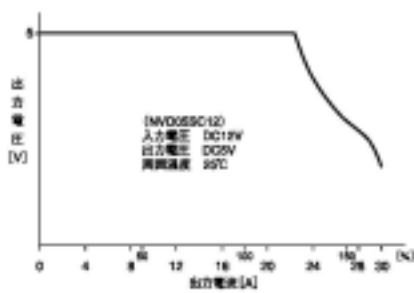
C. NVDxSD



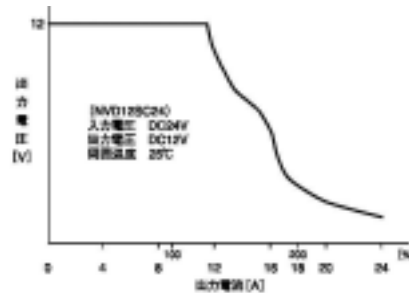
## OCP Curve

100W

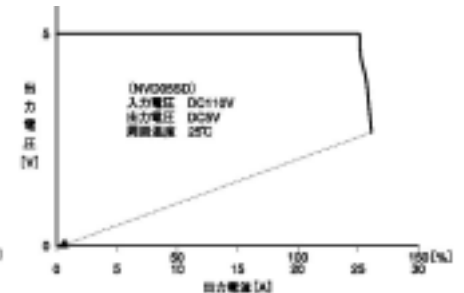
A. NVDxSC12



B. NVDxSC24



C. NVDxSD



## Temperature Derating Curve

100W

