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## **SNDHS50A**

50 A 05 ® SNDH S

CNIBLICECA





011011010101

- Series name
   Single output
   Output wattage
- (4) A : DC60-160V ⑤Output voltage

ONDUGEOUS

®Optional
 C : with Coating
 R : with Remote ON/OFF

Please refer to Instruction manual 7.

MODEL	SNDHS50A05	SNDHS50A12	SNDHS50A15	SNDHS50A24
MAX OUTPUT WATTAGE[W]	50.0	50.4	51.0	50.4
DC OUTPUT	5V 10A	12V 4.2A	15V 3.4A	24V 2.1A

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### **SPECIFICATIONS**

	MODEL		SNDHS50A05	SNDHS50A12	SNDHS50A15	SNDHS50A24			
	VOLTAGE[V]		DC60 - 160						
INPUT	CURRENT[A]	*1	0.55typ	0.55typ	0.55typ	0.55typ			
	EFFICIENCY[%]	*1	83.0typ	85.0typ	85.0typ	85.0typ			
	VOLTAGE[V]		5	12	15	24			
	CURRENT[A]		10	4.2	3.4	2.1			
	LINE REGULATION[	mV]	10max	24max	30max	48max			
	LOAD REGULATION	[mV]	150max	100max	100max	100max			
	RIPPLE[mVp-p]	0 to +95℃ *2	80max	120max	120max	120max			
		-20 to 0℃ *2	120max	150max	150max	150max			
		0 to 15% Load *2	160max	240max	240max	240max			
OUTPUT	RIPPLE NOISE[mVp-p]	0 to +95°C *2	160max	200max	200max	200max			
OUTFUT		-20 to 0°C *2	250max	280max	280max	280max			
		0 to 15% Load *2	300max	300max	300max	300max			
	TEMPERATURE REGULATION[mV]	0 to +50°C	50max	120max	150max	240max			
	TEMPERATURE REQUESTION[IIIV]	-20 to +95℃	100max	240max	300max	480max			
	DRIFT[mV]	*3	20max	40max	60max	90max			
5	START-UP TIME[ms]		200max (DCIN 110V, Io=100%)						
	OUTPUT VOLTAGE ADJUSTMENT RANGE[V] *4		4.50 - 5.50	10.80 - 13.20	13.50 - 16.50	21.60 - 26.40			
	OUTPUT VOLTAGE SETTING[V]		5.00 - 5.15	12.00 - 12.48	15.00 - 15.60	24.00 - 24.96			
	OVERCURRENT PROT	ECTION	Works over 105% of rating and recovers automatically						
PROTECTION CIRCUIT AND	OVERVOLTAGE PROTEC	CTION[V]	6.30 - 7.60	13.90 - 17.55	17.25 - 21.75	27.60 - 34.80			
OTHERS	REMOTE SENSING		None						
	REMOTE ON/OFF (R	C)	Optional (Required external power source)						
	INPUT-OUTPUT, RC	*5	AC3,000V 1minute, Cutoff of	current = 15mA, DC500V 50N	MΩ min (20±15℃)				
ISOLATION	INPUT-FG		AC2,000V 1minute, Cutoff of	current = 15mA, DC500V 50N	MΩ min (20±15℃)				
1002/111011	OUTPUT, RC-FG	*5	AC500V 1minute, Cutoff cui	rrent = 100mA, DC500V 50M	1Ω min (20±15℃)				
	OUTPUT-RC	*5	AC100V 1minute, Cutoff cut	rrent = 25mA, DC100V 10M9	Ω min (20±15℃)				
	OPERATING TEMP.,HUMID.AND A	LTITUDE *6	-20 to +95°C (Aluminum base plate	of the power module), 20 - 95%RH (	Non condensing) (Refer to DERATIN	G CURVE), 3,000m (10,000 feet) max			
ENVIRONMENT	STORAGE TEMP., HUMID. AND	ALTITUDE	-20 to +95°C, 20 - 95%RH (	Non condensing), 9,000m (3	0,000 feet) max				
LittinoniiiLiti	VIBRATION		' ''	minutes period, 60minutes ea					
	IMPACT			ce each along X, Y and Z axis	3				
SAFETY	AGENCY APPROVA		UL60950-1, C-UL, EN60950						
	CONDUCTED NOISE (at only	y DC input)	Complies with FCC-A, VCC	I-A, CISPR22-A, EN55011-A	, EN55022-A				
OTHERS	CASE SIZE/WEIGHT		61.5×44.5×150mm [2.42>	×1.75×5.91 inches] (W×H)	KD) / 270g max				
	COOLING METHOD		Conduction cooling (e.g. he	at radiation from the aluminu	m base plate to the attached	heat sink)			

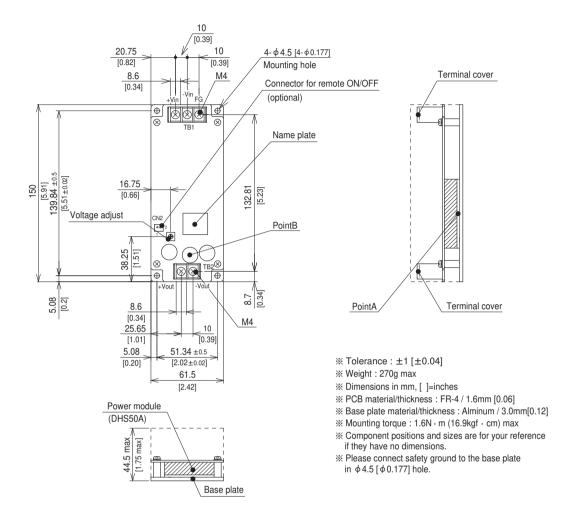
Ripple and ripple noise is measured by using measuring board with capacitor of 22 µF at 150mm [5.91 inches] from output terminal. Refer to the instruction manual 3.2.

Drift is the change in DC output for an eight hour period after a half-hour warm-up at 25°C, with the input voltage held constant at the rated input/output.

Refer to the instruction manual 4.6.

Applicable when remote control (optional) is added. Refer to the instruction manual 6.2.



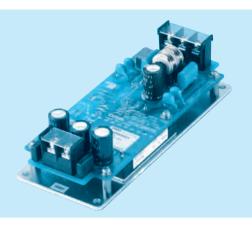


## SNDHS100A

100 A 6 SNDH S

SNDHS100A15





SNDHS100A05

Series name
 Single output
 Output wattage

(4) A : DC60-160V ⑤Output voltage

SNDHS100A24

®Optional
 C : with Coating
 R : with Remote ON/OFF

Please refer to Instruction manual 7.

MODEL	SNDHS100A05	SNDHS100A12	SNDHS100A15	SNDHS100A24
MAX OUTPUT WATTAGE[W]	100.0	100.8	100.5	100.8
DC OUTPUT	5V 20A	12V 8.4A	15V 6.7A	24V 4.2A

SNDHS100A12

### **SPECIFICATIONS**

MODEL

	MODEL		SINDIISTUUAUS	SNUHSTOUATZ	SINDIISTUUATS	SNUHS 100A24			
	VOLTAGE[V]		DC60 - 160						
INPUT	CURRENT[A]	*1	1.1typ	1.1typ	1.1typ	1.1typ			
	EFFICIENCY[%] *1		84.0typ	87.0typ	87.0typ	87.0typ			
	VOLTAGE[V]		5	12	15	24			
	CURRENT[A]		20	8.4	6.7	4.2			
	LINE REGULATION[	mV]	10max	24max	30max	48max			
	LOAD REGULATION	[mV]	150max	100max	100max	100max			
	RIPPLE[mVp-p]	0 to +95℃ *2	80max	120max	120max	120max			
		-20 to 0°C *2	120max	150max	150max	150max			
		0 to 15% Load *2	160max	240max	240max	240max			
OUTPUT		0 to +95℃ *2	160max	200max	200max	200max			
OUIPUI	RIPPLE NOISE[mVp-p]	-20 to 0°C *2	250max	280max	280max	280max			
		0 to 15% Load *2	300max	300max	300max	300max			
	TEMPERATURE REGULATION[mV]	0 to +50°C	50max	120max	150max	240max			
	TEMPERATURE REGULATION[IIIV]	-20 to +95℃	100max	240max	300max	480max			
	DRIFT[mV] *3		20max	40max	60max	90max			
-	START-UP TIME[ms]		200max (DCIN 110V, Io=100%)						
	OUTPUT VOLTAGE ADJUSTMENT RANGE[V] *4		4.50 - 5.50	10.80 - 13.20	13.50 - 16.50	21.60 - 26.40			
	OUTPUT VOLTAGE SETTING[V]		5.00 - 5.15	12.00 - 12.48	15.00 - 15.60	24.00 - 24.96			
	OVERCURRENT PROTECTION		Works over 105% of rating and recovers automatically						
PROTECTION CIRCUIT AND	OVERVOLTAGE PROTE	CTION[V]	6.30 - 7.60	13.90 - 17.55	17.25 - 21.75	27.60 - 34.80			
OTHERS	REMOTE SENSING		None						
	REMOTE ON/OFF (R	C)	Optional (Required external power source)						
	INPUT-OUTPUT, RC	*5	AC3,000V 1 minute, Cutoff current = 15mA, DC500V 50M $\Omega$ min (20±15 $^{\circ}$ C)						
ISOLATION	INPUT-FG		AC2,000V 1minute, Cutoff of	current = 15mA, DC500V 50N	IΩ min (20±15℃)				
IOOLATION	OUTPUT, RC-FG	*5	AC500V 1minute, Cutoff current = 100mA, DC500V 50M $\Omega$ min (20±15 $^{\circ}$ C)						
	OUTPUT-RC	*5	AC100V 1minute, Cutoff cui	rrent = 25mA, DC100V 10M9	2 min (20±15℃)				
	OPERATING TEMP.,HUMID.AND A	LTITUDE *6	-20 to +95°C (Aluminum base plate	of the power module), 20 - 95%RH (I	Non condensing) (Refer to DERATING	G CURVE), 3,000m (10,000 feet) max			
ENVIRONMENT	STORAGE TEMP., HUMID. AND	ALTITUDE	-20 to +95°C, 20 - 95%RH (	Non condensing), 9,000m (30	0,000 feet) max				
LITTINONINEITI	VIBRATION		10 - 55Hz, 19.6m/s <sup>2</sup> (2G), 3	Bminutes period, 60minutes e	ach along X, Y and Z axis				
	IMPACT		196.1m/s² (20G), 11ms, onc	ce each along X, Y and Z axis	<u> </u>				
SAFETY	AGENCY APPROVA	LS	UL60950-1, C-UL, EN60950	0-1					
	CONDUCTED NOISE (at only			I-A, CISPR22-A, EN55011-A	•				
OTHERS	CASE SIZE/WEIGHT		•	K1.75 X 5.91 inches] (W X H X	, ,				
	COOLING METHOD		Conduction cooling (e.g. he	at radiation from the aluminu	m base plate to the attached	heat sink)			

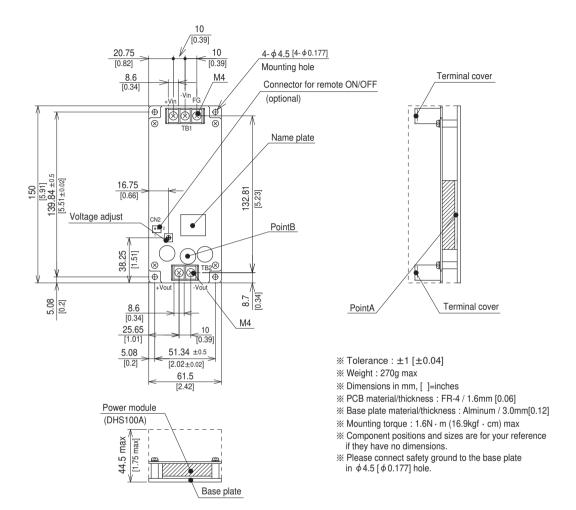
Ripple and ripple noise is measured by using measuring board with capacitor of 22 µF at 150mm [5.91 inches] from output terminal. Refer to the instruction manual 3.2.

Drift is the change in DC output for an eight hour period after a half-hour warm-up at 25°C, with the input voltage held constant at the rated input/output.

Refer to the instruction manual 4.6.

Applicable when remote control (optional) is added. Refer to the instruction manual 6.2.





# SNDHS200A

200 A § SNDH S

SNDHS200A15



eco



**SNDHS200A05** 

Series name
 Single output
 Output wattage

(A) A: DC60-160V ⑤Output voltage

SNDHS200A24

®Optional
 C : with Coating
 R : with Remote ON/OFF

Please refer to Instruction manual 7.

MODEL	SNDHS200A05	SNDHS200A12	SNDHS200A15	SNDHS200A24
MAX OUTPUT WATTAGE[W]	200.0	200.4	201.0	201.6
DC OUTPUT	5V 40A	12V 16.7A	15V 13.4A	24V 8.4A

SNDHS200A12

### **SPECIFICATIONS**

MODEL

	VOLTAGE[V]			DC60 - 160					
INPUT	CURRENT[A]	*1	2.1typ	2.1typ	2.1typ	2.1typ			
	EFFICIENCY[%]	*1	87.0typ	87.0typ	87.0typ	87.0typ			
•	VOLTAGE[V]		5	12	15	24			
	CURRENT[A]		40	16.7	13.4	8.4			
	LINE REGULATION[mV]		10max	24max	30max	48max			
	LOAD REGULATION[mV]		150max	100max	100max	100max			
		0 to +95℃ *2	80max	120max	120max	120max			
	RIPPLE[mVp-p]	-20 to 0°C *2	120max	150max	150max	150max			
		0 to 15% Load *2	160max	240max	240max	240max			
OUTDUT		0 to +95°C *2	160max	200max	200max	200max			
OUTPUT	RIPPLE NOISE[mVp-p]	-20 to 0°C *2	250max	280max	280max	280max			
		0 to 15% Load *2	300max	300max	300max	300max			
	TEMPERATURE REQUIRATIONS	0 to +50°C	50max	120max	150max	240max			
	TEMPERATURE REGULATION[mV]	-20 to +95℃	100max	240max	300max	480max			
	DRIFT[mV] *3		20max	40max	60max	90max			
	START-UP TIME[ms]		200max (DCIN 110V, Io=100%)						
	OUTPUT VOLTAGE ADJUSTMENT RANGE[V] *4		4.50 - 5.50	10.80 - 13.20	13.50 - 16.50	21.60 - 26.40			
	OUTPUT VOLTAGE SETTING[V]		5.00 - 5.15	12.00 - 12.48	15.00 - 15.60	24.00 - 24.96			
•	OVERCURRENT PROTECTION		Works over 105% of rating and recovers automatically						
PROTECTION CIRCUIT AND	OVERVOLTAGE PROTEC	CTION[V]	6.30 - 7.60	13.90 - 16.35	17.25 - 20.25	27.60 - 32.40			
OTHERS	REMOTE SENSING		Provided						
	REMOTE ON/OFF (R	C)	Optional (Required external power source)						
	INPUT-OUTPUT, RC	*5	AC3,000V 1minute, Cutoff of	current = 15mA, DC500V 50N	MΩ min (20±15℃)				
ISOLATION	INPUT-FG		AC2,000V 1minute, Cutoff of	current = 15mA, DC500V 50N	MΩ min (20±15℃)				
ISOLATION	OUTPUT, RC-FG	*5	AC500V 1minute, Cutoff cui	rrent = 100mA, DC500V 50M	IΩ min (20±15℃)				
	OUTPUT-RC	*5	AC100V 1minute, Cutoff cui	rrent = 25mA, DC100V 10Ms	Ω min (20±15℃)				
	OPERATING TEMP.,HUMID.AND A	LTITUDE *6	-20 to +95°C (Aluminum base plate	of the power module), 20 - 95%RH (	Non condensing) (Refer to DERATING	G CURVE), 3,000m (10,000 feet) max			
ENVIRONMENT	STORAGE TEMP.,HUMID.AND	ALTITUDE	-20 to +95°C, 20 - 95%RH (	Non condensing), 9,000m (3	0,000 feet) max				
LINVINONIMENT	VIBRATION		10 - 55Hz, 19.6m/s² (2G), 3	minutes period, 60minutes e	ach along X, Y and Z axis				
	IMPACT		196.1m/s² (20G), 11ms, onc	ce each along X, Y and Z axis	S				
SAFETY	AGENCY APPROVA	LS	UL60950-1, C-UL, EN60950	0-1					
	CONDUCTED NOISE (at only	<u> </u>	Complies with FCC-A, VCC	I-A, CISPR22-A, EN55011-A	, EN55022-A				
OTHERS	CASE SIZE/WEIGHT			×1.75×5.91 inches](W×H×	, •				
	COOLING METHOD		Conduction cooling (e.g. he	at radiation from the aluminu	m base plate to the attached	heat sink)			

At rated input(DC110V) and rated load.

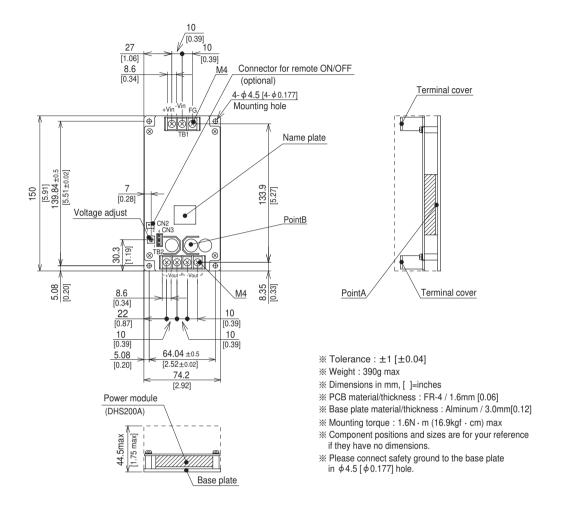
Ripple and ripple noise is measured by using measuring board with capacitor of 22 µF at 150mm [5.91 inches] from output terminal.

Refer to the instruction manual 3.2. Drift is the change in DC output for an eight hour period after a half-hour warm-up at 25°C, with the input voltage held constant at the rated input/output.

Refer to the instruction manual 4.6.

Applicable when remote control (optional) is added. Refer to the instruction manual 6.2.





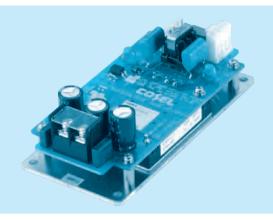
## SNDHS50B

Ordering information

50 SNDH

**c™**us (D) ( ∈ **RoHS** 

eco



- 1) Series name 2) Single output 3) Output wattage 4) B: DC200-400V 5) Output voltage
- ®Optional
   C : with Coating
   R : with a function not to need
  - external power source

MODEL	SNDHS50B03	SNDHS50B05	SNDHS50B12	SNDHS50B15	SNDHS50B24	SNDHS50B28
MAX OUTPUT WATTAGE[W]	33.0	50.0	50.4	51.0	50.4	50.4
DC OUTPUT	3.3V 10A	5V 10A	12V 4.2A	15V 3.4A	24V 2.1A	28V 1.8A

### **SPECIFICATIONS**

	MODEL		SNDHS50B03	SNDHS50B05	SNDHS50B12	SNDHS50B15	SNDHS50B24	SNDHS50B28	
INPUT	VOLTAGE[V]		DC200 - 400 (Pre	pare another power	r supply to the RC1	terminal *5)			
	CURRENT[A]	*1	0.15typ	0.22typ	0.22typ	0.22typ	0.22typ	0.22typ	
	EFFICIENCY[%]	*1	76.0typ	79.0typ	82.0typ	82.0typ	82.0typ	82.0typ	
	VOLTAGE[V]		3.3	5	12	15	24	28	
	CURRENT[A]		10	10	4.2	3.4	2.1	1.8	
	LINE REGULATION[mV]		10max	10max	24max	30max	48max	56max	
	LOAD REGULATION[mV]		150max	150max	100max	100max	100max	100max	
		0 to +95℃ *2	80max	80max	120max	120max	120max	120max	
	RIPPLE[mVp-p]	-20 to 0°C *2	120max	120max	150max	150max	150max	150max	
		0 to 15% Load *2	160max	160max	240max	240max	240max	240max	
DUTPUT		0 to +95℃ *2	160max	160max	200max	200max	200max	200max	
DOTPOT	RIPPLE NOISE[mVp-p] TEMPERATURE REGULATION[mV]	-20 to 0°C *2	250max	250max	280max	280max	280max	280max	
		0 to 15% Load *2	300max	300max	300max	300max	300max	300max	
		0 to +50°C	35max	50max	120max	150max	240max	280max	
	TEMPERATURE REGULATION[MV]	-20 to +95°C	66max	100max	240max	300max	480max	560max	
<b>⊢</b>	DRIFT[mV]	*3	16max	20max	40max	60max	90max	90max	
	START-UP TIME[ms]		200max (DCIN 280V, Io=100%)						
	OUTPUT VOLTAGE ADJUSTMENT RANGE[V] *4		2.97 - 3.63	4.50 - 5.50	10.80 - 13.20	13.50 - 16.50	21.60 - 26.40	25.20 - 30.80	
	OUTPUT VOLTAGE SET	TING[V]	3.30 - 3.40	5.00 - 5.15	12.00 - 12.48	15.00 - 15.60	24.00 - 24.96	28.00 - 29.12	
	OVERCURRENT PROT	ECTION	Works over 105% of rating and recovers automatically						
PROTECTION CIRCUIT AND	OVERVOLTAGE PROTEC	CTION[V]	4.20 - 5.70	6.30 - 7.60	13.90 - 17.55	17.25 - 21.75	27.60 - 34.80	32.20 - 40.60	
THERS	REMOTE SENSING		None						
	REMOTE ON/OFF (R	C1) *6	Provided (Logic H : ON, L :OFF) Required external power source						
	INPUT-OUTPUT, RC2	2 *8	AC3,000V 1minut	e, Cutoff current = 1	10mA, DC500V 50N	<i>I</i> Ω min (20±15℃)			
SOLATION	INPUT-FG		AC2,000V 1minute, Cutoff current = 10mA, DC500V 50M $\Omega$ min (20±15 $^{\circ}$ C)						
SOLATION	OUTPUT, RC2-FG	*8	AC500V 1minute, Cutoff current = 100mA, DC500V 50M $\Omega$ min (20±15°C)						
	OUTPUT-RC2	*8	AC100V 1minute,	Cutoff current = 25	mA, DC100V 10M	Ω min (20±15℃)			
	OPERATING TEMP.,HUMID.AND A	LTITUDE *7	-20 to +95°C (Aluminur	n base plate of the powe	r module), 20 - 95%RH (	Non condensing) (Refer	to DERATING CURVE),	3,000m (10,000 feet) r	
NVIDONMENT	STORAGE TEMP., HUMID. AND	ALTITUDE	-20 to +95°C, 20 -	95%RH (Non cond	lensing), 9,000m (3	0,000 feet) max			
NVIRONMENT	VIBRATION		10 - 55Hz, 19.6m/	s² (2G), 3minutes p	eriod, 60minutes e	ach along X, Y and	Z axis		
	IMPACT		196.1m/s² (20G),	11ms, once each al	long X, Y and Z axis	3			
SAFETY	AGENCY APPROVA	LS	UL60950-1, C-UL	, EN60950-1					
OTHERS	CASE SIZE/WEIGHT		61.5×44.5×127r	nm [2.42×1.75×5	.0 inches] (WXHX	D) / 220g max			
OTHERS	COOLING METHOD		Conduction coolin	g (e.g. heat radiatio	on from the aluminu	m base plate to the	attached heat sink	<u>.)</u>	

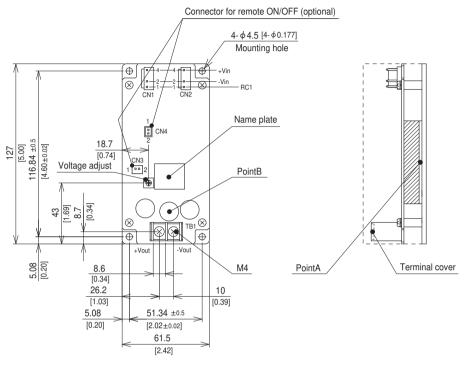
Refer to the instruction manual 4.4

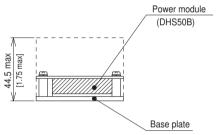
Refer to the instruction manual 6.2

"RC2" is applicable to an option not to need external power source.

- At rated input(DC280V) and rated load.
- Ripple and ripple noise is measured by using measuring board with capacitor of 22 µ F at 150mm [5.91 inches] from output terminal. Refer to the instruction manual 3.2.
- Drift is the change in DC output for an eight hour period after a half-hour warm-up at  $25^{\circ}$ C, with the input voltage held constant at the rated input/output. Refer to the instruction manual 4.6.
- Refer to the instruction manual 2, 4.4



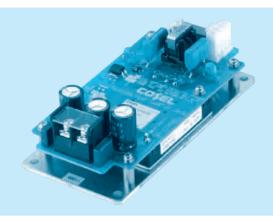




- \* Tolerance : ±1 [±0.04]
- ※ Weight : 220g max
- ※ PCB material/thickness: FR-4 / 1.6mm [0.06]
- \*\* Base plate material/thickness : Alminum / 3.0mm[0.12]
- Screw tightening torque : 1.6N ⋅ m (16.9kgf ⋅ cm) max
- \* Component positions and sizes are for your reference if they have no dimensions.
- \* Please connect safety ground to the base plate in  $\phi 4.5 [\phi 0.177]$  hole.

## SNDHS100B





SNDHS100B03

①Series name
②Single output
③Output wattage
④B: DC200-400V
⑤Output voltage
⑥Optional
C: with Coating
R: with a function not to need

R: with a function not to nee external power source

MODEL	SNDHS100B03	SNDHS100B05	SNDHS100B12	SNDHS100B15	SNDHS100B24	SNDHS100B28
MAX OUTPUT WATTAGE[W]	66.0	100.0	100.8	100.5	100.8	100.8
DC OUTPUT	3.3V 20A	5V 20A	12V 8.4A	15V 6.7A	24V 4.2A	28V 3.6A

### **SPECIFICATIONS**

MODEL

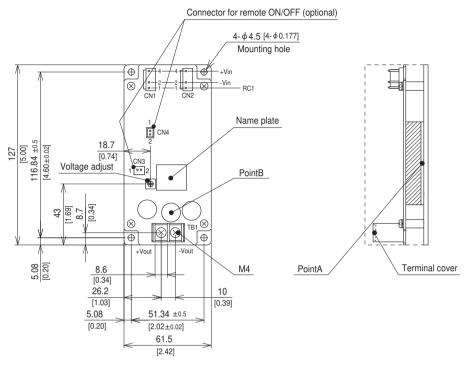
			0	0.12.10.00200	0	0.12.10.102.10	0.12.10.1022.	0.12.10.100220	
	VOLTAGE[V]		DC200 - 400 (Pre	pare another power	supply to the RC1	terminal *5)			
INPUT	CURRENT[A]	*1	0.30typ	0.44typ	0.42typ	0.42typ	0.42typ	0.42typ	
	EFFICIENCY[%]	*1	78.0typ	81.0typ	84.0typ	85.0typ	85.0typ	85.0typ	
	VOLTAGE[V]		3.3	5	12	15	24	28	
	CURRENT[A]		20	20	8.4	6.7	4.2	3.6	
	LINE REGULATION[mV]		10max	10max	24max	30max	48max	56max	
	LOAD REGULATION	[mV]	150max	150max	100max	100max	100max	100max	
	RIPPLE[mVp-p]	0 to +95℃ *2	80max	80max	120max	120max	120max	120max	
		-20 to 0°C *2	120max	120max	150max	150max	150max	150max	
		0 to 15% Load *2	160max	160max	240max	240max	240max	240max	
OUTDUT	RIPPLE NOISE[mVp-p]	0 to +95°C *2	160max	160max	200max	200max	200max	200max	
OUTPUT		-20 to 0°C *2	250max	250max	280max	280max	280max	280max	
		0 to 15% Load *2	300max	300max	300max	300max	300max	300max	
	TEMPERATURE REGULATION[mV]	0 to +50℃	35max	50max	120max	150max	240max	280max	
	TEMPERATURE REGULATION[IIIV]	-20 to +95℃	66max	100max	240max	300max	480max	560max	
	DRIFT[mV]	*3	16max	20max	40max	60max	90max	90max	
•	START-UP TIME[ms]		200max (DCIN 28	0V, Io=100%)					
	OUTPUT VOLTAGE ADJUSTMENT RANGE[V] *4		2.97 - 3.63	4.50 - 5.50	10.80 - 13.20	13.50 - 16.50	21.60 - 26.40	25.20 - 30.80	
	OUTPUT VOLTAGE SETTING[V]		3.30 - 3.40	5.00 - 5.15	12.00 - 12.48	15.00 - 15.60	24.00 - 24.96	28.00 - 29.12	
	OVERCURRENT PROT	ECTION	Works over 105% of rating and recovers automatically						
PROTECTION CIRCUIT AND	OVERVOLTAGE PROTEC	CTION[V]	4.20 - 5.70	6.30 - 7.60	13.90 - 17.55	17.25 - 21.75	27.60 - 34.80	32.20 - 40.60	
OTHERS	REMOTE SENSING		None						
	REMOTE ON/OFF (R	(C1) *6	Provided (Logic H : ON, L :OFF) Required external power source						
	INPUT-OUTPUT, RC2	2 *8	AC3,000V 1minut	e, Cutoff current = 1	0mA, DC500V 50N	<i>I</i> Ω min (20±15℃)			
ISOLATION	INPUT-FG		AC2,000V 1minut	e, Cutoff current = 1	0mA, DC500V 50N	<i>I</i> Ω min (20±15℃)			
ISOLATION	OUTPUT, RC2-FG	*8	AC500V 1minute, Cutoff current = 100mA, DC500V 50M $\Omega$ min (20±15 $^{\circ}$ C)						
	OUTPUT-RC2	*8	AC100V 1minute,	Cutoff current = 25	mA, DC100V 10M9	Ω min (20±15℃)			
	OPERATING TEMP.,HUMID.AND A	LTITUDE *7	-20 to +95°C (Aluminur	n base plate of the power	r module), 20 - 95%RH (	Non condensing) (Refer to	to DERATING CURVE),	3,000m (10,000 feet) max	
ENVIRONMENT	STORAGE TEMP.,HUMID.AND	ALTITUDE	-20 to +95°C, 20 -	95%RH (Non cond	ensing), 9,000m (3	0,000 feet) max			
F14411 (OldMIEI41	VIBRATION		10 - 55Hz, 19.6m/	s² (2G), 3minutes p	period, 60minutes e	ach along X, Y and	Z axis		
	IMPACT		196.1m/s² (20G),	11ms, once each al	ong X, Y and Z axis	5			
SAFETY	AGENCY APPROVA	LS	UL60950-1, C-UL	, EN60950-1					
OTHERS	CASE SIZE/WEIGHT		61.5×44.5×127r	nm [2.42×1.75×5.	0 inches] (WXHX	D) / 220g max			
	COOLING METHOD		Conduction coolin	g (e.g. heat radiatio	n from the aluminu	m base plate to the	attached heat sink	)	

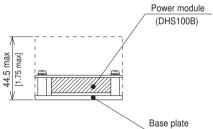
- \*1 At rated input(DC280V) and rated load.
- Ripple and ripple noise is measured by using measuring board with capacitor of 22 µ F at 150mm [5.91 inches] from output terminal.
- Refer to the instruction manual 3.2.

  \*3 Drift is the change in DC output for an eight hour period after a half-hour warm-up at 25°C, with the input voltage held constant at the rated input/output.
- Refer to the instruction manual 4.6.
- \*5 Refer to the instruction manual 2, 4.4

- \*6 Refer to the instruction manual 4.4
- \*7 Refer to the instruction manual 6.2
- "RC2" is applicable to an option not to need external power source.







- X Tolerance : ±1 [±0.04]
- ※ Weight: 220g max
- ※ Dimensions in mm, [ ]=inches
- PCB material/thickness: FR-4 / 1.6mm [0.06]
- Base plate material/thickness: Alminum / 3.0mm[0.12]
- Screw tightening torque: 1.6N ⋅ m (16.9kgf ⋅ cm) max
- \* Component positions and sizes are for your reference
- if they have no dimensions.
   ※ Please connect safety ground to the base plate in φ4.5 [φ0.177] hole.

SNDHS250B03 SNDHS250B05 SNDHS250B07 SNDHS250B12 SNDHS250B15 SNDHS250B24 SNDHS250B28 SNDHS250B48

## SNDHS250B

250 SNDH S





- Series name
   Single output
   Output wattage
- (4)B: DC200-400V
- ⑤Output voltage
- Optional
   C: with Coating
   R: with a function not to need external power source

MODEL SNDHS250B03 | SNDHS250B05 | SNDHS250B07 | SNDHS250B12 | SNDHS250B15 | SNDHS250B24 | SNDHS250B28 | SNDHS250B48 MAX OUTPUT WATTAGE[W] 165.0 250.0 247.5 252.0 247.5 252.0 252.0 249.6 DC OUTPUT 3.3V 50A 5V 50A 7.5V 33A 48V 5.2A 12V 21A 15V 16.5A 24V 10.5A 28V 9.0A

### **SPECIFICATIONS**

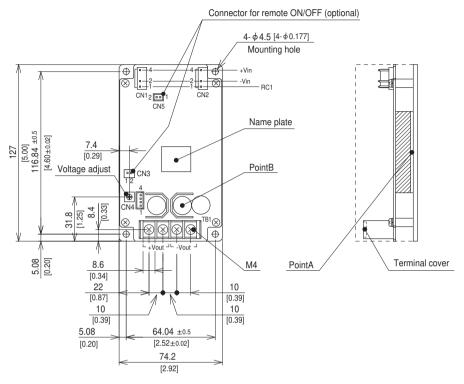
MODEL

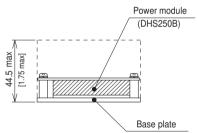
	MODEL		3110113230003	3110113230003	3110113230007	3110113230012	3110113230013	3110113230024	3110113230120	3110113230040
	VOLTAGE[V]		DC200 - 400	(Prepare anoth	ner power supp	oly to the RC1	erminal *5)			
INPUT	CURRENT[A]	*1	0.67typ	1.0typ	1.0typ	1.0typ	1.0typ	1.0typ	1.0typ	1.0typ
OUTPUT  PROTECTION CIRCUIT AND OTHERS  ISOLATION  ENVIRONMENT  SAFETY  OTHERS	EFFICIENCY[%]	*1	86.0typ	88.0typ	86.0typ	86.0typ	86.0typ	86.0typ	86.0typ	87.0typ
	VOLTAGE[V]		3.3	5	7.5	12	15	24	28	48
	CURRENT[A]		50	50	33	21	16.5	10.5	9.0	5.2
	LINE REGULATION[mV]		10max	10max	20max	24max	30max	48max	56max	96max
	LOAD REGULATION	LOAD REGULATION[mV]		150max	150max	100max	100max	100max	100max	100max
		0 to +95℃ *2	80max	80max	100max	120max	120max	120max	120max	200max
	RIPPLE[mVp-p]	-20 to 0°C *2	120max	120max	130max	150max	150max	150max	150max	250max
		0 to 15% Load *2	160max	160max	200max	240max	240max	240max	240max	400max
OUTDUT		0 to +95℃ *2	160max	160max	200max	200max	200max	200max	200max	250max
OUTPUT	RIPPLE NOISE[mVp-p]	-20 to 0°C *2	250max	250max	280max	280max	280max	280max	280max	400max
		0 to 15% Load *2	300max	300max	300max	300max	300max	300max	300max	500max
	TEMPERATURE REQUIRATIONS	0 to +50°C	35max	50max	70max	120max	150max	240max	280max	480max
	TEMPERATURE REGULATION[MV]	-20 to +95°C	66max	100max	140max	240max	300max	480max	560max	960max
	DRIFT[mV] *3		16max	20max	30max	40max	60max	90max	90max	180max
<b>⊢</b>	START-UP TIME[ms]		200max (DCIN 280V, Io=100%)							
	OUTPUT VOLTAGE ADJUSTMENT RANGE[V] *4		2.97 - 3.63	4.50 - 5.50	6.75 - 8.25	10.80 - 13.20	13.50 - 16.50	21.60 - 26.40	25.20 - 30.80	43.20 - 52.80
	OUTPUT VOLTAGE SET	TING[V]	3.30 - 3.40	5.00 - 5.15	7.50 - 7.80	12.00 - 12.48	15.00 - 15.60	24.00 - 24.96	28.00 - 29.12	48.00 - 49.92
	OVERCURRENT PROT	ECTION	Works over 105% of rating and recovers automatically							
	OVERVOLTAGE PROTEC	CTION[V]	4.20 - 4.85	6.30 - 7.30	8.70 - 10.20	13.90 - 16.35	17.25 - 20.25	27.60 - 32.40	32.20 - 37.80	55.20 - 64.80
	REMOTE SENSING		Provided							
	REMOTE ON/OFF (R	C1) *6	Provided (Log	gic H : ON, L :0	OFF) Required	external powe	r source			
	INPUT-OUTPUT, RC2	2 *8	AC3,000V 1n	ninute, Cutoff o	urrent = 10mA	, DC500V 50M	$\Omega$ min (20±1	5℃)		
ISOL ATION	INPUT-FG		AC2,000V 1n	ninute, Cutoff o	urrent = 10mA	, DC500V 50M	$\Omega$ min (20±1	5℃)		
ISOLATION	OUTPUT, RC2-FG	*8	AC500V 1minute, Cutoff current = 100mA, DC500V 50M $\Omega$ min (20±15 $^{\circ}$ C)							
	OUTPUT-RC2	*8	AC100V 1mir	nute, Cutoff cur	rent = 25mA, I	DC100V 10MΩ	! min (20±15℃	C)		
	OPERATING TEMP.,HUMID.AND A	LTITUDE *7	-20 to +95°C (Alu	minum base plate	of the power modu	le), 20 - 95%RH (N	lon condensing) (F	Refer to DERATING	G CURVE), 3,000m	(10,000 feet) max
ENVIRONMENT	STORAGE TEMP.,HUMID.AND	ALTITUDE	-20 to +95℃,	20 - 95%RH (	Non condensin	ıg), 9,000m (30	,000 feet) max			
LIVIIIONIILIVI	VIBRATION		10 - 55Hz, 19	.6m/s² (2G), 3ı	minutes period	, 60minutes ea	ch along X, Y	and Z axis		
	VOLTAGE[V]   CURRENT[A]   LINE REGULATION[mV]   LOAD REGULATION[mV]   RIPPLE[mVp-p]		196.1m/s² (20	OG), 11ms, onc	e each along >	K, Y and Z axis				
SAFETY	AGENCY APPROVA	LS	UL60950-1, 0	C-UL, EN60950	)-1					
OTHERS	CASE SIZE/WEIGHT		74.2×44.5×	127mm [2.92>	< 1.75 × 5.0 inc	hes](W×H×D	) / 310g max			
	COOLING METHOD		Conduction c	ooling (e.g. hea	at radiation fro	m the aluminur	n base plate to	the attached h	neat sink)	

- At rated input(DC280V) and rated load.
- Ripple and ripple noise is measured by using measuring board with capacitor of 22 µ F at 150mm [5.91 inches] from output terminal.
- Refer to the instruction manual 3.2. Drift is the change in DC output for an eight hour period after a half-hour warm-up at  $25\,^{\circ}\!\!\mathrm{C}$ , with the input voltage held constant at the rated input/output.
- Refer to the instruction manual 4.6.
- Refer to the instruction manual 2, 4.4

- Refer to the instruction manual 4.4
- Refer to the instruction manual 6.2
- "RC2" is applicable to an option not to need external power source.







- % Tolerance : ±1 [±0.04]
- ※ Weight: 310g max
- \* Dimensions in mm, [ ]=inches
- ※ PCB material/thickness: FR-4 / 1.6mm [0.06]
- Base plate material/thickness: Alminum / 3.0mm[0.12]
- Screw tightening torque: 1.6N⋅m (16.9kgf ⋅ cm) max
- \*\* Component positions and sizes are for your reference if they have no dimensions.
- % Please connect safety ground to the base plate in  $\phi 4.5 [\phi 0.177]$  hole.