SNDHS50A05

SNDHS50A

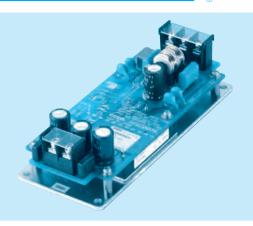
Ordering information

SNDH S

50 A 05

SNDHS50A15





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

SNDHS50A24

- ®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

SNDHS50A12

SPECIFICATIONS

MODEL

	MODEL		SINDIGOUAUS	SNDHSSUATZ	SNUCCOUNTS	SNDHSSUAZ4		
	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		
		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		
OUTPUT		0 to +95℃ *2	160max	200max	200max	200max		
OUIFUI	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[IIV]	-20 to +95℃	100max	240max	300max	480max		
	DRIFT[mV]	*3	20max	40max	60max	90max		
	START-UP TIME[ms]		200max (DCIN 110V, Io=10	0%)				
	OUTPUT VOLTAGE ADJUSTMENT R	RANGE[V] *4	4.50 - 5.50	10.80 - 13.20	13.50 - 16.50	21.60 - 26.40		
	OUTPUT VOLTAGE SET	TING[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 a	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	IΩ min (20±15℃)			
ISOLATION	INPUT-FG							
	OUTPUT, RC-FG	*5	AC500V 1minute, Cutoff current = 100mA, DC500V 50M Ω min (20±15 $^{\circ}$ C)					
	OUTPUT-RC		· · · · · · · · · · · · · · · · · · ·		,			
	OPERATING TEMP.,HUMID.AND A		,	1 // (O/ (G CURVE), 3,000m (10,000 feet) max		
ENVIRONMENT	STORAGE TEMP., HUMID. AND	ALTITUDE	, ,	0// / \	· · · · · · · · · · · · · · · · · · ·			
	VIBRATION		, ,,,		<u> </u>			
	IMPACT			max 200max 200max 200max max 280max 280max 280max max 300max 300max 300max ax 120max 150max 240max max 240max 300max 480max ax 40max 60max 90max max (DCIN 110V, Io=100%) -5.50 10.80 - 13.20 13.50 - 16.50 21.60 - 26.40 -5.15 12.00 - 12.48 15.00 - 15.60 24.00 - 24.96 ks over 105% of rating and recovers automatically -7.60 13.90 - 17.55 17.25 - 21.75 27.60 - 34.80 e conal (Required external power source) 000V 1minute, Cutoff current = 15mA, DC500V 50MΩ min (20±15°C) 000V 1minute, Cutoff current = 15mA, DC500V 50MΩ min (20±15°C) 00V 1minute, Cutoff current = 25mA, DC100V 10MΩ min (20±15°C) 00V 1 minute, Cutoff current = 25mA, DC100V 10MΩ min (20±15°C) 00V 1minute, Cutoff current = 25mA, DC100V 10MΩ min (20±15°C) +95°C (Aluminum base plate of the power module), 20 - 95%RH (Non condensing) (Refer to DERATING CURVE), 3,000m (10,000 for +95°C, 20 - 95%RH (Non condensing), 9,000m (30,000 feet) max 55Hz, 19.6m/s² (2G), 3minutes period, 60minutes each along X, Y and Z axis				
SAFETY	AGENCY APPROVA		UL60950-1, C-UL, EN60950					
	CONDUCTED NOISE (at only							
OTHERS	CASE SIZE/WEIGHT		•		, ,			
-	COOLING METHOD		Conduction cooling (e.g. he	at radiation from the aluminu	m base plate to the attached	heat sink)		
and the second of the second		. 1						

SNDHS-2

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

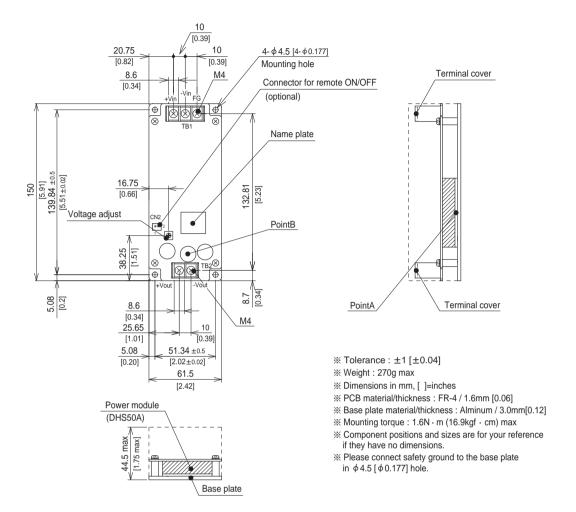
Refer to the instruction manual 3.2.

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 5 SNDH S

SNDHS100A15







SNDHS100A05

 Series name
 Single output
 Output wattage (4) A : DC60-160V ⑤Output voltage ®Optional
 C : with Coating
 R : with Remote ON/OFF

Please refer to Instruction manual 7.

SNDHS100A24

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

	INIODEL		SINDIISTIUAUS	SNUHSTOUATZ	SNURSTOUATS	SNDH3100AZ4			
	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			
		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			
OUTPUT		0 to +95℃ *2	160max	200max	200max	200max			
OUIFUI	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℃	50max	120max	150max	240max			
	TEMPERATURE REGULATION[IIV]	-20 to +95℃	100max	240max	300max	480max			
	DRIFT[mV]	*3	20max	40max	60max	90max			
	START-UP TIME[ms]		200max (DCIN 110V, Io=10	0%)					
	OUTPUT VOLTAGE ADJUSTMENT F	ANGE[V] *4	4.50 - 5.50	10.80 - 13.20	13.50 - 16.50	21.60 - 26.40			
	OUTPUT VOLTAGE SET	TING[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)	1				
	INPUT-OUTPUT, RC	*5	AC3,000V 1minute, Cutoff of	current = 15mA, DC500V 50N	IΩ min (20±15°C)				
ISOLATION	INPUT-FG			current = 15mA, DC500V 50N					
	OUTPUT, RC-FG	*5	AC500V 1minute, Cutoff cur	rrent = 100mA, DC500V 50M	Ω min (20±15°C)				
	OUTPUT-RC	*5	· · · · · · · · · · · · · · · · · · ·		,				
	OPERATING TEMP.,HUMID.AND A		,	1 // (O/ (G CURVE), 3,000m (10,000 feet) max			
ENVIRONMENT	STORAGE TEMP., HUMID. AND	ALTITUDE	, ,	0// / \	· · · · · · · · · · · · · · · · · · ·				
	VIBRATION		, ,,,		<u> </u>				
	IMPACT		, , , , , ,		3				
SAFETY	AGENCY APPROVA		UL60950-1, C-UL, EN60950	es with FCC-A, VCCI-A, CISPR22-A, EN55011-A, EN55022-A					
	CONDUCTED NOISE (at only	• • •							
OTHERS	CASE SIZE/WEIGHT		-	<1.75 × 5.91 inches] (W × H >	, ,				
	COOLING METHOD		Conduction cooling (e.g. hea	at radiation from the aluminu	m base plate to the attached	heat sink)			
and the second of the second		. 1							

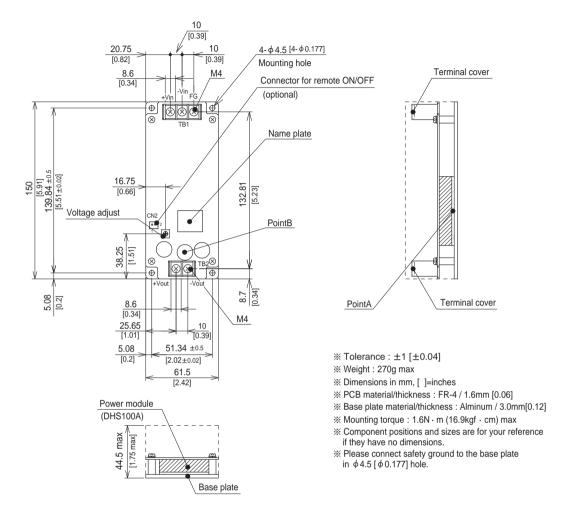
 $Ripple \ and \ ripple \ noise \ is \ measured \ by \ using \ measuring \ board \ with \ capacitor \ of \ 22 \ \mu \ F \ at \ 150 \ mm \ [5.91 \ inches] \ from \ output \ terminal.$ Refer to the instruction manual 3.2.

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

SNDH S

SNDHS200A15

200 A §



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

	WODEL		SNDHSZUUAUS	SNDHSZUUATZ	SNDHSZUUATS	SNDH3200A24	
	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	
OUTPUT		0 to +95℃ *2	160max	200max	200max	200max	
OUTFUT	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	
	TEMI ENATURE RECOLATION[IIV]	-20 to +95℃	100max	240max	300max	480max	
	DRIFT[mV]	*3	20max	40max	60max	90max	
	START-UP TIME[ms]		200max (DCIN 110V, Io=10	0%)			
	OUTPUT VOLTAGE ADJUSTMENT R	RANGE[V] *4	4.50 - 5.50	10.80 - 13.20	13.50 - 16.50	21.60 - 26.40	
	OUTPUT VOLTAGE SET	TING[V]	5.00 - 5.15	12.00 - 12.48	15.00 - 15.60	24.00 - 24.96	
PROTECTION	OVERCURRENT PROT	ECTION	Works over 105% of rating a	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	1Ω min (20±15℃)		
ISOLATION	INPUT-FG		AC2,000V 1minute, Cutoff of	current = 15mA, DC500V 50N	1Ω min (20±15℃)		
	OUTPUT, RC-FG		· · · · · · · · · · · · · · · · · · ·	· · · · · · · · · · · · · · · · · · ·	,		
	OUTPUT-RC		-	· · · · · · · · · · · · · · · · · · ·	, ,		
	· · · · · · · · · · · · · · · · · · ·		` .		• • • • • • • • • • • • • • • • • • • •	G CURVE), 3,000m (10,000 feet) max	
ENVIRONMENT		ALTITUDE	, ,	0// /	<u>'</u>		
			, , , , , , , , , , , , , , , , , , , ,		0 /		
					i		
SAFETY			VI 6.30 - 7.60 13.90 - 16.35 17.25 - 20.25 27.60 - 32.40				
	` `				•		
OTHERS			•		, ,		
	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 OVERVOLTAGE PROTECTION[V] 6.30 - 7.60 13.90 - 16.35 17.25 - 20.25 27.60 - 32.40 REMOTE SENSING Provided REMOTE ON/OFF (RC) Optional (Required external power source) INPUT-OUTPUT, RC *5 AC3,000V 1minute, Cutoff current = 15mA, DC500V 50MΩ min (20±15°C) OUTPUT, RC-FG AC2,000V 1minute, Cutoff current = 15mA, DC500V 50MΩ min (20±15°C) OUTPUT-RC *5 AC500V 1minute, Cutoff current = 25mA, DC100V 10MΩ min (20±15°C) OPERATING TEMP,HUMID.AND ALTITUDE *6 AC100V 1minute, Cutoff current = 25mA, DC100V 10MΩ min (20±15°C) OPERATING TEMP,HUMID.AND ALTITUDE *6 AC100V 1minute, Despect of the power module), 20 - 95%RH (Non condensing) (Refer to DERATING CURVE), 3,000m (10,000 feet) ms STORAGE TEMP,HUMID.AND ALTITUDE *7 *20 to +95°C, 20 - 95%RH (Non condensing), 9,000m (30,000 feet) max VIBRATION 10 - 55Hz, 19.6m/s² (20G), 3minutes period, 60minutes each along X, Y and Z axis IMPACT 196.1m/s² (20G), 11ms, once each along X, Y and Z axis AGENCY APPROVALS Complies with FCC-A, VCCI						

At rated input(DC110V) and rated load.

SNDHS-6

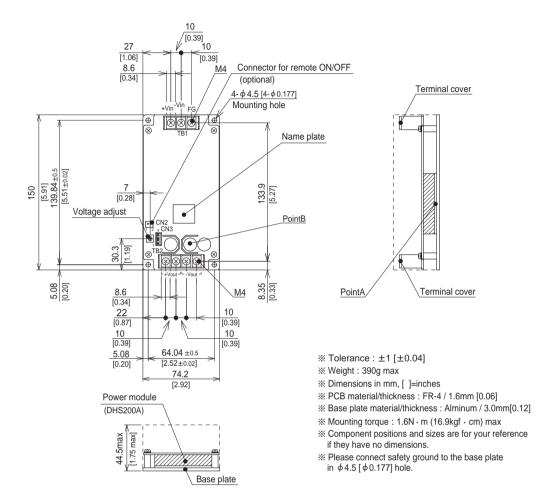
Ripple and ripple noise is measured by using measuring board with capacitor of 22 µF at 150mm [5.91 inches] from output terminal.

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

SNDHS50B03 SNDHS50B05 SNDHS50B12 SNDHS50B15 SNDHS50B24 SNDHS50B28

Refer to the instruction manual 4.4

Refer to the instruction manual 6.2

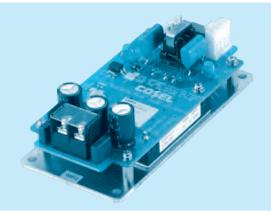
"RC2" is applicable to an option not to need external power source.

SNDH S

50 B s



eco



- 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	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

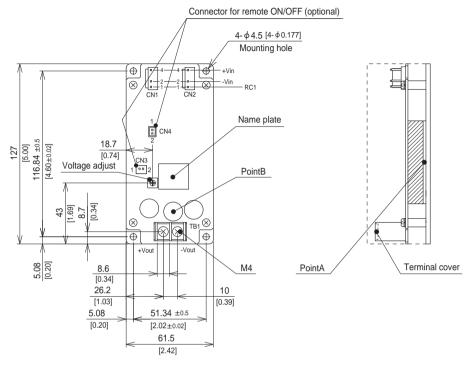
	MODEL		31100330003	31101330603	3110030012	SINDUSSIDE	31101330624	SNDHSSUBZO				
	VOLTAGE[V]		DC200 - 400 (Pre	pare another power	supply to the RC1	terminal *5)						
INPUT	CURRENT[A]	*1	0.15typ	0.22typ	0.22typ	0.22typ	0.22typ	0.22typ				
	EFFICIENCY[%]	*1	76.0typ	79.0typ	82.0typ	82.0typ	82.0typ	82.0typ				
	VOLTAGE[V]		3.3	5	12	15	24	28				
	CURRENT[A]		10	10	4.2	3.4	2.1	1.8				
	LINE REGULATION[I	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				
NITOLIT		0 to +95℃ *2	160max	160max	200max	200max	200max	200max				
DUTPUT	RIPPLE NOISE[mVp-p]	-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°C	35max	50max	120max	150max	240max	280max				
TEMPERATURE REGULATION	TEMPERATURE REGULATION[IIIV]	-20 to +95℃	66max	100max	240max	300max	480max	560max				
	DRIFT[mV]	*3	16max	20max	40max	60max	90max	90max				
<u> </u>	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 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									
ROTECTION ROTECTION	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) Req	uired external powe	er source	21.75 27.60 - 34.80 32.20 - 40.60 0±15°C)					
	INPUT-OUTPUT, RC2	2 *8	AC3,000V 1minute	e, Cutoff current = 1	10mA, DC500V 50N	⁄IΩ min (20±15℃)						
SOLATION	INPUT-FG		AC2,000V 1minute	e, Cutoff current = 1	10mA, DC500V 50N	⁄IΩ min (20±15℃)						
SOLATION	OUTPUT, RC2-FG	*8	AC500V 1minute, Cutoff current = 100mA, DC500V 50M Ω min (20±15 $^{\circ}$ C)									
	OUTPUT-RC2	*8	AC100V 1minute,	Cutoff current = 25	mA, DC100V 10M9	û min (20±15℃)						
	OPERATING TEMP.,HUMID.AND A	LTITUDE *7	-20 to +95°C (Aluminun	n base plate of the powe	r module), 20 - 95%RH (Non condensing) (Refer	to DERATING CURVE),	3,000m (10,000 feet) n				
NVIRONMENT	STORAGE TEMP., HUMID. AND	ALTITUDE	-20 to +95°C, 20 -	95%RH (Non cond	ensing), 9,000m (3	0,000 feet) max						
	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 a	ong X, Y and Z axis	3						
SAFETY	AGENCY APPROVA	LS	UL60950-1, C-UL	EN60950-1								
OTHERS	CASE SIZE/WEIGHT		61.5×44.5×127n	nm [2.42×1.75×5	0 inches] (WXHX	D) / 220g max						
JITEKS	COOLING METHOD		Conduction coolin	g (e.g. heat radiation	n from the aluminu	m base plate to the	attached heat sink)				

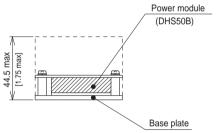
At rated input(DC280V) and rated load.

- 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°C,
- Refer to the instruction manual 2, 4.4

- with the input voltage held constant at the rated input/output. Refer to the instruction manual 4.6.
- **SNDHS-8** August 11, 2015







- * 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 φ4.5 [φ0.177] hole.

SNDHS100B

Ordering information

100 SNDH S

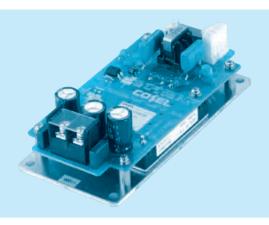
| SNDHS100B03 | SNDHS100B05 | SNDHS100B12 | SNDHS100B15 | SNDHS100B24 | SNDHS100B28

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.





- 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	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

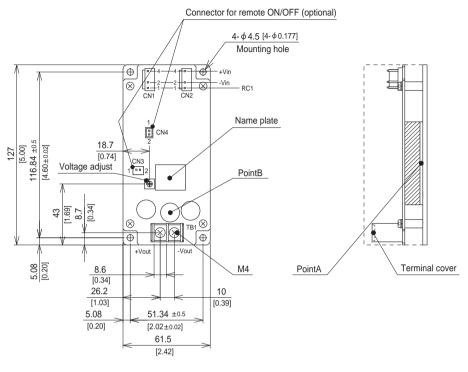
	INIODEL		311003100003	SINDUSTUUDUS	31100012	311011310013	3NDH3100B24	SINDICATIONS				
	VOLTAGE[V]		DC200 - 400 (Pre	pare another power	supply to the RC1	terminal *5)	•					
INPUT	CURRENT[A]	*1	0.30typ	0.44typ	0.42typ	0.42typ	0.42typ	0.42typ				
	EFFICIENCY[%]	*1	78.0typ	81.0typ	84.0typ	85.0typ	85.0typ	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[I	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				
OLITPUT.		0 to +95℃ *2	160max	160max	200max	200max	200max	200max				
DUTPUT	RIPPLE NOISE[mVp-p]	-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°C	35max	50max	120max	150max	240max	280max				
TEMPERATURE REGULATION[III]	TEMPERATURE REGULATION[MV]	-20 to +95°C	66max	100max	240max	300max	480max	560max				
	DRIFT[mV]	*3	16max	20max	40max	60max	90max	90max				
<u> </u>	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 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	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				
CIRCUIT AND	REMOTE SENSING		None									
	REMOTE ON/OFF (R	C1) *6	Provided (Logic H	: ON, L :OFF) Req	uired external powe	r source		21.60 - 26.40				
	INPUT-OUTPUT, RC2	2 *8	AC3,000V 1minute	e, Cutoff current = 1	10mA, DC500V 50N	/Ω min (20±15℃)						
SOLATION	INPUT-FG		AC2,000V 1minute	e, Cutoff current = 1	10mA, DC500V 50N	/IΩ min (20±15℃)						
SOLATION	OUTPUT, RC2-FG	*8	AC500V 1minute, Cutoff current = 100mA, DC500V 50M Ω min (20±15 $^{\circ}$ C)									
	OUTPUT-RC2	*8	AC100V 1minute,	Cutoff current = 25	mA, DC100V 10M	2 min (20±15℃)						
	OPERATING TEMP.,HUMID.AND A	LTITUDE *7	-20 to +95°C (Aluminun	n base plate of the power	r module), 20 - 95%RH (l	Non condensing) (Refer t	to DERATING CURVE),	3,000m (10,000 feet) n				
ENVIDONMENT	STORAGE TEMP., HUMID. AND	ALTITUDE	-20 to +95°C, 20 -	95%RH (Non cond	ensing), 9,000m (3	0,000 feet) max						
ENVIRONMENT	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	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						
JIHEKS	COOLING METHOD		Conduction coolin	g (e.g. heat radiatio	n from the aluminu	m base plate to the	attached heat sink)				

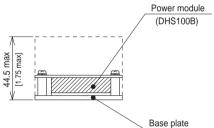
- At rated input(DC280V) and rated load.
- Ripple and ripple noise is measured by using measuring board with capacitor of 22 µ F at 150mm [5.91 inches] from output terminal.
- Refer to the instruction manual 3.2. Drift is the change in DC output for an eight hour period after a half-hour warm-up at 25°C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

Refer to the instruction manual 4.6.

SNDHS-10 August 11, 2015







- ※ 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	12V 21A	15V 16.5A	24V 10.5A	28V 9.0A	48V 5.2A

SPECIFICATIONS

MODEL

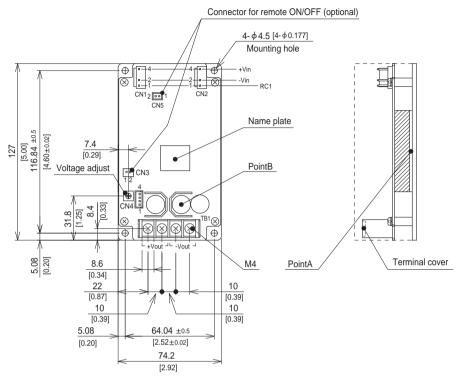
CURRENT[A]	(Prepare anoth 1.0typ 88.0typ 5 50 10max 150max 80max	1.0typ 86.0typ 7.5 33 20max	1.0typ 86.0typ 12 21	erminal *5) 1.0typ 86.0typ 15 16.5	1.0typ 86.0typ 24	1.0typ 86.0typ 28	1.0typ 87.0typ			
EFFICIENCY[%] \$1 86.0typ	88.0typ 5 50 10max 150max	86.0typ 7.5 33 20max	86.0typ 12 21	86.0typ	86.0typ	86.0typ				
OUTPUT VOLTAGE[V] 3.3 50	5 50 10max 150max	7.5 33 20max	12 21	15	24		87.0typ			
OUTPUT CURRENT[A] 50	50 10max 150max	33 20max	21			28				
Colored Colo	10max 150max	20max		16.5	40.5		48			
COAD REGULATION[mV] 150max 150max	150max		24may		10.5	9.0	5.2			
RIPPLE[mVp-p]			24max	30max	48max	56max	96max			
OUTPUT RIPPLE[mVp-p]	80may	150max	100max	100max	100max	100max	100max			
OUTPUT RIPPLE NOISE[mVp-p] RIPPLE NOISE[mVp-p] TEMPERATURE REGULATION[mV] DID 15% Load*2 160max 20 to 15% 2 250max DID 15% Load*2 300max 20 to 15% C 35max -20 to 15% C 66max DRIFT[mV] *3 16max START-UP TIME[ms] OUTPUT VOLTAGE ADJUSTMENT RANGE[V] *4 2.97 - 3.63 OUTPUT VOLTAGE SETTING[V] OVER CURRENT PROTECTION Works over 10 PROTECTION OVER VOLTAGE PROTECTION VI 4 20 - 4.85	OUTTAX	100max	120max	120max	120max	120max	200max			
OUTPUT RIPPLE NOISE[mVp-p]	120max	130max	150max	150max	150max	150max	250max			
RIPPLE NOISE[mVp-p]	160max	200max	240max	240max	240max	240max	400max			
RIPPLE NOISE[mVp-p]	160max	200max	200max	200max	200max	200max	250max			
TEMPERATURE REGULATION[mV]	250max	280max	280max	280max	280max	280max	400max			
TEMPERATURE REGULATION[mV] -20 to +95°C 66 max 16 max 16 max 16 max 200 max (DCII 200 max (DCI	300max	300max	300max	300max	300max	300max	500max			
-20 to +95C 66max DRIFT[mV] *3 16max START-UP TIME[ms] 200max (DCII OUTPUT VOLTAGE ADJUSTMENT RANGE[V] *4 2.97 - 3.63 OUTPUT VOLTAGE SETTING[V] 3.30 - 3.40 OVERCURRENT PROTECTION Works over 10 PROTECTION OVERVOLTAGE PROTECTIONIVI 4 20 - 4 85	50max	70max	120max	150max	240max	280max	480max			
START-UP TIME[ms] 200max (DCII 0UTPUT VOLTAGE ADJUSTMENT RANGE[V] *4 2.97 - 3.63 0UTPUT VOLTAGE SETTING[V] 3.30 - 3.40 OVERCURRENT PROTECTION Works over 10 PROTECTION 0VERVOLTAGE PROTECTIONIVI 4.20 - 4.85	100max	140max	240max	300max	480max	560max	960max			
OUTPUT VOLTAGE ADJUSTMENT RANGE[V] *4 2.97 - 3.63 OUTPUT VOLTAGE SETTING[V] 3.30 - 3.40 OVERCURRENT PROTECTION Works over 10 PROTECTION OVERVOLTAGE PROTECTIONIVI 4.20 - 4.85	20max	30max	40max	60max	90max	90max	180max			
OUTPUT VOLTAGE SETTING[V] 3.30 - 3.40 OVERCURRENT PROTECTION Works over 10 PROTECTION OVERVOLTAGE PROTECTIONIVI 4.20 - 4.85	N 280V, Io=10	0%)								
PROTECTION OVERCURRENT PROTECTION Works over 10 OVERVOLTAGE PROTECTIONIVI 4 20 - 4 85	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			
PROTECTION OVERVOLTAGE PROTECTIONIVI 4 20 - 4 85	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			
	Works over 105% of rating and recovers automatically									
	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			
OTHERS REMOTE SENSING Provided										
REMOTE ON/OFF (RC1) *6 Provided (Log	jic H : ON, L :C	OFF) Required	external power	source		max 150max 250max max 240max 400max max 250max 250max max 280max 400max max 300max 500max max 280max 480max max 560max 960max nax 90max 180max 0 - 26.40 25.20 - 30.80 43.20 - 52.8 0 - 24.96 28.00 - 29.12 48.00 - 49.8 0 - 32.40 32.20 - 37.80 55.20 - 64.8				
INPUT-OUTPUT, RC2 *8 AC3,000V 1m	inute, Cutoff c	urrent = 10mA	, DC500V 50M	Ω min (20±15	5℃)					
ISOLATION INPUT-FG AC2,000V 1m	inute, Cutoff c	urrent = 10mA	, DC500V 50M	Ω min (20±15	5℃)					
OUTPUT, RC2-FG *8 AC500V 1min	AC500V 1minute, Cutoff current = 100mA, DC500V 50MΩ min (20±15°C)									
OUTPUT-RC2 *8 AC100V 1min	ute, Cutoff cur	rent = 25mA, [OC100V 10MΩ	min (20±15°C	C)					
OPERATING TEMP.,HUMID.AND ALTITUDE *7 -20 to +95℃ (Alur	minum base plate	of the power modu	le), 20 - 95%RH (N	on condensing) (R	efer to DERATING	CURVE), 3,000m	(10,000 feet) max			
ENVIRONMENT STORAGE TEMP.,HUMID.AND ALTITUDE -20 to +95°C,	20 - 95%RH (I	Non condensin	g), 9,000m (30	,000 feet) max						
VIBRATION 10 - 55Hz, 19.	.6m/s² (2G), 3r	minutes period	, 60minutes ea	ch along X, Y a	and Z axis					
IMPACT 196.1m/s² (20	G), 11ms, onc	e each along >	(, Y and Z axis							
SAFETY AGENCY APPROVALS UL60950-1, C	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 of	ooling (e.g. hea	at radiation from	m the aluminun	n base plate to	the attached h	neat sink)				

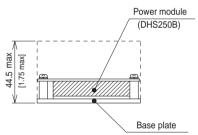
- At rated input(DC280V) and rated load.
- Ripple and ripple noise is measured by using measuring board with capacitor of 22 µ F at 150mm [5.91 inches] from output terminal.
- Refer to the instruction manual 3.2. Drift is the change in DC output for an eight hour period after a half-hour warm-up at $25\,^{\circ}\!\!\mathrm{C}$,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

SNDHS-12







- % 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.