HK25A

PA778-01-01B

SPECIFICATIONS

	Item	Model		HK25A−5	HK25A−12	HK25A−15	HK25A−24
1	Nominal Output Voltage		V	5	12	15	24
2	Maximum Output Current		A	5.0	2.1	1.7	1.1
3	Maximum Output Power		W	25.0	25.2	25.5	26.4
4	Efficiency (Typ)	(*1)	%	72	76	77	80
5	Input Voltage Range	(*2)	−	85−132VAC (47−440Hz) or 110−175VDC			
6	Input Current (Typ)	(*1)	−	0.6A at 100VAC			
7	Inrush Current (Typ)	(*3)	−	15A at 100VAC			
8	Output Voltage Range		−	±10%			
9	Maximum Ripple & Noise		mV	120	150	150	150
10	Maximum Line Regulation	(*4)	mV	20	48	60	96
11	Maximum Load Regulation	(*5)	mV	40	96	120	150
12	Over Current Protection	(*6)	−	105% ∼			
13	Over Voltage Protection	(*7)	−	115% to 135%			
14	Hold−Up Time (Typ)	(*1)	−	20ms			
15	Series Operation		−	Possible			
16	Operating Temperature	(*8)	−	0°C to +50°C (100%), 60°C (50%)			
17	Operating Humidity		−	30% to 90% RH			
18	Storage Temperature		−	−30°C to +85°C			
19	Storage Humidity		−	10% to 95% RH			
20	Cooling		−	Convection Cooled			
21	Temperature Coefficient	(*9)	−	1% (Typ) at 0°C to +50°C			
22	Withstand Voltage	(*10)	−	Input - Chassis , Input Output : 2kVAC (20mA) Output - Chassis : 500VAC (100mA) for 1min			
23	Isolation Resistance		−	More than 100M Ohm at 25°C and 70%RH Output−FG 500VDC			
24	Vibration		−	10-55Hz (sweep 1 min) less than 19.6m/s^2 X,Y,Z 1 h each			
25	Shock		−	Less than 196.1m/s^2			
26	Safety		−	Approved by UL1950 & CSA234, Built to meet DENAN			
27	Conducted Radio Noise		−	Built to meet FCC class B, VCCI − B			
28	Weight		−	230g			
29	Size (W.H.D.)		mm	28 . 68 . 95 (Refer to Outline Drawing)			

* NOTES :

1 : At 100VAC and Maximum Output Power, Ta = 25°C

2 : For cases where conformance to various safety specs (UL, CSA) are required to be described as 100 − 120VAC, 50/60Hz on name plate.

3 : Typical value on cold start, Ta = 25°C.

4 : From 85 to 132VAC or 110 to 175VDC, constant load.

5 : From No Load to Full Load, constant input voltage.

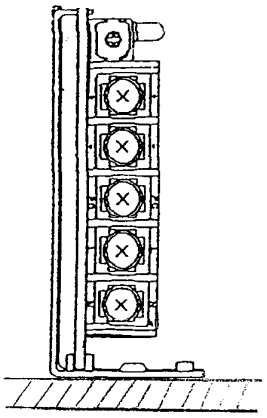
6 : Current limiting with automatic recovery.
Avoid to operate over load or dead short for more than 30 seconds.

7 : OVP circuit will shut down output, manual reset.

8 : At standard mounting (vertical).

9 : Constant input voltage & load.

10 : Refer to instruction manual for testing procedure.



Standard Mounting

HK25A

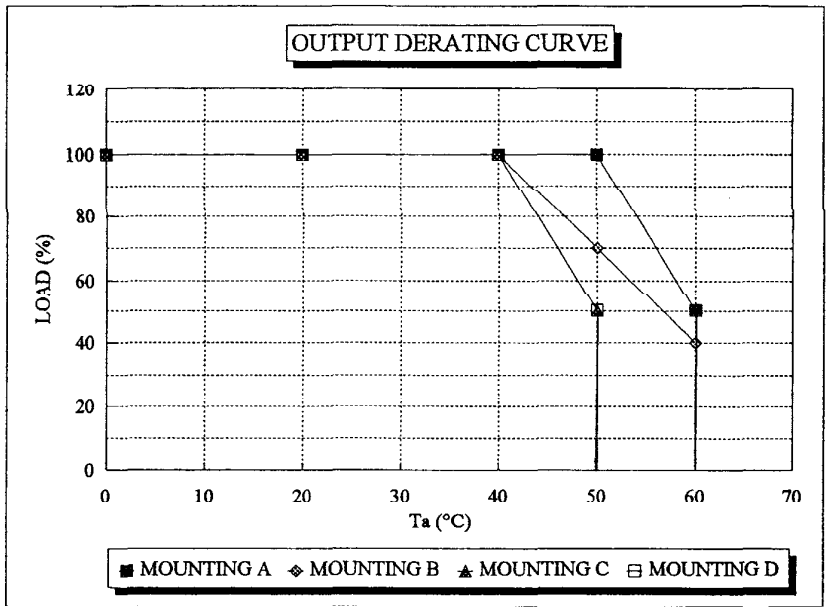
PA778-01-02A

OUTPUT DERATING

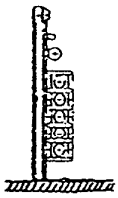
HK25A-3, 5, 12, 15 &24

* COOLING : CONVENTION COOLING

Ta (°C)	LOAD (%)			
	MOUNTING : A	MOUNTING : B	MOUNTING : C	MOUNTING : D
0	100	100	100	100
20	100	100	100	100
40	100	100	100	100
50	100	70	50	50
60	50	40	-	-

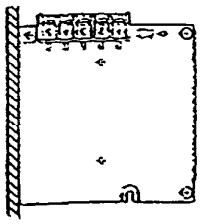


MOUNTING : A

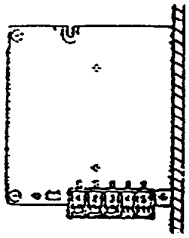


MOUNTING : B

MOUNTING : C



MOUNTING : D



DENSEI-LAMBDA

HK25A

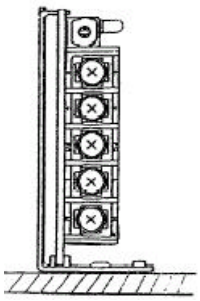
SPECIFICATIONS

PA778-01-03B

	ITEMS / MODEL			HK25A-3
1	Nominal Output Voltage		-	3.3V
2	Maximum Output Current		-	5.0A
3	Maximum Output Power		-	16.5W
4	Efficiency (Typ)	(*1)	-	70%
5	Input Voltage Range	(*2)	-	85~132VAC(47~440Hz) or 110~175VDC
6	Input Current (Typ)	(*1)	-	0.5A at 100VAC
7	In-rush Current (Typ)	(*3)	-	15A at 100VAC
8	Output Voltage Range		-	±10%
9	Maximum Ripple & Noise		-	120mV
10	Maximum Line Regulation	(*4)	-	20mV
11	Maximum Load Regulation	(*5)	-	40mV
12	Over Current Protection	(*6)	-	105% ~
13	Over Voltage Protection	(*7)	-	115% to 135%
14	Hold-Up Time (Typ)	(*1)	-	20ms
15	Series Operation		-	Possible
16	Operating Temperature	(*8)	-	0°C to +50°C(100%), 60°C(50%)
17	Operating Humidity		-	30% to 90% RH
18	Storage Temperature		-	-30°C to +85°C
19	Storage Humidity		-	10% to 95% RH
20	Cooling		-	Convection Cooled
21	Temperature Coefficient	(*9)	-	1%(Typ) at 0°C to +50°C
22	Withstand Voltage	(*10)	-	Input-Chassis , Input-Output : 2kVAC (20mA) Output-Chassis : 500VAC (100mA) for 1min.
23	Isolation Resistance		-	More than 100MΩ at 25°C and 70% RH Output-FG 500VDC
24	Vibration		-	10-55Hz (sweep 1 min) less than 19.6m/s^2 X,Y,Z 1 h each
25	Shock		-	Less than 196.1m/s^2
26	Safety			Built to meet UL1950,CSA234 & DENAN
27	Conducted Radio Noise		-	Built to meet FCC class B,VCCI-B
28	Weight			230g
29	Size (W.H.D)		mm	28×68×95 (Refer to Outline Drawing)

==NOTES==

*1: At 100VAC & Maximum Output Power,Ta = 25 °C .
*2: For cases where conformance to various safety specs (UL,CSA) are required to be described as 100-120VAC, 50/60Hz on name plate.
*3: Typical value on cold start, Ta=25°C .
*4: From 85 to 132VAC or 110 to 175VDC, constant load.
*5: From No load to Full load, constant input voltage.
*6: Current limiting with automatic recovery.
Avoid to operate over load or dead short for more than 30 seconds.
*7: Inverter shut down, manual reset.
*8: At standard mounting. (vertical)
*9: Constant input voltage & load.
*10: Refer to instruction manual for testing procedure.



Standard Mounting