

HK25A

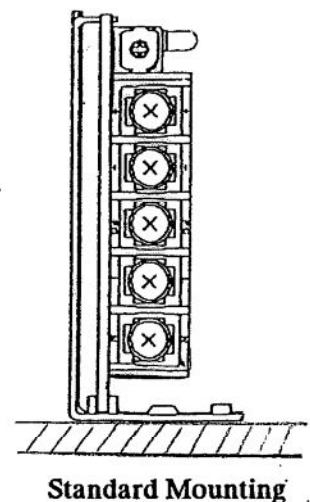
SPECIFICATIONS

PA778-01-01C

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 <sup>2</sup> X,Y,Z 1 h each			
25 Shock	—	Less than 196.1m/s <sup>2</sup>			
26 Safety	—	Approved by UL60950-1 & CSA C22.2 No.60950. Designed to meet DENAN			
27 Conducted Radio Noise	—	Designed to meet FCC class B, VCCI - B			
28 Weight	—	230g			
29 Size (W.H.D.)	mm	28 . 68 . 95 (Refer to Outline Drawing)			

\* NOTES :

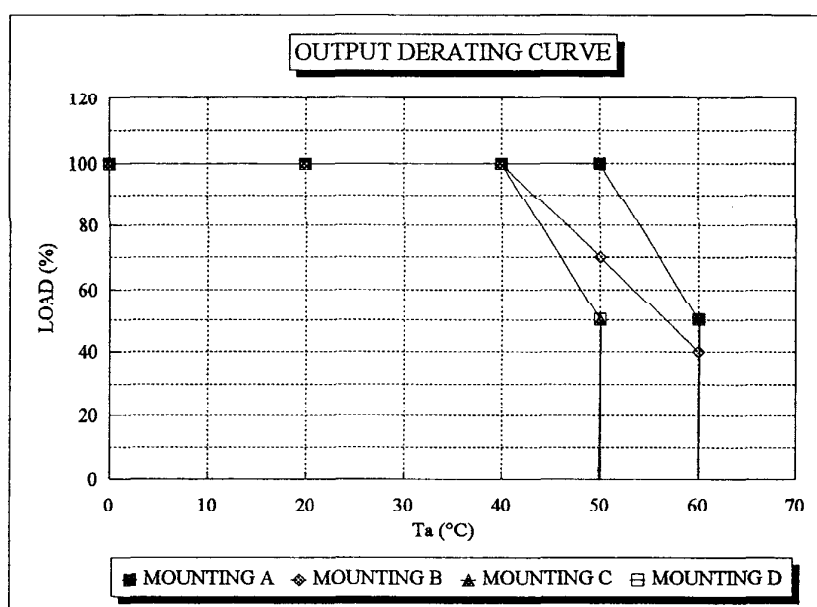
- 1 : At 100VAC and Maximum Output Power, Ta = 25°C
- 2 : For cases where conformance to various safety specs (UL, CSA) are required to be described as 100 - 120VAC, 50/60Hz on name plate.
- 3 : Typical value on cold start, Ta = 25°C.
- 4 : From 85 to 132VAC or 110 to 175VDC, constant load.
- 5 : From 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.



**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	-	-

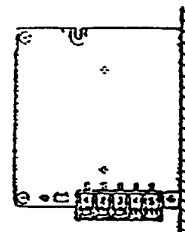
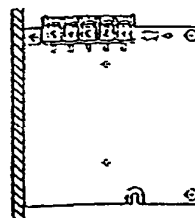
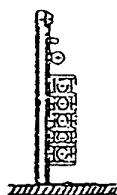


MOUNTING : A

MOUNTING : B

MOUNTING : C

MOUNTING : D



# HK25A

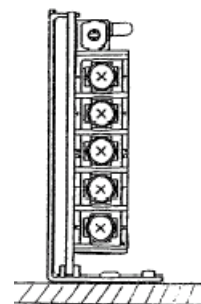
## SPECIFICATIONS

PA778-01-03C

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 <sup>2</sup> X,Y,Z 1 h each
25 Shock	-	Less than 196.1m/s <sup>2</sup>
26 Safety		Designed to meet UL60950-1, CSA C22.2 No.60950 & DENAN
27 Conducted Radio Noise	-	Designed 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