

HDK-NS Din-Rail Type
Switch Mode Power Supply

User Manual

□ Please carefully read the user manual before the installation and use of the products, and then keep it properly as backup.

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1.Features and Applications

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HDK-NS series is a kind of products that can provide stable DC output. They have advantages of small sizes, light weight, high efficient and energy-saving. Now they have been in the progress to replace rectifier power supply gradually. They have been widely used in communication, LED display, industrial control, radio and television, computer network, medical device, intelligent monitoring and other fields.

2.Product Selection Code

Model	Rated power	Output Voltage
HDK-NS	75	12
	75:75W	12:12V
	120:120W	24:24V
	240:240W	36:36V
	480:480W:	48:48V:
		(for240W and 480W,only 24V and 48V are available)

3.Working Conditions and Installation Methods

3.1.Working conditions

Ambient temperature: -20℃~+70℃ (refer to output derating curve in Fig.1)

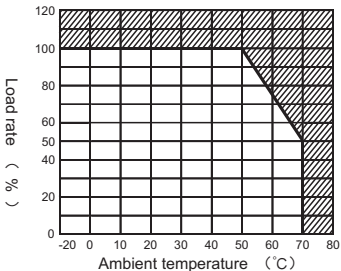
Ambient humidity: 20%~90%RH without condensation

3.2.Installation methods

Products shall be installed with din rail which type is TS35-7.5 or TS35-15.

3.3.In order to extend the service life of the equipment, please pay full attentionto the heat dissipation issue:

- 1)The power supply shall be installed in the place where the surrounding air is convective.
- 2)It is recommended to install it on the metal plate.
- 3)The interval between two power supplies is recommended to be more than 20mm.
- 4)Forced air cooling is recommended



4. Working Principle

Switch mode power supply is to control the switch tube through the circuit control for high-speed turn-on and turn-off, so as to generate the required one or several groups of voltages in the secondary of switching transformer.

5. Usage and Precautions

5.1 "Before using the product, please see the wiring mark clearly to confirm whether the input voltage can match the requirements.

The meaning of product wiring marking diagram is as follows:

"L" phase line; "N" zero line; "⊕" ground line; "- V" negative voltage; "+ V" positive voltage; "COM" common output; "VADJ"

Output voltage regulation.

Note: there are multiple terminals at the output end of the power supply for higher power, and the internal part of the terminal block is connected (equivalent to a power supply); it should be balanced in connection with loads.

5.2 "In order to ensure safe use and interference decrease, the wires

should meet the electrical requirements and they shall be grounded reliably during the installation.

5.3 "High voltage exists in the machine, non-professional workers please do not open the shell, otherwise it may cause electric shock or damage to the product.

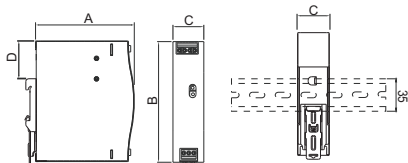
AC-DC single group output

Type	Power	Input	DC Output Current				Functions
	W	Note1	12V	24V	36V	48V	Note2 (bak2)
HDK-NS75	75	F	6.2A	3.1A	2.1A	1.6A	ABK
HDK-NS120	120	F	10A	5A	3.3A	2.5A	ABK
HDK-NS240	240	F		10A		5A	ABCK
HDK-NS480	480	F		20A		10A	ABCK

Note 1: 85-132/170-264VAC selection methods: F is full range; S is switch selection.

Note 2: Functions: A: overload (overcurrent) short circuit protection; B: output overvoltage protection; C: over-temperature protection; D: automatic switch control of cooling fan (extend service time); K: LED display for output.

6.Outline and Installation Dimensions



DIN RAIL: TS35/7.5 or TS35/15

Comparison table of model and size (Unit: mm)

Type	A	B	C	D
HDK-NS75	102	125.2	32	35
HDK-NS120	113.5	125.2	40	35
HDK-NS240	113.5	125.2	63	35
HDK-NS480	128.5	125.2	85.5	35

7. Transportation and Storage

No severe collision and vibration during transportation and storage.

Rain and snow immersion and direct sunlight are not allowed.

Storage temperature: - 20 °C ~ + 85 °C.

Humidity: 10% ~ 95% RH without condensation.

8. Troubleshooting

Comparison table of model and size (Unit: mm)

Fault Phenomenon	Potential Reason	Solution
No output or abnormal output	<ol style="list-style-type: none">1. Short circuit on the load, or overloaded;2. Open circuit on the input;3. Temperature reach to the	<ol style="list-style-type: none">1. Disconnect or decrease the load;2. Check the input voltage;3. Stop and cooling the
Fan doesn't work	<ol style="list-style-type: none">1. Temperature does not reach to the protection value;2. Foreign matters stuck	<ol style="list-style-type: none">1. No need to solve;2. Clean the foreign matters.

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