![KW Systems logo]

AC/DC power supply unit

KAN-D product line
## **KAN-D120, 120 W**

Global Data

Power ....120 W

Output current ....up to 5 A

Input voltage ....~220 (85...264) V

Output voltage ....=24 B

Efficiency .... ≥90%

Ambient operating temperature ....−25...+70 °C

Dry contact...Based on relay

EMC standart ENC55022 (CISPR22)

Replacement/Installation ....Toolless

Installation...DIN rail

Dimentions ....42×134×131 mm

Warently ....2 years

Advantages

◀ Parallel and series connection

◀ Compliance with SIL2 safety level

◀ Start from -40 °C is possible.

Ordering information

KAN	-	D	120	C	24	N

- AC/DC power supply unit
- DIN-rail mounting
- Rated output power, W
- Index of nominal input voltage C= ~220 (85...264) VAC*
- Nominal output voltage, VDC
- Index of ambient operation temperature range,° C
  N — from -25 to +70°C***
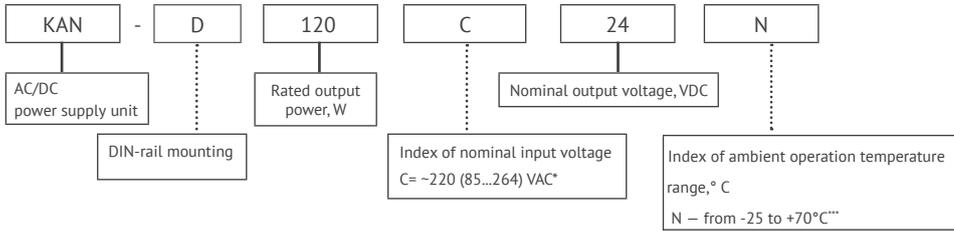
Output specifications*

Parameter			Value
Model			KAN-D120C24X
Output power, W			120 W 150 W at $t_{ambient}$ <50 °C and U_{out}=176...264 V
Nominal output voltage, VDC			24
Adjustment range of output voltage voltage, V		by built-in potentiometr	20...28
		by Adj.U**	±5%
Efficiency, %			min .91
Rated output current, A			5
Ripple and noise (peak-to-peak)			<2%
Line and load regulation			no more 2%
Start-up time, sec			<1 s(Uin=220 VAC)
Dry contact			Relay contacts dry contact(open state - voltage in nominal range)
Serviceability output signal	Dry contact	Maximum switchable voltage and current	250 VAC/ 30 VDC/ 1 A
		Relay current consumption, mA	10
		Relay cut-off voltage, V	18...20
		"Diag" output	open collector 100 mA, 20 V max
Parallel connection****		Capacity increase	without additional components
		Redundant mode	with application KAN-MD40

Input specifications*

Parameter	Value
Input voltage range, VAC	~85...264(=90...372)
Mains frequency range, Hz	47...63 AC
	0 DC
Consumed current, A	1,39 (~120 V) 0,76 (~220 V)
Inrush current pulse	25 A
Input fuse, A	5 A (inert type, internal)
Power factor corrector	Active
Power factor	>0.85

* All specifications are valid for normal climatic conditions Uin. nom., Iout. nom., unless otherwise noted.
*** Adjustment is made by applying voltage 0...5 V on the Adj.U pin (0 V = Uout.nom +4%; 5 V = Uout.nom -4%).
*** With the possibility of starting from -40°

Protections

Type of protection	
circuit protection**	auto recovery
Overvoltage protection**, V	<125% Uout nom

Basic specifications

| Parameter		Value
Type of connection		plug-in screw terminals
Derating		-2% / °C after +60°C
Degree of protection		IP20
EMC requirements		EN55022 (CISPR22), Class B
Ambient temperature, operation , °C	N	−25...+70°C
Ambient temperature, storage, °C		−50...+70°C
Permissible humidity(operation)		85% at t° ambient +40 °C (95% at t ° ambient +25 °C)
Isolation voltage, V	in /case	~3000 VAC
	in /out	~3000 VAC
	out /case, out/out	~1500 VAC
Isolation resistance @ 500 VDC		≥ 20 MOhm min
Cooling		convectional
MTBF		1 400 000 hrs
Case material		metal
Dimensions, mm		42x131x134
Weight, kg		no more 0,9
Mounting position		Vertical, for horizontal DIN-rail
Mounting instructions		Indentation between modules should be 5 mm horizontally for non-active modules and 15 mm for active modules. Vertically, there should be a minimum of 50 mm.
Warranty		2 years

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+7(473)211-06-36
info@kwsystems.ru
eng.kwsystems.

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Connection diagram
Typical connection
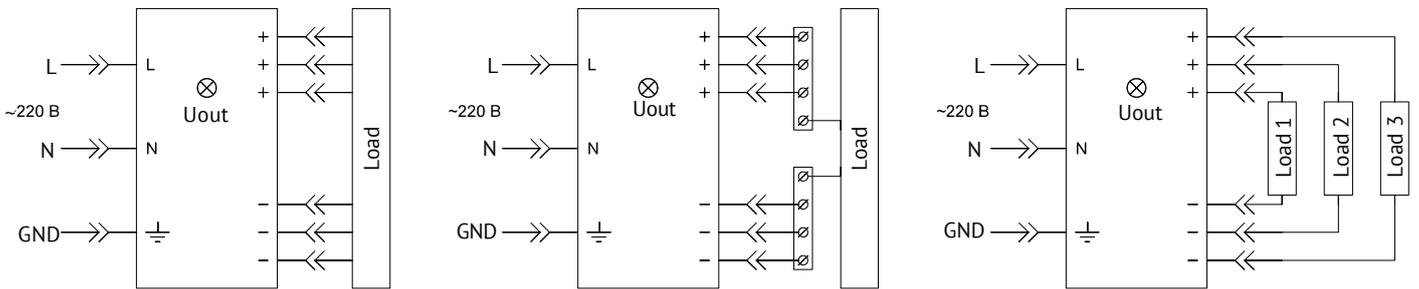
Parallel connection (redundant mode)
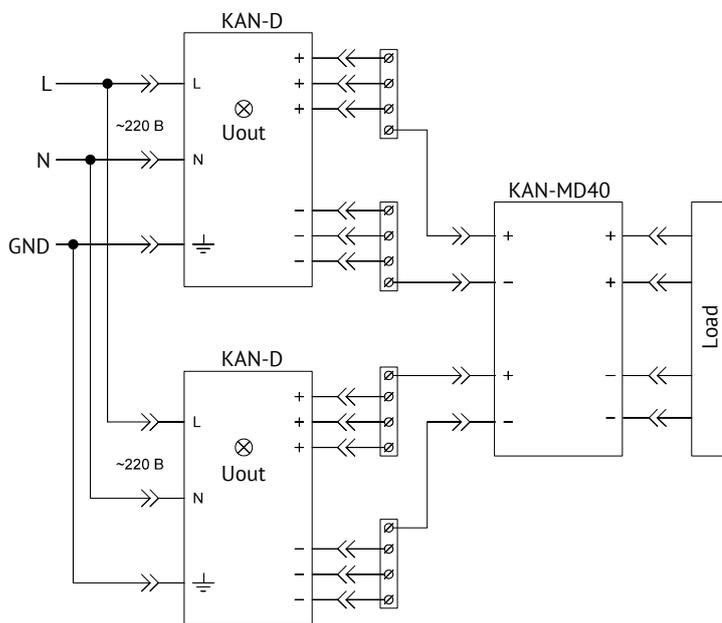
Parallel connection (power ramp-up)
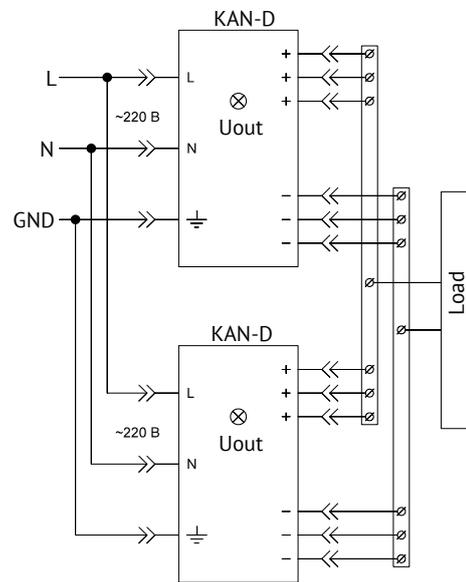
Series connection (no more than 2)

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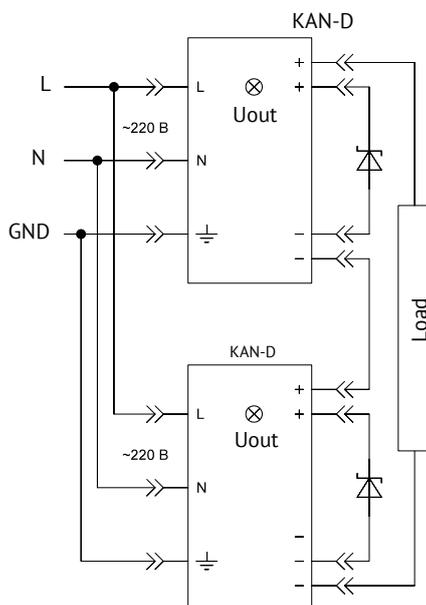
Dereating
Graph of power dependence at startup for -25 °C
as a function of input voltage
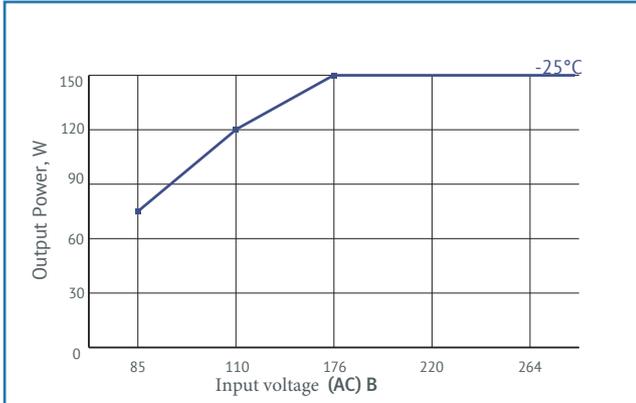
Graph of source power as a function of
on supply voltage (50 Hz) in normal climatic conditions
climatic conditions
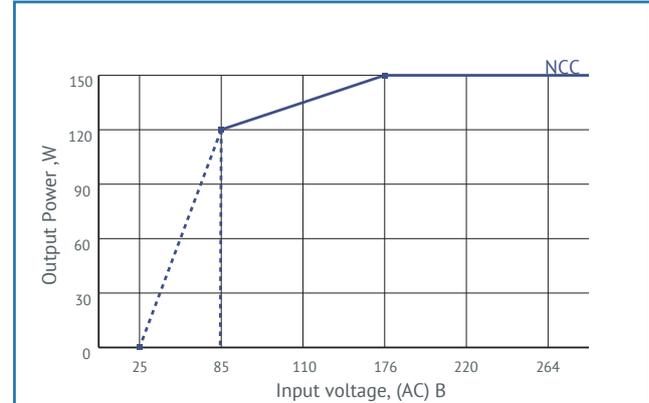

Example: at Uin < 85 V no start-up occurs, but the module remains functional at the load according to the graph. The module remains operational under load, according to the graph.

Graph of maximum permissible power (load)
**depending on ambient temperature**

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Dimensional drawing

42 max

X2

1   5

10   6

○ U out.
◉ Adj. u

1   3

X1

133 max

131 max
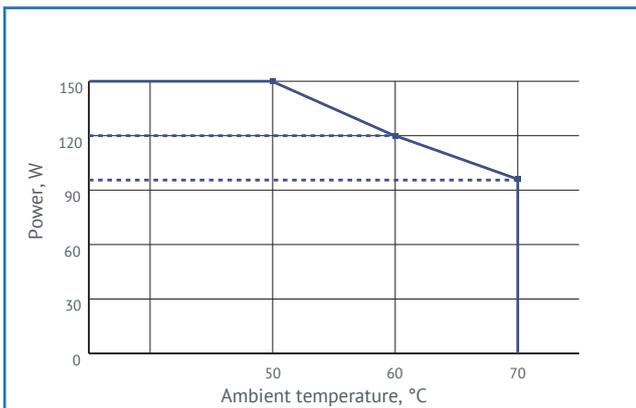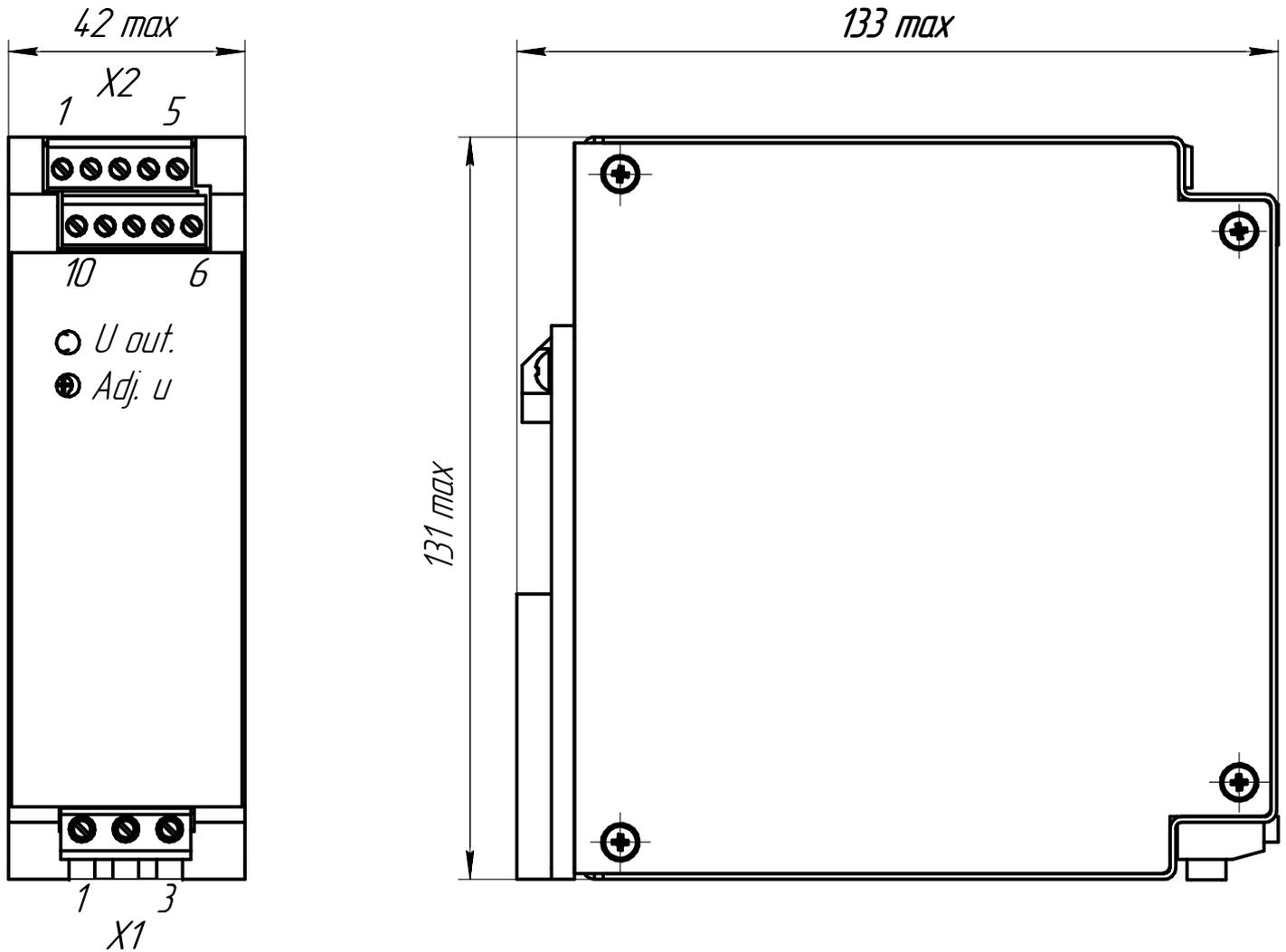
Pin assignment

X1.1	X1.2	X1.3
L	N	⏚

X2.1	X2.2	X2.3	X2.4	X2.5
+DRY CONTACT	-DRY CONTACT	-OUT	-OUT	-OUT

X2.10	X2.9	X2.8	X2.7	X2.6
DIAG	ADJ.U	+OUT	+OUT	+OUT

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Bracket dimensional drawing
Bracket ANZHE.745422.002

15

Ø5,5

Ø11

Ø4,5

182

155

53,5 *

18 *

53

1,5

10
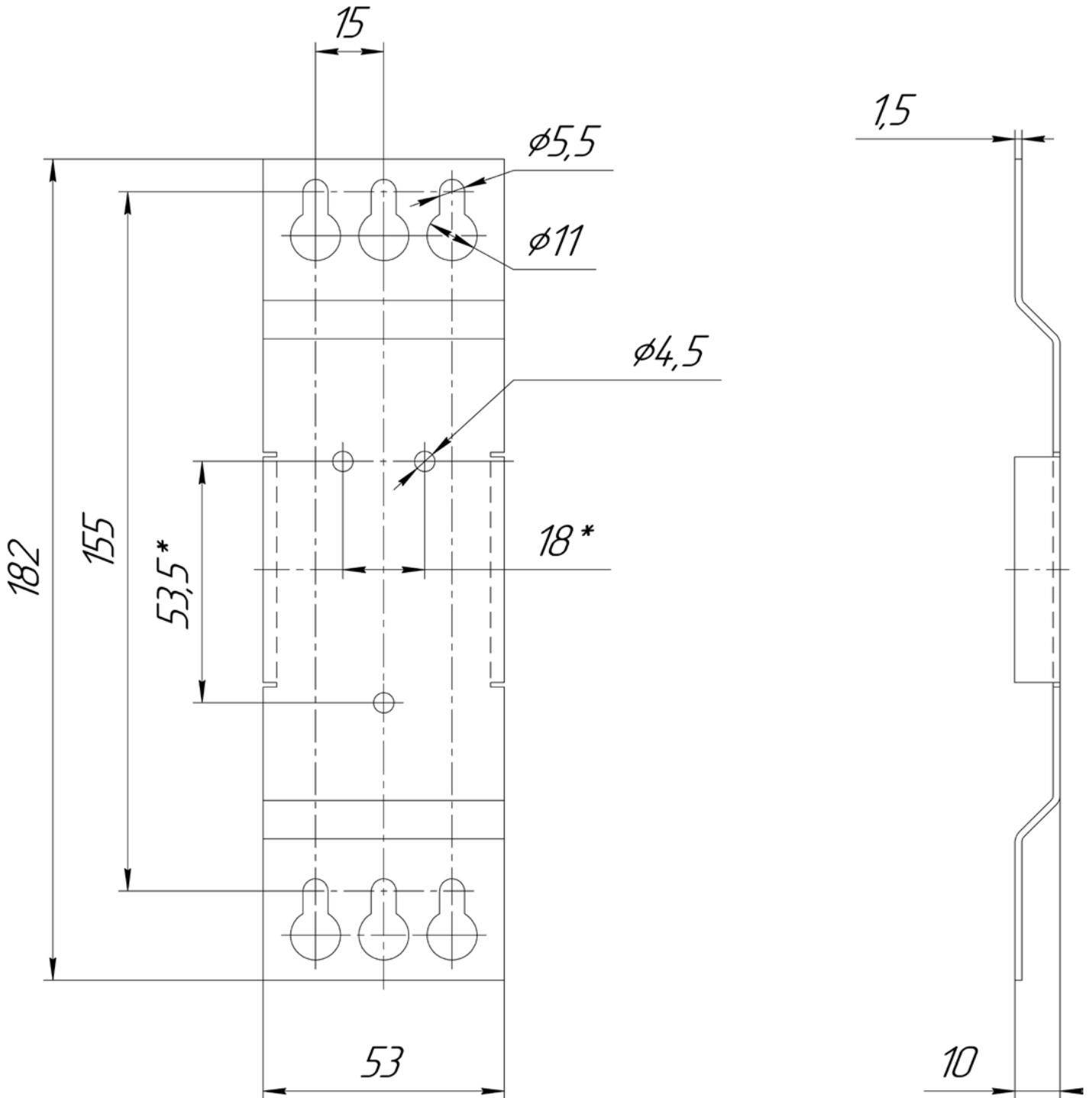
This datasheet is valid for the : KAN-D120C24X

[1] To be ordered separately

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