

AC/DC power supply unit

KAN-D product line

KAN-D240, 240 W



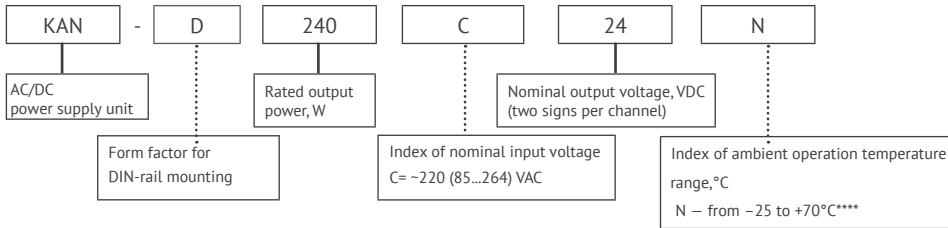
Features

Power	240 W
Output current	up to 20 A
Input voltage	~220 (85...264) V
Output voltage	=15 V; =24 V
Efficiency	≥91%
Ambient operating temperature	-25...+70 °C
Dry contact.....	based on relay
EMC standart	ENC55022 (CISPR22)
Replacement/Installation	toolless
Installation.....	DIN rail
Dimention	62×133×131 mm
Warranty	2 years

Advantages

- ▶ Parallel and series connection
- ▶ Compliance with Safety Integrity Level SIL 2
- ▶ Start-up capability from -40 °C

Ordering information



Output specifications*

Parameter		Value		
Model		KAN-D240C15N	KAN-D240C24N	
Output power, W		240 W 300 W at $t_{amb} < 40^{\circ}\text{C}$ $U_{out} = 176...264$ V	240 W 300 W at $t_{amb} < 50^{\circ}\text{C}$ $U_{out} = 176...264$ V	
Nominal output voltage, V		15	24	
Output voltage adjustment range, V	Built-in potentiometer	12...17,5	20...30	
	by Adj.U**	±5%		
Efficiency, %		≥ 91,5		
Rated output current, A		16	10	
Ripple and noise (peak-to-peak)		<2%		
Line and load regulation		no more 2%		
Start-up time, sec		1 ($U_{in} = 220$ VAC)		
Serviceability output signal	Dry contact	Maximum switchable voltage and current	250 VAC/ 30 VDC/ 10 A	
		Relay current consumption, mA	10	20
		Relay cut-off voltage, V	18...20	8...10
	"Diag" output		open collector 100 mA, 45 V max	
Parallel operation		without additional components		
Maximum load capacity, uF		100000 uF		

Input specifications*

Parameter	Value
Input voltage range, VAC***	~85...264 =100...372
Mains frequency range, Hz	47-63 VAC
	0 VDC
Consumed current, A	2,75 (~120 V) 1,5 (~220 V)
Inrush current pulse	30 A
Pre-fuse	5 (inert type, internal)
Power factor corrector	active
Power factor	>0,95

* All specifications are valid for normal climatic conditions U_{in} . nom., I_{out} . nom., unless otherwise noted.

** Adjustment is made by applying 0...5 V to the lead Adj.U pin (0 V = $U_{out.nom} + 5\%$; 5 V = $U_{out.nom} - 5\%$).

*** See graph on page 6.

**** With start-up capability at -40°C .

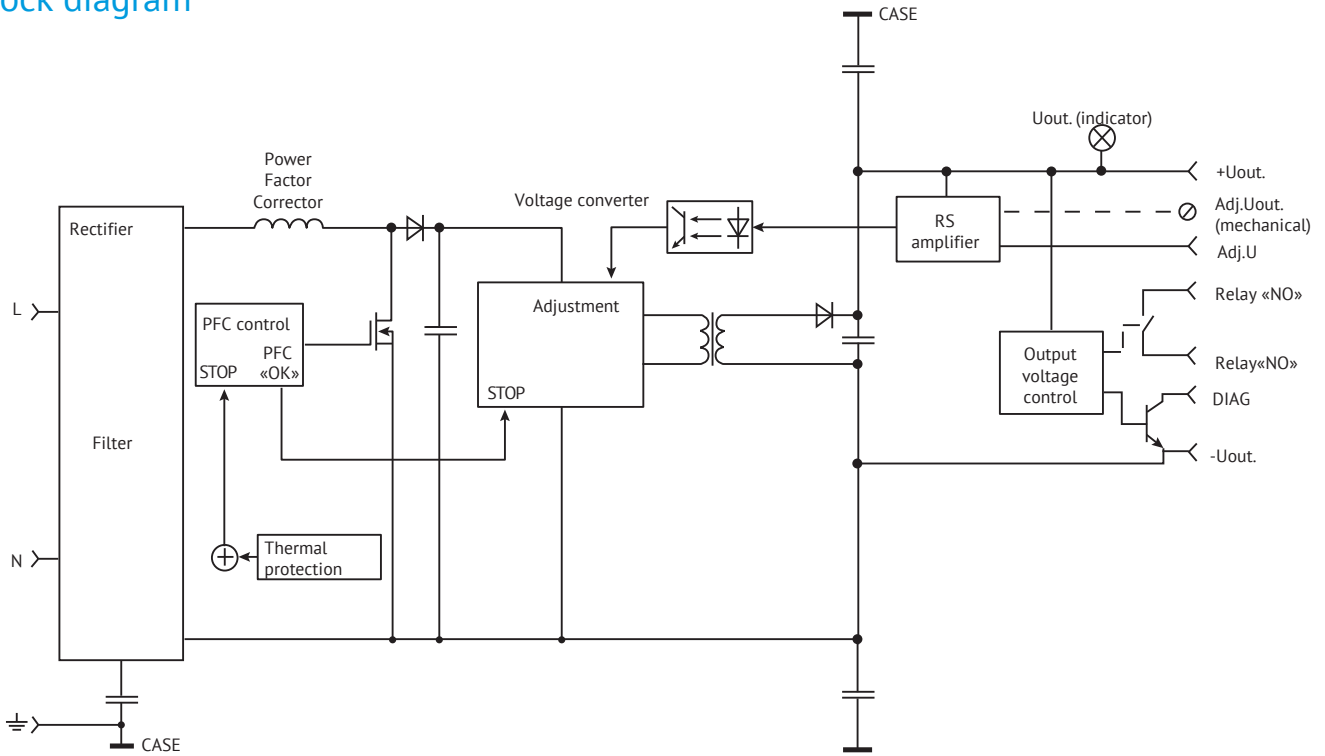
Protections

Type of protection	
Short-circuit protection	automatic restart after short-circuit relief
Overcurrent protection	$P_{max} < 1.6 P_{nom}$
Overload protection level, V	$< 150\% U_{out nom}$
Over temperature protection	at $t_{ambient} > 70^{\circ}C$

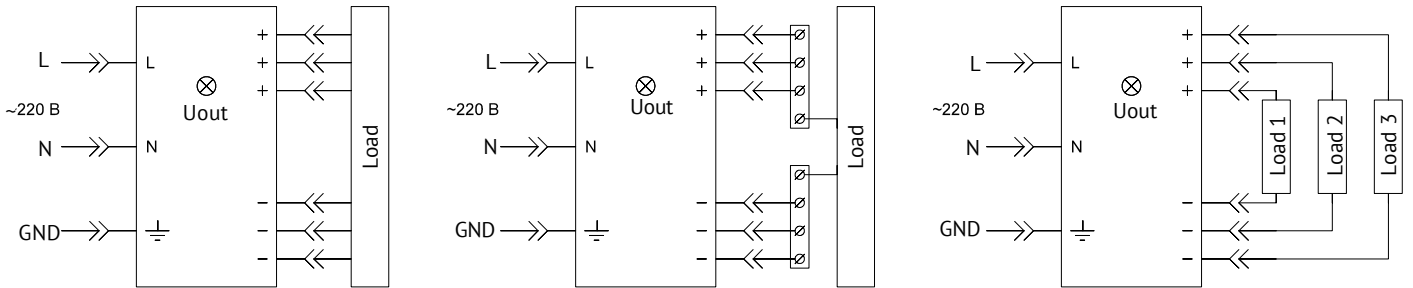
Basic specifications

Parameter	Value
Type of connection	plug-in screw terminals
Derating	2,5% / °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 $t^{\circ} ambient +40^{\circ}C$ (95% at $t^{\circ}C ambient +25^{\circ}C$)
Isolation voltage, V	in /case ~3000 VAC
	in /out ~3000 VAC
	out /case ~1500 VAC
Isolation resistance @ 500 VDC	$\geq 20 MOhm min$
Cooling	convectioanal
MTBF	1 400 000 Hrs
Case material	metal
Dimensions (W×D×H), mm	62×133×131
Weight, kg	no more than 1,1
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 year

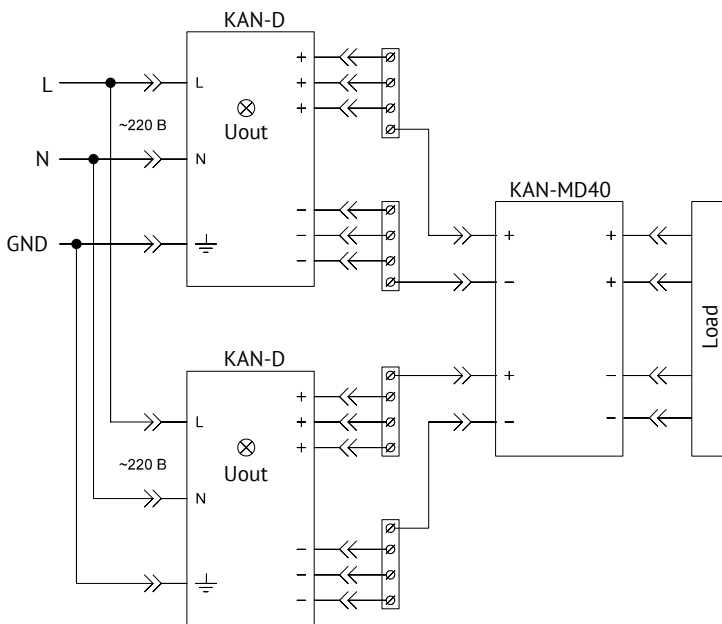
Block diagram



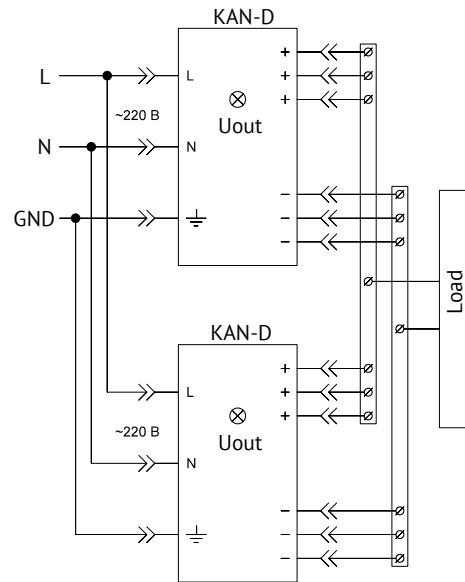
Connection diagram Typical connection



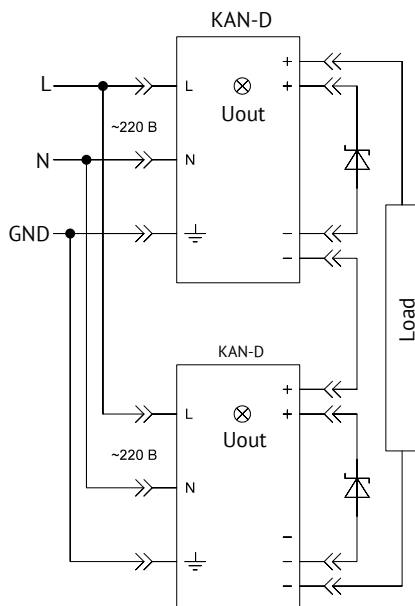
Parallel connection (redundant mode)



Parallel connection (power ramp-up)

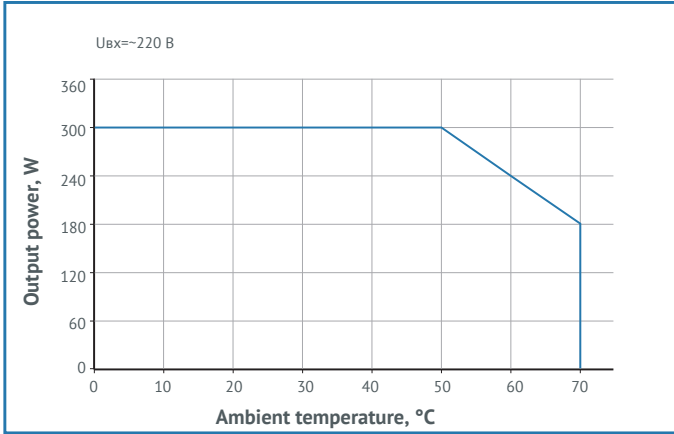


Series connection (no more than 2)

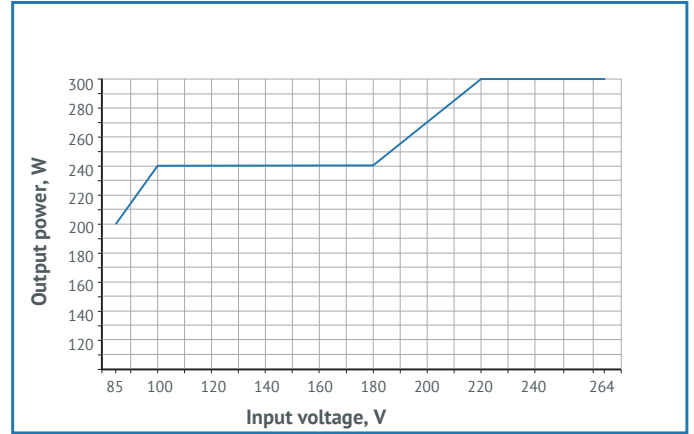


Derating for KAN-D240C24N

Temperature dependence

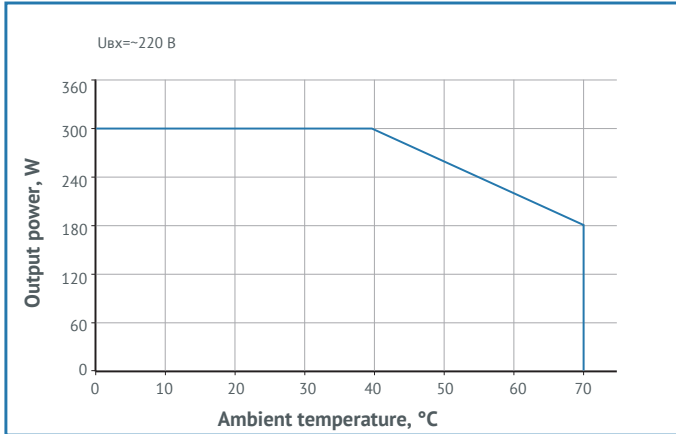


Dependence on input voltage

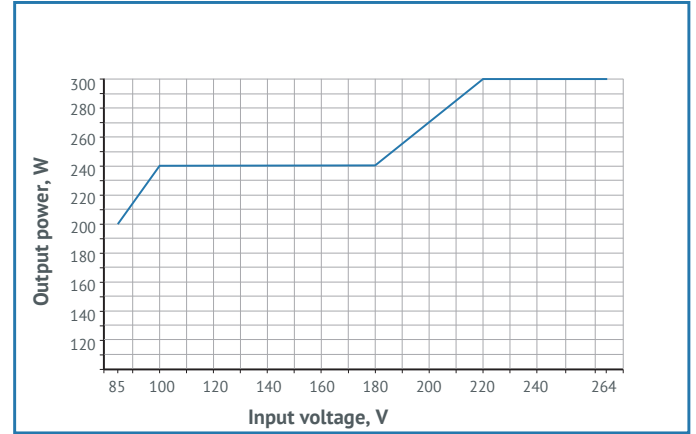


Derating for KAN-D240C15N

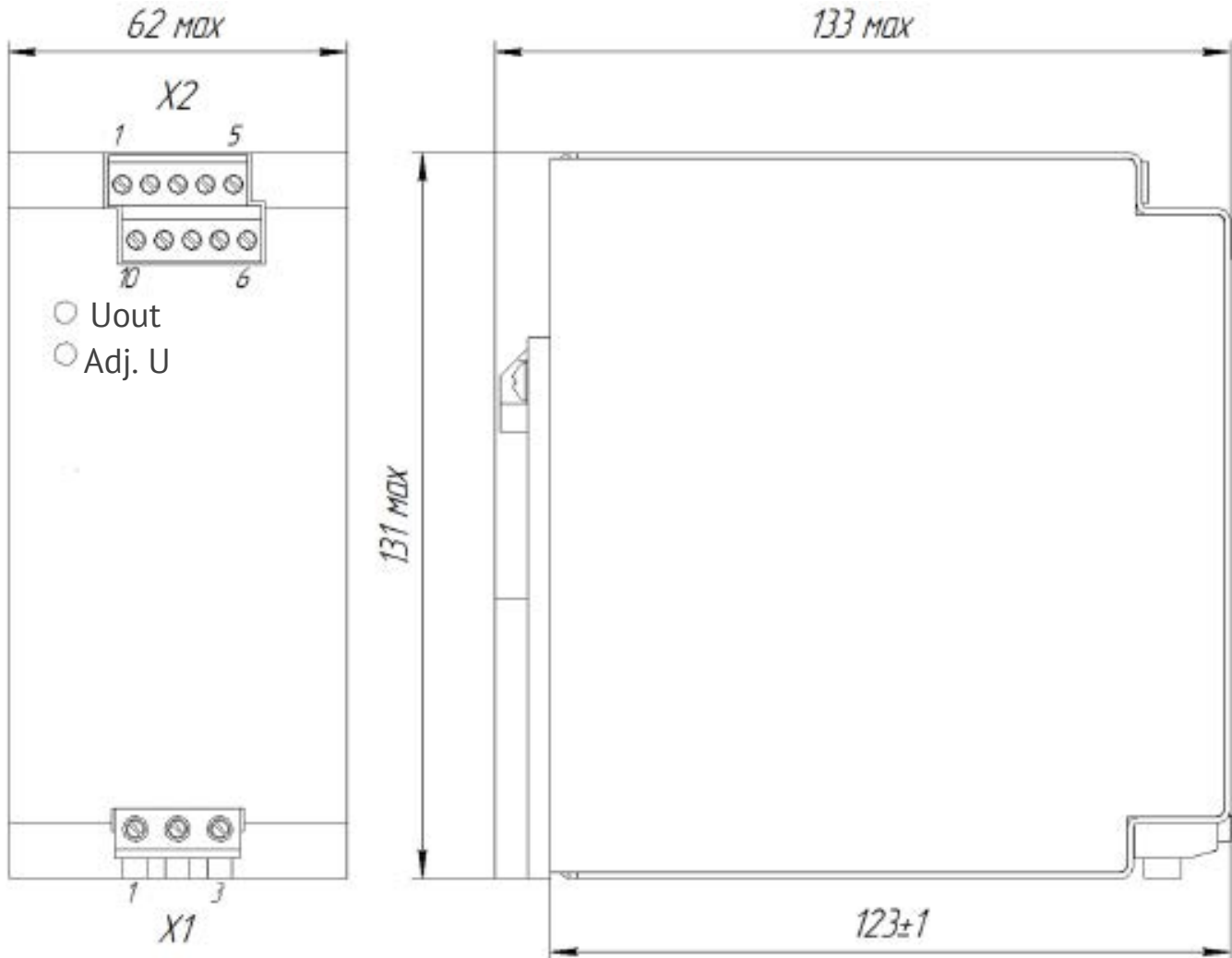
Temperature dependence



Dependence on input voltage



Dimensions drawing



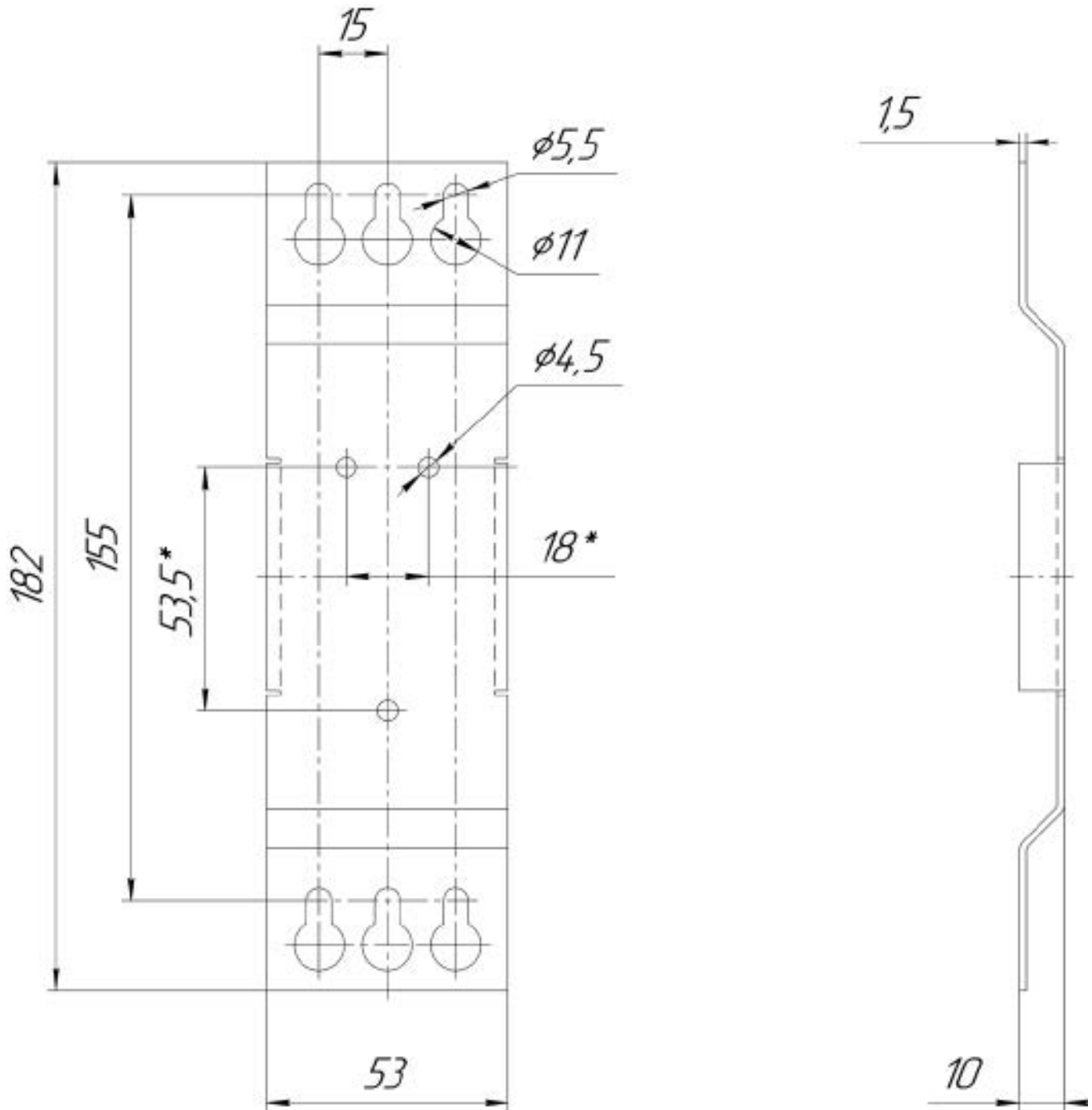
Pin assignment

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

Bracket dimensional drawing
Bracket ANZHE.745422.002



The datasheet is valid for the: KAN-D240C24N, KAN-D240C15N.

1 To be ordered separately