

AC/DC power supply unit

KAN-D product line

KAN-D240, 240 W



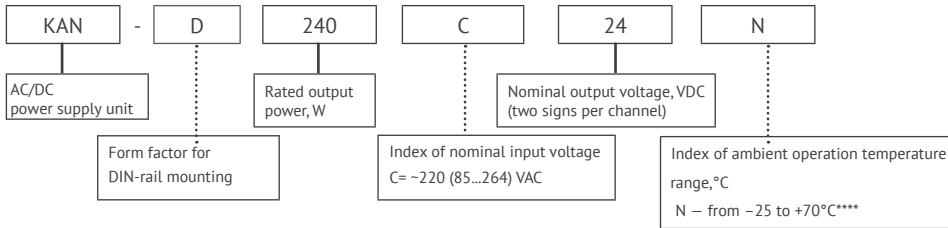
Global Data

| | |
|-------------------------------------|--------------------|
| 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 |
| Dimintions | 62×133×131 mm |
| Warently | 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 .

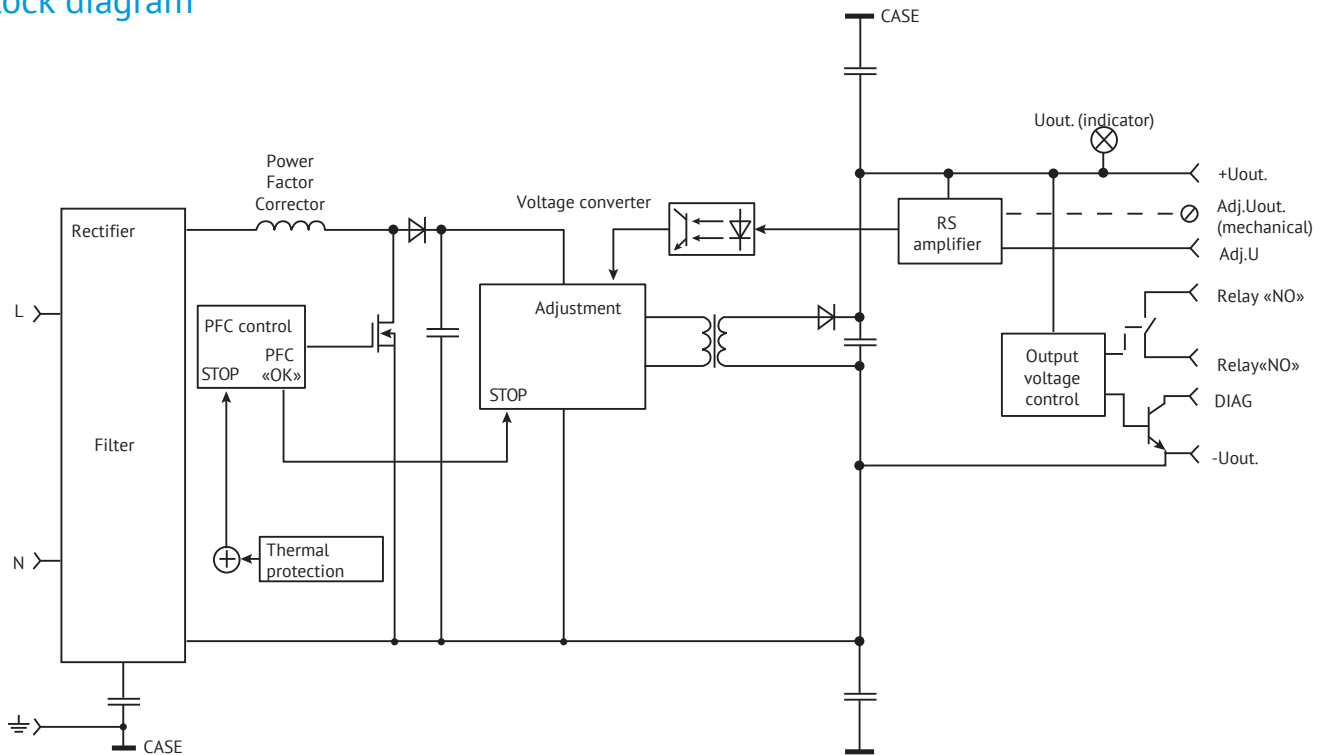
Protections

| 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 $t_{ambient} > 70^{\circ}C$ |

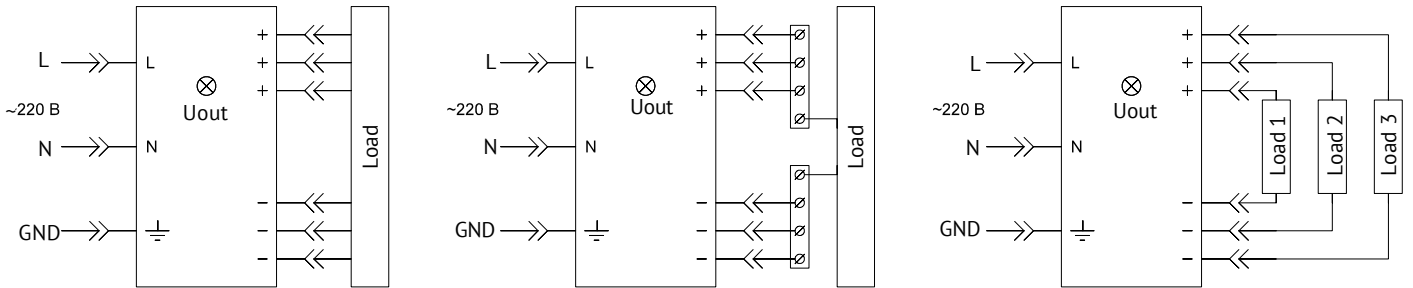
Basic specifications

| 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 |

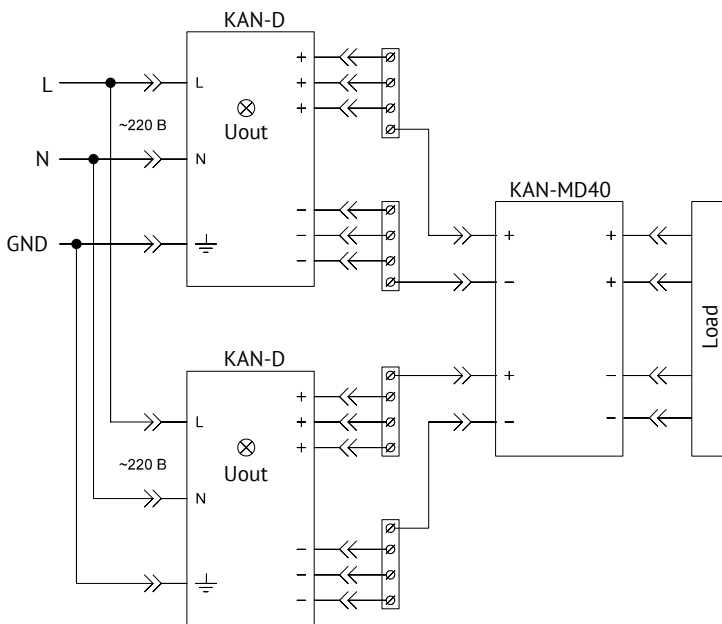
Block diagram



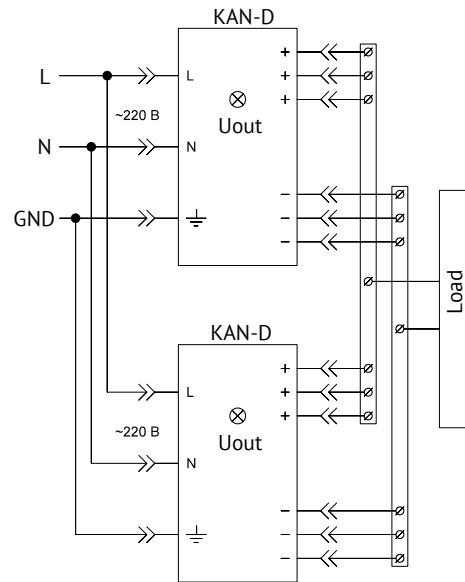
Connection diagram
Typical connection



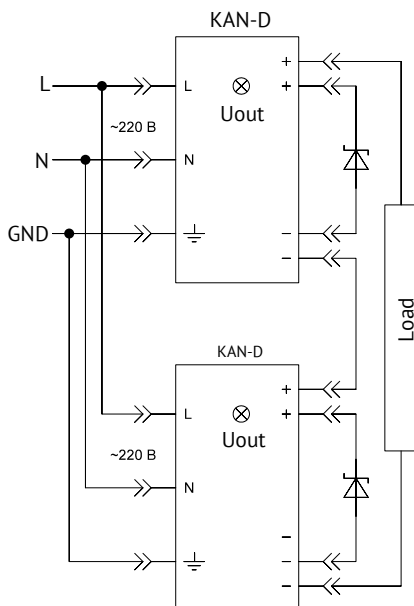
Parallel connection (redundant mode)



Parallel connection (power ramp-up)

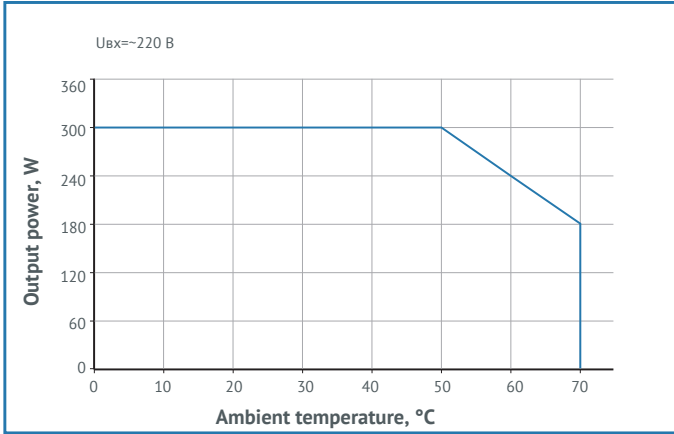


Series connection (no more than 2)

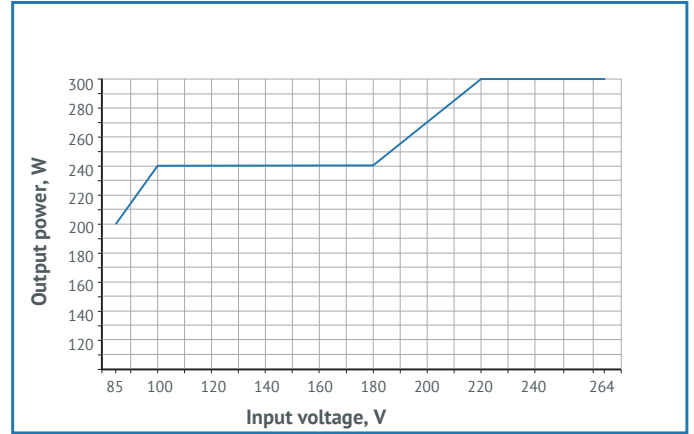


Derating for KAN-D240C24N

Temperature dependence

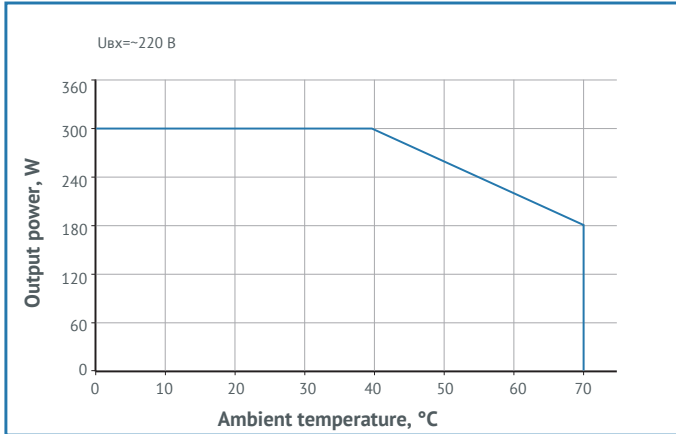


Dependence on input voltage

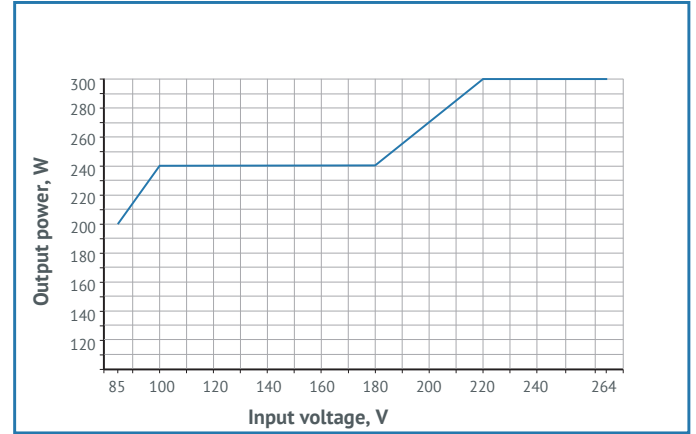


Derating for KAN-D240C15N

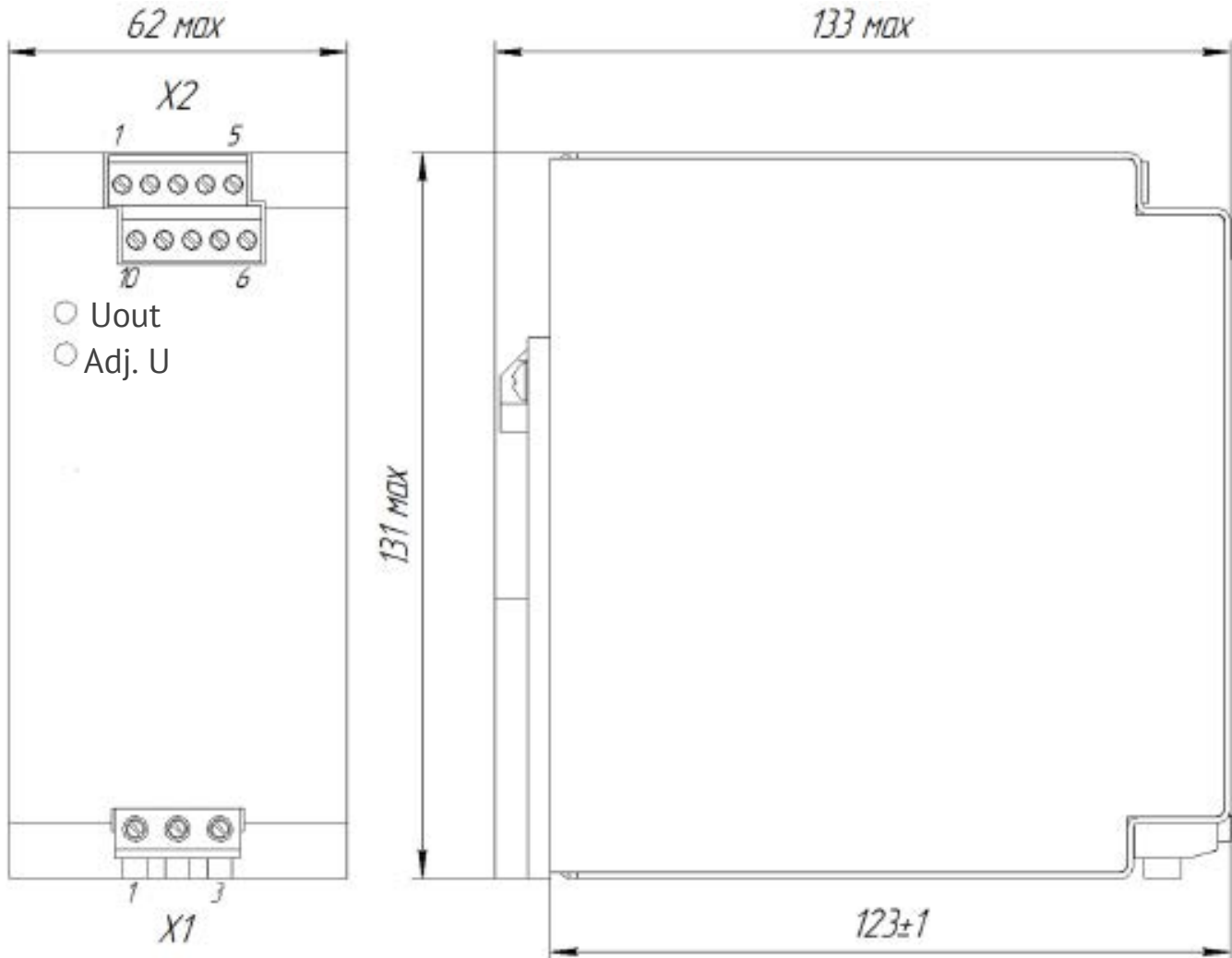
Temperature dependence



Dependence on input voltage



Dimensions drawing



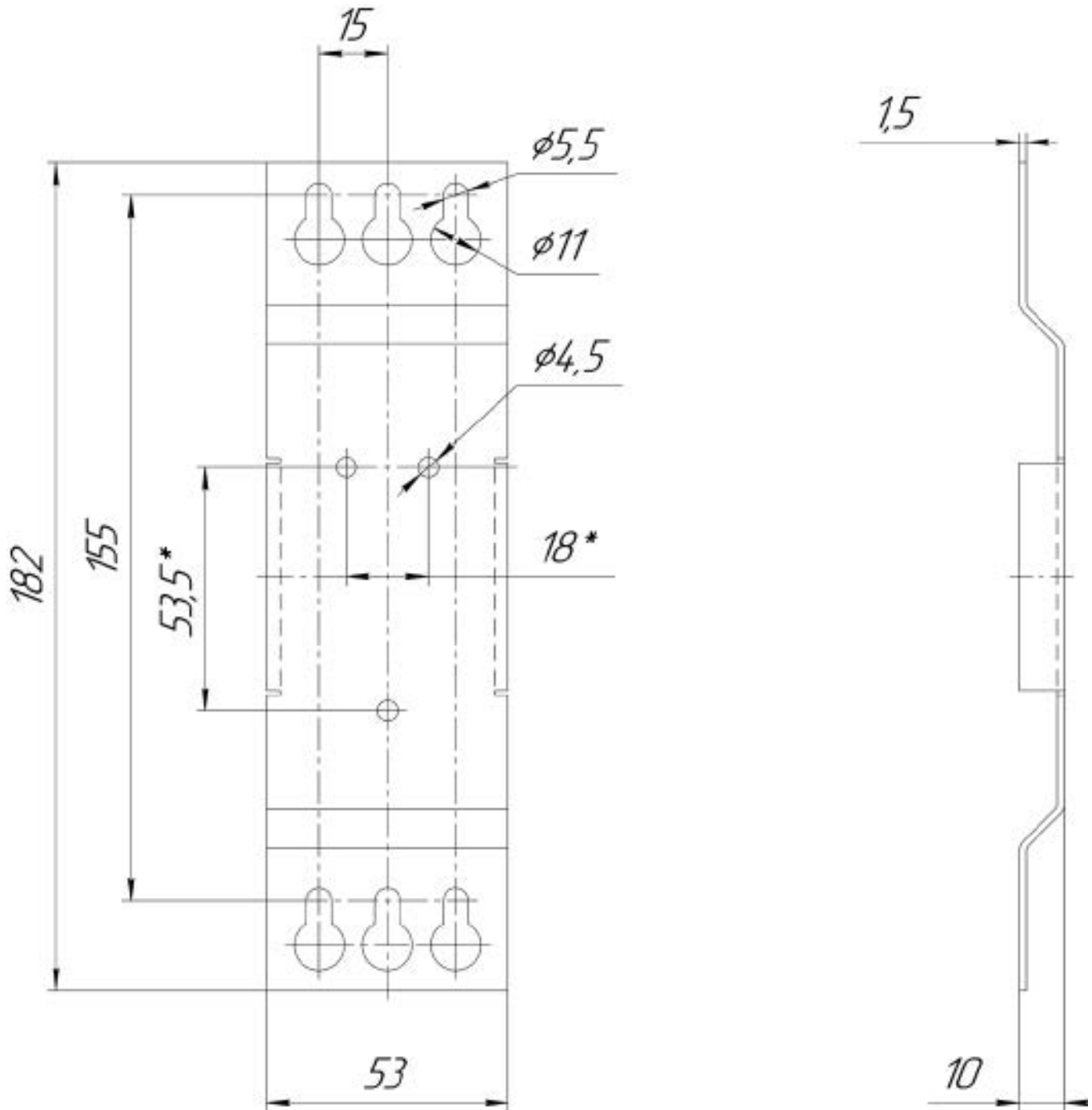
Pin assignment

| 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