

AC/DC converters

KAN-D Family KAN-D240, 240 W



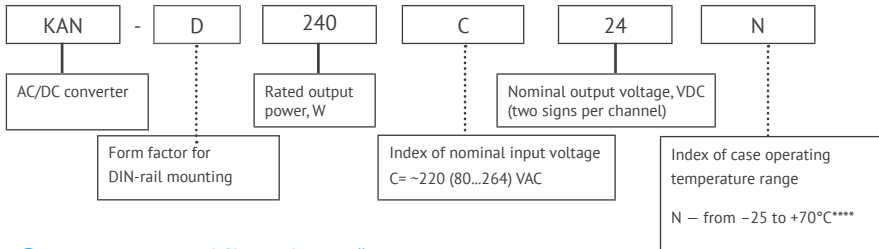
Features

| | |
|-------------------------------------|--------------------|
| Power | 240 W |
| Output current | up to 20 A |
| Input voltage | ~220 (80...264) V |
| Output voltage | =15 V; =24 B |
| Efficiency | no less than 91% |
| Ambient operating temperature | -25...+70 °C |
| Dry contact..... | based on |
| EMC standart | ENC55022 (CISPR22) |
| Replacement/Installation | Without tools |
| Installation..... | DIN rail |
| Dimensions | 42×134×131 mm |
| Warranty | 2 years |

Advantages

- ◀ Parallel and series connection
- ◀ Compliance with SIL2 safety level
- ◀ Operation from -40 °C

Ordering information



Output specifications*

| Parameter | | Value | | |
|--------------------------------------|------------------------|---|---|--------|
| Model | | KAN-D240C15N | KAN-D240C24N | |
| Output power, W | | 240 W 300 W at $t_{amb} < 40^{\circ}C$ $U_{out}=176...264$ V | 240 W 300 W at $t_{amb} < 50^{\circ}C$ $U_{out}=176...264$ V | |
| Nominal output voltage, V | | 15 | 24 | |
| Output voltage adjustment range, MCB | Built-in potentiometer | 12...17,5 | 20...30 | |
| | by Adj.U** | ±5% | | |
| Efficiency, % | | no less than 91,5 | | |
| Rated output current, A | | 18 | 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 voltage off, V | 18...20 | 8...10 |
| | Output "Diag" | | open collectro 100 mA, 45 V max | |
| Parallel operation**** | | without additional strapping | | |
| Maximum load capacity, uF | | 100000 uF | | |

Input specifications*

| Parameter | Value |
|-----------------------------|-------------------------------|
| Input voltage range, VAC*** | ~80...264 =112...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 Reg.U pin (0 V = $U_{out.nom} + 5\%$; 5 V = $U_{out.nom} - 5\%$).
 *** See graph on page 6.
 **** With start-up capability at $-40^{\circ}C$.

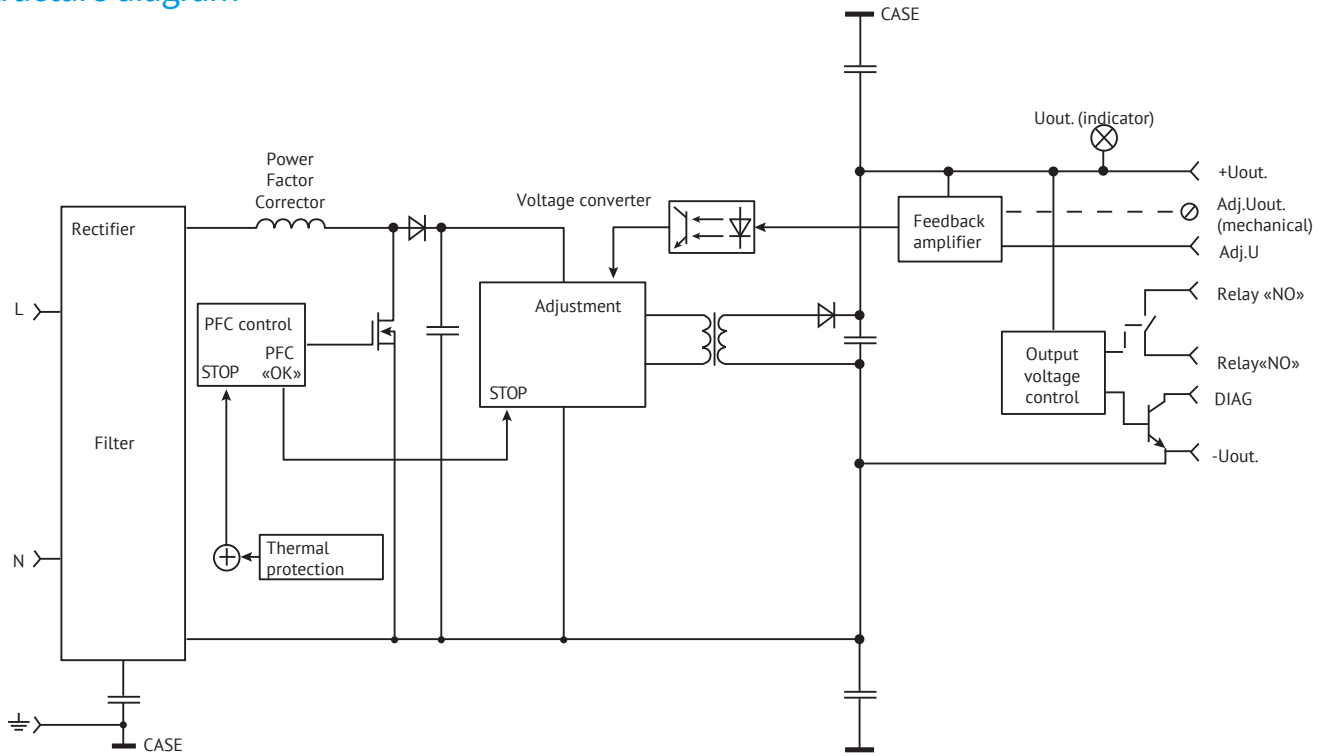
Protections

| Type of protection | |
|------------------------------|--|
| Short-circuit protection | automatic restart after short-circuit relief |
| Overcurrent protection | $P_{max} < 1.6 P_{nom}$ |
| Overload protection level, V | $< 150\% U_{вых ном}$ |
| Over temperature protection | $T_{case} > 70^{\circ}C$ |

Basic specifications

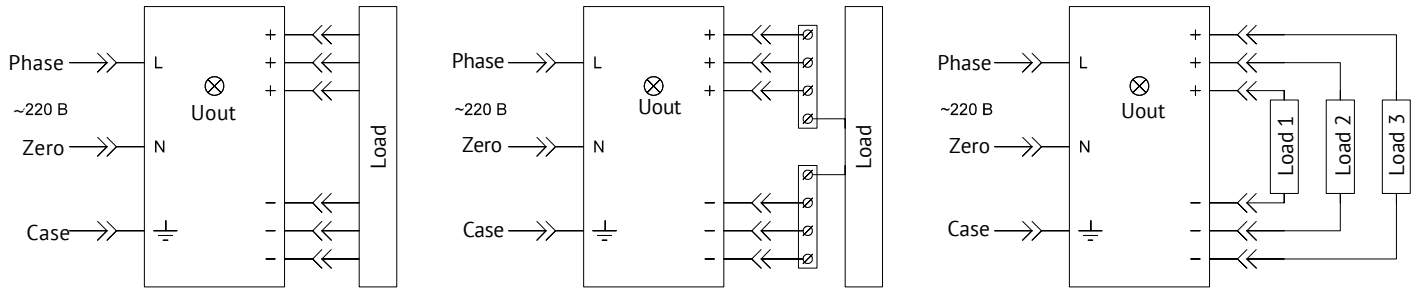
| Parameter | Value |
|--------------------------------|--|
| Type of connection | plug-in screw terminals |
| Derating | 2,5% / °C after +60°C |
| Protection level | IP20 |
| EMC standards | EN55022 (CISPR22), Class B |
| Case temperature, storage | N -25...+70°C |
| Ambient temperature, storage | -50...+70°C |
| Humidity | 85% at t°C ambient temperature +40°C (95% at t°C ambient temperature +25°C) |
| Isolation voltage | in /case ~3000 VAC |
| | in /out ~3000 VAC |
| | out /case ~1500 VAC |
| Isolation resistance @ 500 VDC | ≥ 20 MOhm min |
| Cooling | convective |
| Typical MTBF | 1 400 000 Hrs |
| Case material | metal |
| Dimensions (W×D×H), mm | 62×133×131 (without clamp feet) |
| 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 |

Structure diagram

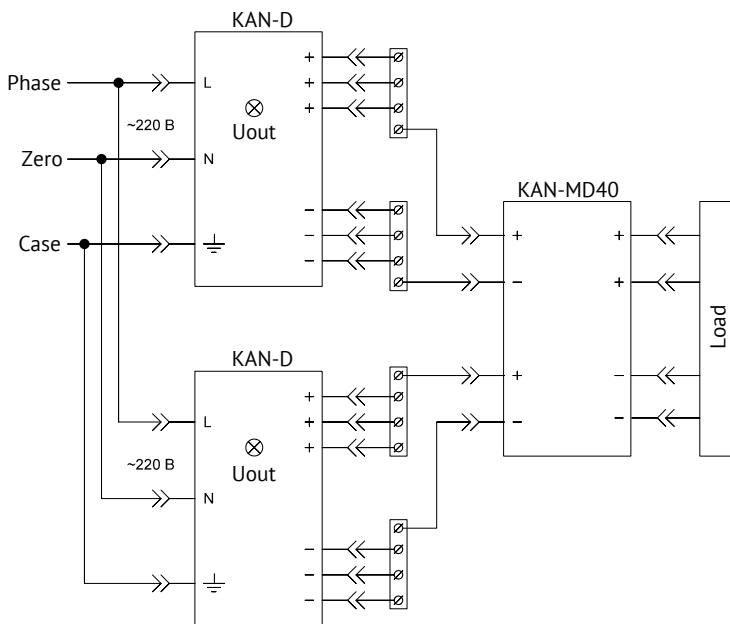


Схемы подключения

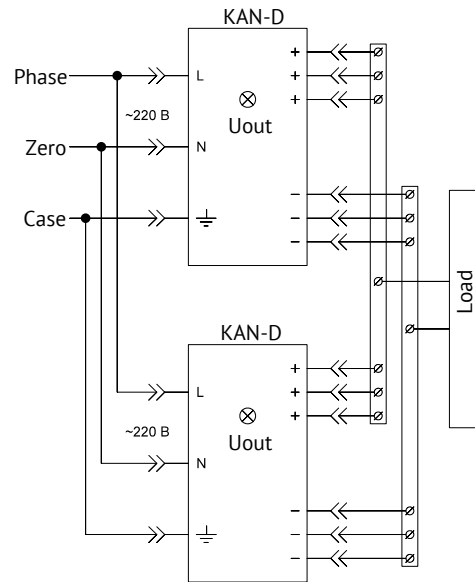
Типовое включение



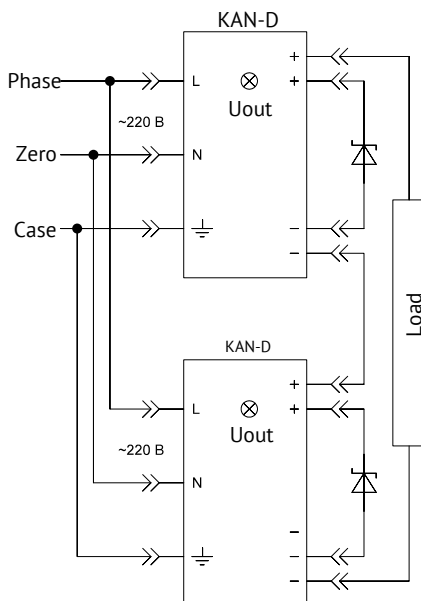
Parallel operation (redundant mode)



Parallel operation (power ramp-up)

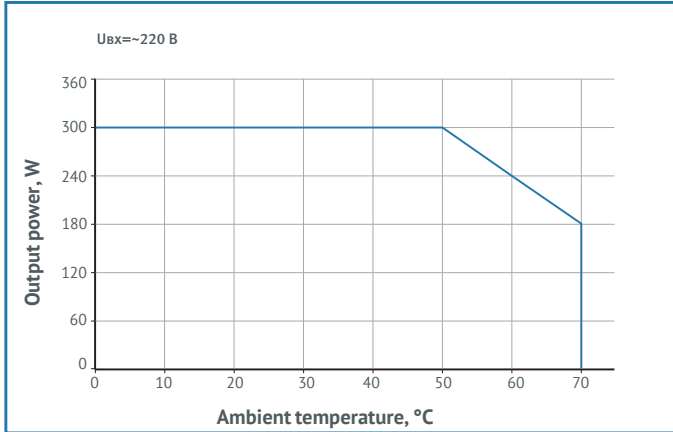


Series connection (max. 2)

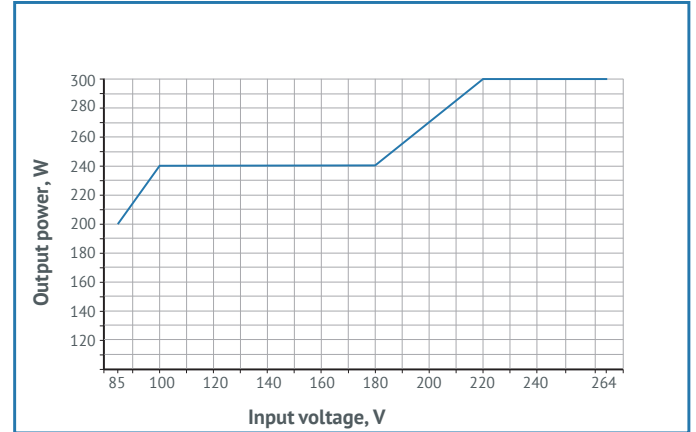


Derating for KAN-D240C24N

Temperature dependence

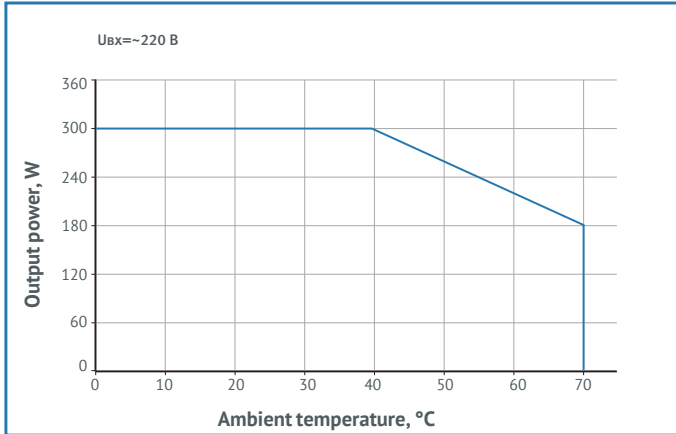


Dependence on input voltage

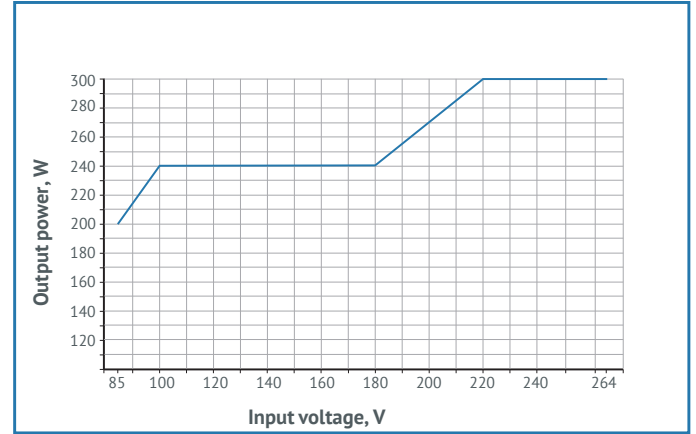


Derating for KAN-D240C15N

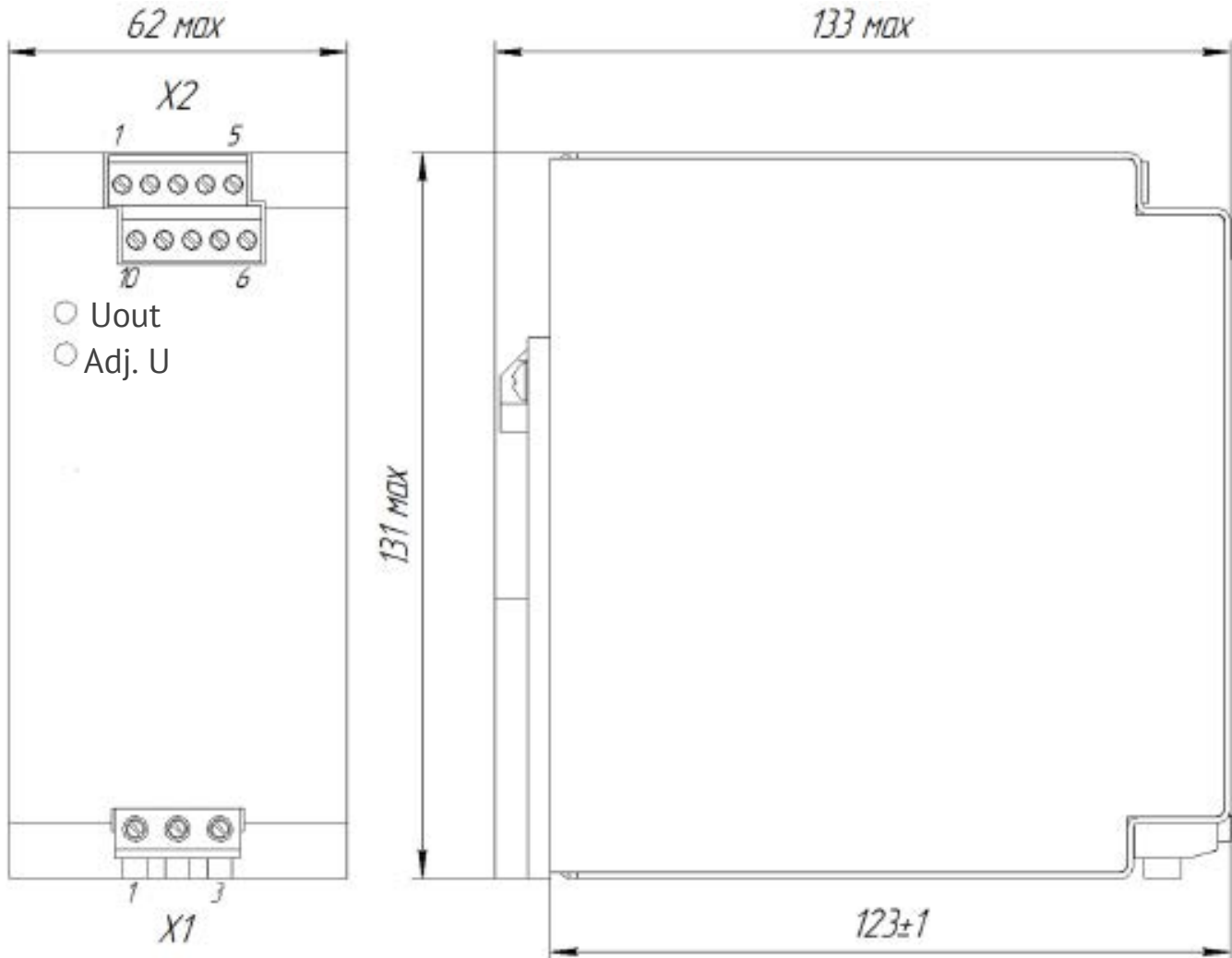
Temperature dependence



Dependence on input voltage



Dimensional diagram



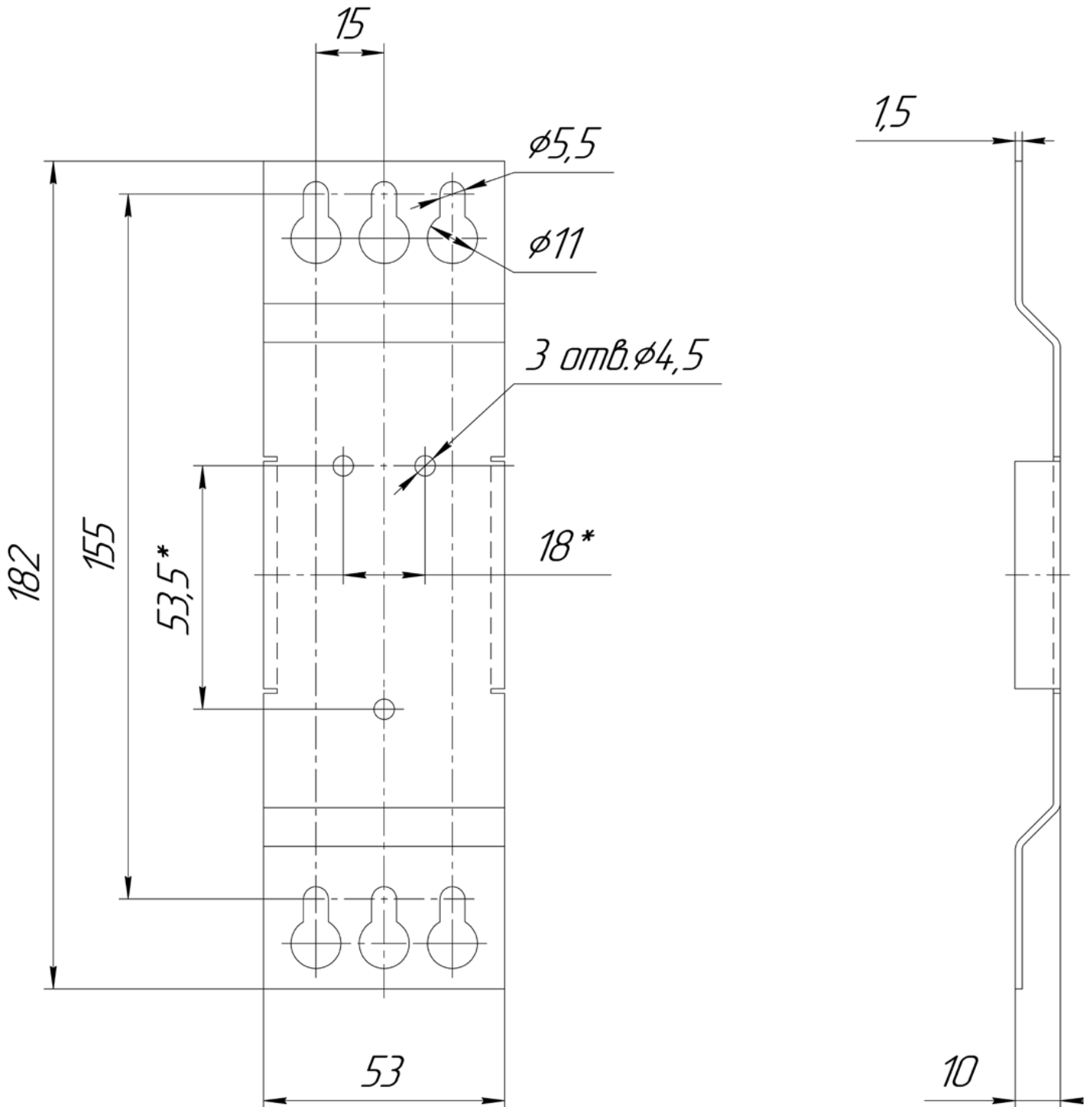
Pin assignment

| X1.1 | X1.2 | X1.3 |
|------|------|------|
| L | N | ⊕ |

| X2.1 | X2.2 | X2.3 | X2.4 | X2.5 |
|-------|-------|------|------|------|
| DC_OK | DC_OK | -OUT | -OUT | -OUT |

| X2.10 | X2.9 | X2.8 | X2.7 | X2.6 |
|-------|-------|------|------|------|
| DIAG | Adj.U | +OUT | -OUT | +OUT |

Dimensional diagram of the bracket
Bracket ANZHE.745422.002



The datasheet covers the modules: KAN-D240C24N, KAN-D240C15N.

1 To be ordered separately