



RDCZ

Residential fan speed controller

The RDCZ series consists of residential HVAC controllers used to control AC fans, voltage-controllable motors, lighting or other applications. They feature a wide supply voltage range 110–230 VAC / 50–60 Hz and a variable control output signal between an adjustable minimum and maximum level. The motor voltage is regulated either steplessly or in 2 to 10 equal steps. The settings are easily adjustable either via the 3-button interface equipped with a 7-Segment LED display or via our 3SModbus software application.

Key Features

- User-friendly menu using a 3-digit, 7-segment LED display with 3-button keyboard interface
- Extended menu via 3SModbus software application
- Suitable for inset or surface mounting
- Regulates motor voltage via phase angle control
- Selectable minimum and maximum output value as a percentage of the supply voltage
- Kickstart or soft start mode
- Selectable start-up duration time
- Stepless output or output in 2–10 steps
- Adjustable start output value or start output step
- Display can be toggled between output value and step
- Modbus RTU (RS485) communication for integration with BMS

Area of Use

- Manual control for HVAC applications
- For indoor use only

Technical Specifications

Supply voltage	110–230 VAC $\pm 10\%$ / 50–60 Hz	
Inrush current	Max. 15 A (110 VAC) Max. 25 A (240 VAC)	
No-load (stand-by) power	110 VAC / 60 Hz < 0,9 W 230 VAC / 50 Hz < 2,3 W	
Minimum load	100 mA	
Maximum load	1,5 A	
Regulated output	30–100 % Us	
Minimum output voltage, Umin	30–65 % Us	
Maximum output voltage, Umax	75–100 % Us	
Start-up value	30–100 % Us	
Start-up duration	2–10 seconds	
Protection standard	IP44/ IP54 (according to EN 60529)	
Enclosure	External: plastic ASA	
	Internal: polyamide (IEC 60335)	
Ambient conditions	Temperature	-10–40 °C
	Rel. humidity	5–80 % rH (non-condensing)

Standards

- Low Voltage Directive 2014/35/EC
- Electromagnetic Compatibility (EMC) Directive 2014/30/EU
- WEEE Directive 2012/19/EU
- Commission Delegated Directive (EU) 2015/863 (RoHS 3) of 31 March 2015 amending Annex II to Directive 2011/65/EU of the European Parliament and of the Council as regards the list of restricted substances



Article Codes

Article code	Enclosure
RDCZ9-15-WH	White
RDCZ9-15-BK	Black (anthracite)

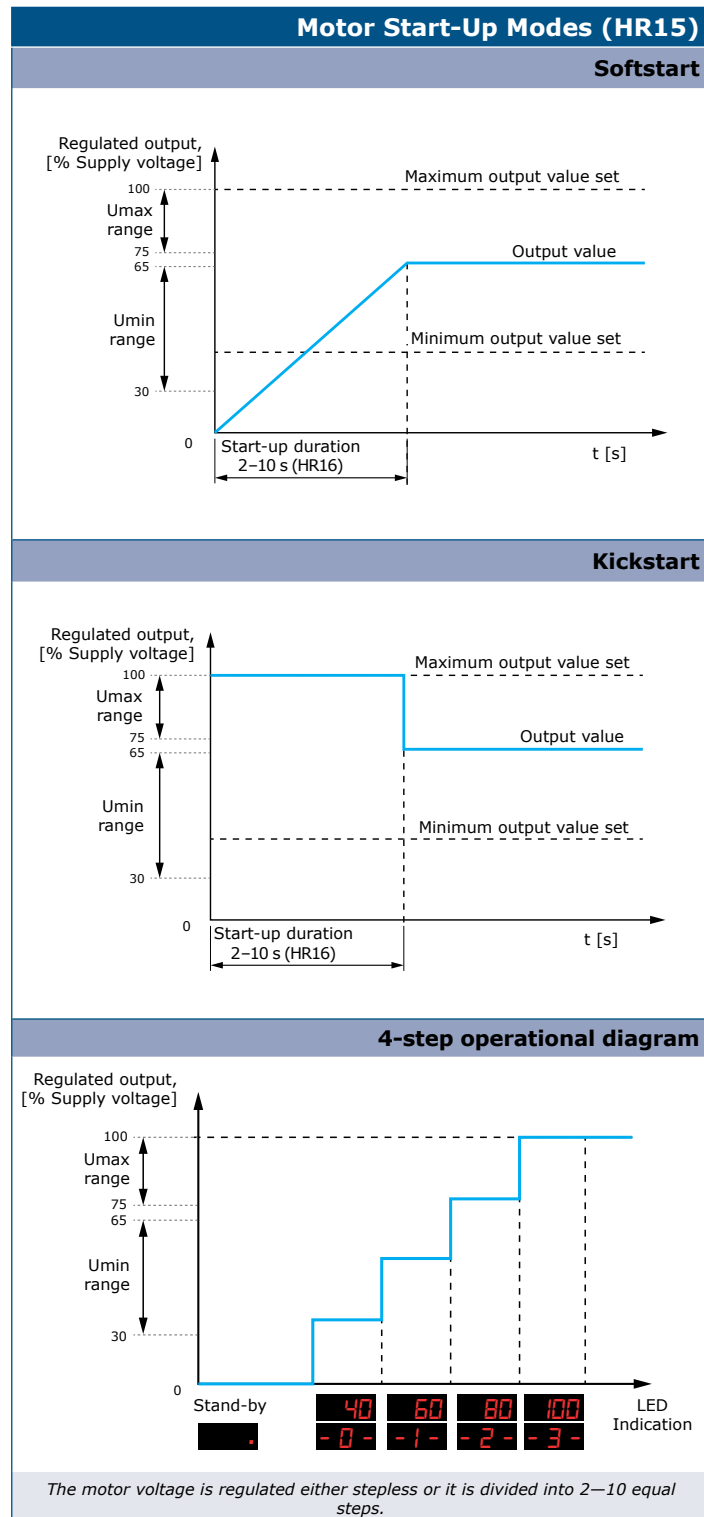
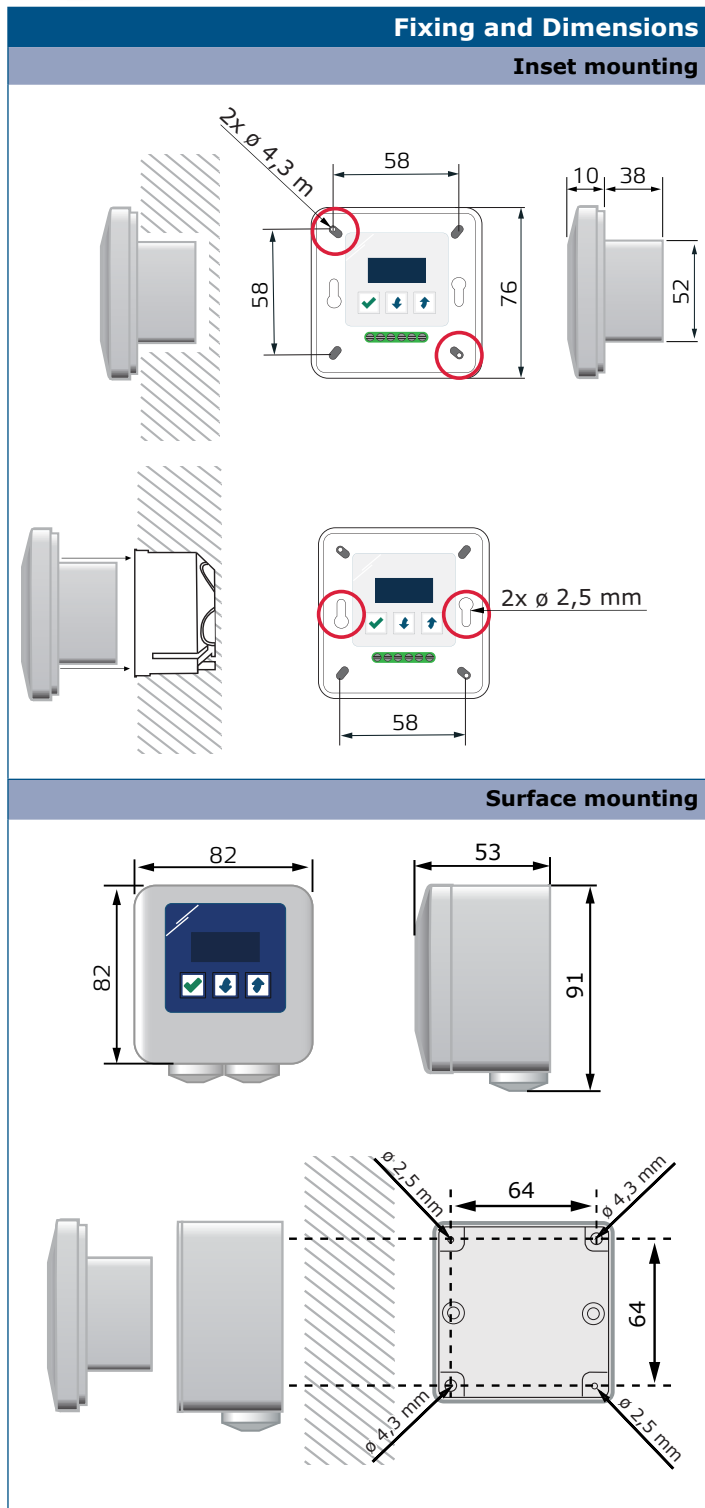
Wiring and Connections



L, N	Power supply: 110– 230 VAC $\pm 10\%$ / 50–60 Hz
U1, U2(N)	Regulated output to motor, Imax 1,5 A
A, /B	Modbus RTU (RS485)
Connections	Cable cross section: max. 2,5 mm ²

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Application Examples

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**AC fan (voltage
controllable motor)**



max. 1,5 A