

Metal box housed resistors

Terminals

Available into painted die-cast aluminum terminal box on screw terminals. The passing insulators are composed of two insulating parts and nicked brass bolt

Mechanical characteristics

IP23, Naked wirewound resistor in galvanized steel enclosure

Applications

Dynamic braking, Neutral grounding, Starting motor, Load banks

Market

Industrial Automation, Energy

Custom available enclosure

IP20, AISI 304, AISI 316L marine enclosure

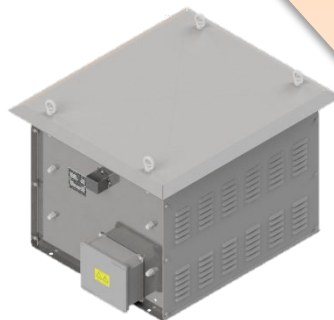
Options

Thermal switch, Multiple sections, Three phase

RX

IP23

4.5 ÷ 60 KW



ELECTRICAL CHARACTERISTICS

ONE MODULE

refers to room temperature 25°C / 77 °F

ID	Rated Power UL	Min resistance	Max resistance	Operating Voltage/Rated current
Unit	kW	Ω	Ω	V / A
RX 21S	4.5	0.33	220	1000 / 270
RX 35S	8.5	0.27	110	1000 / 270
RX 50S	15	0.39	62	1000 / 270
RX 65S	20	0.51	47	1000 / 270

TWO MODULES (not covered by UL certification)

RX 50M	30	0.18	1600	1000 / 270
RX 65M	40	0.27	2400	1000 / 270

THREE MODULES (not covered by UL certification)

RX 65L	60	0.18	3600	1000 / 270
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Continuous rated power refers to external surface temperature of 200°C on top			Thermal time constant: 900 s (enclosure)	
Overload	5 s	10 x Rated Power	Dielectric strength (50Hz 60") 4250 V Electrical insulation refers to Overvoltage Cat. III and PD 3	
	10 s	5 x Rated Power		
	30 s	2 x Rated Power		
	60 s	1.5 x Rated Power		

Standard RX internal elements is RMS 6 naked wire wound resistor.

Resistive alloys: NiCr3020 (TCR 240 ppm/K), or CuNi44 (TCR of 40 ppm/K) for very low ohmic values.

Standard model housing is galvanized steel.

Standard tolerance on ohmic value is ±10%.

Picture above refers to RX 65S.

Power terminals are metric M10 nicked brass located into a painted die-cast aluminum terminal box. To connect the terminals remove the cover. Tightening torque is 25 Nm.

Optional External thermal switch data: Switch temperature 160±5°C / rated voltage: 250 V / rated current: 10 A; connection male fast-on 6.3 mm. To connect the thermal switch remove the cover.

RX 21S and RX 35S do not have ring nuts on top, all other models have it.

Hole diam. 8.2 mm / 0.32 in for earthing connection is available in the front panel.

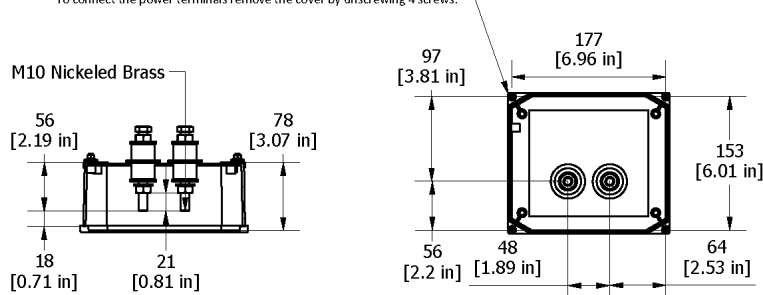
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MECHANICAL DATA

ID	A [mm/in]	B [mm/in]	H [mm/in]	I [mm/in]	L [mm/in]	L1 [mm/in]	P [mm/in]	Max weight [kg/lbs]
RX 21S	650 / 25.59	310 / 12.21	520 / 20.47	410 / 16.14	210 / 8.27	185 / 7.28	550 / 21.65	20 / 44.1
RX 35S	650 / 25.59	450 / 17.72	520 / 20.47	410 / 16.14	350 / 13.78	325 / 12.8	550 / 21.65	30 / 66.14
RX 50S	650 / 25.59	600 / 23.62	560 / 22.05	410 / 16.14	500 / 19.69	475 / 18.7	550 / 21.65	45 / 99.2
RX 65S	650 / 25.59	750 / 29.53	560 / 22.05	410 / 16.14	650 / 25.59	625 / 24.61	550 / 21.65	60 / 132
RX 50M	650 / 25.59	600 / 23.62	900 / 35.43	410 / 16.14	500 / 19.69	475 / 18.7	550 / 21.65	80 / 176
RX 65M	650 / 25.59	750 / 29.53	900 / 35.43	410 / 16.14	650 / 25.59	625 / 24.61	550 / 21.65	110 / 242
RX 65L	650 / 25.59	750 / 29.53	1340 / 52.76	410 / 16.14	650 / 25.59	625 / 24.61	550 / 21.65	140 / 309

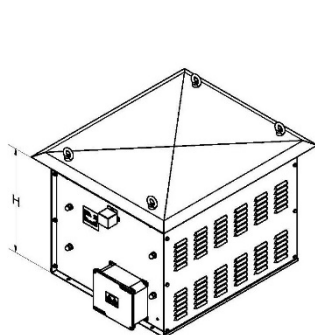
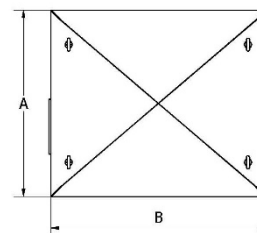
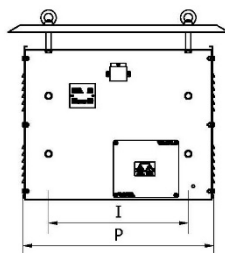
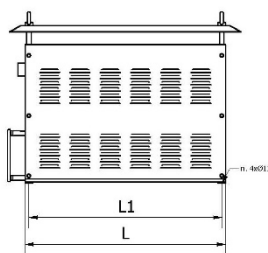
POWER TERMINALS TERMINAL BOX

To connect the power terminals remove the cover by unscrewing 4 screws.

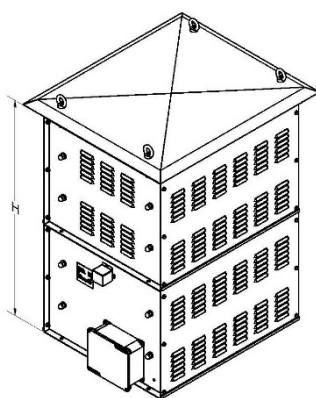


DRAWING

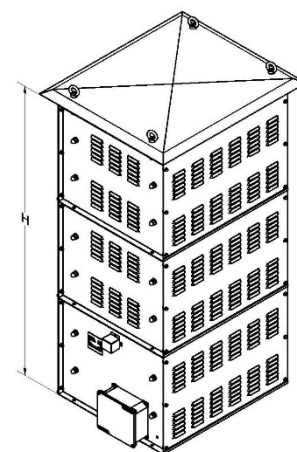
Unless otherwise specified, applicable standard of general tolerances for linear and angular dimensions is ISO 2768-1 class c.



21S, 35S, 50S, 65S



50M, 65M



65L

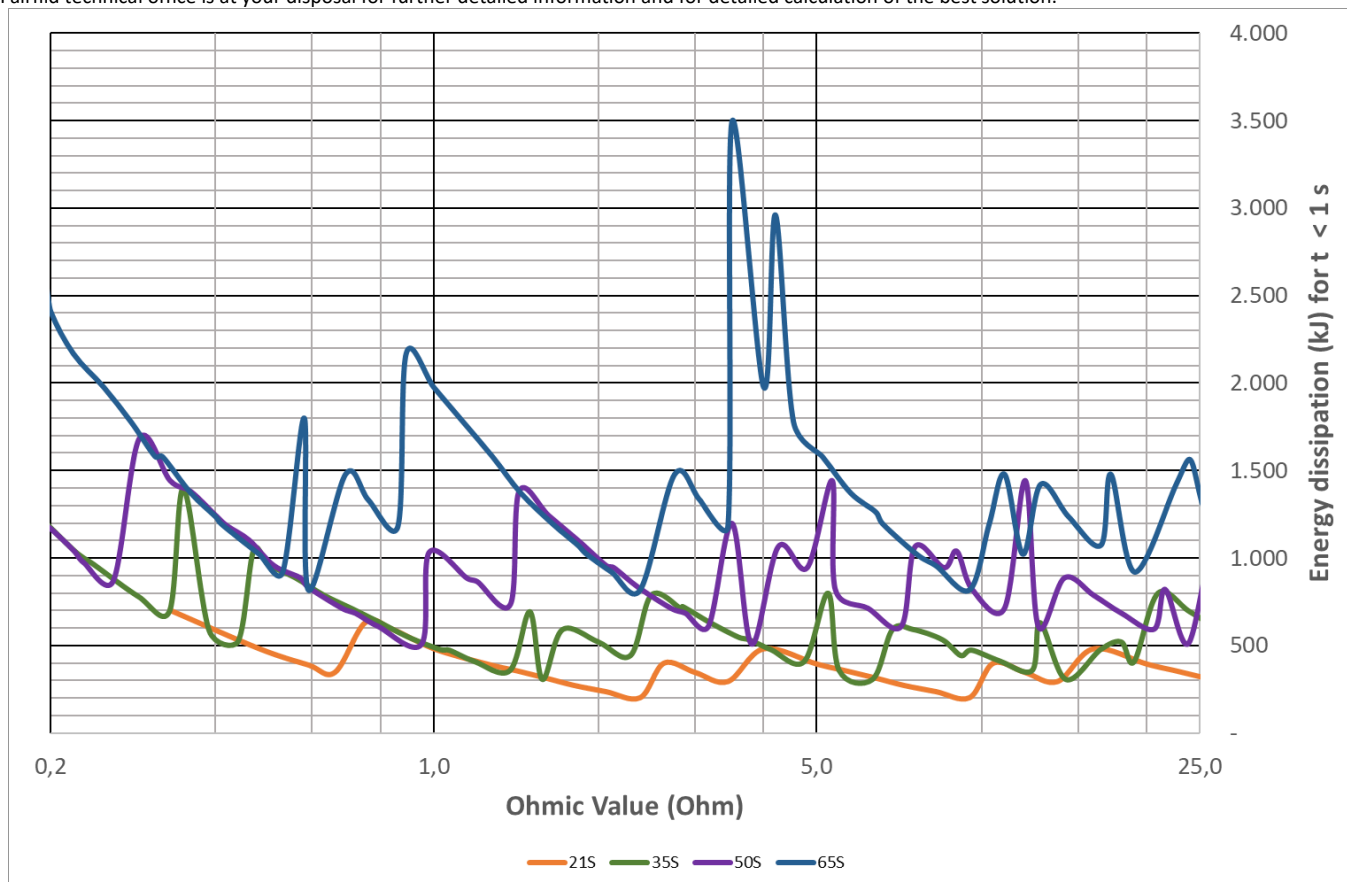
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Rated power and overload conditions

Metal box resistors are mostly used for overload operations, such as dynamic braking of VFD or emergency stop.

For pulses of duration less than 1 s, the mass of the wire must be taken in account to define the admissible overload. The mass of the wire depends on the ohmic value. In the graph below you can find the energy that can be dissipated by the resistor in function of its ohmic value.

Fairfield technical office is at your disposal for further detailed information and for detailed calculation of the best solution.



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Marking

The resistor is marked on a name plate screwed on the front panel

FAIRFIELD ITALY
www.fairfield.com
 RXT 35S PPP RRR 10%
 WW/YY (week / year)
 Operating voltage 1000 V
 CE mark – cURus logo

PPP stands for the rated power

RRR stands for the ohmic value

Installation

Warning: Units must be mounted with at least 150 mm / 5.9 in of available space from the bottom, 500 mm / 19.68 in on the sides and 1000 mm / 39.37 in on top.

4 holes diam. 11 mm / 0.43 in are provided to fix the resistor on the bottom side. Fairfield may provide upon request the brackets to mount the resistor 150 mm / 5.9 in above the ground and the grid to prevent the inlet of external elements from the bottom.

Packing

The resistor is packed in a way to preserve incidental damages due to transport.

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Ordering information

RX/T XXX WWW RRRR 10%

T : Optional External thermal switch 160±5°C (rated voltage: 250 V; rated current: 10 A)

XXX Model 21S, 35S, 50S, 65S, 50M, 65M, 65L,

WWW Rated power

RRRR Resistance value (nominal at 20°C)

Example

RX/T 50S 12 kW 15R 10%

RX is the name of the product

T means the claxon is provided with the resistor

50S is the model

12 kW is the wattage

15R means 15 Ω that is the nominal ohmic value at 25°C

10% is the tolerance on the ohmic value, in this case the value of the resistor is accepted when is within 13.5 Ω ÷ 16.5 Ω