

Model	Sorvall X4F Pro Sorvall X4F Pro-MD	Sorvall X4RF Pro Sorvall X4RF Pro-MD
Environmental Conditions	Use in interior spaces only. Altitudes of up to 3000 m above sea level. Max. relative humidity 80 % up to 31 °C; decreasing linearly to 50 % relative humidity at 40 °C	Use in interior spaces only. Altitudes of up to 3000 m above sea level. Max. relative humidity 80 % up to 31 °C; decreasing linearly to 50 % relative humidity at 40 °C
Environmental Conditions during Storage and Shipping	Temperature: -10 °C to 55 °C Humidity: 15 % to 85 %	Temperature: -10 °C to 55 °C Humidity: 15 % to 85 %
Permissible Ambient Temperature during Operation	+2 °C to +35 °C	+2 °C to +35 °C
Average Heat Dissipation 120 V, 60 Hz 220 V, 60 Hz 208–240 V, 50 / 60 Hz 220-240 V, 50 Hz / 230 V, 60 Hz 100 V, 50 / 60 Hz	1.0 kW/h - 1.2 kW/h - 0.9 kW/h	1.1 kW/h 1.6 kW/h - 1.6 kW/h 1.0 kW/h
Overvoltage Category	II	II
Pollution Degree	2	2
IP	20	20
Running Time	99 h, 59 min, 59 s (increments of 1 seconds)	99 h, 59 min, 59 s (increments of 1 seconds)
Maximum Speed $n_{max}$	15200 rpm (depending on the rotor)	15200 rpm (depending on the rotor)
Minimum Speed $n_{min}$	300 rpm	300 rpm
Maximum RCF Value at $n_{max}$	25830 x g (depending on the rotor)	25830 x g (depending on the rotor)
Noise Level at Maximum Speed <sup>1,2</sup>	< 70 dB (A)	< 69 dB (A)
Maximum Kinetic Energy 120 V, 60 Hz 220 V, 60 Hz 208–240 V, 50 / 60 Hz 220-240 V, 50 Hz / 230 V, 60 Hz 100 V, 50 / 60 Hz	51.7 kJ - 62.5 kJ - 51.7 kJ	51.7 kJ 62.5 kJ - 62.5 kJ 51.7 kJ
Temperature Setting Range	-	-10 °C to +40 °C
Dimensions Height (lid open / lid closed) Table top height Width Depth (with mains connection)	1350 mm / 835 mm 800 mm 566 mm 690 mm	1350 mm / 835 mm 800 mm 566 mm 690 mm
Weight <sup>3</sup> 120 V, 60 Hz 220 V, 60 Hz 208–240 V, 50 / 60 Hz 220-240 V, 50 Hz / 230 V, 60 Hz 100 V, 50 / 60 Hz	152 kg - 152 kg - 152 kg	142 kg 146 kg - 145 kg 145 kg

<sup>1</sup> 1 m in front of the instrument at 1.6 m height.

<sup>2</sup> Measured with Fiberlite F15-8 x 50cy at 14500 rpm, cooling set to -10 °C (only refrigerated).

<sup>3</sup> Without rotor.

Table A-3: Technical Data Sorvall X Pro Series Centrifuges