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Technical Specification for Stackable Refrigerated Orbital Incubator Shaker

- Temperature Range : At least 20°C below ambient up to 80°C. Desired temperature accuracy $\pm 0.1^\circ\text{C}$.
- Shaking Speed : 25 to 400rpm with ± 1 rpm control. Should have the flexibility of having the shaking orbit to be either $\frac{3}{4}$ " (1.9cm) or 1" (2.54cm).
- Stackable up to two units high without any external stand. High capacity in a small footprint, Desired dimensions (W \times D \times H) - 63.5 \times 74.5 \times 81.8 cm / 25 \times 29.3 \times 32.8 in, Platform size (cm/in) - 46 \times 46 cm (18 \times 18 in).
- Desired Drive Mechanism : Cast iron Triple-eccentric counterbalanced drive with 9 permanently lubricated ball bearings.
- Expected Configuration – Top mounted controls and display make bending down unnecessary during handling, avoids accidental parameter changes, and can be reached easily even in a double stack.
- Shaker should have an option for having Photosynthetic light bank, 12-Port Gas Manifold, Humidity Monitor, UV Germicidal Lights and Culture Drawer.
- Power Supply - 230 V, 50 Hz, Timer - 0.1 – 99.9 h, continuous.
- System should be able to maintain set point during power interruption and restart when power resumes.
- Memory - non volatile with automatic power failure restart.
- Speed range - 25 – 400 rpm; 25 – 300 rpm when using flasks > 500 mL in stacked devices.
- Required program modes - Constant speed and temperature, Programmable multi-steps. Acceleration circuit to prevent sudden start and stop should be available.
- Warranty - Instrument should be supplied with standard 1 year warranty