Section 2 General Specifications

Model No.	SHKA2000	SHKA2000-1CE	SHKE2000	SHKE2000-1CE
Exterior Unit Dimensions in. (cm)				
Width	13.5" (34.4 cm)	13.5" (34.4 cm)	13.5" (34.4 cm)	13.5" (34.4 cm)
Height	6.4" (16.3 cm)	6.4" (16.3 cm)	6.4" (16.3 cm)	6.4" (16.3 cm)
Length	17.4" (44.2 cm)	17.4" (44.2 cm)	17.4" (44.2 cm)	17.4" (44.2 cm)
Weight lbs (kg)	40 lbs (18.1 kg)	40 lbs (18.1 kg)	40 lbs (18.1 kg)	40 lbs (18.1 kg)
Electrical				
Volts (AC)	120	220-240	120	220-240
Amps	0.6	1.0	0.8	0.4
Watts	45	100	45	45
Freq.	50/60	50/60	50/60	50/60

Speed	40 to 400 rpm, ±10 rpm	40 to 400 rpm, ±10 rpm	15 to 500 rpm, ±1 rpm	15 to 500 rpm, ±1 rpm
Timer	Continuous or timed from 1-60 mins.	Continuous or timed from 1-60 mins.	Continuous or timed 0.1-999 hours or 0.1-999 min.	Continuous or timed 0.1-999 hours or 0.1-999 min.
Recorder Output	None	None	None	None
RS232 Interface*	None	None	Monitor speed and time with a computer	Monitor speed and time with a computer
Display	Analog tachometer displays speed in rpm	Analog tachometer displays speed in rpm	2 individual LED displays indicate time and speed simultaneously. 3 characters height 1/2 inches (1.27 cm)	2 individual LED displays indicate time and speed simultaneously. 3 characters height 1/2 inches (1.27 cm)
Soft Start Feature	None	None	Software algorithms prevent sudden start/stops	Software algorithms prevent sudden start/stops
Mutable Alarms	None	None	Audible portion of the alarm can be silenced for a period of 1hr. without deactivating the actual alarm condition by depressing any key	Audible portion of the alarm can be silenced for a period of 1hr. without deactivating the actual alarm condition by depressing any key

** Interface cables not to exceed 9.8' (3m) in length*

Model No.	SHKA2000	SHKA2000-1CE	SHKE2000	SHKE2000-1CE
Motor	Permanent Magnet DC	Permanent Magnet DC	Solid State Brushless DC	Solid State Brushless DC
Alarms				
Speed	None	None	Audible with flashing LED indicates when speed deviates more than 10% of set point	Audible with flashing LED indicates when speed deviates more than 10% of set point
Speed Shut Off	None	None	When speed deviates 10% of set point, unit will shut down immediately	When speed deviates 10% of set point, unit will shut down immediately
Timer	None	None	Beeps twice when time has expired. Shaking motion stops	Beeps twice when time has expired. Shaking motion stops
Unbalanced Load	None	None	If the unit is running in an unbalanced condition, an alarm will sound and the shaker will stop until the end user corrects the condition. The speed display will flash "bAL" on speed panel LED.	If the unit is running in an unbalanced condition, an alarm will sound and the shaker will stop until the end user corrects the condition. The speed display will flash "bAL" on speed panel LED.

Optional Platform Dimensions in. (cm)	
Catalog Number	**L x W**
30100 Universal	13" x 11" (33 x 27.9 cm)
30110 Universal	18" x 18" (45.7 x 45.7 cm)
30106 Universal	18" x 24" (45.7 x 60.9 cm)

The Thermo Scientific MaxQ 2000 Series bench top, orbital, open-air shakers are available in one of two control configurations:

- SHKA2000 and SHKA2000-1CE incorporate a mechanical timer for the control of time and speed, adjustable with rotary dials. Analog tachometer displays speed in RPM, verifying accuracy of speed setting.

- SHKE2000 and SHKE2000-1CE control time and speed by a microprocessor controller, adjustable with membrane switches on keypad in one rpm increments. Flashing display indicates power interruption. Pressing any key will clear display. Non-volatile memory maintains speed and time set points in the event of a power interruption. Speed and time set points are automatically reactivated after power is restored.

In addition, both versions offer:

- ¾ inch (1.9 cm) triple eccentric orbital drive

- 6 permanently lubricated ball bearings

- 35 lb (15.9 kg) platform load capacity at safe speeds less than 400 rpm for SHKA2000/SHKA2000-1CE and less than 500 rpm for SHKE2000/SHKE2000-1CE

- UL, cUL and CE certification

Environmental Conditions

Pollution Degree** 2
Installation Category** II
Altitude . . . . . 2000 meters MSL (Mean Sea Level)
Relative Humidity . . . . 20% to 80% maximum, non-condensing
Electrical Supply . . . . . .120 VAC or 240 VAC
Voltage Tolerance . . . . . .+10% of normal rated line
Temperature . . . . . .0°C to 40°C
Product Usage . . . . . This product is intended for use indoors only
***Refer to IEC 664-1*