

## Section 2 General Specifications

Model No.	SHKA3000	SHKA3000-1CE	SHKE3000	SHKE3000-1CE
<b>Exterior Unit Dimensions in. (cm)</b>				
Width inch (cm)	29.4 (74.7)	29.4 (74.7)	29.4 (74.7)	29.4 (74.7)
Height inch (cm)	9.7 (24.6)	9.7 (24.6)	9.7 (24.6)	9.7 (24.6)
Length inch (cm)	25.8 (65.5)	25.8 (65.5)	25.8 (65.5)	25.8 (65.5)
Weight lbs (kg)	171 (77.6)	171 (77.6)	171 (77.6)	171 (77.6)
<b>Electrical</b>				
Volts (AC)	120	220-240	120	220-240
Amps	1.0	1.6	1.5	0.8
Watts	100	190	185	185
Freq.	50/60	50/60	50/60	50/60
Speed	40 to 400 rpm, $\pm 10$ rpm	40 to 400 rpm, $\pm 10$ rpm	15 to 500 rpm, $\pm 1$ rpm	15 to 500 rpm, $\pm 1$ 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*

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Motor	Permanent Magnet DC	Permanent Magnet DC	Solid State Brushless DC	Solid State Brushless DC
<b>Alarms</b>				
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.

<b>Optional Platform Dimensions in. (cm)</b>	
<b>Catalog Number</b>	<b>L x W</b>
30115	Universal 30" x 18" (76.2 x 45.7 cm)
30120	Universal 36" x 24" (91.4 x 60.9 cm)
30124 Dual Tier	Universal 30" x 18" (76.2 x 45.7 cm)

The Thermo Scientific MaxQ 3000 Series bench top, orbital, open-air shakers are available in one of two control configurations:

- SHKA3000 and SHKA3000-1CE 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.
- SHKE3000 and SHKE3000-1CE control time and speed by a microprocessor controller, adjustable with arrow keys 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. User adjustable speed calibration allows end user to calibrate the shaking speed to a known value.

In addition, both versions offer:

- 1 inch (2.54 cm) triple eccentric orbital drive
- 6 permanently lubricated ball bearings
- 50 lb (22.7 kg) platform load capacity at safe speeds less than 400 rpm for SHKA3000/SHKA3000-1CE and less than 500 rpm for SHKE3000/SHKE3000-1CE
- UL, cUL and CE certification

## Environmental Conditions

Pollution Degree**	.....2
Installation Category**	.....II
Altitude	..... 3000 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

**Caution** It's not recommended to operate shaker in a CO2 enriched atmosphere. Formation of carbonic acid could cause electrical failures. ▲