

# 3-axis Vibration Test Systems

## G-6 Series

Seismic

Transportation

Electric & Electronic Apparatus

Vehicles

Railway Vehicles

Others



G-6220-3LT-115

### Towards 'More Realistic Vibration'

The G-6 Series Vibration Test Systems (VTSs) can create 'More Realistic' vibration than any conventional Single-axis VTSs by exciting specimens in three directions; left & right(X), back & forth(Y) and up & down(Z), thus most suited to seismic simulation, transportation PSD simulation, actual vehicle running simulation etc.

### Restraint on 'Cross-talks (unnecessary vibration)'

Long-experienced technology for the unique Hydro-static Bearing systems allows for restraint on 'Cross-talks' among the three axes, thus making it easy to control in accordance with the set 3-axis vibration test conditions.

### 3-axis Simultaneous VTSs & 3-axis Sequential VTSs Available

In addition to 3-axis Simultaneous VTSs, 3-axis Sequential VTSs, only capable of testing axis by axis with one-touch switch-over or optionally available automatic series tests (in order of Z→X→Y) are also available.

### G-6130-\*HB-020

└─ 3 : 3-axis Simultaneous  
└─ 1 : 3-axis Sequential

- Air-cooled    ■ Water-cooled
- Hydro-static Bearing
- Axis Changeover Switch
- Automatic Changeover (with Series Test Unit)
- Combined Environmental Test Systems also Available

System Model	Max. Force Output		Max. Acceleration	Max. Velocity	Max. Displacement	Upper Frequency*		Table Size	Movable Mass	Max. Payload	Model Number		Power Required	Cooling System	
	Sine kN (kgf)	Random rms kNrms (kgfrms)	m/s <sup>2</sup> (G)	m/s	mm p-p	Sine Hz	Random Hz	mm	kg	kg	Vibration Generator	3ch Power Amplifier	kVA	[m <sup>3</sup> /min] [L/min]	
G-6130-3HB-032	3 (306)	1.8 (183)	73 (7.4)	1	26	1500	2000	320 × 320	41	50	G73-150-032	G14-003-3	23	Air (24)	
G-6150-3HB-032	5 (510)	3.5 (357)	121 (12)	1	26	1500	2000	320 × 320	41	50	G73-150-032	G14-005-3	33	Air (24)	
G-6150-3HT-040			54 (5.6)		51	1000	1500	400 × 400	91	100	G71-150-040				
G-6150-3HT-060		3 (306)	35 (3.6)			800	1000	600 × 600	140	100	G71-150-060				
G-6150-3HT-080		2.5 (255)	23 (2.4)			500	700	800 × 800	210	200	G74-150-080				
G-6150-3LT-110			19 (1.9)			350	500	1000 × 1000	260	200	G75-150-110				
G-6210-3HB-032	10 (1020)	7 (714)	243 (24)	1.2	26	1350	2000	320 × 320	41	100	G73-210-032	G14-010-3	50	Air (24)	
G-6210-3HT-040			109 (11)		51	1000	1500	400 × 400	91	100	G71-210-040				
G-6210-3HT-060		6 (612)	71 (7.2)			800	1200	600 × 600	140	100	G71-210-060				
G-6210-3HT-080		47 (4.8)	700			1000	800 × 800	210	200	G71-210-080					
G-6210-3LT-110			5 (510)			38 (3.9)	350	500	1000 × 1000	260	200				G75-210-110
G-6210-3LT-112			31 (3.1)			300	500	1200 × 1200	320	300	G75-210-112				
G-6220-3HB-032	20 (2040)	14 (1428)	200 (20)	1	26	1200	2000	320 × 320	100	200	G73-220-032	G14-021-3	106	Air (66)	
G-6220-3HT-050			133 (13)		51	800	1200	500 × 500	150	200	G71-220-050				
G-6220-3HT-080		10 (1020)	85 (8.6)			500	1000	800 × 800	235	300	G71-220-080				
G-6220-3LT-110			54 (5.5)			350	500	1000 × 1000	365	500	G75-220-110				
G-6220-3LT-112			41 (4.2)			300	350	1200 × 1200	485	500	G75-220-112				
G-6220-3LT-115						32 (3.3)	250	350	1500 × 1500	615	500				G75-220-115
G-6230-3HB-032			30 (3061)			21 (2142)	428 (43)	1.1	26	1200	2000				320 × 320
G-6230-3HT-050		200 (20)		51	800	1200	500 × 500		150	200	G71-230-050				
G-6230-3HT-080	15 (1530)	127 (13)			500	1000	800 × 800		235	300	G71-230-080				
G-6230-3LT-110		82 (8.3)			350	500	1000 × 1000		365	500	G75-230-110				
G-6230-3LT-112		61 (6.3)			300	350	1200 × 1200		485	500	G75-230-112				
G-6230-3LT-115		48 (4.9)			250	350	1500 × 1500		615	500	G75-230-115				
G-6250-3HT-050		49 (5000)			29.4 (3000)	337 (34)	1.3		51	800	1000	500 × 500	145	300	G71-250-050
G-6250-3HT-080	24.5 (2500)		204 (20)	700	900	800 × 800		240		300	G71-250-080				
G-6250-3LT-110			171 (17)	350	500	1000 × 1000		285		500	G75-250-110				
G-6250-3LT-115			75 (7.6)	250	350	1500 × 1500		650		700	G75-250-115				
G-6250-3LT-118			57 (5.8)	200	350	1800 × 1800		850		1000	G75-250-118				
G-6265-3HT-050			65 (6632)	39 (3979)	393 (40)	1.4		51		800	1000	500 × 500	165	300	G71-265-050
G-6265-3HT-080	32.5 (3316)	295 (30)		700	800		800 × 800		220	300	G71-265-080				
G-6265-3LT-110		228 (23)		350	500		1000 × 1000		285	500	G75-265-110				
G-6265-3LT-115		98 (10)		250	350		1500 × 1500		660	700	G75-265-115				
G-6265-3LT-118		72 (7.3)		200	350		1800 × 1800		900	1000	G75-265-118				

- The upper frequency for sine is a frequency up to which the max. force output can be achieved, while that for random is a frequency up to which a PSD random pattern having a -6dB/oct or steeper roll-off over the upper frequency for sine(or lower) can be controlled. The lower frequencies for control and for excitation are 2Hz and 0.5Hz, respectively unless especially requested.
- All the Power Amplifiers are of an air cooling type.
- The HT and LT type systems having a max. force output of 3kN(306kgf), 7kN(714kgf) or 20kN(2,040kgf) are also available.
- With the employment of the 1-ch Power Amplifiers instead of the 3-ch Power Amplifier, the 3-axis (Automatic) Sequential Vibration Test Systems are also available, which can be upgraded into the Triaxial Simultaneous Vibration Test Systems in the future by adding 2-ch Power Amplifiers and necessary controllers.
- Vibration Generators with other table sizes than shown above are also available upon request.
- Power required is 3-phase 200/220/380/415V, 50/60Hz.
- For better acceleration distribution on the table, the movable weight will be heavier by 10 to 30kg for addition of proper balance weights.
- For the G-6230 (30kN), air-cooled systems are available upon request.
- For the air-cooled systems, it is recommended that the hot air from the cooling blower be sent to outside.
- A System having a bigger force output and/or larger displacement than shown above is also available upon request.