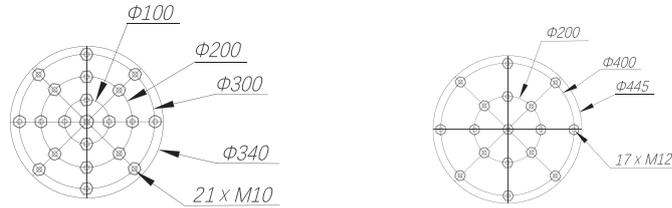


Water-cooled Series

Vibration Test System

Armature pattern

Notes:
 Default metric armature pattern (mm)
 Contact sales people for optional imperial
 armature pattern and special requirements.



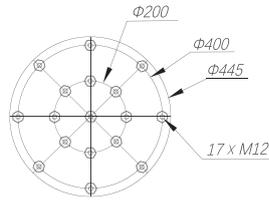
System model	TS25WLS3-340	TS35WLS3-340	TS49W-445	TS49WLS3-445	TS49WLS4-445	TS50W-445
Sine/Random (kN)	25	35	49	49	49	50
Shock force (kN)	50/75	70/105	98/147	98/147	98/147	100/150
Frequency range (Hz)	5-2,800	5-2,800	5-2,600	5-2,500	5-2,400	5-2,600
Max. acceleration (m/s ²)	1,000	1,000	1,000	1,000	900	1,000
Max. velocity (m/s)	2	2	2	2	2	2
Max. displacement (mm)	76	76	51	76	100	51
Max. load (kg)	300	300	800	800	800	800
Armature mass (kg)	25	25	49	49	54	50
Armature diameter (mm)	340	340	445	445	445	445
Body suspension Fre. (Hz)	2.5*	2.5	2.5	2.5	2.5	2.5
Armature inserts (standard)	21 *M10	21 *M10	17 *M12	17 *M12	17 *M12	17 *M12
Stray flux density	< 1 mT (10 Gs)	< 1 mT (10 Gs)	< 1 mT (10 Gs)	< 1 mT (10 Gs)	< 1 mT (10 Gs)	< 1 mT (10 Gs)
Weight (kg)	1750	1750	4550	4550	4550	4550
Dimension (mm)	1136*710*1071	1136*710*1071	1636*1104*1300	1636*1104*1300	1636*1104*1336	1636*1104*1300
Power amplifier model	PWA30W	PWA40W	PWA50W	PWA50W	PWA50W	PWA50W
Power (kVA)	36	48	50	50	50	50
Max. output voltage (V)	120	120	120	120	120	120
Max. output current (A)	400	500	550	550	550	550
Power requirement (kVA)	86	91	91	91	92	91
Weight (kg)	1000	1000	1100	1100	1100	1100
Dimension (mm)	1210*1000*2110	1210*1000*2110	1210*1000*2110	1210*1000*2110	1210*1000*2110	1210*1000*2110
Cooling type	Water cooling. Distilled water for internal circle (hardness 30ppm, PH7-8, conductivity 1μS/cm); city water for external circle.					
Cooling unit model	CW-40-1	CW-40-1	CW-40-1	CW-40-1	CW-80-1	CW-40-1
Internal circle water flow (L/min)	40	40	40	40	80	40
Internal water pressure (Mpa)	1	1	1	1	1	1
External circle water flow (L/min)	100	100	100	100	160	100
External water pressure (Mpa)	0.25~0.4	0.25~0.4	0.25~0.4	0.25~0.4	0.25~0.4	0.25~0.4
Water pump power (in./ex.) (kW)	5/2.5	5/2.5	5/2.5	5/2.5	10/4	5/2.5
Weight (kg)	250	250	250	250	320	250
Dimension (mm)	605*1000*2000	605*1000*2000	605*1000*2000	605*1000*2000	605*1000*2000	605*1000*2000

Armature pattern

Notes:

Default metric armature pattern (mm)

Contact sales people for optional imperial armature pattern and special requirements.

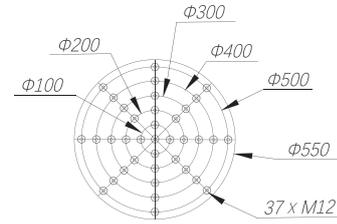
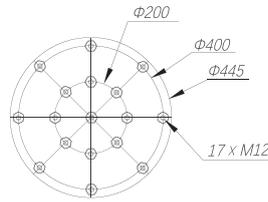


System model	TS50WLS3-445	TS50WLS4-445	TS60W-445	TS60WLS3-445	TS60WLS4-445	TS70W-445
Sine/Random (kN)	50	50	60	60	60	70
Shock force (kN)	100/150	100/150	120/180	120/180	120/180	140/210
Frequency range (Hz)	5-2,500	5-2,400	5-2,600	5-2,500	5-2,400	5-2,600
Max. acceleration (m/s ²)	1,000	900	1,000	1,000	1,000	1,000
Max. velocity (m/s)	2	2	2	2	2	2
Max. displacement (mm)	76	100	51	76	100	51
Max. load (kg)	800	800	800	800	800	800
Armature mass (kg)	50	55	55	60	60	55
Armature diameter (mm)	445	445	445	445	445	445
Body suspension Fre. (Hz)	2.5	2.5	2.5	2.5	2.5	2.5
Armature inserts (standard)	17 *M12	17 *M12	17 *M12	17 * M12	17 *M12	17 *M12
Stray flux density	< 1 mT (10 Gs)	< 1 mT (10 Gs)	< 1 mT (10 Gs)	<1mT (10Gs)	< 1 mT (10 Gs)	< 1 mT (10 Gs)
Weight (kg)	4550	4550	4550	4550	4550	4550
Dimension (mm)	1636*1104*1300	1636*1104*1336	1636*1104*1300	1636*1104*1300	1636*1104*1336	1636*1104*1300
Power amplifier model	PWA50W	PWA50W	PWA60W	PWA60W	PWA60W	PWA70W
Power (kVA)	50	50	60	60	60	70
Max. output voltage (V)	120	120	120	120	120	120
Max. output current (A)	550	550	550	550	550	600
Power requirement (kVA)	91	92	101	101	102	111
Weight (kg)	1100	1100	1150	1150	1150	1200
Dimension (mm)	1210*1000*2110	1210*1000*2110	1210*1000*2110	1210*1000*2110	1210*1000*2110	1210*1000*2110
Cooling type	Water cooling. Distilled water for internal circle (hardness 30ppm, PH7-8, conductivity 1µS/cm); city water for external circle.					
Cooling unit model	CW-40-1	CW-80-1	CW-40-1	CW-40-1	CW-80-1	CW-40-1
Internal circle water flow (L/min)	40	80	40	40	80	40
Internal water pressure (Mpa)	1	1	1	1	1	1
External circle water flow (L/min)	100	160	100	100	160	100
External water pressure (Mpa)	0.25~0.4	0.25~0.4	0.25~0.4	0.25~0.4	0.25~0.4	0.25~0.4
Water pump power (in./ex.) (kW)	5/2.5	10/4	5/2.5	5/2.5	10/4	5/2.5
Weight (kg)	250	320	250	250	320	250
Dimension (mm)	605*1000*2000	605*1000*2000	605*1000*2000	605*1000*2000	605*1000*2000	605*1000*2000

Armature pattern

Notes:

Default metric armature pattern (mm)
Contact sales people for optional imperial armature pattern and special requirements.

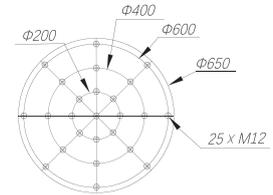
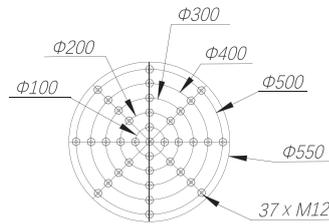


System model	TS70WLS3-445	TS70WLS4-445	TS80W-445	TS80WLS3-445	TS80WLS4-445	TS100-550
Sine/Random (kN)	70	70	80	80	80	100
Shock force (kN)	140/210	140/210	160/240	160/240	160/240	200/300
Frequency range (Hz)	5-2,500	5-2,400	5-2,500	5-2,500	5-2,400	5-2,500
Max. acceleration (m/s ²)	1,000	1,000	1,000	1,000	1,000	1,000
Max. velocity (m/s)	2	2	2	2	2	2
Max. displacement (mm)	76	100	51	76	100	51
Max. load (kg)	800	800	800	800	800	1000
Armature mass (kg)	60	60	60	60	60	90
Armature diameter (mm)	445	445	445	445	445	550
Body suspension Fre. (Hz)	2.5	2.5	2.5	2.5	2.5	2.5
Armature inserts (standard)	17 *M12	17 *M12	17 *M12	17 *M12	17 *M12	37 *M12
Stray flux density	< 1 mT (10 Gs)	< 1 mT (10 Gs)	< 1 mT (10 Gs)	< 1 mT (10 Gs)	< 1 mT (10 Gs)	< 1 mT (10 Gs)
Weight (kg)	4550	4550	4550	4550	4550	7380
Dimension (mm)	1636*1104*1300	1636*1104*1336	1636*1104*1300	1636*1104*1300	1636*1104*1336	1780*1280*1380
Power amplifier model	PWA70W	PWA80W	PWA80W	PWA80W	PWA80W	PWA100W
Power (kVA)	70	80	80	80	80	100
Max. output voltage (V)	120	120	120	120	120	120
Max. output current (A)	600	900	900	900	900	1100
Power requirement (kVA)	111	142	142	142	142	162
Weight (kg)	1200	1800	1900	1900	1900	2000
Dimension (mm)	1210*1000*2110	1815*1000*2110	1815*1000*2110	1815*1000*2110	1815*1000*2110	1815*1000*2110
Cooling type	Water cooling. Distilled water for internal circle (hardness 30ppm, PH7-8, conductivity 1μS/cm); city water for external circle.					
Cooling unit model	CW-40-1	CW-80-1	CW-80-1	CW-80-1	CW-80-1	CW-80-1
Internal circle water flow (L/min)	40	80	80	80	80	80
Internal water pressure (Mpa)	1	1	1	1	1	1
External circle water flow (L/min)	100	160	160	160	160	160
External water pressure (Mpa)	0.25~0.4	0.25~0.4	0.25~0.4	0.25~0.4	0.25~0.4	0.25~0.4
Water pump power (in./ex.) (kW)	5/2.5	10/4	10/4	10/4	10/4	10/4
Weight (kg)	250	320	320	320	320	320
Dimension (mm)	605*1000*2000	605*1000*2000	605*1000*2000	605*1000*2000	605*1000*2000	605*1000*2000

Armature pattern

Notes:

Default metric armature pattern (mm)
Contact sales people for optional imperial armature pattern and special requirements.

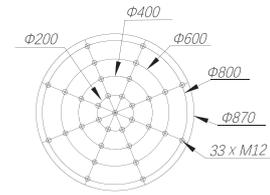
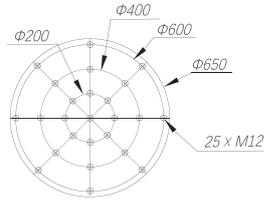


System model	TS100LS3-550	TS120-550	TS120LS3-550	TS160-650	TS160LS3-650	TS180-650
Sine/Random (kN)	100	120	120	160	160	180
Shock force (kN)	200/300	240/360	240/360	320/480	320/480	360/540
Frequency range (Hz)	5-2,500	5-2,500	5-2,500	5-2,100	5-2,100	5-2,100
Max. acceleration (m/s ²)	1,000	1,000	1,000	1,000	1,000	1,000
Max. velocity (m/s)	2	2	2	2	2	2
Max. displacement (mm)	76	51	76	51	76	51
Max. load (kg)	1000	1000	1000	2,500	2,500	2,500
Armature mass (kg)	90	90	90	150	150	150
Armature diameter (mm)	550	550	550	650	650	650
Body suspension Fre. (Hz)	2.5	2.5	2.5	2.5	2.5	2.5
Armature inserts (standard)	37 *M12	37*M12	37*M12	25*M12	25*M12	25*M12
Stray flux density	< 1 mT (10 Gs)	< 1 mT (10 Gs)	< 1 mT (10 Gs)	< 1 mT (10 Gs)	< 1 mT (10 Gs)	< 1 mT (10 Gs)
Weight (kg)	7380	7380	7380	11100	11100	11100
Dimension (mm)	1780*1280*1380	1780*1280*1380	1780*1280*1380	2100*1430*1553	2100*1430*1553	2100*1430*1553
Power amplifier model	PWA100W	PWA120W	PWA120W	PWA160W	PWA160W	PWA180W
Power (kVA)	100	120	120	160	160	180
Max. output voltage (V)	120	120	120	120	120	120
Max. output current (A)	1100	1200	1200	1800	1800	2000
Power requirement (kVA)	162	182	182	232	232	252
Weight (kg)	2000	2000	2000	2700	2700	2700
Dimension (mm)	1815*1000*2110	1815*1000*2110	1815*1000*2110	2420*1000*2110	2420*1000*2110	2420*1000*2110
Cooling type	Water cooling. Distilled water for internal circle (hardness 30ppm, PH7-8, conductivity 1μS/cm); city water for external circle.					
Cooling unit model	CW-80-1	CW-80-1	CW-80-1	CW-80-1	CW-80-1	CW-80-1
Internal circle water flow (L/min)	80	80	80	80	80	80
Internal water pressure (Mpa)	1	1	1	1	1	1
External circle water flow (L/min)	160	160	160	160	160	160
External water pressure (Mpa)	0.25~0.4	0.25~0.4	0.25~0.4	0.25~0.4	0.25~0.4	0.25~0.4
Water pump power (in./ex.) (kW)	10/4	10/4	10/4	10/4	10/4	10/4
Weight (kg)	320	320	320	320	320	320
Dimension (mm)	605*1000*2000	605*1000*2000	605*1000*2000	605*1000*2000	605*1000*2000	605*1000*2000

Armature pattern

Notes:

Default metric armature pattern (mm)
Contact sales people for optional imperial
armature pattern and special requirements.



System model	TS180LS3-650	TS200-650	TS200LS3-650	TS300LS3-870	TS350LS3-870	TS400LS3-870
Sine/Random (kN)	180	200	200	300/240	350/250	400/300
Shock force (kN)	360/540	400/600	400/600	600/900	700/900	800/1000
Frequency range (Hz)	5-2,100	5-2,100	5-2,100	5-1,700	5-1,700	5-1,700
Max. acceleration (m/s ²)	1,000	1,000	1,000	1,000	1,000	1,000
Max. velocity (m/s)	2	2	2	2	2	2
Max. displacement (mm)	76	51	76	76	76	76
Max. load (kg)	2,500	2,500	2,500	5,000	5,000	5,000
Armature mass (kg)	150	150	150	300	310	330
Armature diameter (mm)	650	650	650	870	870	870
Body suspension Fre. (Hz)	2.5	2.5	2.5	2.5	2.5	2.5
Armature inserts (standard)	25*M12	25*M12	25*M12	33*M12	33*M12	33*M12
Stray flux density	< 1 mT (10 Gs)	< 1 mT (10 Gs)	< 1 mT (10 Gs)	< 3 mT (30 Gs)	< 3 mT (30 Gs)	< 3 mT (30 Gs)
Weight (kg)	11100	11100	11100	22950	22950	22950
Dimension (mm)	2100*1430*1553	2100*1430*1553	2100*1430*1553	2800*2300*1943	2800*2300*1943	2800*2300*1943
Power amplifier model	PWA180W	PWA200W	PWA200W	PWA300W	PWA350W	PWA400W
Power (kVA)	180	200	200	380	420	460
Max. output voltage (V)	120	120	120	120	120	120
Max. output current (A)	2000	2200	2200	3000	3600	4000
Power requirement (kVA)	252	282	282	427	507	537
Weight (kg)	2700	3400	3400	5100	5700	6300
Dimension (mm)	2420*1000*2110	3025*1000*2110	3025*1000*2110	4840*1000*2110	5445*1000*2110	6050*1000*2110
Cooling type	Water cooling. Distilled water for internal circle (hardness 30ppm, PH7-8, conductivity 1μS/cm); city water for external circle.					
Cooling unit model	CW-80-1	CW-80-1	CW-80-1	CW-120-1	CW-120-1	CW-120-1
Internal circle water flow (L/min)	80	80	80	120	120	120
Internal water pressure (Mpa)	1	1	1	1	1	1
External circle water flow (L/min)	160	160	160	320	320	320
External water pressure (Mpa)	0.25~0.4	0.25~0.4	0.25~0.4	0.25~0.4	0.25~0.4	0.25~0.4
Water pump power (in./ex.) (kW)	10/4	10/4	10/4	15/6.5	15/6.5	15/6.5
Weight (kg)	320	320	320	350	350	350
Dimension (mm)	605*1000*2000	605*1000*2000	605*1000*2000	605*1000*2000	605*1000*2000	605*1000*2000