Technical Parameters

Electro-dynamic Shaker

Standard Model - DC Series (Water-cooled)

Water-cooled electric vibration test systems are mainly for large force tests and large specimens. This series is widely used in aviation, aerospace, weapons, rail transportation, automotive, ships and so on.

Features

- High-strength dynamic design of armature structure to improve the structural strength of the armature.
- New design of short-circuit structure, to improve the cooling efficiency.
- Use the latest winding reinforcing material to wind the armature.
- Secondary circulation cooling system, allowing heat generating components to have long service life and reliably.
- Use the parallel waterway design, to improve the cooling efficiency, reduce the cooling water temperature rise rate, and reduce the requirements of environmental temperature.
- Adopt three components of the cooling structure to ensure all heat-generating components can cool sufficiently.
- Linear bearing air spring vibration isolation with excellent isolation and guidance capacity
- Upper and lower roller guide structure, optional hydro-static bearing guide, higher overturning moments

Model	DC-6500-65	DC-8000-80	DC-10000-100	DC-12000-120	DC-16000-160	DC-20000-200	DC-30000-300	DC-40000-400
Usable Frequency Range (Hz)	2~2700	2~2700	2~2500	2~2500	2~2200	2~2200	2~1900	2~1700
Rate Force (kN)	63.7	78.4	98	117.6	156.8	196	294	392
Shock Force (6ms) (kN)	(63.7×2)※	(78.4×2)※	(98×2)※	(117.6×2)※	(156.8×2)※	(196×2)※	294×2	392×2
Max Acceleration (sine) (m/s²)	980	980	980	980	980	980	980	980
Max Velocity (m/s)	2	2	2.00☆	2.00☆	2.00☆	2.00☆	2	2
Max Displacement (mm)	51★	51★	51★	51★	51★	51★	51	51
Max Static Payload (kg)	1000	1000	1500	1500	2000	2000	3200	4000
Vibrator	**DC-6500**	**DC-8000**	**DC-10000**	**DC-12000**	**DC-16000**	**DC-20000**	**DC-30000**	**DC-40000**
Effective Armature Mass (kg)	65	80	100	100	160	180	250	380
Armature Diameter (ϕmm)	445	445	560	560	640	640	760	860
Cross-axial Allowable Eccentric Monent (N×m)	4900	4900	9800	9800	12000	12000	14700	19600
Dimensions uncrated (W x H xD) (mm)	1520x980x1200	1520x980x1200	1832x1150x1325	1832x1150x1325	2250x1330x1200	2250x1330x1250	2400×1500×1700	2900x1700x1860
Vibrator weight uncrated (kg)	4000	5500	7500	7500	9000	9000	16800	23500
Power Amplifier	**SA-65**	**SA-80**	**SA-100**	**SA-120**	**SA-160**	**SA-200**	**SA-300**	**SA-400**
Rated Power Output (kVA)	70	85	120	140	180	240	320	440
Dimensions Uncrated (W x H xD) (mm)	1160*1920*850		1740*1920*850		2320*1920*850		2900*1920*850	3480*1920*850
Amplifier Weight Uncrated (kg)	1200	1650	2000	2100	2450	2500	3500	4000
Working Method	Switching							
System Required Power (kVA)	115	135	160	180	220	260	420	510
Heat Exchanger	**DHE-150**				**DHE-250**		**DHE-400**	
Cooling Water Flux (L/min)	250				330		400	500
Heat Exchanger weight uncrated (kg)	400				500		600	
Ratec Power (kW)	2				3.5		6	
Dimensions including silencer (W x H x D)(mm)	750*1500*1200				750*1500*1200		900*1500*1200	
Cooling Method	Secondary Cycle Water Cooling							

Note:

1. ★ indicates the displacement can expand to 76mm (p-p), ☆ indicates the velocity can expand to 2.5 m/s, ※indicates this system can be triple shock force.
2. Parameters are subject to change upon request.

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