

VIBRATION SHAKERS



YOUR VIBRATION SOLUTION



EX 520 C 50 Long stroke shaker

During structural analysis, forces are imposed on the structure, and the resulting movement function gives us the structure's mathematical model.

As it is the basis for all the analysis, modal shakers must be able to provide the requested force for an adapted frequency range, without disturbing the characteristics of the structure under test.

PRODERA modal electrodynamic shakers are based on the Laplace Law. A coil is situated inside the thin air gap of a magnetic field, providing a sine, random or shock force.

UNIQUE FEATURES

- ◇ Current controlled shakers
- ◇ Nominal forces from 3 to 5 000 N (0.67 to 1124 lbf)
- ◇ Light, linear and robust moving assembly
- ◇ Low stiffness
- ◇ Display of the position of the moving system
(as from the EX 220 SC type)

The following list gives a glance at the different shaker types available in our catalogue. Each year brings new models which are adapted to our customers' particular problems, so please do not hesitate to contact us.



EX 24 20 N shaker

SHAKER	Nominal Force		Force Factor		Stroke		Moving Assembly Mass		Associated Amplifier
	N	lbf	N/A	lbf/A	mm	inch	grams	lbs	
EX 6/3.2	3	0.67	1.5	0.33	± 1.5	± 0.05	8.5	0.01	A 732
EX 6/4.4	4	0.89	1	0.22	± 1.5	± 0.05	10.5	0.02	A 732
EX 6/4.2	4	0.89	2	0.44	± 3	± 0.11	11	0.02	A 732
EX 6/6.4	6	1.34	1.5	0.33	± 3	± 0.11	13.5	0.029	A 732
EX 8/4.2	4	0.89	2	0.44	± 1.5	± 0.05	8.5	0.01	A 732
EX 8/5.4	5	1.124	1.25	0.28	± 1.5	± 0.05	10.5	0.02	A 732
EX 8/5.2	5	1.124	2.5	0.56	± 3	± 0.11	11	0.02	A 732
EX 8/8.4	8	1.7984	2	0.44	± 3	± 0.11	13.5	0.029	A 732
EX 12	10	2.24	5	1.12	± 5	± 0.19	30	0.06	A 732
EX 20	20	4.49	5	1.12	± 5	± 0.19	35	0.07	A 732
EX 24	20	4.49	5	1.12	± 5	± 0.19	61	0.13	A 732/A 735
EX 58	50	11.24	6.25	1.46	± 6	± 0.23	110	0.24	A 735
EX 220	200	44.96	10	2.24	± 10	± 0.39	195	0.42	A 648
EX 220 SC	200	44.96	10	2.24	± 10	± 0.39	195	0.42	A 648 S/SM
EX 520 C 50	550	123.64	27.5	6.18	± 25	± 0.98	680	1.49	A 649 HV
EX 540 A	500	112.4	13	2.92	± 12.5	± 0.49	950	2.09	A 649
EX 1060 A	1200	224.8	20	4.49	± 12.5	± 0.49	1000	2.20	A 651/S1
EX 2060 A	2040	449.6	34	7.64	± 12.5	± 0.49	1000	2.20	A 651/S2
EX 5080 A	5000	1124	63	14.16	± 20	± 0.78	5300	11.68	A 709

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The manufacturer reserves the right to change technical or mechanical specifications of its products at any time.

Data sheet N° 01/E/001-d

AMPLIFIERS



A 649 HV amplifier

During structural analysis, force control is critical. The forces must be independent of the motions. **PRODERA's** current controlled amplifiers solve this problem.

Specially developed for the **PRODERA's** modal electrodynamic shakers, our power amplifiers were designed for optimum results during modal analysis.

UNIQUE FEATURES

- ◇ From 30 to 4000 Watts
- ◇ Accurately controlled output current
- ◇ High output impedance does not impede motion
- ◇ Constant force of shaker independent of motion
- ◇ Display of the position of the moving assembly (as from the model A 648 S/SM)
- ◇ Remote controlled (as from the model A 648)
- ◇ Accurate measurement of introduced force Newton / Volt therefore no need for force transducer



A large range of power amplifiers.

ACCESSORIES



Remote control panels

The following list gives a glance at the different amplifier types available in our catalogue. Each year brings new models which are adapted to our customers' particular problems, therefore do not hesitate to contact us.

AMPLIFIER	Continuous RMS output (Watts)	Max output current (Amperes)	Max output Voltage (Volts)	Input voltage (Volts)	Power supply*	Associated Shaker
A 732	60 or 30	± 4 or ± 2	± 30	± 5	220 V ± 10%	EX 6 & EX 8 families, EX 12 & EX 24
A 735	120 or 60	± 8 or ± 4	± 30	± 5	220 V ± 10%	EX 58
A 648	400	± 20	± 40	± 5	3 x 380 V ± 10%	EX 220
A 648 S/SM	400	± 20	± 40	± 5	3 x 380 V ± 10%	EX 220 SC
A 649	800	± 40	± 40	± 5	3 x 380 V ± 10%	EX 540
A 649 HV	800	± 20	± 80	± 5	3 x 380 V ± 10%	EX 520 C 50
A 651/S1	1200	± 60	± 40	± 5	3 x 380 V ± 10%	EX 1060 A
A 651/S2	2400	± 60	± 80	± 5	3 x 380 V ± 10%	EX 2060 A
A 709	4000	± 80	± 100	± 5	3 x 380 V ± 10%	EX 5080

* For export other power supply voltages are available

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Data sheet N° 01/A/001-b