

Digital Switching Amplifiers

DSA5 DSA10

Air Cooled Digital Switching Amplifiers from 1 KVA up to 480 KVA

- Modular design
- Integrated supplies for field and degaussing
- High Efficiency >90%
- Evolution through 20+ years of reliability
- Full range of safety interlocks
- Fully compliant with all applicable EU requirements

A comprehensive range of Amplifiers



The Model DSA5 and DSA10 amplifiers are high performance Class D switch mode amplifiers intended for driving the SignalForce range of electrodynamic shakers manufactured by Data Physics and as a replacement for driving shakers from all other manufacturers. The DSA5 amplifiers are available in two configurations: 5-25 KVA and 5-55 KVA expandable to 330 KVA. The DSA10 amplifiers are configurable up to 100 KVA in a single bay and up to 480 KVA using multiple bays. The DSA5 and DSA10 amplifiers are managed by sophisticated logic and control modules, which monitor currents, voltages, temperatures, armature position, and a full range of interlocks so that the system may be intelligently shut down in the event of an internal or external fault condition. The DSA5 and DSA10 amplifiers are completely air cooled and greater than 90% efficient.

	DSA5	DSA10
Power Supply Range	380-480V 50/60 Hz	230V-600V 50/60 Hz
Voltage output	0-82VAC rms	0-120VAC rms
Current output (per module)	60A rms	83A rms
Frequency Range	Full Power 5 Hz - 5 kHz	10 Hz to 2000 Hz at full power to 4 kHz at reduced power/ Roll-off at 3 kHz is -6dB/Oct.
Distortion (at rated output)	< 0.4% 5 Hz ~ 1 kHz < 1.0 1 kHz ~ 5 kHz 0.25% Typically	< 0.5% 5 Hz ~ 1.5 kHz < .75% 1.5 kHz ~ 2 kHz 1.0% 2 kHz ~ 3 kHz
Hum and Noise	>-75 dB at full output	>-70 dB at full output
DC Stability	<0.05% of full output voltage with +/- 10% change in input voltage	
Input Drive	3V rms for full output power, typically (10K ohm input impedance)	1.5V rms for full output power (10K ohm input impedance)
Cooling	120 scfm (.056 m ³ /s) per module	
Heat rejected to air	1500 BTU/hr (.44 kw) per module (full output)	2750 BTU/hr (.806 kw) per module (full output)
Isolation	floating	Output isolated and may be grounded at terminal "A" only
Temperature	Full Power to 40 C, derated at 2% per degree C beyond 40 degrees to 55 C maximum	
Humidity	0 to 80% RH (wet bulb temp. not to exceed 27 degrees C.)	
Weight	5-25 KVA=1000 lbs (454 kg) 5-55 KVA- 1435 lbs (650 kg)	10-100 KVA=1000 lbs (454 kg) 80-200 KVA=4500 lbs (2041 kg) 360 KVA=10000 lbs (4535 kg) 480 KVA= 12500 lbs (5670 kg)





