



Laboratory Centrifuges

Standard Precision Centrifuges Series BD66



- Belt driven centrifuges
- Up to 4 tested payloads
- Large payload size
- Large payload mass
- Large centripetal acceleration range
- Large access to payload platforms
- Large mechanical safety factor
- Safety shroud
- Sliprings
- Controller: Industrial type or ACUTROL[®]3000e
- Safety interlocks
- Data acquisition option
- Data transmission option
- Temperature chamber option
- Fluids access option
- In-flight video option
- Unbalance detection option
- Energy regeneration option



	BD66-25	BD66-50
Table top / Boom arm	Table top	Boom arm
Dimensional Data		
Horizontal platform nominal radius	0.25 m	0.50 m
Vertical platform radius		0.65 m
Centripetal Acceleration		
Maximum acceleration range	10 g to 1'000 g	2 g to 100 g
Load capacity	2'000 g x kg	1'000 g x kg
Acceleration accuracy	$\leq \pm 10'000$ ppm	$\leq \pm 10'000$ ppm
Time to reach full acceleration	≤ 500 sec	≤ 60 sec
Rate		
Rate accuracy (over 360°)	$\leq \pm 0.05$ %	$\leq \pm 0.05$ %
Rate stability (over 360°)	$\leq \pm 0.1$ %	$\leq \pm 0.1$ %
Payload		
Maximum tested payloads	4	2
Maximum mass	2 kg / payload	10 kg / payload
Maximum length	100 mm	300 mm
Maximum width	100 mm	300 mm
Maximum height	100 mm	300 mm
Payload Platform(s)		
Positions	Horizontal	Horizontal and, or vertical
Static flatness	≤ 0.5 TIR mm	≤ 0.5 TIR mm
Vibration magnitude	≤ 0.1 RMS g	≤ 0.1 RMS g
Drive System		
Rate controller	Industrial or ACUTROL®3000e	Industrial or ACUTROL®3000e
Power at maximum acceleration	0.16 kVA	0.51 kVA
Installed power	0.21 kVA	2.00 kVA
Belt / pulleys reducer ratio	2	10
Mains supply	240 V – 50 or 60 Hz	400 V – 50 or 60 Hz
Customer slippings		
	Other configurations upon request	
Quantity	25	25
Current rating	2 A	2 A
Operating voltage	150 VDC	150 VDC
Noise	50 RMS mΩ	10 RMS mΩ
Options		
Data acquisition	No	Yes
Data transmission	No	Yes
Temperature chamber	No	Yes
Fluids access	Yes	Yes
In-flight video	Yes	Yes
Unbalance detection	No	Yes
Energy regeneration	Yes	Yes



BD66-100	BD66-150	BD66-200
Boom arm	Boom arm	Boom arm
1.00 m 1.25 m	1.50 m 1.80 m	2.00 m 2.30 m
2 g to 100 g 5'000 g x kg $\leq \pm 10'000$ ppm ≤ 60 sec	5 g to 200 g 10'000 g x kg $\leq \pm 10'000$ ppm ≤ 120 sec	5 g to 200g 20'000 g x kg $\leq \pm 10'000$ ppm ≤ 120 sec
$\leq \pm 0.05$ % $\leq \pm 0.1$ %	$\leq \pm 0.05$ % $\leq \pm 0.1$ %	$\leq \pm 0.05$ % $\leq \pm 0.1$ %
2 50 kg / payload 500 mm 500 mm 500 mm	2 50 kg / payload 600 mm 600 mm 600 mm	2 100 kg / payload 600 mm 600 mm 600 mm
Horizontal and, or vertical ≤ 0.5 TIR mm ≤ 0.1 RMS g	Horizontal and, or vertical ≤ 0.5 TIR mm ≤ 0.1 RMS g	Horizontal and, or vertical ≤ 0.5 TIR mm ≤ 0.1 RMS g
Industrial or ACUTROL®3000e 4.50 kVA 8.00 kVA 5 400 V – 50 or 60 Hz	Industrial or ACUTROL®3000e 36 kVA 40 kVA 5 400 V – 50 or 60 Hz	Industrial or ACUTROL®3000e 71 kVA 94 kVA 6 400 V – 50 or 60 Hz
Other configurations upon request		
25 2 A 150 V DC 10 RMS mΩ	25 2 A 150 V DC 10 RMS mΩ	25 2 A 150 V DC 10 RMS mΩ
Yes Yes Yes Yes Yes Yes Yes	Yes Yes Yes Yes Yes Yes Yes	Yes Yes Yes Yes Yes Yes Yes



Data acquisition option

Acquisition channels	Up to 48
Acquisition hardware	National Instruments PXI-SCXI
Acquisition software	Labview

Data transmission option

Fiber optic rotary joint	2 channels
Full duplex transmission rate	1 Gbit / sec
Transmission Interface	Ethernet

Temperature chamber option

Cooling system	CO ₂ or LN ₂ gas expansion or R23 mechanical refrigeration
Heating system	Electrical
Maximum temperature range	-55 to +120 °C
Temperature stability	≤ ± 1 °C
Controller	MINCON/32
RS 232 interface	Available
Payload table flatness	≤ 0.5 TIR mm
Maximum payload dimensions	Adapted to the centrifuge model
Maximum payload mass	Adapted to the centrifuge model load capacity

Fluids access option

Fluids	Hydraulics or water or air
Maximum channels	4
Maximum pressure	20 MPa
Maximum flow	10 l/min

The specifications identified in this data sheet are representative of standard systems. To satisfy customer specific requirements ACUTRONIC is able to design systems with specifications that are increased or decreased relative to standard systems.