

## **Refrigerated Centrifuges**

Bi-directional encoder for setting





These Plus series Refrigerated Centrifuges are designed for centrifugation of temperature sensitive material and find application in routine and research work in auxiliary laboratories in industry, Educational & Research institutions, Bio Technology, Medical Laboratories, Hospitals, Blood Banks, Pharmaceutical & Clinical research laboratories.

All the centrifuges have rust proof, easy to clean Stainless Steel centrifuge inner chamber with steel guard. A wide variety of swing out and angle rotors with a choice of reduction adaptors make these units truly versatile. Users can select models as per their requirements from high volume low speed Centrifuges (C-23 Plus, CPR-23 Plus), low volume high speed centrifuges (C-24 Plus, CPR-24 Plus) in table top design & compact high-speed high volume (C-30 Plus, CPR-30 Plus) floor standing centrifuges.

	Table Top Models				Floor Models		
	High Volume Low Speed		Low Volume High Speed		High Volume High Speed		
	C-23 Plus	CPR-23 Plus	C-24 Plus	CPR-24 Plus	C-30 Plus	CPR-30 Plus	
Programable compensation for true sample temperature	х	~	х	$\checkmark$	Х	$\checkmark$	
Pre cooling	Х	$\checkmark$	Х	$\checkmark$	Х	$\checkmark$	
Acceleration Profiles	low, high	9	low, high	9	low, high	9	
Deceleration Profiles	Coasting, Iow, high	9 & Coasting	Coasting, low, high	Programmable	Coasting, low, high	9 & Coasting	
Fast Spin	Х	√	Х	$\checkmark$	Х	$\checkmark$	
Calibration window on lid for speed	√	$\checkmark$	$\checkmark$	√	$\checkmark$	$\checkmark$	
Display	LED	LCD	LED	LCD	LED	LCD	
Control Communication	Digital	Digital	Digital	Digital	Digital	Digital	
Self-Diagnostics of errors	Х	$\checkmark$	Х	$\checkmark$	Х	$\checkmark$	
Parameters setting switches	Feather touch keys	Bi-directional encoder	Feather touch keys	Bi-directional encoder	Feather touch keys	Bi-directional encoder	
Brushless motor with frequency drive	√	$\checkmark$	$\checkmark$	$\checkmark$	√	$\checkmark$	
Inverter fault detection with auto shut down	~	$\checkmark$	$\checkmark$	√	$\checkmark$	$\checkmark$	
CFC free refrigeration system	√	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	
No. of Programs	Х	99	Х	99	Х	99	
Last set parameters recall	√	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	
Choice of rpm / rcf setting	RPM	RPM / RCF	RPM	RPM / RCF	RPM	RPM / RCF	
Temperature display	°C	°C / °F	°C	°C / °F	°C	°C / °F	
Digital countdown timer 0-99 min & Continuous run	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	
Log of cumulative run time	Х	$\checkmark$	Х	$\checkmark$	Х	$\checkmark$	
User defined program name	Х	for 5 programs	Х	for 5 programs	Х	for 5 programs	
Automatic door opening	√	√	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	
Automatic Rotor Identification	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	
Motor overload protection	~	$\checkmark$	$\checkmark$	$\checkmark$	√	$\checkmark$	
Emergency lid lock release	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	
Imbalance detection with centrifugation cut off	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	
Password protection	Х	$\checkmark$	Х	$\checkmark$	Х	$\checkmark$	
Gas Hinge to prevent door falling	√	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	



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Technical Data					
Models		C-23 Plus CPR-23 Plus	C-24 Plus CPR-24 Plus	C-30 Plus CPR-30 Plus	
Max. Speed	rpm	7000	20000	20000	
Max. RCF	g'	7400	37570	37570	
Max. Tube Size	ml	250	100	250	
Max. Capacity	ml	1200	400	1200	
Lowest Temp.*	°C	- 8	- 8	- 8	
#Noise		≤ 60 dB	≤ 60 dB	≤ 60 dB	
W x D x H	mm	830 x 650 x 500	775 x 575 x 475	660 x 765 x 945	
Voltage Stabilizer	model	VS-03	VS-03	VS-03	

Supply: 220-240 Volts, 50 Hz Single Phase.

# Note : Measured as per standard protocol

\*Note : Depending on capacity, type of rotor,centrifugation speed, ambient temperatures and other process parameters.

Rotor Heads Listing								
Models	Capacity	Container -	C-23 Plus CPR-23 Plus		C-24 Plus CPR-24 Plus		C-30 Plus CPR-30 Plus	
			Speed (rpm)	RCF 'g'	Speed (rpm)	RCF 'g'	Speed (rpm)	RCF 'g'
		Swing out Heads (w	ith graduat	ted glass tu	bes)	1	1	1
R-230 M + R-231 M	4 x 200 ML	GLASS	5100	4500	Х	Х	4500	3500
R-234 M	4 x 250 ML	PLASTIC	5500	5070	Х	Х	4500	3500
R-235 M	8 X MICROTITOR	96 WELL	3200	1470	Х	Х	3200	1470
R-230 BM+ R-233 BM	108 x 5ML (RIA)	RIA PLASTIC TUBES	5100	3980	Х	Х	4500	3500
R-240 M	16 x 50 ML	FALCON®	Х	Х	Х	Х	3200	1775
R-240 AM	32 x 15 ML	FALCON®	Х	Х	Х	Х	3200	1775
R-246 AM	4 x 25 ML	GLASS	Х	Х	11000	12180	11000	12180
	Angle	heads (with Polyp	ropylene / P	olycarbona	te tubes)			
R-236 M	6 x 200 ML	PLASTIC	7000	7400	Х	Х	7000	7400
R-237 M	8 x 100 ML	PLASTIC	7000	7400	Х	Х	7000	7400
R-238 M	12 x 50 ML	PLASTIC	7000	7400	Х	Х	7000	7400
R-239 M	36 x 15 ML	PLASTIC	7000	7400	Х	Х	7000	7400
R-241 M	4 x 100 ML	PLASTIC	Х	Х	14500	23980	14500	23980
R-243 M	8 x 25 ML	PLASTIC	Х	Х	18000	31150	18000	31150
R-244 M	12 x 15 ML	PLASTIC	Х	Х	18000	31150	18000	31150
R-247 M	8 x 50 ML	PLASTIC	Х	Х	16000	30020	16000	30020
R-248 M	24 x 1.5 ML	PLASTIC	Х	Х	20000	37570	20000	37570
R-249 M	6 strips of 8 x 0.2 ml	PLASTIC	Х	Х	11000	12180	11000	12180
Angle heads suitable for Falcon Tubes (without tubes)								
R-238 MF	12 x 50 ML	FALCON	7000	7400	Х	Х	7000	7400
R-239 MF	24 x 15 ML	FALCON	7000	7400	Х	Х	7000	7400
R-244MF	12 x 15 ML	FALCON	Х	Х	11000	14610	11000	14610
R-247MF	8 x 50 ML	FALCON	Х	Х	11000	14610	11000	14610



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Reduction Adaptors for Swing Out Head Model R-230 M + R-231 M							
Suitable for Glass Tubes (with tubes)							
Models	Tube Capacity	No. of tubes per Adaptor	Total No. of Tubes				
RA-2311	100 ml	1	4				
RA-2312	50 ml	1	4				
RA-2313	30 ml	3	12				
RA-2314	15 ml	7	28				
Suitable for Vacutainer Tubes (without tubes)							
RA-2315	Upto 4 ml (100 mm long)	6	24				
RA-2316	Upto 10ml (100 mm long)	5	20				
RA-2317	Upto 5ml (75 mm long)	6	24				

Reduction Adaptors for Swing Out Head Model R-234 M						
Suitable for Glass Tubes (with tubes)						
Models	Tube Capacity	Tube Capacity No. of tubes per Adaptor				
RA-2341	50 ml	1	4			
RA-2342	25 ml	3	12			
RA-2343	15 ml	5	20			
RA-2344	5 ml	13	52			



R-230 M + R-231 M (4 X 200 ml)



R-235 M (8 x MICROTITOR)



R-249 M (6 strips of 8 x 0.2ml)



R-248 M (24 x 1.5ml)



R-247 M (8 x 50 ml)