

LABORATORY CENTRIFUGE



# M-UNIVERSAL

N° 102MU

**new**



MADE IN POLAND

TRADITION SINCE 1948

# M-UNIVERSAL

is a NEW universal laboratory centrifuge designed to work in all kind of laboratories. High speed (18000RPM) and G force (24270xg), and large number of tubes in a cycle, assures that all tests will be done correctly. Wide range of rotors meets the client expectations.



PARAMETER	UNIT	INFORMATION RELATED TO CENTRIFUGES STANDARDS
electromagnetic compatibility		according to EN 61326-2-6:2006
ambient conditions		EN 61010-1 (1.4.1)
set-up site		indoors only
ambient temperature	°C	2 ÷ 40
humidity (maximum relative humidity)		< 80%
excess-voltage category		II EN 61010-1
pollution degree		2 EN 61010-1
safety area	mm	300

FEATURE	UNIT	FEATURES
time setting (max)	h:min:sec	99:59:59
time setting (min)	h:min:sec	00:00:01
time setting (step)	h:min:sec	00:00:01
continuous operation mode (HOLD)		+
short cycle mode (SHORT)		+
temperature control		ventilated
number of rotors		25
number of user programs		100
number of linear acceleration curves		10
number of linear deceleration curves		10
possibility of changing parameters during centrifuging		+
setting centrifuging radius		+
setting sample density		+
display type		graphic LCD
menu languages		PL, EN, ES, IT, PT, DE, RU, SE, FR, CZ
switching between simplified and basic screen		+
screensaver		+
password protection (protection of demand function possible)		+
visual and sound alerts of different notifications		+
RPM/RCF conversion (speed or RCF adjustment)		+
RPM and RCF values visible simultaneously		+
automatic lid opening		+
automatic rotor identification		+
start delay function		+
time counting: from start key pressing or from reaching preselected speed		+
time counting: ascending/descending		+
USB (MPW Editor 2)		+

PARAMETER	UNIT	TECHNICAL PARAMETERS
capacity (max)		500ml 24 capillaries
RPM (max)	min <sup>-1</sup>	<b>18 000</b>
RPM (min)	min <sup>-1</sup>	90
RPM (step)	min <sup>-1</sup>	1
RCF (max)	x g	<b>24 270</b>
height	mm	300
height when lid is open	mm	570
width	mm	367
depth	mm	455
power supply 230V/50Hz-60Hz		+
power supply 100V,110V,120V,127V /50Hz-60Hz		+
weight [230V/120V]	kg	22/23
noise level	dBA	≤60dBA

FEATURE	SAFETY FEATURES
unbalance sensor	+
lid lock during centrifugation	+
emergency lid opening	+
induction motor	+
motor thermal protection	+
stainless steel centrifuging chamber	+
compliant with standards	EN-61010-1, EN-61010-2-020, EN-61010-2-101

## M-UNIVERSAL

CAT. NO.	RPM	RCF	ANGLE	MAX. CAPACITY	
11199	18 000	24 270	45	12x2/1,5ml	
11213	5 000	3 494	30	8x50ml	
11216	14 000	19 064	45	12x5ml	
11217	6 000	4 226	30	10x15ml	
11461	15 100	21 158	45	24x2/1,5ml	
11462	14 000	18 188	45	36x2/1,5ml	
11501	4 500	3 011	30	30x15/10ml	
11715	14 000	15 558	30	10x10ml	
11716	14 000	15 339	45	4x8x0,2ml PCR	
11718	6 300	5 014	30	4x100ml	
11740	5 500	4 058	30	12x15/10ml	
11741	6 000	4 226	30	8x15/10ml	
11742	6 000	4 830	30	4x30/25ml	
11743	5 500	4 058	30	12x30/25ml	

CAT. NO.	RPM	RCF	ANGLE	MAX. CAPACITY	
11744	4 500	2 830	30	10x50ml	
11745	5 000	3 354	30	24x15/10ml	
11746	6 000	4 427	30	6x50ml	
11760	12 000	14 811	45	24x2/1,5ml filter tubes	
11943	12 000	13684	45	20x1,8/1,6ml Cryo tubes	
11944	12 000	13684	45	12x5ml Eppendorf	
12183	4 000	2 486	90	4x100ml	
12193	4 000	2 504	90	8x15/10ml	
12218	3 000	916	90	2 x1 MTP (standard)	
12232	4 000	2 361	90	4x70ml	
12300	13 000	16 816	90	24 capillaries 75mm	



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