

B1. Specifications. Polar Bear Plus - Crystal*For the Polar Bear Cub, Polar Bear Plus, Polar Bear Plus Crystal*

Polar Bear Cub, 230V with magnetic stirring	Part number	41330
Polar Bear Cub, 115V with magnetic stirring		47310
Polar Bear Plus, 230V with magnetic stirring	Part number	35760
Polar Bear Plus, 115V with magnetic stirring		47300
Polar Bear Plus - Crystal, 230V with magnetic stirring	Part number	35770
Polar Bear Plus - Crystal, 115V with magnetic stirring		47290

Conformity		CE
		EN61010-1:2000
		EN61010-2-010:2014
		EN61010-2-011:2017

Commodity Code		84195000
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General

Plate material		Copper, chrome plated
Plate diameter	mm	149
Temperature range	°C	-40 to 150
Plate sensor		Type K
Dimensions (W x D x H)	mm	200 x 320 x 170
Weight	kg	9
Display		VGA
Set point temperature setting resolution	°C	0.01
Temperature display resolution	°C	0.01
Safety circuit min. (software)	°C	-50
Safety circuit max. (thermal fuse)	°C	160
Sample temperature accuracy	°C	better than ± 1.0
Control method		Cascade
External Sensor		PT 100
Control accuracy with external sensor in former at 0 °C	°C	±0.10

Stirring

Stirring quantity max. (H2O)	L	1
Motor rating input	W	60
Motor rating output	W	30
Speed range	rpm	0, 200 - 1500
Speed setting resolution	rpm	1
Speed display resolution	rpm	1
Stirring bar length max.	mm	50

Temperature**Heating Performance (Polar Bear Plus, Polar Bear Plus Crystal Only)**

Heating output	W	180
Heating time from 20°C to 100°C	min	10

Cooling Performance*

Cooling time from 20°C to 0°C	min	5
Cooling time from 20°C to -20°C	min	12
Cooling time from 20°C to -30°C	min	21
Cooling time from 20°C to -40°C	min	43

Cooling Performance (For the Polar Bear Plus Crystal)

Controllable heating and cooling rates	°C/min	0.001 to 2.00
Temperature profiles with multiple separate segments		Yes
Temperature cycling		Yes
Computer and Labview integration		Yes

Electrical

Voltage	V	110 - 240
Frequency	Hz	50/60
Power input	W	630
Fuses, F1	A	3
Fuses, F2	A	15
Fuses, F3	A	2

Connectivity

Ethernet interface		yes
USB Data Storage		yes
Real time historical log		yes

Environment

Permissible ambient temperature	°C	5 - 40
Permissible relative moisture		No data
Protection class according to DIN EN 60529		IP 20
Max operational altitude	m	<2000

Packing box dimensions (L x W x H)	cm	40 x 30 x 42
Packing box weight	kg	12±2
Total shipping dimensions (L x W x H)	cm	76 x 55 x 80
Total shipping weight (including palette)	kg	18±2