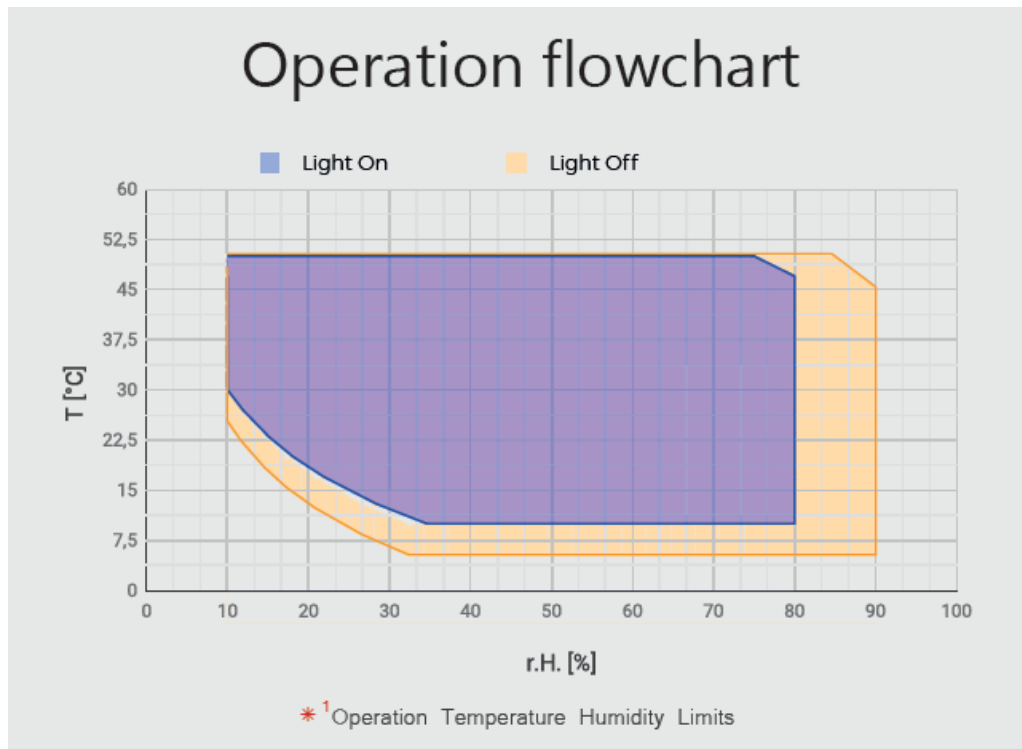


## (1) Illumination chambers with temperature and humidity (FDML-1180-THL Series)

		FDML-1180-THL-PRO Touch Screen Controller	FDML-1180-THL PID Constant Controller
<b>(1) Climatic performance:</b>			
Temperature Range without Humidity	Light OFF	(S) 0 to +55°C / (B) -10°C to +55°C	
	Light ON	(S) +5°C to +50°C / (B) -5°C to +50°C	
Temperature uniformity dep. on setpoint		0.5 to 2.5±°C	
Temperature fluctuation dep. on setpoint		0.1 to 0.5±°C	
Temperature range with active humidity		+10°C to +55°C	
Average heating-up rate according to EN 60068-3-5	Light OFF	+2°C/Min	
Average cooling down rate according to EN 60068-3-5	Light OFF	-1°C/Min	
Humidity Range	Light OFF	10 to 90 %rH	
	Light ON	10 to 80 %rH	
Humidity fluctuation		≤ 3%rH	
<b>(2) Dimension and weight:</b>			
External Dimension	Width	1500 mm	
	Depth	980 mm	
	Height	2100 mm	
Internal Dimension	Width	1300 mm	
	Depth	670 mm	
	Height	1340 mm	
Internal net volume		1180 L	
Net weight (Empty)		215 Kg	
<b>(3) Door and shelves:</b>			
Number of doors		2	
Number of shelves	Standard	6	Maximum 12
Shelf Dimension	Width	530 mm	Depth 650 mm
Permitted load per rack		20 Kg (Optional 35 Kg)	
Shelf Type		Removable and height adjustable stainless-steel grid	

		FDML-1180-THL-PRO Touch Screen Controller	FDML-1180-THL PID Constant Controller
<b>(4) Controller:</b>			
Controller		Touch Screen <b>revoFACE</b> Fully programmable	Constant PID Controller <b>stillFACE</b>
<b>(5) Materials of construction:</b>			
External materials		White coated galvanized steel or full Stainless steel AISI 304	
Internal materials		AISI 304 Stainless Steel	
Insulation		CFC and HCFC free	
Shelves		Stainless-steel grid	
<b>(6) Safety:</b>			
Temperature		Class 2 independent adjustable temperature safety devices (DIN 12880)	
Alarms		Audio-Visual	
<b>(7) Other technical specifications:</b>			
Humidification system		Ultrasonic	
Water filter		Water softening filter and replaceable cartridge equipped	
Max Water hardness permitted		600 ppm CaCO <sub>3</sub>	
Inlet Water		Pressure 0.2 to 5 BAR; Temperature 10°C to 40°C; Pipe connection 3/4"	
Sound-pressure level		60 dB(A)	
Ventilation		Fan forced ventilation	
<b>(8) Electrical Data:</b>			
Voltage		220 / 240 VAC single phase	
Frequency		50 Hz	
Nominal power	Light OFF <b>(S)</b>	2.6 kW	
	Light OFF <b>(B)</b>	2.9 kW	
Unit fuse		16A	

<b>(9) Light options:</b>				
Lamp Type	Day lamp	Fluolamp	Biolamp	Arablamp
Application	Sunlight Simulation	Accelerated Plant Growth	Insect and bacteria incubation	Arabidopsis Growth Acceleration
Temperature performance Light on:				
At 0% light	(S) 0 to +55°C			
	(B) -10°C to +55°C			
At 100% light	(S) 5 to +50°C			
	(B) -5°C to +50°C			
Horizontal Shelf Illumination:				
Illumination on Shelf (W/m <sup>2</sup> )	47	47	47	44
Illumination on Shelf (LUX)	16.000	6.500	12.000	12.000
PPFD [μmol/m2s]		230		440
Vertical Walls Illumination:				
Lateral inner walls illumination [LUX]	18.000	7.000	13.000	14.000
PPFD [μmol/m2s]		220		420
ICH Lamp - Photostability Test				
Temperature performance Light on:				
At 0% light	(S)	0 to +55°C		
At 100% light	(S)	5 to +50°C		
Horizontal Shelf Illumination:				
Illumination on Shelf for UV-A lamps [W/m <sup>2</sup> ]	Illumination on Shelf for White lamps [LUX]	Exposition time to reach 1,2 million of lux [Hours]	Exposition time to reach 200 W/m <sup>2</sup> of UV-A (Hours)	
100	13.000	92	1.9	



### Main Options:

- Ethernet interface for remote connection
- Interior socket coverable universal 220-230 V
- Interior neon lighting
- Interior LED lighting
- Dimmable adjusting light for individual lamp
- CO200 - CO2 Regulation System for EN 12390-10
- Cable Hole
- USB port for downloading test data
- Power supply 110 V 50-60 Hz
- Regulation System for EN 12390-10
- The reinforced stainless steel shelf
- Swivel castors with chamber lock
- The touch-screen interface
- System of supply demineralized water tank 16 liters