



Model	CLM-1	CLM-2	CLM-3	CLM-4W
Operating temperature range	-30°C to +200°C			
Temperature control accuracy	±0.5°C			
Temperature display	4.3" touch screen display		7" touch screen display	
Temperature display resolution	0.01			
Internal/ jacket temperature sensor	3-wire RTD PT-100 sensor			
External/ process sensor required	3-wire RTD PT-100 sensor			
Controller type	PID, process or jacket control selectable			
Communication/ interface	RS-485 mod bus, ethernet			
Alarm message	Indicative			
Type of cooling	Refrigerated			
Refrigerant	R-404a, CFC free			
Cooling power with	Methanol			
@ 0°C	0.6 kW	0.8 kW	1.2 kW	2.5 kW
@ -20°C	0.3 kW	0.5 kW	0.7 kW	1.3 kW
@ -30°C	0.1 kW	0.25 kW	0.3 kW	0.6 kW
Type of heating	Electrical			
Heating power	1.5 kW	2.5 kW	3.6 kW	4.5 kW
Machine standard version	Air-cooled			Water-cooled
Cooling water flow minimum	NA			250 l/hr
Cooling water pressure	NA			3 bar
Cooling water temperature	NA			10°C~30°C
Cooling water end connection	NA			¾" hose nipple
Circulation pump maximum flow	18-20 l/min	30-35 l/min		40-45 l/min
Circulation pump maximum pressure	0.3 bar	0.4 bar		0.7 bar
Machine end connection	M16 x 1.5 male	M24 x 1.5 male		M42 x 1.5 male
Machine overall dimension (W x D x H)	475 x 400 x 800 mm	420 x 520 x 875 mm	450 x 600 x 900 mm	540 x 650 x 1250 mm
MOC	Complete SS-304 construction			
Power supply	1-phase,230V AC,50Hz		3-phase,420V AC,50Hz	
Maximum current	10A		12A	15A
Ambient temperature condition	10°C~30°C			10°C~35°C
Standard safety features				
Phase reversal prevention	NA	Cut-off, Indication/ message, manual reset		
Over temperature protection	Cut-off, Indication/ message, auto reset			
Compressor over pressure	Cut-off, Indication/ message, manual reset			
Compressor overheat	Cut-off, Indication/ message, auto reset			

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- The temperature mentioned above is at outlet of the machine hence temperature inside the process/ load may vary due to various factors like process design, distance, head, insulation etc

Model	CLL-1	CLL-2	CLL-3W	CLL-4W
Operating temperature range	-75°C to +180°C			
Temperature control accuracy	±0.5°C			
Temperature display	7" touch screen display			
Temperature display resolution	0.01			
Internal/jacket temperature sensor	3-wire RTD PT-100 sensor			
External/ process sensor required	3-wire RTD PT-100 sensor			
Controller type	PID, Process or jacket control selectable			
Communication/ interface	RS-485 mod bus, Ethernet			
Alarm message	Indicative			
Type of cooling	Refrigerated			
Refrigerant	R-404a, CFC free			
Cooling power with	Methanol			
@ 0°C	0.6kW	1.5kW	2.2kW	
@ -40°C	0.6kW	1.4kW	2.0kW	
@ -60°C	0.3kW	1.2kW	1.4kW	
Type of heating	Electrical			
Heating power	1.5kW	3kW	4.5kW	
Machine standard version	Air-cooled		Water-cooled	
Cooling water flow minimum	NA		250 l/hr	
Cooling water pressure	NA		3 bar	
Cooling water temperature	NA		10°C ~30°C	
Cooling water end connection	NA		1" hose nipple	
Circulation pump maximum flow	30~35 l/min		40~45 l/min	
Circulation pump maximum pressure	0.4 bar		0.7 bar	
Machine end connection	M24 x 1.5 male		M42 x 1.5 male	
Machine overall dimension (W x D x H)	600 x 650 x 1400 mm		700 x 750 x 1500 mm	
MOC	Complete SS-304 construction			
Power supply	3-phase,420V AC,50Hz			
Maximum current	15A	18A	20A	
Ambient temperature condition	10°C ~30°C		10°C ~35°C	
Standard safety features				
Phase reversal prevention	Cut-off, Indication/ message, manual rest			
Over temperature protection	Cut-off, Indication/Message, Auto reset			
Compressor over pressure	Cut-off, Indication/ message, manual rest			
Compressor overheat	Cut-off, Indication/Message, Auto reset			

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Single Fluid Closed Loop Circulator



Model	CPM-1W	CPM-2W	CPM-3W	CPM-4W
Operating temperature range	-35°C to +200°C		-30°C to +200°C	
Temperature control accuracy	±0.5°C			
Temperature display	7" touch screen display			
Temperature display resolution	0.01			
Internal/ jacket temperature sensor	3-wire RTD PT-100 sensor			
External/process sensor required	3-wire RTD PT-100 sensor			
Controller type	PID, Process or jacket control selectable			
Communication/ interface	RS-485 mod bus, Ethernet			
Alarm message	Indicative			
Type of cooling	Refrigerated			
Refrigerant	R-404a, CFC free			
Cooling power with	Methanol			
@ 0°C	4 kW	7 kW	12 kW	15 kW
@ -10°C	2.2 kW	3.5 kW	6 kW	7 kW
@ -30°C	1.3 kW	1.8 kW	3 kW	3.5 kW
Type of heating	Electrical			
Heating power	6 kW	9 kW	12 kW	18 kW
Machine standard version	Water-cooled			
Cooling water flow minimum	400 l/hr	700 l/hr	1200 l/hr	1500 l/hr
Cooling water pressure	3 bar			
Cooling water temperature	10°C~30°C			
Cooling water end connection	1" hose nipple			
Circulation pump maximum flow	50~55 l/min		80~90 l/min	
Circulation pump maximum pressure	1.0 bar		1.5 bar	
Machine end connection	M42 x 1.5 male			
Machine overall dimension (W x D x H)	560 x 650 x 1300 mm	600 x 690 x 1300 mm	700 x 750 x 1500 mm	750 x 790 x 1500 mm
MOC	Complete SS-304 construction			
Power supply	3-phase, 420V AC, 50Hz			
Maximum current	15A	35A	50A	
Ambient temperature condition	10°C~40°C			
Phase reversal prevention	Cut-off, Indication/Message, Manual reset			
Over temperature protection	Cut-off, Indication/Message, Auto reset			
Compressor over pressure	Cut-off, Indication/Message, Manual reset			
Compressor over heat	Cut-off, Indication/Message, Auto reset			

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Single Fluid Closed Loop Circulator



Model	CPL-1W	CPL-2W	CPL-4W
Operating temperature range	-60°C to +200°C		
Temperature control accuracy	±0.5°C		±0.01°C
Temperature display	7" touch screen display		
Temperature display resolution	0.01		
Internal/jacket temperature sensor	3-wire RTD PT-100 sensor		
External/ process sensor required	3-wire RTD PT-100 sensor		
Controller type	PID, Process or jacket control selectable		
Communication/ interface	RS-485 mod bus, Ethernet		
Alarm message	Indicative		
Type of cooling	Refrigerated		
Refrigerant	R-404a, CFC free		
Cooling power with	Methanol		
@ 0°C	6.5kW	12kW	15kW
@ -40°C	3.2kW	6kW	7kW
@ -60°C	1kW	1.5kW	2.5kW
Type of heating	Electrical		
Heating power	6kW	9kW	18kW
Machine standard version	Water-cooled		
Cooling water flow minimum	650 l/hr	1200 l/hr	1500 l/hr
Cooling water pressure	3 bar		
Cooling water temperature	10°C~30°C		
Cooling water end connection	1" hose nipple		
Circulation pump maximum flow	50~55 l/min	80~90 l/min	
Circulation pump maximum pressure	1.0 bar	1.5 bar	
Machine end connection	M42 x 1.5 male		
Machine overall dimension (W x D x H)	750 x 790 x 1500 mm		900 x 950 x 1650 mm
MOC	Complete SS-304 construction		
Power supply	3-phase, 420V AC, 50Hz		
Maximum Current	40A	50A	65A
Ambient temperature condition	10°C~40°C		
Pump dry run	NA		Cut-off, Indication/message, auto reset
Phase reversal prevention	Cut-off, Indication/message, manual reset		
Over temperature protection	Cut-off, Indication/message, auto reset		
Compressor over pressure	Cut-off, Indication/message, manual reset		
Compressor overheat	Cut-off, Indication/message, auto reset		

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