

Recirculating chillers

RC series

Comprehensive range of robust re-circulating chillers delivering a constant flow of temperature-controlled liquid to provide powerful, regulated cooling at -10°C for many types of industrial machinery and scientific apparatus. Suitable for circulation through open and closed systems.

- Temperature range -10°C to 60°C or -5°C to 60°C (model dependent)
- Stability $\pm 0.25^{\circ}\text{C}$ or $\pm 0.5^{\circ}\text{C}$ (model dependent)
- Choice of models with different cooling power – from 350 to 3000W
- Efficient, reliable and cost-effective alternative to cooling with mains water

Choice of four models
– three acting as recirculating chillers/heaters, one as a powerful dedicated recirculating chiller (RC3000G)

Digital controller for accurate and reproducible temperature setting. User-selectable high and low temperature alarms

Robust construction, using corrosion resistant materials – long term durability and reliability in demanding applications



RC350G recirculating chiller

Inbuilt safety features protect the user, equipment and application from over temperature, under temperature and flow failure

A useful TUNE facility enables automatic optimisation of the chiller's closed-loop temperature control parameters to meet specific user requirements

Lockable wheels allow RC units to be moved easily from location to location and ensure that they stay put once in position





Applications:

- Electronics - cooling system for etch baths, glass coating for top-up display in aircrafts
- Industry - print head cooling for textile industry, calibration system probe
- Academia - physics and astronomy lab equipment cooling, sea water cooling for producing ikatite minerals
- Research - seed research, cooling of scientific X-ray analytical units, SEM cooling

Refrigerated / heating circulating baths » Recirculating chillers » Models and specifications

Products for special low temperature applications – models and specifications

● = standard

			Re-circulating chillers – digital control			
			RC350G	RC400G	RC1400G	RC3000G**
			 42 kg h: 510 mm d: 600 mm w: 370 mm	 42 kg h: 510 mm d: 600 mm w: 370 mm	 53 kg h: 590 mm d: 630 mm w: 380 mm	 88 kg h: 640 mm d: 840 mm w: 490 mm
Temperature range	°C		-5 to 60		-10 to 60	
Stability (DIN 58966)	@ 20°C using water	°C	±0.25*		±0.5 [#]	
Display			LED			
Display resolution	°C		1.0			
Typical cooling power	@ 20°C	W	350	400	1300	3000
	@ 0°C	W	120	150	600	1500
	@ -10°C	W	–	20	150	575
Heater power		kW	0.75		1.5	–**
Overall consumption	220/240 V	kW	1.5		3.0	2.0
Liquid flow rate, maximum		L/min	15	12	15	
Pump head pressure @ 1 L/min		bar	1.6	0.62	1.6	
Pipe connection, inlet/outlet		3/8" BSP male	●			
Reservoir capacity		L	1.7	1.7	2.5	1.1
Safety:			●			
– temperature	switchable undertemperature thermostat		●			
– temperature	fixed over temperature cut-out		●			
– level	flow-fail device		●			
Refrigerant			R134a	R134a	R134a	R134a
Electrical supply		V	230 (50 Hz)			
EMC emissions		Class	B	B	A	B

* with 10 litres of water in the system # with 25 litres of water in the system

** RC3000G has no heater so can only control against a heat load

Accessories for RC series

- **RC BYP** – bypass to overcome flow restrictions (flow < 1 L/min), e.g. in narrow tubes or small cells
- **RC PR** – pressure gauge to assist with setting up cooling systems and monitoring performance
- **PRES** – priming reservoir to simplify priming in a closed loop system which has no filling port available on the RC inlet (not required for RC3000G)
- **External probe** – for remote sensing temperature control. On request only. Specify when ordering, requires modification to chiller
- **RC HF9, RC HF12, RC HF17** – Rear connecting fittings (pair) for 9, 12 and 17 mm internal diameter hose sizes respectively