

LIAT U Series

Ultra-low Temperature Thermo-Chiller

US708-W-33F/ UD610-W-32F/ UT630-W-33F

Precision temperature stability **±0.1°C**

Ultra-low temperature cooling capability **-70°C**

Automatic replenishment Dual-tank structure **Stablize**



Cascade Efficient

Two-stage compression cascade cycle overcomes single-stage low-temperature efficiency bottlenecks, delivering stable -70°C with long-term reliability



Broad Flexibility

UT630 covers -70°C ~ +70°C with seamless transition from deep-cool to ambient, one system for cross-temperature processes



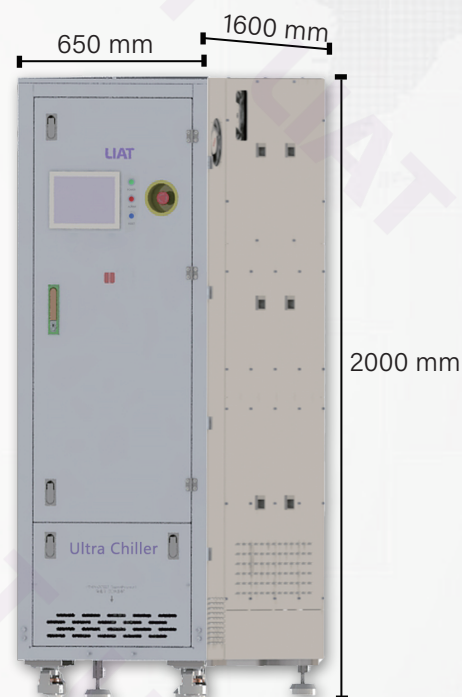
Continuous Supply

US708 features 15L+15L dual-tank (running + refill) with automatic replenishment ensuring uninterrupted fluid supply



Deep-Cool Capacity

The US708 provides 8kW of cooling capacity at -70°C, while the UT630 also outputs 8kW at -65°C, demonstrating industry-leading deep-cooling capabilities.

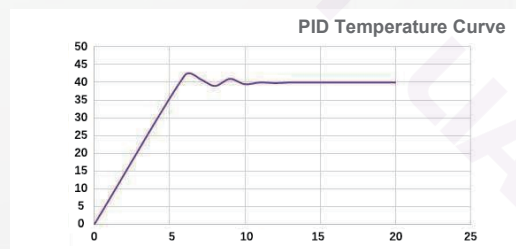


UT630-W-33F

SEMI Standard
S2, S8



TÜVRheinland®
Precisely Right.



www.liatem.com

www.liatem.com info@liatem.com +86 021-67815933

Building 1, Wujiang Comprehensive Bonded Zone, No. 688 Pangjin Road, Wujiang District, Suzhou, Jiangsu Province, China

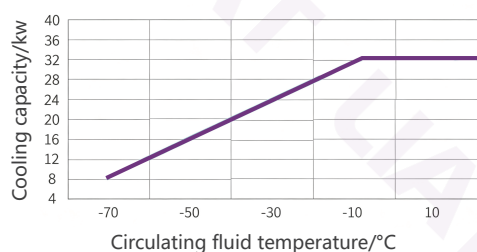


LIAT U Series

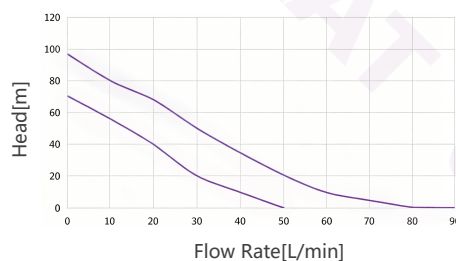
Ultra-low Temperature Thermo-Chiller

Model		US708-W-33F	UD610-W-32F		UT630-W-33F		
Channel		Channel 1	Channel 1	Channel 2	Channel 1	Channel 2	Channel 3
Temperature range		-70°C to 40°C	-70°C to +30°C	+30°C to +60°C	-70~+40	+30~+70	+10~+55
Fluid Fluid		Fluorinated Fluid	Novec 7500		7200TDS/HT70		FC3283/HT135
Tank		15+15L Dual Tank (Operating + Refill)	45L				
Temperature accuracy (idle)		± 0.1 °C	± 0.2 °C	± 0.1 °C	No-load ±0.2°C Loaded±1°C	No-load ±0.1°C Loaded±1°C	
Temperature control		PID control					
Compressor	Compressor Type	Single-stage / Two-stage Compressor	Dual-stage Cascade Compressor	NA	Fixed-speed Compressor	None	Inverter Compressor
	Power	12kW+12kW	6.8KW+7.7KW	NA	6.8KW+7.7KW	None	10KW
Heat exchanger	Cooling capacity	12 KW@-60°C 8 KW@-70°C 4KW@-80°C	8.5KW @-60°C	13KW @+50°C	-65°C@8KW	+30°C@22KW	+20°C@28KW
	PCW	50 ~ 80 L/min@15~25°C	50 LPM @15 ~ 25 °C 0.3MPa		50L@20°C 0.2-0.5MPa	15L@20°C 0.2-0.5MPa	50L@20 °C 0.2-0.5MPa
	Heat exchanger	Plate Heat Exchanger					
Heater		6 KW	6 KW	6 KW	6 KW	18KW	6 KW
Pump	Pump Type	Magnetic Drive Pump					
	Power	1.5kW	2.2 KW		1.5KW		
	Pump capacity	20 L/min @ 0.7MPa	25 LPM @0.7MPa		20 L/min @ 0.7MPa		
Certification		SEMI S2, F47					
Nitrogen Back Blowing		Φ6(0.2-0.6MPa)					
Interface		RS485	RS485		RS485/EtherCAT		
Rated Power		32kW	30.9KW		59kW		
Maximum Current		48.6A	85.7A		89.6A		
Breaker		80A	125A				
Weight		650 kg					
Dimensions (overall)		600W*1370D*1820H	650W* 1500D* 1900H(mm)		650W*1600D*2000H		
Power Supply		3Ph,380-400V,50Hz	208 ~ 220 VAC, 3ø , 50Hz / 60Hz		380 VAC, 3ø, 50Hz		

Cooling capacity curves at different temperatures



Pump performance[50HZ]



www.liatem.com

www.liatem.com info@liatem.com +86 021-67815933

Building 1, Wujiang Comprehensive Bonded Zone, No. 688 Pangjin Road, Wujiang District, Suzhou, Jiangsu Province, China

