

Alphacool ES Chiller 1000 ServerRack 5U

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Quick Info

The Alphacool ES Chiller 1000 is a compressor cooling system with a maximum cooling capacity of 1000 watts, making it the perfect choice for cooling servers and workstation systems. Equipped with an integrated pump, the chiller takes on the task of circulating and cooling the coolant. Ensuring that the desired temperature is maintained.

- Compressor cooling system for up to 1000 watts
- Pump with 10m head
- Flow rate and temperature alarm
- 5U server form factor

Scope of delivery

1x ES Chiller 1000 ServerRack 5U
1x 1.5m power cable (Euro plug)
1x 1.5m power cable (UK standard)
2x Server Rack Rail

1x Chiller Alarm Adapter
1x M6 x15 Screw
2x Adaptor G ½" to G ¼"

Technical data

Dimensions (L x W x H)	520 x 440 x 220 mm
Form factor	5U
Net Weight	22kg
Voltage	220V
Frequency	50 Hz
Current	0.4-2.68A
Compressor Power	0.44/0.46 kW
Refrigeration Capacity	0.89/1.08 kW
Refrigerant	R-134a
Refrigerant Charge	280g
Precision	+/-0.3°C
Reducer	Capillary
Protection	Over current protection for compressor, flow alarm, over temperature alarm
Pump Power	0.03 kW
Reservoir Capacity	4 l
Inlet / Outlet	G1/4 Inner threads
max. Lift	10m
max. Flow	10 l/min
Color	black

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Manual	13031_Alphacool_ES_Chiller_1000_ServerRack_5U_Manual.pdf
Product pictures	13031_Alphacool_ES_Chiller_1000_ServerRack_5U_pics.zip

Packaging dimensions per unit

L x W x H	610 x 590 x 330 mm
Weight	26000 g

Other data

Certificates	CE, FC, RoHS
EAN	4250197130318
Customs code	84195080900

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All in One

The ES Chiller ServerRack 5U is equipped with a display that can be used to configure various settings, including temperature control in precise 0.3°C increments. The G1/4" connections are compatible with common connections for water cooling systems. A built-in reservoir holds a capacity of 2 liters. Thanks to the integrated pump, with a maximum delivery head of up to 10m, the chiller can be integrated directly into the cooling loop. An extra pump is not necessary. For the sake of additional protection, the chiller is equipped with overvoltage protection for the compressor and has an alarm that warns if the flow rate is too low or the temperature is too high.

The Alphacool ES Chiller 1000 ServerRack 5U is a high performance cooling system for server and workstation environments, designed for the 5U form factor.

Performance calculation

Water outlet temperature (Fw)

C°	8	10	15	20	25	30	35	40
factor	0,69	0,77	1	1,22	1,44	1,64	1,82	2

Ambient temperature (Fa)

C°	15	20	25	32	35	40	45	50
factor	1,26	1,2	1,11	1	0,95	0,87	0,8	0,72

Percentage of glycol in coolant (Fg)

%	0	10	15	20	25	30	35	40
factor	1	0,96	0,95	0,94	0,93	0,91	0,9	0,88

Formular: $1,08kW * Fw * Fa * Fg$

Example: A chiller delivers 1.08kW cooling capacity. Water outlet temperature (Fw) is 30 C°, Ambient temperature (Fa) is 40 C° and Percentage of glycol (Fg) is 30 %.

Calculation: $1,08kW * 1,64 * 0,87 * 0,91 = 1,4kW$