

Alphacool ES Chiller 1000 ServerRack 5HE 110-120V / 60hz

Alphacool article number: 5100103



Quick Info

The Alphacool ES Chiller 1000 ServerRack 5U 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 US Version
1x 1.5m power cable (US plug)
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	110 - 120V
Frequency	60 Hz
Current	0.4-2.68A
Compressor Power	0.44/0.46 kW
Refrigeration Capacity	0.89/1.08 kW
Refrigerant	R1234YF
Refrigerant Charge	280g
Precision	+/-0.3°C
Reducer	Capillary
Pump Power	0.03 kW
Reservoir Capacity	4 l
Inlet / Outlet	G1/4 Inner threads
max. Lift	10m
max. Flow	10 l/min
Protection	Over current protection for compressor, flow alarm, over temperature alarm
IP rating	IP44
Recommended operating temperature (in degrees Celsius)	5°C ~ 40°C
Recommended storage temperature (in degrees Celsius)	5°C ~ 40°C
Color	black

Download links

Manual	5100103_Alphacool_ES_Chiller_1000_ServerRack_5HE_110-120V_-_60hz_Manual.pdf
Product pictures	5100103_Alphacool_ES_Chiller_1000_ServerRack_5HE_110-120V_-_60hz_pics.zip
EU-DoC / CE / RoHS	Alphacool_EuDoc_CE_RoHS_5100103.pdf

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	4070201001034
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: $1,08kW * 1,64 * 0,87 * 0,91 = 1,4kW$