

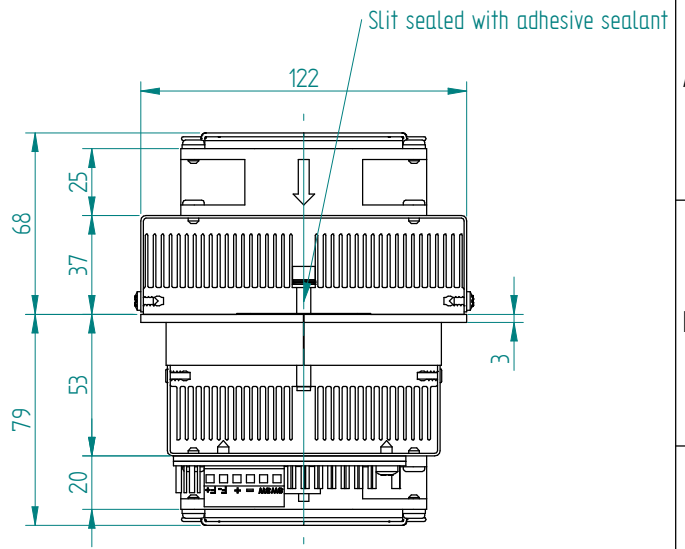
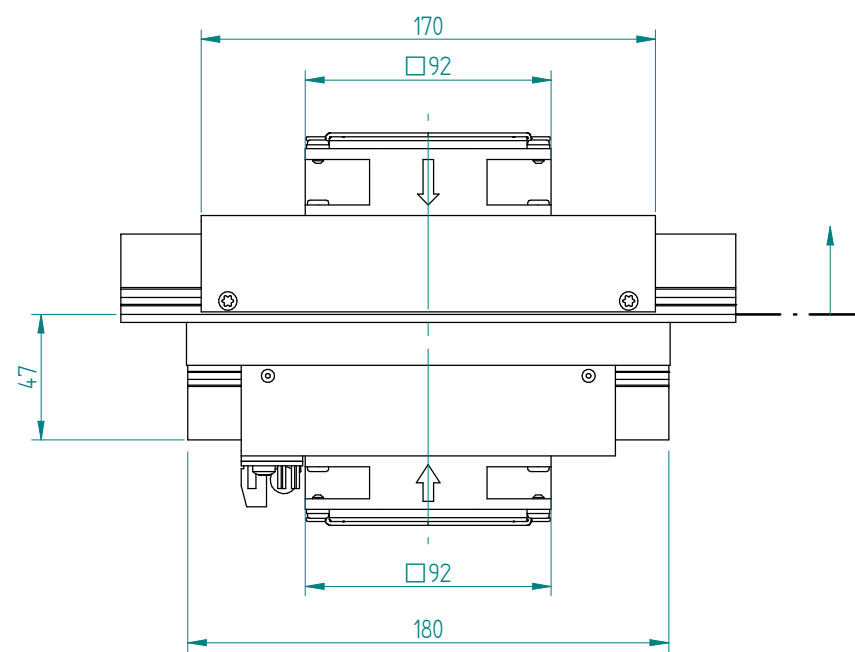
Description:		Code:	Specification: (Ta=35°C, dT=0°C)
Heat transfer, cold side:		A	Air
Heat transfer, warm side:		A	Air
Cascade:		-	No
Cooling power: [W]		060	58 W (Calculated, Tolerance: ±10%)
TEA Voltage, nominal: [VDC]		24	24 VDC
TEM Voltage: [VDC]		Nominal: 24 VDC (Max: 30 VDC)	
TEM Current: [A]		Nominal: 2.7 A, Initial: 3.3 A (Calculated, Tolerance: ±10%)	
Fans, cold side:		2	Nominal current: 0.14 A, Voltage: 24 VDC ±10%, L10: 50,000 hrs. at 25°C.
Fans, warm side:		3	Nominal current: 0.15 A, Voltage: 24 VDC ±10%, L10: 50,000 hrs. at 25°C, IP55
Temperature controller, sensor:		0	None
Temperature control settings, trim options:		0	-
Temperature control position:		1	Connection board on coldside fan bracket.
Additional controller information:		0	-
Overheating thermostat:		75°C ±5°C Internally on hot side heat sink surface.	
Operating temperature:		-10°C to +51°C at nominal voltage.	
TE-Module(s) temperature specification:		Max. surface temperature: 80°C.	
Enclosed:		-	
Packing:		Individual cardboard box.	

General tolerances: SS-ISO 2768-1 v	First angle projection:	Dimension units: Metric: [mm]
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Comment/Treating: Warm side of unit designed to comply with IP54. Hipot tested at 750VDC.				
Designed by: A. Kim	Checked by: M. Nyman	Approved by: H. Höjer	Release date: 2014-10-15	Project: Standard
 E-mail: info.gothenburg@lairdtech.com, Web: www.lairdtech.com		Title: TE ASSEMBLY 24 VDC, AIR - AIR		
		Part nr: AA-060-24-23-00-10	Rev. 04	Scale: Size, sheet - A3, 1/5

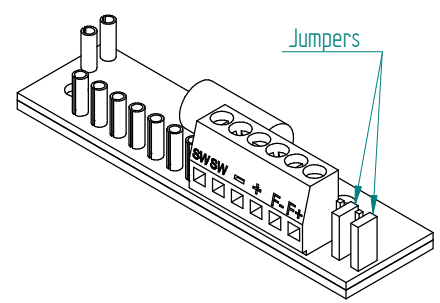
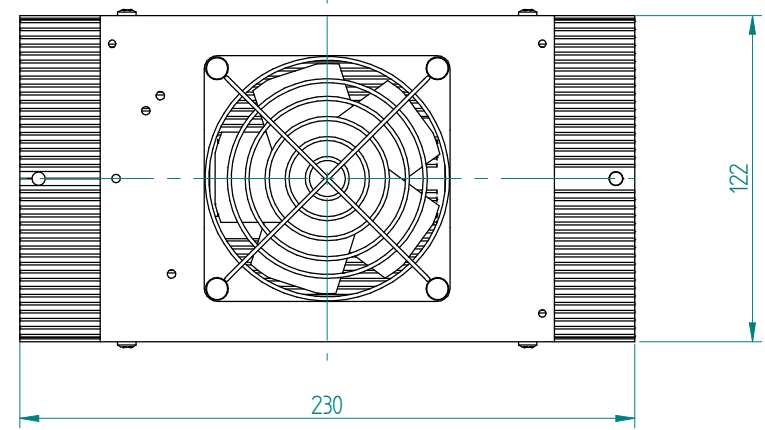
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Adapted to meet IP54 from this sealing plane.



HOT SIDE

COLD SIDE



Electrical connections:

- "+" : + TEM
- "-" : - TEM
- "F+" : + Fan(s)
- "F-" : - Fan(s)

To use single supply:
Lift the jumpers and rotate 90° to short-cut the pin pairs.
Connect the unit to "+" & "-".

Warning: Single supply not applicable in heating mode or with PWM-regulation.

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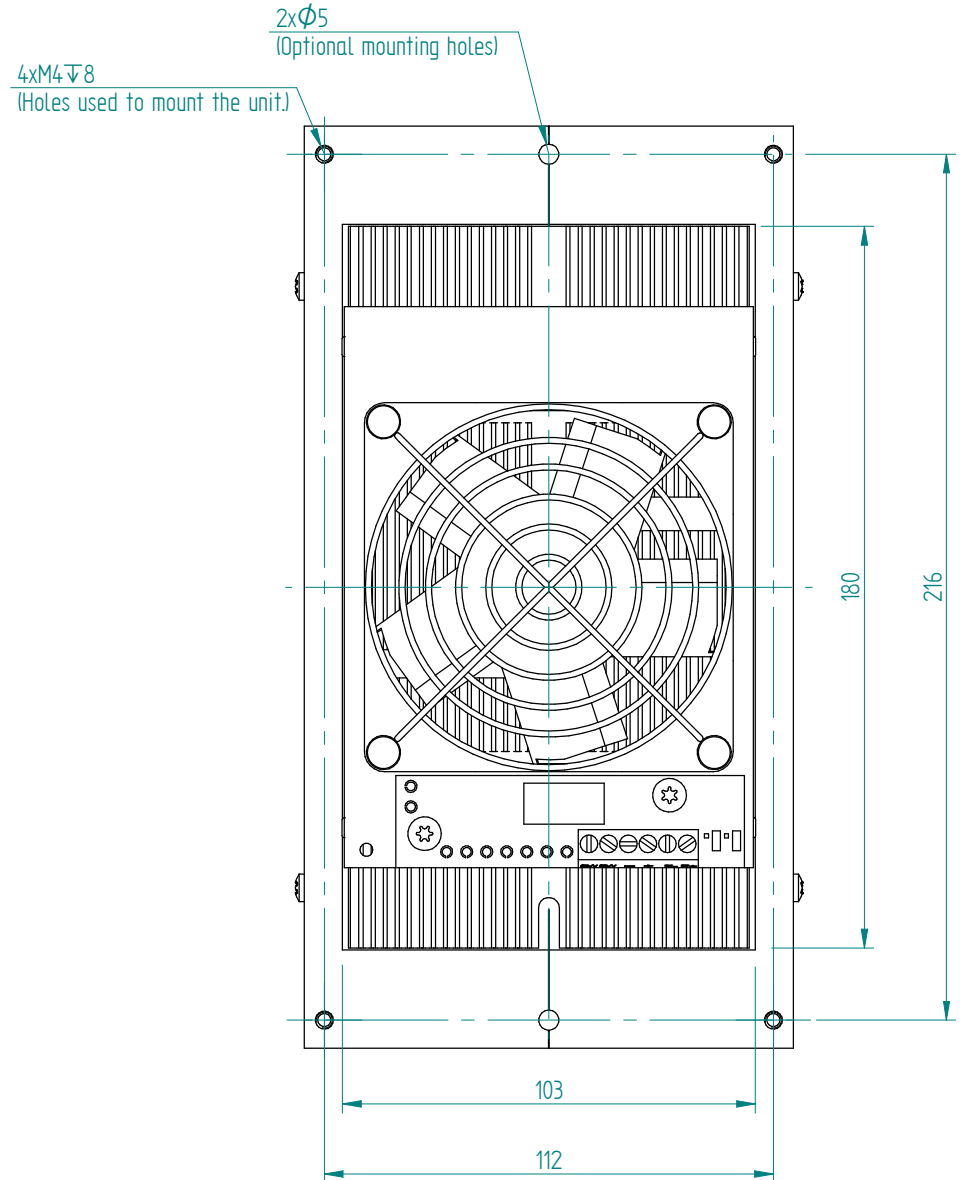
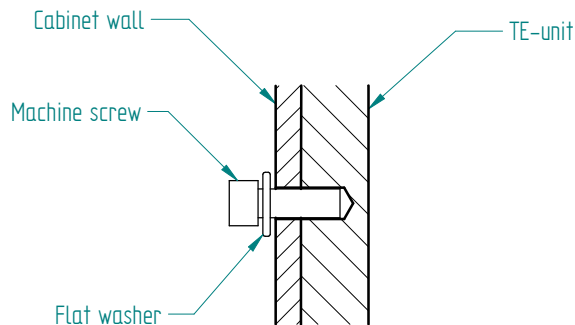
Installation and Service manual

Installation:

1. The TE assembly must be mounted in a cabinet with "Hot side" mounted externally.
2. Suitable cabinet cutout is **105x182** mm.
3. Recommended for general purposes: the TE assembly should be fastened according to picture below so that the gasket material will seal off around the flange of the assembly.
4. **The TE assembly must be positioned in vertical direction with wires facing downwards (heat sink fins in vertical direction).**
5. Note that condensation may occur. Standing water on the heat sink should be avoided and drip tray may be required.
6. The TE assembly must be protected from external force or violence.
7. The power line to the assembly needs to be protected by a fuse. The fuse rating should be of at least the nominal current of the assembly. It must withstand 150% of rated current for at least 60 seconds.
This is valid at $T_a=35^{\circ}\text{C}$. Fuse ratings for other ambient temperatures ($x^{\circ}\text{C}$) can be calculated with the formula $I[x^{\circ}\text{C}]=\lceil\frac{35^{\circ}\text{C}}{1+0.005^{\circ}\text{C}^{-1}(x-35)}\rceil$.
This is valid when regulating with an ON/OFF regulation. At rapid temperature cycling where this is applicable, there can be need for even higher fuse ratings.
8. Max ripple on supplied power =5%.
9. Switching power to TEM:s at frequencies between 0.01 Hz to 5 kHz will render premature failure of modules and must be avoided.

Service:

Fan impellers and heat sinks must be cleaned on regular intervals to reduce risk for overheating and reduction of cooling function. The interval may vary depending on environment.



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First angle projection: Dimension units: Metric: [mm]

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