



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



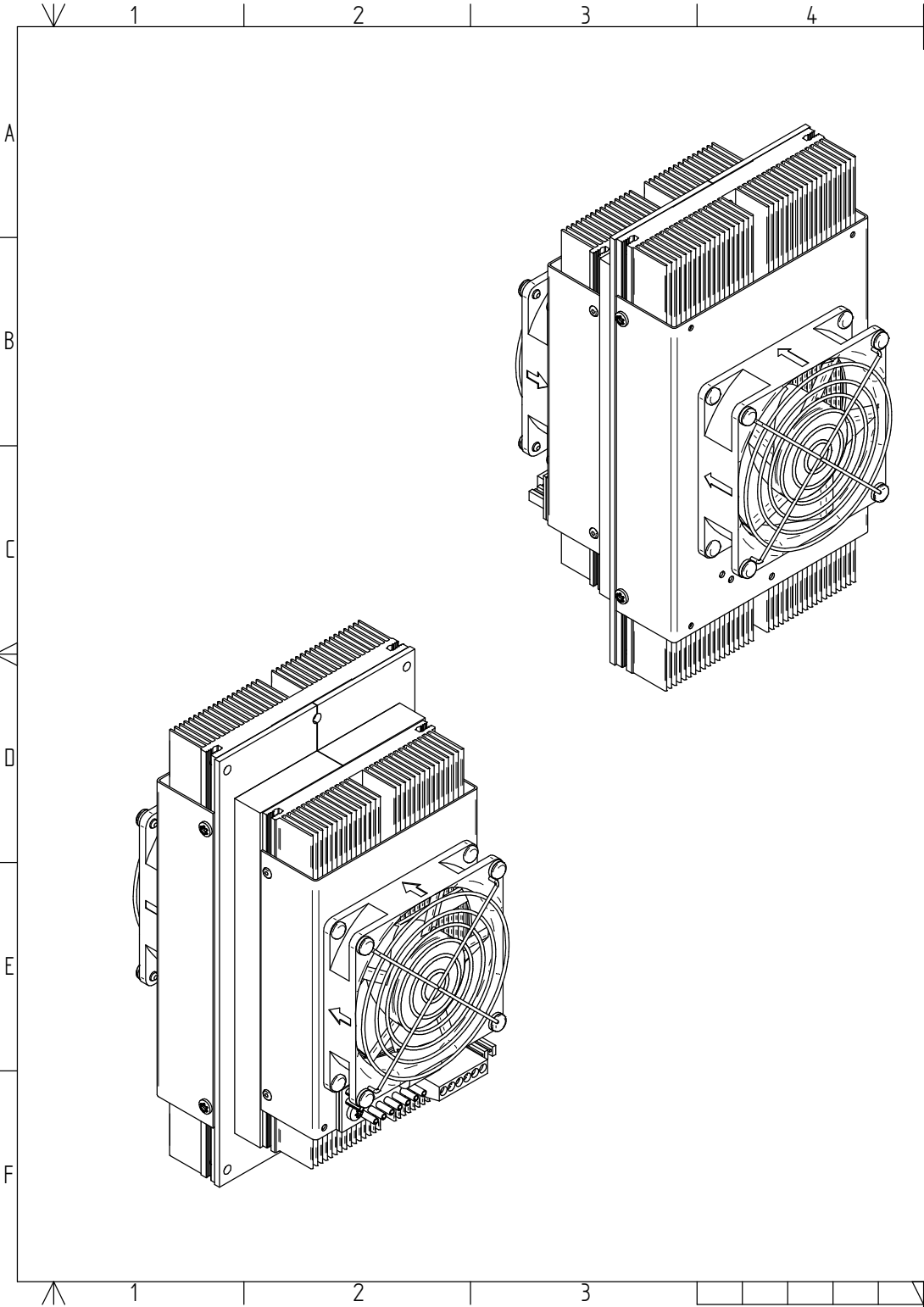
## Contact us

Tel: +86-755-8981 8866 Fax: +86-755-8427 6832

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Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China





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.

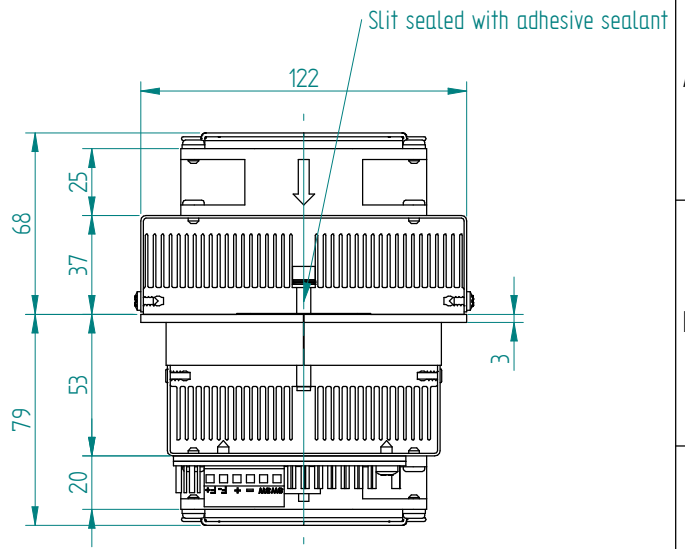
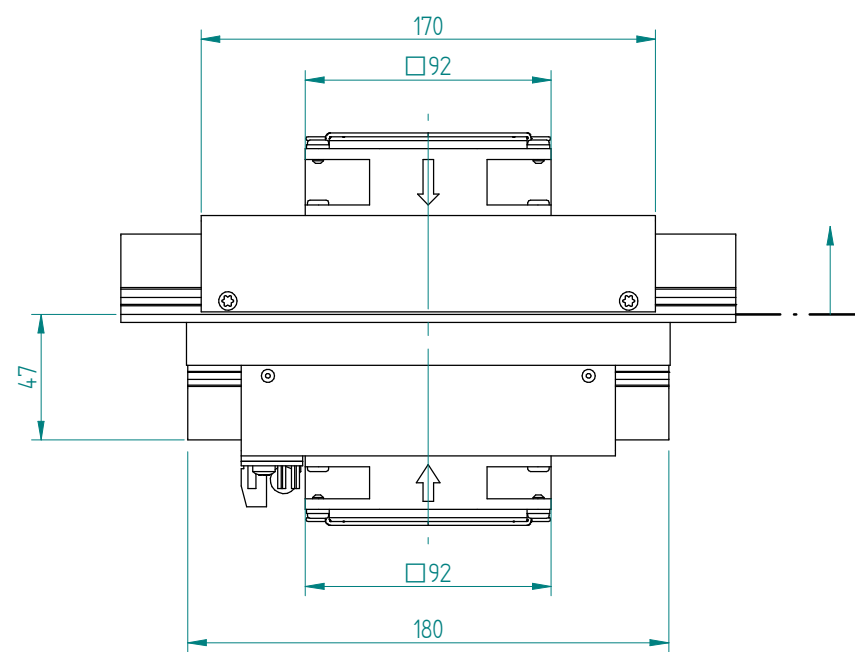
Designed by: A. Kim	Checked by: M. Nyman	Approved by: H. Höjer	Release date: 2014-10-15	Project: Standard
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**Laird**  
E-mail: info.gothenburg@lairdtech.com, Web: www.lairdtech.com

Title: TE ASSEMBLY 24 VDC, AIR - AIR			
Part nr: AA-060-24-23-00-10	Rev. 04	Scale: -	Size, sheet A3, 1/5

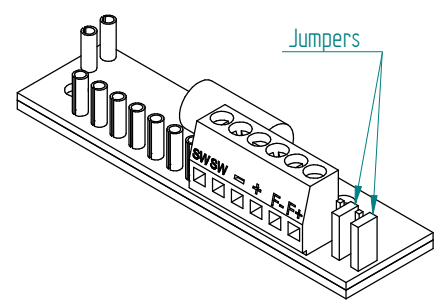
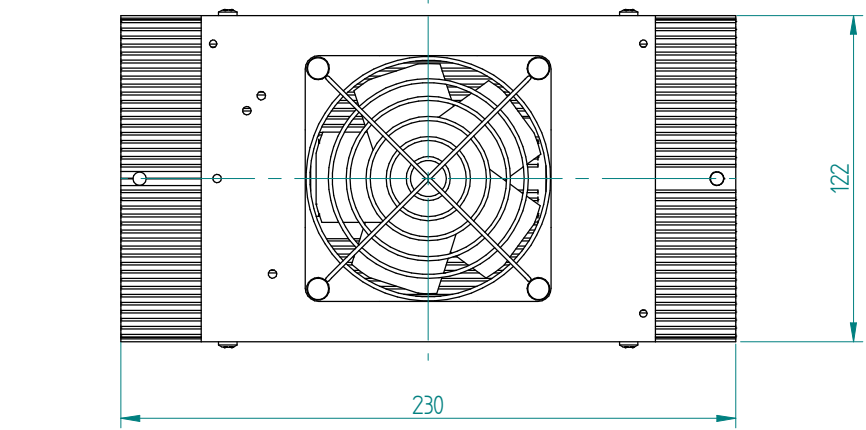
This drawing is the property of Laird Technologies, Inc. Protected in accordance with prevailing law.

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.

General tolerances: SS-ISO 2768-1 v First angle projection: Dimension units: Metric: [mm]

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
<p>E-mail: info.göteborg@lairdtech.com, Web: www.lairdtech.com</p>		Title: TE ASSEMBLY 24 VDC, AIR - AIR		
		Part nr: AA-060-24-23-00-10	Rev: 04	Scale: Size, sheet - A3, 2/5

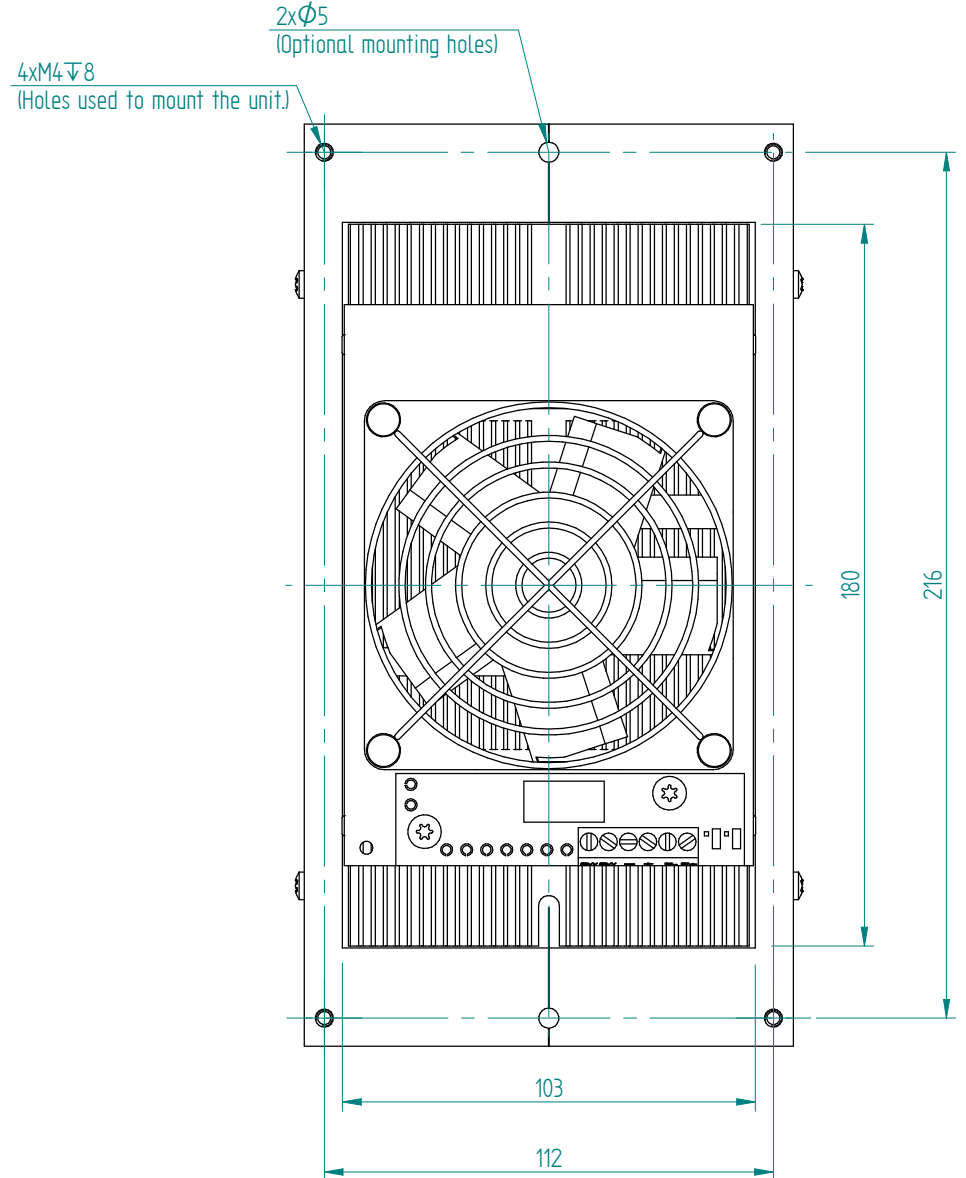
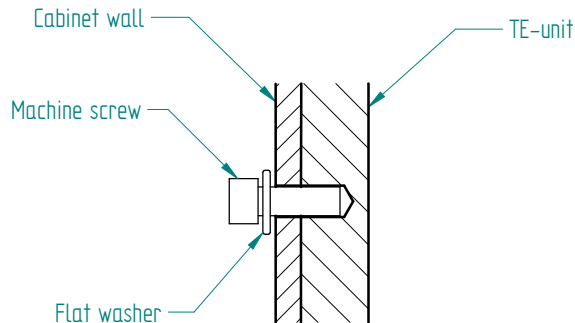
## Installation and Service manual

### 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.



General tolerances: SS-ISO 2768-1 v  
First angle projection: Dimension units: Metric: [mm]

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		Part nr: AA-060-24-23-00-10	Rev: 04	Scale: Size, sheet - A3, 3/5
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