

Description:		Code:	Specification: (Ta=35°C, dT=0°C)
Heat transfer, cold side:	L	Liquid	
Heat transfer, warm side:	A	Air	
Cascade:	-		
Cooling power: [W]	100	202 W @ 3 lpm (liters per minute). (Tolerance: ±10%)	
TEA Voltage, nominal: [VDC]	24	24 VDC	
TEM Voltage: [VDC]		Nominal: 24 VDC (Max: 30 VDC)	
TBM Current: [A]		Nominal: 6.9 A, Initial: 8.1 A (Calculated, Tolerance: ±10%)	
Fans, cold side:	0	None	
Fans, warm side:	2	Nominal current: 0.5 A, Voltage range: 18 - 26.4 VDC, L10: 60,000 hrs. at 40°C	
Temperature controller, sensor:	0	None	
Temperature control settings, trim options:	0	-	
Temperature control position:	0	-	
Additional controller information:	0	-	
Overheating thermostat:		None	
Operating temperature:		-20°C to +70°C at nominal voltage.	
TE-Module(s) temperature specification:		Max. surface temperature: 80°C	
Enclosed:		Turbulators mounted in heat sink liquid channels (2x) L-PNIPP-6-V8 (2x)	

Note:  
Cooled liquid block needs to be isolated from air humidity  
to minimize risk for condensation and thermally insulated for best performance.

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

Comment/Treating: Hi-Pot tested 750 VDC				
Designed by: A. Kim	Checked by: M. Karlstedt	Approved by: A. Kim	Release date: 2018-04-09	Project: BOOSTED
 <small>E-mail: info@gothenburg.lairdtech.com Web: www.lairdtech.com</small>		Title: LA,100,24, LIQUID - AIR		
		Part nr: 387000639	Rev: 02	Scale: - Size, sheet: A3, (15)

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1 2 3 4 5 6 7 8

A

B

C

D

E

F

A

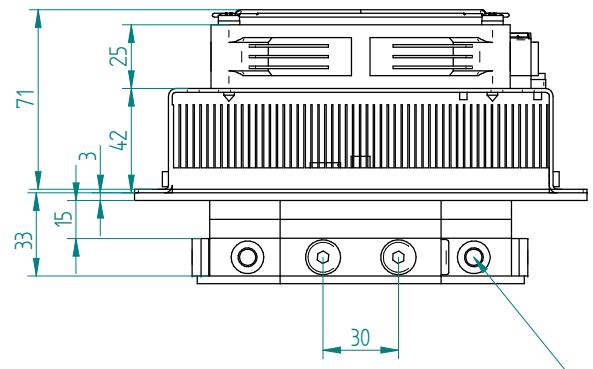
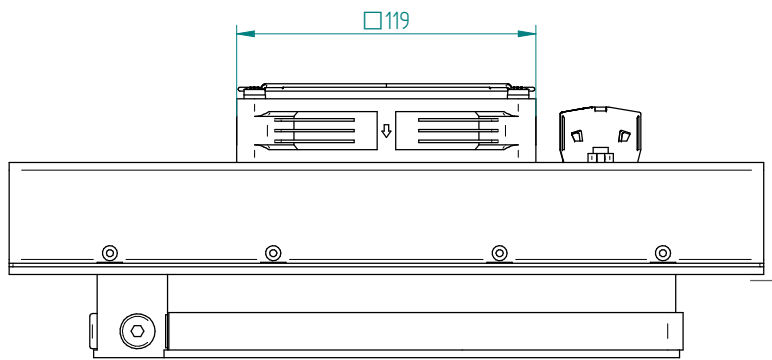
B

C

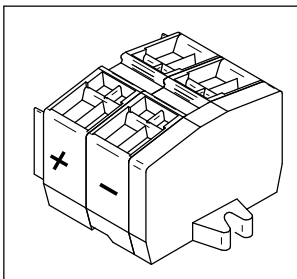
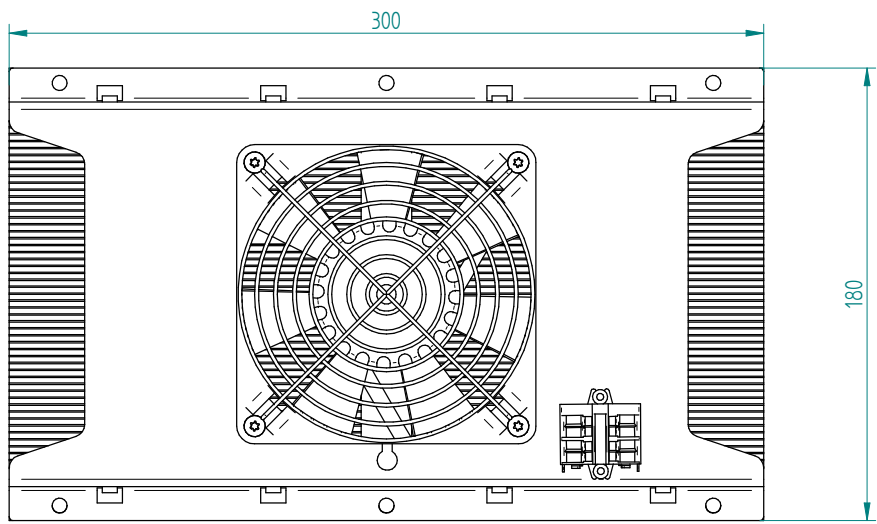
D

E

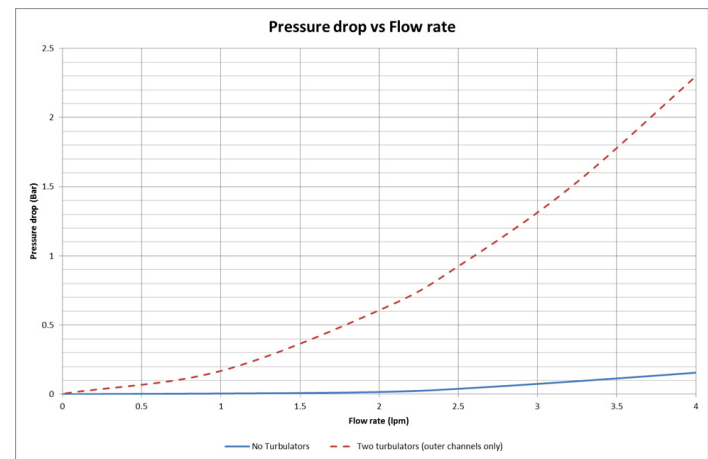
F



Typical Pressure - Flow behavior of liquid block assembly.  
(for more information contact Laird Technologies customer service)



**Warning:**  
Do not reverse current or use PWM-regulation on fan supply



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

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		Part nr: 387000639		-	A3, 215

1 2 3 4 5 6 7 8

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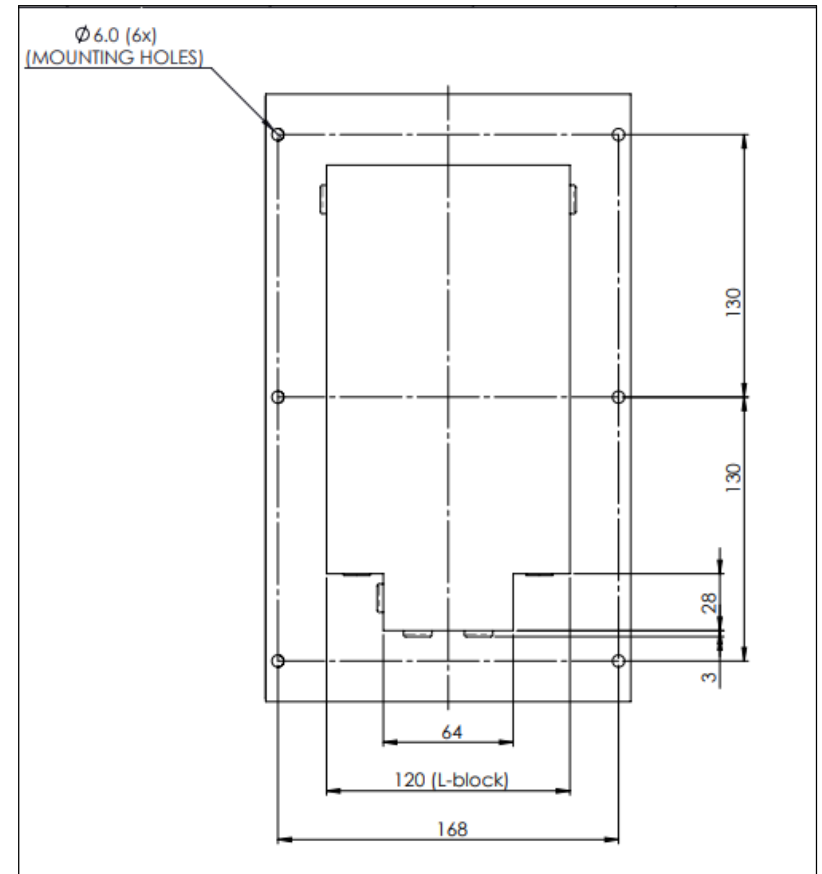
## Installation and Service manual

### Installation:

1. The TE assembly must be protected from external force or violence.
2. 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  $I[x^\circ\text{C}]=I[35^\circ\text{C}]/(1+0.005 \cdot (x-35))$ .  
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.
3. Cooled parts needs to be isolated from air humidity to minimize risk for condensation and thermally insulated for best performance.
4. Max ripple on supplied power =5%.
5. 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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		Part nr: 387000639	Rev. 02	Scale: Size, sheet - A3, 3/5