

# T1FLO™ with Fan, Type 1



## Industry Standards

UL 508 Listed; Type I; File No. E27567

NEMA/EEMAC Type I  
CSA; File No. 42184; Type I  
IEC 60529, IP30

## Application

These enclosures have a thermostatically controlled forced-air ventilation system for the removal of heat. Ideal for control systems in HVAC or industrial environments that have a combination of heat-sensitive electronics with high heat producing components such as (VFD) drives, inverters, PLCs and non-hardened processors.

## Features

- Active cooling ventilation system with factory installed, thermostatically controlled fan (115 VAC) and filter
- Terminal block power connection for fan
- Washable expanded metal filter
- Lift-off hinged door
- Slotted quarter-turn latch; optional latches available
- Collar studs for mounting optional panel
- Grounding provision on door and body
- Mounting holes on back of enclosure
- Accepts optional mounting foot kit
- Door gasket

## Specifications

- 14 gauge steel

## Finish

ANSI 61 gray polyester powder paint finish inside and out over phosphatized surfaces. Optional solid panels are white; optional perforated panels are gray.

## Accessories

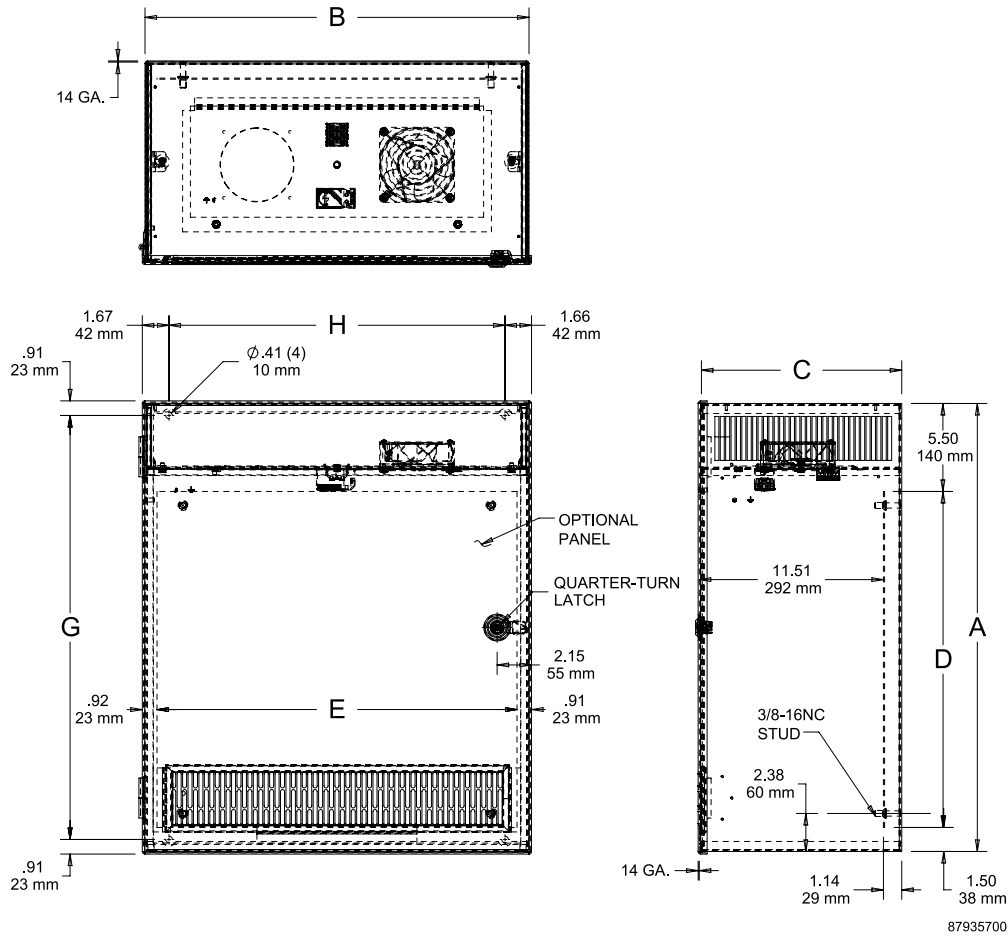
See also Accessories chapter.

- Cylinder Lock Kit (AL12AR)
- Electric Heater
- Electrical Interlock
- Grounding Device
- Mounting Foot Kit (CMFK)
- Panels
- Rack Mounting Angle Kit
- Replacement 4-in. Fan (A4AXFN)
- Replacement 6-in. Fan (A6AXFN)
- T Handle Latch Kit (AL7A)
- Touch-Up Paint (ATPPY6I)
- Window Kit

## Standard Product

Catalog Number	A x B x C in. (mm)	System CFM	Suggested HP	Solid Panel	Perforated Panel	Panel Size D x E in. (mm)	Panel Gauge	G (in.)	G (mm)	H (in.)	H (mm)	Fan Size (in.)
T1F80LP	28.00 x 24.00 x 12.75 (711 x 610 x 324)	80	3	A24P24	A24P24PP	21.00 x 21.00 (533 x 533)	12	26.50	673	21.00	533	4
T1F130LP	34.00 x 24.00 x 12.75 (864 x 610 x 324)	130	up to 20	A30P24	A30P24PP	27.00 x 21.00 (686 x 533)	12	32.50	826	21.00	533	4 (2x)
T1F200LP	40.00 x 24.00 x 12.75 (1016 x 610 x 324)	200	40	A36P24	A36P24PP	33.00 x 21.00 (838 x 533)	12	38.50	978	21.00	533	6
T1F350LP	54.00 x 30.00 x 12.75 (1372 x 762 x 324)	350	up to 75	A48P30	N/A	45.00 x 27.00 (1143 x 686)	12	52.50	1334	27.00	656	6 (2x)

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## Required Airflow

The following equation is used to calculate the airflow required in a forced-air system to remove heat and maintain enclosure temperature a given amount above the ambient temperature.

$$CFM = \frac{W_T \times 3.16}{T_{int} - T_{amb}}$$

Where:

CFM = Required airflow (ft.<sup>3</sup> / min)  
 $W_T$  = Total heat dissipated in enclosure (watts)  
 $T_{amb}$  = Ambient or external Temperature (degrees F)  
 $T_{int}$  = Desired internal Temperature (degrees F)

## Sample Values

Catalog Number	Air Flow (CFM)	Maximum Internal Heat Load (Watts)			
		5 F Temp. Rise	10 F Temp. Rise	20 F Temp. Rise	30 F Temp. Rise
T1F80LP	80	127	253	506	759
T1F130LP	130	206	411	823	1234
T1F200LP	200	316	633	1266	1899
T1F350LP	350	554	1108	2215	3323

Temp. Rise =  $T_{int} - T_{amb}$

## Sample Values in a VFD Drive Application

Catalog Number (with enough air flow)	Drive HP	Heat from Drive (Watts)	Total Heat <sup>a</sup> (Watts)	Airflow (CFM) to Maintain 15 F Temp. Rise
T1F80LP	10	246	307	65
T1F130LP	20	492	615	129
T1F200LP	30	738	922	194
T1F350LP	50	1229	1536	324

<sup>a</sup>Total heat load factors 25 percent greater than VFD for passive components

### Assumptions:

Specific values and physical sizes must be verified.

Typical motor efficiency is 91 percent; typical drive efficiency is 97 percent.