

T1FLO VENTED ENCLOSURE WITH FAN, TYPE 1



INDUSTRY STANDARDS

UL 508A Listed; Type 1; File No. E61997
cUL Listed per CSA C22.2 No. 94; Type 1; File No. E61997

NEMA/EEMAC Type 1
IEC 60529, IP20

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
- 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 pretreated surfaces. Optional solid panels are white; optional perforated panels are gray.

ACCESSORIES

See also *Accessories*.

Electric Heater
Electrical Interlocks
Grounding Device
Locking T Handle
Mounting Bracket Kits
Panels for Type 3R, 4, 4X, 12 and 13 Enclosures
Rack Mounting Angles - U Style (Type RA)
Compact Cooling Fans
Touch-Up Paint
Steel and Stainless Steel Window Kits

NOTES

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.

$$CFM = W_T \times 3.16 / (T_{int} - T_{amb})$$

Where:

CFM = Required airflow (ft.³ / min.)

W_T = Total heat dissipated in enclosure (watts)

T_{amb} = Ambient or external Temperature (degrees F)

T_{int} = Desired internal Temperature (degrees F)

BULLETIN: A1DR

Standard Product

Catalog Number	AxBxC in./mm	System CFM	Suggested HP	Solid Panel	Perforated Panel	Panel Size D x E in./mm	Panel Gauge	G in./mm	H in./mm	Fan Size in./mm
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)

Sample Values

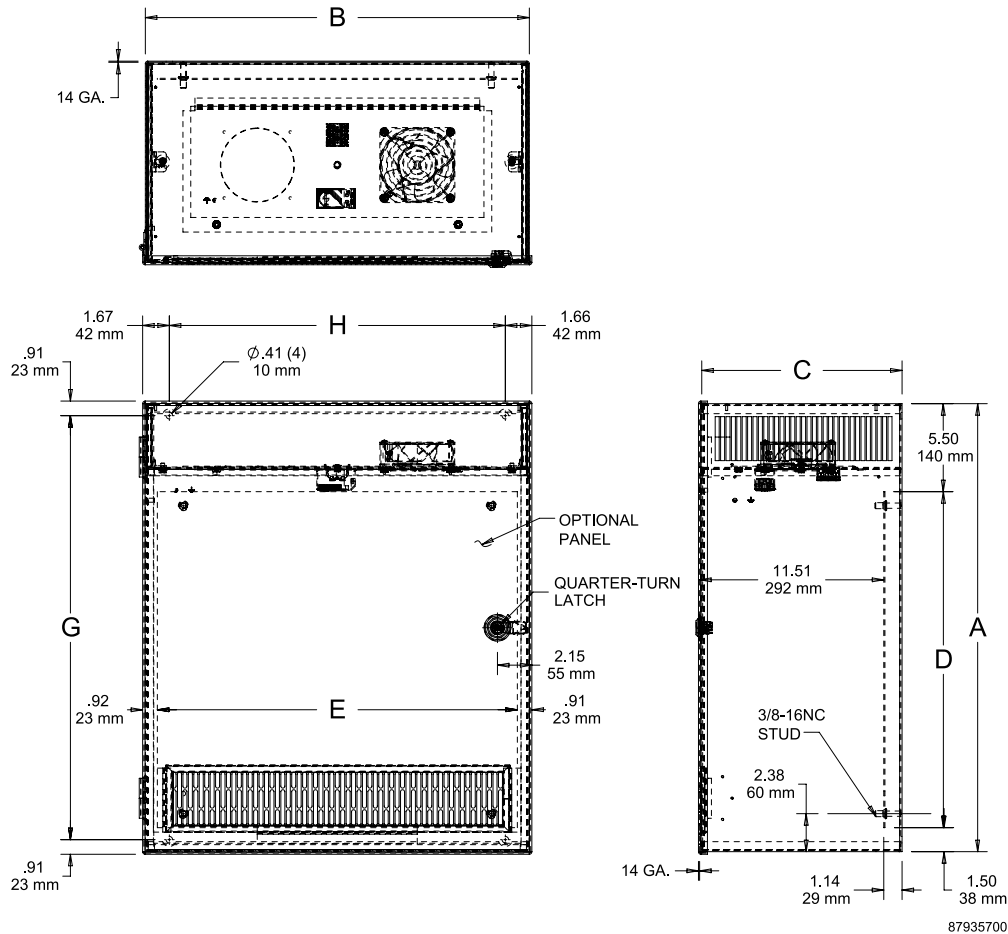
Catalog Number	Airflow (CFM)	Max. Internal Heat Load (W) 5 F Temp. Rise	Max. Internal Heat Load (W) 10 F Temp. Rise	Max. Internal Heat Load (W) 20 F Temp. Rise	Max. Internal Heat Load (W) 30 F Temp. Rise
T1F80LP	80	127	253	506	759
T1F130LP	130	206	411	823	1234
T1F200LP	200	316	633	1266	1899
T1F350LP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

Sample Values in a VFD Drive Application

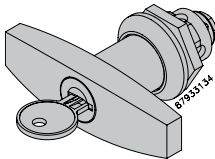
Catalog Number (with enough air flow)	Drive HP	Heat from Drive (W)	Total Heat ^a (W)	Airflow (CFM) to Maintain 15 F Temp. Rise
T1F80LP	10	246	307	65
T1F130LP	20	492	615	129
T1F200LP	30	738	922	194
T1F350LP	50	1229	1536	324

^aTotal 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.



LOCKING T HANDLE



Optional locking T-Handle available for replacement of the quarter-turn latch (order separately).

BULLETIN: T90R3

Catalog Number	Description
ALTC3R	Available for replacement of the quarter-turn latch