TPS
Thermal Product Solutions

Tenney

Classic Tenney Series - Wide-Range Testing

Classic Tenney Series

The Tenney Classic Series of temperature and humidity test chambers deploys environmentally friendly technology that uses CFC-free refrigerants. The time-proven mechanical refrigeration systems are available in single or cascade systems and allow for years of worry-free use.

Features

- Semi-hermetic refrigeration system
- Vertical recirculation conditioning system
- Automatic defrost for door gaskets
- Control tolerance between ±0.3°C and ±2% RH typical after stabilization
- Non-corroding parts on all humidity capable units
- Low water protection

Options:

- IEEE interface
- LinkTenn software for Windows®
- RS-422, 423, 232 or 485 interface assemblies
- 6-event relay board at 1 amp each
- Water demineralizer
- Water reservoir for humidity system (5 gallon)
- Recirculating system for humidity water
- Water-cooled refrigeration system
- Alternate power supply wiring
- Automatic CO2 or LN2 cooling boost system
- GN2 purge system
- Refrigeration taps and pressure gauges
- Remote console for instrumentation
- Recording instruments
- Redundant thermal protection and alarm system
- External dryer for obtaining humidity as low as 5% (to 20°C)

10, 20, and 30-cubic-foot models

Overall dimensions in inches (mm) for the 10, 20, and 30-cubic-foot models

Model	Non-humidified	T10S	T10C	T20S1.5	T20C-3	T20C-4	T30S	T30C
	Humidified	T10RS	T10RC	T20RS1.5	T20RC-3	T20RC-4	T30RS	T30RC
Workspace	W	24 (610)		30 (762)			36 (914)	
	D	27 (686)		32 (813)			40 (1016)	
	H	28 (711)		36 (914)			36 (914)	
Exterior	W	30 (762)		41 (1041)			46 (1168)	
	D	47 (1194)		55 (1397)			64 (1625)	
	H	74 (1880)		84 (2134)			84 (2134)	
Temperature & Humidity								
Low	°C	-40°C	-73°C	-40°C	-73°C	-73°C	-40°C	-73°C
High	°C	+200°C	+200°C	+200°C	+200°C	+200°C	+200°C	+200°C
Change Rates in Minutes								
Time starting at ambient to listed temperature. Based on empty chamber.	200°C	30	30	60	60	60	70	70
	150°C	20	20	40	40	40	50	50
	93°C	15	15	25	25	25	25	25
	65°C	10	10	15	15	15	15	15
	0°C	10	5	40	10	5	40	10
	-18°C	20	10	60	15	10	60	15
	-40°C	60	20	90	30	20	90	25
	-54°C	—	25	—	40	25	—	35
	-65°C	—	35	—	50	35	—	50
Live Load Capacity in Watts (Humidity System Off)								
Temperature	+10°C	600	1275	600	1200	1800	600	1600
	-18°C	450	1000	450	1000	1500	500	1400
	-40°C	100	850	100	850	1275	250	1200
	-54°C	—	600	—	700	1050	—	1000
	-65°C	—	400	—	500	750	—	700
Utilities, etc.								
Refrigeration		(1) 1.5HP	(2) 1.5HP	(1) 1.5HP	(2) 1.5HP	(2) 2HP	(1) 2HP	(2) 2HP
Heater Capacity		2.5 kW		2.5 kW (3 kW If 208 Option)				
Humidifier	kW	1 kW		2 kW				
	GPH	0.5		1				
AMPS @ 230V. 1 Ph		28	30	32	34	35	34	35
AMPS Fuse		35	40		45			
Unit Weight	Lbs.	850	950	1250	1350	1400	1500	1500

40 and 64-cubic-foot models
Overall dimensions in inches (mm) for the 40 and 64-cubic-foot models:

Model	Non-humidified	T40S-2	T40C-2	T40C-3	T64S-7.5	T64C-3	T64C-7.5
	Humidified	T40RS-2	T40RC-2	T40RC-3	T64RS-7.5	T64RC-3	T64RC-7.5
Workspace	W	40 (1016)			48 (1219)		
	D	44 (1118)			48 (1219)		
	H	40 (1016)			48 (1219)		
Exterior	W	66 (1676)			72 (1829)		
	D	73.5 (1867)			81.5 (2070)		
	H	80.25 (2038)			91 (2311)		
Temperature & Humidity							
Low	°C	-40°C	-73°C	-73°C	-40°C	-73°C	-73°C
High	°C	+200°C	+200°C	+200°C	+200°C	+200°C	+200°C
Change Rates in Minutes							
Time starting at Ambient to listed temperature. Based on empty chamber.	200°C	35			45		
	150°C	25			30		
	93°C	10			15		
	65°C	5			10		
	0°C	5			5		
	-18°C	20	—	—	10	10	—
	-40°C	120	—	—	25	30	—
	-54°C	—	45	40	—	45	20
	-65°C	—	60	50	—	65	35
Live Load Capacity in Watts (Humidity System Off)							
Temperature	+10°C						
	-18°C	1000	—	—	4500	—	—
	-40°C	100	—	—	1000	—	—
	-54°C	—	1200	2000	—	1200	4000
	-65°C	—	900	1500	—	800	2500

Utilities, etc.													
Refrigeration		(1) 2 HP		(2) 2 HP		(2) 3 HP		(1) 7.5 HP		(2) 3 HP		(2) 7.5 HP	
Heater Capacity		6		6		6		8		8		8	
Humidifier	kW	2		2		2		2		2		2	
	GPH	1		1		1		1		1		1	
AMPS		230V. 1 Ph		230V. 1 Ph		230V. 3 Ph		230V. 3 Ph		230V. 3 Ph		230V. 3 Ph	
S & C	RC & RS	41	50	50	50	38	46	71	80	57	65	71	80
Fuse		50	60	60	60	60	70	100	110	70	80	100	110
Unit Weight	LBS.	2750 2800		2800 2900		3540							

Humidity capability: 20% to 98% RH in the dry bulb range of +20°C or +85°C as limited by a 3°C dew point. Test data based on 24°C ambient, sea level, 60 Hz. On 50 Hz or higher than 24°C, ambient performance may be reduced. Consult factory regarding any special cooling requirements.

TPS™
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Specifications and Product Information are subject to change without notice.