



nano R¹: Compressed Air Dryers

TMC 0510N

510 scfm Thermal Mass Cycling Refrigerated Air Dryer

The nano TMC thermal mass cycling dryer utilizes a glycol cooling loop to match power consumption to the actual demand for dry air. This ensures energy savings during periods of lower air use. With their advanced control systems and efficient design, the TMC thermal mass cycling dryers offer reliable and consistent operation, reducing the likelihood of downtime in compressed air systems. The glycol thermal mass within the dryer allows for efficient heat transfer and storage and produce a stable dew point over a wide operating range. On top of reduced energy consumption the TMC Thermal mass cycling dryers are designed with reduced refrigerant charges minimizing the impact of refrigerants on the environment.

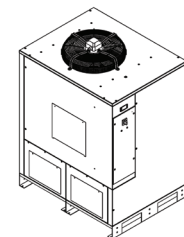
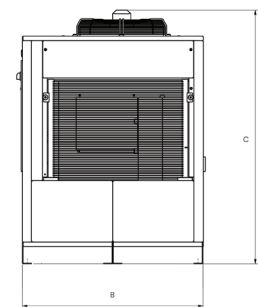


| GENERAL CHARACTERISTICS | |
|--|--------------|
| Rated capacity (scfm) ⁽¹⁾ | 510 |
| Absorbed power (kW) | 3.74 |
| Power supply (V/Ph/Hz) | 460/3/60 |
| Pressure drop over dryer (psid) | 1.8 |
| Mean sound pressure level (dB(A)) | 67 |
| OPERATING LIMITS | |
| Design operating pressure range (psig) | 29 to 210 |
| Minimum/maximum ambient temperature (°F) | 41 to 115 |
| Maximum inlet temperature (°F) | 140 |
| REFRIGERANT GAS/CIRCUIT | |
| Refrigerant type | R410A |
| Refrigerant charge per circuit (lbs) | 3.30 |
| COMPRESSORS | |
| Compressor type | piston |
| Compressor quantity | 1 |
| Independent gas circuit | 1 |
| FANS | |
| Fan type | axial |
| Fan quantity | 1 |
| Cooling air flow (scfm) | 5202 |
| AIR CIRCUIT | |
| Air circuit connections | 2 ½" NPT (F) |
| DEW POINT | |
| Outlet pressure dew point (°F) | 41 |
| ISO air quality class (water content) | 5 |

(1) Rated in accordance with CAGI ADF 100 @ 100 psig, 100°F inlet, 100°F ambient. For all other conditions, contact support@nano-purification.com.

Dimensions & Weight

| DIMENSIONS AND WEIGHT | |
|-----------------------|------|
| A (ins) | 31.5 |
| B (ins) | 43 |
| C (ins) | 54.8 |
| Weight (lbs) | 737 |



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Features

- Energy efficient glycol thermal mass cycling design
- Variable cooling capacity adjusts to the actual demand for dry air ensuring energy savings during periods of lower air demand.
- Small footprint - space saving design
- Reduced refrigerant charge, contributing to environmental sustainability by minimizing the impact of refrigerants on the environment.
- Advanced pump technology with permanent magnet synchronous motor ensures high efficiency for glycol circulation with significant benefits in terms of energy saving.
- Zero air loss condensate drain as standard
- Integrated controller for automatic and efficient operation
- Dew point temperature display
- Low pressure drop design heat exchanger

Upgrades

| RECOMMENDED PRE- & AFTER FILTRATION | FITS | PART NUMBER |
|-------------------------------------|-----------|--------------|
| Prefilter | TMC 0320N | GFN 0450 M1 |
| After Filter | TMC 0320N | GFN 0450 M01 |



Technical specifications subject to change without notice.
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