

nano R⁶: variable speed cycling

nano

VDR 5050A

460/3/60 - 5050 scfm air cooled refrigerated air dryer

nano R⁶ VDR variable speed cycling refrigerated air dryers represent the best in class for energy efficient compressed air dryers. By utilizing VSD scroll compressors the R⁶ dryers can exactly match their energy consumption to the compressed air flow. This produces savings of up to 70% compared to non-cycling dryers and savings of up to 35% when compared to thermal mass technology. Equipped with industry proven components the R⁶ design is engineered for reliability while producing the required pressure dew points at a variety of operational conditions.



general characteristics

rated capacity (scfm) ⁽¹⁾	5050
pressure drop (psid)	3.9
absorbed power (kW)	19.1
power supply (V/Ph/Hz)	460/3/60
UL fuse rating (A)	(3x60)
sound pressure level (dB(A))	74.3

operating limits

design operating pressure range (psig)	30 to 203
design ambient temperature range (°F)	45 to 114.8
maximum inlet temperature (°F)	158

refrigerant gas/circuit

refrigerant type	R410a
refrigerant charge per circuit (lbs)	28.7

cooling

cooling type	air cooled
cooling air flow (cfm)	11473
fan type	axial
fan motor protection	IP 54

air circuit

air circuit connections (flange)	6" ANSI
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ISO class

ISO air quality class (water content)	class 4
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(1) rated flow capacity: at 100 psig & 100°F inlet, 100°F ambient conditions. For all other conditions, contact support@n-psi.com

scope of supply

mechanical components

- VSD scroll refrigerant compressors that consume 30% less power than traditional reciprocating refrigeration compressors
- electronic stepper motor control valves used for HGBP and TEV for optimal regulation and maximum efficiency at partial loads
- touch screen nano Vision01 controller
- high efficiency heat exchanger with integral air-air, air-refrigerant and water separator sections
- zero air loss drains standard
- small footprint and simple to install all in one design
- utilizes R410A refrigerant with low GWP – Global Warming Potential
- compressed air flow switch puts unit into standby when no airflow detected

nano-purification solutions
charlotte, north carolina
united states

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technical specification

dimensions and weights	
A (in)	58
B (in)	90.4
C (in)	62.2
X (in)	5
weight (lbs)	2183

