

# VDR 5050W

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

nano R<sup>6</sup> VDR variable speed cycling refrigerated air dryers represent the best in class for energy efficient compressed air dryers. By utilizing VSD scroll compressors the R<sup>6</sup> 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 R<sup>6</sup> design is engineered for reliability while producing the required pressure dew points at a variety of operational conditions.



general characteristics	
rated capacity (scfm) <sup>(1)</sup>	5050
pressure drop (psid)	3.9
absorbed power (kW)	12.8
power supply (V/Ph/Hz)	460/3/60
UL fuse rating (A)	(3x60)
sound pressure level (dB(A))	68.7
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	water cooled
cooling water flow (GPM 84°F water)	77.7
heat dissipated by cooling water flow (approx) (kW)	57.2
maximum effective cooling water pressure (psig)	145
air circuit	
air circuit connections (flange)	6" ANSI
ISO class	
ISO air quality class (water content)	class 4

(1) rated flow capacity: at 100 psig & 100°F inlet, 84°F cooling water conditions. For all other conditions, contact support@n-psi.com

## scope of supply

- | mechanical components  |  |
|--|--|
| <ul style="list-style-type: none"> <li>• VSD scroll refrigerant compressors that consume 30% less power than traditional reciprocating refrigeration compressors</li> <li>• electronic stepper motor control valves used for HGBP and TEV for optimal regulation and maximum efficiency at partial loads</li> <li>• touch screen nano Vision01 controller</li> <li>• high efficiency heat exchanger with integral air-air, air-refrigerant and water separator sections</li> </ul> | <ul style="list-style-type: none"> <li>• zero air loss drains standard</li> <li>• small footprint and simple to install all in one design</li> <li>• utilizes R410A refrigerant with low GWP – Global Warming Potential</li> <li>• compressed air flow switch puts unit into standby when no airflow detected</li> </ul> |

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## technical specification

dimensions and weights	
A (in)	58
B (in)	67.9
C (in)	62.2
X (in)	5
weight (lbs)	1918

