

DD PM VSD MODELS, 7.5-55kW
7.5-10 BAR 0.85 - 9,35m³/min

NEXUS Series DD PM VSD Compressor

- Enhanced efficiency and lower energy consumption are crucial in nearly all compressed air applications. In order to meet this demand, Vortex ERS PM-series are now equipped with permanent magnet motors. These systems consistently provide high-quality compressed air, even when the air demand fluctuates significantly.

- Increased Free Air Delivery

- Beyond reducing energy consumption, permanent magnet motors also increase free air delivery. Compared to asynchronous motors, this efficiency means more power is delivered to the motor shaft with consistent energy consumption. The compressor can then convert this power into increased air delivery while effectively managing extreme consumption fluctuations. This avoids unnecessary idle time and sudden load changes, reducing wear on components and cutting energy costs by eliminating inefficient idling.

Advantages

- Among the most compact products in its class, requiring minimal floor space.
- Delivers up to 60% energy savings compared to compressors without inverter driven models, in variable-demand applications.
- Maintains a constant output pressure for stable operation.
- Offers a wide operating pressure range (5-13 bar), with custom configurations available upon request.
- Ensures efficient and energy-saving compressed air production, even under fluctuating air demand conditions.
- Extended component lifespan due to the soft start feature.
- Protects against the negative effects of peak currents, enhancing reliability.

General Features

- IE5 high-efficiency IPM electric motor for superior energy performance.
- Operates with a low noise level, ensuring a quieter working environment.
- Soft start with variable speed power transmission for smoother operation and reduced wear.
- Available with dryer and tank-mounted options (up to 22 kW).
- Integrated dryer and heat recovery options (for models 18 kW and above), enhancing efficiency and sustainability.



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Airends

- In contrast, belt-driven compressors need more frequent upkeep and downtime during maintenance, leading to higher costs. Belts are also prone to wear from dust and dirt, creating unwanted friction and accelerating wear. Zero transmission losses due to compact direct power transmission.
- Delivers high performance even at low operating speeds.
- Features new rotor profiles for reduced air production losses and enhanced efficiency.
- Next-generation bearing design improves load-bearing capabilities and overall durability.
- Low rotor speeds ensure an extended service life and reduced wear.



Electric Motor

- IE5 Ultra Premium energy-efficient Internal Permanent Magnet (IPM) motor for optimal performance.
- Compact design for space-saving installations.
- Operates with a low noise level, creating a quieter environment.
- F-class insulation for superior protection and longevity.
- Optimum oil cooling at all speeds for maximum efficiency.
- Grease-free lubricated motor bearings, reducing maintenance requirements.



Model	Pressure (bar)	Capacity FAD *				Power		Air Connection	Dimensions W x L x H	Weight	Noise Level
		m³/min		cfm							
		max	min	max	min	kw	HP		mm	kg	dB(A)
NEXUS PM VSD 7.5	7.5 10	1,15 0,85	0,5 0,4	41 30	16,9 12,5	7,5	10	3/4"	900 x 700 x 890	205	70
NEXUS PM VSD 11	7.5 10	1,91 1,23	0,8 0,5	67 43	28,1 18,1	11	15	3/4"	1000 x 750 x 890	265	71
NEXUS PM VSD 15	7.5 10	2,52 1,96	1,1 0,8	89 69	37,1 28,8	15	20	3/4"	1000 x 750 x 890	385	73
NEXUS PM VSD 22	7.5 10	3,70 2,91	1,5 1,2	131 103	54,4 42,8	22	30	1"	1200 x 900 x 1040	490	73
NEXUS PM VSD 30	7.5 10	5,35 4,36	2,2 1,8	189 154	78,7 64,2	30	40	1 1/4"	1400 x 1000 x 1140	550	74
NEXUS PM VSD 37	7.5 10	6,60 5,20	2,8 2,2	233 184	97,1 76,5	37	50	1 1/4"	1400 x 1000 x 1140	595	74
NEXUS PM VSD 45	7.5 10	7,20 6,00	3,0 2,5	254 212	105,9 88,3	45	60	1 1/2"	1800 x 1200 x 1340	855	75
NEXUS PM VSD 55	7.5 10	9,35 7,30	3,9 3,0	330 258	137,6 107,4	55	75	1 1/2"	1800 x 1200 x 1340	950	75