



D Series Motor

Peak Performance

Every component of the rugged D Series cast iron motor is specifically designed for maximum efficiency, dependability, and durability in heavy duty applications. With industry leading package size and power density, D Series motors exceed the capabilities of aluminum motors in applications that require lower oil viscosity, higher pressures, temperatures, and severe duty cycles.

Operation

In fan drive applications, the D series motor turns the cooling fan. A proportional relief valve modulates the fan speed based on a PWM signal from the fan control or engine control module. An anti-cavitation check protects the motor from overrunning conditions.

Other heavy duty applications for this motor include mining conveyers, flail and side-angle mowers, pavers, cranes, liquid pumps, and sprayers. The motor is also available with internally drained relief valves, and without valves.

Local Address:



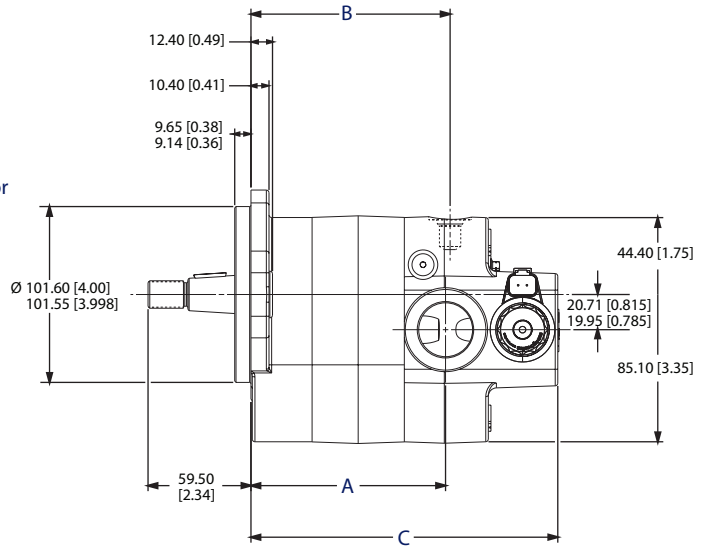
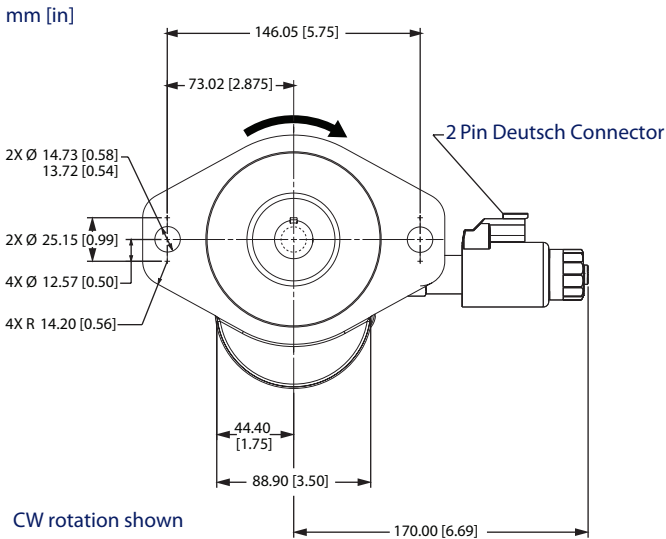
COMPLIANT

D Series Motor

Features and Benefits

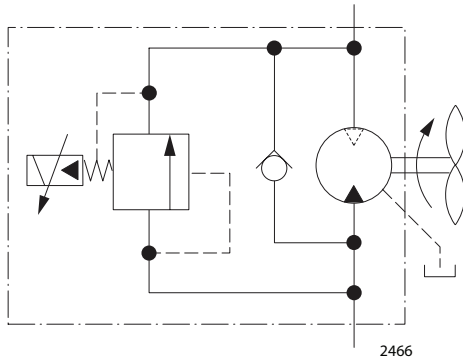
- Pressure loaded bronze-on-steel thrust plates
 - Higher efficiency due to less internal leakage over a wide temperature range in comparison to fixed clearance gear motors, providing lower viscosity capability
- High temperature seals and heavy duty, low friction Teflon™ PTFE-lined bronze sleeve bushings
 - Extends life under extreme temperature and pressure conditions
- 276 bar (4000 psi) capability via three-piece ductile iron housing
 - High performance in a compact, robust package
- Compact design 20% smaller than conventional designs
 - Eases installation in vehicles optimized for emissions standards without introducing fit interference
- Integrated normally closed electrohydraulic proportional fan relief valve option
 - Matches fan speed to engine cooling requirements, providing power savings
 - Normally closed design defaults to highest fan speed to protect system in the event of valve failure
- Single and bidirectional offering for fan reversing capability
 - Radiator cleaning cycle
- V-ring shaft dust protector standard
 - Reduces contaminant intrusion and shaft seal failures
- Bearings located in covers instead of body
 - Smaller power-dense package does not require the extra cost and complexity of an outrigger bearing
- Designed not to fail at the housing if over pressured
 - Prevents leakage and spraying of hydraulic fluid on hot engine components
- Side or rear port options in a variety of styles
 - Simpler plumbing, lower installation costs, and greater design flexibility in a wider variety of applications
- Modular configuration
 - Fast part number generation for fast customer response

Mounting Dimensions



2465

Fan Drive Schematic



2466

Dimensions Chart

Displacement code	Displacement cm ³ /rev [in ³ /rev]	A	B	C
17	17.0 [1.04]	3.50	3.61	6.08
19	19.0 [1.16]	3.58	3.69	6.16
21	20.5 [1.25]	3.64	3.75	6.22
23	22.5 [1.37]	3.71	3.82	6.30
25	25.4 [1.55]	3.83	3.94	6.41
29	29.0 [1.77]	3.97	4.08	6.55
32	31.8 [1.94]	4.08	4.19	6.66
36	36.1 [2.20]	4.24	4.36	6.83
38	38.0 [2.32]	4.32	4.43	6.91
41	41.0 [2.50]	4.44	4.55	7.03
45	45.1 [2.75]	4.61	4.72	7.19

Dimensions in table are for maximum lengths.

Specifications

Product Parameters

Construction	Heavy duty ductile iron 3-piece construction
Displacements	17 to 45 cm ³ [1.03 to 2.75 in ³ /rev]
Pressure (continuous)	276 bar [4000 psi] to 32.8 cm ³ [1.94 in ³ /rev]
Speed	600 to 3400 min ⁻¹ (rpm)
Mounting	SAE-A, SAE-B, and specials available upon request
Shaft (types)	SAE splined, keyed, tapered, and specials available upon request
Axial / radial load	Contact Sauer-Danfoss technical support
Fluid viscosity	8 mm ² /sec (cSt) [58 SUS] minimum, 1600 mm ² /sec (cSt) [4700 SUS] maximum
Filtration requirement	22/18/13 ISO 4406 at pump inlet
Back pressure	276 bar [4000 psi] maximum
Fluids	Mineral-based and biodegradable fluids

Operating temperature	-40° C [-40° F] minimum for cold start 110° C [230° F] normal operating conditions 115° C [239° F] peak intermittent
Noise level	< 75 dB(A) (under normal operation conditions)
Efficiency	96% volumetric, typical 90% overall
Electrical connector	Deutsch® DT-04-2P (Protection rating IP 69K DIN 40050)
Electrical supply	0 to 1.1 A at 12 Vdc, with coil resistance of 6.4 Ω at 20° C [68° F] 0 to 0.55 A at 24 Vdc, with coil resistance of 26.2 Ω at 20° C [68° F]
PWM frequency	100 to 250 Hz

Comprehensive technical information: *D Series Motor Technical Information*, **11044656**
Sauer-Danfoss product literature on line at: www.sauer-danfoss.com