

MPWN50KD

PRODUCT FEATURE SUMMARY

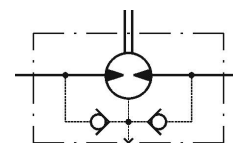
DATE: 25.10.2025

Username: Torkil Hesthammer

MODEL TYPE: MPWN50KD

CNSORDERNO (Order number)	MPWN50KD
MF (Mounting Flange)	W: Wheel mount
ONB (Option (needle bearings))	N: with needle bearings
PT (Port type)	omit: Side ports
DC (Displacement code)	50: 49,5 cm ³ /rev [3.02 in ³ /rev]
SE (Shaft Extensions)	K: Ø28,56 tapered 1:10, Parallel key B5x5x14 DIN6885
SSV (Shaft Seal Version)	D: Standard shaft seal
DP (Drain Port)	omit: with drain port
P (Ports)	omit: BSPP (ISO 228)
SFMS (Special Features Measure speed)	omit: no special features
SFGWS (Special Features of gear wheel set)	omit: no special features
SFDR (Special Features - Direction of rotation)	omit: Standard
OP (Option (Paint))	omit: no paint
INFO (Info)	PDF catalog
L (Total lengthmm)	143.27
L1 (Length of gear wheel setmm)	6.67
DIM (Dimension unit)	mm

DATA SHEET



Type		
Displacement, cm³/rev [in³/rev]		49,5 [3.02]
Max. Speed, [RPM]	cont.	1210
	Int.*	1515
Max. Torque, daNm [lb-in]	cont.	9,4 [835]
	Int.*	11,9 [1050]
Max. Output, kW [HP]	cont.	9,4 [835]
	Int.*	12,2 [16.1]
Max. Pressure Drop, bar [PSI]	cont.	140 [2030]
	Int.*	175 [2540]
Max. Oil Flow, lpm [GPM]	cont.	60 [15.9]
	Int.*	75 [19.8]

Type		
Max. Inlet Pressure, bar [PSI]	cont.	175 [2540]
	Int.*	200 [2900]
	peak**	225 [3260]
Max. Return Pressure with Drain Line bar [PSI]	cont.	175 [2540]
	Int.*	200 [2900]
	peak**	225 [3260]
Pressure with Unloaded Shaft, bar [PSI]		10 [145]
Min Starting Torque, daNm [lb-in]	at max. press. drop cont.	7,8 [690]
	at max. press. drop Int.*	10 [885]
Min. Speed***, [RPM]		10
Weight, kg [lb]		5,8 [12.8]

* Intermittent operation: the permissible values may occur for max. 10% of every minute.

** Peak load: the permissible values may occur for max. 1% of every minute.

*** For speeds lower than given, consult factory or your regional manager.

- Intermittent speed and intermittent pressure drop must not occur simultaneously.
- Recommended filtration is per ISO cleanliness code 20/16. A nominal filtration of 25 micron or better.
- Recommend using a premium quality, anti-wear type mineral based hydraulic oil HLP(DIN51524) or HM (ISO 6743/4).
If using synthetic fluids consult the factory for alternative seal materials.
- Recommended minimum oil viscosity 13 mm²/s [70 SUS] at 50°C [122°F].
- Recommended maximum system operating temperature is 82°C [180°F].
- To assure optimum motor life fill with fluid prior to loading and run at moderate load and speed for 10-15 minutes.

MPWN50KD

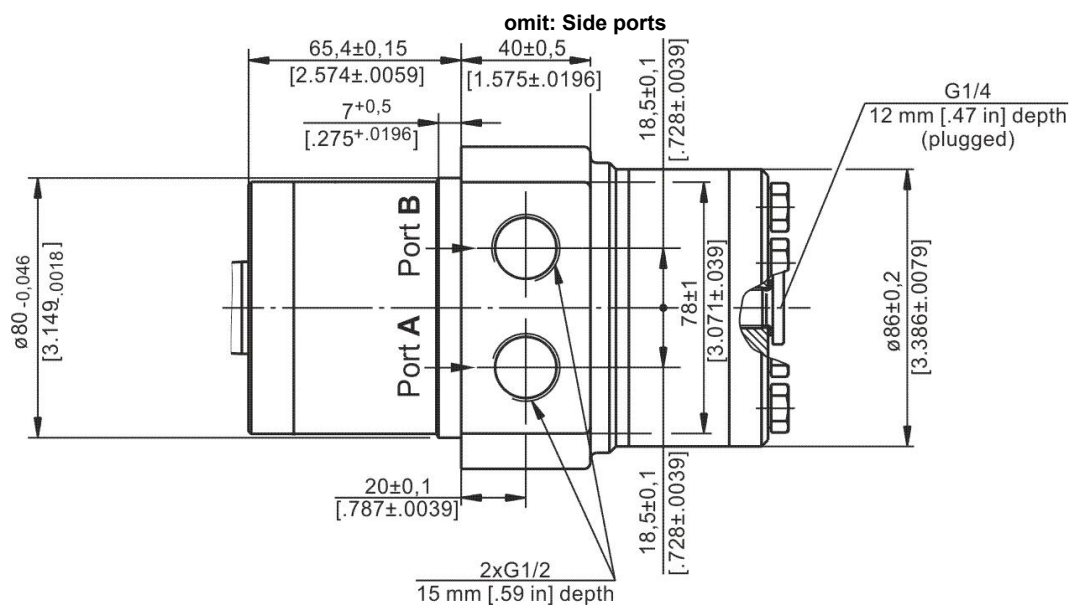
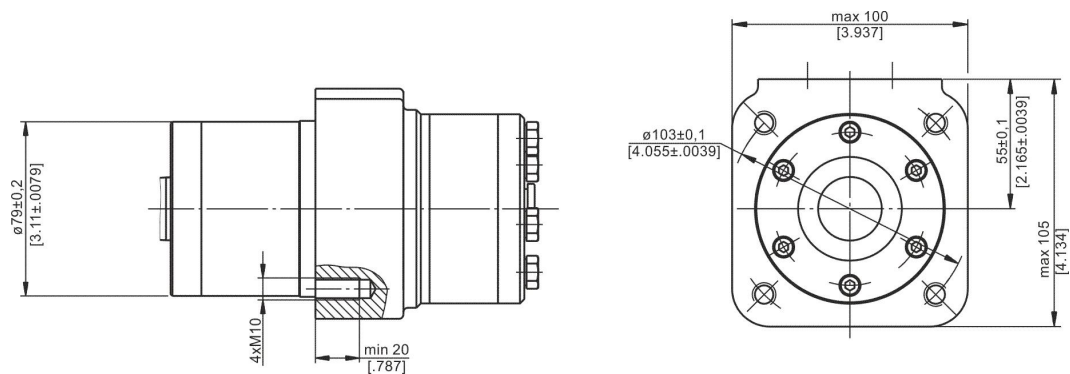
3d generated view

To see model in 3D you should use Acrobat Reader with enable 3D view

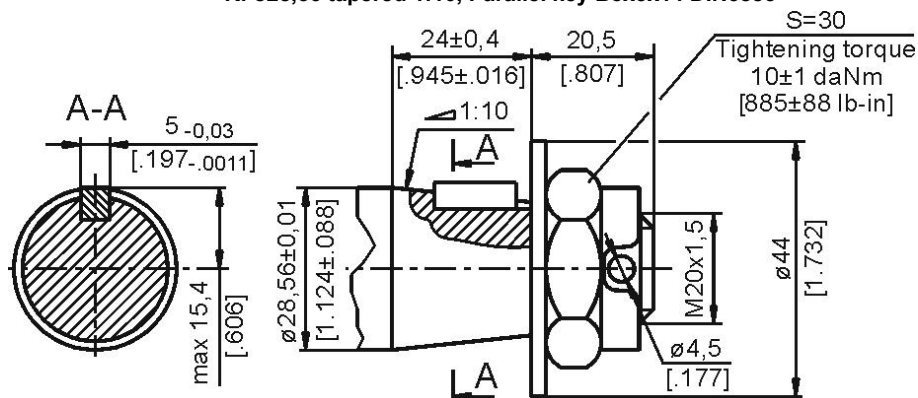
Standard Rotation
Viewed from Shaft End

Port A Pressurized - CW
Port B Pressurized - CCW

W: Wheel mount



K: $\phi 28,56$ tapered 1:10, Parallel key B5x5x14 DIN6885



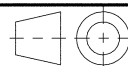
Confidential property of M+S Hydraulic, Bulgaria.
Please note that this drawing is automatically
generated based on the selection. In case of
possible changes or revisions in the drawing
specifications, the selection process should be
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Design: M+S Check:

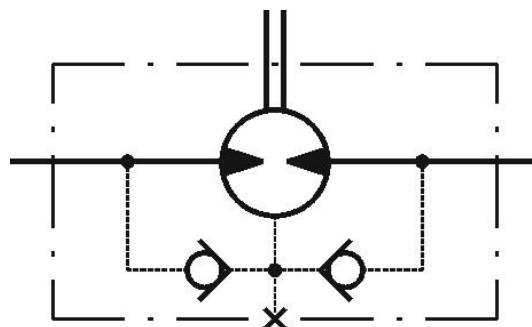
M+S HYDRAULIC

MPWN50KD

Scale	Sheet	Rev.	Weight
Date 25.10.2025			5,8 [12.8]

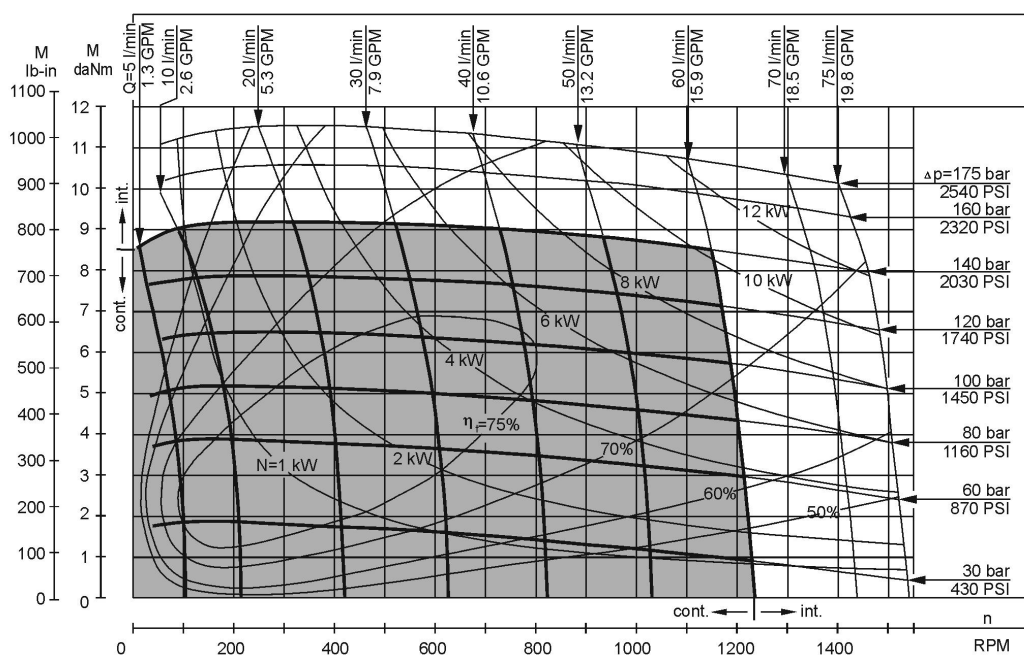


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The shaft seal pressure equals the pressure in the drain line

FUNCTION DIAGRAMS

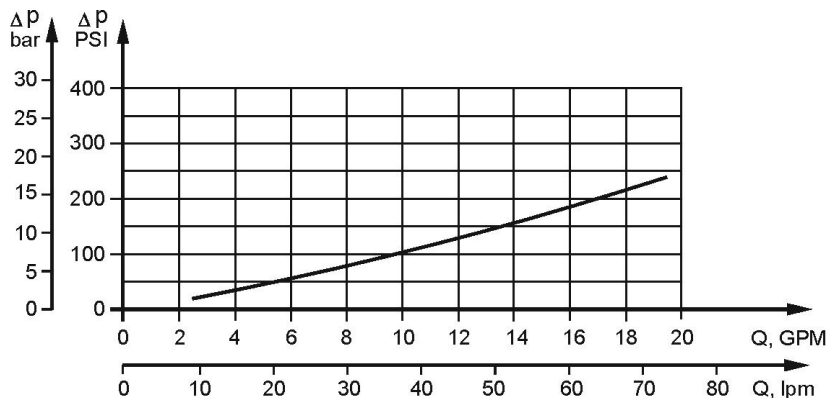


The function diagrams data is for average performance of randomly selected motors at back pressure 5÷10 bar [72.5÷145 PSI] and oil with viscosity of 32 mm²/s [150 SUS] at 50°C [122°F].

MPWN50KD

DATA SHEET

Pressure Losses

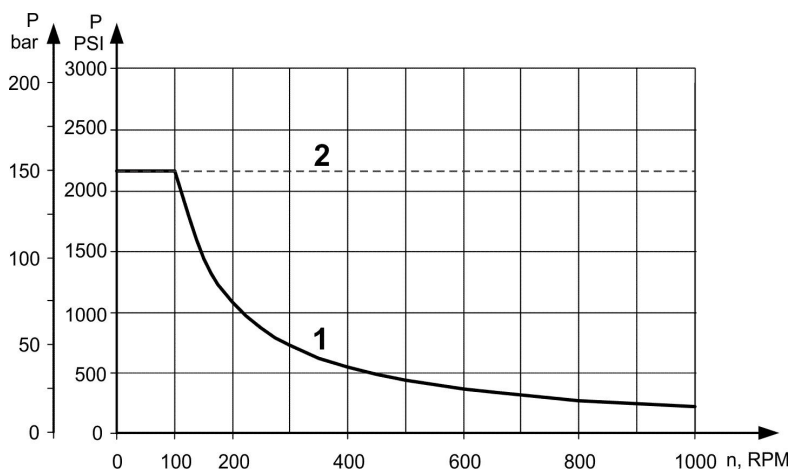


Oil flow in drain line

Pressure drop bar [PSI]	Viscosity mm ² /s [SUS]	Oil flow in drain line lpm [GPM]
100 [1450]	20 [98]	2,5 [.660]
	35 [164]	1,8 [.476]
140 [2030]	20 [98]	3,5 [.925]
	35 [164]	2,8 [.740]

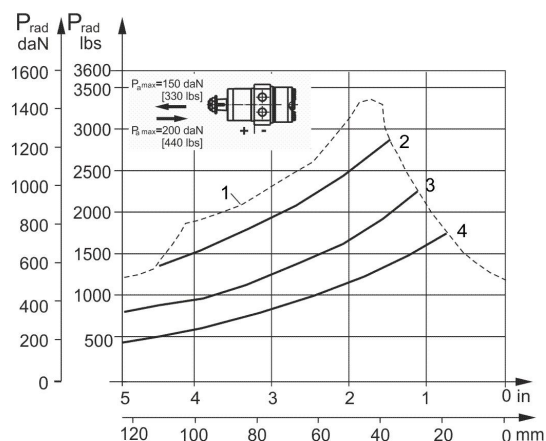
MAX: PERMISSIBLE SHAFT SEAL PRESSURE

Max. return pressure without drain line or max. pressure in the drain line



Curve "1" shows continuous operations.
Curve "2" shows intermittent operations.

PERMISSIBLE SHAFT LOADS



The curve applies to a B10 bearing life of 2000 hours. 1. Permissible radial shaft load, 2. Drawing by n= 50 rpm, 3. Drawing by n=200, 4. Drawing by n=800