

# MV800CUP

## PRODUCT FEATURE SUMMARY

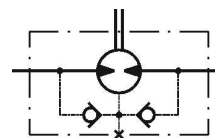
DATE: 08.03.2023

Username: mathias nielsen

MODEL TYPE: MV800CUP

|                                                        |                                                              |
|--------------------------------------------------------|--------------------------------------------------------------|
| <b>CNSORDERNO</b> (Order number)                       | MV800CUP                                                     |
| <b>MF</b> (Mounting Flange)                            | omit: Square mount, four holes                               |
| <b>DC</b> (Displacement code)                          | 800: 801,8 cm <sup>3</sup> /rev [48.91 in <sup>3</sup> /rev] |
| <b>SE</b> (Shaft Extensions)                           | C: ø50 straight, Parallel key A14x9x70 DIN6885               |
| <b>SSV</b> (Shaft Seal Version)                        | U: High pressure seal                                        |
| <b>SFMS</b> (Special Features Measure speed)           | omit: no special features                                    |
| <b>SFRM</b> (Special Features Reinforced motor)        | omit: no special features                                    |
| <b>SFGWS</b> (Special Features of gear wheel set)      | omit: no special features                                    |
| <b>SFDR</b> (Special Features - Direction of rotation) | omit: Standard                                               |
| <b>OP</b> (Option (Paint))                             | P: Paint                                                     |
| <b>INFO</b> (INFO)                                     | PDF catalog                                                  |
| <b>L</b> (mm)                                          | 252,8                                                        |
| <b>L1</b> (mm)                                         | 60                                                           |
| <b>L2</b> (mm)                                         | 199,5                                                        |

## DATA SHEET



| Type                                                         |       |              | Type                                                  |                           |             |
|--------------------------------------------------------------|-------|--------------|-------------------------------------------------------|---------------------------|-------------|
| <b>Displacement, cm<sup>3</sup>/rev [in<sup>3</sup>/rev]</b> |       | 801,8[48.91] |                                                       |                           |             |
| <b>Max. Speed, [RPM]</b>                                     | cont. | 250          | <b>Max. Inlet Pressure, bar [PSI]</b>                 | cont.                     | 210 [3050]  |
|                                                              | Int.* | 300          |                                                       | Int.*                     | 250 [3620]  |
| <b>Max. Torque, daNm [lb-in]</b>                             | cont. | 188[16650]   |                                                       | peak**                    | 300 [4350]  |
|                                                              | Int.* | 211 [18650]  | <b>Max. Return Pressure with Drain Line bar [PSI]</b> | cont.                     | 140 [2040]  |
| <b>Max. Output, kW [HP]</b>                                  | cont. | 42,5 [57]    |                                                       | Int.*                     | 175 [2540]  |
|                                                              | Int.* | 48 [64.4]    |                                                       | peak**                    | 210 [3050]  |
| <b>Max. Pressure Drop, bar [PSI]</b>                         | cont. | 160 [2320]   | <b>Pressure with Unloaded Shaft, bar [PSI]</b>        |                           | 8 [120]     |
|                                                              | Int.* | 180 [2610]   | <b>Min Starting Torque, daNm [lb-in]</b>              | at max. press. drop cont. | 151 [13400] |
| <b>Max. Oil Flow, lpm [GPM]</b>                              | cont. | 200 [52.8]   |                                                       | at max. press. drop Int.* | 170 [15000] |
|                                                              | Int.* | 240 [63.4]   | <b>Min. Speed***, [RPM]</b>                           |                           | 5           |
|                                                              |       |              | <b>Weight, kg [lb]</b>                                |                           | 36,5 [80.5] |

\* 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.

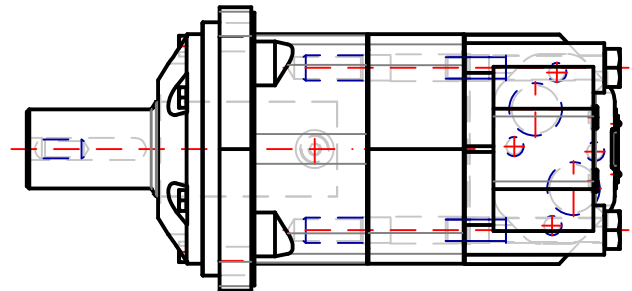
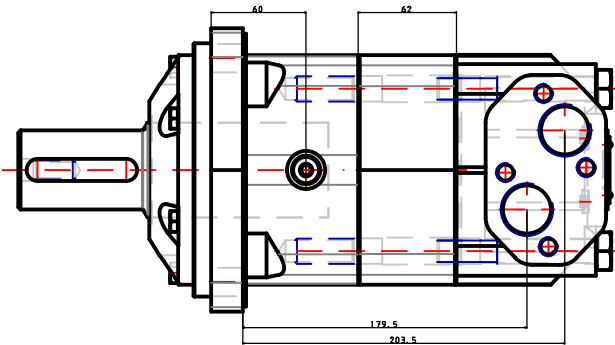
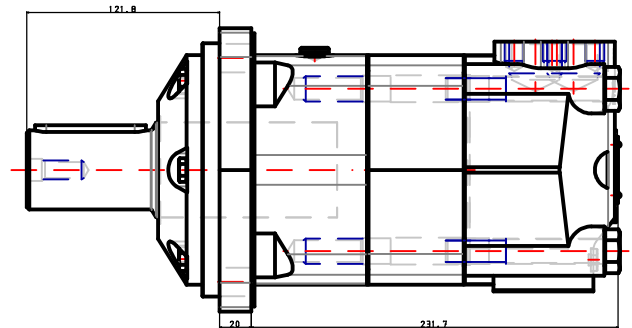
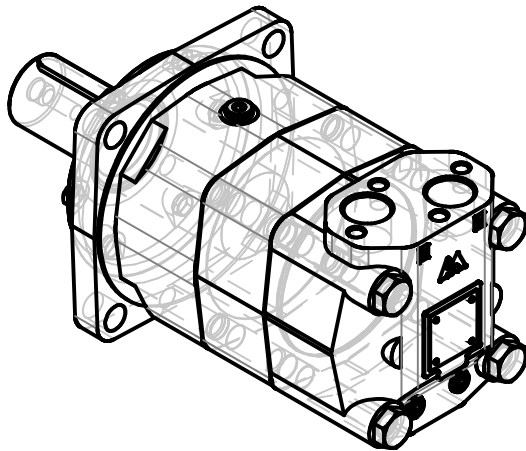
\*\*\* For speeds lower than given, consult factory or your regional manager.

- Intermittent speed and intermittent pressure must not occur simultaneously.
- Recommended filtration is per ISO cleanlines 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 mm<sup>2</sup>/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.

# **MV800CUP**

## **3d generated view**

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



NOTE: Showed dimensions are in nominal, for maximal values see table.

NOTE: For additional dimensions and information about flange , shaft , endcover , etc. see next page.

| L max | LS max |
|-------|--------|
| 252.8 | 199.5  |

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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 repeat.M+S is not responsible for any possible errors on the drawings.

Design: M+S

Check:



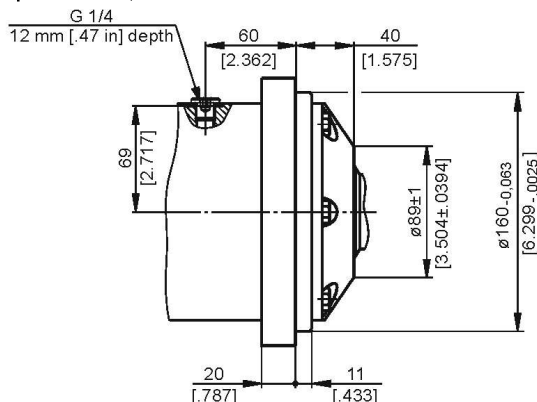
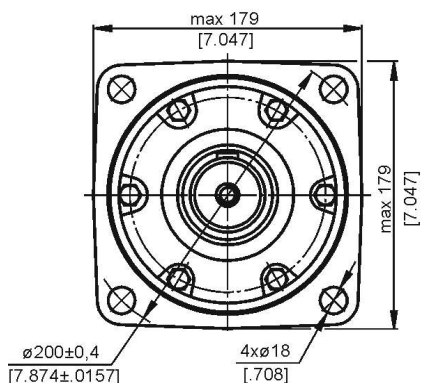
MV800CUP

| Scale           | Sheet | Rev. | Weight      |  |  |
|-----------------|-------|------|-------------|--|--|
| Date 08.03.2023 |       |      | 36,5 [80.5] |  |  |

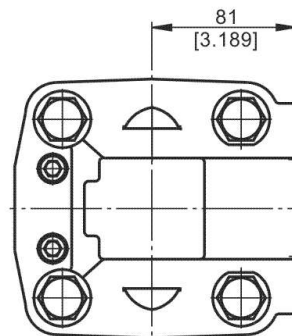
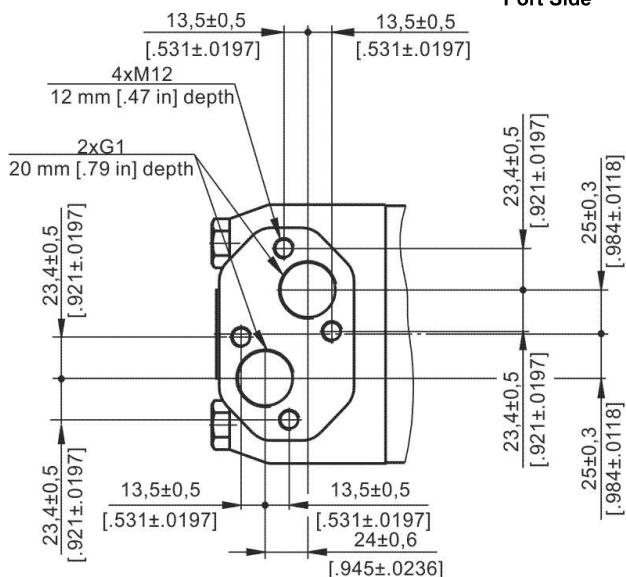
Standard Rotation  
Viewed from Shaft End

Port A Pressurized - CW  
Port B Pressurized - CCW

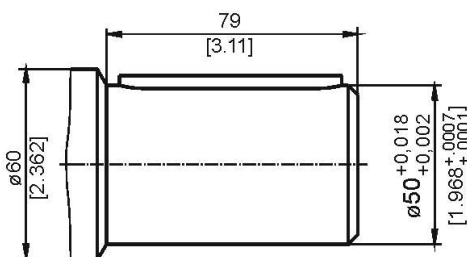
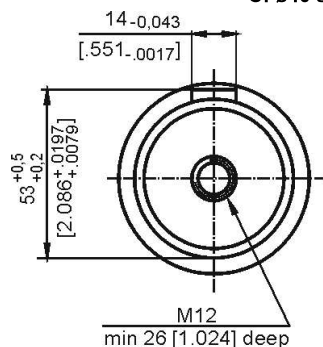
omit: Square mount, four holes



Port Side



C:  $\varnothing 40$  straight, Parallel key A12x8x70 DIN6885



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Design: M+S

Check:

M+S HYDRAULIC

MV800CUP

Scale

Date 08.03.2023

Sheet

Rev.

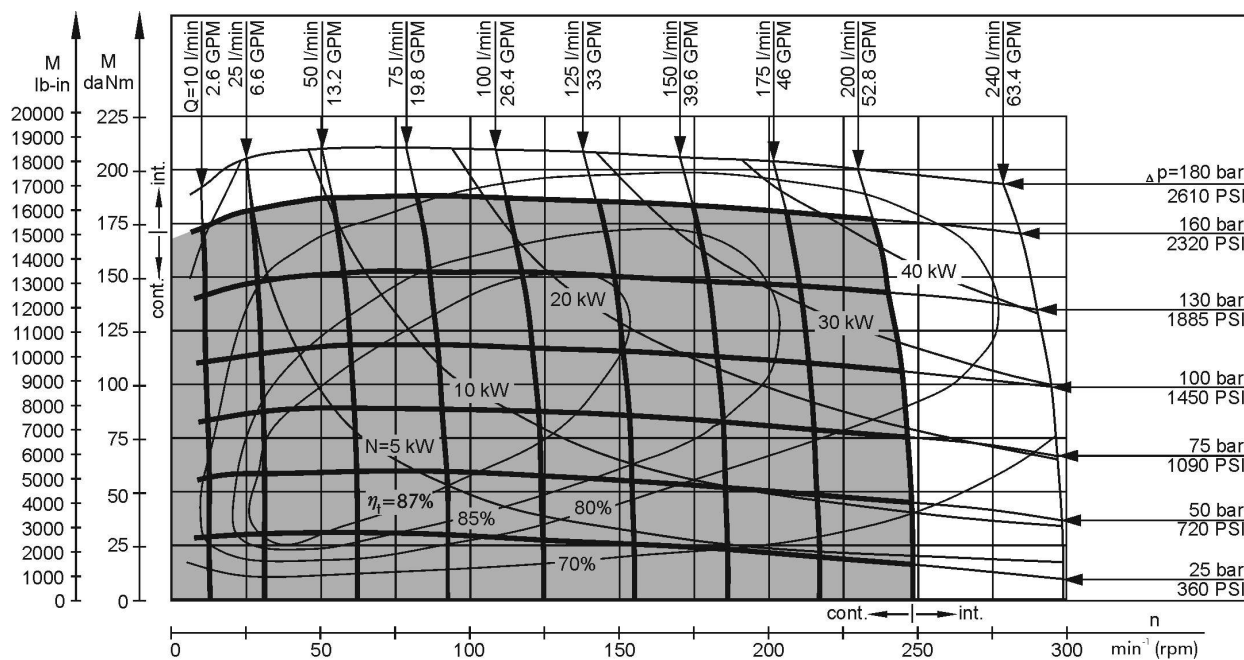
Weight

36,5 [80.5]



# MV800CUP

## FUNCTION DIAGRAMS

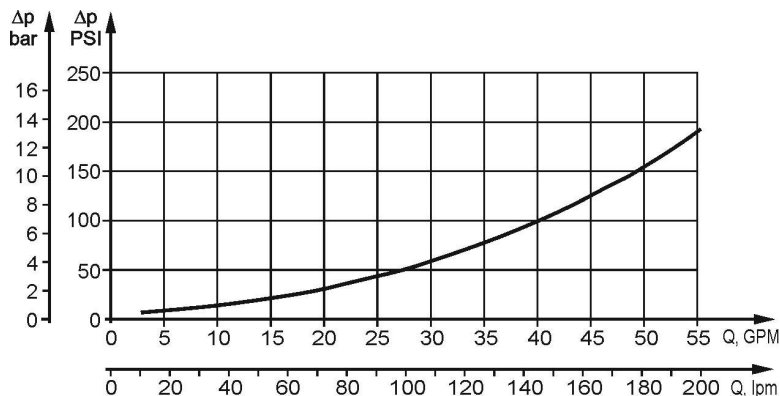


The function diagrams data is for average performance of randomly selected motors at back pressure 5+10 bar [72.5+145 PSI] and oil with viscosity of 32 mm<sup>2</sup>/s [150 SUS] at 50°C [122°F].

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## DATA SHEET

### Pressure Losses

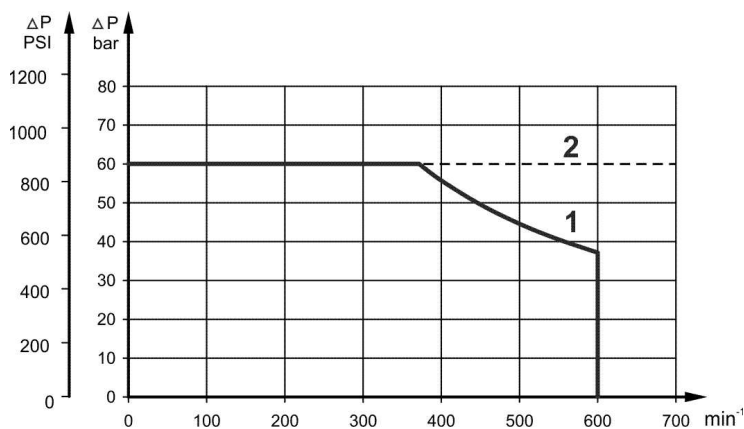


### Oil flow in drain line

| Pressure drop<br>bar [PSI] | Viscosity<br>mm <sup>2</sup> /s [SUS] | Oil flow in<br>drain line<br>lpm [GPM] |
|----------------------------|---------------------------------------|----------------------------------------|
| 140 [2030]                 | 20 [98]                               | 3 [.793]                               |
|                            | 35 [164]                              | 2 [.528]                               |
| 210 [3045]                 | 20 [98]                               | 6 [1.585]                              |
|                            | 35 [164]                              | 4 [1.057]                              |

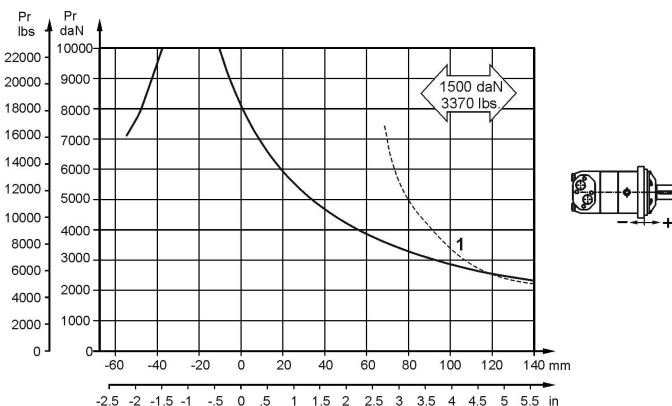
### MAX: PERMISSIBLE SHAFT SEAL PRESSURE

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



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

### PERMISSABLE SHAFT LOAD



"Curve "1" shows critical radial shaft load. The output shaft runs in tapered bearings that permit high axial and radial forces. The permissible radial load on the shaft is shown ( curve 2 ) for an axial load of 0 N as function of the distance from the mounting flange to the point of load application. The curve 2 apply to a B10 bearing life of 2000 hours at 100 RPM ."