

PLANETENMOTOR EPMTM

ORBITAL MOTOR EPMTM

ANWENDUNG

- o Förderbänder
- o Metallbearbeitungsmaschinen
- o Baumaschinen
- o Landmaschinen
- o Holzbearbeitungsmaschinen
- o Spezialfahrzeuge
- o u.a.

APPLICATION

- o Conveyors
- o Metal working machines
- o Road building machines
- o Agricultural machines
- o Woodworking machinery
- o Special vehicles
- o etc.

BAUWEISE UND AUSFÜHRUNGEN

- o Modell: Längsschieberventil, Planetenrollersatz
- o Quadrat- oder Radflansch
- o Anschlüsse: Seitlich, BSPP Gewinde
- o Wellen: Zylindrisch, konisch oder verzahnt
- o Drehzahlsensorik
- o Sonderausführungen

CONSTRUCTION AND OPTIONS

- o Model: Disc valve, roll-gerotor
- o Square or wheel flange
- o Ports: Side ports, BSPP threaded ports
- o Shafts: Straight, tapered or splined
- o Speed sensing
- o Other special features

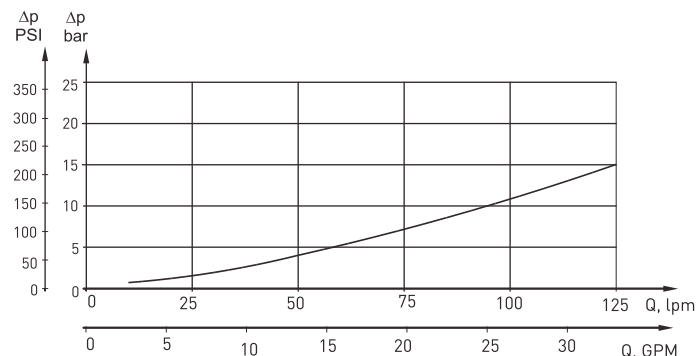
ÜBERSICHT OVERVIEW

| | | | | | |
|----------------------|-------------------------|--------------------|---------|------------------------|---------------------------------------------------------------------------|
| Max. Schluckvolumen | Max. Displacement | cm ³ /U | ccm/rev | [in ³ /rev] | 724,3 [44.20] |
| Max. Drehzahl | Max. Speed | U/min | rpm | | 750 |
| Max. Drehmoment | Max. Torque | daNm | | [in/lb] | 229 [20270] |
| Max. Leistungsabgabe | Max. Output | kW | | [HP] | 70,0 [94.0] |
| Max. Druckgefälle | Max. Pressure drop | bar | | [PSI] | 350 [5080] |
| Max. Ölstrom | Max. Oil flow | l/min | lpm | [GPM] | 150 [39.6] |
| Min. Drehzahl | Min. Speed | U/min | rpm | | 5 |
| Max. Wellenbelastung | Max. shaft loads | daN | | [lbs] | P _a =1000 [2250] |
| Hydrauliköl | Pressure fluid | | | | HLP (DIN 51524) oder or HM (ISO 6743/4) |
| Öltemperatur | Temperature range | ° C | | [° F] | -40 ÷ 140 [-40 ÷ 284] |
| Optimalviskosität | Optimal viscosity range | mm ² /s | | [SUS] | 20 ÷ 75 [98 ÷ 347] |
| Filtrierung | Filtration | | | | ISO code 20/16 (min. empfohlene Filtrierung recommended filtration 25 µm) |

ÖLSTROM LECKÖLLEITUNG OIL FLOW DRAIN LINE

| Druckgefälle Pressure drop bar [PSI] | Viskosität Viscosity mm ² /s [SUS] | Ölstrom Oilflow l/min lpm [GPM] |
|--------------------------------------------|-----------------------------------------------------|---------------------------------------|
| 140 [2030] | 20 [98] | 2,5 [.660] |
| | 35 [164] | 1,5 [.396] |
| 210 [3045] | 20 [98] | 5,0 [1.321] |
| | 35 [164] | 3,0 [.793] |

DRUCKVERLUST PRESSURE LOSSES



TECHNISCHE DATEN

TECHNICAL DATA

| Typ Type | | EPMTM 200 | EPMTM 250 | EPMTM 315 | EPMTM 400 | EPMTM 470 | EPMTM 500 | EPMTM 630 | EPMTM 725 |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|
| Schluckvolumen Displacement | cm ³ /U ccm/rev [in ³ /rev] | 201,4 [12.29] | 251,8 [15.36] | 326,3 [19.90] | 410,9 [25.06] | 475,0 [28.97] | 523,6 [31.95] | 631,2 [38.52] | 724,3 [44.20] |
| Max. Drehzahl Max. Speed U/min RPM | Dauerbetrieb Continuous | 625 | 500 | 380 | 305 | 260 | 240 | 190 | 170 |
| | Int. * Int. * | 750 | 600 | 460 | 365 | 315 | 285 | 230 | 215 |
| Max. Drehmoment Max. Torque daNm [lb-in] | Dauerbetrieb Continuous | 74,0 [6550] | 90,0 [7965] | 116,0 [10265] | 147,0 [13010] | 171,0 [15135] | 172,0 [15225] | 183,0 [16200] | 160,0 [14160] |
| | Int. * Int. * | 102,0 [9030] | 128,0 [11330] | 163,0 [14425] | 206,0 [18232] | 215,0 [16030] | 215,0 [16030] | 229,0 [20270] | 192,0 [17000] |
| | Spitze ** Peak ** | 115,0 [10180] | 144,0 [12745] | 186,0 [16460] | 235,0 [20800] | 240,0 [21240] | 240,0 [21240] | 274,0 [24250] | 240,0 [21240] |
| Max. Leistungsabgabe Max. Output kW [HP] | Dauerbetrieb Continuous | 41,0 [55.0] | 41,0 [55.0] | 41,0 [55.0] | 41,0 [55.0] | 41,0 [55.0] | 37,5 [50.0] | 28,0 [37.5] | 26,0 [35.0] |
| | Int. * Int. * | 70,0 [94.0] | 70,0 [94.0] | 70,0 [94.0] | 70,0 [94.0] | 55,0 [74.0] | 51,0 [68.0] | 42,0 [56.0] | 40,0 [54.0] |
| Max. Druckgefälle Max. Pressure drop bar [PSI] | Dauerbetrieb Continuous | 250 [3600] | 250 [3600] | 250 [3600] | 250 [3600] | 250 [3600] | 230 [3340] | 200 [2900] | 160 [2320] |
| | Int. * Int. * | 350 [5080] | 350 [5080] | 350 [5080] | 350 [5080] | 315 [4570] | 280 [4060] | 250 [3625] | 210 [3045] |
| | Spitze ** Peak ** | 400 [5800] | 400 [5800] | 400 [5800] | 400 [5800] | 350 [5080] | 320 [4640] | 300 [4350] | 260 [3770] |
| Max. Ölstrom Max. Oil flow l/min lpm [GPM] | Dauerbetrieb Continuous | 125 [33.0] | 125 [33.0] | 125 [33.0] | 125 [33.0] | 125 [33.0] | 125 [33.0] | 125 [33.0] | 125 [33.0] |
| | Int. * Int. * | 150 [39.6] | 150 [39.6] | 150 [39.6] | 150 [39.6] | 150 [39.6] | 150 [39.6] | 150 [39.6] | 150 [39.6] |
| Max. Eingangsdruck Max. Inlet pressure bar [PSI] | Dauerbetrieb Continuous | 270 [3290] | 270 [3290] | 270 [3290] | 270 [3290] | 270 [3290] | 270 [3290] | 270 [3290] | 270 [3290] |
| | Int. * Int. * | 370 [5370] | 370 [5370] | 370 [5370] | 370 [5370] | 370 [5370] | 370 [5370] | 370 [5370] | 370 [5370] |
| | Spitze ** Peak ** | 420 [6100] | 420 [6100] | 420 [6100] | 420 [6100] | 420 [6100] | 420 [6100] | 420 [6100] | 420 [6100] |
| Max. Druck auf die Wellendichtung (ohne Leckölleitung oder Druck in der Lecköl- leitung Max. Return pressure (without drain line) or pressure in drain line bar [PSI] | Dauerb. Cont. 0 - 100 U/min RPM | 75 [1100] | 75 [1100] | 75 [1100] | 75 [1100] | 75 [1100] | 75 [1100] | 75 [1100] | 75 [1100] |
| | Dauerb. Cont. 100 - 300 U/min RPM | 40 [580] | 40 [580] | 40 [580] | 40 [580] | 40 [580] | 40 [580] | 40 [580] | 40 [580] |
| | Dauerb. Cont. > 300 U/min RPM | 20 [290] | 20 [290] | 20 [290] | 20 [290] | 20 [290] | - | - | - |
| | Int.* Int.* 0 - max. U/min RPM | 75 [1100] | 75 [1100] | 75 [1100] | 75 [1100] | 75 [1100] | 75 [1100] | 75 [1100] | 75 [1100] |
| Max. Rücklaufdruck mit Leckölleitung Max. Return pressure with drain line bar [PSI] | Dauerbetrieb Continuous | 140 [2030] | 140 [2030] | 140 [2030] | 140 [2030] | 140 [2030] | 140 [2030] | 140 [2030] | 140 [2030] |
| | Int. * Int. * | 175 [2540] | 175 [2540] | 175 [2540] | 175 [2540] | 175 [2540] | 175 [2540] | 175 [2540] | 175 [2540] |
| | Spitze ** Peak ** | 210 [3050] | 210 [3050] | 210 [3050] | 210 [3050] | 210 [3050] | 210 [3050] | 210 [3050] | 210 [3050] |
| Max. Anlaufdruck mit unbelasteter Welle Max. Starting pressure with unloaded shaft | bar [PSI] | 6 [90] | 6 [90] | 6 [90] | 6 [90] | 6 [90] | 6 [90] | 6 [90] | 6 [90] |
| Min. Anlaufmoment Min. Starting torque | daNm [lb-in] | 60,0 [5310] | 75,0 [6640] | 97,0 [8585] | 122,0 [10800] | 142,0 [12570] | 143,0 [12655] | 145,0 [12830] | 148,0 [13100] |
| Min. Drehzahl *** Min. Speed *** | U/min RPM | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 |
| Gewicht Weight kg [lb] | EPMTM | 26,9 [59.3] | 27,3 [60.2] | 28,1 [62.0] | 29,0 [64.0] | 29,7 [65.5] | 30,2 [66.6] | 29,7 [65.5] | 31,0 [68.4] |
| | EPMTM-W | 27,4 [60.4] | 27,8 [61.3] | 28,6 [63.1] | 29,5 [65.1] | 30,2 [66.6] | 30,7 [67.7] | 30,2 [66.6] | 31,5 [69.5] |
| | EPMTM-V | 15,7 [34.6] | 16,1 [35.5] | 16,9 [37.3] | 17,8 [39.3] | 18,5 [40.8] | 19,0 [41.9] | 18,5 [40.8] | 19,8 [43.7] |

- * Intermittierend: Betrieb max. 10% pro Minute
- ** Spitze: max. 1% pro Minute
- *** Für Drehzahlen kleiner der min. Drehzahl sprechen Sie uns bitte an.
- Intermittierende Druckgefälle und Ölströme dürfen nicht gleichzeitig erreicht werden.
- Minimale Viskosität 13 mm²/s [70 SUS] bei 50 °C [122 °F]
- Maximale Öltemperatur während des Betriebs 82 °C [180 °F]
- Die Lebensdauer der Motoren kann erhöht werden, wenn die Antriebswelle 10-15 Minuten vor voller Belastung frei läuft.

- * Intermittent: Working max. 10% per minute
- ** Peak: max. 1% per minute
- *** For speeds lower than given, please consult us.
- Int. speed and pressure should not occur simultaneously.
- Recommended min. oil viscosity 13 mm²/s [70 SUS] at 50 °C [122 °F]
- Recommended max. 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.

BESTELLCODE ORDER CODE

| | | | | | | | | |
|-------|---|---|---|---|---|---|---|---|
| EPMTM | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|-------|---|---|---|---|---|---|---|---|

| | |
|--------------|--------------------------------------------------------------------------------------------------------|
| 1. | Montageflansch Mounting flange |
| frei omit | Quadratflansch, vier Befestigungslöcher, Lochkreis Ø200 Square flange, four holes, bolt circle Ø200 |
| C | Quadratflansch, vier Befestigungslöcher, Lochkreis Ø160 Square flange, four holes, bolt circle Ø160 |
| W | Radflansch Wheel mount |
| V | Kurzeinbau, 9xM12 Befestigungsschrauben Short mount, 9xM12 mounting bolts |
| V6 | Kurzeinbau, 6xM12 Befestigungsschrauben Short mount, 6xM12 mounting bolts |

| | |
|-----------|----------------------------------------|
| 2. | Schluckvolumen Displacement |
| 200 | 201,4 cm³/U ccm/rev. [12.29 in³/rev] |
| 250 | 251,8 cm³/U ccm/rev. [15.36 in³/rev] |
| 315 | 326,3 cm³/U ccm/rev. [19.90 in³/rev] |
| 400 | 410,9 cm³/U ccm/rev. [25.06 in³/rev] |
| 470 | 475,0 cm³/U ccm/rev. [28.97 in³/rev] |
| 500 | 523,6 cm³/U ccm/rev. [31.95 in³/rev] |
| 630 | 631,2 cm³/U ccm/rev. [38.52 in³/rev] |
| 725 | 724,3 cm³/U ccm/rev. [44.20 in³/rev] |

| | |
|--------------|---------------------------------------------------------------------------------------------------------------------------------------|
| 3. | Abtriebswelle (Zul. Momentabgabe darf nicht überschritten werden) Shaft (Permissible output torque should not be exceeded) |
| frei omit | Für Montageflanschoption V und V6 For mounting flange option V and V6 |
| C | Zylindrisch Ø40, Passfeder 12x8x70 DIN6885 Straight Ø40, parallel key 12x8x70 DIN6885 |
| CO | Zylindrisch Ø1 1/2", Passfeder 3/8"x3/8"x2 1/4" BS246 Straight Ø1 1/2", parallel key 3/8"x3/8"x2 1/4" BS246 |
| SH | Verzahnt Ø1 1/2", 17 Zähne, ANS B92.1-1976 Norm Splined Ø1 1/2", 17T, ANS B92.1-1976 norm |
| K | Konisch 1:10, Ø45, Passfeder B12x8x28 DIN6885 Tapered 1:10, Ø45, parallel key B12x8x28 DIN6885 |

| | |
|--------------|------------------------------------------------|
| 4. | Rückschlagventile Drain ports |
| frei omit | Ohne Rückschlagventile Without check valves |
| 1 | Mit Rückschlagventile With check valves |

| | |
|--------------|-----------------------------|
| 5. | Anschlüsse Ports |
| frei omit | BSPP (ISO295) |

| | |
|--------------|------------------------------------------------------------------------------------------------------------------------------------------|
| 6. | Verstärkter Motor Reinforced motor |
| frei omit | Wenn Motor Rückschlagventile hat If motor has check valves |
| HD | Standardversion (nur erhältlich für Motoren ohne Rückschlagventile) Standard version (only available for motors without check valves) |

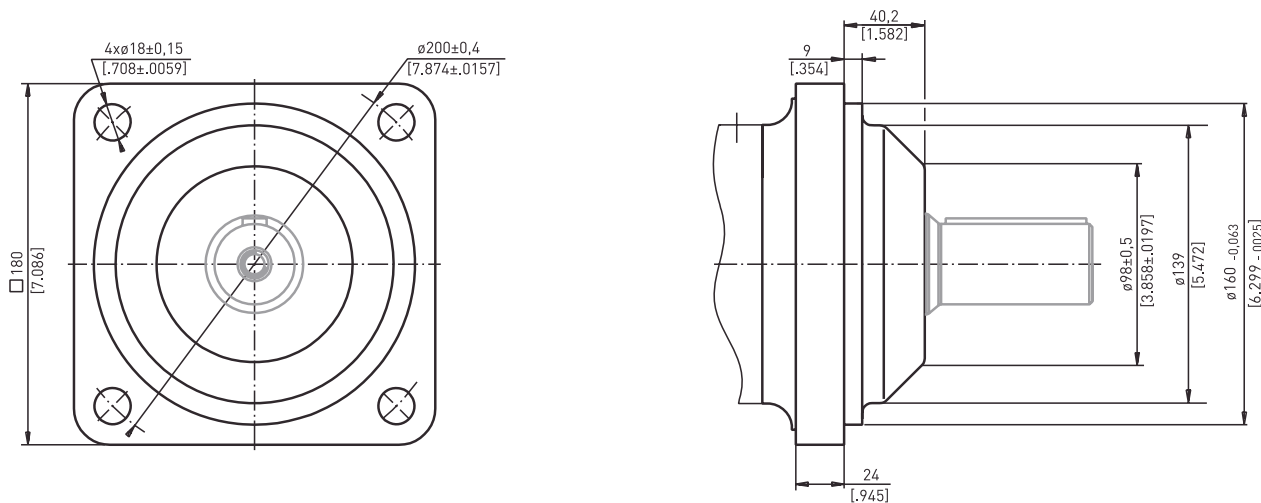
| | |
|-----------|---------------------------------------------------------------------------------------------------------------------------------------------------------|
| 7. | Sonderausführungen Special features |
| RS | Drehzahlsensor Speed sensor |
| LL | Geringeres Lecköl Low Leakage |
| LSV | Ventil für kleine Drehzahlen Low speed valve |
| R | Drehrichtung umgedreht Reverse rotation |
| P | Lackiert (Farbe auf Anfrage) Paint (colour on request) |
| PC | Korrosionsschutzfarbe (Farbe auf Anfrage) Corrosion protected paint (colour on request) |
| PS | Speziallackierung (Anschlussflächen blank / Farbe auf Anfrage) Paint (non painted feeding surfaces / colour on request) |
| PCS | Korrosionsschutzfarbe Spezial (Anschlussflächen blank / Farbe auf Anfrage) Corrosion prot. paint special (non painted feeding surfaces / on request) |

| | |
|--------------|-----------------------------------------|
| 8. | Design Serie Design series |
| frei omit | Betriebsspezifisch Factory specified |

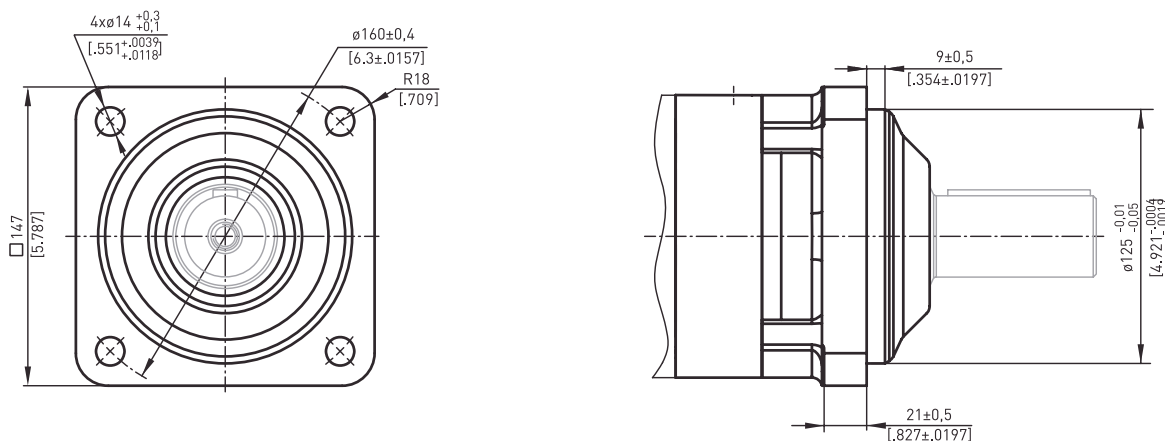
1. MONTAGE FLANSCH

1. MOUNTING FLANGE

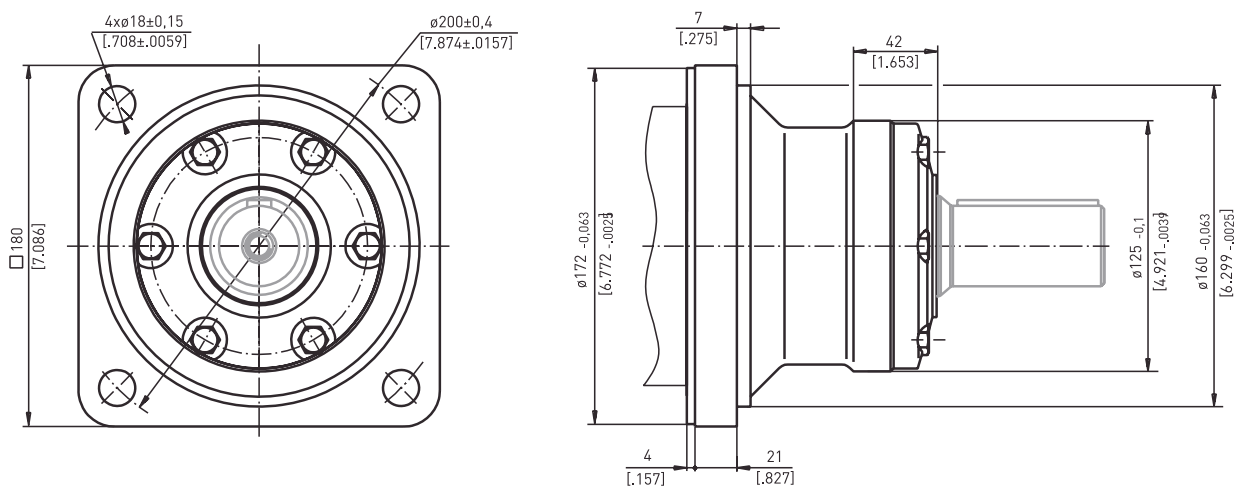
Standard: Quadratflansch, 4 Befestigungslöcher, Lochkreis Ø200 mm [7.874 in]
 Standard: Square mount, 4 holes, bolt circle Ø200 mm [7.874 in]



Option C: Quadratflansch, 4 Befestigungslöcher, Lochkreis Ø160 mm [6.3 in]
 Option C: Square mount, 4 holes, bolt circle Ø160 mm [6.3 in]

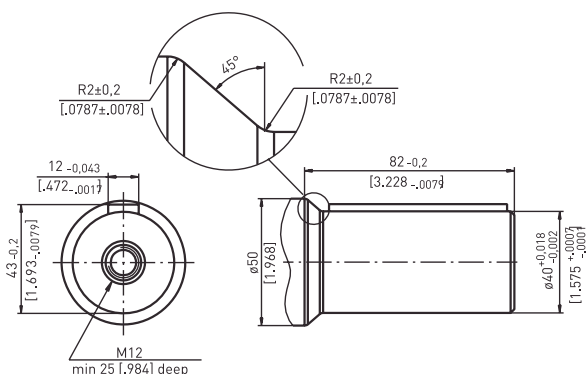


Option W: Radflansch
 Option W: Wheel mount

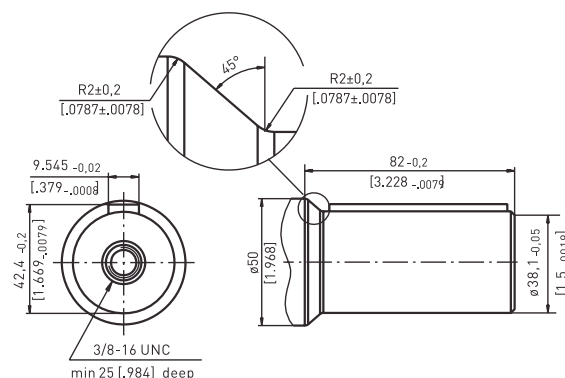


3. ABTRIEBSWELLE 3. SHAFT

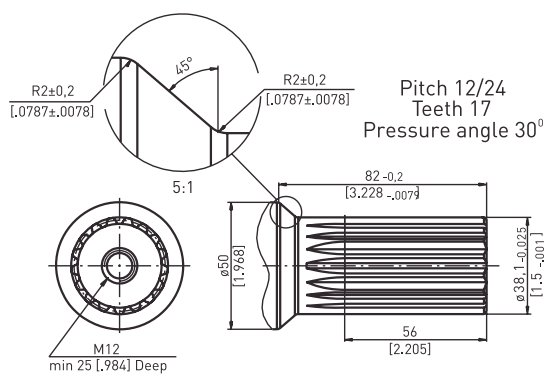
Option C: Zylindrisch Ø40 mm
Option C: Straight Ø40 mm



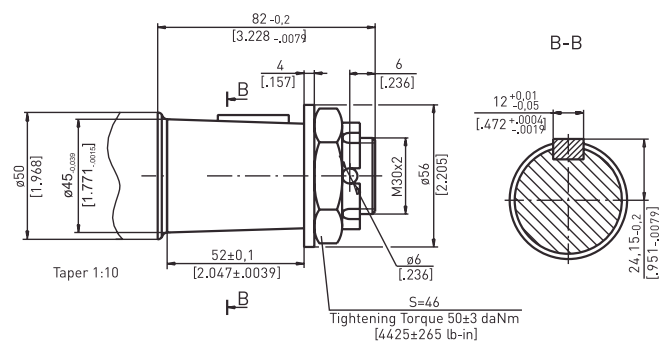
Option CO: Zylindrisch Ø1 1/2"
Option CO: Straight Ø1 1/2"



Option SH: Verzahnt Ø1 1/2", 17 Zähne
Option SH: Splined Ø1 1/2", 17T



Option K: Konisch 1:10, Ø45 mm
Option K: Tapered 1:10, Ø45 mm

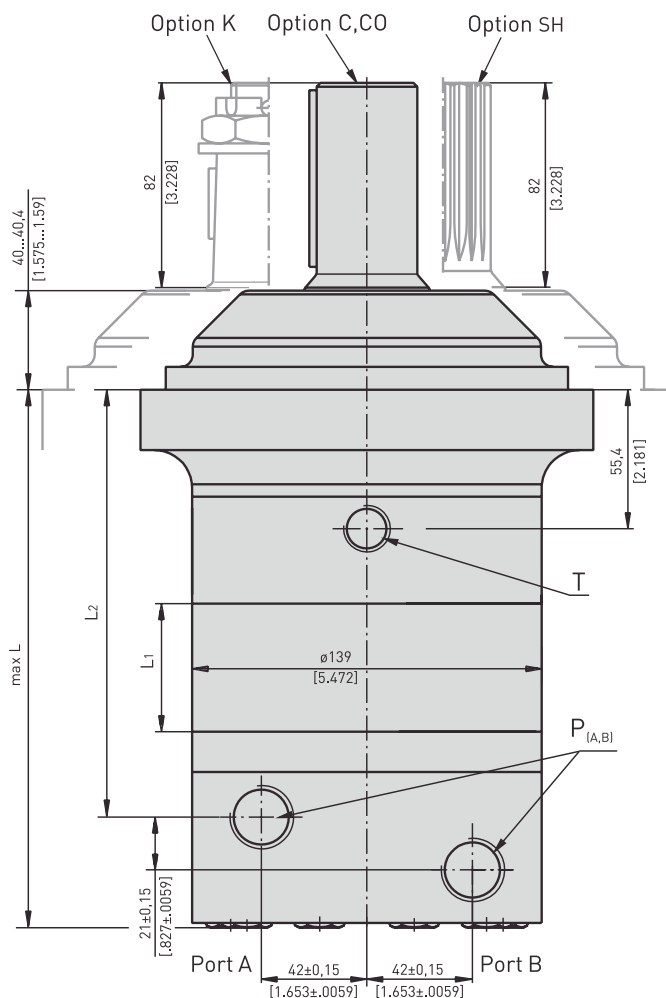


Zulässige Drehmomentabgabe
Permissible output torque

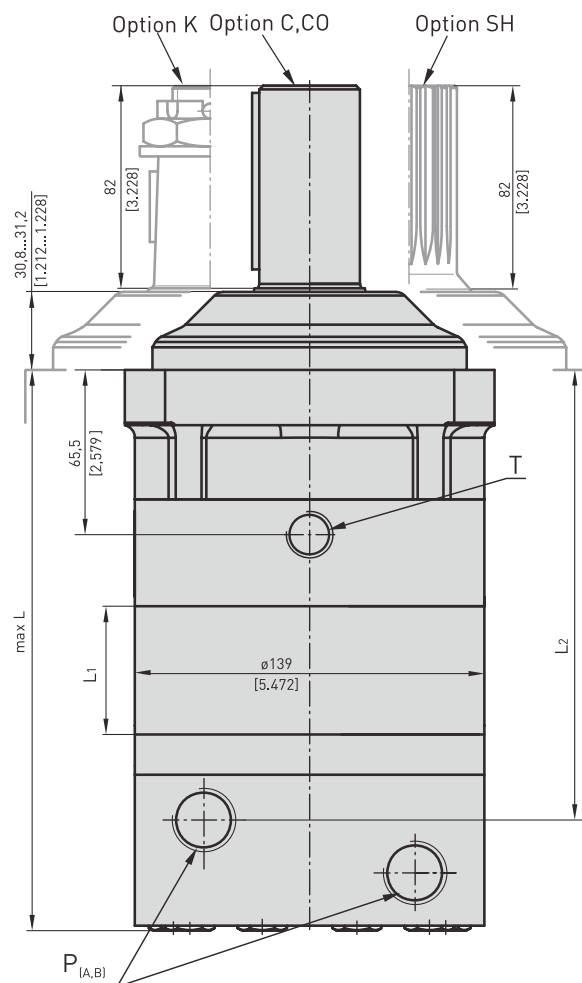
| Zulässige Drehmomentabgabe je nach Wellentyp Permissible output torque based on shaft type daNm [lb-in] | | | |
|---------------------------------------------------------------------------------------------------------------|------------------|------------------|------------------|
| C | CO | SH | K |
| 132,8 [11755] | 132,8 [11755] | 132,8 [11755] | 210,7 [18650] |

EINBAUMAß DIMENSION

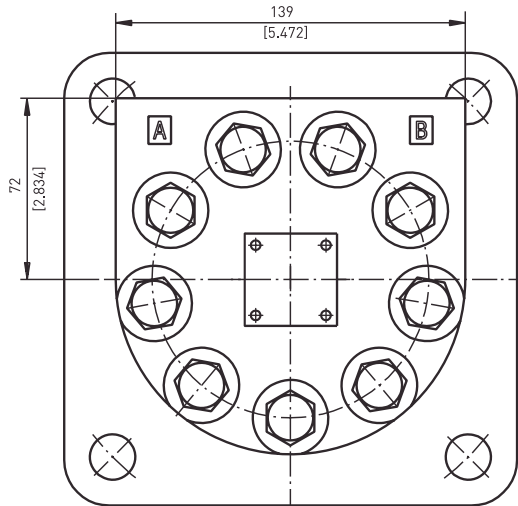
Montageflansch Option Standard Mounting flange option standard



Montageflansch Option C Mounting flange option C



P (A,B): 2xG3/4 - 17mm [.669 in] tief deep
T: G1/4 - 12 mm [.472 in] tief deep



| Typ | Type | L, mm [in] | L ₂ , mm [in] | Typ | Type | L, mm [in] | L ₂ , mm [in] | L ₁ , mm [in] |
|-------|------|--------------|--------------------------|---------|------|--------------|--------------------------|--------------------------|
| EPMTM | 200 | 188,0 [7.40] | 142,3 [5.60] | EPMTM-C | 200 | 198,0 [7.79] | 153,0 [6.02] | 25,0 [.98] |
| EPMTM | 250 | 194,0 [7.64] | 148,6 [5.85] | EPMTM-C | 250 | 204,5 [8.05] | 159,3 [6.27] | 31,3 [1.23] |
| EPMTM | 315 | 203,0 [7.99] | 157,8 [6.21] | EPMTM-C | 315 | 213,5 [8.40] | 168,5 [6.63] | 40,5 [1.59] |
| EPMTM | 400 | 214,0 [8.43] | 168,3 [6.63] | EPMTM-C | 400 | 224,0 [8.82] | 179,0 [7.04] | 51,0 [2.01] |
| EPMTM | 470 | 222,0 [8.74] | 176,3 [6.94] | EPMTM-C | 470 | 232,0 [9.13] | 187,0 [7.36] | 59,0 [2.32] |
| EPMTM | 500 | 228,0 [8.98] | 182,3 [7.18] | EPMTM-C | 500 | 238,0 [9.37] | 193,0 [7.60] | 65,0 [2.56] |
| EPMTM | 630 | 224,0 [8.82] | 178,3 [7.02] | EPMTM-C | 630 | 234,0 [9.21] | 189,0 [7.44] | 61,0 [2.40] |
| EPMTM | 725 | 233,0 [9.17] | 187,3 [7.37] | EPMTM-C | 725 | 243,0 [9.56] | 198,0 [7.79] | 70,0 [2.76] |

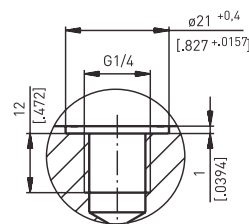
Standarddrehung
mit Blick auf Abtriebswelle
Druck auf Anschluss A - rechtsdrehend
Druck auf Anschluss B - linksdrehend

Reversierdrehung (7. - Option R)
mit Blick auf Abtriebswelle
Druck auf Anschluss A - linksdrehend
Druck auf Anschluss B - rechtsdrehend

Standard rotation
Viewed from shaft end
Port A pressurised- right running
Port B pressurised- left running

Reverse rotation (7. - Option R)
Viewed from shaft end
Port A pressurised- left running
Port B pressurised- right running

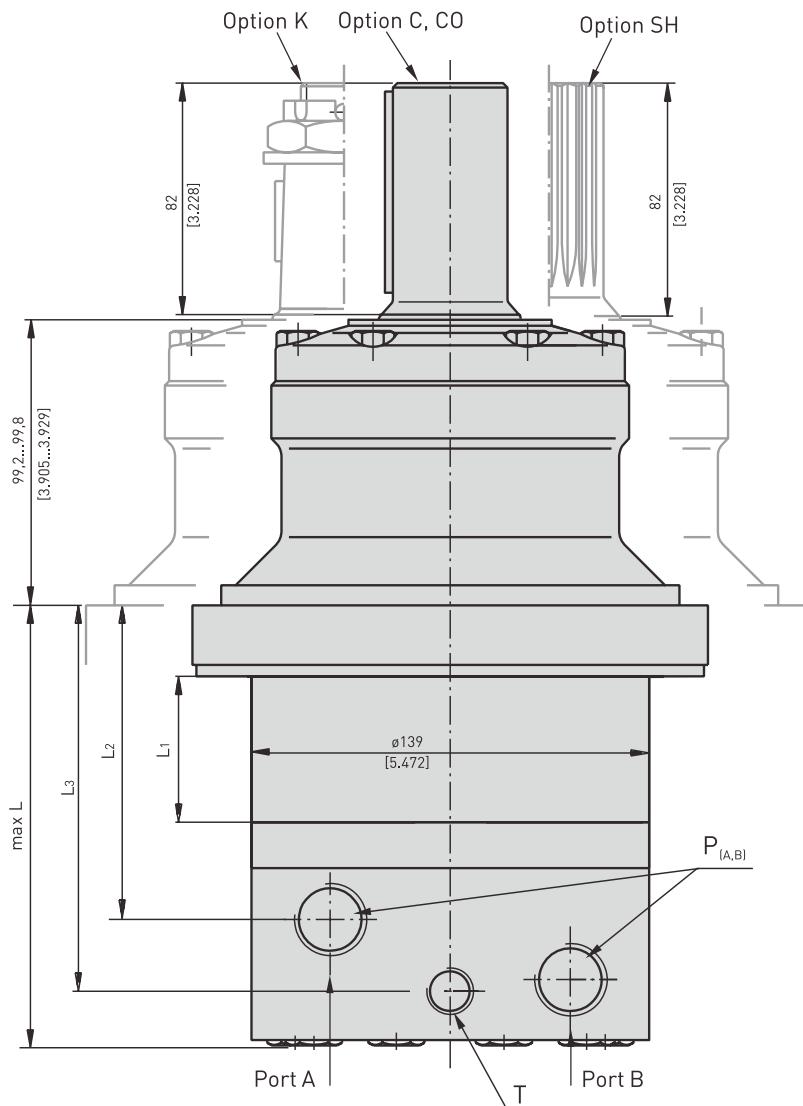
Leckölanschluss Drain port



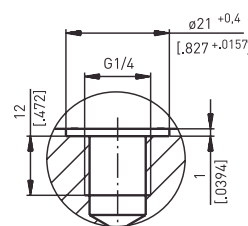
Bei Motoren ohne Rückschlagventilen sollte immer eine Leckölleitung angeschlossen werden.

If motor is without check valves drain line should always be used.

Montageflansch Option W Mounting flange option W



Leckölanschluss Drain port



Bei Motoren ohne Rückschlagventilen sollte immer eine Leckölleitung angeschlossen werden.

If motor is without check valves drain line should always be used.

P (A,B): 2xG3/4 - 17mm [0,669 in] tief deep
T: G1/4 - 12 mm [0,472 in] tief deep

Standarddrehung
mit Blick auf Abtriebswelle
Druck auf Anschluss A - rechtsdrehend
Druck auf Anschluss B - linksdrehend

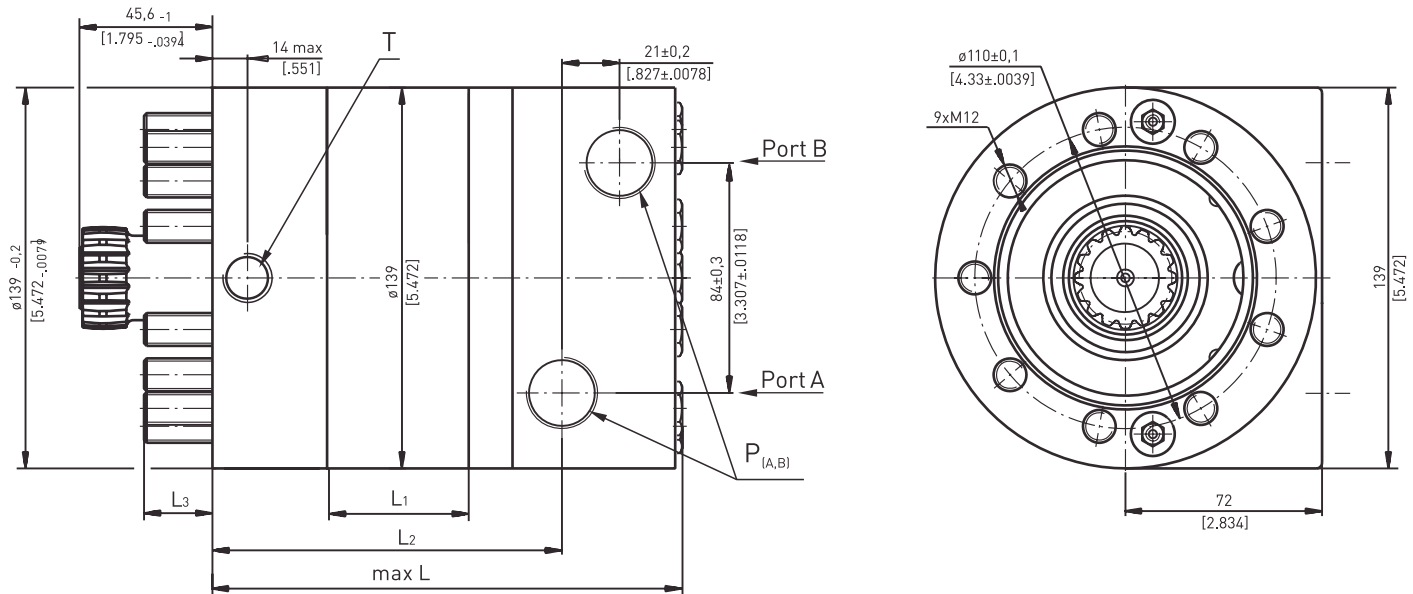
Standard rotation
Viewed from shaft end
Port A pressurised- right running
Port B pressurised- left running

Reversierdrehung (7. - Option R)
mit Blick auf Abtriebswelle
Druck auf Anschluss A - linksdrehend
Druck auf Anschluss B - rechtsdrehend

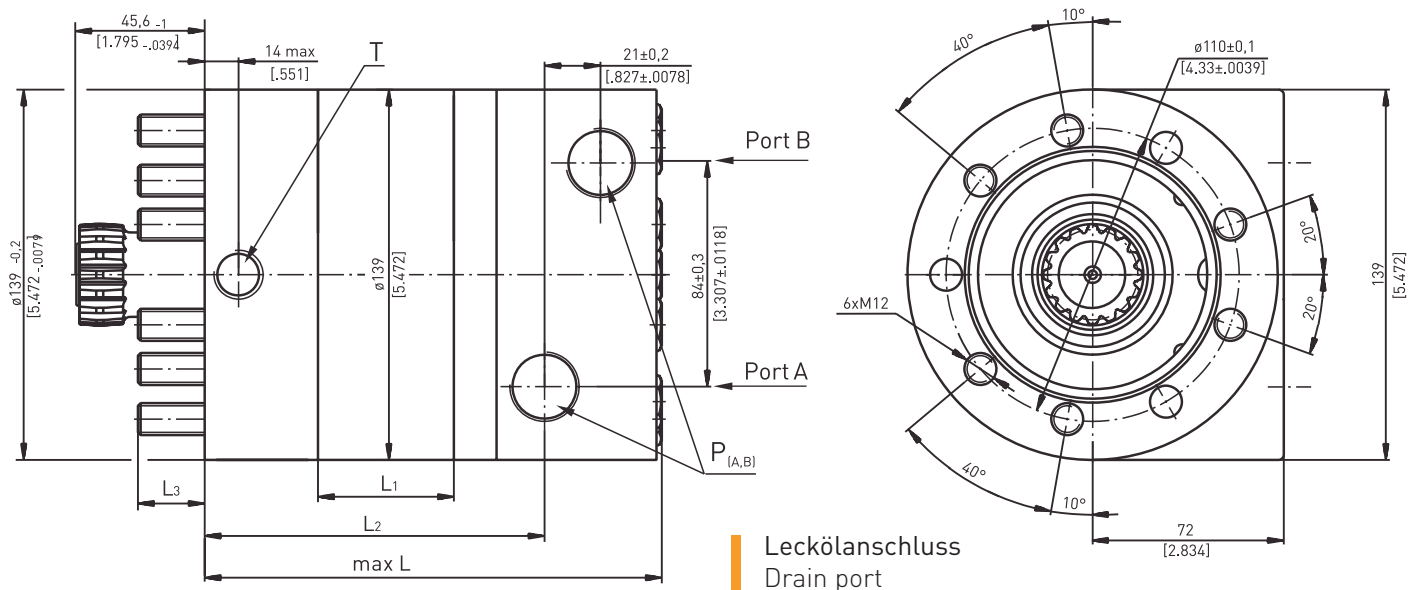
Reverse rotation (7. - Option R)
Viewed from shaft end
Port A pressurised- left running
Port B pressurised- right running

| Typ Type | L, mm [in] | L ₁ , mm [in] | L ₂ , mm [in] | L ₃ , mm [in] |
|-------------|--------------|--------------------------|--------------------------|--------------------------|
| EPMTM-W 200 | 129,0 [5.08] | 25,0 [0.98] | 83,8 [3.30] | 111,1 [3.37] |
| EPMTM-W 250 | 135,0 [5.32] | 31,3 [1.23] | 90,1 [3.55] | 117,4 [4.62] |
| EPMTM-W 315 | 144,0 [5.67] | 40,5 [1.59] | 99,3 [3.91] | 126,6 [4.98] |
| EPMTM-W 400 | 155,0 [6.10] | 51,0 [2.01] | 109,8 [4.32] | 137,1 [5.40] |
| EPMTM-W 470 | 163,0 [6.42] | 59,0 [2.32] | 117,8 [4.64] | 145,1 [5.71] |
| EPMTM-W 500 | 169,0 [6.65] | 65,0 [2.56] | 123,8 [4.87] | 151,1 [5.95] |
| EPMTM-W 630 | 165,0 [6.50] | 61,0 [2.40] | 119,8 [4.72] | 147,1 [5.79] |
| EPMTM-W 725 | 174,0 [6.85] | 70,0 [2.76] | 128,8 [5.07] | 156,1 [6.15] |

Montageflansch Option V Mounting flange option V



Montageflansch Option V6 Mounting flange option V6



Leckölanschluss Drain port

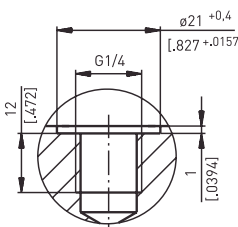
P (A,B): 2xG3/4 - 17mm [.669 in] tief deep
T: G1/4 - 12 mm [.472 in] tief deep

Standarddrehung
mit Blick auf Abtriebswelle
Druck auf Anschluss A - rechtsdrehend
Druck auf Anschluss B - linksdrehend

Reversierdrehung (7. - Option R)
mit Blick auf Abtriebswelle
Druck auf Anschluss A - linksdrehend
Druck auf Anschluss B - rechtsdrehend

Standard rotation
Viewed from shaft end
Port A pressurised- right running
Port B pressurised- left running

Reverse rotation (7. - Option R)
Viewed from shaft end
Port A pressurised- left running
Port B pressurised- right running

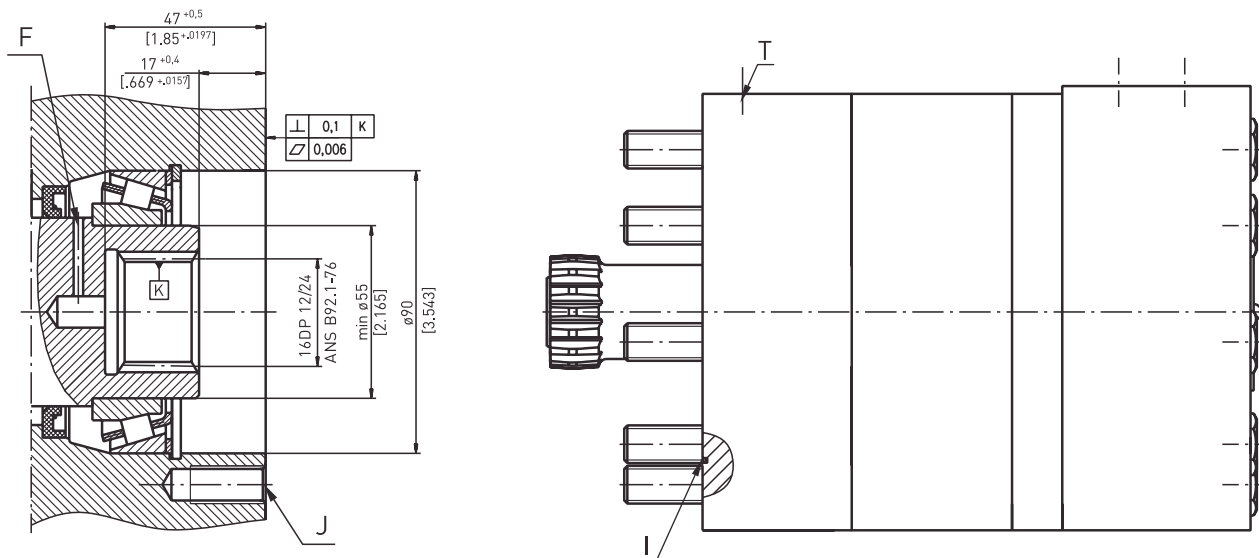


Bei Motoren ohne Rückschlagventilen sollte immer eine Leckölleitung angeschlossen werden.

If motor is without check valves drain line should always be used.

| Typ Type | L, mm [in] | L2, mm [in] | L3, mm [in] | Typ Type | L, mm [in] | L2, mm [in] | L3, mm [in] | L1, mm [in] |
|-------------|--------------|--------------|-------------|--------------|--------------|--------------|-------------|-------------|
| EPMTM-V 200 | 151,0 [5.95] | 106,5 [4.19] | 27,8 [1.09] | EPMTM-V6 200 | 151,0 [5.95] | 106,5 [4.19] | 27,8 [1.09] | 25,0 [.98] |
| EPMTM-V 250 | 157,0 [6.18] | 112,8 [4.44] | 26,5 [1.04] | EPMTM-V6 250 | 157,0 [6.18] | 112,8 [4.44] | 26,5 [1.04] | 31,3 [1.23] |
| EPMTM-V 315 | 167,0 [6.58] | 122,0 [4.80] | 22,3 [.88] | EPMTM-V6 315 | 167,0 [6.58] | 122,0 [4.80] | 22,3 [.88] | 40,5 [1.59] |
| EPMTM-V 400 | 177,0 [6.97] | 132,5 [5.22] | 21,8 [.86] | EPMTM-V6 400 | 177,0 [6.97] | 132,5 [5.22] | 21,8 [.86] | 51,0 [2.01] |
| EPMTM-V 470 | 185,0 [7.28] | 140,5 [5.53] | 23,8 [.94] | EPMTM-V6 470 | 185,0 [7.28] | 140,5 [5.53] | 23,8 [.94] | 59,0 [2.32] |
| EPMTM-V 500 | 191,0 [7.52] | 146,5 [5.77] | 27,8 [1.09] | EPMTM-V6 500 | 191,0 [7.52] | 146,5 [5.77] | 27,8 [1.09] | 65,0 [2.56] |
| EPMTM-V 630 | 187,0 [7.36] | 142,5 [5.61] | 21,8 [.86] | EPMTM-V6 630 | 187,0 [7.36] | 142,5 [5.61] | 21,8 [.86] | 61,0 [2.40] |
| EPMTM-V 725 | 196,0 [7.72] | 151,5 [5.97] | 22,8 [.90] | EPMTM-V6 725 | 196,0 [7.72] | 151,5 [5.97] | 22,8 [.90] | 70,0 [2.76] |

Einbaumaß EPMTM-V und V6 mm [in.] Dimension EPMTM-V and V6 mm [in.]



- F: Ölzirkulationsloch
Oil circulation hole
- J: 9xM12 - 30 mm [1.181 in] tief deep, 40°, Ø110±0,1 [4.33±.0039] oder or
6xM12 - 30 mm [1.181 in] tief deep, 40°, Ø110±0,1 [4.33±.0039]

- I: O-Ring 93x1,5 mm
[3.661 x .059 in]
- T: Leckölanschluss G1/4
Drain connection G1/4

Leckölanschluss Drain connection

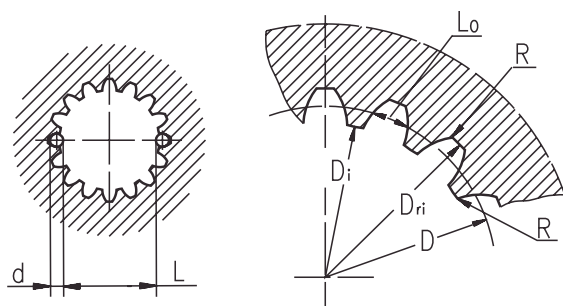
Lecköl sollte abgeführt werden, wenn der zulässige Druck im Rücklauf überstiegen werden kann. Die Lecköleitung wird am Leckölanschluss der Anbaukomponente angeschlossen. Der Spitzendruck in der Lecköleitung wird durch die Wellendichtung der Anbaukomponente bestimmt. Die Lecköleitung sollte so dimensioniert sein, dass eine freie Strömung zwischen Motor und Anbaukomponente gewährleistet wird. Die Lecköleitung muss direkt zum Tank geleitet werden.

A drain line has to be used when pressure in the return line can exceed the permissible pressure. It can be connected to the drain connection of the attached component. The maximum pressure in the drain line is limited by the attached component and its shaft seal. The drain line must be possible for oil to flow freely between motor and attached component. The drain line must be led to the tank.

Daten der Innenverzahnung der Anbaukomponente Internal spline data for the attached component

Standard ANSI B92.1-1976, class 5
[m=2.1166; korrigiert x.m=+1,0]

Standard ANSI B92.1-1976, class 5
[m=2.1166; corrected x.m=+1,0]



Härtenspezifikation:
HV=750±50 an der Oberfläche
HV=560 in 0,7±0,2 mm [.035±.019] in tiefe

Material:
20 MoCr4 EN 10084 oder SAE8620

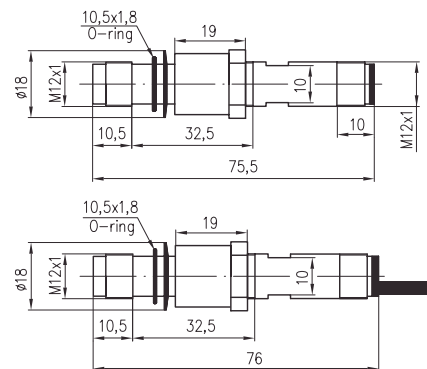
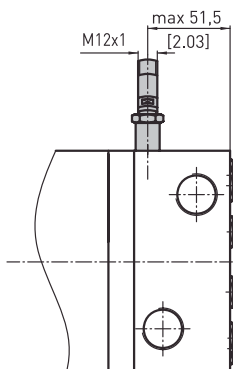
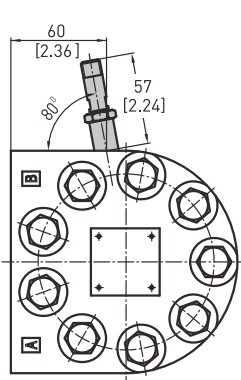
Hardening specification:
HV=750±50 on the surface
HV=560 at 0,7±0,2 mm [.035±.019 in] depth

Material:
20 MoCr4 EN 10084 or SAE8620

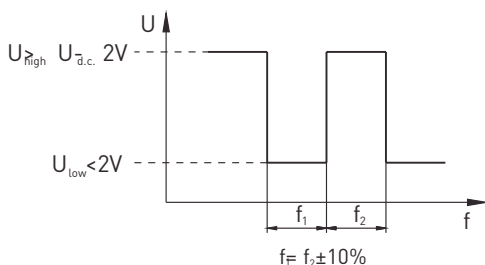
| Stirnrad innenverzahnt Fillet root side fit | | mm | inch |
|------------------------------------------------|-----|------------------------|-----------------|
| Zähnezahl Number of teeth | z | 16 | 16 |
| Diametrial Pitch Diametrial pitch | DP | 12/24 | 12/24 |
| Eingriffswinkel Pressure angle | | 30° | 30° |
| Teilkreisdurchmesser Pitch diameter | D | 33,8656 | 1.3333 |
| Außendurchmesser Major diameter | Dri | 38,4 ^{+0,4} | 1.5118 ÷ 1.5275 |
| Innendurchmesser Minor diameter | Di | 32,15 ^{+0,04} | 1.2657 ÷ 1.2673 |
| Lückenweite Space width | Lo | 4,516±0,037 | .1763 ÷ .1791 |
| Rundung Fillet radius | R | 0,5 | .02 |
| Rollenmaß Max. meas. between the pins | L | 26,9 ^{+0,10} | 1.063 ÷ 1.059 |
| Meßrollendurchmesser Pin diameter | d | 4,835±0,001 | .19026 ÷ .19034 |

7. SONDERAUSFÜHRUNGEN 7. SPECIAL FEATURES

Option RS: Drezzahlsensor
Option RS: Speed sensor

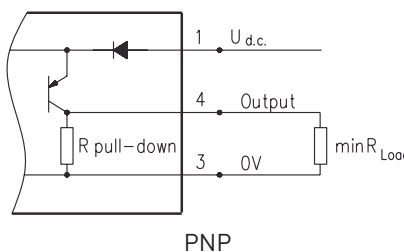


Ausgangssignal
Output signal

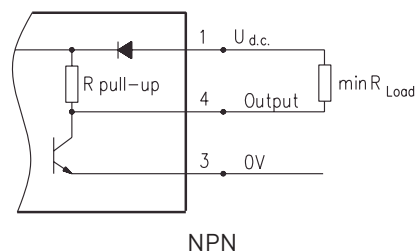


Load max.: $I_{high} = I_{low} < 50\text{mA}$

Schaltplan
Wiring diagram



PNP



NPN

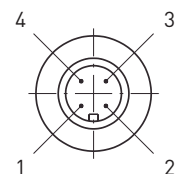
$$R_{\text{Load}}[\text{k}\Omega] = U_{\text{d.c.}}[\text{V}] I_{\text{max}}[\text{mA}]$$

Technische Daten
Technical data

| | | |
|---------------------|---------------------|--------------------------------------|
| Frequenzbereich | Frequency | 0 ... 15000 Hz |
| Ausgang | Output | Universal PUSH PULL |
| Spannungsversorgung | Output | 10 - 30 VDC |
| Stromaufnahme | Power supply | <20 mA (@24 VDC) |
| Umgebungstemp. | Ambient temperature | -40 ... +125° C [-40 ... +257° F] |
| Schutzklasse | Protection | IP 67 |
| Steckverbindung | Plug connector | M12 - Serie |
| Montageverfahren | Mounting principle | ISO 6149 |
| Impulse / U | Pulses / rev | 84 |

Anschluss Belegung
Stick type

| Anschluss Nr. Terminal no. | Belegung Connection | Ausgangsleitung Cable output |
|-------------------------------|---------------------------------|---------------------------------|
| 1 | $U_{\text{d.c.}}$ | Braun Brown |
| 2 | Keine Belegung No connection | Weiß White |
| 3 | 0V | Blau Blue |
| 4. | Ausgangssignal Output signal | Schwarz Black |



Bestellcode
Order Code

| Sensor Code Sensor code | Anschluss Connection |
|----------------------------|----------------------------------------------------------------------------------------|
| RS | Kabelstecker M12 Connector M12 |
| RSL2,5 | Anschlusskabel 3x0,25; 2,5 m [98 in] lang Cable output 3x0,25; 2,5 m [98 in] long |
| RSL3,5 | Anschlusskabel 3x0,25; 3,5 m [138 in] lang Cable output 3x0,25; 3,5 m [138 in] long |
| RSL5 | Anschlusskabel 3x0,25; 5 m [196 in] lang Cable output 3x0,25; 5 m [196 in] long |
| RSL10 | Anschlusskabel 3x0,25; 10 m [394 in] lang Cable output 3x0,25; 10 m [394 in] long |

Der Drehzahlsensor wird nicht montiert geliefert. Der Sensor befindet sich in einer Plastiktüte in der Umverpackung des Motors. Für eine Installation beachten Sie bitte die beiliegende Montageanleitung.

The speed sensor will be delivered not fitted, but is supplied in a plastic bag with the motor. For installation see the enclosed mounting instructions.

Option LL: Geringeres Lecköl

Option LL: Low leakage

Die Hydraulikmotoren der LL Reihe sind für den Einsatz im ganzen Anwendungsbereich (Druckabfall und Drehzahl) entworfen. Sie haben jedoch erheblich geringere Verluste in den Verdrängungsräumen. Diese Motoren sind geeignet für hydraulische Systeme bei denen die Motoren in Reihe geschaltet sind und geringe Leckölverluste gefordert sind.

LL series hydraulic motors are designed to operate at the whole standard range of working conditions (pressure drop and frequency of rotation), but with considerable decreased volumetric losses in the drain ports. These motors are suitable for hydraulic system with series-connected motors with demands for low leakage.

Option LSV: Ventil für kleine Drehzahlen

Option LSV: Low speed valve

Option LSV optimiert den Motor für den Betrieb bei kleinen Drehzahlen. LSV Motoren sind für den Betrieb mit standardmäßigen Höchstwerten des Druckabfalls und mit stoß freiem Betrieb bei niedrigen Drehzahlen (bis zu 200 U/min) ausgelegt. Ihre höchste Effektivität erreichen diese Motoren bei 20-50 U/min. Motoren mit diesem Ventil haben einen höheren Anlaufdruck. Der Druckabfall sollte größer als 40 bar [580 PSI] sein.

LSV option optimizes the motor for low speed performance. Motors with this valving provide very low speed while maintaining high torque. They are designed to run continuously at low speed (up to 200 RPM) at normal pressure drop and reduced flow. Optimal run is guaranteed at frequency of rotation from 20 to 50 RPM. Motors with this valving have an increased starting pressure and are not recommended for using at pressure drop less than 40 bar [580 PSI].

WEITERE TECHNISCHE INFORMATIONEN FURTHER TECHNICAL INFORMATION

Zulässige Wellenbelastung EPMTM

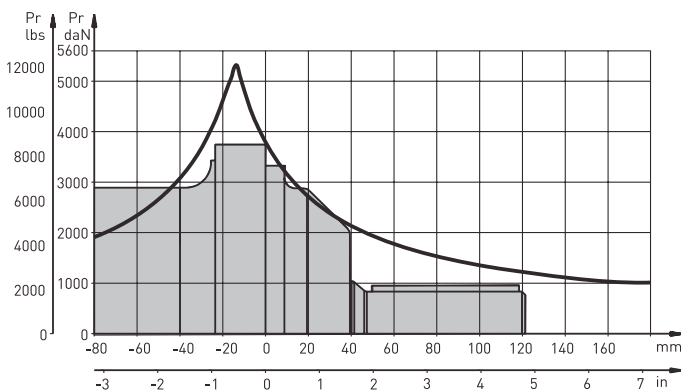
Permissible shaft load EPMTM

Die Kurven gelten für eine B10-Lebensdauer (ISO281) der Lager von 2000 Stunden bei 200 U/min.

The curves apply to a B10 bearing life (ISO281) of 2000 hours at 200 RPM.

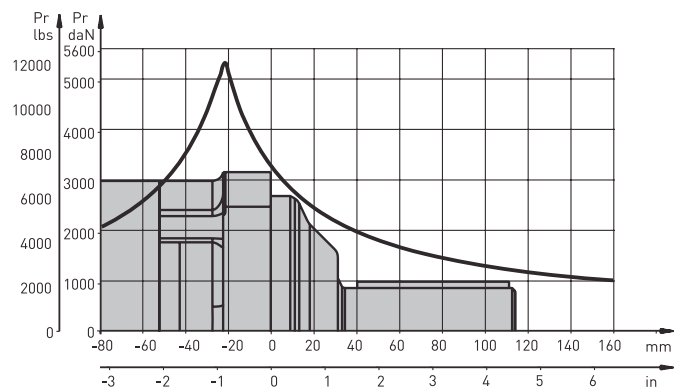
Montageflansch Option Standard

Mounting flange option standard



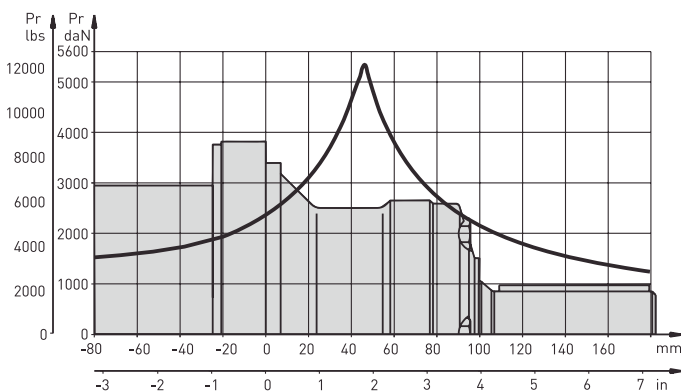
Montageflansch Option C

Mounting flange option C



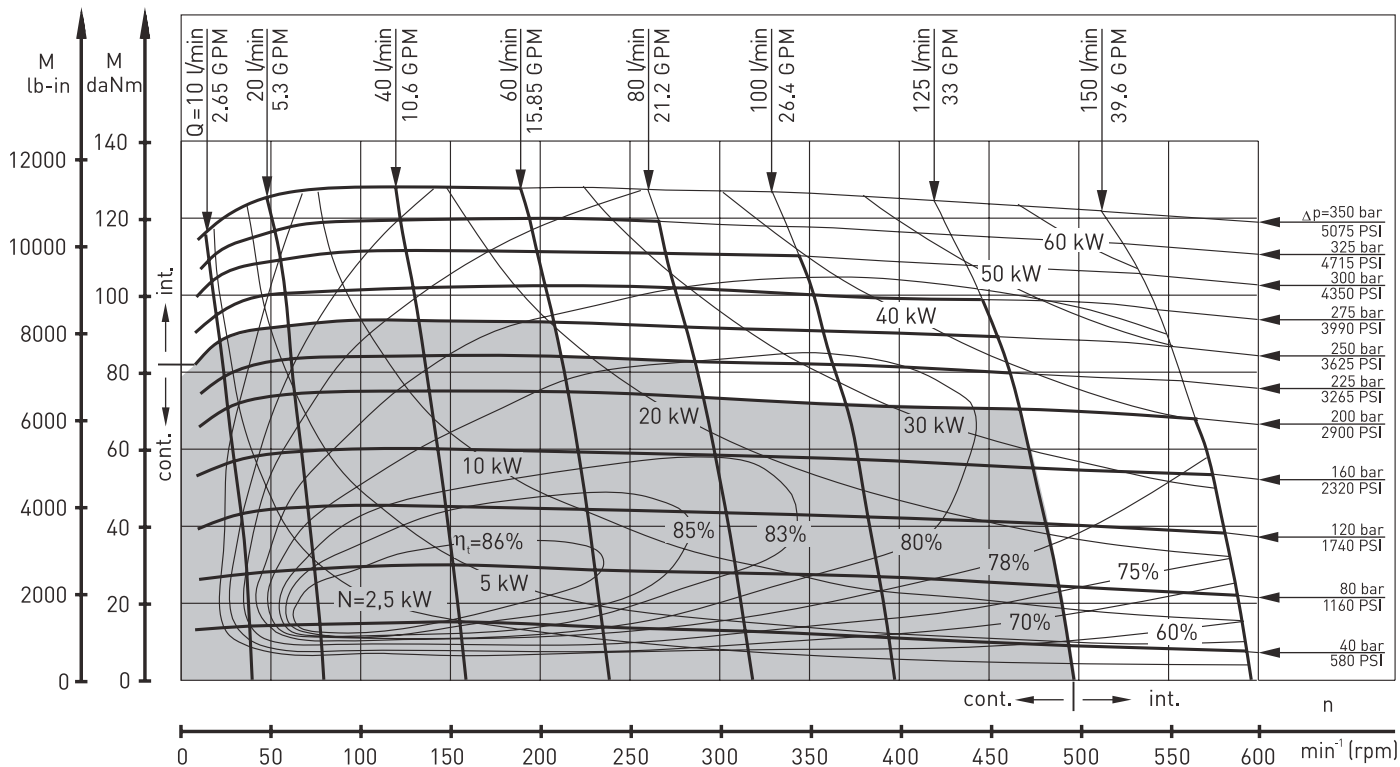
Montageflansch Option W

Mounting flange option W



LEISTUNGSDIAGRAMME FUNCTION DIAGRAMS

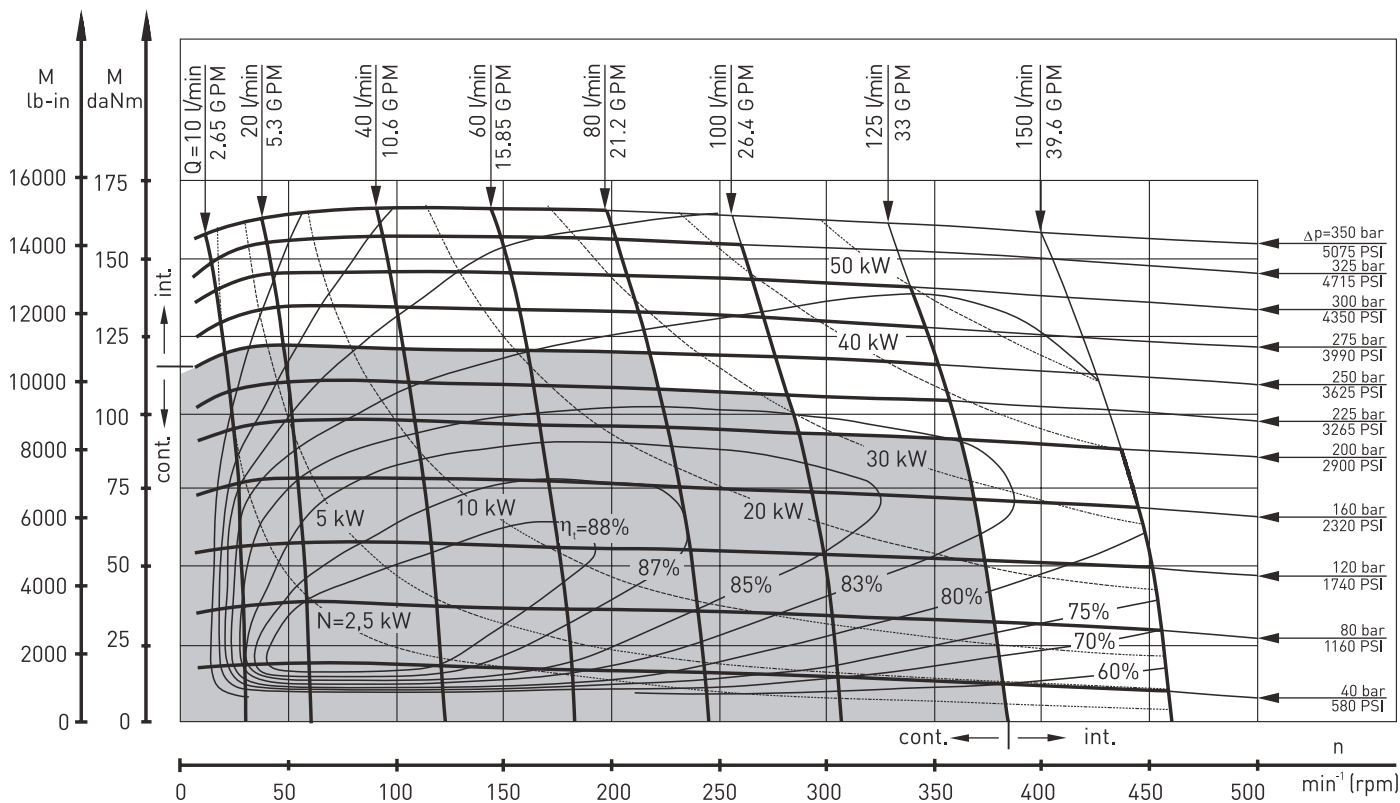
EPMTM 250



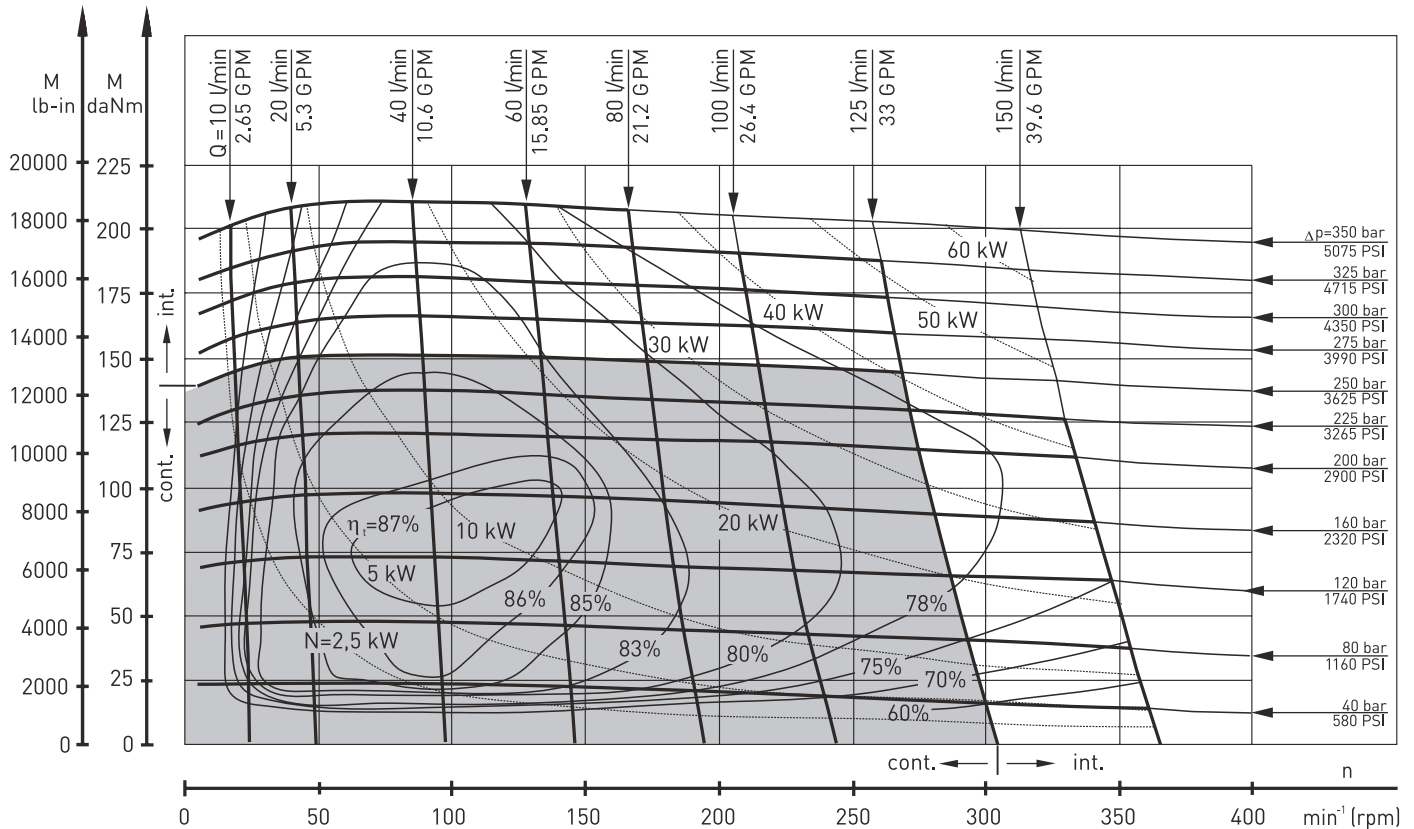
Die Leistungsdiagramme werden bei einem Rücklaufdruck von 5-10 bar [72.5-145 PSI] erreicht. Kinematische Viskosität des Hydrauliköls 32 mm²/s [150 SUS] bei 50° C [122° F]

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

EPMTM 315



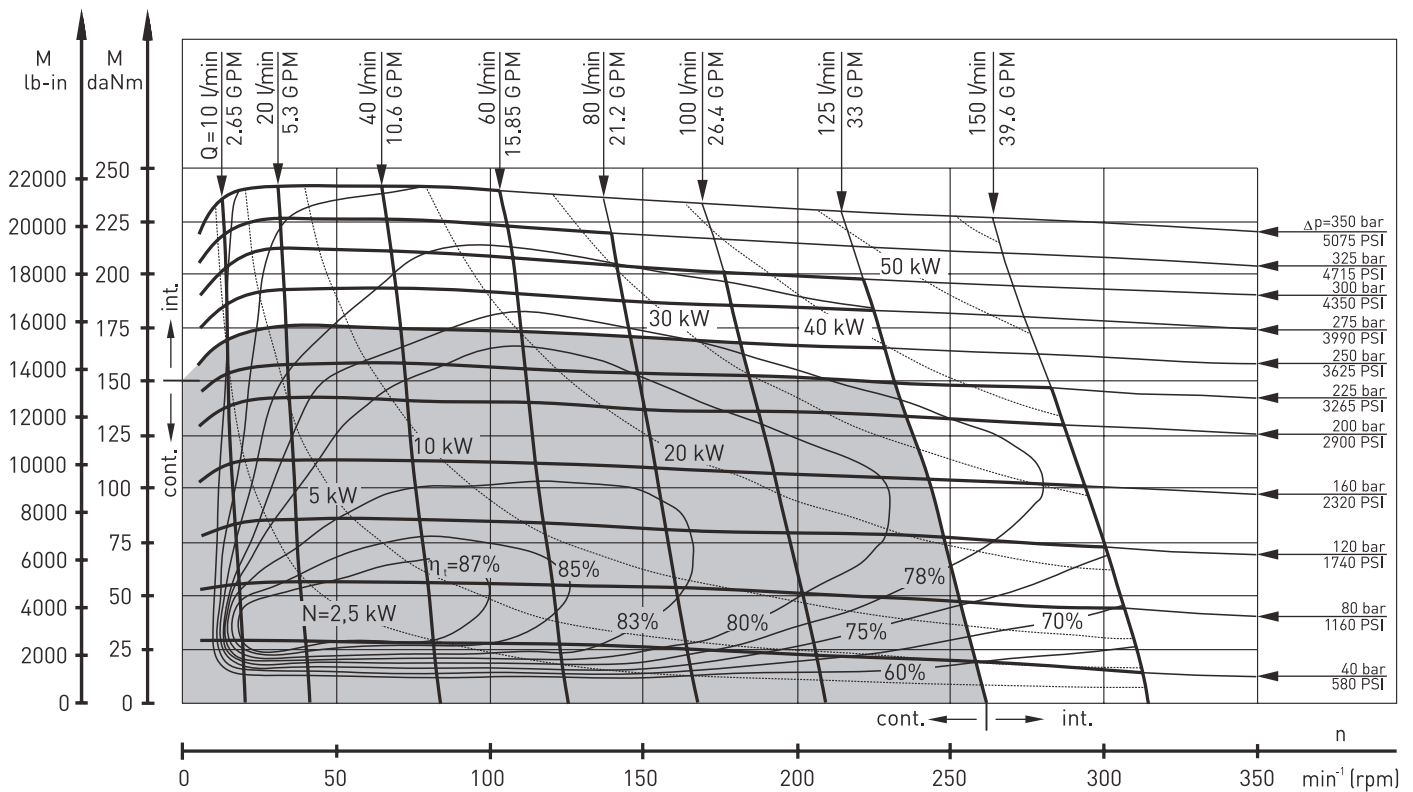
EPMTM 400



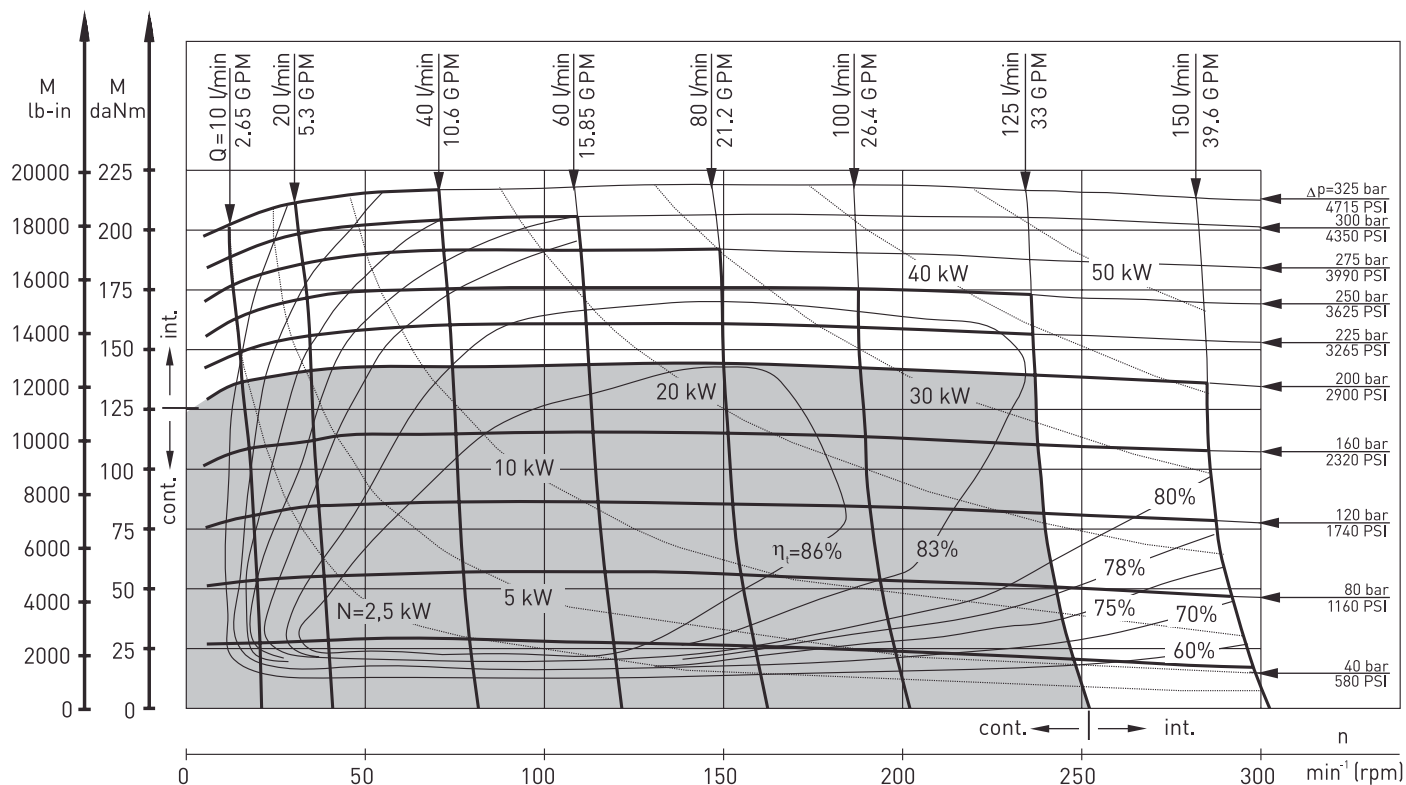
Die Leistungsdiagramme werden bei einem Rücklaudruck von 5-10 bar [72.5-145 PSI] erreicht. Kinematische Viskosität des Hydrauliköls 32 mm²/s [150 SUS] bei 50° C [122° F]

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

EPMTM 470



EPMTM 500



Die Leistungsdiagramme werden bei einem Rücklaudruck von 5-10 bar [72.5-145 PSI] erreicht. Kinematische Viskosität des Hydrauliköls 32 mm²/s [150 SUS] bei 50° C [122° F]

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

EPMTM 630

