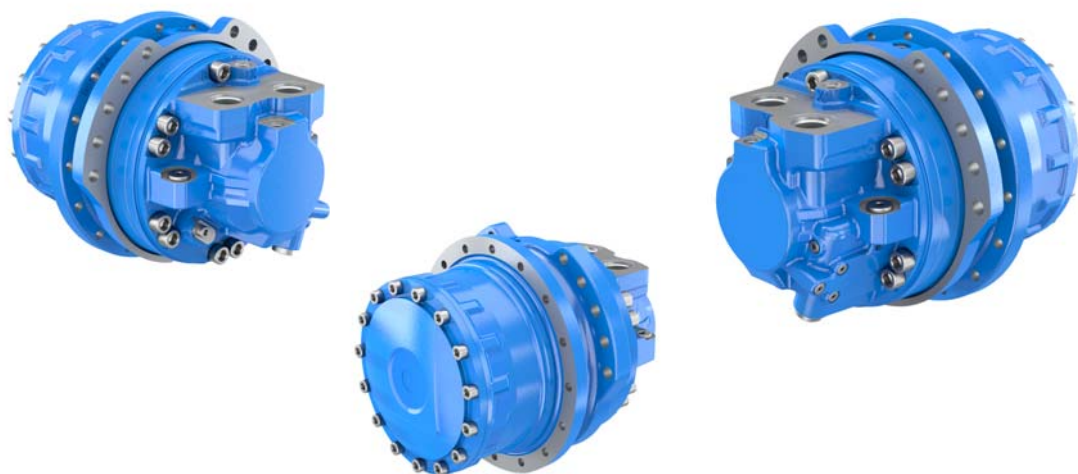


MT07

COMPACT TRACK LOADER MOTOR



T E C H N I C A L C A T A L O G



MT07 MOTOR

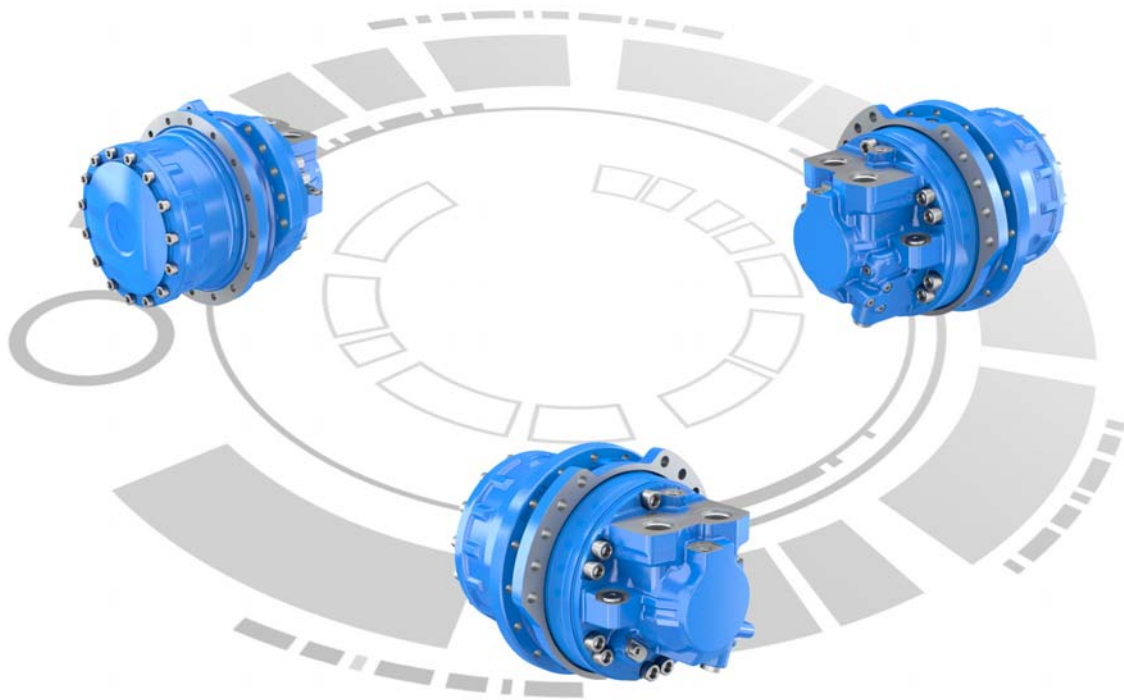
From
495 cc
To 915 cc

Up to
270 rpm

Up to
6 100 N.m

Up to
77 kW

Up to
450 bar



C	Displacement		Theoretical torque				Max. power		Max. speed	
	1	2	1		2		1	2	1	2
	cm ³ /tr [cu.in./rev.]	cm ³ /tr [cu.in./rev.]	at 100 bar Nm	at 1000 PSI [lb.ft]	at 100 bar Nm	at 1000 PSI [lb.ft]	kW [HP]	kW [HP]	tr/min[RPM]	tr/min[RPM]
7 7 7	493 [30.1]	329 [20.1]	784	[399]	523	[266]	77 [103]	77 [103]	270	270
8 8 8	563 [34.3]	375 [22.9]	895	[455]	596	[303]				
9 9 9	634 [38.7]	422 [25.7]	1,008	[513]	671	[341]				
0 0 0	704 [42.9]	469 [28.6]	1,119	[569]	746	[379]				
1 1 1	774 [47.2]	516 [31.5]	1,231	[626]	820	[417]				
2 2 2	845 [51.5]	563 [34.3]	1,344	[683]	895	[455]				
3 3 3	915 [55.8]	610 [37.2]	1,455	[740]	970	[493]				



CONTENT

MODEL CODE **5**

Model code

CHARACTERISTICS **6**
Integrated selection valve 9
Load curves 9
Efficiency 10
Hydraulic connections 11
CTL disc brake 12

Characteristics

OPTIONS **13**

Options



Methodology :

This document is intended for manufacturers of machines that incorporate Poclair Hydraulics products. It describes the technical characteristics of Poclair Hydraulics products and specifies installation conditions that will ensure optimum operation. This document includes important comments concerning safety. They are indicated in the following way:



Safety comment.

This document also includes essential operating instructions for the product and general information. These are indicated in the following way:



Essential instructions.



General information.



Information on the model number.



Weight of component without oil.



Volume of oil.



Units.



Tightening torque.



Screws.



Information intended for Poclair-Hydraulics personnel.

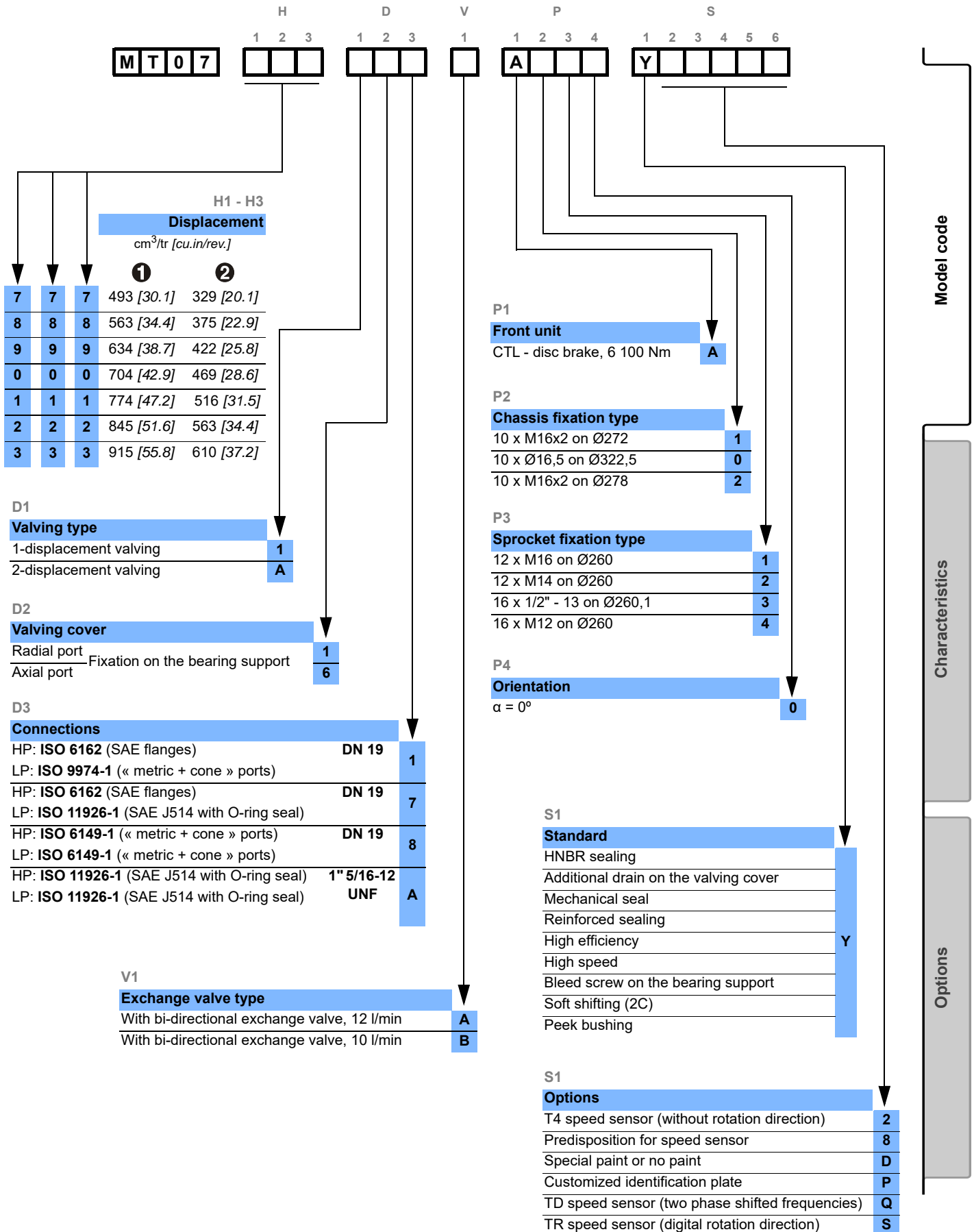
The views in this document are created using metric standards.

The dimensional data is given in mm and in inches (inches are given in brackets in italics).





MODEL CODE



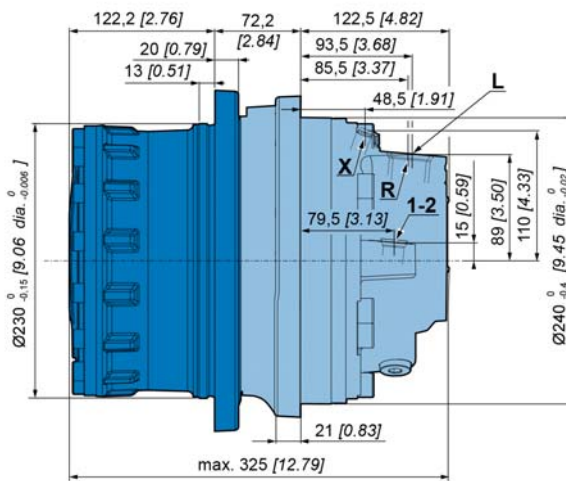
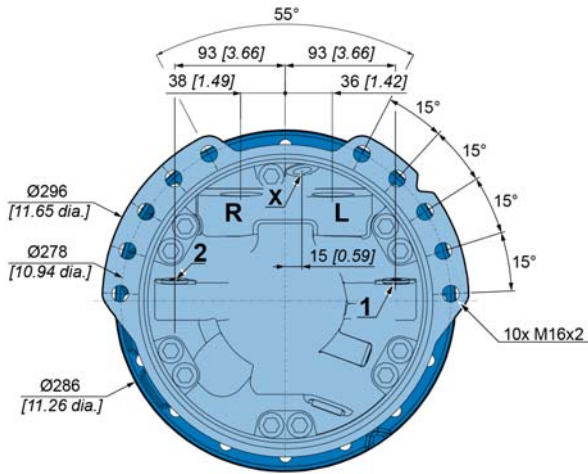


CHARACTERISTICS

Dimensions for 1-displacement motor with radial ports

	75 kg [165 lb]
	1.10 L [66 cu.in]

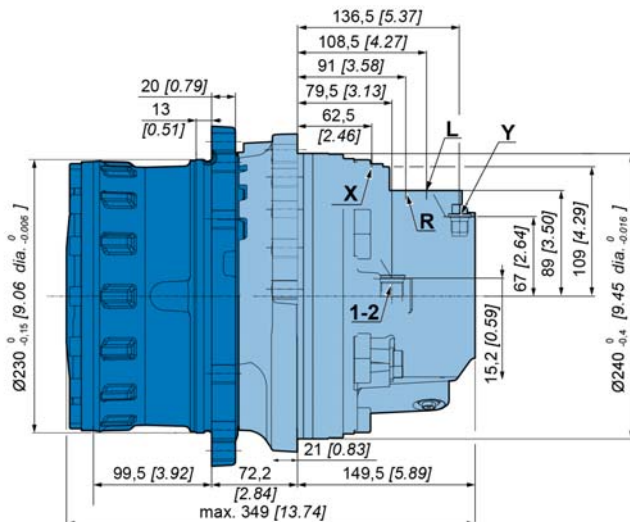
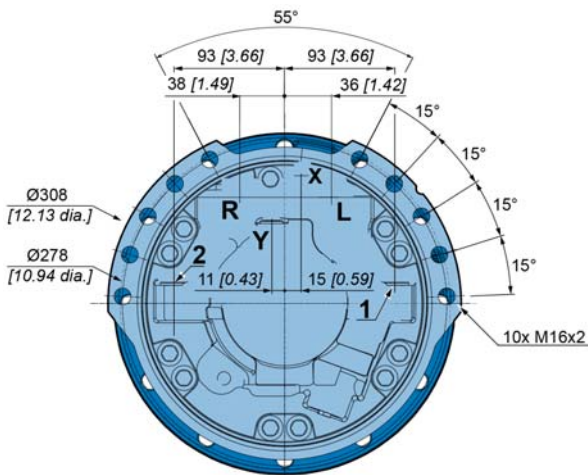
D	1	2	3
	1		



Dimensions for 2-displacement motor with radial ports

	75 kg [165 lb]
	1.10 L [66 cu.in]

D	1	2	3
	1		

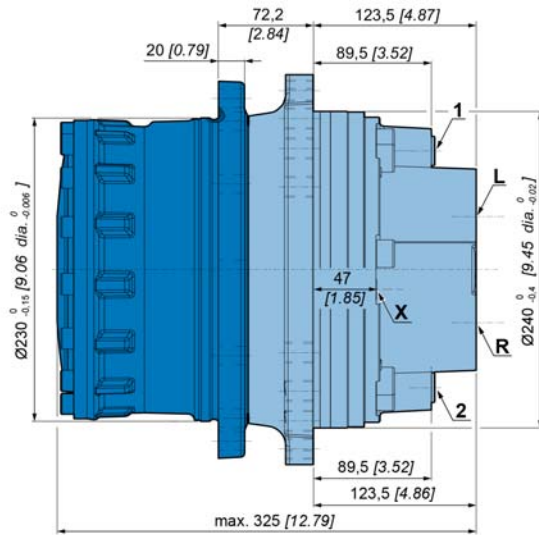
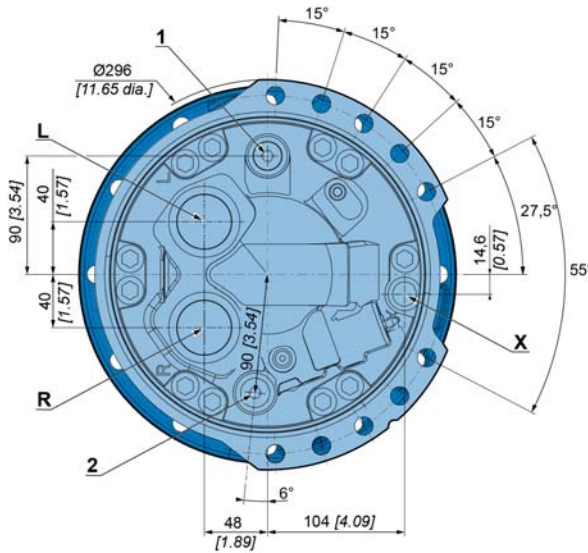




Dimensions for 1-displacement motor with axial ports

	75 kg [165 lb]
	1.10 L [66 cu.in]

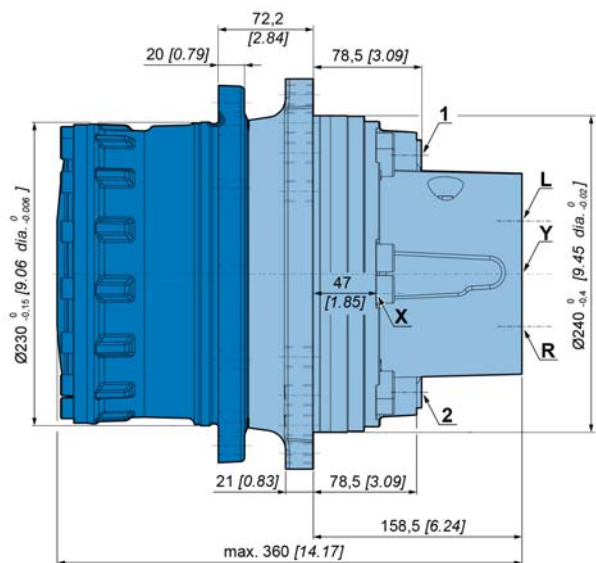
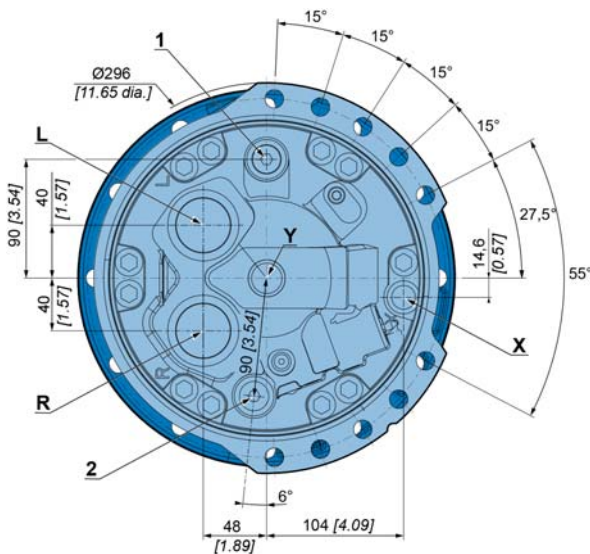
D	1	2	3
	6		



Dimensions for 2-displacement motor with axial ports

	75 kg [165 lb]
	1.10 L [66 cu.in]

D	1	2	3
	6		



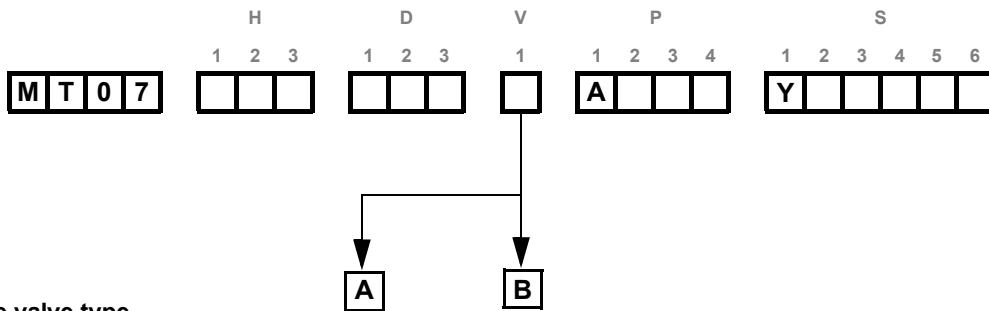
Model code

Characteristics

Options



Integrated selection valve



Exchange valve type

Spool opening pressure	bar [PSI]	7 - 10 [101 - 145]	7 - 10 [101 - 145]
Motor flushing flow *	l/min [GPM]	10 - 14 [2.64 - 3.69]	7 - 12 [2.64 - 3.69]
Threshold pressure for flushing opening	bar [PSI]	min. 11,5 [167]	min. 13 [189]

* For 23 bar [334 PSI] at 50°C [122 F].

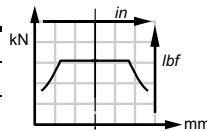
Load curves

Permissible radial loads

Test conditions :

Static : 0 rev/min 0 bar [0 PSI]

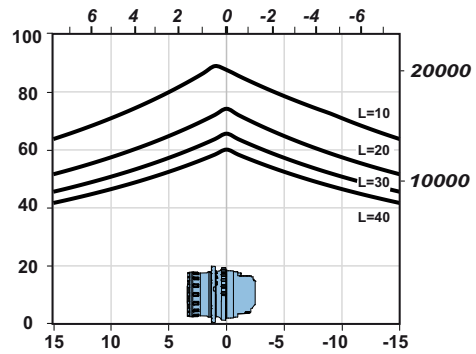
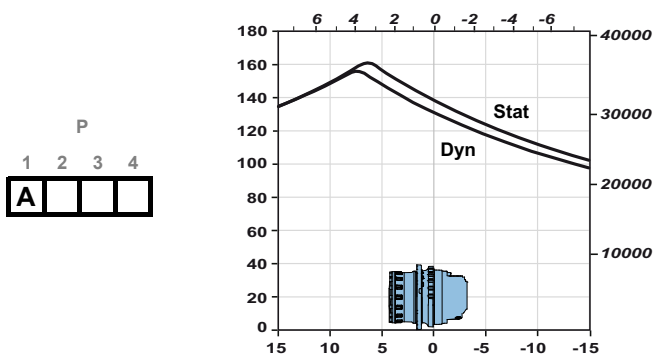
Dynamic : 0 rev/min, code 2 displacement, without axial load at max. torque



Service life of bearings

Test conditions :

L : Millions B10 revolutions at 150 bars (average pressure), with 25 cSt fluid, code 0 displacement, without axial load.



Speed limit is 270 rpm.



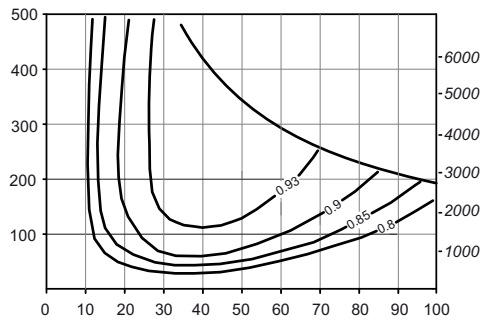
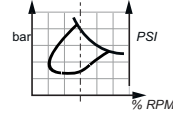
Load curve does not take into account fixations (sprocket and chassis).



Efficiency

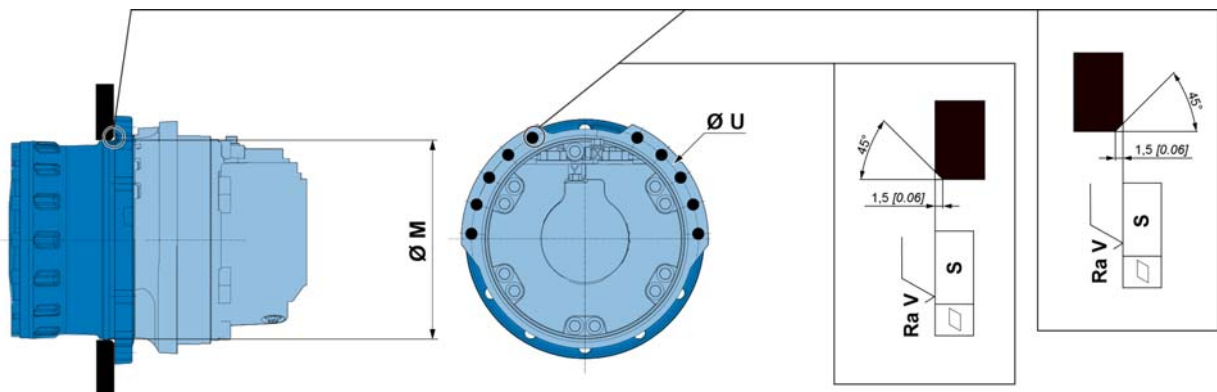
Overall efficiency

Average values given for guidance for code 0 displacement after 100 hours of operation with HV46 hydraulic fluid at 50°C [122°F].



For a precise calculation, consult your Poclain Hydraulics application engineer.

Chassis mounting



S	Ra V	Class
mm [in]	µm [µin]	
0.2 [0.01]	12.5 [0.49]	12.9



Take care over the immediate environment of the connections.



Chassis fixation type (Ø U)

10x M16x2 (threaded) on Ø272 mm, centering on Ø240mm	1
10x Ø16,5 on Ø322,5 mm, centering on Ø240mm	0
10x M16x2 (threaded) on Ø278 mm, centering on Ø240mm	2

Sprocket fixation type (Ø M)

1	12x M16 (threaded) on Ø260 mm, centering on Ø230mm
2	12x M14 (threaded) on Ø260 mm, centering on Ø230mm
3	16x 1/2-13 on Ø260,1 mm, centering on Ø230mm
4	16x M12 (threaded) on Ø260 mm, centering on Ø230mm

Model code

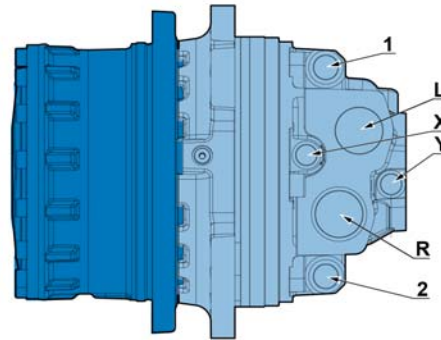
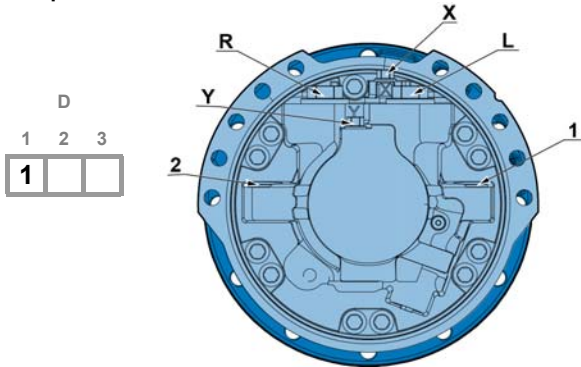
Characteristics

Options

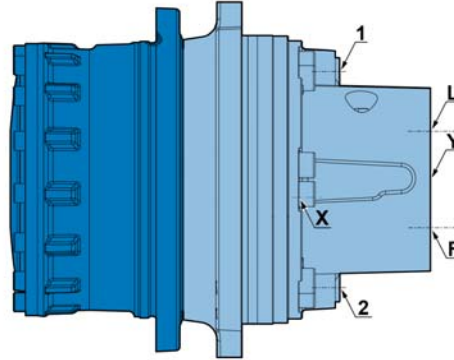
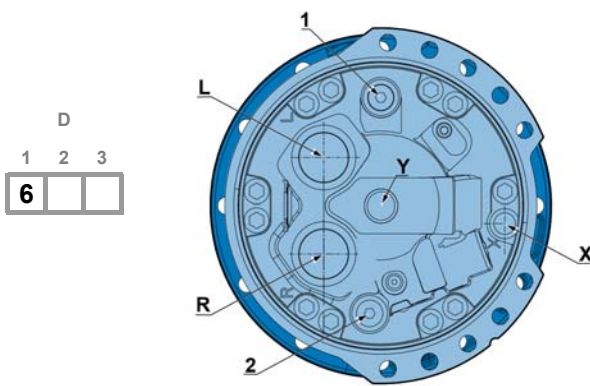


Hydraulic connections

Radial ports



Axial ports



	Standards	Power supply	2 nd displacement	Drainage	Control of parking brake
		R - L	Y	1 - 2	X
1	ISO 6162-2 ISO 9974	DN 19, PN400	M14x1,5	M18x1,5	M16x1,5
7	ISO 11 926-1 ISO 6162	DN19, PN400	9/16" - 18 UNF	3/4" - 16 UNF	9/16" - 18 UNF
8	ISO 6149-1	M33x2	M14x1,5	M18x1,5	M16x1,5
A	ISO 11 926-1	1" 5/16 - 12 UNF	9/16" - 18 UNF	3/4" - 16 UNF	3/4" - 16 UNF



To find the connections' tightening torques, see the brochure "Installation guide" N° B61352L.



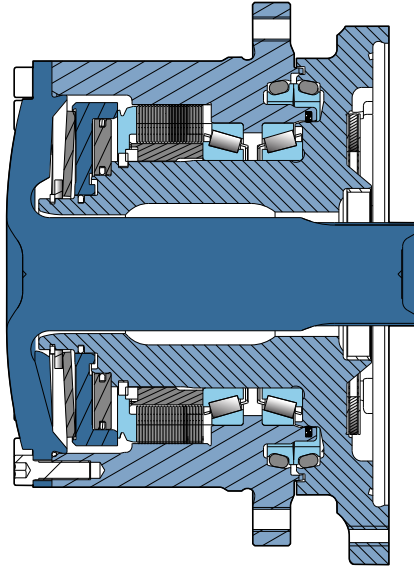
You are strongly advised to use the fluids specified in brochure "Installation guide" N° B61352L.



Do not put either a check valve or a poppet valve on the pilot lines between the charge pump and the pilot valve. Do not use a piloting valve with integrated check valve.



CTL disc brake



Brake principle

This is multidisc brake which is activated by a lack of pressure. The spring exerts a force on the piston, which presses on the fixed and mobile discs, and immobilizes the shaft. The braking torque decreases in linear proportion to the brake release pressure.



Piston chamber piloting volume	29 ± 9 cc
Max. energy during 100 braking (brake repair mandatory)	60 kJ
Number of parking brake applications	350,000
Release brake pressure (min/max)	16 bar [232 PSI] / 30 bar [435 PSI]
Min. parking brake torque (new brake)	6,100 Nm [4,500 lb.ft]
Max. parking brake torque (new brake)	7,400 Nm [5,460 lb.ft]
Min. parking brake torque (after emergency braking)	5,700 Nm [4,200 lb.ft]
Min. dynamic brake torque in case of emergency braking with new brake	11,000 Nm [8,110 lb.ft]

Model code

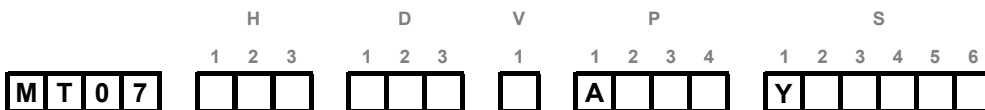
Characteristics

Options





OPTIONS



You can accumulate more than one optional part. Consult your Poclain Hydraulics sales engineer.

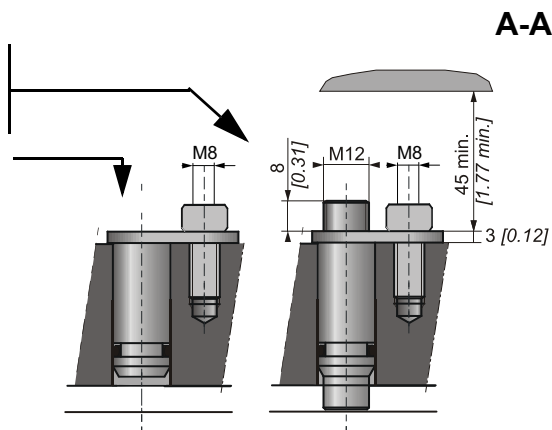
Y Standard option

- HNBR sealing
- Additional drain on the valving cover
- Mechanical seal
- Reinforced sealing
- High efficiency
- High speed
- Bleed screw on the bearing support
- Soft shifting (2C)
- Peek bushing

2 S Q 8 Installed speed sensor or predisposition

Designation

T4 speed sensor (without rotation direction)	2
TR speed sensor (digital rotation direction)	S
TD speed sensor (two phase shifted frequencies)	Q
Predisposition for speed sensor	8



Standard number of pulses per revolution = 40



Look at the "Mobile Electronic" N° A01889D technical catalogue for the sensor specifications and its connection.



To install the sensor, see the "Installation guide" brochure No. B61352L.

Model code

Characteristics

Options



D Special paint or no paint

The motors are delivered with Poclair Hydraulics yellow ochre primer as standard.



Consult your Poclair Hydraulics application engineer for other colors of primer or topcoat.

P Customized identification plate

Your part number can be engraved on the plate.



Consult your Poclair Hydraulics application engineer for other possibilities.



Model code

Characteristics


Options




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