



**Radial
Piston Motors**

WHEEL UNITS

RPC3 COMPACT WHEEL DRIVE

- ⚙ integrated motor gearbox unit
- ⚙ hub dia. 235 mm
- ⚙ single displacement
- ⚙ available also with brake

RPC3	Nom. Displ.	cc/rev	700	900	1000	1200	1400	1500	1700	2000	2200
	Peak speed	rpm	143	143	130	115	100	100	100	100	85
	Peak power	kW	34	42	45	45	45	45	45	45	45
RPC3A	Nom. Displ.	cc/rev	500	650	750	850	1000	1100	1200	1450	1550
	Peak speed	rpm	200	200	200	185	140	140	140	140	120
	Peak power	kW	34	42	45	45	45	45	45	45	45
RPC3DF	Nom. Displ.	cc/rev	700	900	1000	1200	1400	1500	1700	2000	2200
	Peak speed	rpm	200	200	200	180	140	140	140	140	120
	Peak power	kW	34	42	45	45	45	45	45	45	45
RPC3ADF	Nom. Displ.	cc/rev	500	650	750	850	1000	1100	1200	1450	1550
	Peak speed	rpm	200	200	200	180	140	140	140	140	120
	Peak power	kW	34	42	45	45	45	45	45	45	45

RP3 AND WX GEARBOXES

- ⚙ planetary gearbox
- ⚙ hydraulic negative brake

GEARBOX		RP3	RP3A	WX6	WX10	WX20
Reduction ratio		1 : 7	1 : 5	1 : 5	1 : 4,8	7 : 1
Continuous torque rating	Nm	3500	5000	3000	6500	9650
Peak torque rating	Nm	7000	10000	4200	10000	14500
Peak speed	rpm	200	0	240	210	150
Max dynamic radial load	kN	20	20	18	33	40
	kN	40	40	33	60	72
Braking torque	Nm	3500	5000	3000	7000	10000
Max pilot pressure	bar	50	50	60	60	60

DRUM BRAKES FOR WHEEL

DRUM BRAKE		B25 for RP05	B30 for RP1	B31 for RPM1	B32 for RPM2	B34 for RM4
Max braking torque	Nm	500	2000	2000	2000	3000
Max. pilot pressure	bar		100	100	100	105
Max. cable force	N		1800	800	800	1020
Max. lever torque	Nm	100				
Max. lever load	N	1250				

CRANKSHAFT DESIGN RADIAL PISTON HYDRAULIC MOTORS

RPM SERIES

- ⚙ higher power ratings
- ⚙ 5 cylinders
- ⚙ various shaft options
- ⚙ various bearing options
- ⚙ single displacement

RPM05 25 Kg	Nom. Displ.	cc/rev	40	60	75	90	110	130	150	170	200	
	Peak power	kW	20	20	33	33	33	33	33	33	33	
	Peak speed	rpm	1000	1000	1000	1000	900	900	900	800	800	
RPM1 31 Kg	Nom. Displ.	cc/rev	100	150	175	200	250	300	320			
	Peak power	kW	48	48	48	48	48	48	48			
	Peak speed	rpm	1000	1000	900	800	700	650	600			
RPM2 51 Kg	Nom. Displ.	cc/rev	200	250	300	350	420	500	600	630		
	Peak power	kW	59	59	59	59	59	59	59	59		
	Peak speed	rpm	800	800	750	750	750	700	700	650		
RPM3 86 Kg	Nom. Displ.	cc/rev	350	425	500	600	700	800	900	1000		
	Peak power	kW	80	80	80	80	80	80	80	80		
	Peak speed	rpm	700	650	600	575	500	500	450	350		
RPM4 112 Kg	Nom. Displ.	cc/rev	400	500	600	700	800	900	1000	1100	1250	1300
	Peak power	kW	100	100	100	100	100	100	100	100	100	100
	Peak speed	rpm	600	600	550	550	450	450	400	400	400	350
RPM5A 175 Kg	Nom. Displ.	cc/rev	525	650	800	1000	1200	1300	1450	1600	1800	2000
	Peak power	kW	120	120	120	120	120	120	120	120	120	120
	Peak speed	rpm	500	500	450	450	400	400	350	300	300	260
RPM6 271 Kg	Nom. Displ.	cc/rev	1700	2100	2500	3000						
	Peak power	kW	170	170	170	170						
	Peak speed	rpm	350	300	250	225						

RL SERIES

RL7B 290 Kg	Nom. Displ.	cc/rev	2000	2500	3000	3600	4300	4700
	Peak power	kW	110	130	150	190	220	225
	Peak speed	rpm	280	260	220	200	170	160
RL9 750 Kg	Nom. Displ.	cc/rev	5700	6600	7700	8800	10000	12000
	Peak power	kW	260	300	320	345	360	375
	Peak speed	rpm	150	145	140	130	120	110

CRANKSHAFT DESIGN RADIAL PISTON HYDRAULIC MOTORS

RP SERIES FEATURES

- ⚙ rear flange
- ⚙ single displacement
- ⚙ alternative material casing
(all.alloy/cast iron, bronze, steel)
- ⚙ 5 cylinders
- ⚙ radial cylinder injection
- ⚙ various shaft options

RP05 12 Kg	Nom. Displ.	cc/rev	40	60	75	90	110	130	150	170	200
	Peak power	kW	20	30	40	45	45	45	45	45	45
	Peak speed	rpm	1200	1200	1200	1200	1100	1100	1100	1000	1000
RP1 19 Kg	Nom. Displ.	cc/rev	100	110	130	150	175	200	250	300	320
	Peak power	kW	34	37	41	45	45	45	45	45	45
	Peak speed	rpm	1000	1000	1000	1000	1000	1000	800	700	700
RP2 32 Kg	Nom. Displ.	cc/rev	200	250	300	350	420	500	600	630	
	Peak power	kW	44	50	55	55	55	55	55	55	
	Peak speed	rpm	850	800	750	750	700	700	650	600	

HIGH SPEED MOTORS

RPS SERIES

- ⚙ single displacement
- ⚙ cast iron casing
- ⚙ 5 cylinders
- ⚙ special distributor valve for highest flow and lowest Δp
- ⚙ longest lifetime bearings
- ⚙ central bearing with disc cage
- ⚙ special treatment on moving parts

RPS1/RD47 25 Kg	Nom. Displ.	cc/rev	100	150	175	200	250				
	Peak power	kW	70	70	70	70	70				
	Peak speed	rpm	2750	2200	1800	1500	1250				
RPS2/RD47 45 Kg	Nom. Displ.	cc/rev	200	250	300	350	420	500			
	Peak power	kW	80	80	80	80	80	80			
	Peak speed	rpm	1350	1250	1150	1100	900	850			
RPS3/RD90 60 Kg	Nom. Displ.	cc/rev	350	425	500	600	700	800			
	Peak power	kW	100	100	100	100	100	100			
	Peak speed	rpm	1000	850	800	800	850	750			
RPS4/RD90 100 Kg	Nom. Displ.	cc/rev	400	500	600	800	900	1000	1100		
	Peak power	kW	150	150	150	150	150	150	150		
	Peak speed	rpm	830	780	750	730	700	700	650		
RPS5/RD90 130 Kg	Nom. Displ.	cc/rev	525	200	800	1000	1200	1300	1450	1600	1800
	Peak power	kW	200	650	200	200	200	200	200	200	200
	Peak speed	rpm	750	730	700	680	630	600	600	600	550
RPS6/RD250 300 Kg	Nom. Displ.	cc/rev	1700	2100	2500						
	Peak power	kW	300	300	300						
	Peak speed	rpm	600	575	500						

HIGH SPEED MOTORS

RS SERIES

RS7B/RD250 350 Kg	Nom. Displ.	cc/rev	1400	2000	2500	3600	4300	4700
	Peak power	kW	400	400	400	400	400	400
	Peak speed	rpm	650	650	650	600	550	450
RS9/RD250 750 Kg	Nom. Displ.	cc/rev	2300	3100	4000	5700	7700	4700
	Peak power	kW	500	500	500	500	500	500
	Peak speed	rpm	600	450	375	250	200	160

DOUBLE SHAFT MOTORS

RPMD1 / RPMD2

- ⚙ double shaft output
- ⚙ single displacement
- ⚙ 5 cylinders
- ⚙ suitable for tandem mount

RPMD1 40 Kg	Nom. Displ.	cc/rev	100	150	175	200	250	300	320	
	Peak power	kW	50	50	50	50	50	50	50	
	Peak speed	rpm	800	800	800	800	700	600	600	
RPMD2 53 Kg	Nom. Displ.	cc/rev	200	250	300	350	420	500	600	630
	Peak power	kW	60	60	60	60	60	60	60	60
	Peak speed	rpm	650	650	650	650	575	550	525	500

DUAL DISPLACEMENT MOTORS

RPD SERIES

- ⚙ highest power rating
- ⚙ dual displacement
- ⚙ 9 cylinders
- ⚙ excellent smooth output torque
- ⚙ extreme compactness

RBD SERIES

- ⚙ highest power ratings
- ⚙ dual displacement
- ⚙ shaft options
- ⚙ bearing options
- ⚙ high speed central sliding bearing

Ø 44		Ø 56		Ø 60		ratio
cil min	cil max	cil min	cil max	cil min	cil max	min/max
[cc/rev]	[cc/rev]	[cc/rev]	[cc/rev]	[cc/rev]	[cc/rev]	
200	550	300	900	350	1000	35%

Many others displacement ratios are available

RBD1							
Nom. Displ.	cc/rev	100-25		175-45		250-50	
Max. speed	rpm	1500	3500	1000	3000	850	2500
Peak power	kW	55	42	55	55	55	55

RBD2							
Nom. Displ.	cc/rev	500-125		350-90		250-65	
Max. speed	rpm	800	2200	1000	2200	1000	2400
Peak power	kW	75	65	75	65	75	65

RBD5							
Nom. Displ.	cc/rev	1000-250		1500-400		1900-500	
Max. speed	rpm	700	1400	600	1200	500	1000
Peak power	kW	170	150	170	150	170	150

GEARBOXES

	X07	X13*	X20**	X24
For	RPM2 / RPM3	RPM1	RPM2	RPM2 / RPM3
Reduction ratio	1 : 4	1 : 7	1 : 5.6	1 : 4 / 1 : 6,231
Max. output torque Nm	7000	7000	16000	20000
Weight Kg	36	25	66	120

* Available also with hydraulic negative safety brake - max braking torque 5500 Nm

** Available also with negative multiple disc brake - max torque 7000 to 11000 Nm

Information contained in this catalogue is accurate as of the publication date and is subject to change without notice. Performance values are typical values. Customers are responsible for selecting products for their applications using normal engineering methods.



SMIT
hydraulics

SMIT Hydraulics

Via Pietro Giardini, 318
41100 Modena - ITALY

info@smithydraulics.it
www.smithydraulics.it

PHONE

+39 059 596 77 44
+39 059 596 77 45

FAX

+39 059 596 08 80
+39 059 596 08 88

(Domestic market)

(International market)