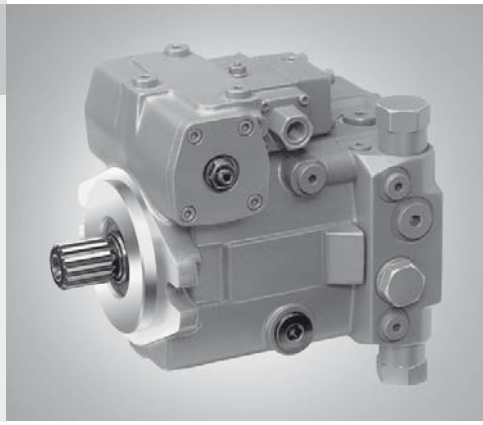
Rexroth
Bosch Group

Axial Piston Variable Pump A10VG

RE 92750/06.09 **1/44**
Replaces: 03.09

Data sheet



Series 10
Sizes 18...63
Nominal pressure 300 bar
Peak pressure 350 bar
Closed circuit

Contents

Features

- Variable axial piston pump of swashplate design for hydrostatic closed circuit transmission
- Flow is proportional to drive speed and displacement and is infinitely variable
- Output flow increases with the swivel angle of the swashplate from 0 to its maximum value
- Flow direction changes smoothly when the swashplate is moved through the neutral position
- A wide range of highly adaptable control devices is available for different control and regulating functions
- The pump is equipped with two pressure-relief valves on the high pressure ports to protect the hydrostatic transmission (pump and motor) from overload
- The high-pressure relief valves also function as boost valves
- The integrated boost pump acts as a feed and control oil pump
- The maximum boost pressure is limited by a built-in boost pressure relief valve

Ordering Code / Standard Program

A10V	G								/	10		–	N		C							
01	02	03	04	05	06	07	08	09		10	11		12	13	14	15	16	17	18	19	20	21

Axial piston unit

01	Variable swashplate design, nominal pressure 300 bar, peak pressure 350 bar	**A10V**

Operation mode

02	Pump in closed circuit	**G**

Size

03	≈ Displacement $V_{g\,max}$ in cm³	**18**	**28**	**45**	**63**	

	Control device			**18**	**28**	**45**	**63**	
	Mechanical pivot control			●	–	–	–	**MD**
04	Hydraulic control	pilot-pressure related, with supply filtration		●	●	●	●	**HD3**
		mechanical servo		●	●	●	●	**HW**
		direct operated		●	●	●	●	**DG**
		speed related	U = 12 V DC	–	●	●	●	**DA1**
		(Description DA control valve in Pos. 09)	U = 24 V DC	–	●	●	●	**DA2**
	Electric control	with proportional solenoid, with supply filtration	U = 12 V DC	●	●	●	●	**EP3**
			U = 24 V DC	●	●	●	●	**EP4**
		with switching solenoid	U = 12 V DC	●	●	●	●	**EZ1**
			U = 24 V DC	●	●	●	●	**EZ2**

	Pressure cut-off	**18**	**28**	**45**	**63**	
05	Without pressure cut-off (not for DA, without code)	●	●	●	●	
	With pressure cut-off	–	●	●	●	**D**

	Neutral position switch (only for HW)	**18**	**28**	**45**	**63**	
06	Without neutral position switch (without code)	●	●	●	●	
	With neutral position switch (with DEUTSCH connector)	●	●	●	●	**L**

	Mechanical stroke limiter	**18**	**28**	**45**	**63**	
07	Without mechanical stroke limiter (without code)	●	●	●	●	
	With mechanical stroke limiter, external variable	●	●	●	●	**M**

	Spring centering of neutral position (only MD)	**18**	**28**	**45**	**63**	
08	Without spring centering of neutral position (without code)	●	–	–	–	
	With spring centering of neutral position	●	–	–	–	**N**

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DA control valve (only for size 28-63)

			HD	HW	DG	DA	EP	EZ	
09	Without DA control valve		●	●	●	–	●	●	1
	With DA control valve, fixed setting		●	●	●	●	●	–	2
	With DA control valve, mech. adjustable with position lever	Actuating direction - clockwise	●	●	●	●	●	–	3R
		Actuating direction - counterclockwise	●	●	●	●	●	–	3L
	With DA control valve, fixed setting and hydraulic inch valve mounted, control with brake fluid according to ISO 4925, **no** mineral oil		–	–	–	●	–	–	4
	With DA control valve, fixed setting and ports for pilot control device		●	●	●	●	●	–	7
	With DA control valve, fixed setting and hydraulic inch valve mounted, control with brake fluid based on mineral oil		–	–	–	●	–	–	8

Series

10	Series 1, Index 0	10

Direction of rotation

11	Viewed from shaft end	clockwise	R
		counterclockwise	L

Seals

12	NBR (nitrile-caoutchouc), shaft seal ring in FKM (fluor-caoutchouc)	N

Shaft end (permissible input torque see page 8)

			18	28	45	63	
13	Splined shaft ANSI B92.1a-1976	for single pump	●	●	●	●	S
		for combination pump	–	–	●	●	T

Mounting flange

14	SAE J744 – 2-bolt	C

Service line ports (metric fixing thread)

		18	28	45	63	
15	SAE flange ports A/B, same side left, suction port S bottom	–	●	●	●	10
	A/B threaded ports, same side right, suction port S bottom	●	–	–	–	16

Boost pump

			18	28	45	63	
16	Without integrated boost pump	without through drive	●	●	●	●	N00
		with through drive	●	●	●	●	K..
	With integrated boost pump	without through drive	●	●	●	●	F00
		with through drive	●	●	●	●	F..

Through drive (mounting options, see page 36)

	Flange SAE J744 [1]	Hub for splined shaft		18	28	45	63	
17	82-2 (A)	5/8 in	9T 16/32DP [2]	●	●	●	●	.01
	101-2 (B)	7/8 in	13T 16/32DP [2]	●	●	●	●	.02
		1 in	15T 16/32DP [2]	–	●	●	●	.04
	127-2 (C)	1 1/4 in	14T 12/24DP [2]	–	–	–	●	.07

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	Valves	setting range Δp		**18**	**28**	**45**	**63**	
18	With high-pressure relief valve, direct operated, (fixed setting)	250...320 bar	without bypass	●	●	●	●	**3**
			with bypass	●	●	●	●	**5**
		100...250 bar	without bypass	●	●	●	●	**4**
			with bypass	●	●	●	●	**6**

	Filtration	**18**	**28**	**45**	**63**	
19	Filtration in the suction line of boost pump (filter not included in supply)	●	●	●	●	**S**
	Filtration in the pressure line of boost pump, ports for external boost circuit filtration, (F_e and G (F_a))	–	● [3]	● [3]	●	**D**
	External supply (version without integral boost pump - N00. K...)	●	●	●	●	**E**

	Connector for solenoids (only for EP, EZ and DA)		**18**	**28**	**45**	**63**	
20	DEUTSCH connector molded, 2-pin	without suppressor diode	●	●	●	●	**P**
		with suppressor diode (only for EZ and DA)	❍	❍	❍	❍	**Q**

	Standard / special version		
21	Standard version	without code	
		combined with attachment part or attachment pump	**-K**
	Special version		**-S**
		combined with attachment part or attachment pump	**-SK**

[1]) 2 = 2-bolt
[2]) Hub for splined shaft acc. to ANSI B92.1a-1976 (splined shaft assignment acc. to SAE J744, see page 34-35)
[3]) Pressure filtration is not possible in conjunction with DA control valve

● = available ❍ = on request – = not available

= preferred program