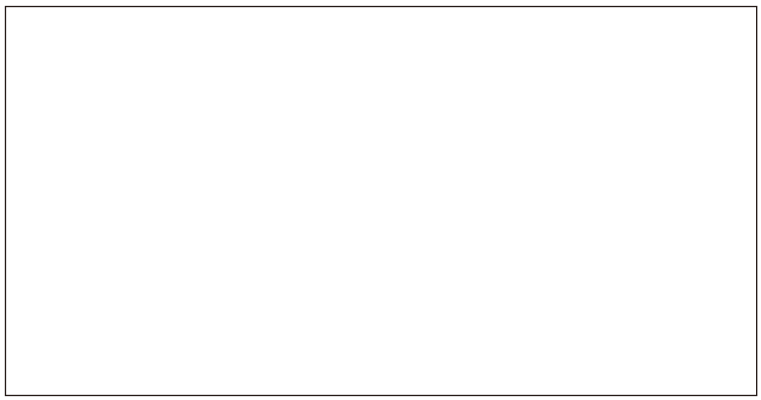
A20VO Series
Axial piston variable double pump

Product show and brief introduction

open circuits

Series 1
Sizes 190 to 260
Nominal pressure 35MPa
Maxmum pressure 40MPa



Features

— Variable pump with two axial piston rotary groups in swashplate design for use in open circuit hydrostatic drives

— For use in mobile and stationary applications

— The pump consists of proven components from the A11VO(E9011) varialbe pumps

— The pump operates under selt-priming condition,with tank pressurisation or with charge pump

— A wide variety of controls are available

— Setting of the constant power control is possible viaexternal adjustments,even when the unit is operating (only with power control)

— The pump is available with a through drive to mount a gear pump or a second axial piston pump

— Output flow is proportional to drive speed and pump displacement and is steplessly variable between maximum and zero displacement

Model Code

A20V	L	O	190	LRDU2	/10	R	-N	Z	D	24	N00
Axial piston unit	Charge pump	Operation	Size	Control unit	series	Driection of rotation	Seals	Drive shaft	Mounting flange	Service line ports	Through drive
A20V: swashplate design, variable (back to back-design)	No code: without charge pump L: with charge pump	O: double pump, open circuit	190 260	see E9011 (A11VO)	series	(Viewed from shaft end) R: clockwise L: counter-clockwise	N: NBR(nitril-caoutchouc), shaft seal ring in FKM (fluor-caoutchouc) V: FKM (fluor-caoutchouc)	See below	D: SAE J744 -4 hole G: To fit flywheel housing (conformin to SAE J617) of internal combustion engine (details on request)	Two service line ports and one suction port at side, opposite (fastening thread metric)	Without boost pump, without through drive

Drive shafts

Size	190	260	
Splined shaft DIN 5480	√	√	Z
Splined shaft ANSI B92.1a-1976	√	√	T

Technical Data

Table of values (theoretical values,without efficiency and tolerances;values rounded)

Size				with charge pump	190	260
Displacement (per rotary group)		$V_{g\,max}$	mL/r		192.7	260
		$V_{g\,min}$	mL/r		0	0
Speed						
	at $V_{g\,max}$ 1)	n_{max}	rpm		2500 2)	2300 2)
	at $V_g \leqslant V_{g\,max}$ 3)	n_{max}	rpm		2500	2300
Flow	at n_{max} and $V_{g\,max}$	$q_{v\,max}$	L/min		2×482	2×598
Power, at q_{vmax} and △P=350bar		P_{max}	kW		562	698
Torque, at $V_{g\,max}$						
	at long-term (△P=350bar)	T_{max}	Nm		2147	2897
	max.perm,short term (△P=400bar)	T_{max}	Nm		2454	3310
Moment of inertia(of the rotating parts)		J	Kgm^2		0.0604	0.0912
Mass approx.		M.	Kg			

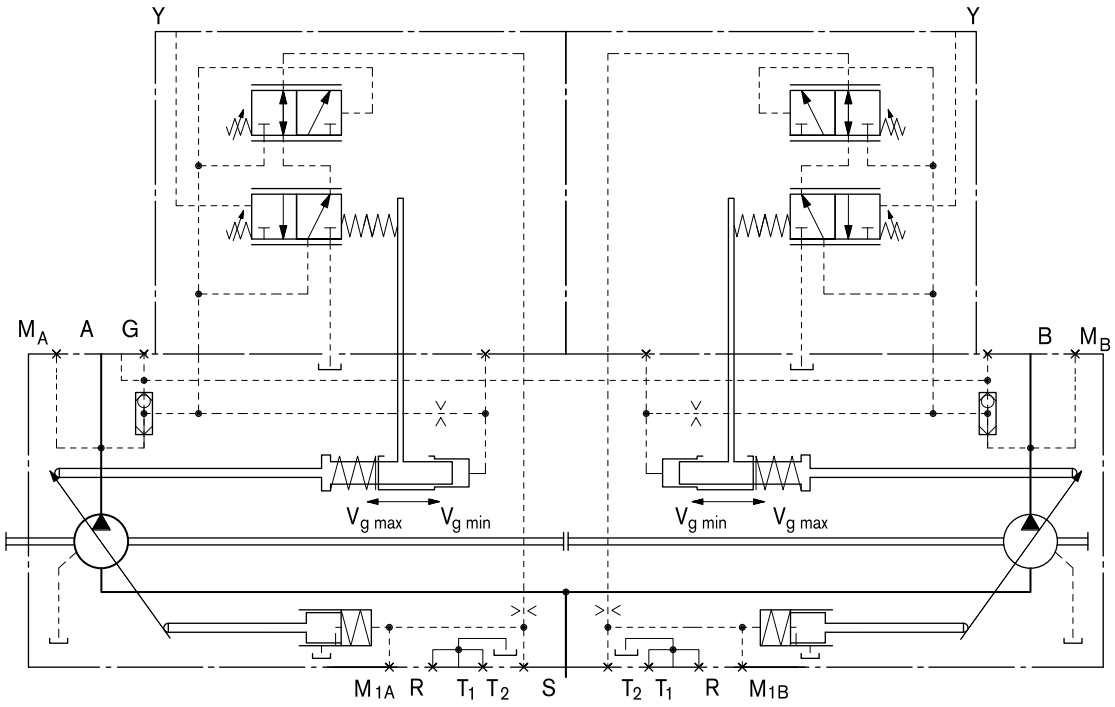
1、The values are quoted for an absolute pressure (P_{abs}) of 1 bar at suction port S and mineral operating fluid.

2、The values are quoted for an absolute pressure (P_{abs}) of at least 0.8 bar at suction port S and mineral operating fluid.

3、The values are quoted for V_g $V_{g\,max}$ or increase of the input pressure P_{abs} at suction port S.

Control Devices

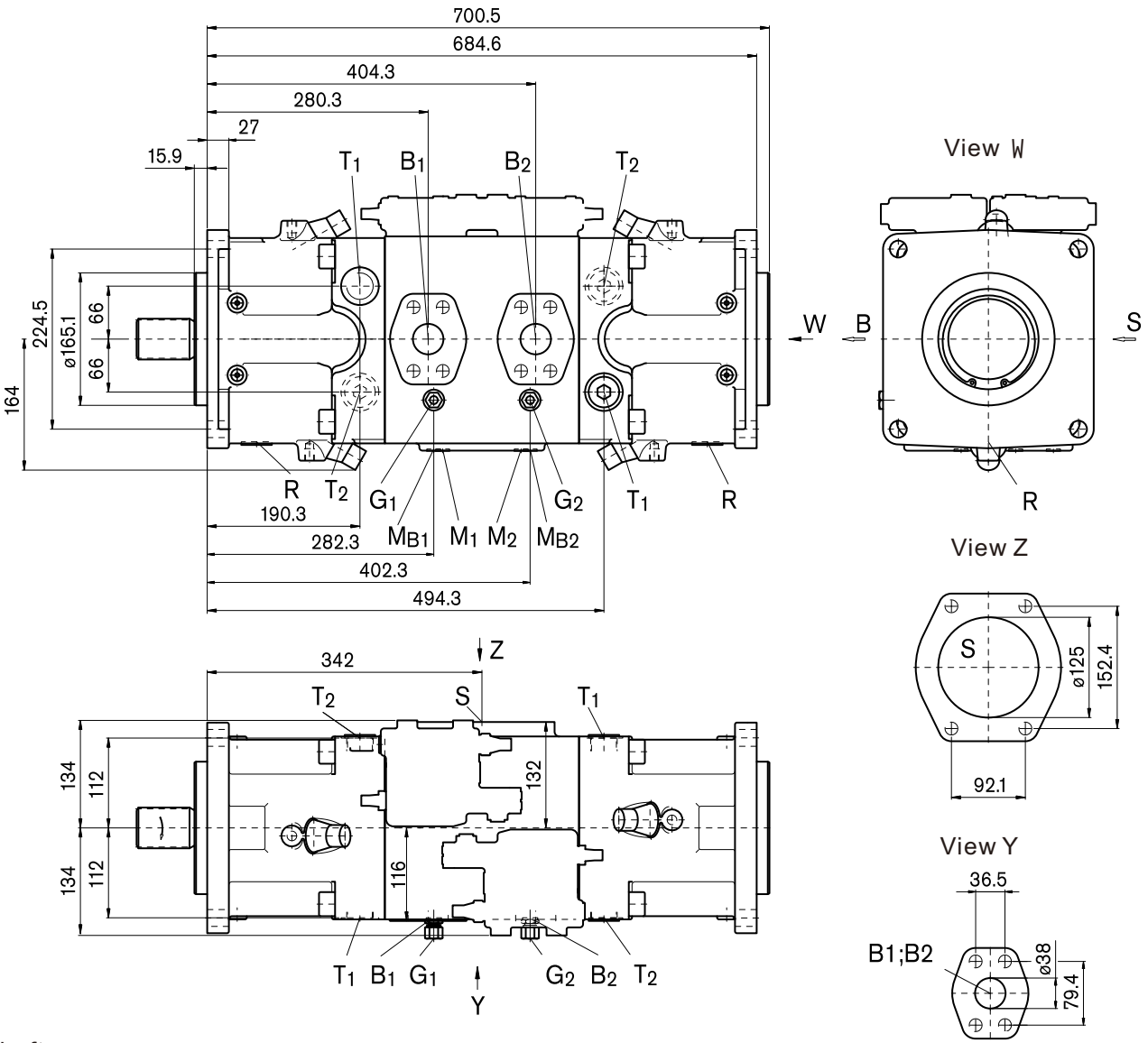
Example circuit diagram HD1D



Further technical datas as soon as control devices , see E9011(A11VO)

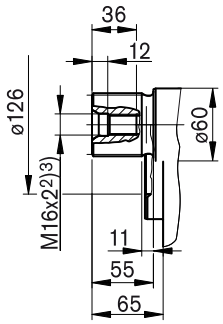
Installation dimensions Size 190(with inpeller)

For controller selection see E9011(A11VO)

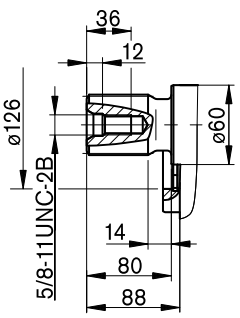


Shaft

Z Splined shaft DIN5480
W50×2×30×24×9g



T Splined shaft ANSI B92.1a
2in 15T 8/16DP[1)]



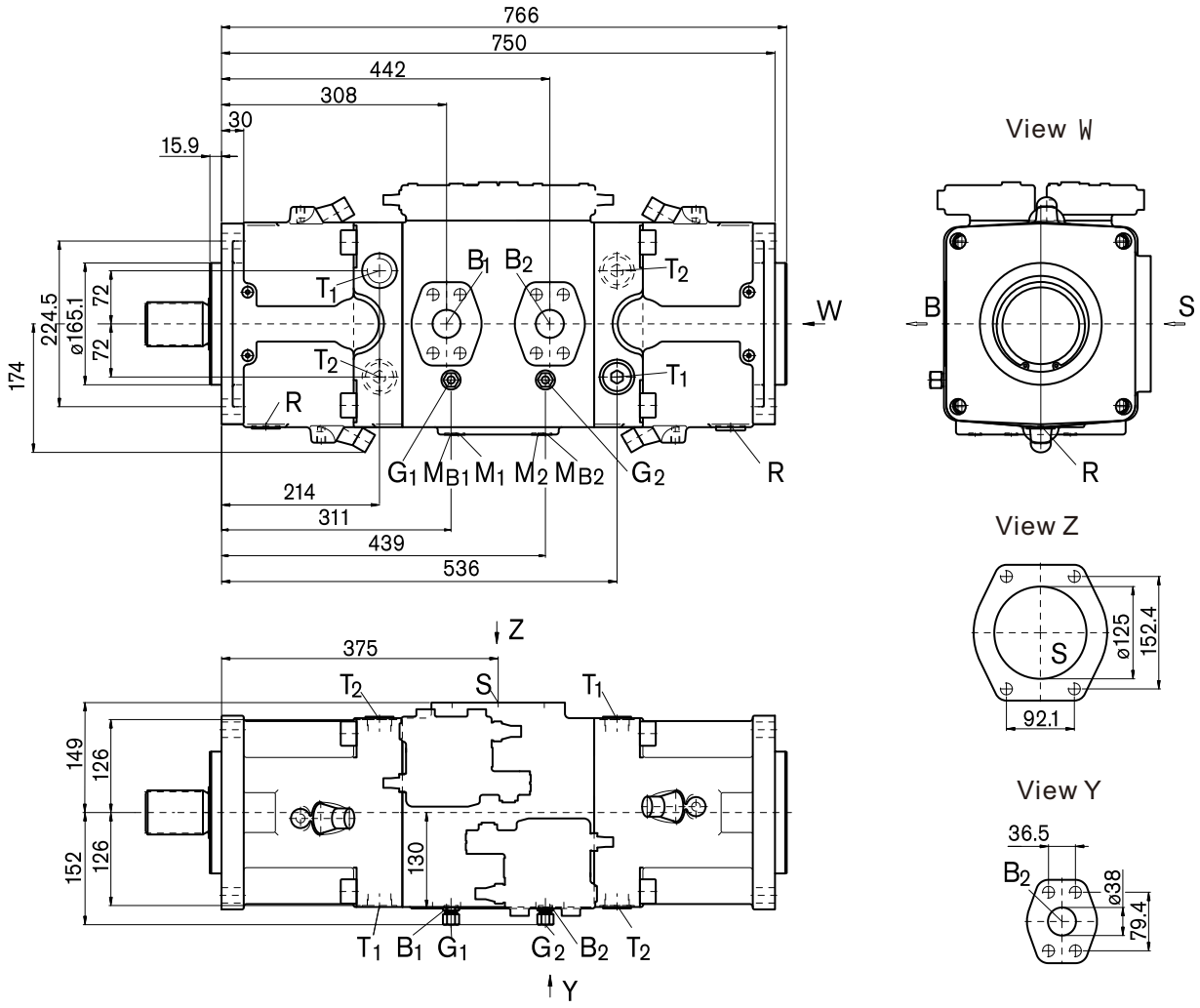
Ports

B1,B2	service ports (high pressure series)	SAE J518	1 1/2in
	fastening threads	GB/T193	M16×2; 21 deep
S	suction port (standard series)	SAE J518	5in
	fastening threads	GB/T193	M16×2; 21 deep
T1,T2	case drain	DIN3852	M33×2; 18 deep
M1,M2	gauge point positioning chamber	DIN3852	M12×1.5;12 deep
MB1,MB2	gauge point for service port	DIN3852	M12×1.5;12 deep
R	air bleed,drain port	DIN3852	M33×2; 16 deep
G1,G2	control pressure port (controller)[4)]	DIN3852	M14×1.5;12 deep

1. ANSI B92.1a-1976,pressure angle 30°,flat rood ,side fit,tolerance class 5.
2. Center bore according to GB/T 4459.5
3. Please observe the general notes for the max.tightening torques.
4. At design with stroke limiter(H...,U...),HD and EP(in other case is port G plugged)

Installation dimensions Size 260(with inpeller)

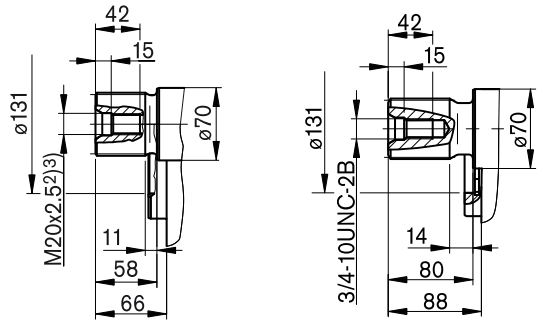
For controller selection see E9011(A11VO)



Shaft

Z Splined shaft DIN5480
W60×2×30×28×9g

T Splined shaft ANSI B92.1a
2 1/4in 17T 8/16DP[1)]



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General Notes

- The pump A20VO is designed to be used in open circuits.
- Project planning,assmbly and commissioning of the pump require the invovement of trained personnel.
- The working and functional ports are only designed to accommadate hydraulic piping.
- There is a danger of burns from the pump and especially the solenoids during and shortly after operation.Suitable safety precautions,e.g.protective clothing plan.
- The characteristic curve may shift depending on the operating status (operating pressure,fluid temperature) of the pump.
- The data and information contained herein must be adhered to.