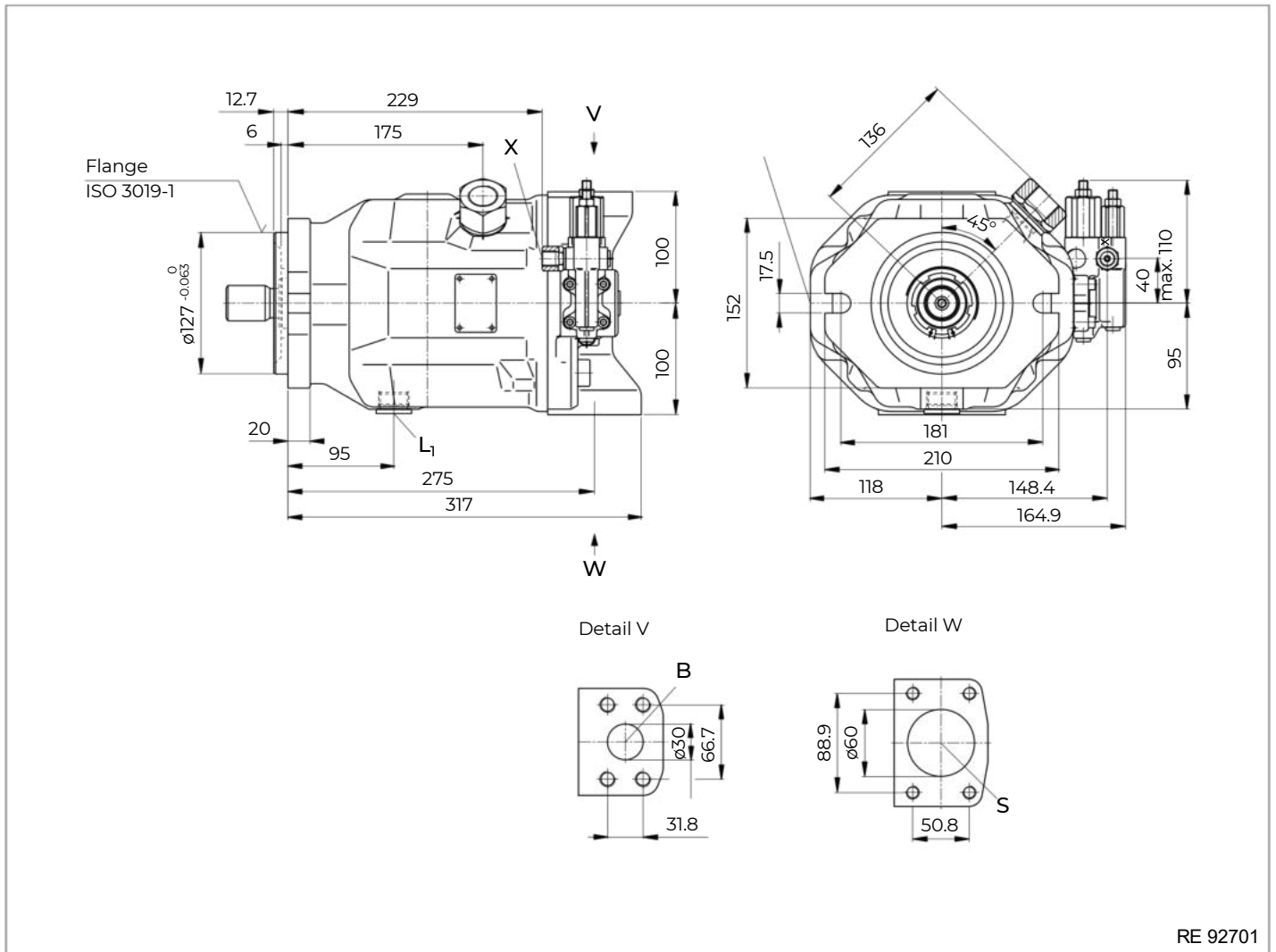


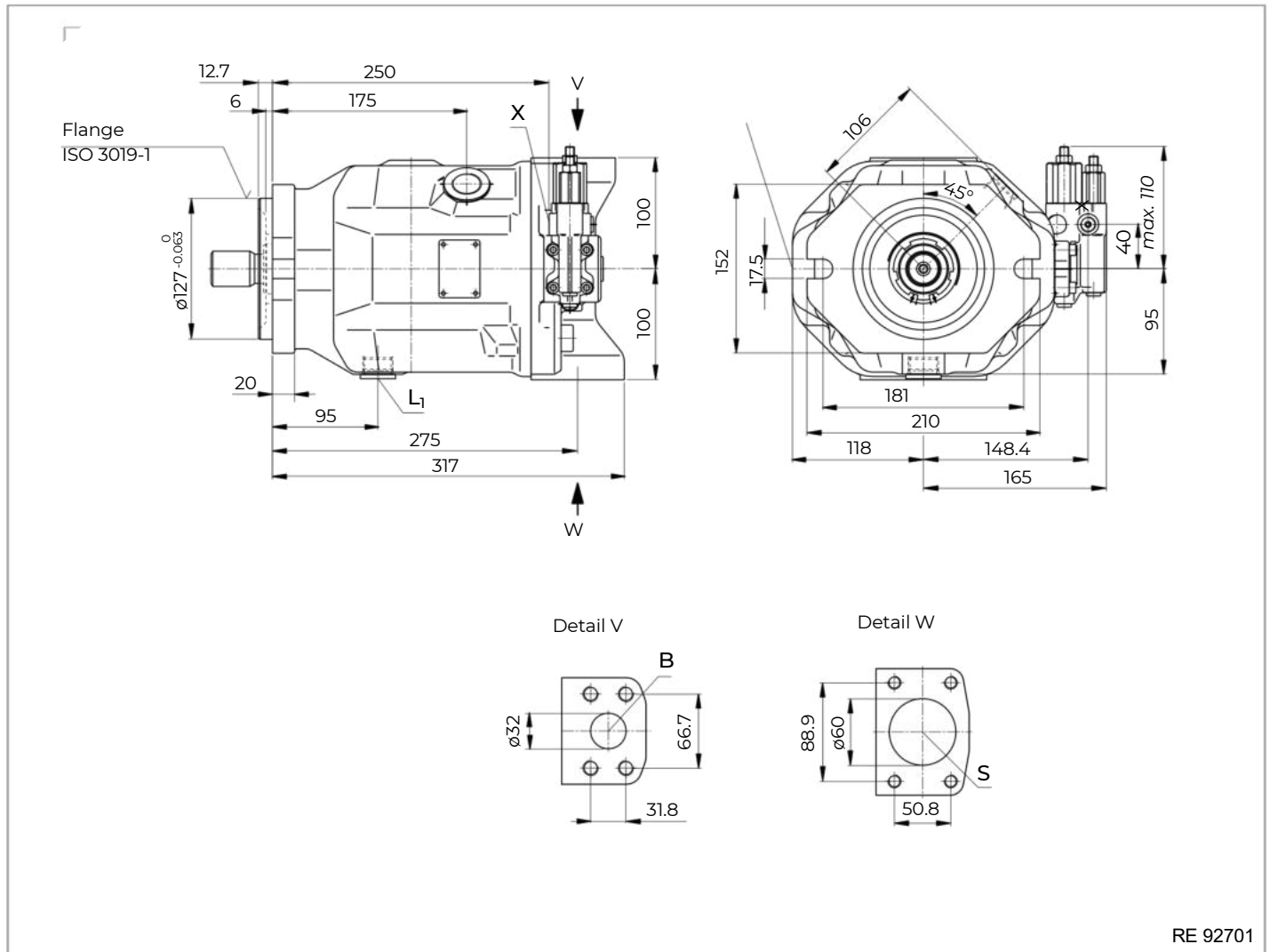
LS-X/ LS-C – Pressure and flow control, hydraulic; clockwise rotation, version: Ports metric



Dimensions Size;

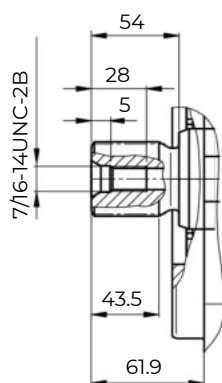
HA10VO31-100cc

LS-X/ LS-C – Pressure and flow control, hydraulic; clockwise rotation, version: SAE ports



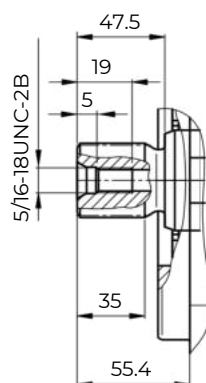
Splined shaft 1 1/2 in (SAE J744)

S – 17T 12/24DP1)



Splined shaft 1 1/4 in (SAE J744)

U – 14T 12/24DP1)



Splined shaft 1 1/4 in (SAE J744)

W – 14T 12/24DP1)2)



-Technical Data

Size	NG		18	28	45	71	88	100	140	
Displacement, geometric, per revolution	$V_g \max$	cm ³	18	28	45	71	88	100	140	
Rotational speed maximum)	at $V_g \max$	n_{nom}	rpm	3300	3000	2600	2200	2100	2000	1800
	at $V_g < V_g \max^2$)	$n_{max \text{ perm}}$	rpm	3900	3600	3100	2600	2500	2400	2100
Flow	at n_{nom} and $V_g \max$	$q_v \max$	l/min	59	84	117	156	185	200	252
	at $n_E = 1500$ rpm and $V_g \max$	$q_{vE} \max$	l/min	27	42	68	107	132	150	210
Power at $\Delta p = 280$ bar	at n_{nom} , $V_g \max$	P_{max}	kW	28	39	55	73	86	93	118
	at $n_E = 1500$ rpm and $V_g \max$	$P_{E \max}$	kW	12.6	20	32	50	62	70	98
Torque at $V_g \max$ and	$\Delta p = 280$ bar	T_{max}	Nm	80	125	200	316	392	445	623
	$\Delta p = 100$ bar	T	Nm	30	45	72	113	140	159	223
Rotary stiffness of drive shaft	S	c	Nm/rad	11087	22317	37500	71884	71884	121142	169437
	R	c	Nm/rad	14850	26360	41025	76545	76545	-	-
	U	c	Nm/rad	8090	16695	30077	52779	52779	91093	-
	W	c	Nm/rad	-	19898	34463	57460	57460	101847	165594
Moment of inertia for rotary group	J_{trw}	kgm ²	0.00093	0.0017	0.0033	0.0083	0.0083	0.0167	0.0242	
Maximum angular acceleration)	α	rad/s ²	6800	5500	4000	2900	2600	2400	2000	
Case volume	V	l	0.4	0.7	1.0	1.6	1.6	2.2	3.0	
Weight without through drive (approx.)	m	kg	12.9	18	23.5	35.2	35.2	49.5	65.4	
Weight with through drive (approx.)			13.8	19.3	25.1	38	38	55.4	74.4	



HA10VO31: Ordering Code and Specifications Table

Type Code	Displacement (cm3)	Rotation	Version	Sealing	Control	Ports	Mounting Flange	Shaft	Through Drive
HA10VO31	45,71,100	Right, Left (cw,ccw)	Special Classic (S,C)	Nitrile, Viton (N,V)	LS-X LS-C PR-R PT-L	Side Metric Side Unf (SM,SUN)	2H (SAE2 Hole) (ISO-3019-1)	Standart (S) High Torque (T)	T01 T68 T04 T07

LS-X	Load Sensing X Decompression
LS-C	Load Sensing Closed
PR-R	Pressure Remote
PT-L	Pressure Torque Limiter
PR	Hydraulic Pressure Control

45 cc	•	•		
71 cc		•	•	
100 cc			•	•
	13T (16/32)	15T (16/32)	14T (12/24)	17T (12/24)

	Through Drive			Flange	Shaft
T01	○	○	○	SAEA2	5/8" 9T 16/32 DP
T68	○	○	○	SAEB2	7/8" 13T 16/32 DP
T04	○	○	○	SAEB2	1" 15T 16/32 DP
T07		○	○	SAEC2	1 1/4" 14T 12/24 DP
	45	71	100	Standart	Standart

