Mobile Axial Hydraulic Pumps

Variable Displacement Load Sense Control





The Eaton® X20 portfolio of open-circuit piston pumps is built to maximize machine performance and productivity. With sophisticated controls that enhance system efficiency and a compact design that delivers incredible power, the X20 portfolio empowers mobile machine operators to do more work in less time using less fuel.

420 Series 80 cm³/rev

Excellent Pressure Responsiveness

The X20 portfolio delivers the fastest response and recovery times in the open-circuit piston segment, helping customers get the job done faster.

Simplified Pump Architecture

The X20 pump has 25% fewer components than traditional pumps, reducing the number of leak points and simplifying maintenance.

Compact Package Size

The X20 portfolio's small size satisfies Tier 4 requirements and provides more flexibility when designing the engine compartment.

One-Piece Housing

Single-piece pump housing removes leak points and makes maintenance faster and easier versus more complicated multi-piece housings.

Mundelein, IL

Bridgeton, MO

(314) 344-3300

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Eaton's 420 Series is available with displacements of 41cc, 49cc, 62cc, and 80cc for operating speeds at 2,650 rpm. A strong, field-proven rotating group allows the pumps to handle pressures to 280 bar (4060 psi) continuous and 320 bar (4600 psi) intermittent.

Eaton's 620 Series is currently available in 98cc (5.98 in3/r) displacement. It is rated at 310 bar and is capable of generating over 100 kW (134 hp). The 620 design also incorporates new advances in product reliability.



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			Units	ADU041 ADU049		ADU062	ADU080			
	Displacement		cc/r (in³/r)	41.0 (2.50)	49.2 (3.00)	62.3 (3.80)	80.0 (4.88)			
	Mounting	2 Bolt B, 2 Bolt C , 2/4 Bolt C								
Series 420	Pressure	Continuous	bar (psi)	280 (4060)	280 (4060)	280 (4060)	210 (3050)			
		Intermittent ²		320 (4600)	320 (4600)	320 (4600)	230 (3335)			
		Peak ³		350 (5000)	350 (5000)	350 (5000)	250 (3625)			
	Speed ⁴	At 1 bar abs (0 psig)	rpm	2650	2650	2600	2500			
		At.85 bar abs (5 in.Hg)		2450	2450	2400	2200			
		At 2 bar abs (15 psig)		2950	2950	2800	2800			
		Max (standby)		3600	3600	3600	3600			
		Min		600	600	600	600			
	Power	Max (theoretical)	kW (hp)	50.7 (68.0)	60.8 (81.5)	75.6 (101.3)	61.7 (82.7)			
		Standby		.98 (1.3)	.98 (1.3)	1.1 (1.5)	1.4 (1.9)			
	Torque	Max (theoretical)	Nm (lb-ft)	183 (135)	219 (162)	278 (205)	268 (198)			
	Weight	Single Seal ¹	kg (lbm)	22.9 (50.4)	22.9 (50.4)	23.8 (52.4)	24.2 (53.4)			
		Dual Seal ¹		24.1 (53.1)	24.1 (53.1)	25.0 (55.1)	25.4 (56.1)			
	Bearing life ⁵	At 140 bar (2030 psi)	B10 Hours	103,650	55,580	33,500	17,150			
		At 210 bar (3045 psi)		26,830	14,380	8,670	4,440			
		At 280 bar (4060 psi)		10,280	5,510	3,320	N/A			
	Mass moment of inertia		Nm-sec ²	0.003	0.003	0.005	0.006			
			(lb-in-sec²)	-0.029	-0.029	-0.040	-0.052			

			Units	ADY074 ADY098				
	Displacement		cc/r (in³/r)	74.4 (4.54)	98.0 (5.98)			
	Mounting (SAE)		4 Bolt C, 2/4 Bolt C					
	Pressure	Continuous	bar (psi)	310 (4495)	280 (4060)			
		Intermittent ³		346 (5020)	320 (4600)			
		Peak ⁴		373 (5410)	350 (5000)			
	Speed ⁵	Rated	rpm	2400	2200			
		Max		2880	2640			
0		Min		600	600			
620	Power	Max (theoretical)	kW (hp)	92.3 (123.7)	100.6 (134.9)			
		Standby			100.0 (10 1.0)			
Series				2.1 (2.8)	2.6 (3.5)			
	Torque	Max (theoretical)	Nm (lb-ft)	367.3 (270.9)	436.7 (322.1)			
	Weight ¹		kg (lbf)	43.5 (96.1)	45.9 (101.3)			
	Bearing life ⁶	At 140 bar (2030 psi)		125,200	81,400			
		At 210 bar (3045 psi)	B10 Hours	32,900	21,400			
		At 280 bar (4060 psi)		12,100	7,900			
		At 310 bar (4495 psi)		8,600				
	Mass moment of inertia		kg-m²	0.009	0.012			
			(lbm-ft²)	-0.211	-0.279			

ISO 9001

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