

620 Series Piston Pumps

280 Bar (4000 psi)
2,200 rpm

**Compact, Reliable,
High Performance**



EATON

Powering Business Worldwide

620 Series Piston Pump

Eaton's new 620 Series piston pump signifies a stepchange in the generation of hydraulic power. Utilizing the latest developments in hydraulic pump technology, the 620 is specifically designed for medium pressure applications.

The 620 Series is currently available in 98cc (6.0in³) displacement with future plans to include the development of 65cc, 74cc and 120cc displacements in the family. With a wide range of pump controls, the 620 is rated for 280 bar (4,000 psi) and 2,200 rpm making it the ideal pump for an array of different mobile and industrial applications.

Compact Power

At only 11.4 in (289mm) in length and capable of generating over 134 hp (100 kW), the 98cc 620 provides more power in a smaller, compact package. This increased power generation allows equipment manufacturers to provide more hydraulic power with a smaller displacement pump. Also, as the shortest pump in it's class, the 98cc will fit where other pumps cannot.

Eaton Quality

To ensure long lasting product reliability, the 620 combines Eaton's long tradition in providing quality pumps with the latest design methods. The result is a very simple design, consisting of 28% fewer parts than the PVH. Fewer parts means lower product weight.

At 91.4 lbs (49.7 kg), the 620 is among the lightest pumps available in its class. A lighter hydraulic pump means lower overall vehicle weight, which results in increased fuel efficiency and lower operating costs for end-users. Lower weight also makes the 620 is easier to handle in assembly, maintenance and repair.

Eaton Business Systems

Eaton employs a unique system of tools and processes, known as Eaton Business System, to ensure quality development and delivery of the 620 product. These tools and process include such known methods as Design for Six Sigma, Lean Manufacturing and ISO certification. Our global network of manufacturing locations and distribution partners enables the 620 to be flexibly configured and delivered throughout the world.

Eaton's vision is to be our customer's preferred global supplier of fluid power components. By incorporating the latest advancements in hydraulic pump design and manufacturing, the 620 delivers greater value in terms of power and reliability.



620 Series Piston Pump Features and Benefits

Compact, Reliable, Medium Pressure, High Performance Pumps

Higher Pressure Rated to 280 bar and 2,200 rpm, the 620 provides more hydraulic power for given displacement.

Simple, compact design with 28% fewer parts than H Series Pump provide lower pump weight and greater reliability

High Load Bearings and Stiff Drive Shaft: B10 bearing life of 13,600 hours at rated conditions extends machine life

Tighter swash plate angle provides short package size and faster response

Swash bearing lubrication channels reduce friction and increase responsiveness

Ribbed housing reduces vibration for better acoustic performance

Larger rotating group diameter with optimized inlet porting for maximum speed performance

Two piece housing reduces leaks

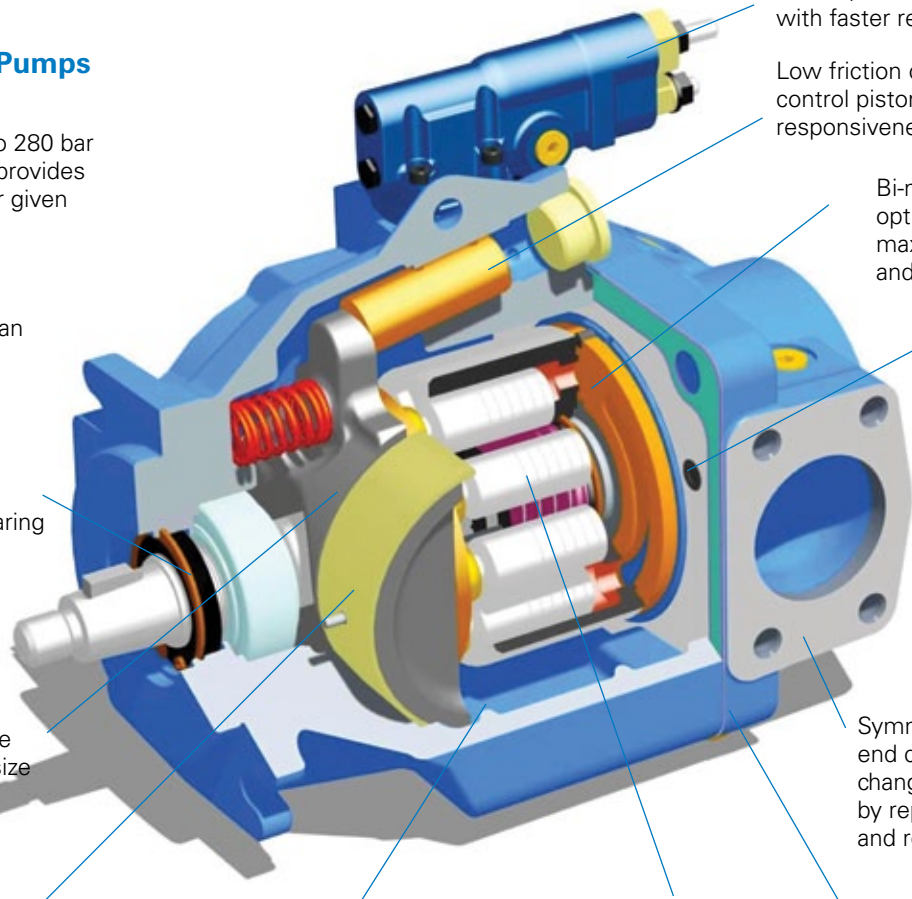
Proven, reliable compensator with faster response

Low friction coating on control piston for increased responsiveness

Bi-metal Valve Plate: optimized timing for maximum efficiency and low noise

Case to Inlet check valve to reduce case pressure spikes

Symmetrically designed end cover allows quick changes to shaft rotation by replacing the valve plate and rotating the end cover



Typical Applications

Construction

- Wheel Loaders
- Motor Graders
- Cranes
- Concrete Equipment
- Trencher Boring Equipment

Truck and Bus

- Salt and Sand Spreaders
- Vacuum Trucks
- Telehandler
- Refuse Trucks

Oil and Gas

- Drill Rigs

Other Mobile Applications

- Rail Maintenance
- Forestry Harvester

620 Series Model Code Selection

ADY 098 R 05 AB 2 0 A 28 20 00 00 1 00 1 00 CD 0 A
 [1][2][3] [4][5][6] [7] [8][9] [10][11] [12] [13] [14] [15][16] [17][18] [19][20] [21][22] [23] [24][25] [26] [27][28] [29][30] [31] [32]

[1][2][3] Pump Series

ADY – 620 Series Open Circuit Piston Pump

[4][5][6] Pump Displacement

098 – 98.0 cm³/r [5.98 in³/r]

[7] Input Shaft Rotation

R – Right Hand
L – Left Hand

[8][9] Front Mount and Shaft

05 – 4 Bolt C, 31.8 mm (1.25) Dia. Keyed Shaft
06 – 4 Bolt C, 14 Tooth 12/24 Spline
07 – 4 Bolt C, 38.1 (1.50 in) Dia. Straight Keyed
08 – 4 Bolt C, 17 Tooth 12/24 Spline
10 – 4 Bolt C, 31.8 mm (1.25 in) Dia. Tapered Keyed Shaft

[10][11] Main Ports Size & Location

AB – Side Ports
Suction - 2.5" (Code 61);
Pressure - 1" (Code 61)
AD – Side Ports
Suction - 2.5" (Code 61)
with M12 Threads;
Pressure - 1" (Code 61)
with M10 Threads.

[12] Case Drain Ports

1 – #12 SAE O-ring - Top
2 – #12 SAE O-ring - Bottom
3 – M33 x 2.0 O-ring - Top
4 – M33 x 2.0 O-ring - Bottom

[13] Diagnostic Pressure Ports

Not available on thru-drive units

0 – No Diagnostic Pressure Ports
1 – #6 SAE O-Ring - Plugged (Rear Ports Only)

[14] Controller Type

A – Pressure Flow Compensator with #4 SAE O-ring Load Sense Port
B – Pressure Flow Compensator with M14 Metric O-ring Load Sense Port
C – Pressure Compensator Only

[15][16] Pressure Compensator Setting (Tolerance on Setting)*

08 – 76 - 84 bar (1102 - 1218 lbf/in²)
20 – 196 - 204 bar (2843 - 2959 lbf/in²)
24 – 236 - 244 bar (3423 - 3539 lbf/in²)
28 – 276 - 284 bar (4003 - 4119 lbf/in²)

[17][18] Flow Compensator Setting (Tolerance on Setting)

00 – No Flow Compensator Setting
14 – 13 - 15 bar (189 - 218 lbf/in²)
20 – 19 - 21 bar (276 - 305 lbf/in²)

[19][20] Torque Control Setting

00 – No Torque Control

[21][22] Control Special Features

00 – Control Special Features
0A – Bleed Down Orifice
0B – 24V Destroke Manifold w/150 Connector Metri Pack
0C – 24V Destroke Manifold w/150 Connector Metri Pack and Bleed Down Orifice

[23] Maximum Displacement Option

1 – Standard Displacement (As Given in Code Title)
2 – External Manual Stroke Adjustment

[24][25] Auxiliary (Rear) Mount & Output Shaft

00 – No Auxiliary Mounting Features
AA – SAE A 2 Bolt, 9T 16/32 Spline
AC – SAE B 2/4 Bolt, 13T 16/32 Spline
AD – SAE B 2/4 Bolt, 15T 16/32 Spline
AE – SAE C 2/4 Bolt, 14T 12/24 Spline

[26] Shaft Seal

1 – Standard Polyacrylate Shaft Seal

[27][28] Pump Special Features

00 – No Special Features
AA – Auxiliary Mounting Cover Plate
AB – Swash Position Sensor

[29][30] Paint

00 – No Paint
CD – Blue Primer

[31] Identification/Packaging

0 – Standard Eaton Identification Box Packaging

[32] Design Level

A – First Design

* Additional Settings Available by Request

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