20-Series Electric Pumps

ENERPAC. Hydraulic Technology Worldwide

▼ Shown: **PEM-2042**



- Two-speed design, utilizing a first stage gear pump and second stage piston pump, reduces cycle times for improved productivity
- Powerful 1 hp induction motor will start at full load
- Available with 3 reservoir sizes allowing operation with a wide range of cylinders
- Single-phase dual voltage motors (115/230) are wired at the factory for 115 VAC
- Two internal relief valves. One is factory set for overload protection while the second is user adjustable for pre-setting maximum system pressure



¶ The Two-speed 20-Series Electric Pump reduces the plunger advance time substantially.

The Market Leader for Performance and Value

▼ SELECTION CHART

For more technical information see next page.

5 BASIC PUMP TYPES

Select the model that suits your application. For special requirements see **page 81** or contact your Enerpac office.

PED Series: with Dump Valve

- Ideal for punching, crimping and cutting
- For use when load holding is not required
- Control pendant with 10-ft cord controls valve and motor

PEM Series: with Manual Valve

- Ideal choice for most applications
- Manual valve control, for both singleacting or double-acting applications
- Manual motor control



PER 20 Series: with Solenoid Valve

- Ideal for production and lifting applications
- All valves are 3-position for Advance/Hold/Retract
- Control pendant with 10-ft cord for remote valve operation

PER 22 Series: with Dual-Flow Valve

- Split flow version with remote Jog
- Equal flow to 2 cyl., regardless of load
- Twin 3-way manual valves for independent control of single-acting cylinders
- Control pendant with 10-ft cord for remote motor control

PER 23 Series: with Remote Jog

- Same as PEM versions, but with remote motor Jog control
- Manual Valve control for either singleor double-acting cylinders
- Control pendant with 10-ft cord for remote motor control

20-Series Electric Pumps

20-Series Application
Due to its wide range of reservoirs, valves and control options, the 20-Series is well suited to light production work as well as many light lifting applications. Best suited to power most small to medium size cylinders, the 20 Series pump is a mainstay of the Enerpac

pump line.

When equipped with smaller reservoirs, the 20-series pump is light enough for some portable applications, as long as the available power supply is stable. The 20-Series needs a steady 115 or 230 VAC.

For further application assistance see the "Yellow Pages" or contact your local Enerpac office.

Maximum Operating Pressure:

10,000 psi

Page:

PE Series



Reservoir Capacity:

0.8-5.0 gal

Flow at Rated Pressure: **42 in3/min**

Motor Size:

1 hp

| | Pump Type | Used with Cylinder | Valve Function | Valve Type* | Usable Oil Capacity | Model Number | Weight |
|--|-----------|--------------------|----------------------|----------------------|------------------------|-----------------|--------|
| | | | | | | with | |
| | | | | | (gal) | Shroud | (lbs) |
| | | Single-Acting | Advance/Retract | Dump** | .80 | PED-2001 | 78 |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | Single-Acting | Advance/Retract | Manual (VM-2) | .80 | PEM-2021 | 75 |
| | | Single-Acting | Advance/Retract | Manual (VM-2) | 2.0 | PEM-2022 | 87 |
| | | Single-Acting | Advance/Retract | Manual (VM-2) | 5.0 | PEM-2025 | 140 |
| | | Single-Acting | Advance/Hold/Retract | Manual (VM-3) | .80 | PEM-2031 | 77 |
| | | Single-Acting | Advance/Hold/Retract | Manual (VM-3) | 2.0 | PEM-2032 | 88 |
| | | Single-Acting | Advance/Hold/Retract | Manual (VM-3) | 5.0 | PEM-2035 | 139 |
| | | Double-Acting | Advance/Hold/Retract | Manual (VM-4) | .80 | PEM-2041 | 77 |
| | | Double-Acting | Advance/Hold/Retract | Manual (VM-4) | 2.0 | PEM-2042 | 88 |
| | | Double-Acting | Advance/Hold/Retract | Manual (VM-4) | 5.0 | PEM-2045 | 143 |
| | | Single-Acting | Advance/Hold/Retract | Solenoid (VS-3) | .80 | PER-2031 | 93 |
| | | Single-Acting | Advance/Hold/Retract | Solenoid (VS-3) | 2.0 | PER-2032 | 116 |
| | | Single-Acting | Advance/Hold/Retract | Solenoid (VS-3) | 5.0 | PER-2035 | 154 |
| | | Double-Acting | Advance/Hold/Retract | Solenoid (VS-4) | .80 | PER-2041 | 98 |
| | | Double-Acting | Advance/Hold/Retract | Solenoid (VS-4) | 2.0 | PER-2042 | 109 |
| | | Double-Acting | Advance/Hold/Retract | Solenoid (VS-4) | 5.0 | PER-2045 | 160 |
| | | Single-Acting | Advance/Retract | Manual (Dual-flow)** | 2.0 | PER-2222 | 114 |
| | | Single-Acting | Advance/Retract | Manual (Dual-flow)** | 5.0 | PER-2225 | 148 |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | Single-Acting | Advance/Retract | Manual (VM-2) | .80 | PER-2321 | 80 |
| | | Double-Acting | Advance/Hold/Retract | Manual (VM-4) | .80 | PER-2341 | 80 |
| | | Double-Acting | Advance/Hold/Retract | Manual (VM-4) | 2.0 | PER-2342 | 91 |
| | | | | | | | |

^{*} See Valves section for technical information on valve types.

^{**} Contact Enerpac for details.

20-Series Electric Pumps



■ For full features see page 78.

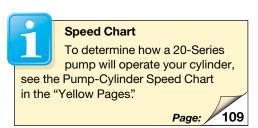
| Used with Cylinder | Usable Oil Capacity | Valve Type | Valve Function | Model Number with Shroud | Weight |
|--------------------|------------------------|---------------------|----------------------|--------------------------------|--------|
| | (gal) | | | | (lbs.) |
| | 8.0 | Dump | Advance/Retract | PED-2001 | 78 |
| | 0.8 | Manual | | PEM-2021 | 75 |
| | 2.0 | (VM-2) | Advance/Retract | PEM-2022 | 87 |
| | 5.0 | (:::: =) | | PEM-2025 | 140 |
| | 0.8 | Manual | Advance/Hold/Retract | PEM-2031 | 77 |
| | 2.0 | (VM-3) | | PEM-2032 | 88 |
| Single-Acting | 5.0 | () | | PEM-2035 | 139 |
| | 0.8 | Solenoid* (VS-3) | Advance/Hold/Retract | PER-2031 | 93 |
| | 2.0 | | | PER-2032 | 116 |
| | 5.0 | | | PER-2035 | 154 |
| | 2.0 | Manual | Advance/Retract | PER-2222 | 114 |
| | 5.0 | (Dual-flow) | | PER-2225 | 148 |
| | 0.8 | Man. (VM-2) | | PER-2321 | 80 |
| | 0.8 | Managa | | PEM-2041 | 77 |
| | 2.0 | Manual (VM-4) | Advance/Hold/Retract | PEM-2042 | 88 |
| | 5.0 | (* | | PEM-2045 | 143 |
| Double-Acting | 0.8 | 0 - 1 : -1* | | PER-2041 | 98 |
| Double-Acting | 2.0 | Solenoid* (VS-4) | Advance/Hold/Retract | PER-2042 | 109 |
| | 5.0 | | | PER-2045 | 160 |
| | 0.8 | Manual | Advance/Hold/Retract | PER-2341 | 80 |
| | 2.0 (VM-4) | | Auvance/Holu/Hetract | PER-2342 | 91 |

Note: For Canada add "Y" suffix to model number for 115 VAC with 20 Amp plug.

▼ This PEM-2022 is used to power a 35 ton punch in a production fabrication shop.



80





Hoses

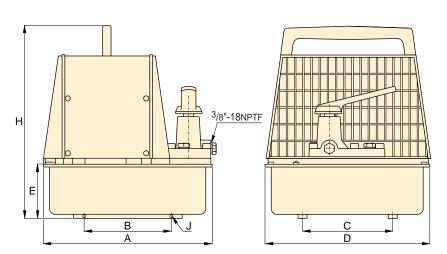
Enerpac offers a complete line of high quality hydraulic hoses. To ensure the integrity of your system,

specify only genuine Enerpac hydraulic hoses. Page: / 112

Flow Chart ö 2,000 4,000 6,000 8,000 10,000

| 20-Series Pump Performance | | | | | | | | | | |
|----------------------------|-----------------------|-----------------------|-----------------------|-----------------------|-------------------------------------|----------------|----------------------------|--|--|--|
| Motor Size | Pressure Rating | | Output Flow Rate** | | Motor Electrical Specifications* | Sound Level | Relief Valve Adjustment | | | |
| | (psi) | | (in ³ /r | min) | | | Range | | | |
| (hp) | 1 st stage | 2 nd stage | 1 st stage | 2 nd stage | (Amps @ Volts-Ph-Hz) | (dBA) | (psi) | | | |
| 1.0 | 500 | 10,000 | 240 | 42 | 19.5 a 115-1-60 9.75 a 230-1-60 | 80 | 1,000- 10,000 | | | |

- * At bypass and maximum pressure.
- ** All flow data at 60 Hz, 50 Hz data will be 5/6th this number.



PEM-2022

| Oil | | | Pump | Dimension | s (in) | | |
|-------------------|-------|-------|------|-----------|--------|-------|-----|
| Capacity (gal) | Α | В | С | D | Е | Н | J |
| 1.0 | 12.62 | 6.38 | 7.50 | 12.12 | 3.88 | 17.25 | .26 |
| 2.0 | 12.62 | 6.38 | 7.50 | 12.12 | 6.50 | 20.69 | .26 |
| 5.0 | 17.00 | 12.75 | 9.25 | 13.50 | 9.38 | 24.88 | .26 |

20-Series Electric Pumps

Reservoir Capacity: 0.8-5.0 gal

42 in³/min

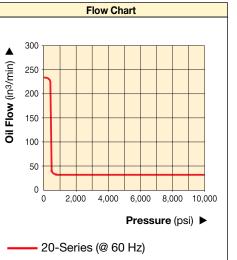
10,000 psi

Motor Size:

1 hp

Flow at Rated Pressure:

PE **Series**



| 20-Series Pump Performance | | | | | | | | | | |
|----------------------------|-----------------------------|-----------------------|---|-----------------------|-------------------------------------|----------------|-------------------------------------|--|--|--|
| otor Size | Pressure Rating (psi) | | Output Flow Rate** (in ³ /min) | | Motor Electrical Specifications* | Sound Level | Relief Valve Adjustment Range | | | |
| hp) | 1 st stage | 2 nd stage | 1 st stage | 2 nd stage | (Amps @ Volts-Ph-Hz) | (dBA) | (psi) | | | |
| 1.0 | 500 | 10,000 | 240 | 42 | 19.5 a 115-1-60 | 80 | 1,000- | | | |

Locking Valves

Maximum Operating Pressure:



Pumps with VM-3 or VM-4 manual valves may be ordered with locking valves.

This locking feature provides a hydraulic lock for the cylinder using pilot-operated check valves.

To order this option, just place an "L" suffix at the end of the model number. For more information, contact your local Enerpac office.



Foot Control Switches

These 3-position switches allow the solenoid valve on the pump to be controlled by the operator's foot.

For pump with VS-3 valve, order **PFS-3**. For pump with VS-4 valve, order PFS-4.

^{*} For detailed valve information, contact Enerpac.