# Low noise small power packages **QV-PAC**



- A compact and light weight power package features small tank and low oil volume.
- Equipped with a high-performance variable displacement piston pump.
- Direct installation of manifold blocks are optional, leading to a easy configuration of a customer required hydraulic circuit by utilising the TGM-3 stack valves.
- Standard feature include filters on all types of return lines, leading to a longer operational life.
- Variety of options are available, including temperature gauge, magnetic level switch, manifold block, and many more.

#### **Model Code**

# QV3A-10-N(T)-(T)(M)(L)(F)(3)(C)R-1234 1 2 3 4 5 6 7 8 9 10 11 12 13

| 1 2 3 4 5 6 7 8 9 10 1                          | 11 12       |
|---|-------------|
| 1 Small power package QV-PAC series             | Ele         |
| 2 Model code (3A/4A)                            |             |
| See 'Specifications'                            | St          |
| 3 Tank capacity                                 |             |
| 10: 10 L  | * (         |
| 20: 20 L  |             |
| 4 Electric motor voltage code (see right table) |             |
| 5 Solenoid valve voltage code (see right table) | * Sp<br>Adv |
| Omit: no solenoid valve                         | oth         |
| [Option Codes]                                  |             |
| 6 Temperature gauge                             |             |
| Omit: without temperature gauge                 | So          |
| T: With temperature gauge                       |             |
| 7 Magnet  |             |
| Omit: not provided                              |             |
| M: With magnet                                  |             |
| 8 Level switch                                  |             |
| Omit: not provided                              |             |
| L: With level switch                            |             |
| 9 Manifold block                                |             |
| Omit: not provided                              |             |
| F: Provided (front panel connection port)       |             |
| 10 Manifold block stations (ISO4401-03 size)    |             |
| Numbers indicate no. of stations (1st to 3rd)   |             |
| 11 Paint color                                  |             |
| Omit: Munsell N5.5 (standard)                   |             |
| C: Special paint                                |             |
| 12 Radiator (drain cooler)                      |             |
| R: With radiator (drain cooler) (standard)      |             |
| Omit: not provided (option)                     |             |
| 13 Control no.                                  |             |
|   |             |

#### ectric motor voltage code

|           | Code | Power Supply            |  |
|-----------|------|-------------------------|--|
| Standard  | Ν    | 200/200/220V 50/60/60Hz |  |
| * Special | Α    | 400/400/440V 50/60/60Hz |  |
|           | В    | 380V 50Hz               |  |
|           | F    | 415V 50Hz               |  |
|           | D    | 460V 60Hz               |  |

Special voltage is for option. Ivise Tokyo Keiki of the supply voltage and frequency if specifications her than the ones given above are desired.

#### olenoid valve voltage code

|    | Code | Voltage (V) | Frequency (Hz) |  |
|----|------|-------------|----------------|--|
|    | т    | 100         | 50/60          |  |
|    | I    | 110         | 60             |  |
| AC |      | 110         | 50             |  |
|    | В    | 115         | 60             |  |
|    |      | 120         | 60             |  |
|    | V    | 200         | 50/60          |  |
|    |      | 220         | 60             |  |
|    |      | 220         | 50             |  |
|    | D    | 230         | 60             |  |
|    |      | 240         | 60             |  |
| DC | G    | 12          |                |  |
|    | Н    | 24          | 1 -            |  |

Power Packages

#### **Specifications**

| Model Code Electric Motor | Electric Motor | Displacement Volume of Variable<br>Displacement Vane Pump | Rated Pressure<br>MPa |      | very (at no load)<br>min | Tank Capacity | Weight *<br>Kg |
|---------------------------|----------------|---|-----------------------|------|--------------------------|---------------|----------------|
|                           | cm³/rev        | ini a   | 50Hz                  | 60Hz | L                        | Ng            |                |
| QV3A                      | 1.5 k W, 4P    | - 16  | 3. 5                  | 24   | 28, 8                    | 10/20         | 40/42          |
| QV4A                      | 2.2 k W, 4P    | 10  | 6                     | 24   | 20. 0                    | 10/20         | 46/48          |

Note: • If the pressure setting is under 4 MPa with the model QV4A, the maximum discharge rate will decrease by about 20%.

The maximum working pressure of the hydraulic pumps is 7 MPa.
For use at a pressure of 7 MPa, reduce the discharge rate of the hydraulic pump.
For the correlation between the working pressure and maximum allowable flow, refer to the pressure – flow – electric motor output curves.

• Consult with Tokyo Keiki if model QV3A is to be used at a lower discharge rate and at a pressure of 3.5 MPa or above.

\* Hydraulic fluid and manifold block not included.

## **Characteristics Curves**







(1) Tank Oil temperature = room temperature + temperature rise (2) Data based on power unit installation in well ventilated

location, continuous cutoff operation at 60 Hz. (with radiator)

Note: The actual oil temperature rise may differ from the values given above depending on the usage conditions and ambient environment conditions.

(1) Setting distance: 1 m (5 area average of cutoff operation) (2) Speed: 1800 min<sup>-1</sup> (60 Hz)

(3) Oil temperature: 40°C

Note: The actual noise characteristics may differ from the values given above depending on the installation conditions.

#### Pressure-Flow-Electric Motor Output Curves **Model Selection**

Applicable pressure-flow-electric motor output for each model is the area delineated by the curve. Select model based on the pressure and flow to be used and which falls within this area.





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# Hydraulic Circuit Diagram



| Code | Device Name  |
|------|--|
| 1    | 0il tank   |
| 2    | Variable displacement vane pump                                |
| 3    | Direct coupled electric motor                                  |
| 4    | Strainer   |
| 5    | Pressure gauge (glycerin filled)                               |
| T•6  | Oil level gauge (T: with temperature gauge)                    |
| 7    | Oil fill port and air breather                                 |
| 8    | Filter   |
| М    | Magnet   |
| L    | Level switch   |
| R    | Radiator   |
| F*   | Manifold block (connection port orientation: front) 1st to 3rd |

## **Dimensions**

#### Standard







Power Packages