



# Standard Specifications

## BA006N-B

1st ed. 05-Oct-21

Kawasaki Heavy Industries, Ltd.  
Robot Business Division

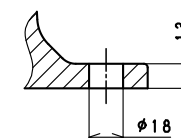
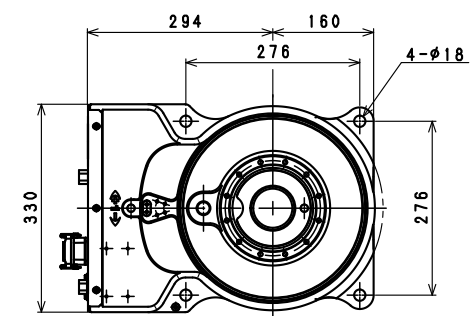
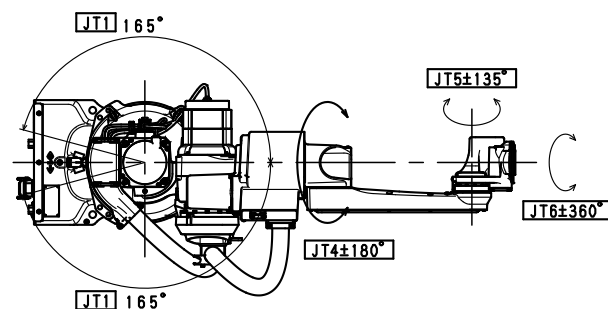
Specification number : 90151-0638DEA

Materials and specifications are subject to change without notice.

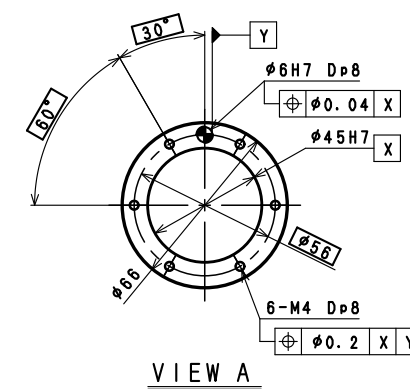
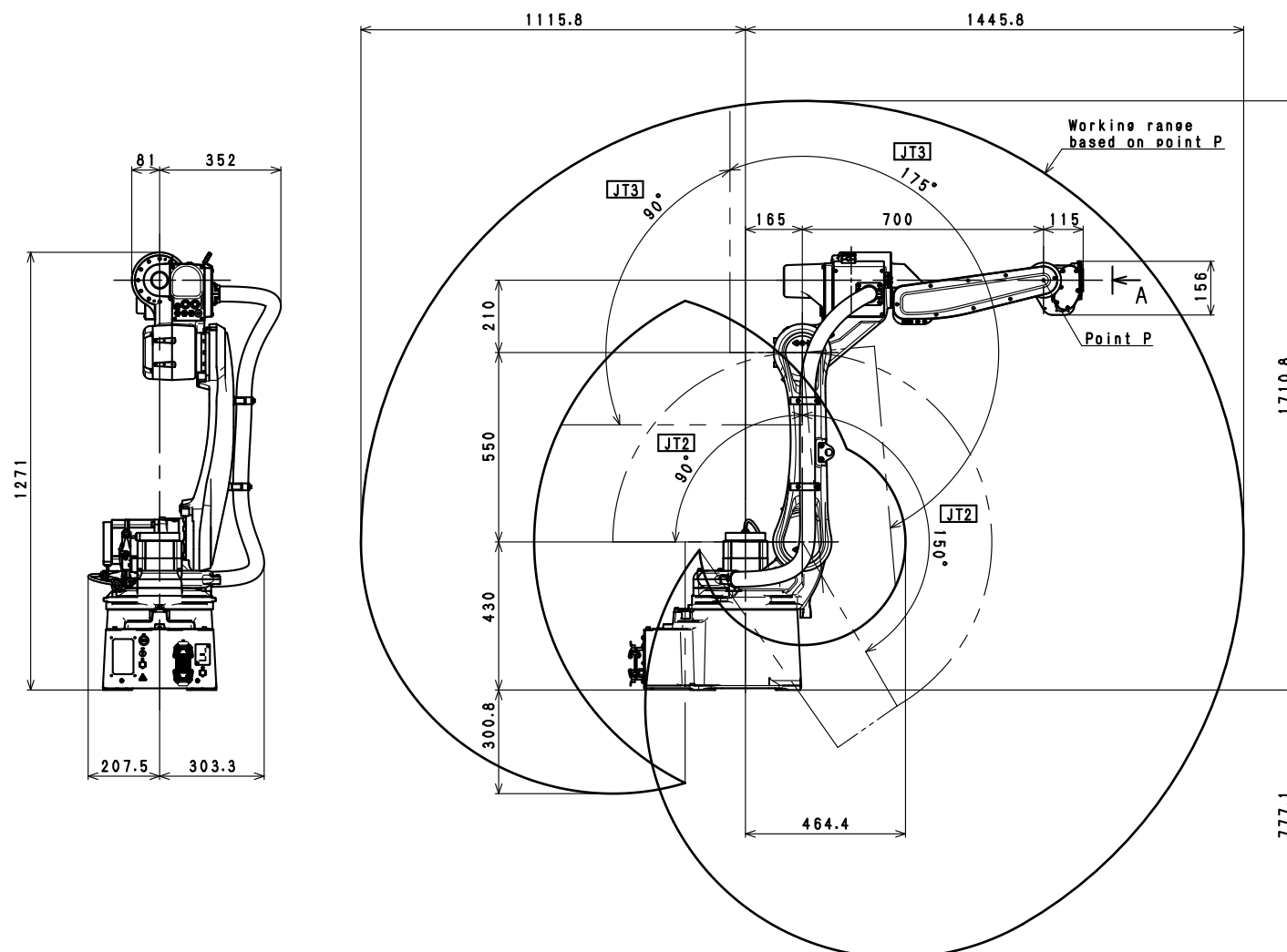
## Robot specifications

| 1. Model                     | BA006N-B                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                     |                |              |                    |                    |        |                       |                  |                |                       |                   |                 |                        |                    |        |         |                  |        |         |                   |        |         |
|------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|----------------|--------------|--------------------|--------------------|--------|-----------------------|------------------|----------------|-----------------------|-------------------|-----------------|------------------------|--------------------|--------|---------|------------------|--------|---------|-------------------|--------|---------|
| 2. Type                      | Articulated robot                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                     |                |              |                    |                    |        |                       |                  |                |                       |                   |                 |                        |                    |        |         |                  |        |         |                   |        |         |
| 3. Degree of freedom         | 6 axes                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                     |                |              |                    |                    |        |                       |                  |                |                       |                   |                 |                        |                    |        |         |                  |        |         |                   |        |         |
| 4. Max. payload              | 6 kg                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                     |                |              |                    |                    |        |                       |                  |                |                       |                   |                 |                        |                    |        |         |                  |        |         |                   |        |         |
| 5. Max. reach                | 1,445 mm                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                     |                |              |                    |                    |        |                       |                  |                |                       |                   |                 |                        |                    |        |         |                  |        |         |                   |        |         |
| 6. Position repeatability    | ±0.06 mm (wrist flange surface) conforms to ISO 9283                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                     |                |              |                    |                    |        |                       |                  |                |                       |                   |                 |                        |                    |        |         |                  |        |         |                   |        |         |
| 7. Axis specification        | <table border="1"> <thead> <tr> <th>Operating axis</th><th>Motion range</th><th>Max. speed</th></tr> </thead> <tbody> <tr> <td>Arm rotation (JT1)</td><td>±165 °</td><td>240 °/s</td></tr> <tr> <td>Arm out-in (JT2)</td><td>+150 ° - -90 °</td><td>240 °/s</td></tr> <tr> <td>Arm up-down (JT3)</td><td>+90 ° - - 175 °</td><td>220 °/s</td></tr> <tr> <td>Wrist swivel (JT4)</td><td>±180 °</td><td>430 °/s</td></tr> <tr> <td>Wrist bend (JT5)</td><td>±135 °</td><td>430 °/s</td></tr> <tr> <td>Wrist twist (JT6)</td><td>±360 °</td><td>650 °/s</td></tr> </tbody> </table> |                                                                                                                                                     | Operating axis | Motion range | Max. speed         | Arm rotation (JT1) | ±165 ° | 240 °/s               | Arm out-in (JT2) | +150 ° - -90 ° | 240 °/s               | Arm up-down (JT3) | +90 ° - - 175 ° | 220 °/s                | Wrist swivel (JT4) | ±180 ° | 430 °/s | Wrist bend (JT5) | ±135 ° | 430 °/s | Wrist twist (JT6) | ±360 ° | 650 °/s |
| Operating axis               | Motion range                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Max. speed                                                                                                                                          |                |              |                    |                    |        |                       |                  |                |                       |                   |                 |                        |                    |        |         |                  |        |         |                   |        |         |
| Arm rotation (JT1)           | ±165 °                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 240 °/s                                                                                                                                             |                |              |                    |                    |        |                       |                  |                |                       |                   |                 |                        |                    |        |         |                  |        |         |                   |        |         |
| Arm out-in (JT2)             | +150 ° - -90 °                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 240 °/s                                                                                                                                             |                |              |                    |                    |        |                       |                  |                |                       |                   |                 |                        |                    |        |         |                  |        |         |                   |        |         |
| Arm up-down (JT3)            | +90 ° - - 175 °                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 220 °/s                                                                                                                                             |                |              |                    |                    |        |                       |                  |                |                       |                   |                 |                        |                    |        |         |                  |        |         |                   |        |         |
| Wrist swivel (JT4)           | ±180 °                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 430 °/s                                                                                                                                             |                |              |                    |                    |        |                       |                  |                |                       |                   |                 |                        |                    |        |         |                  |        |         |                   |        |         |
| Wrist bend (JT5)             | ±135 °                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 430 °/s                                                                                                                                             |                |              |                    |                    |        |                       |                  |                |                       |                   |                 |                        |                    |        |         |                  |        |         |                   |        |         |
| Wrist twist (JT6)            | ±360 °                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 650 °/s                                                                                                                                             |                |              |                    |                    |        |                       |                  |                |                       |                   |                 |                        |                    |        |         |                  |        |         |                   |        |         |
| 8. Load capacity of wrist    | <table border="1"> <thead> <tr> <th></th><th>Max. torque</th><th>Moment of inertia*</th></tr> </thead> <tbody> <tr> <td>JT4</td><td>12 N•m</td><td>0.4 kg•m<sup>2</sup></td></tr> <tr> <td>JT5</td><td>12 N•m</td><td>0.4 kg•m<sup>2</sup></td></tr> <tr> <td>JT6</td><td>3.75 N•m</td><td>0.07 kg•m<sup>2</sup></td></tr> </tbody> </table> <p>Note* Each value in this table shows allowable moment of inertia of JT4/JT5/JT6 when max. allowed torque is applied to each axis. If more detailed data is required for your application, please contact Kawasaki.</p>           |                                                                                                                                                     |                | Max. torque  | Moment of inertia* | JT4                | 12 N•m | 0.4 kg•m <sup>2</sup> | JT5              | 12 N•m         | 0.4 kg•m <sup>2</sup> | JT6               | 3.75 N•m        | 0.07 kg•m <sup>2</sup> |                    |        |         |                  |        |         |                   |        |         |
|                              | Max. torque                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Moment of inertia*                                                                                                                                  |                |              |                    |                    |        |                       |                  |                |                       |                   |                 |                        |                    |        |         |                  |        |         |                   |        |         |
| JT4                          | 12 N•m                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 0.4 kg•m <sup>2</sup>                                                                                                                               |                |              |                    |                    |        |                       |                  |                |                       |                   |                 |                        |                    |        |         |                  |        |         |                   |        |         |
| JT5                          | 12 N•m                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 0.4 kg•m <sup>2</sup>                                                                                                                               |                |              |                    |                    |        |                       |                  |                |                       |                   |                 |                        |                    |        |         |                  |        |         |                   |        |         |
| JT6                          | 3.75 N•m                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 0.07 kg•m <sup>2</sup>                                                                                                                              |                |              |                    |                    |        |                       |                  |                |                       |                   |                 |                        |                    |        |         |                  |        |         |                   |        |         |
| 9. Mass                      | 150 kg (without options)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                     |                |              |                    |                    |        |                       |                  |                |                       |                   |                 |                        |                    |        |         |                  |        |         |                   |        |         |
| 10. Mounting                 | Floor or Ceiling mounting                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                     |                |              |                    |                    |        |                       |                  |                |                       |                   |                 |                        |                    |        |         |                  |        |         |                   |        |         |
| 11. Installation Environment | Ambient Temperature : 0 - 45 °C                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                     |                |              |                    |                    |        |                       |                  |                |                       |                   |                 |                        |                    |        |         |                  |        |         |                   |        |         |
|                              | Relative Humidity : 35 - 85 % (with no dew condensation)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                     |                |              |                    |                    |        |                       |                  |                |                       |                   |                 |                        |                    |        |         |                  |        |         |                   |        |         |
| 12. Color                    | Munsell 10GY9/1 equivalent                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                     |                |              |                    |                    |        |                       |                  |                |                       |                   |                 |                        |                    |        |         |                  |        |         |                   |        |         |
| 13. Built-in utilities       | Pneumatic piping (φ8 × 1 line ) , Gas piping (φ8 × 1 line )<br>Internal welding cable (60sq , from BASE(JT1) to JT3)                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                     |                |              |                    |                    |        |                       |                  |                |                       |                   |                 |                        |                    |        |         |                  |        |         |                   |        |         |
| 14. Options                  | Shock sensor                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Shock sensor made by BINZEL, TOKIN, Others                                                                                                          |                |              |                    |                    |        |                       |                  |                |                       |                   |                 |                        |                    |        |         |                  |        |         |                   |        |         |
|                              | Welding torch                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 350A/ 500A , air cooling/water cooling<br>* include welding cable from torch to wire feeder<br>Welding cable for wire feeder made by DAIHEN, Others |                |              |                    |                    |        |                       |                  |                |                       |                   |                 |                        |                    |        |         |                  |        |         |                   |        |         |
|                              | Solenoid valve                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Double solenoid / Single solenoid valves<br>(2 units max.)                                                                                          |                |              |                    |                    |        |                       |                  |                |                       |                   |                 |                        |                    |        |         |                  |        |         |                   |        |         |
|                              | Mechanical stopper                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Adjustable mechanical stopper JT1                                                                                                                   |                |              |                    |                    |        |                       |                  |                |                       |                   |                 |                        |                    |        |         |                  |        |         |                   |        |         |
|                              | Installation stand                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 300 mm / 600 mm height                                                                                                                              |                |              |                    |                    |        |                       |                  |                |                       |                   |                 |                        |                    |        |         |                  |        |         |                   |        |         |
|                              | Installation base plate                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 750 mm × 750 mm                                                                                                                                     |                |              |                    |                    |        |                       |                  |                |                       |                   |                 |                        |                    |        |         |                  |        |         |                   |        |         |
|                              | Color                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                     |                |              |                    |                    |        |                       |                  |                |                       |                   |                 |                        |                    |        |         |                  |        |         |                   |        |         |
|                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                     |                |              |                    |                    |        |                       |                  |                |                       |                   |                 |                        |                    |        |         |                  |        |         |                   |        |         |
|                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                     |                |              |                    |                    |        |                       |                  |                |                       |                   |                 |                        |                    |        |         |                  |        |         |                   |        |         |

- Consult Kawasaki about maintenance parts and spare parts.
- This robot is for arc welding only. If you are willing to use this robot for other application, please consult us.



Installation Dimensions



BA006N-B  
WORKING RANGE