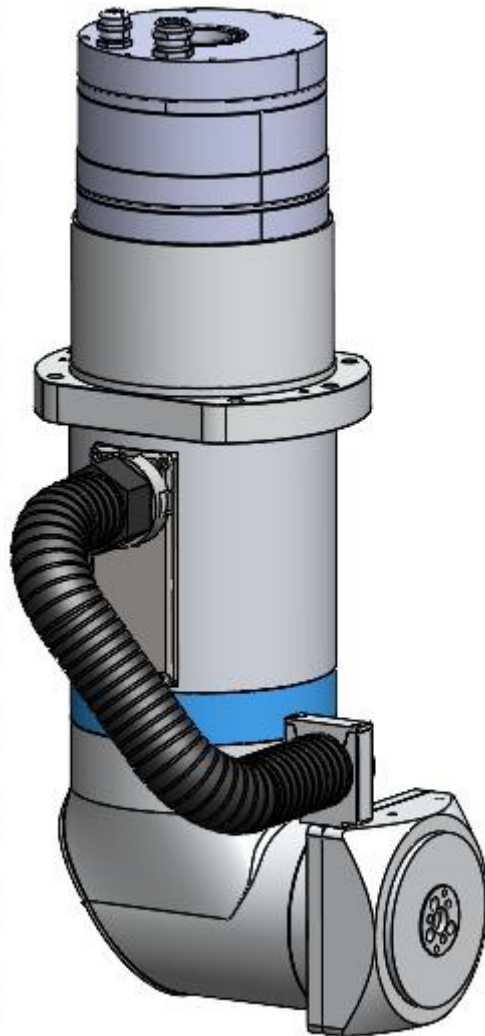




Operating Instructions of Double Rotary Spindle of 5-axis Machining Center (AC01-LD-H03)

Product Description



Foreword

Dear Users:

Welcome to use the five-axis double Pendulum Shaft by Shenzhen Ospri Intelligent Technology Co., Ltd. It is our great honor to gain your trust in our products.

In order to make you have an overall view of the product, convenient for your use, we specifically provide the user manual for you, including product characteristics, structural feature, technical feature, direction for use, maintenance, etc. It's an essential guide when you use this product.

Please read the user manual carefully before use. I'm sure it will be helpful for you to use this product. In addition, if you have any questions during use, please contact us, and we will serve you wholeheartedly.

Declaration:

The contents of User Manual are protected by the Copyright Law. Without the approval of Shenzhen Ospri Intelligent Technology Co., Ltd, any organization or individual shall not copy or tamper it by any means and forms.

In order to ensure your safety and the product works normally, please read the guide book carefully before using.

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Chapter 1 Overview

1.1 Product Parameters

See Table 1.0 for product parameters.

Name	Double Rotary Spindle of 5-axis Machining Center
Model	AC01-LD-H03
Applicable cutting head	LCR04/LCR03
Rated torque of Axis A	58N·m
Rated torque of Axis C	190N·m
Scope of action of Axis A	$\pm 100^{\circ}$
Scope of action of Axis C	$\pm 360^{\circ}$
Rated speed of Axis A	26r/min
Rated speed of Axis C	23r/min
Repetitive positioning precision of Axis A and C	7arcsec
Weight	17Kg

Table 1.0

1.2 Precautions

- ① To ensure personal safety, please wear dedicated fiber laser goggles when the double rotary spindle of 5-axis machining center is used together with cutting head
- ② Do not touch the double rotary spindle of 5-axis machining center when it is running in order to ensure personal safety and avoid personal injury.
- ③ If laser is used for processing, use a protection device to prevent laser beam from injuring human body.

Chapter 2 Structural Characteristics

2.1 Product Structure

See Figure 2.0 for the product structure.

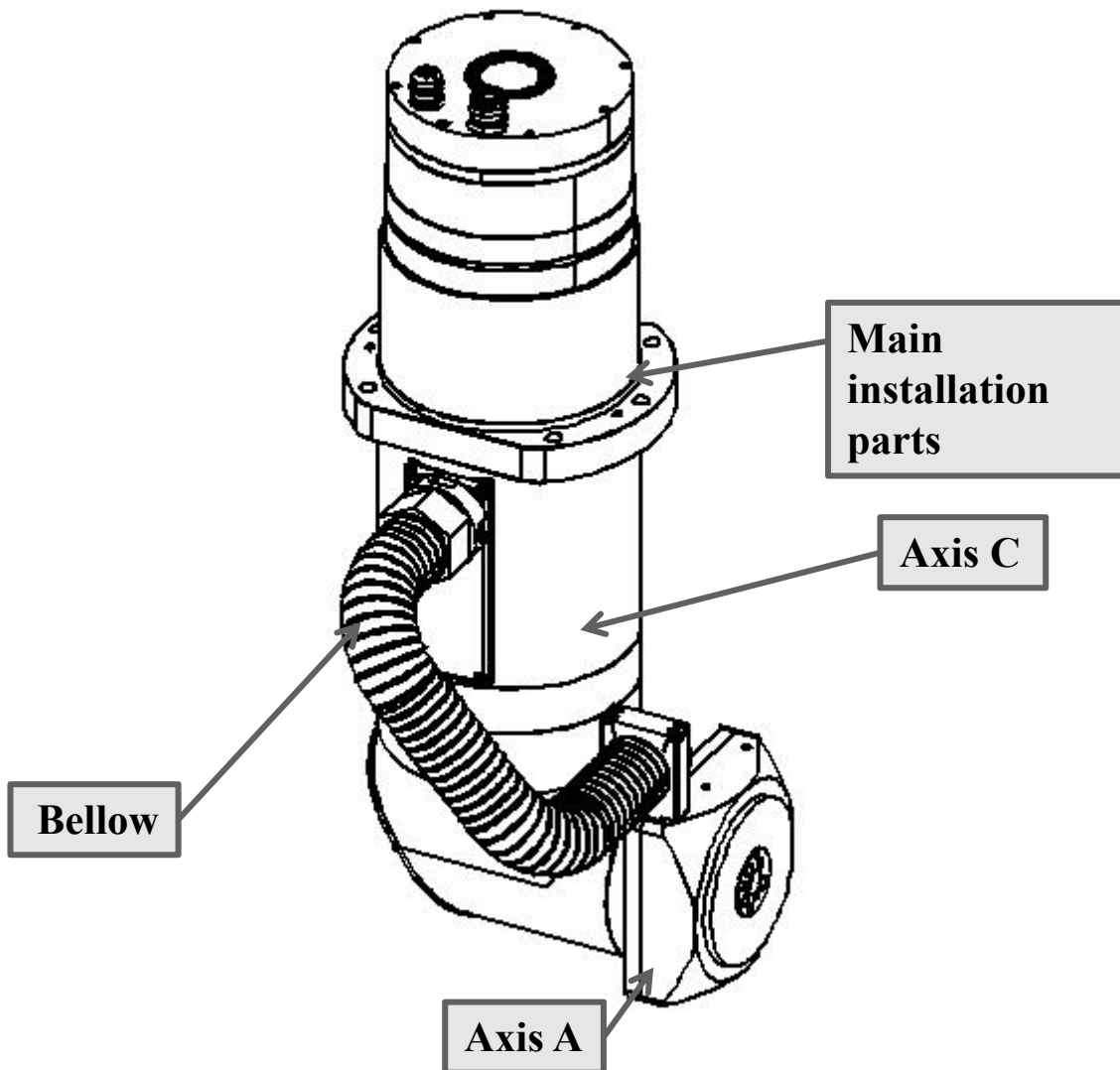


Figure 2.0

See Figure 2.1 for the scope of action.

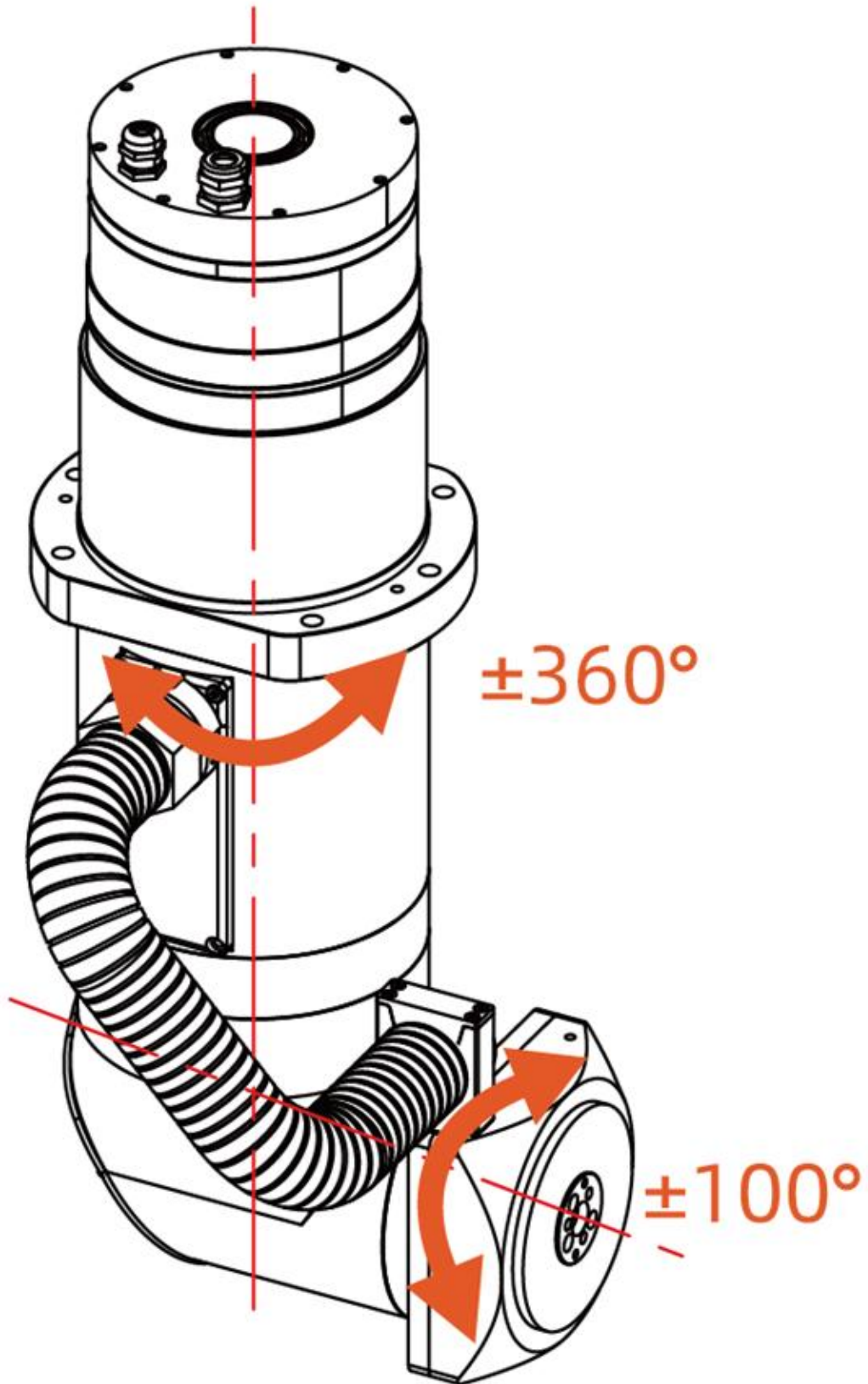


Figure 2.1

2.2 List of Product Parameters

List of Parameters of Double Rotary Spindle of 5-axis Machining Center

Item	Unit	Axis A	Axis C
Reduction ratio	/	101	101
Rated voltage	Vac	220	220
Peak torque	N·m	102	411
Rated torque	N·m	58	190
Max. speed	r/min	50	38
Rated speed	r/min	26	23
Max. current	Arms	4.51	9.6
Rated current	Arms	2.56	4.4
Torque constant	N·m/Arms	22.624	42.82
Interphase resistance of motor	Ohms	6.2	2.1
Interphase inductance of motor	mH	7.7	12
Encoder protocol	/	TAMAGAWA	TAMAGAWA
Total bits of single-ring encoder	bit	23	23
Total bits of multi-ring encoder	bit	16	16
Brake torque of output end	N·m	40	/
Rotor inertia	kg*m ²	8.8*10 ⁻⁵	2.3*10 ⁻⁴

Figure 2.2

Chapter 3 Installation

3.1 Installation of Double Rotary Spindle of 5-axis Machining Center (AC01-LD-H03)

Dimensional drawing of Double Rotary Spindle of 5-axis Machining Center

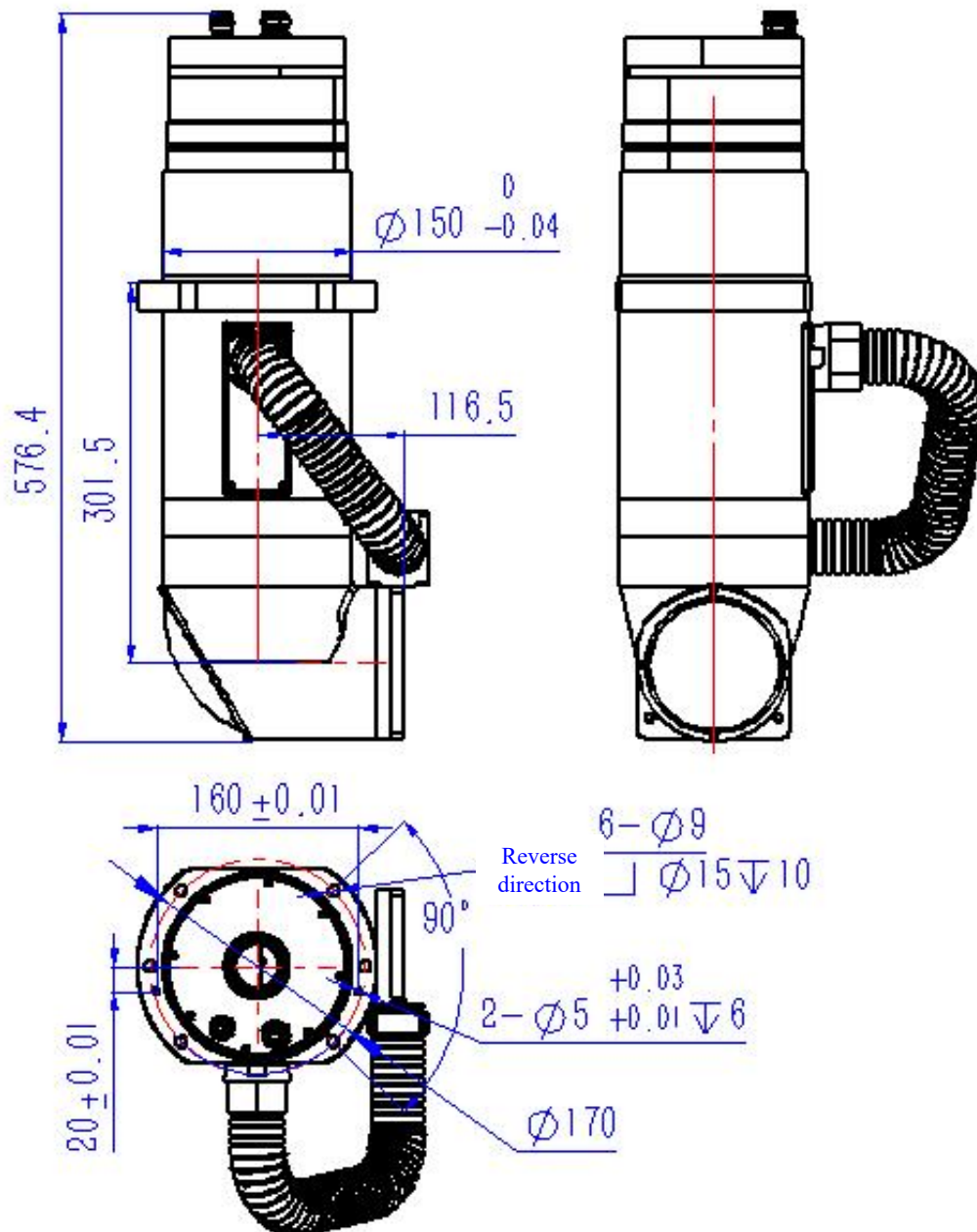


Figure 3.1

3.2 Wiring of Double Rotary Spindle of 5-axis Machining Center (AC01-LD-H03)

3.2.1 Wiring Summary of Double Rotary Spindle of 5-axis Machining Center

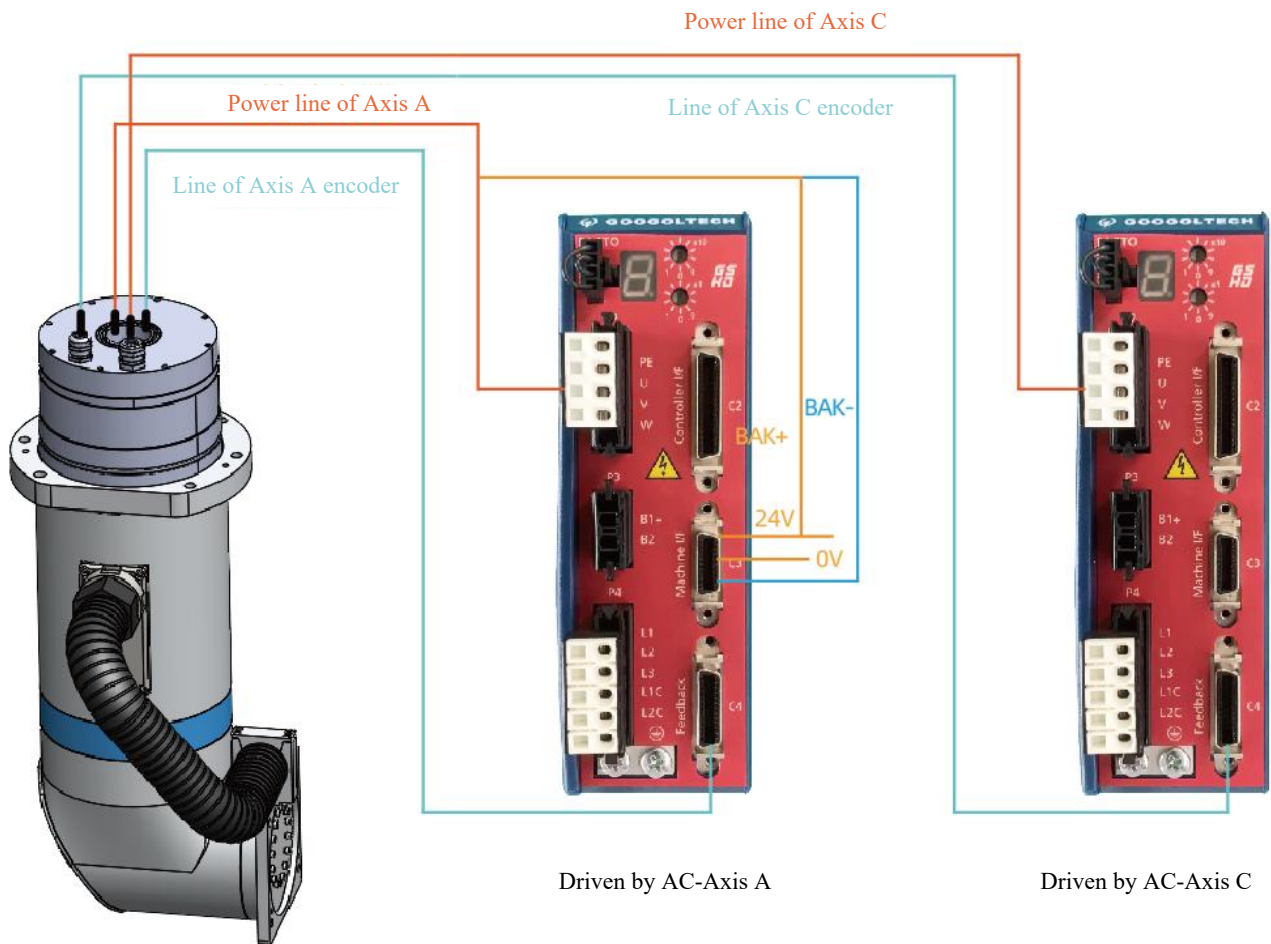
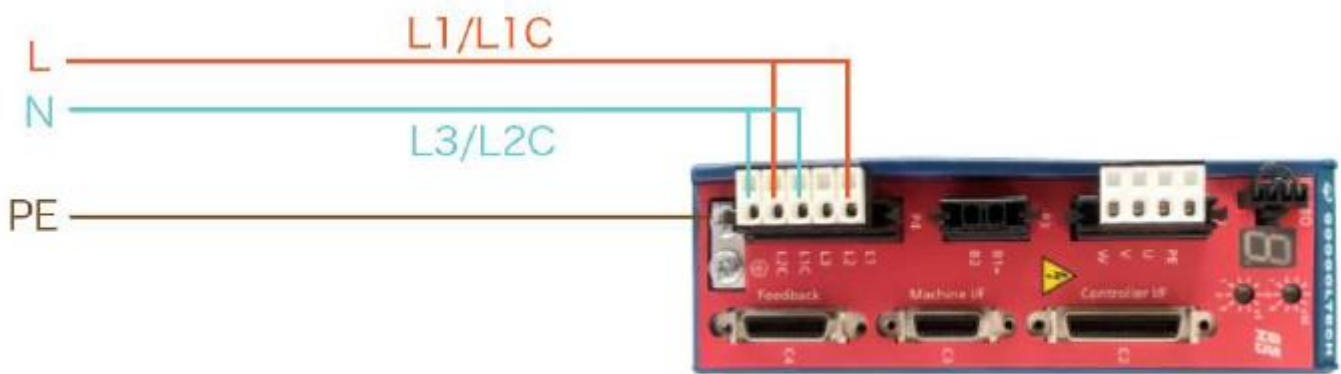


Figure 3.2

3.2.2 Wiring Definition of Double Rotary Spindle of 5-axis Machining Center (AC01-LD-H03)



Power cord of drive (single-phase 220V)

Figure 3.3

3.2.3 Motor parameters

Note: Bits of motor: 23 (8388608); total pulses per ring: 10,000; reduction ratio: 101; max. speed of motor: 3,000r/min.



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