

Life with Robot!
Not a dream anymore



DST ROBOT
**PRODUCT
CATALOG**
2 0 1 6

제조업용 로봇

About DST ROBOT



2015

- Company name changed to DST ROBOT

2014

- Released 'DRA' series, newly developed Cartesian robot.

2013

- Released the LTR for 6G generation (Vacuum Robot)

2012

- Released the New SCARA
- Released Robot Controller (iM-U series)
- Awarded President's Award in 'Korea Robot Award' (Intelligent Robot)

2011

- Completed the construction of Cheonan Factory
- Company name changed into DONGBU ROBOT

2010

- Released the mobile platform Romeo
- Released the Genibo-edu for children's education
- Released the LTR for 8G generation
- Released the Encoder stepper type DTR
- A Member of DONGBU group's affiliated companies
- Acquired AITEC (Japan).

2009

- Released Articulated coating robot for Smart phone

2008

- Released 3 models of the small clean room SCARA (DSMC series)
- Released the nut inserting robot

2007

- Released 5 models of new Desktop robots (New DTR series)
- Changed company name to DASA ROBOT Co., Ltd.
- Released the robot Dooly for public service
- Awarded from MIC for the robot Genibo (Entertainment robot)

2006

- Awarded Company technology appraisal part from MCIE
- Awarded 2006 Venture design from KIDP
- Listed on KOSDAQ (First as robot maker)

2005

- Released the Wafer Handler robots (Nano spin)
- Awarded for a superior venture company from MCIE

2004

- Released new models of SCARA (New DSM series)
- Partnership agreement for the intelligent robots development with MIC and MCIE
- Agreement for the semiconductor system development with MCIE

2003

- Opened Dasa-Shanghai coporation in Shanghai, China
- ISO9001:2000 Certified
- Selected as INNO-BIZ company

2002

- Recognized as the best Venture company by FIC
- Received GD certification from SMBA
- Received the Prime Minister's Award for SuperiorCapital Redevelopment

2001

- Released Servo & Step Controller (iMS-Jp, iM-Σ series)
- ISO9001 certified
- Selected as Technology innovation company by SMBA
- Single axis controller (iMS-Jp series) CE certified

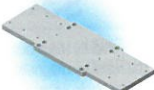
2000

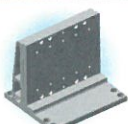
- Released 5 models of Cartesian robots (DRM series)
- Established R&D center
- Released 3 models of SCARA (DSM series)

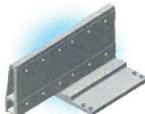
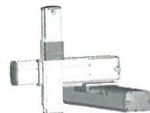
1998-1999

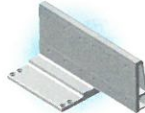
- Released 3 models of Desktop robot (DTR series)
- Provide Motion controller to Mirae Coportation
- Established DASA TECH Co.,Ltd.
- Provided Robot controller to LGIS

Assorted combination types and Brackets

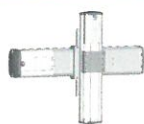
Model	2 Axes	3 Axes	4 Axes	5 Axes
 MRB-A	 MRB-A1	 MRB-A2		
		 MRB-A3		

Model	2 Axes	3 Axes	4 Axes	5 Axes
 MRB-B	 MRB-B1	 MRB-B2		

Model	2 Axes	3 Axes	4 Axes	5 Axes
 MRB-C	 MRB-C1	 MRB-C2	 MRB-C3	 MRB-C4
		 MRB-C5	 MRB-C6	

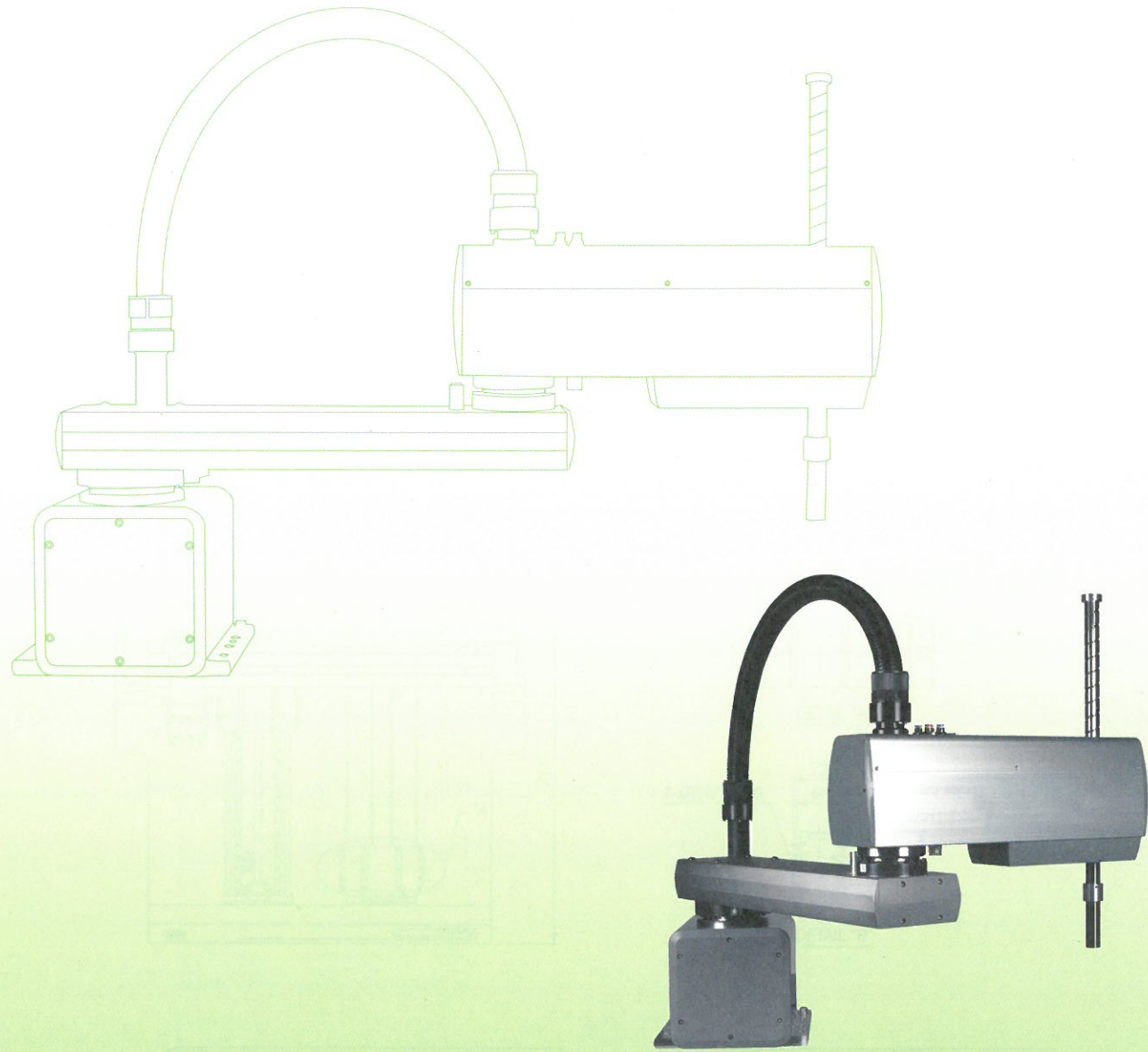
Model	2 Axes	3 Axes	4 Axes	5 Axes
 MRB-D	 MRB-D1	 MRB-D2	 MRB-D3	 MRB-D4
		 MRB-D5	 MRB-D6	

Assorted combination types and Brackets

Model	2 Axes	3 Axes	4 Axes	5 Axes
 MRB-G	 MRB-G1			

Model	2 Axes	3 Axes	4 Axes	5 Axes
 MRB-T	 MRB-T1	 MRB-T2		

SCARA / DSA series Option :



Contents

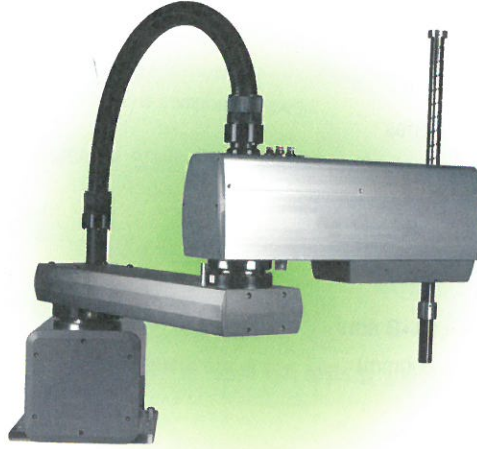
Feature	149
Ordering Model	150
Model List	150
DSA series Note	151
DSA series	152 _ 164

Feature

DSA series is SCARA.
This series provides various model range from 250mm to 1000mm in the arm length and up to 20kg in maximum payload.
It used absolute specification.
Standard and clean room/dust proof specifications are available.

Compact and rigid design

The DSA series enhanced rigidity in a light weight by comprising aluminum extruded material.
DSA-HNN series is capable of transferring high load up to 20kg.

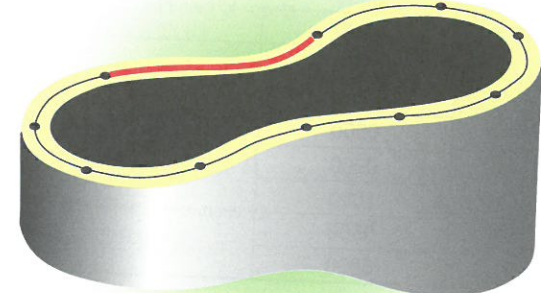


Pursuing ease-of-use

The DSA series has standard user tubing and wiring.
DSA-250/350/400 have the same air tubes as $\Phi 4 \times 3$ and 15 wires and DSA-500 and higher models have as $\Phi 6 \times 4$ and 15 wires

High performance of interpolation

The DSA series can perform three-dimensional arc/pass motions to allow for easy palletizing and dispensing.
The robot can also provide tool offset and R axis position compensation function



Ordering Model

1	2	3	4	5	6	7
Series	Arm length	Type1	Type2	Type3	Z Axis Stroke	Cable length
DSA	- 0600	- N	N	N	- 200	- 03

1 Series

Name of the Series
DSA : Scara robot advanced

2 Arm length

Arm length of A+B arm
(Ex : 0600 = 600mm)

3 Type1

Payload, speed
L : Payload 1kg, Normal speed
N : Payload 3kg, Normal speed
H : Payload 5kg, Normal speed
S : Payload 1kg, High speed

4 Type2

Robot mounting type
N : Floor mounting

5 Type3

Standard or Clean room specification
N : Standard specification
C : Clean Room specification

6 Z Axis Stroke

(Ex : 200 = 200mm)

7 Cable length

Cable length connecting the robot and controller
(Ex : 03 = 3m)

Model List

Series	Arm length(mm)	Type1	Type2	Type3	Z stroke	Cable length
DSA	0250	L	N	N	100 150	03 05 10
	0300					
	0350					
	0400					
	0500	N			200 300	
	0600					
	0600	H			200 300 400	
	0700					
	0800					
	0900					
	1000					
	0500	S			100 150	
	0600					

* Z axis of all models is using a brake motor

DSA series Note

SCARA

(Note 1) Motor

The motor of Z axis of every model is applied a brake motor
전 모델 Z축은 Brake motor가 적용되었습니다.

(Note 2) Maximum speed

The maximum speed represents the speed of PTP command operation. AB is composited speed. This is the value at a constant ambient temperature(A, B arms)
최대 속도는 PTP 이동 시 속도를 나타냅니다. 1,2 arm축 합성 속도로 나타나며, 일정한 온도 및 습도 환경에서의 값입니다.

(Note 3) Positioning repeatability

This repeatability is not the "positioning accuracy" It refers to the positioning accuracy of repeated movements to a pre-stored position.
반복정밀도는 '절대 위치 정밀도'가 아닙니다. 반복정밀도는 기 저장된 위치에 대한 반복된 이동의 위치 정밀도를 말합니다.

(Note 4) Standard cycle time

It refers to the time required to cycle one-way over a vertical distance 25mm and horizontal distance 300mm
The specified cycle time is based on the rated payload (rough positioning)
표준 Cycle time은 수평간 거리가 300mm, 수직간 거리가 25mm의 거리를 편도운행 했을 때 소요되는 시간을 나타낸 것이며, 정격 가반하중을 기준으로 한 것입니다.

(Note 5) R axis allowable moment Inertia

This indicates the allowable inertial moment of R axis of the SCARA as calculated at the center of rotation. The offset from the center of R axis to the tool gravity center must be within 40mm.
R축 허용 관성 모멘트는 회전 축 중심에서 계산된 것입니다.
R축 중심에서 Tool 중량 중심까지의 offset은 반드시 40mm이내여야 합니다.

(Note 6) Cable length

The motor and encoder cables of the SCARA are directly connected to the robot.
Cable length of 3m is standard and selectable 5m/10m as the desired cable length when ordering.
SCARA 로봇의 모터 및 엔코더 케이블은 로봇에 직접 연결됩니다.
케이블 표준 길이는 3m이며 주문 시 5m/10m 길이도 가능합니다.

(Note 7) Cleanliness

It confirms class 10 with 0.1um per 1 cfm when the suction blower is used.
It is subject to change of the operating conditions and running environment of robots
Suction 사용 상태에서 1cfm 당 0.1um 크기에 대해서 Clean도 10을 보증합니다.
이는 로봇의 사용 환경이나 운용 조건에 따라 달라질 수 있습니다.

(Note 8) Suction volume

"Suction volume" with 60 liter per minute is required to confirm cleanliness class 10
Clean도 10을 유지하기 위해서는 최소한 분당 60리터의 흡입량이 필요합니다.

SCARA, Standard specification, Arm length 250mm(100 / 150)
Z axis stroke 100mm, 150mm



SCARA, Standard specification, Arm length 300mm(150 / 150)
Z axis stroke 100mm, 150mm

Basic specifications

Common specifications

DimensionApplicable controllers

Note

Refer to the page 151 for the detail explanations of (Note1) to (Note6)

SCARA, Standard specification, Arm length 250mm(100 / 150)
Z axis stroke 100mm, 150mm



SCARA, Standard specification, Arm length 300mm(150 / 150)
Z axis stroke 100mm, 150mm

Basic specifications

Common specifications

Dimension

Basic specifications

Common specifications

DimensionApplicable controllers

Note

Refer to the page 151 for the detail explanations of (Note1) to (Note6)

DSA-0350-LNN

SCARA, Standard specification, Arm length 350mm(200 / 150)
Z axis stroke 100mm, 150mm



Series: DSA - Arm length: 0350 - Type: LNN - Z axis stroke: 150 - Cable length: 3

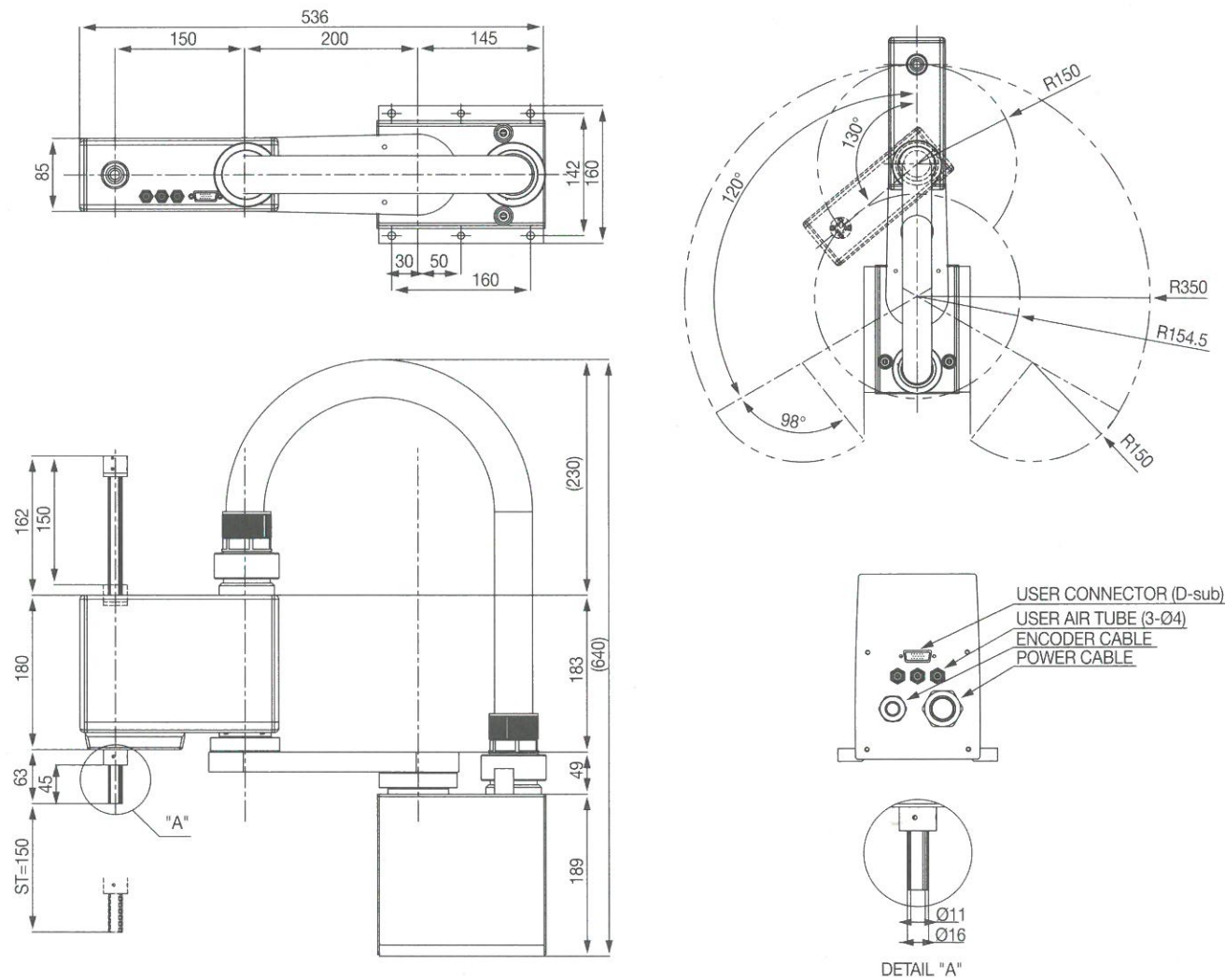
Basic specifications

SERIES	Axis		Arm length (mm)	Work range	Motor (w)	Maximum speed	Positioning Repeatability (+/-mm)	Standard Cycle time (s)	Payload(kg)		R axis allowable moment inertia (kg·m2)
									Rated	Maximum	
DSA	1Axis	1 Arm	200	+/-120°	200	4188mm/s	+/-0.01	0.55	1	3	0.015
	2Axis	2 Arm	150	+/-130°	100						
	3Axis	Vertical	-	150(100)mm	100						
	4Axis	Rotating	-	+/-360°	50						

Common specifications

Encoder Type	Absolute encoder	Z axis stroke	Standard 150mm, Option: 100mm
User wiring	0.2sqx15 wires / D-sub 15pin	Cable length(Note6)	Standard 3m, Option: 5m, 10m
User tubing	ø4x3	Weight	15kg
Environment	온도 0~40°C, 습도 20~85%RH 이하		

Dimension



Applicable controllers

Controller	Rated voltage	Page
iM-U	200~230VAC	172

Note

Refer to the page 151 for the detail explanations of (Note1) to (Note6)

DSA-0400-LNN

SCARA, Standard specification, Arm length 400mm(225 / 175)
Z axis stroke 100mm, 150mm



Series: DSA - Arm length: 0400 - Type: LNN - Z axis stroke: 150 - Cable length: 3

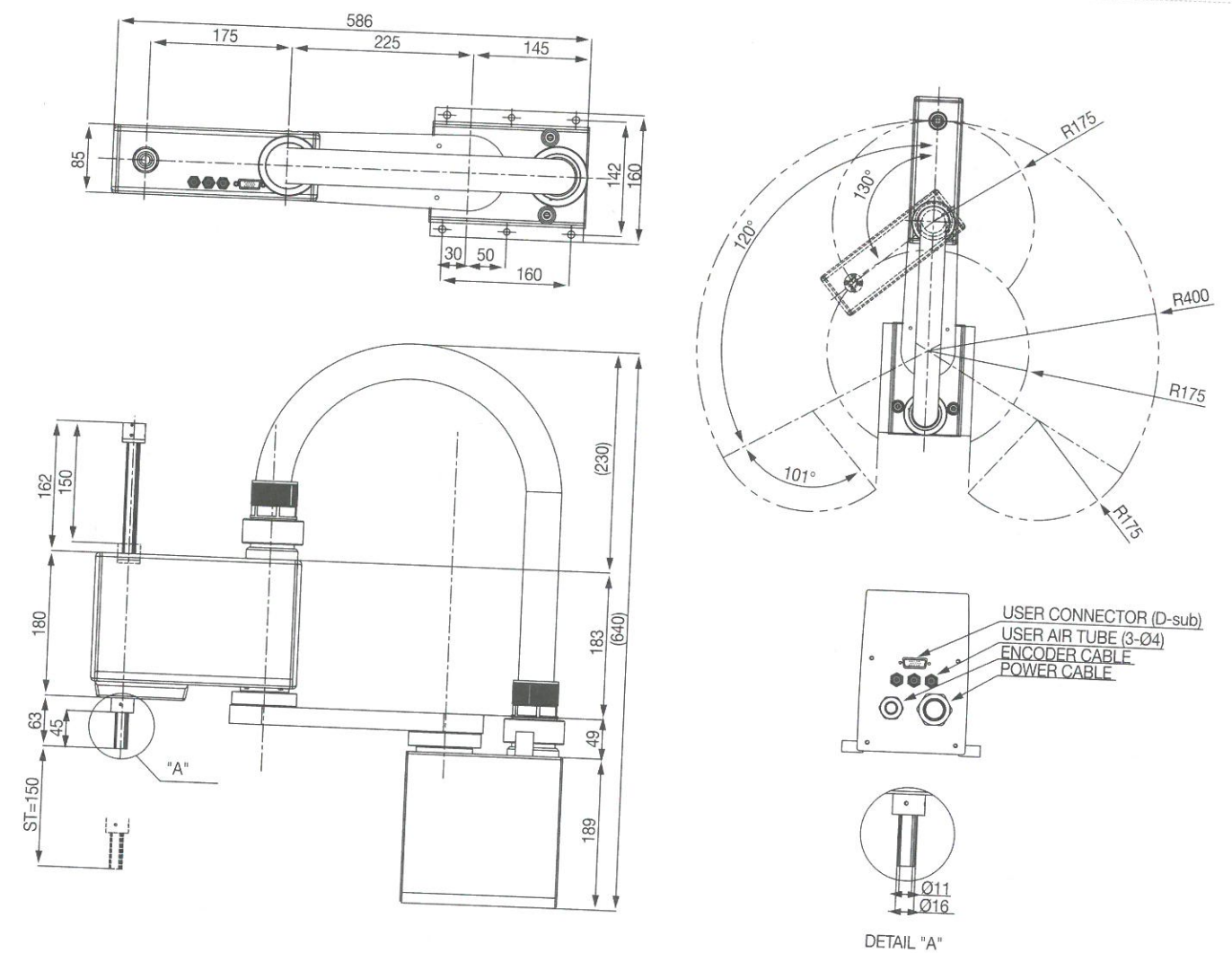
Basic specifications

SERIES	Axis		Arm length (mm)	Work range	Motor (w)	Maximum speed	Positioning Repeatability (+/-mm)	Standard Cycle time (s)	Payload(kg)		R axis allowable moment inertia (kg·m2)
									Rated	Maximum	
DSA	1Axis	1 Arm	225	+/-120°	200	4817mm/s	+/-0.01	0.70	1	3	0.015
	2Axis	2 Arm	175	+/-130°	100						
	3Axis	Vertical	-	150(100)mm	100						
	4Axis	Rotating	-	+/-360°	50						

Common specifications

Encoder Type	Absolute encoder	Z axis stroke	Standard 150mm, Option: 100mm
User wiring	0.2sqx15 wires / D-sub 15pin	Cable length(Note6)	Standard 3m, Option: 5m, 10m
User tubing	ø4x3	Weight	16kg
Environment	온도 0~40°C, 습도 20~85%RH 이하		

Dimension



Applicable controllers

Controller	Rated voltage	Page
iM-U	200~230VAC	172

Note

Refer to the page 151 for the detail explanations of (Note1) to (Note6)

DSA-0500-NNN

SCARA, Standard specification, Arm length 500mm(250 / 250)
Z axis stroke 200mm, 300mm



Series	Arm length	Type	Z axis stroke	Cable length
DSA	0500	NNN	200	3

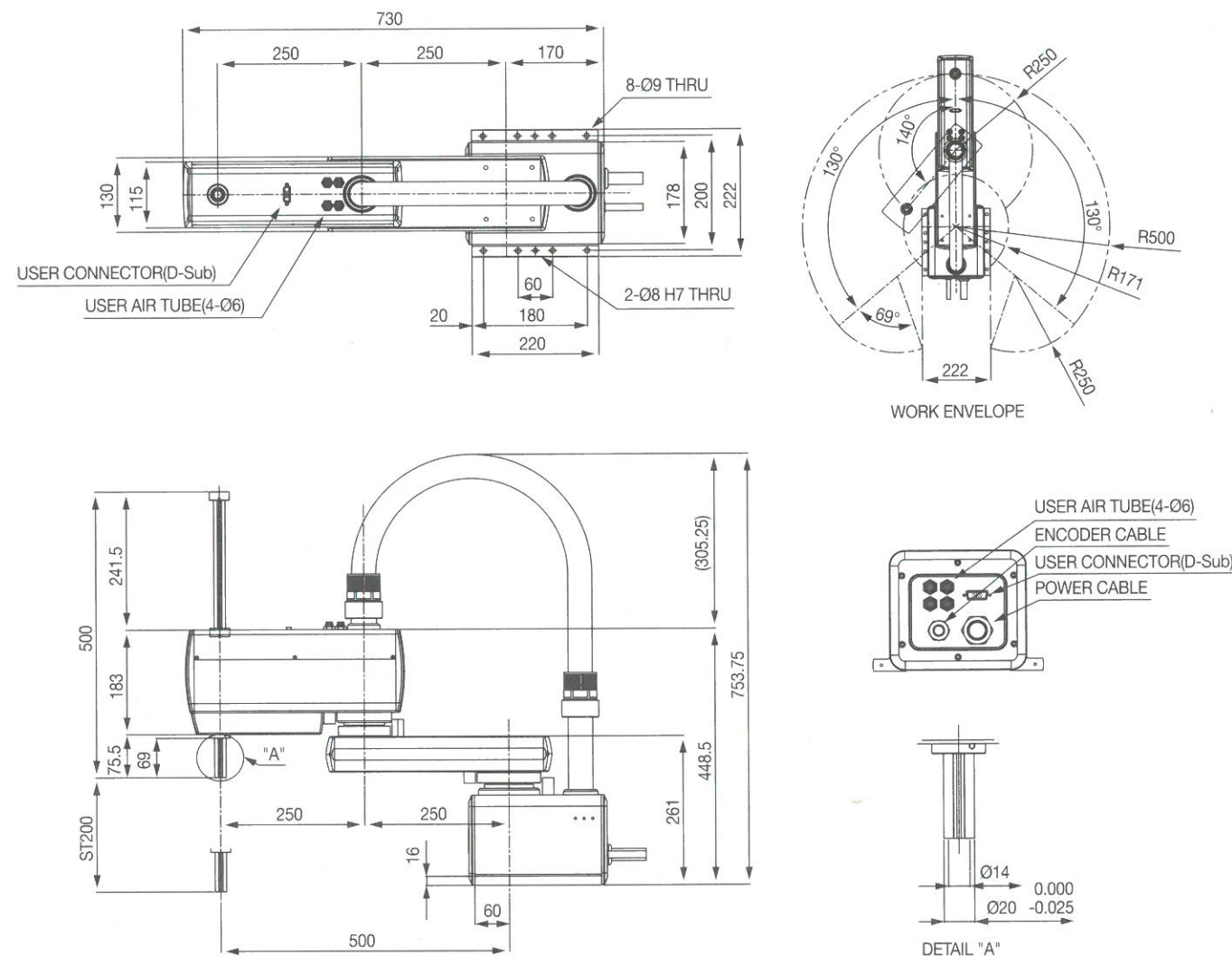
Basic specifications

SERIES	Axis	Arm length (mm)	Work range	Motor (w)	Maximum speed	Positioning Repeatability (+/-mm)	Standard Cycle time (s)	Payload(kg)		R axis allowable moment inertia (kg·m ²)
								Rated	Maximum	
DSA	1Axis	1 Arm	250	400	6283mm/s	+/-0.01	0.44	3	10	0.06
	2Axis	2 Arm	250	200						
	3Axis	Vertical	-	200	1200mm/s	+/-0.01				
	4Axis	Rotating	-	100	1600°/s	+/-0.01				

Common specifications

Encoder Type	Absolute encoder	Z axis stroke	Standard 200mm, Option: 300mm
User wiring	0.2sqx15 wires / D-sub 15pin	Cable length(Note6)	Standard 3m, Option: 5m, 10m
User tubing	ø6x4	Weight	25kg
Environment	온도 0~40°C, 습도 20~85%RH 이하		

Dimension



Applicable controllers

Controller	Rated voltage	Page
iM-U	200~230VAC	172

Note

Refer to the page 151 for the detail explanations of (Note1) to (Note6)

DSA-0600-NNN

SCARA, Standard specification, Arm length 600mm(350 / 250)
Z axis stroke 200mm, 300mm



Series	Arm length	Type	Z axis stroke	Cable length
DSA	0600	NNN	200	3

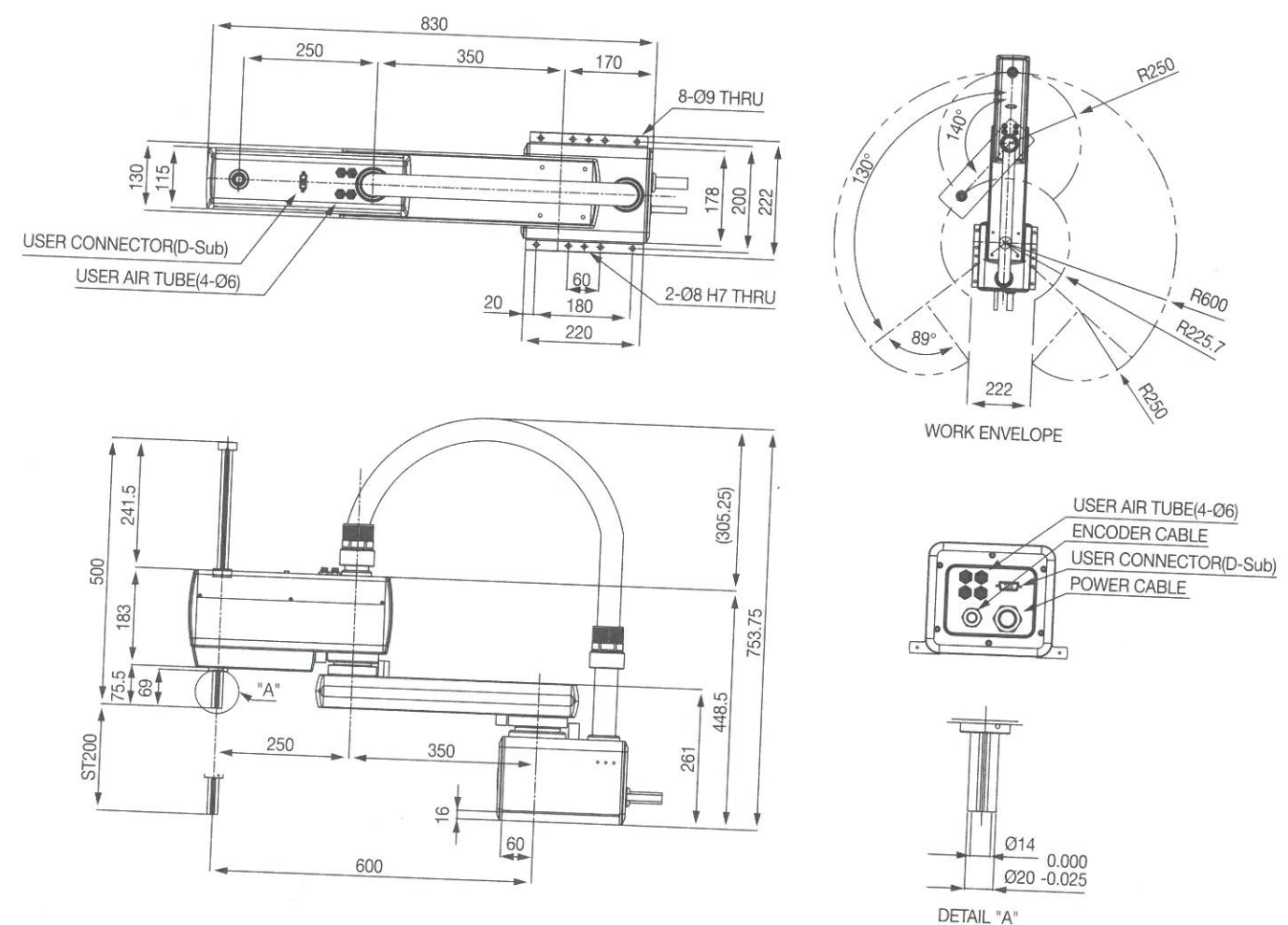
Basic specifications

SERIES	Axis	Arm length (mm)	Work range	Motor (w)	Maximum speed	Positioning Repeatability (+/-mm)	Standard Cycle time (s)	Payload(kg)		R axis allowable moment inertia (kg·m ²)
								Rated	Maximum	
DSA	1Axis	1 Arm	350	400	7121mm/s	+/-0.01	0.52	3	10	0.06
	2Axis	2 Arm	250	200						
	3Axis	Vertical	-	200	1200mm/s	+/-0.01				
	4Axis	Rotating	-	100	1600°/s	+/-0.01				

Common specifications

Encoder Type	Absolute encoder	Z axis stroke	Standard 200mm, Option: 300mm
User wiring	0.2sqx15 wires / D-sub 15pin	Cable length(Note6)	Standard 3m, Option: 5m, 10m
User tubing	ø6x4	Weight	27kg
Environment	온도 0~40°C, 습도 20~85%RH 이하		

Dimension



Applicable controllers

Controller	Rated voltage	Page
iM-U	200~230VAC	172

Note

Refer to the page 151 for the detail explanations of (Note1) to (Note6)

DSA-0600-HNN SCARA, Standard specification, Arm length 600mm(300 / 300) Z axis stroke 200mm, 300mm, 400mm

Series	Arm length	Type	Z axis stroke	Cable length
DSA	0600	HNN	200	3



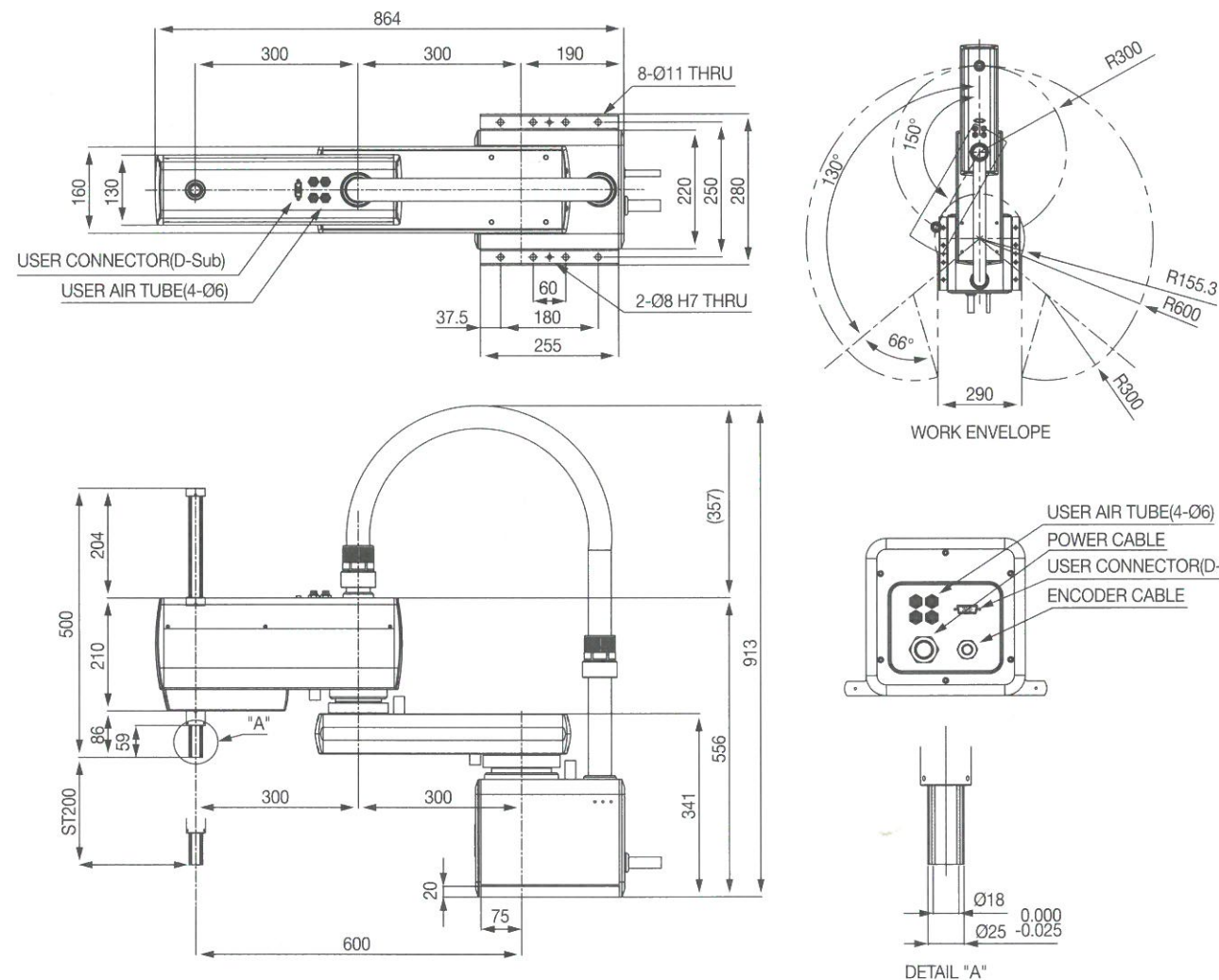
Basic specifications

SERIES	Axis	Arm length (mm)	Work range	Motor (w)	Maximum speed	Positioning Repeatability (+/-mm)	Standard Cycle time (s)	Payload(kg)		R axis allowable moment inertia (kg·m2)
								Rated	Maximum	
DSA	1Axis	1 Arm	300	+/-130°	750	5654mm/s	0.48	5	20	0.1
	2Axis	2 Arm	300	+/-150°	400					
	3Axis	Vertical	-	200(400)mm	400					
	4Axis	Rotating	-	+/-360°	200					

Common specifications

Encoder Type	Absolute encoder	Z axis stroke	Standard 200mm, Option: 300mm, 400mm
User wiring	0.2sqx15 wires / D-sub 15pin	Cable length(Note6)	Standard 3m, Option: 5m, 10m
User tubing	ø6x4	Weight	39kg
Environment	온도 0~40°C, 습도 20~85%RH 이하		

Dimension



Applicable controllers

Controller	Rated voltage	Page
iM-U	200~230VAC	172

Note

Refer to the page 151 for the detail explanations of (Note1) to (Note6)

DSA-0700-HNN SCARA, Standard specification, Arm length 700mm(350 / 350) Z axis stroke 200mm, 300mm, 400mm

Series	Arm length	Type	Z axis stroke	Cable length
DSA	0700	HNN	200	3



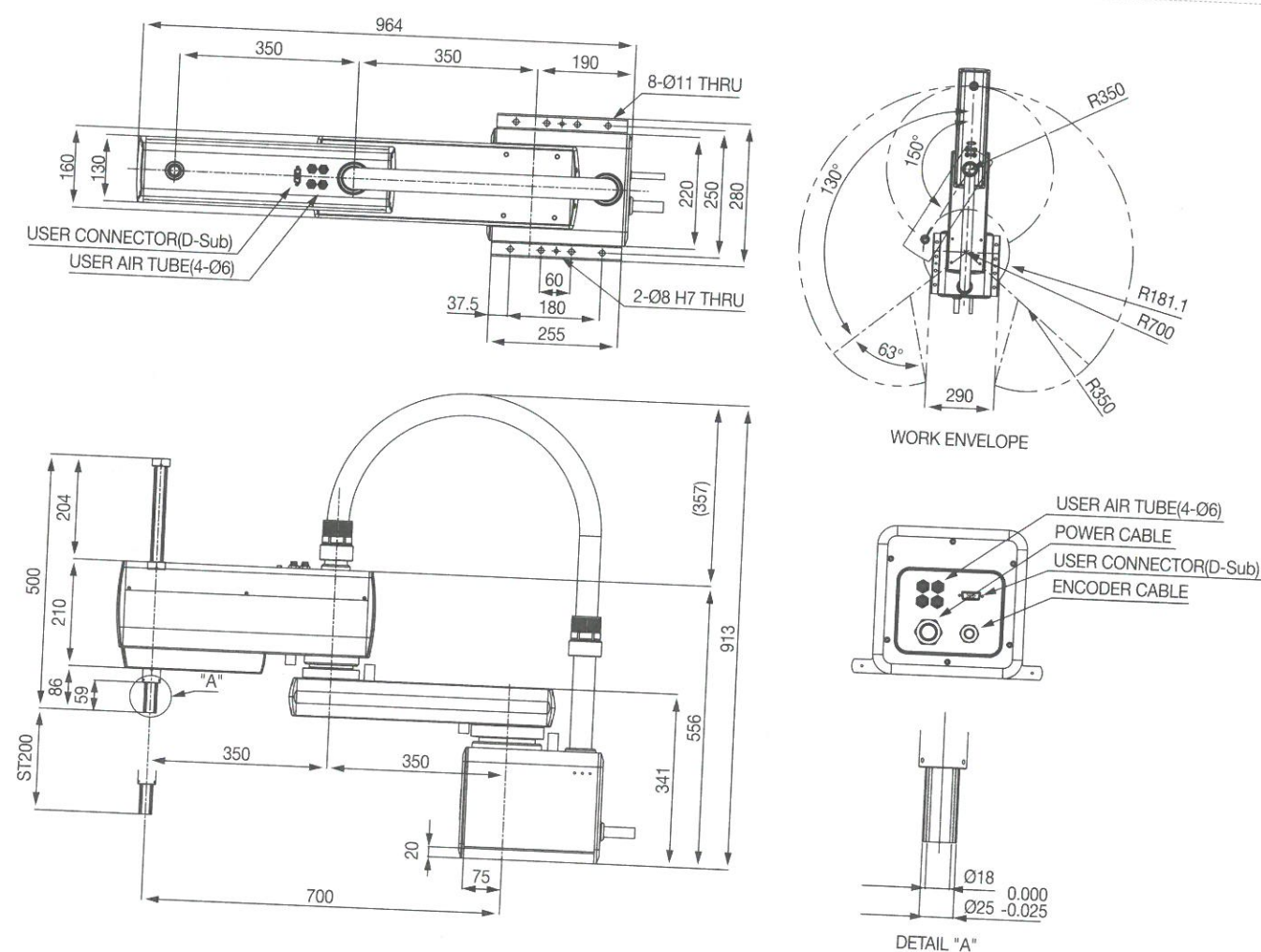
Basic specifications

SERIES	Axis	Arm length (mm)	Work range	Motor (w)	Maximum speed	Positioning Repeatability (+/-mm)	Standard Cycle time (s)	Payload(kg)		R axis allowable moment inertia (kg·m2)
								Rated	Maximum	
DSA	1Axis	1 Arm	350	+/-130°	750	6597mm/s	0.50	5	20	0.1
	2Axis	2 Arm	350	+/-150°	400					
	3Axis	Vertical	-	200(400)mm	400					
	4Axis	Rotating	-	+/-360°	200					

Common specifications

Encoder Type	Absolute encoder	Z axis stroke	Standard 200mm, Option: 300mm, 400mm
User wiring	0.2sqx15 wires / D-sub 15pin	Cable length(Note6)	Standard 3m, Option: 5m, 10m
User tubing	ø6x4	Weight	41kg
Environment	온도 0~40°C, 습도 20~85%RH 이하		

Dimension



Applicable controllers

Controller	Rated voltage	Page
iM-U	200~230VAC	172

Note

Refer to the page 151 for the detail explanations of (Note1) to (Note6)

DSA-0800-HNN

SCARA, Standard specification, Arm length 800mm(450 / 350)
Z axis stroke 200mm, 300mm, 400mm



Series	Arm length	Type	Z axis stroke	Cable length
DSA	0800	HNN	200	3

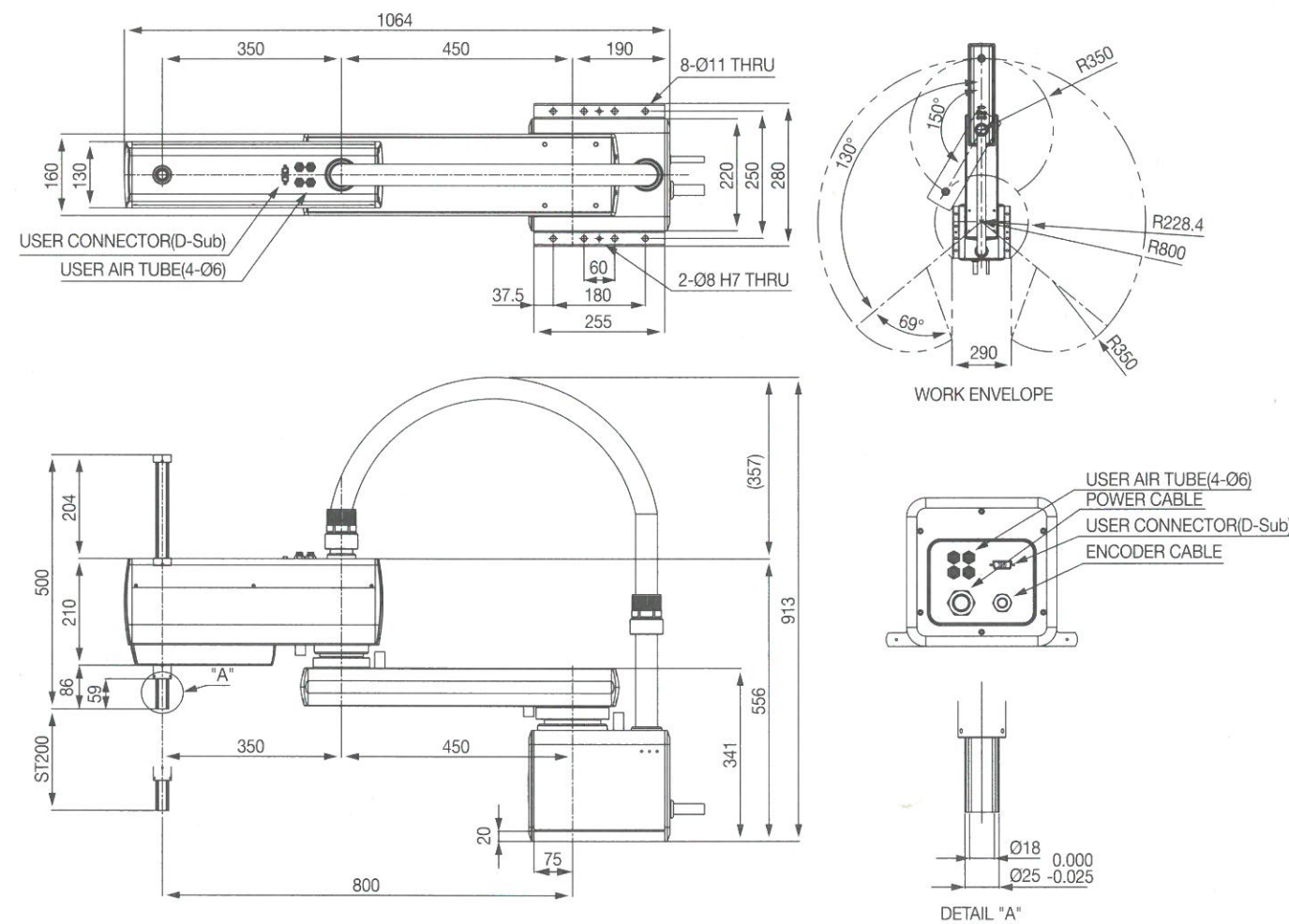
Basic specifications

SERIES	Axis		Arm length (mm)	Work range	Motor (w)	Maximum speed	Positioning Repeatability (+/-mm)	Standard Cycle time (s)	Payload(kg)		R axis allowable moment inertia (kg·m ²)
									Rated	Maximum	
DSA	1Axis	1 Arm	450	+/-130°	750	7225mm/s	+/-0.02	0.52	5	20	0.1
	2Axis	2 Arm	350	+/-150°	400	1600mm/s	+/-0.01				
	3Axis	Vertical	-	200(400)mm	400	1600mm/s	+/-0.01				
	4Axis	Rotating	-	+/-360°	200	1600°/s	+/-0.01				

Common specifications

Encoder Type	Absolute encoder	Z axis stroke	Standard 200mm, Option: 300mm, 400mm
User wiring	0.2sqx15 wires / D-sub 15pin	Cable length(Note6)	Standard 3m, Option: 5m, 10m
User tubing	ø6x4	Weight	43kg
Environment	온도 0~40°C, 습도 20~85%RH 이하		

Dimension



Applicable controllers

Controller	Rated voltage	Page
iM-U	200~230VAC	172

Note

Refer to the page 151 for the detail explanations of (Note1) to (Note6)

DSA-0900-HNN

SCARA, Standard specification, Arm length 900mm(500 / 400)
Z axis stroke 200mm, 300mm, 400mm



Series	Arm length	Type	Z axis stroke	Cable length
DSA	0900	HNN	200	3

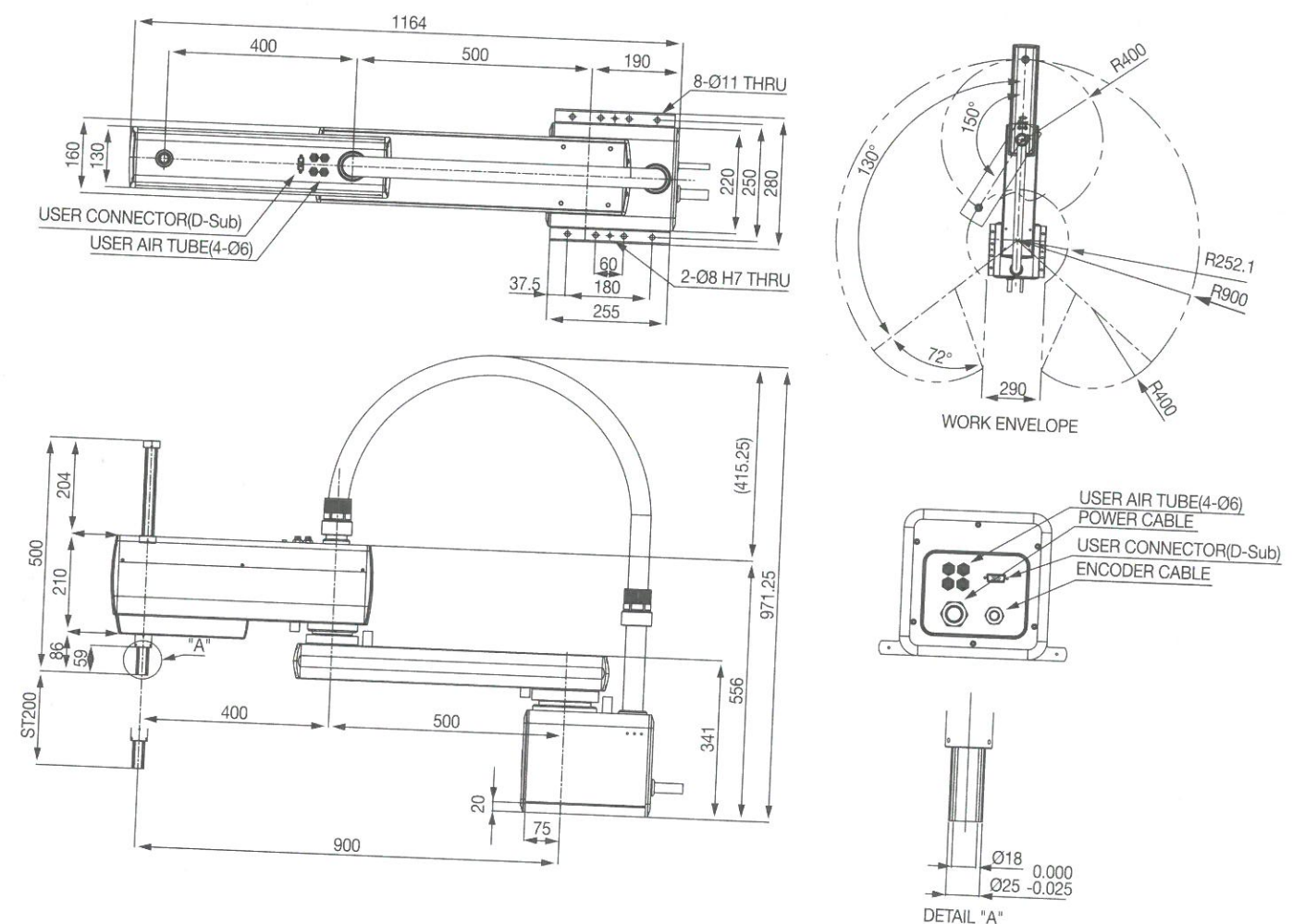
Basic specifications

SERIES	Axis		Arm length (mm)	Work range	Motor (w)	Maximum speed	Positioning Repeatability (+/-mm)	Standard Cycle time (s)	Payload(kg)		R axis allowable moment inertia (kg·m ²)
									Rated	Maximum	
DSA	1Axis	1 Arm	500	+/-130°	750	7775mm/s	+/-0.02	0.54	5	20	0.1
	2Axis	2 Arm	400	+/-150°	400	1600mm/s	+/-0.01				
	3Axis	Vertical	-	200(400)mm	400	1600mm/s	+/-0.01				
	4Axis	Rotating	-	+/-360°	200	1600°/s	+/-0.01				

Common specifications

Encoder Type	Absolute encoder	Z axis stroke	Standard 200mm, Option: 300mm, 400mm
User wiring	0.2sqx15 wires / D-sub 15pin	Cable length(Note6)	Standard 3m, Option: 5m, 10m
User tubing	ø6x4	Weight	45kg
Environment	온도 0~40°C, 습도 20~85%RH 이하		

Dimension



Applicable controllers

Controller	Rated voltage	Page
iM-U	200~230VAC	172

Note

Refer to the page 151 for the detail explanations of (Note1) to (Note6)

DSA-1000-HNN

SCARA, Standard specification, Arm length 1000mm(600 / 400)
Z axis stroke 200mm, 300mm, 400mm

Series	Arm length	Type	Z axis stroke	Cable length
DSA	1000	HNN	200	3



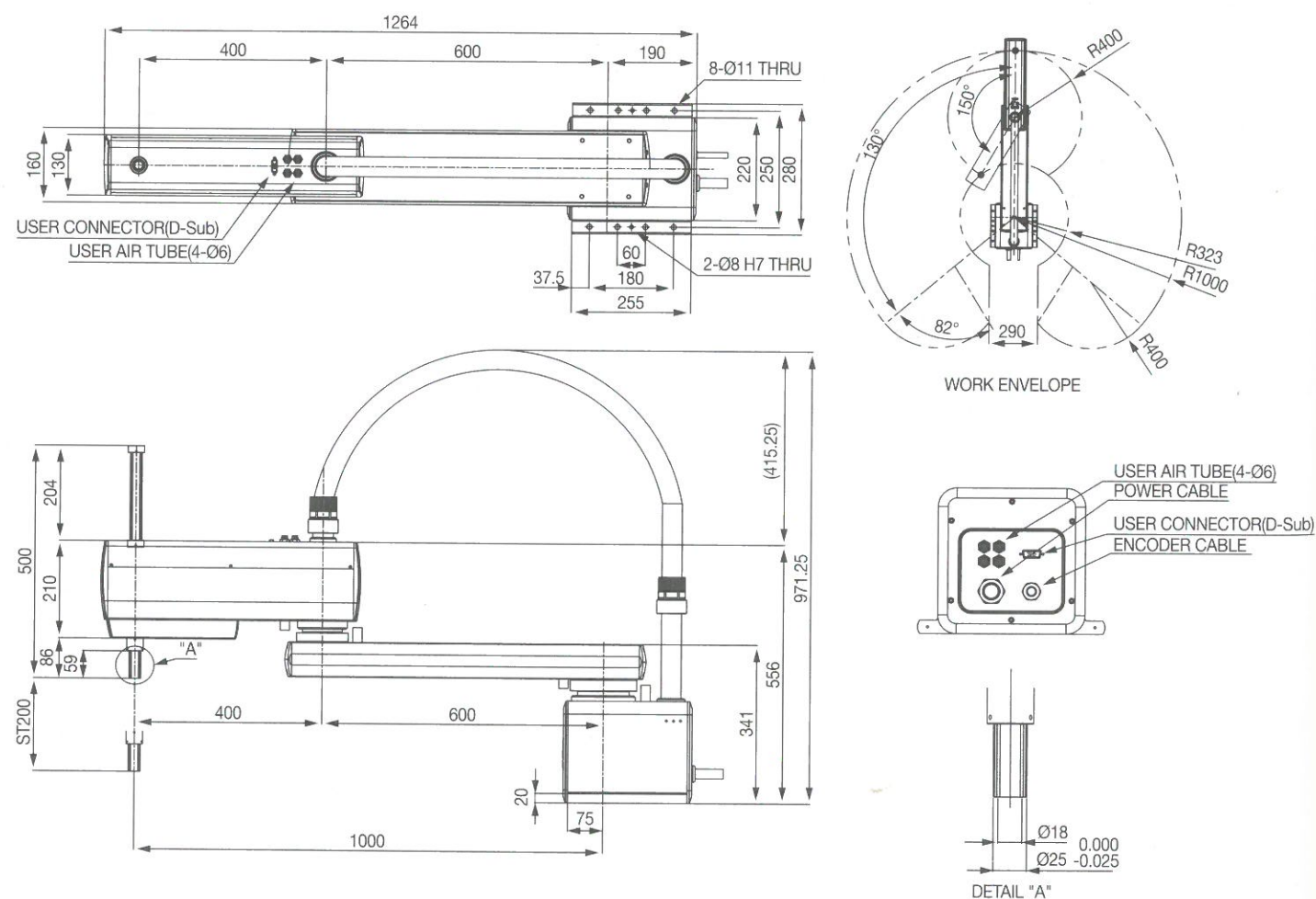
Basic specifications

SERIES	Axis		Arm length (mm)	Work range	Motor (w)	Maximum speed	Positioning Repeatability (+/-mm)	Standard Cycle time (s)	Payload(kg)		R axis allowable moment inertia (kg·m ²)
									Rated	Maximum	
DSA	1Axis	1 Arm	600	+/-130°	750	8351mm/s	+/-0.02	0.70	5	20	0.1
	2Axis	2 Arm	400	+/-150°	400						
	3Axis	Vertical	-	200(400)mm	400	1600mm/s	+/-0.01				
	4Axis	Rotating	-	+/-360°	200	1600°/s	+/-0.01				

Common specifications

Encoder Type	Absolute encoder	Z axis stroke	Standard 200mm, Option: 300mm, 400mm
User wiring	0.2sqx15 wires / D-sub 15pin	Cable length(Note6)	Standard 3m, Option: 5m, 10m
User tubing	ø6x4	Weight	47kg
Environment	온도 0~40°C, 습도 20~85%RH 이하		

Dimension



DSA-0500-SNN

SCARA, Standard specification, Arm length 500mm(250 / 250)
Z axis stroke 100mm, 150mm

Series	Arm length	Type	Z axis stroke	Cable length
DSA	0500	SNN	150	3



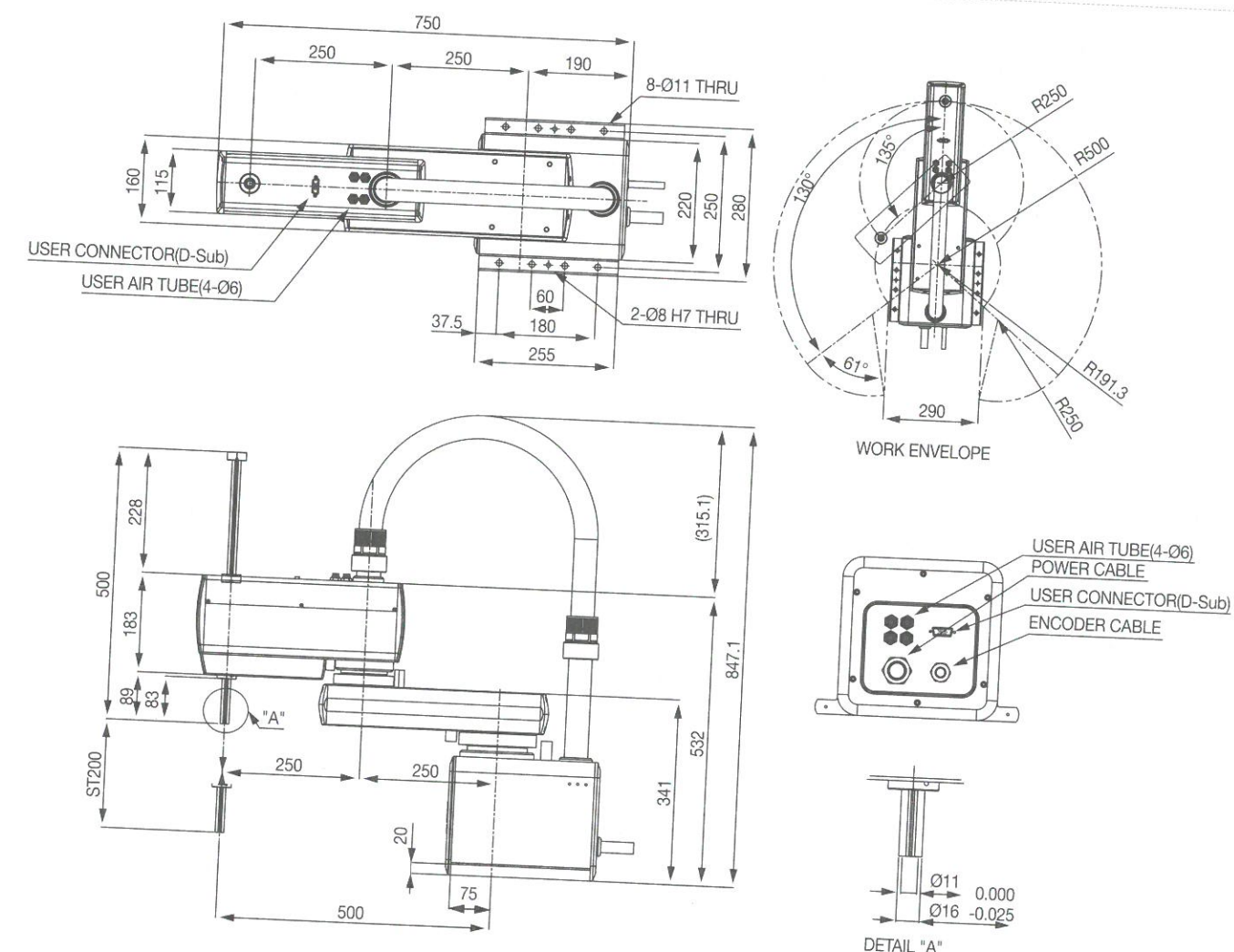
Basic specifications

SERIES	Axis		Arm length (mm)	Work range	Motor (w)	Maximum speed	Positioning Repeatability (+/-mm)	Standard Cycle time (s)	Payload(kg)		R axis allowable moment inertia (kg·m ²)
									Rated	Maximum	
DSA	1Axis	1 Arm	250	+/-130°	750	4712mm/s	+/-0.01	0.30	1	3	0.015
	2Axis	2 Arm	250	+/-135°	400						
	3Axis	Vertical	-	150(100)mm	200	960mm/s	+/-0.01				
	4Axis	Rotating	-	+/-360°	100	1600°/s	+/-0.01				

Common specifications

Encoder Type	Absolute encoder	Z axis stroke	Standard 100mm, Option: 150mm
User wiring	0.2sqx15 wires / D-sub 15pin	Cable length(Note6)	Standard 3m, Option: 5m, 10m
User tubing	ø6x4	Weight	32kg
Environment	온도 0~40°C, 습도 20~85%RH 이하		

Dimension



Applicable controllers

Controller	Rated voltage	Page
iM-U	200~230VAC	172

Note

Refer to the page 151 for the detail explanations of (Note1) to (Note6)

Applicable controllers

Controller	Rated voltage	Page
iM-U	200~230VAC	172

Note

Refer to the page 151 for the detail explanations of (Note1) to (Note6)

DSA-0600-SNN

SCARA, High speed specification, Arm length 600mm(350 / 250)
Z axis stroke 100mm, 150mm



Series: DSA - Arm length: 0600 - Type: SNN - Z axis stroke: 150 - Cable length: 3

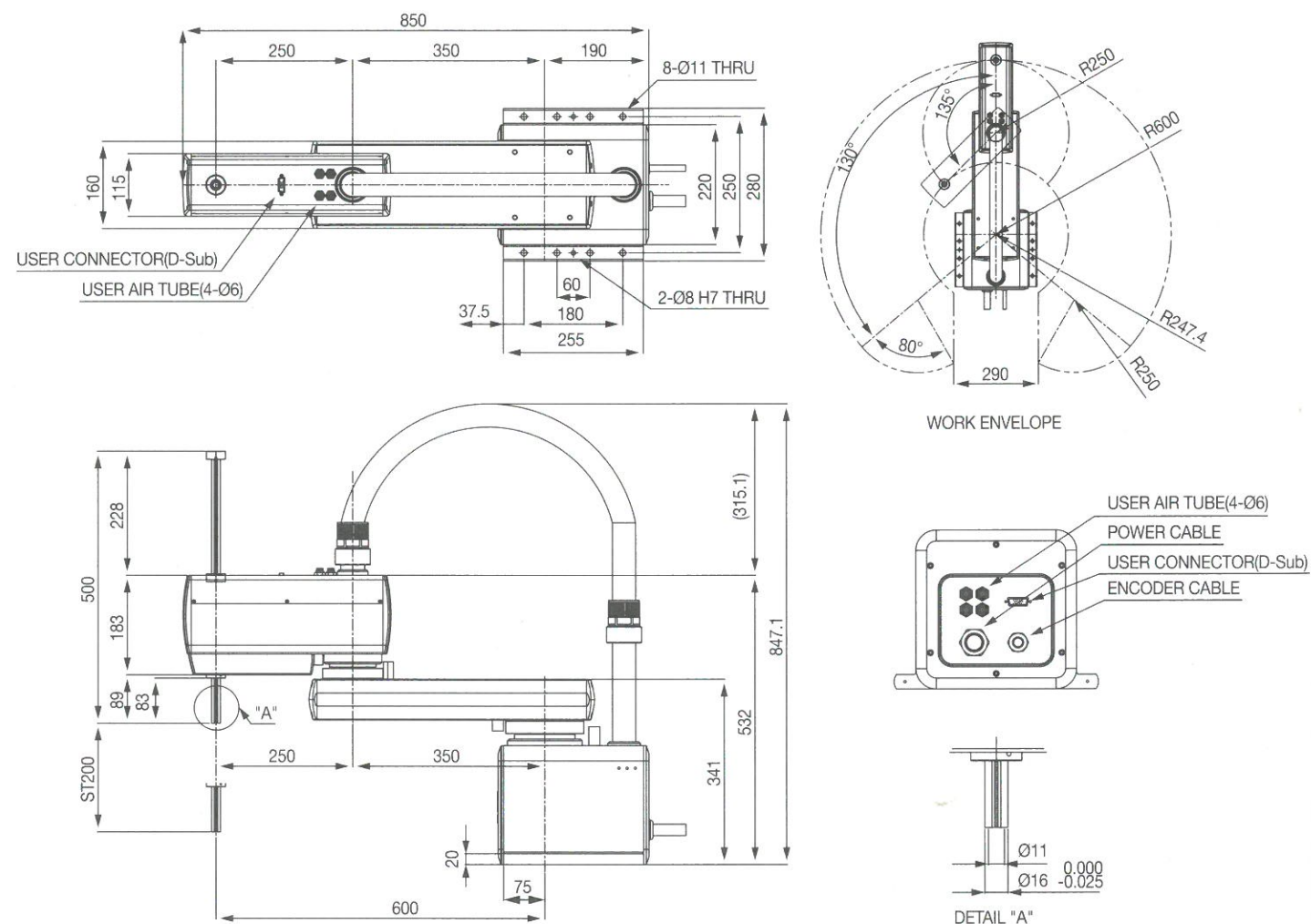
Basic specifications

SERIES	Axis		Arm length (mm)	Work range	Motor (w)	Maximum speed	Positioning Repeatability (+/-mm)	Standard Cycle time (s)	Payload(kg)		R axis allowable moment inertia (kg·m2)
									Rated	Maximum	
DSA	1Axis	1 Arm	350	+/-130°	750	5340mm/s	+/-0.01	0.39	1	3	0.015
	2Axis	2 Arm	250	+/-135°	400						
	3Axis	Vertical	-	150(100)mm	200	960mm/s	+/-0.01				
	4Axis	Rotating	-	+/-360°	100	1600°/s	+/-0.01				

Common specifications

Encoder Type	Absolute encoder	Z axis stroke	Standard 100mm, Option: 150mm
User wiring	0.2sqx15 wires / D-sub 15pin	Cable length(Note6)	Standard 3m, Option: 5m, 10m
User tubing	ø6x4	Weight	32kg
Environment	온도 0~40°C, 습도 20~85%RH 이하		

Dimension



Applicable controllers

Controller	Rated voltage	Page
iM-U	200~230VAC	172

Note

Refer to the page 151 for the detail explanations of (Note1) to (Note6)

MEMO