

THE ACTUATOR SOLUTION FOR FULL SCALE ROBOTS

# DYNAMIXEL PRO



Block type structure for multi-purpose applications

## All in One-Actuator

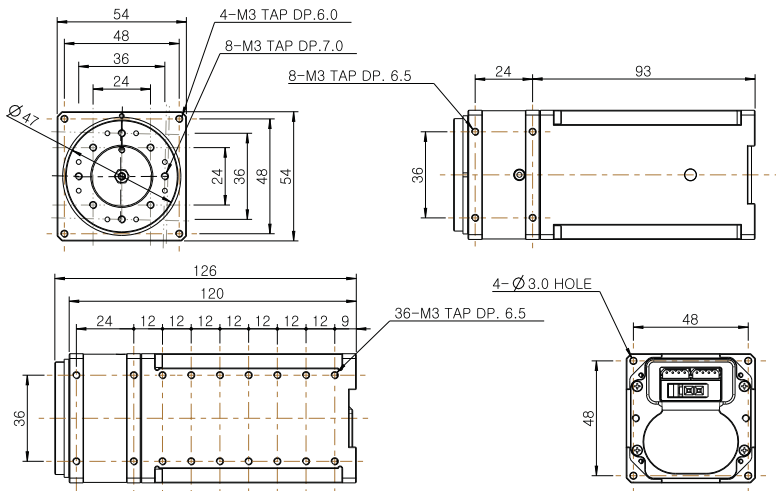
- High Power, High Precision
  - 1,000 pulse incremental encoder before gear reduction
  - 4,096 step absolute encoder after gear reduction
- Full Modular Solution
  - Various communication physical layer (RS-485, CAN)
- Sophisticated Control Algorithms
  - Electrical current sensing based control
  - Internal temperature sensing
- Novel Gear Reduction System



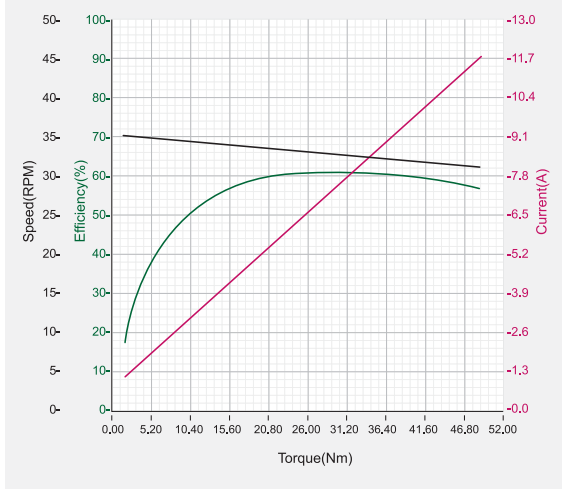
ROBOTIS

## H54-200-502

### Dimension



### Performance Graph

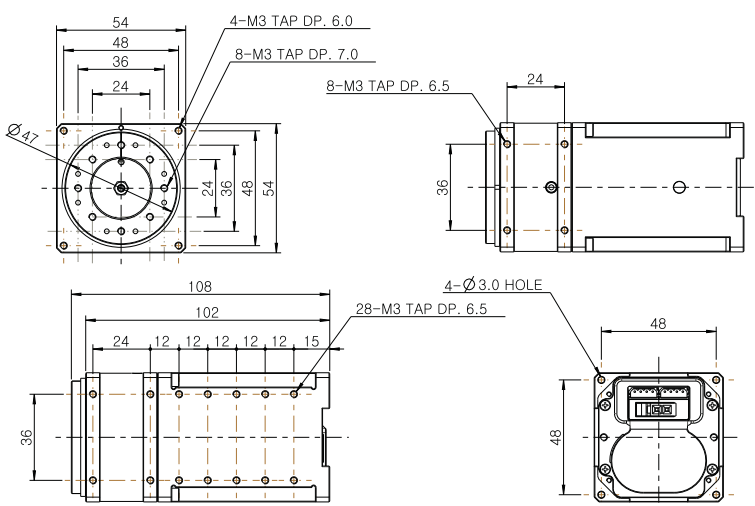


### Data

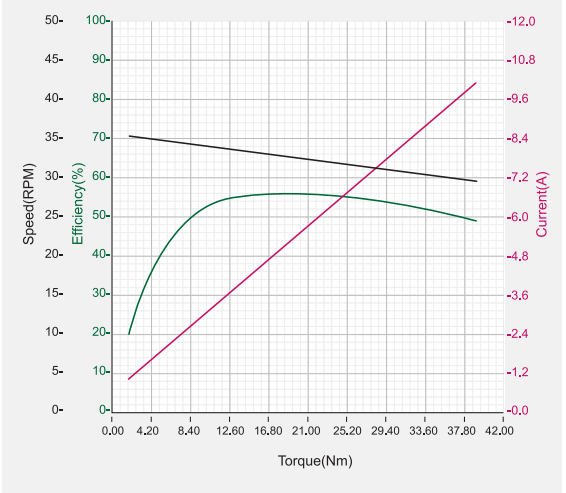
	Unit	Data		Unit	Data	
Nominal voltage	V	24	Resolution	Step/turn	502,000	
No load speed	RPM	35	Gear ratio	-	502	
No load current	A	1.18	Backlash	arcmin	3.8	
Continuous operation	Speed	RPM	32.1	Interface	-	RS-485 / CAN
	Torque	Nm	39.131	Operating temperature	°C	5~55
	Current	A	9.505			

## H54-100-502

### Dimension



### Performance Graph

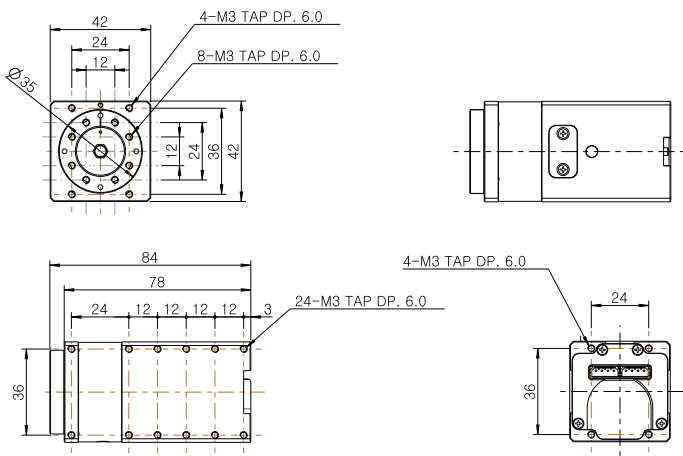


### Data

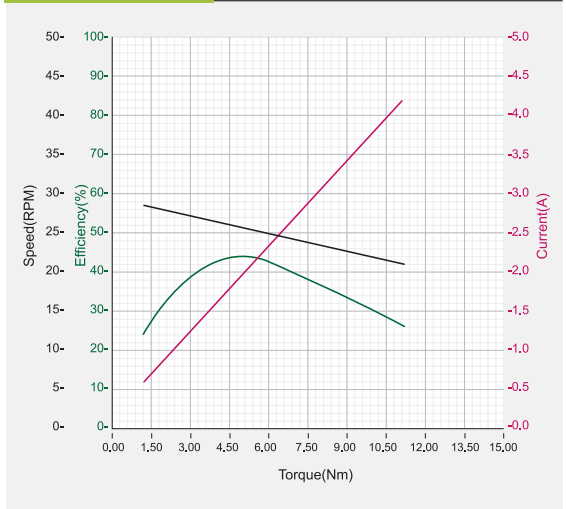
	Unit	Data		Unit	Data	
Nominal voltage	V	24	Resolution	Step/turn	502,000	
No load speed	RPM	35.2	Gear ratio	-	502	
No load current	A	1.06	Backlash	arcmin	3.5	
Continuous operation	Speed	RPM	32.7	Interface	-	RS-485 / CAN
	Torque	Nm	21.142	Operating temperature	°C	5~55
	Current	A	5.930			

# H42-20-304

## Dimension



## Performance Graph

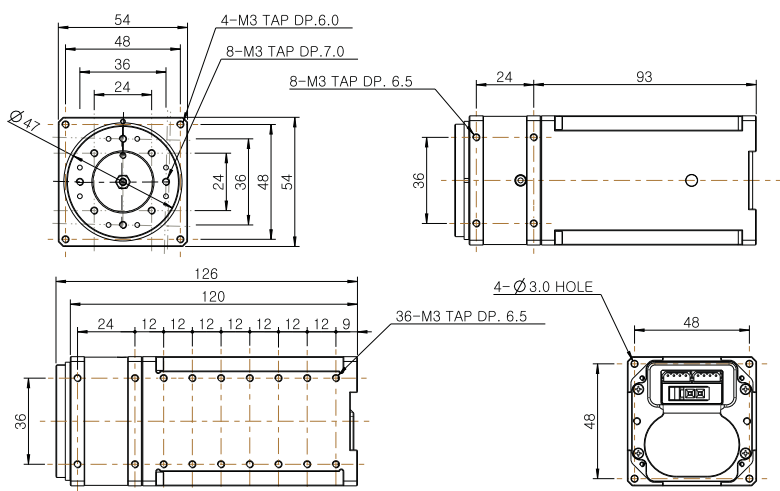


## Data

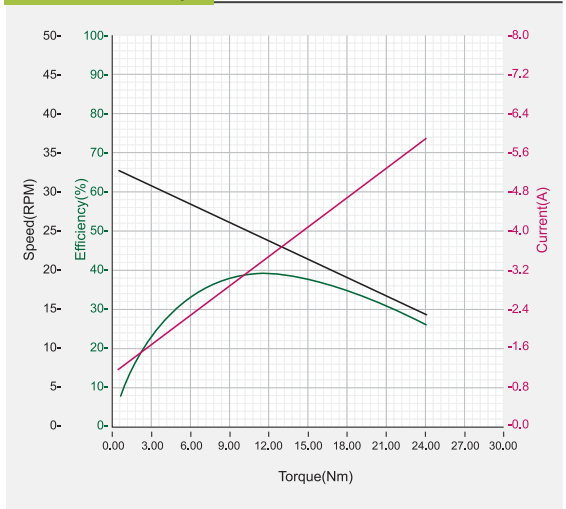
	Unit	Data		Unit	Data	
Nominal voltage	V	24	Resolution	Step/turn	304,000	
No load speed	RPM	28.3	Gear ratio	-	304	
No load current	A	0.61	Backlash	arcmin	3.5	
Continuous operation	Speed	RPM	15.59	Interface	-	RS-485 / CAN
	Torque	Nm	5.596	Operating temperature	°C	5~55
	Current	A	1.989			

# L54-60-298

## Dimension



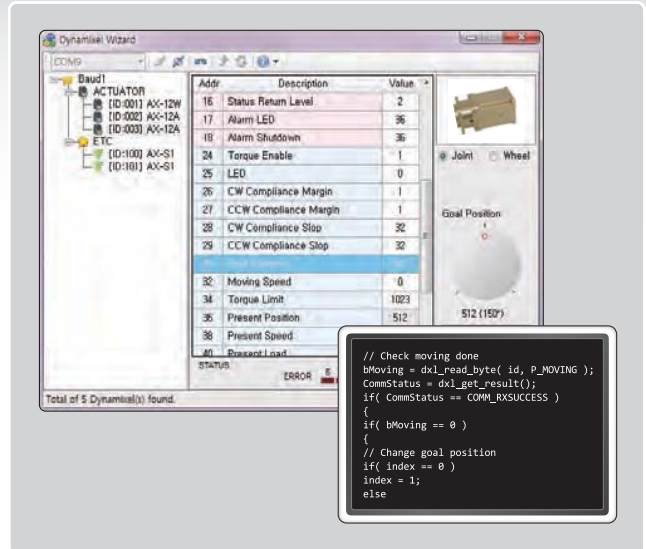
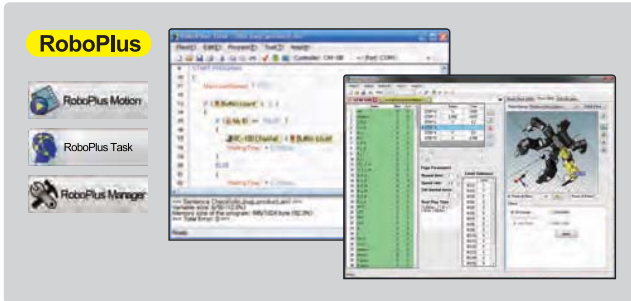
## Performance Graph



## Data

	Unit	Data		Unit	Data	
Nominal voltage	V	24	Resolution	Step/turn	4096	
No load speed	RPM	31	Gear ratio	-	298	
No load current	A	1.1	Backlash	arcmin	3.5	
Continuous operation	Speed	RPM	22.4	Interface	-	RS-485 / CAN
	Torque	Nm	11.8	Operating temperature	°C	5~55
	Current	A	3.1			

## Control Environment



## Patent & Certification

Patent Application No.	Title of Invention
PCT/KR2011/004265	Reduction gear structure using spur gears and actuator module including the same
10-2011-0110067	Method for controlling network structure-based actuator module
10-2011-0110068	Unibody type cycloid reducer
10-2011-0110069	Apparatus for position feedback of cycloid reducer
10-2011-0110070	Separable actuator
10-2011-0110071	Power transmission apparatus of separable actuator

### Calibration Label

- Korea Testing Laboratory
- Korea Measuring Instrumentation Research Association



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