

HIWIN®

DATORKER® Strain Wave Gear System

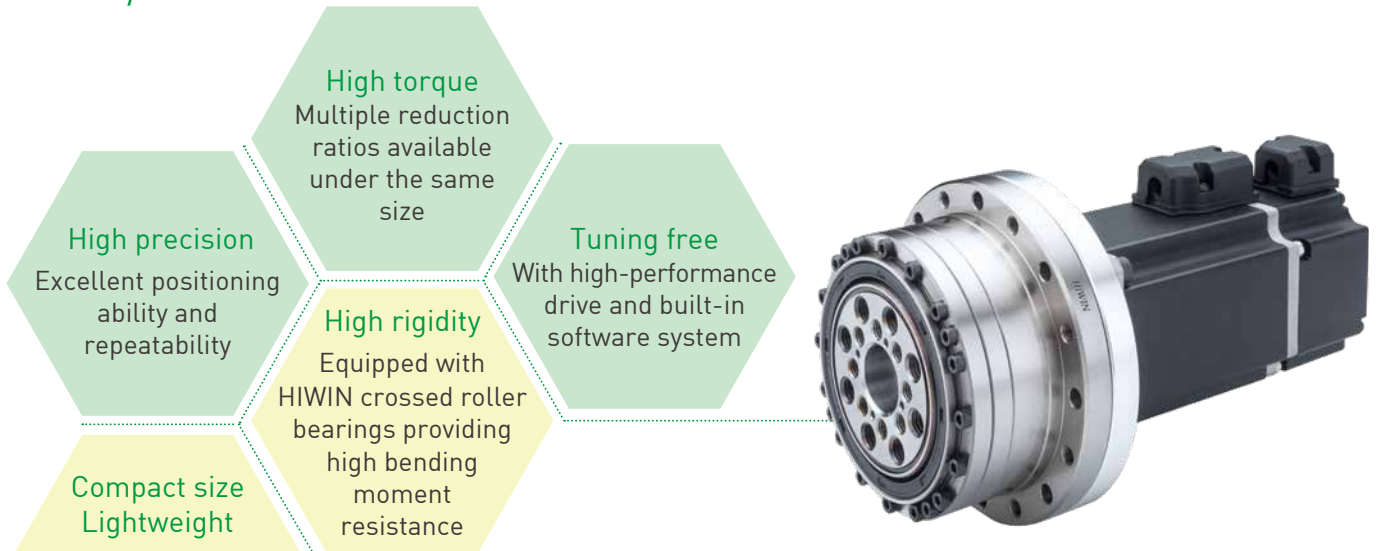


INDUSTRIE 4.0 Best Partner

DATORKER® Strain Wave Gear System

New generation DATORKER® Strain Wave Gear System is the best solution for rotary applications. DATORKER® Strain Wave Gear System is suitable for wide range of applications like: semiconductor, precision laser cutting, 3C electronic automation, PCB industry, sustainable industry, automobile industry or any rotary related applications.

Feature /



High torque	Maximum output torque > 300 Nm
Compact structure	Volume and weight reduction by more than 50% compared to other types of reducers
High precision	Positioning accuracy < 60 arc-sec Repeatability < ± 6 arc-sec
Easy installation	Can be installed in any direction / Can be programmed to any angle
Total solution	Matching drives with absolute encoder / Built-in editable PDL program Support multiple control (I/O, Pulse, EtherCAT)

Matching Drives /

- Variety of I / O functions

To support a number of different functions, you are free to configure the I/O pin functionality and adapt different hardware interface needs. This satisfies diverse requirements for different motion controllers with regards to their pin assignments and hardware interfaces.



D2T

E1

- PDL (Process Description Language)

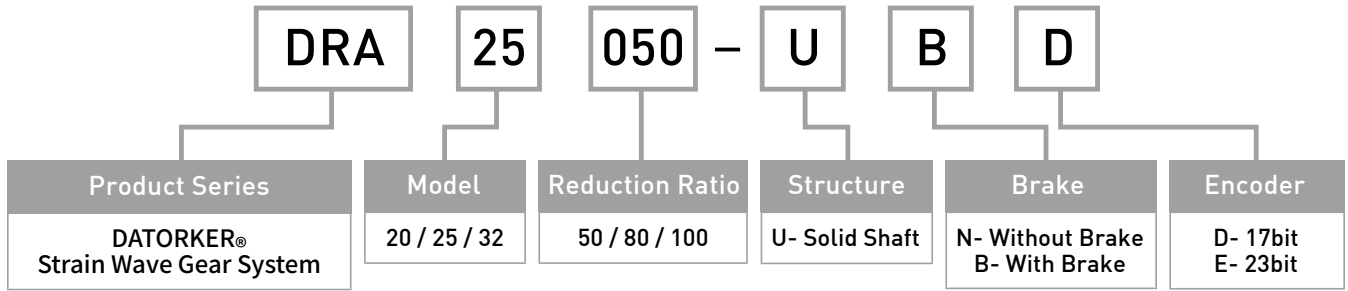
Easy-use process description language is provided. Complex motions can be designated via PDL, such as extrusion process, point-to-point motion, fixed speed control, homing process and so on. PDL gains the advantages of flexibility and programmability. For quick learning, a number of sample programs are provided in the PDL manual.



- Built-in safe torque off function (STO) *available in E1 only

When STO is triggered, motor power will be cut off immediately providing safety function.

Product Specifications /



Specification Sheet /

Model	Reduction Ratio	Power Supply: AC 220V					Control Mode	Encoder		Permissible Moment Load	Moment Rigidity	Weight		Output Resolution	Positioning Accuracy (uni-direction)	Repeatability		
		Max Torque	Max Speed	Rated Speed	Max Current	Rated Current		Encoder Type	Encoder Resolution (One Rotation of Output Shaft)			Without Brake	With Brake					
		Nm	rpm	rpm	A	A						Nm	× 10 ⁴ Nm/rad				kg	kg
DRA20-D	50	56	90	60	5.1	1.7	Position control (Pulse), EtherCAT(CoE)	17bit Absolute	2 ¹⁷ (131,072)	91	12.8	2.4	3.0	< 60	< ± 6	6,553,600		
	80	74	56	37												10,485,760		
	100	82	45	30												13,107,200		
DRA25-D	50	98	90	60	7.8	2.6				17bit Absolute	2 ¹⁷ (131,072)	156	24.2			3.3	3.9	6,553,600
	80	137	56	37														10,485,760
	100	157	45	30														13,107,200
DRA32-D	50	216	90	60	15.3	5.1		17bit Absolute	2 ¹⁷ (131,072)			313	53.9			6.8	7.5	6,553,600
	80	304	56	37														10,485,760
	100	333	45	30														13,107,200
DRA20-E	50	56	120	60	6.4	1.6				23bit Absolute	2 ²³ (8,388,608)	91	12.8			2.3	2.6	419,430,400
	80	74	75	37														671,088,640
	100	82	60	30														838,860,800
DRA25-E	50	98	112	60	10	2.5	23bit Absolute	2 ²³ (8,388,608)	156			24.2	3.3	3.9	419,430,400			
	80	137	70	37											671,088,640			
	100	157	56	30											838,860,800			
DRA32-E	50	216	96	60	18.6	4.65			23bit Absolute			2 ²³ (8,388,608)	313	53.9	6.9	7.6	419,430,400	
	80	304	60	37													671,088,640	
	100	333	48	30													838,860,800	

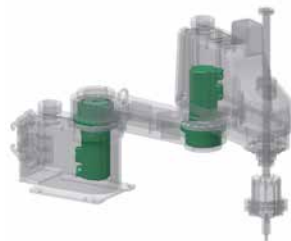
*Standard parts include drive (preset as position control mode), motor cable (3M), encoder cable (3M)

Product application and installation /

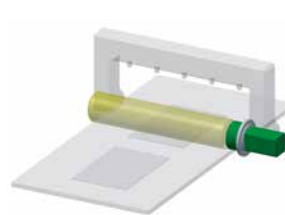
Indexing equipment,
Inspection equipment
(vertical)



Robot
(vertical up/vertical down)



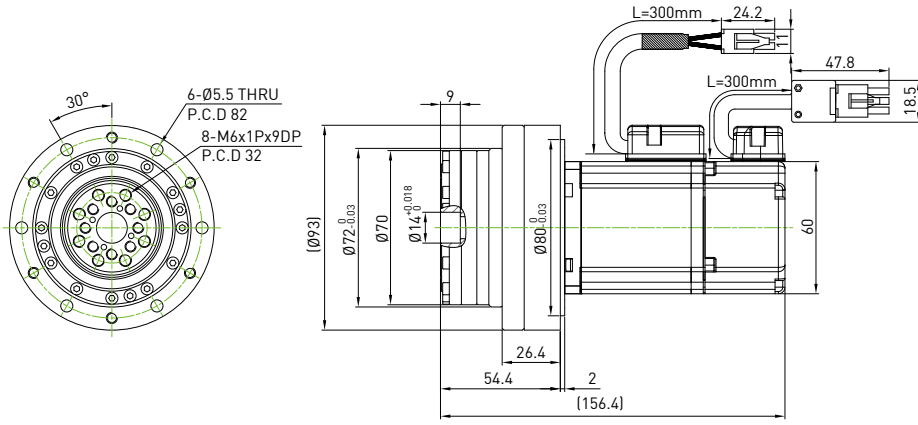
Printing automation
(horizontal)



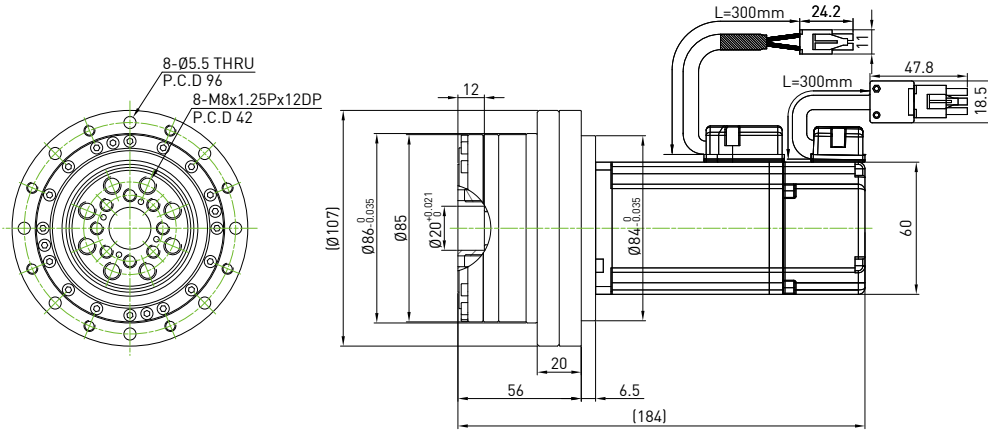
Multi-Axis applications
(any angle)



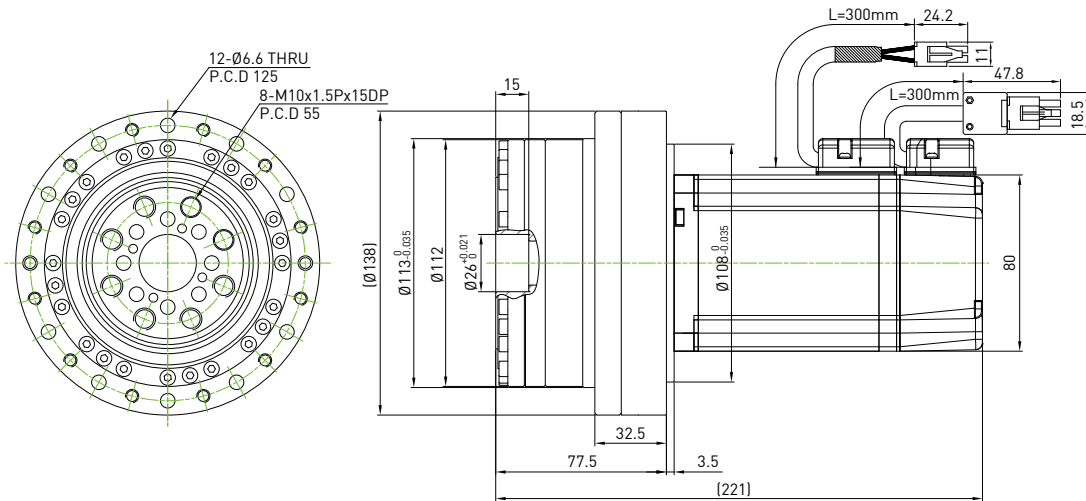
DRA20□□□ -UND



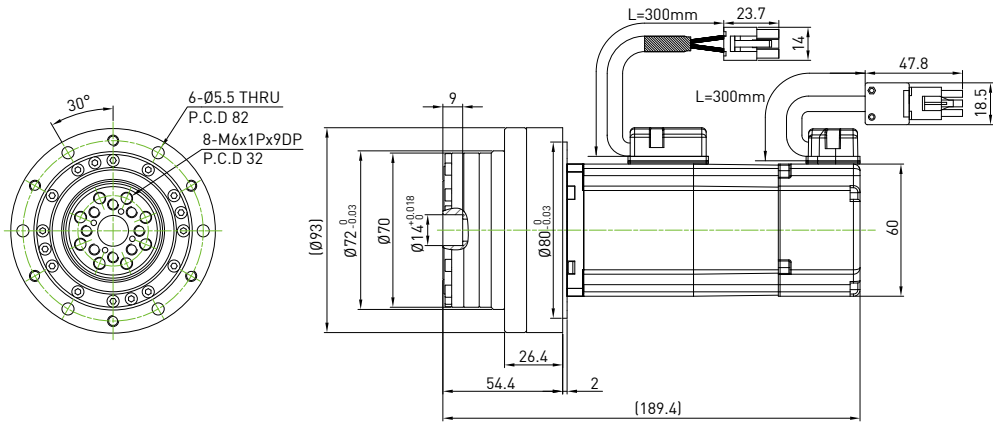
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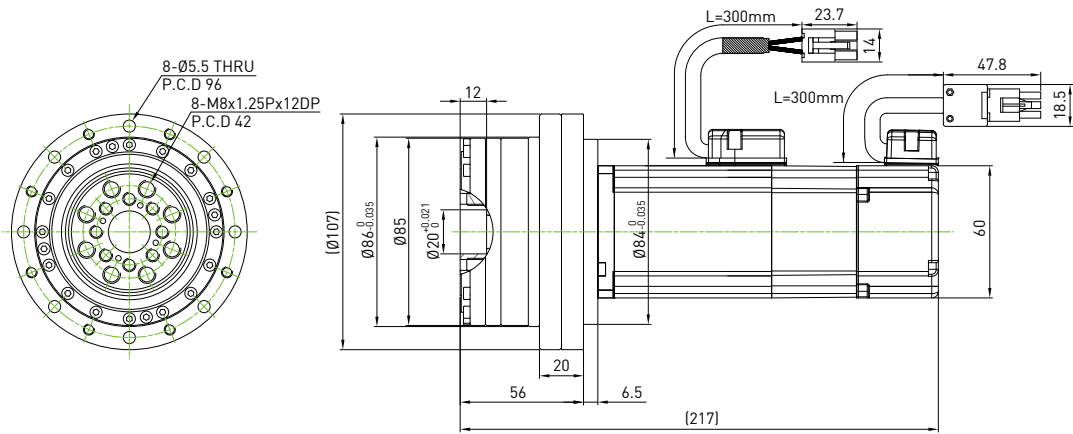
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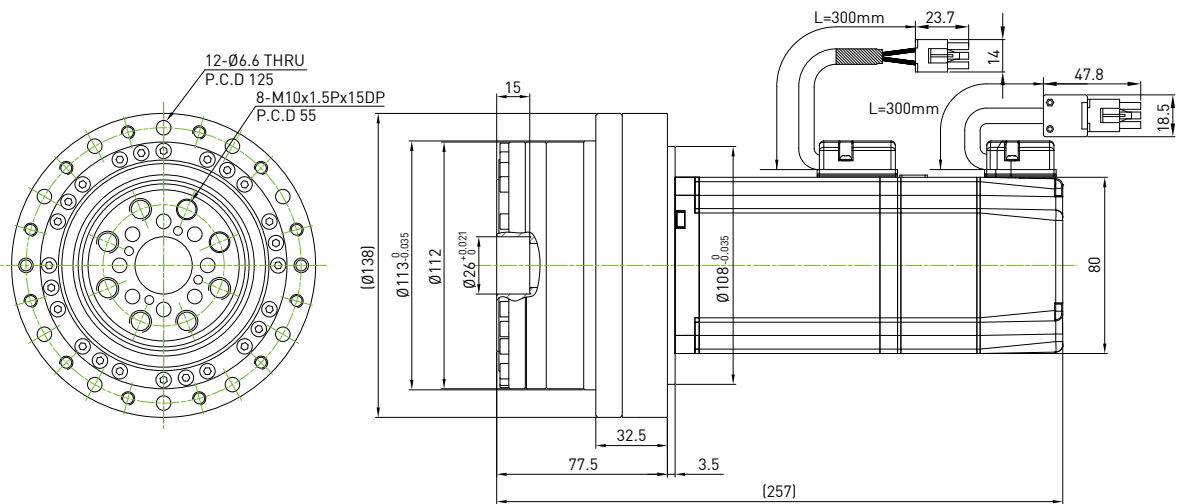
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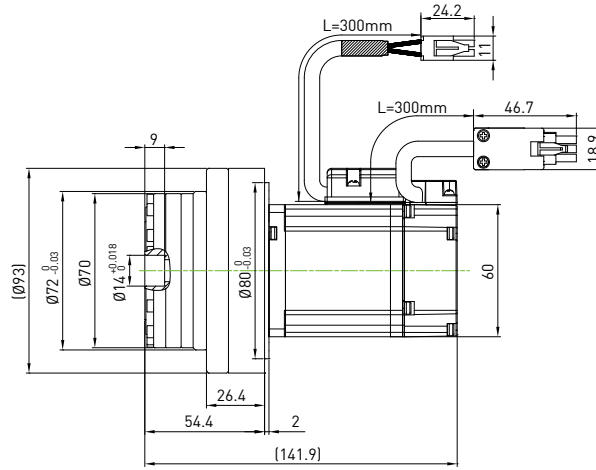
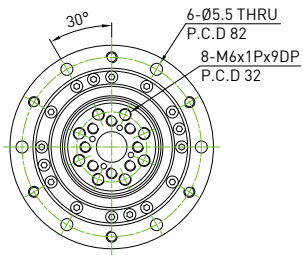
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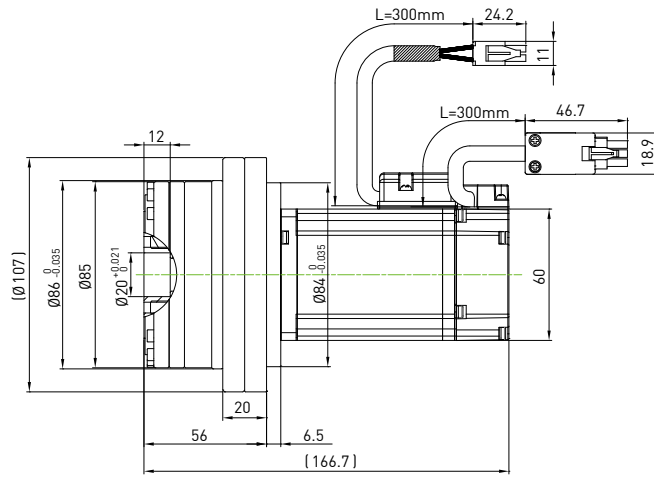
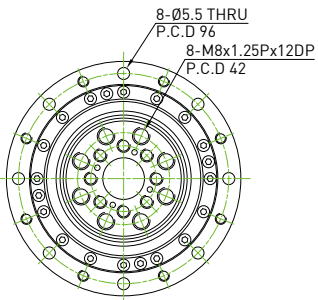
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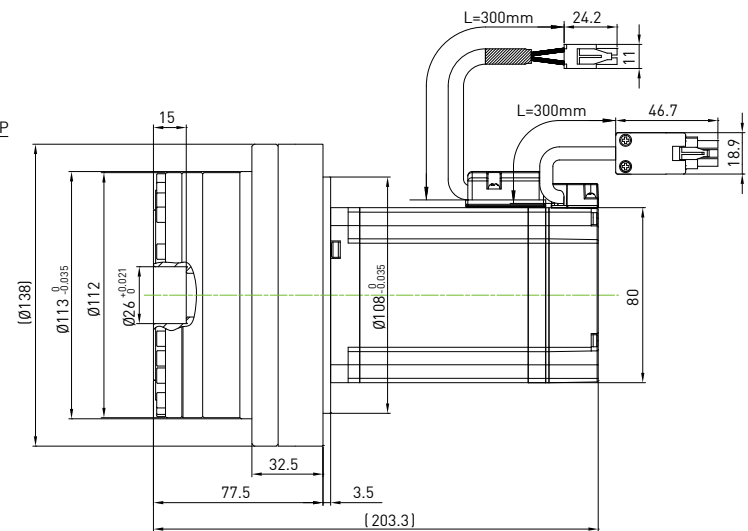
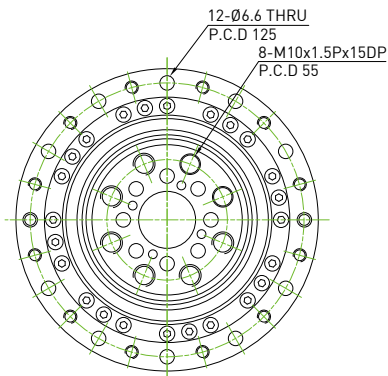
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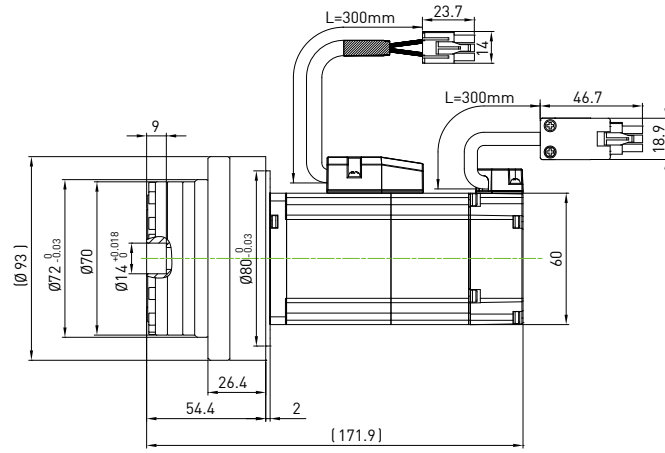
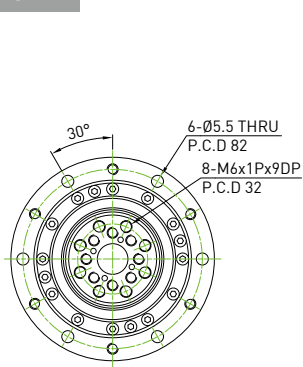
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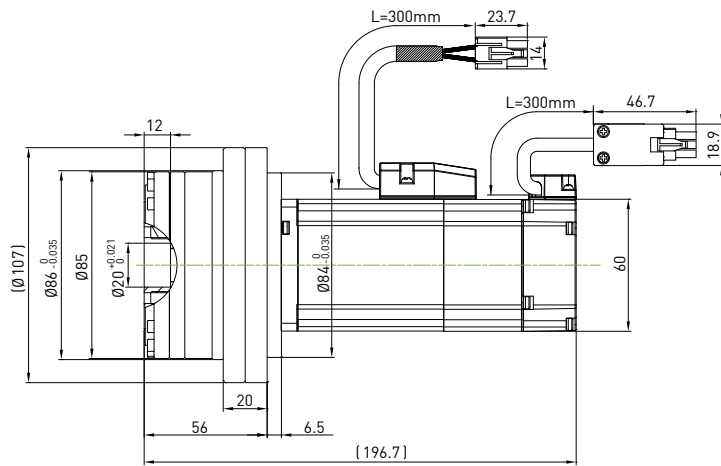
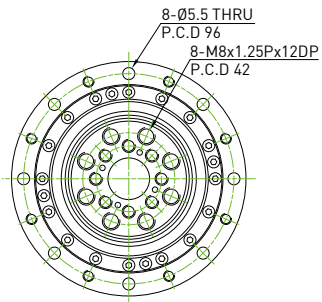
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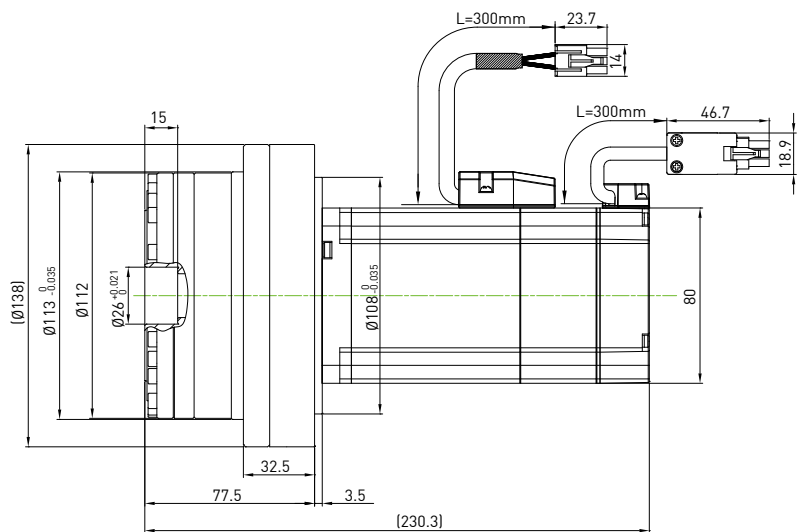
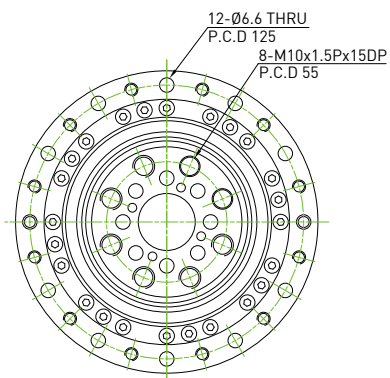
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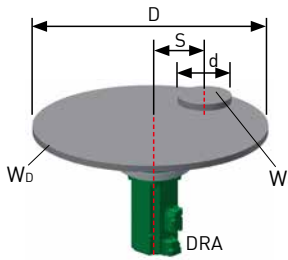
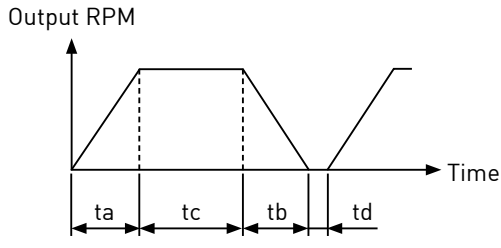
DRA25□□□ -UBE



DRA32□□□ -UBE



HIWIN DATORKER® Strain Wave Gear System Inquiry Form

Customer name			Telephone	
Email			Date	
Applications	<input type="checkbox"/> Robot _____ <input type="checkbox"/> Inspection equipment _____ <input type="checkbox"/> Automation equipment _____ <input type="checkbox"/> Electronics industry equipment _____ <input type="checkbox"/> Machine tool _____ <input type="checkbox"/> Medical equipment _____ <input type="checkbox"/> Semiconductor _____ <input type="checkbox"/> Others, please specify _____			
Selection	<p>● Mechanism details</p> <p>Table diameter(D) : _____ (mm)</p> <p>Table weight (W_b) : _____ (kg)</p> <p>Workpiece diameter(d) : _____ (mm)</p> <p>Workpiece weight(W_d) : _____ (kg)</p> <p>Distance between axis center and workpiece center (S) : _____ (mm)</p> 	<p>● Operation parameters</p> <p>Maximum RPM : _____ (rpm)</p> <p>Acceleration time(t_a) : _____ (sec)</p> <p>Deceleration time(t_b) : _____ (sec)</p> <p>Velocity time(t_c) : _____ (sec)</p> <p>Resting time(t_d) : _____ (sec)</p> 		
Working environments	<input type="checkbox"/> Normal working environment (ambient temperature 0°C - 40°C, humidity under 80% RH) <input type="checkbox"/> Special working environment (ambient temperature : _____ °C) <input type="checkbox"/> Harsh environment (dusty, wet, etc) <input type="checkbox"/> Other special environment : _____			
Installation type	<input type="checkbox"/> Horizontal <input type="checkbox"/> Vertical(up/down) <input type="checkbox"/> Others(any angle)			
Brake	<input type="checkbox"/> No <input type="checkbox"/> Yes			
Drive	<input type="checkbox"/> D2T <input type="checkbox"/> E1(STO)			
Input voltage	<input type="checkbox"/> 220V Single phase <input type="checkbox"/> 220V Three phase <input type="checkbox"/> Others			
Power cable & Encoder cable	<input type="checkbox"/> 3M (standard) <input type="checkbox"/> 5M <input type="checkbox"/> 7M <input type="checkbox"/> 10M			
Optional accessories	<input type="checkbox"/> Control cable (including pulse + I/O pins) <input type="checkbox"/> USB transfer cable <input type="checkbox"/> Single phase filters <input type="checkbox"/> Three phase filters			
Control type	<input type="checkbox"/> Position control (pulse) <input type="checkbox"/> EtherCAT(CoE) <input type="checkbox"/> Others			
Host	<input type="checkbox"/> None <input type="checkbox"/> PLC/Brand : _____ Model : _____ <input type="checkbox"/> Axis card/Brand : _____ Model : _____			
Other requirements				
<p>Below to be filled in by HIWIN or Distributor</p> <p>Suggested Model & Specification :</p>				

HIWIN
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