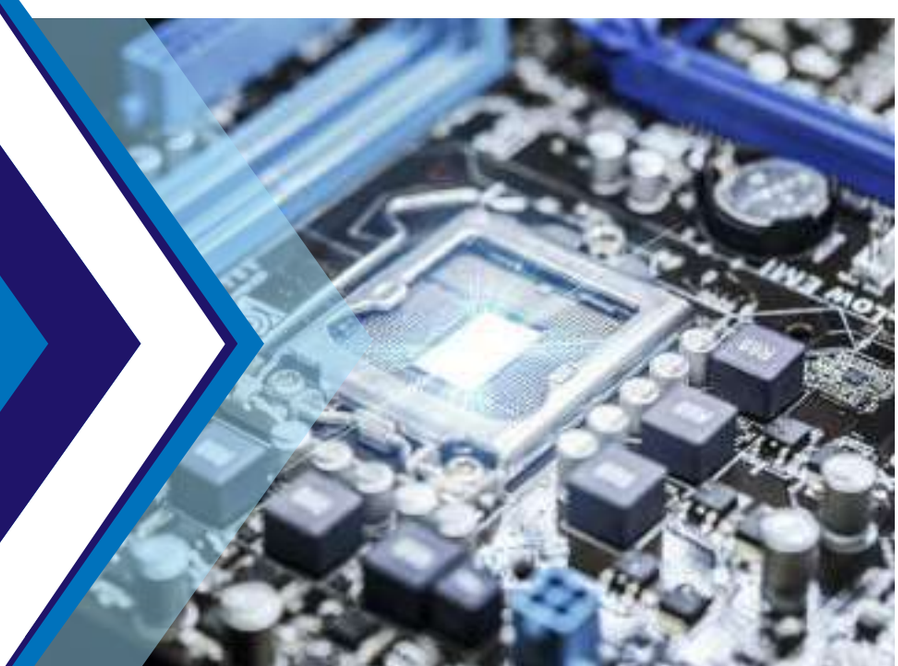
Direct Drive Rotary Table
(Torque Motor inside)

DAM Series

HPB MOTION
CONTROL CO., LTD.



Compact Size, High Precision
Reliable Quality

www.hpb-industry.com

HPB MOTION CONTROL CO., LTD.

HPB has been a professional manufacturer of AC/DC Drive, AC Servo Drive, AC Servomotor and AC Vector motor/Spindle motor in Taiwan for more than 28 years.

Based on cumulating leading edge technology and experiences, we are capable to supply good reliable products with excellent quality performance and competitive price level.

We have been receiving good positive response from market and successfully exporting through an extensive sales channel worldwide including of Europe, Asia, U.S.A., South America, South Africa, more than 30 countries.

All HPB products are CE certificate available and UL approval for AC servomotor/AC spindle motor.

All products are designed and produced in Taiwan with high strict quality control and management.

The manufacturing facility including of substantial machine-workshop, UL approval dynamic testing bench available for output torque 200Nm, 1000Nm to maximum 3000Nm.

Except of existing products range are competent to apply on various different industry applications, we continue to watch the new needs from market and launch fast innovative research and development of new products to comply matching of new marketing demand.

Quality, Innovative, Service are our principle foundation to keep company growing and bring satisfactory to all our customers.



Direct Drive Rotary Table
(Torque Motor inside)
DAM Series



Compact Size

High Precision

Reliable Quality

Product Feature and Advantages

Compact :

- Direct connection to the load, gearless, less-backlash, low noise.
- High over-load capacity (4x), High speed, High servo response.
- Absolute encoder feedback, High resolution ,High Precision
- Hollow Shaft structure, easy wiring and piping

Customize :

- Customer supply Encoder available
- Customized plate for mechanical fitting in option.

Cost Effective:

- Structure part modulized, local tooling.
- Supply non-hollow shaft type

Applications

- Automation Machines
- Semi-conductor manufacturing Equipment
- Robots
- CNC Gear Tool Grinding Machines
- CNC Tapping Center

Remark

a) According to IEC 60034-1

b) Water jacket is necessary for water cooling option; When water cooled, the value of rated torque and rated current on the spec. will be 2-times higher than the original ones. Besides, outer-dia. of motor +30mm. Rest of parameters are remained as original value.

c) It's available to select electromagnetic type (24Vdc or 90Vdc) or pneumatic(4.5kg/cm2) for the holding brake; 24Vdc solenoid valve is the standard accessory for pneumatic type brake. This valve need to be installed outside the motor.

d) Customize through-hole diameter is also available. Also supply non-hollow shaft type for cost effective.

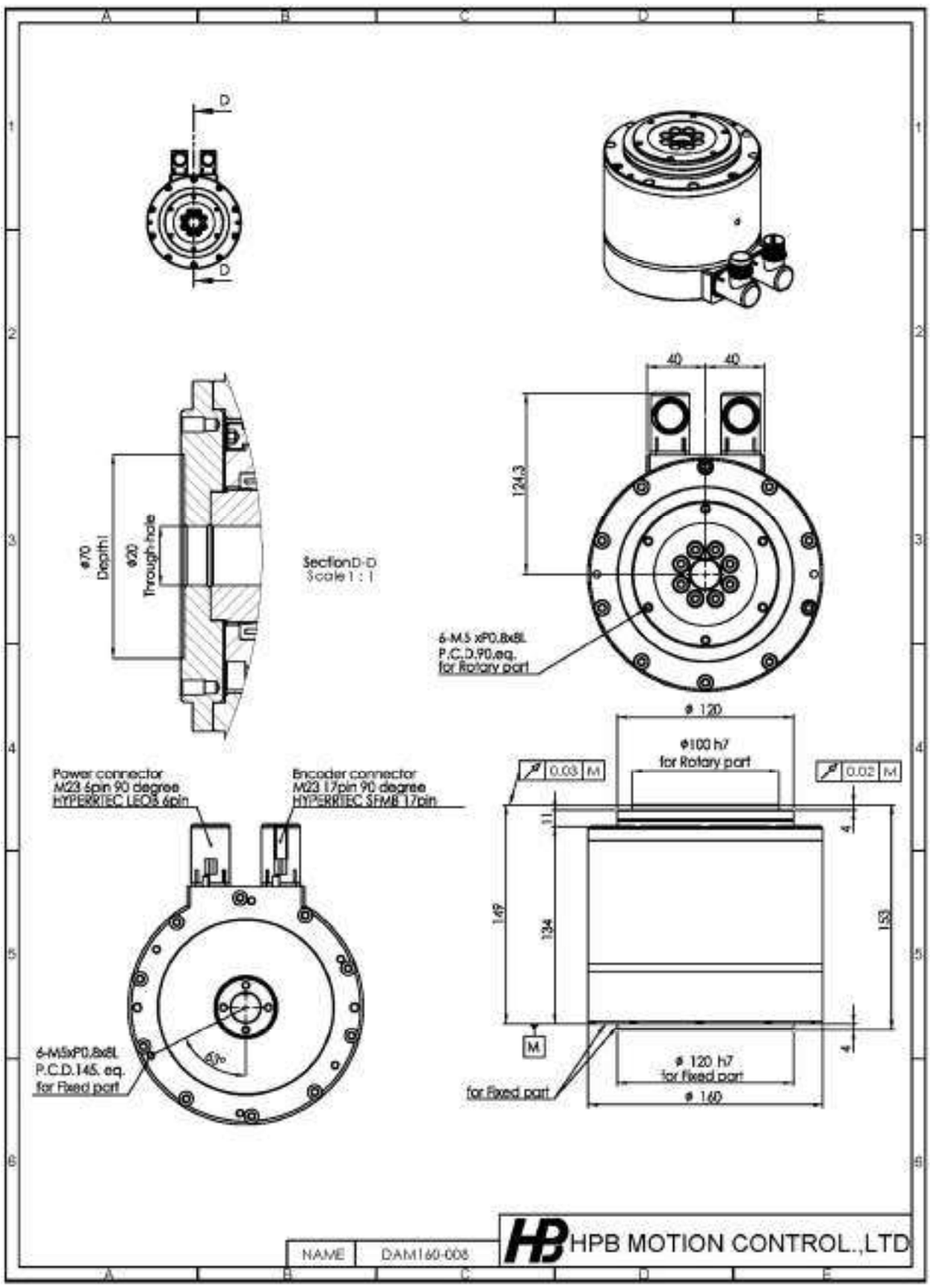
e) Standard type with absolute single-turn encoder; for multi-turn applications, please contact HPB for further details.

Description		Data Position of the order No.										
ROTARY TABLE	DAM	235	-	008	N	F	H	-	E01	S	-	1
Outter Diameter	160mm	160										
	200mm	200										
	235mm	235										
	316mm	316										
	385mm	385										
Fix-number												
Rated Torque	8Nm			008								
	14Nm			014								
	18Nm			018								
	26Nm			026								
Cooling	Enclosed, self-cooled (default)				N							
	Enclosed with Water Jacket, Water cooled				C							
Brake Version	without brake (default)					F						
	with brake					B						
Shaft Extension	Hollow Shaft, standard (default)						H					
	Hollow Shaft, customized through-hole size						C					
	non-hollow shaft						N					
Fix-number												
Absolute Encoder	SICK SRM50								E01			
	SICK SEK90								E04			
	SICK SEK160								E05			
	RENISHAW-SIEMENS								E06			
	RENISHAW-Mitsubishi								E07			
	RENISHAW-Biss-C								E09			
	HEIDENHAIN-ECA EnDat2.2								E13			
	Customer supply								E00			
Direction of connection	From side (default)									S		
	From NDE (non-drive end)									R		
	other way									T		
Fix-number												
Design version												1-Z

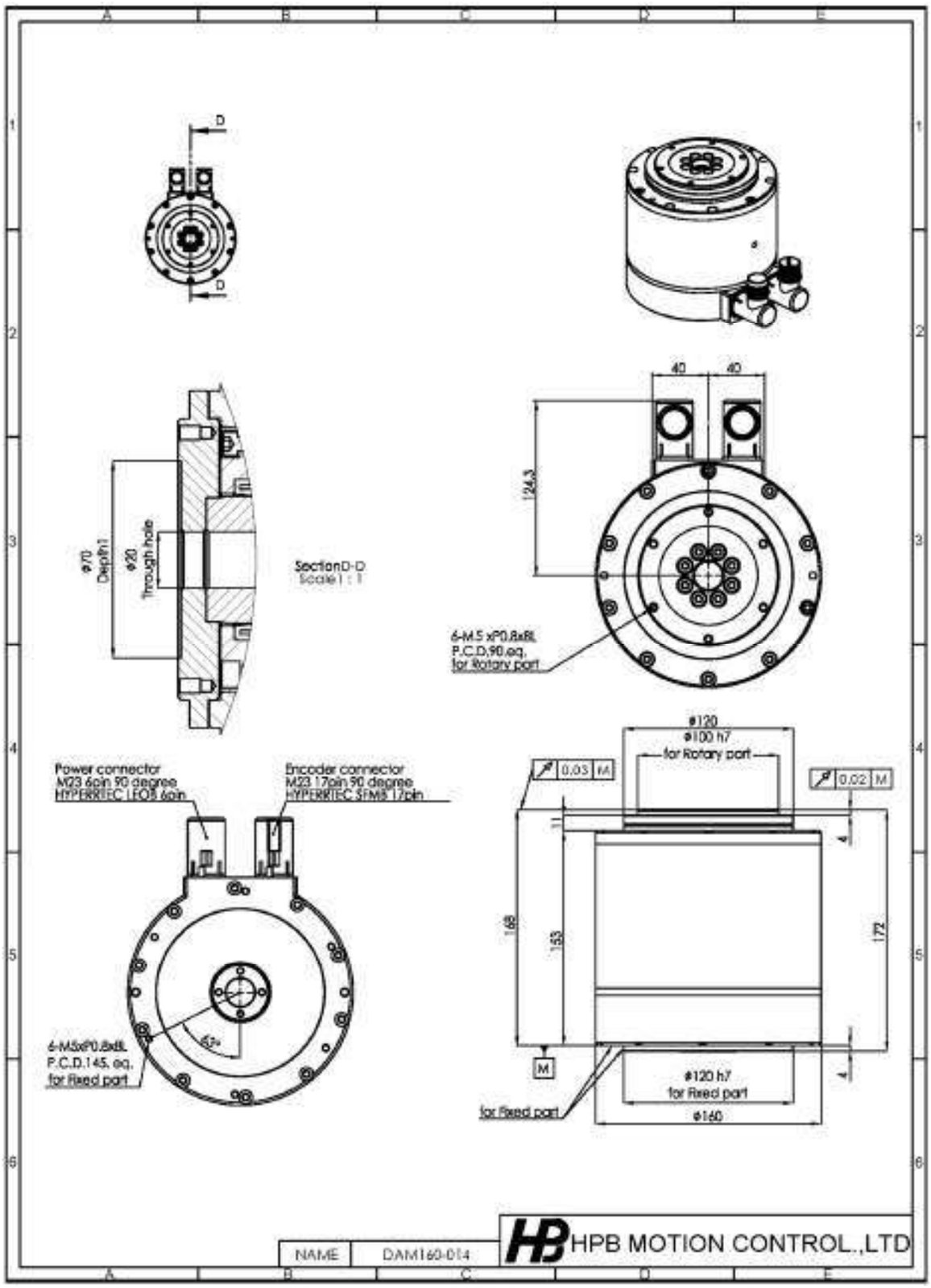
DAM Series Torque Motor

ITEM	UNIT	DAM160-008	DAM160-014	DAM160-018	DAM160-026
Drive Input Voltage	Vrms	220Vac			
Rated Speed	rpm	300	300	300	300
Max. Speed	rpm	800	500	800	500
Rated Power Output	W	251	440	565	817
Rated Torque	Nm	8	14	18	26
Max. Torque	Nm	32	56	72	104
Rated Current	Arms	2.9	3	5.6	5.6
Max. Current	Arms	13	13.7	25.2	25.4
Torque Constant Kt	Nm/Arms	2.79	4.65	3.24	4.65
Back EMF Ke	vrms/(rad/s)	1.79	2.98	2.08	2.98
Poles		22	22	22	22
Rotor Inertia J	kgcm2	28	35	43	50
Radial Runout	Um	20	20	20	20
Axial Runout	Um	30	30	30	30
Precision of Absolute	arc-seconds	1) ±10 2) ±30	1) ±10 2) ±30	1) ±10 2) ±30	1) ±10 2) ±30
Precision of Repeatability	arc-seconds	±4	±4	±4	±4
Backlash	arc-seconds	±4	±4	±4	±4
Protection		IP65	IP65	IP65	IP65
Allowable moment load	Ma (Nm)	20	20	30	40
Allowable Load Capacity	Kg	50			
Encoder Type	1) Renishaw RA26BAA100B10A-30100B Absolute single turn encoder Biss 26 bits				
	2) Sick SEK160 (for RAMH) & SRS50-HAAO-K21 (for RAMN) Absolute sin/cos Encoder - Hyperface Interface				

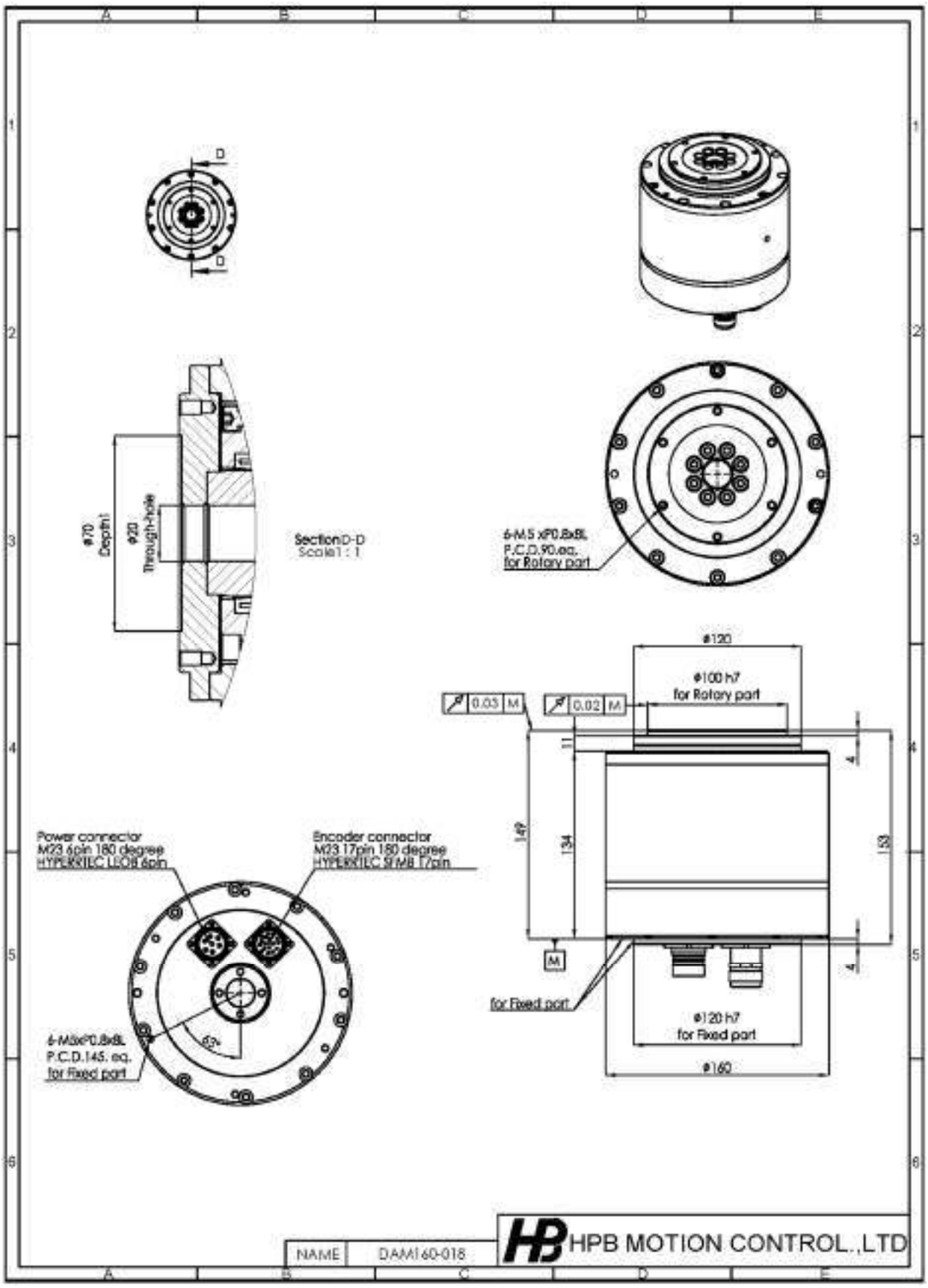
Dimension : DAM160-008



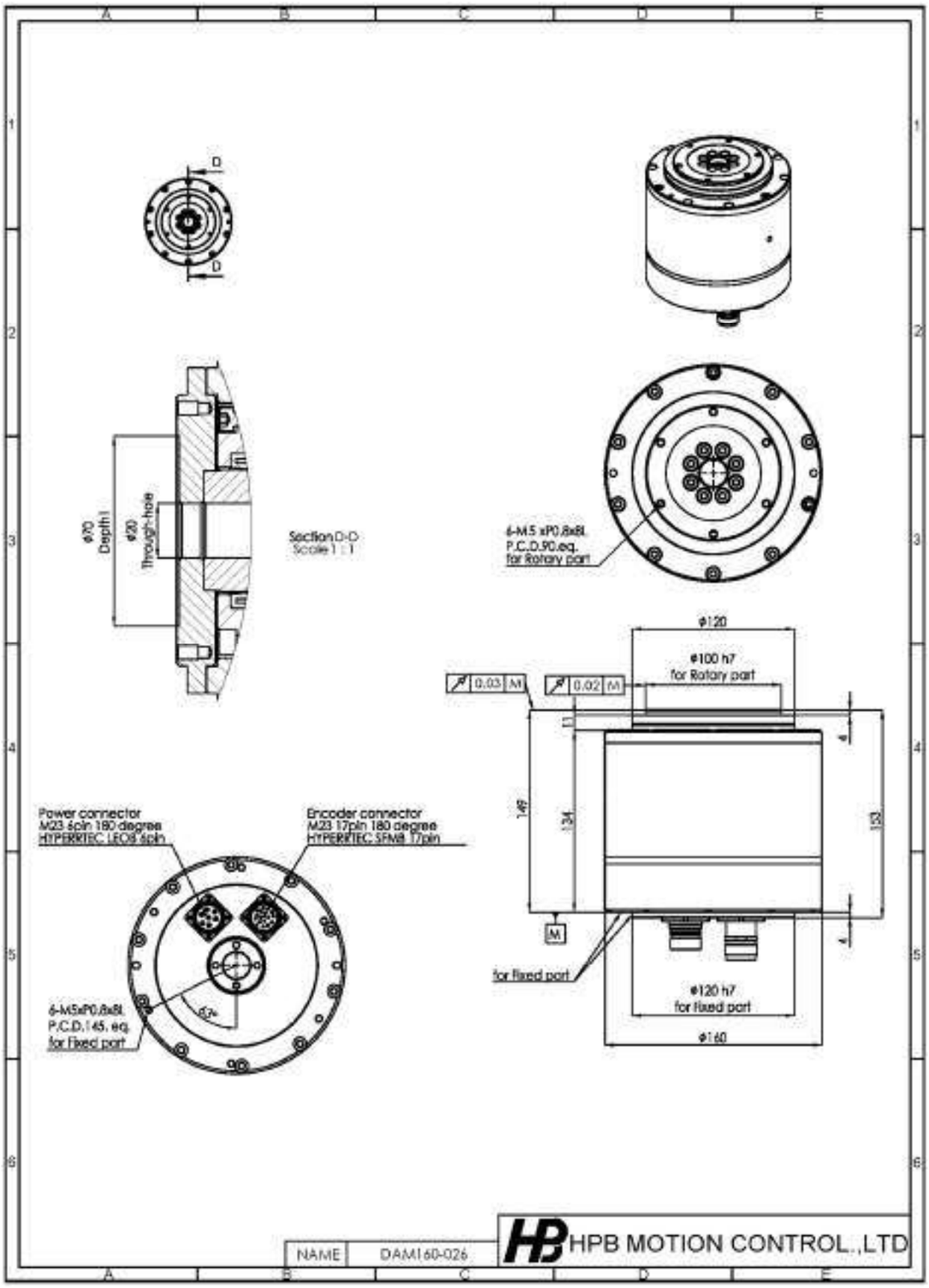
Dimension : DAM160-014



Dimension : DAM160-018



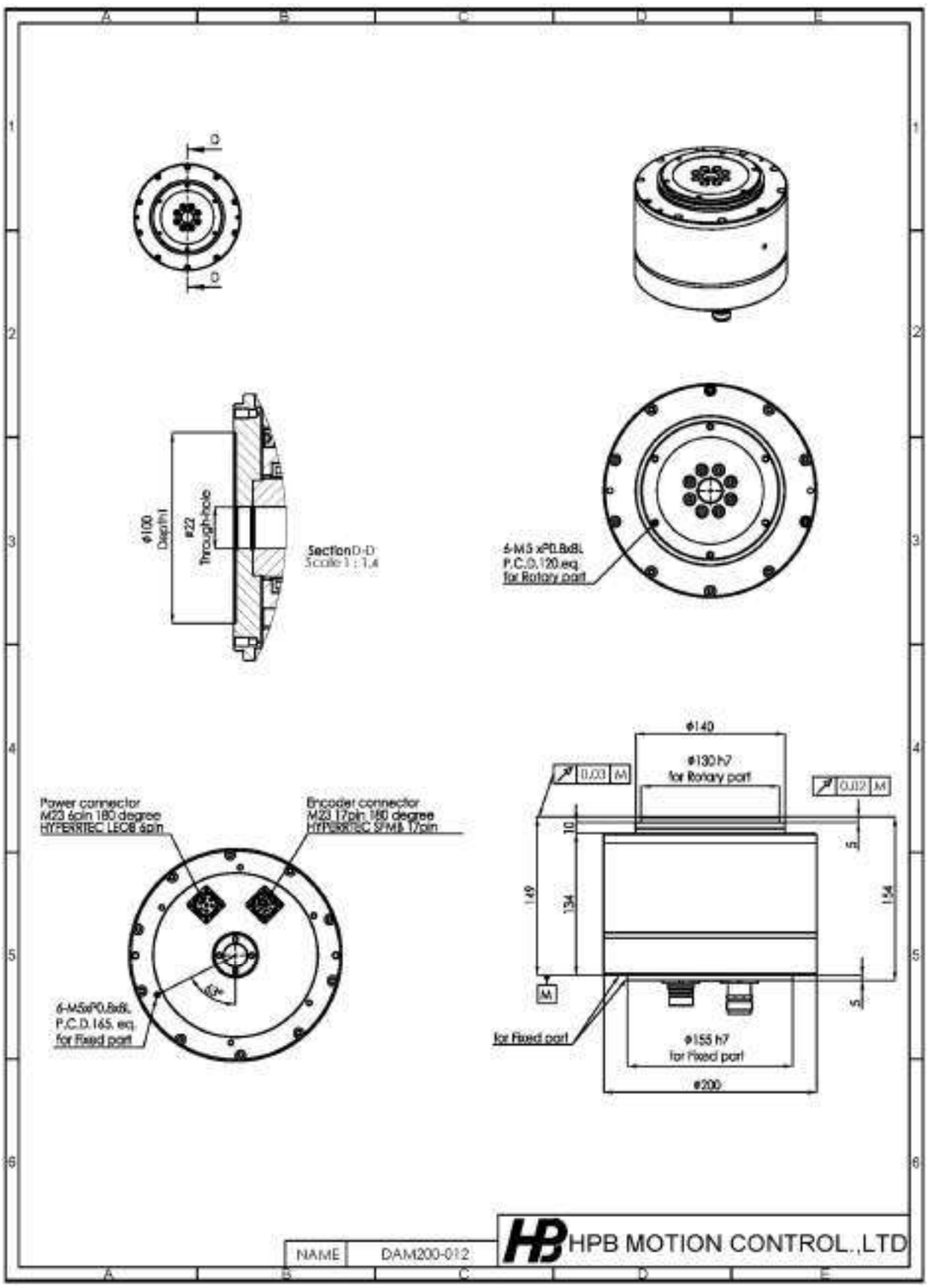
Dimension : DAM160-026



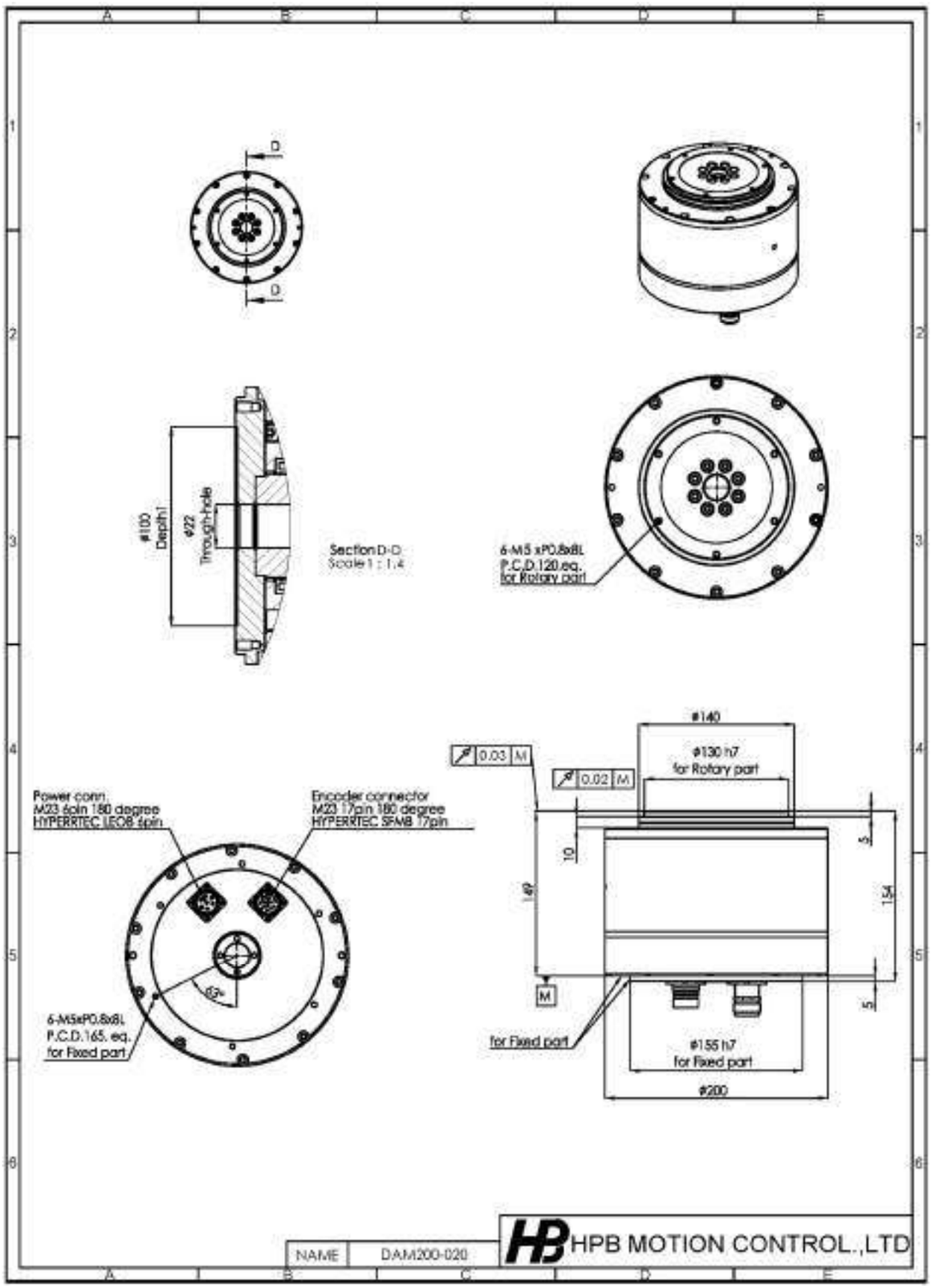
DAM Series Torque Motor

ITEM	UNIT	DAM200-012	DAM200-020	DAM200-032	DAM200-042
Drive Input Voltage	Vrms	220Vac			
Rated Speed	rpm	300	200	200	200
Max. Speed	rpm	800	400	300	300
Rated Power Output	W	377	419	670	880
Rated Torque	Nm	12	20	32	42
Max. Torque	Nm	48	80	128	168
Rated Current	Arms	3.7	3.8	4.3	5.6
Max. Current	Arms	16.8	17.2	19.4	25.5
Torque Constant Kt	Nm/Arms	3.24	5.3	7.48	7.48
Back EMF Ke	vrms/(rad/s)	2.08	3.4	4.8	4.8
Poles		22	22	22	22
Rotor Inertia J	kgcm2	78	95	115	135
Radial Runout	Um	20	20	20	20
Axial Runout	Um	30	30	30	30
Precision of Absolute	arc-seconds	1) ±10 2) ±30	1) ±10 2) ±30	1) ±10 2) ±30	1) ±10 2) ±30
Precision of Repeatability	arc-seconds	±4	±4	±4	±4
Backlash	arc-seconds	±4	±4	±4	±4
Protection		IP65	IP65	IP65	IP65
Allowable moment load	Ma (Nm)	40	40	70	110
Allowable Load Capacity	Kg	100			
Encoder Type	1) Renishaw RA26BAA100B10A-30100B Absolute single turn encoder Biss 26 bits				
	2) Sick SEK160 (for RAMH) & SRS50-HAAO-K21 (for RAMN) Absolute sin/cos Encoder - Hyperface Interface				

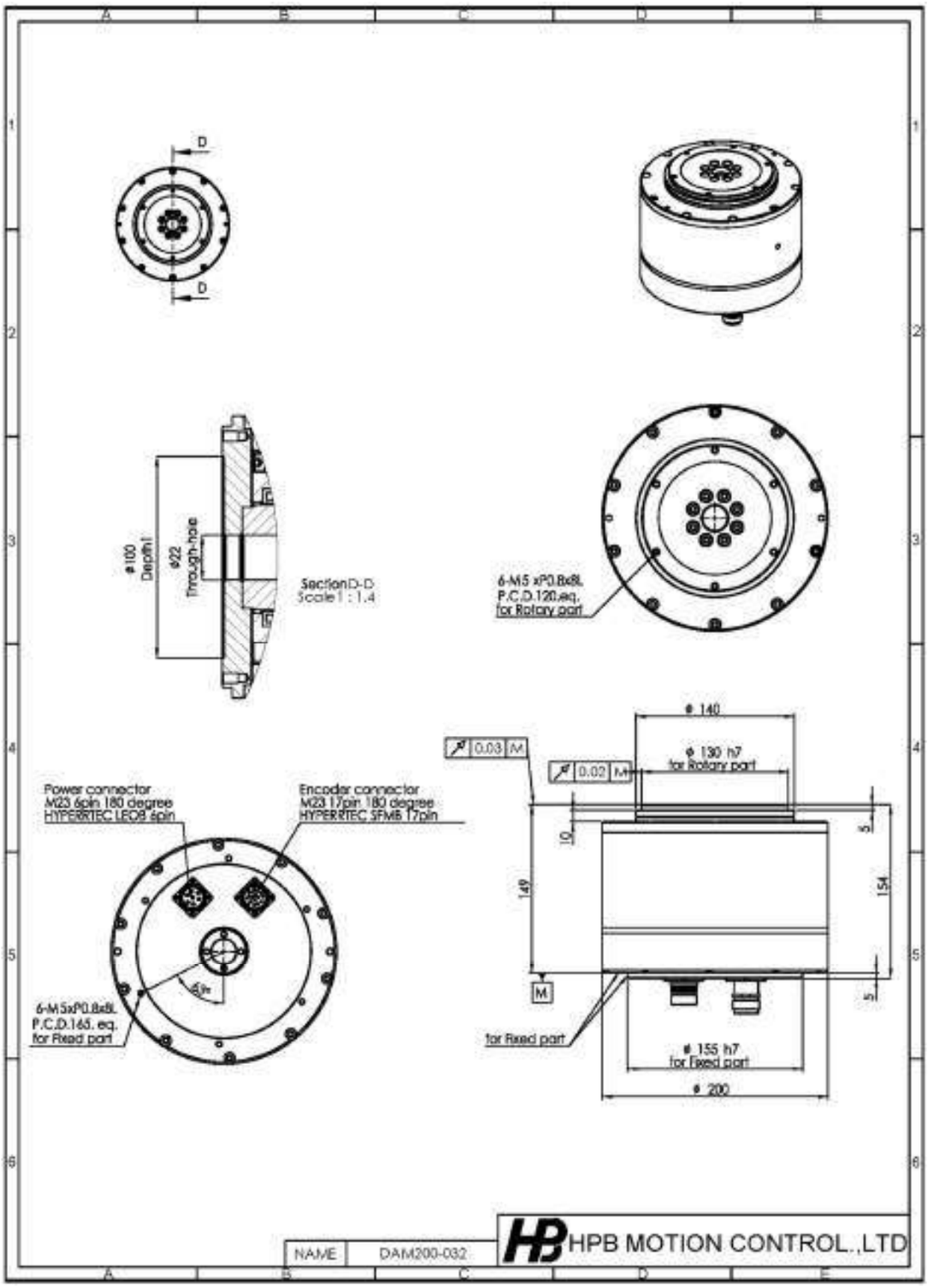
Dimension : DAM200-012



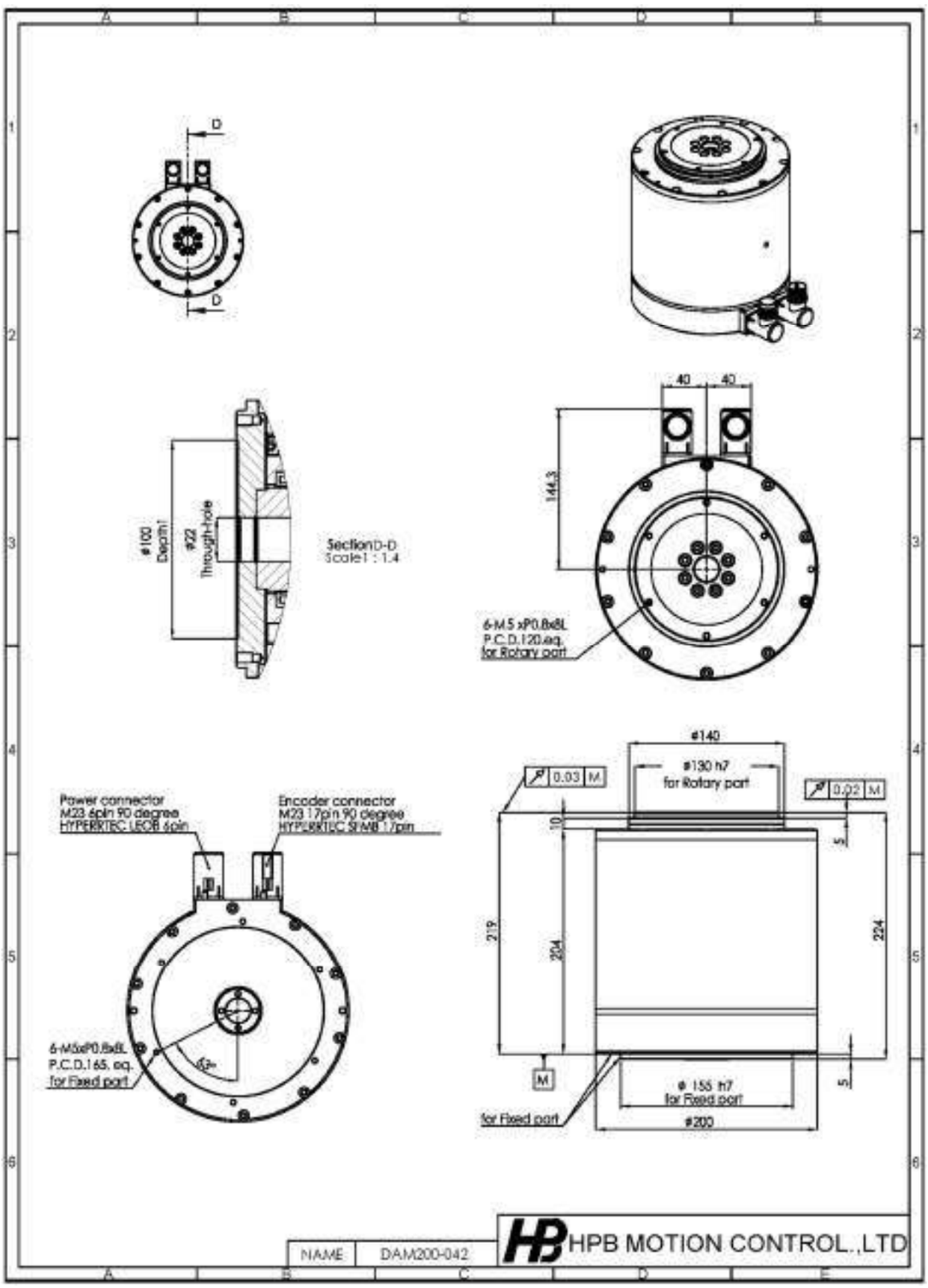
Dimension : DAM200-020



Dimension : DAM200-032



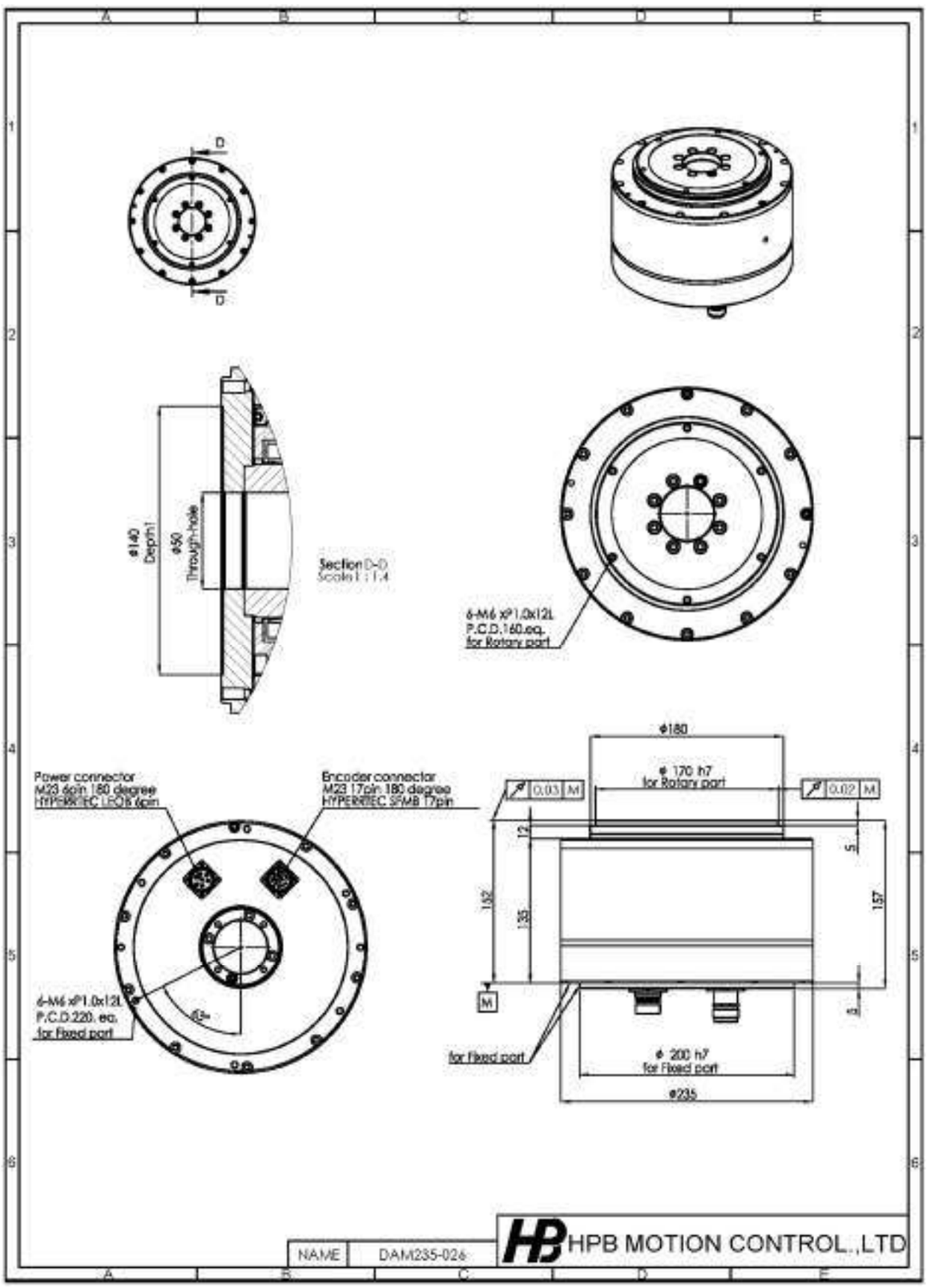
Dimension : DAM200-042



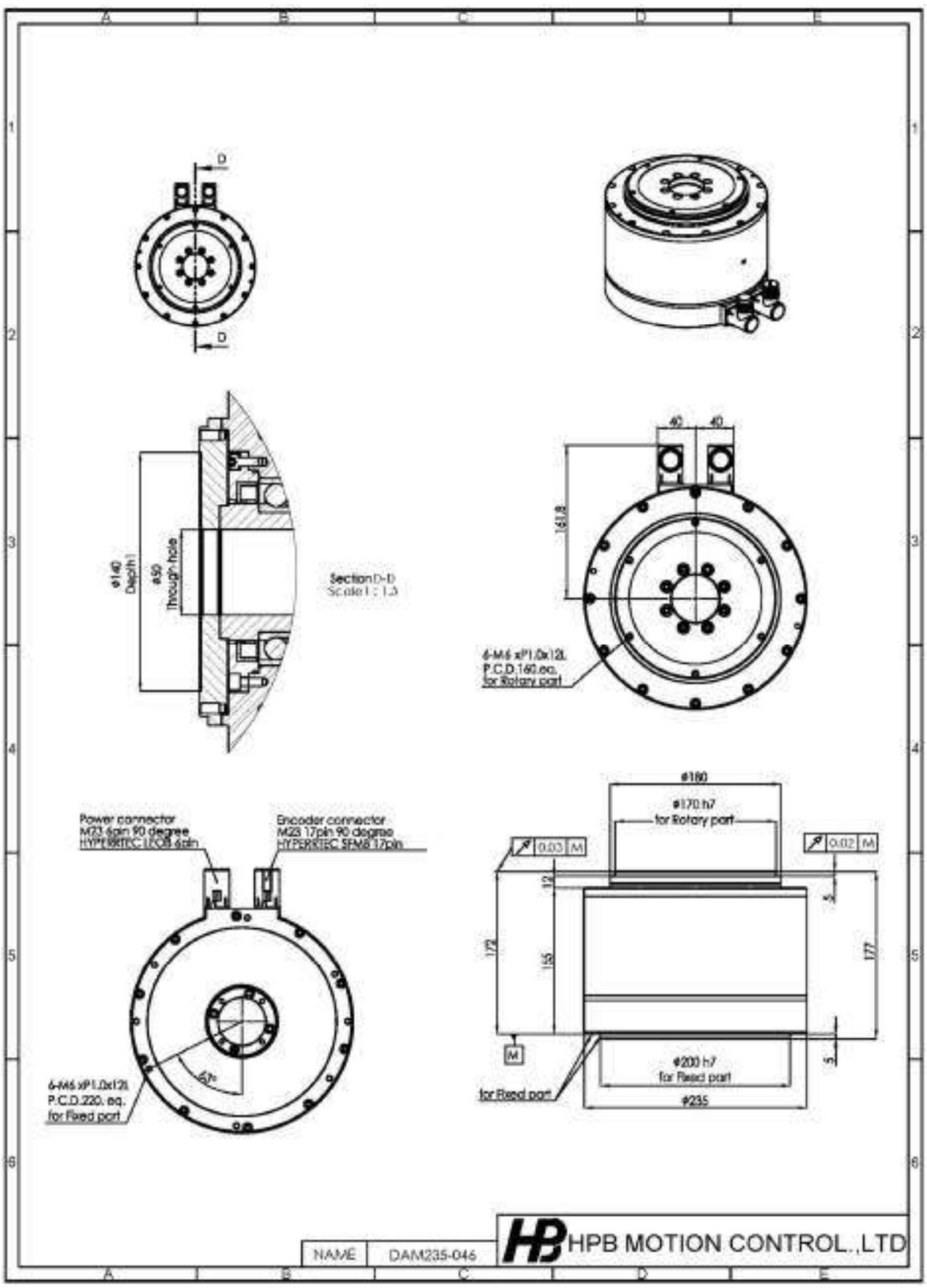
DAM Series Torque Motor

ITEM	UNIT	DAM235-026	DAM235-046	DAM235-060	DAM235-090
Drive Input Voltage	Vrms	220Vac			
Rated Speed	rpm	200	150	150	100
Max. Speed	rpm	300	200	200	150
Rated Power Output	W	545	723	942	942
Rated Torque	Nm	26	46	60	90
Max. Torque	Nm	104	184	240	360
Rated Current	Arms	3.5	3.4	4.4	4.9
Max. Current	Arms	16.4	15.8	20.6	23.2
Torque Constant Kt	Nm/Arms	7.48	13.69	13.69	18.24
Back EMF Ke	vrms/(rad/s)	4.8	8.78	8.78	11.7
Poles		44	44	44	44
Rotor Inertia J	kgcm2	278	341	404	467
Radial Runout	Um	20	20	20	20
Axial Runout	Um	30	30	30	30
Precision of Absolute	arc-seconds	1) ±10 2) ±30	1) ±10 2) ±30	1) ±10 2) ±30	1) ±10 2) ±30
Precision of Repeatability	arc-seconds	±4	±4	±4	±4
Backlash	arc-seconds	±4	±4	±4	±4
Protection		IP65	IP65	IP65	IP65
Allowable moment load	Ma (Nm)	60	80	120	180
Allowable Load Capacity	Kg	150			
Encoder Type	1) Renishaw RA26BAA100B10A-30100B Absolute single turn encoder Biss 26 bits				
	2) Sick SEK160 (for RAMH) & SRS50-HAAO-K21 (for RAMN) Absolute sin/cos Encoder - Hyperface Interface				

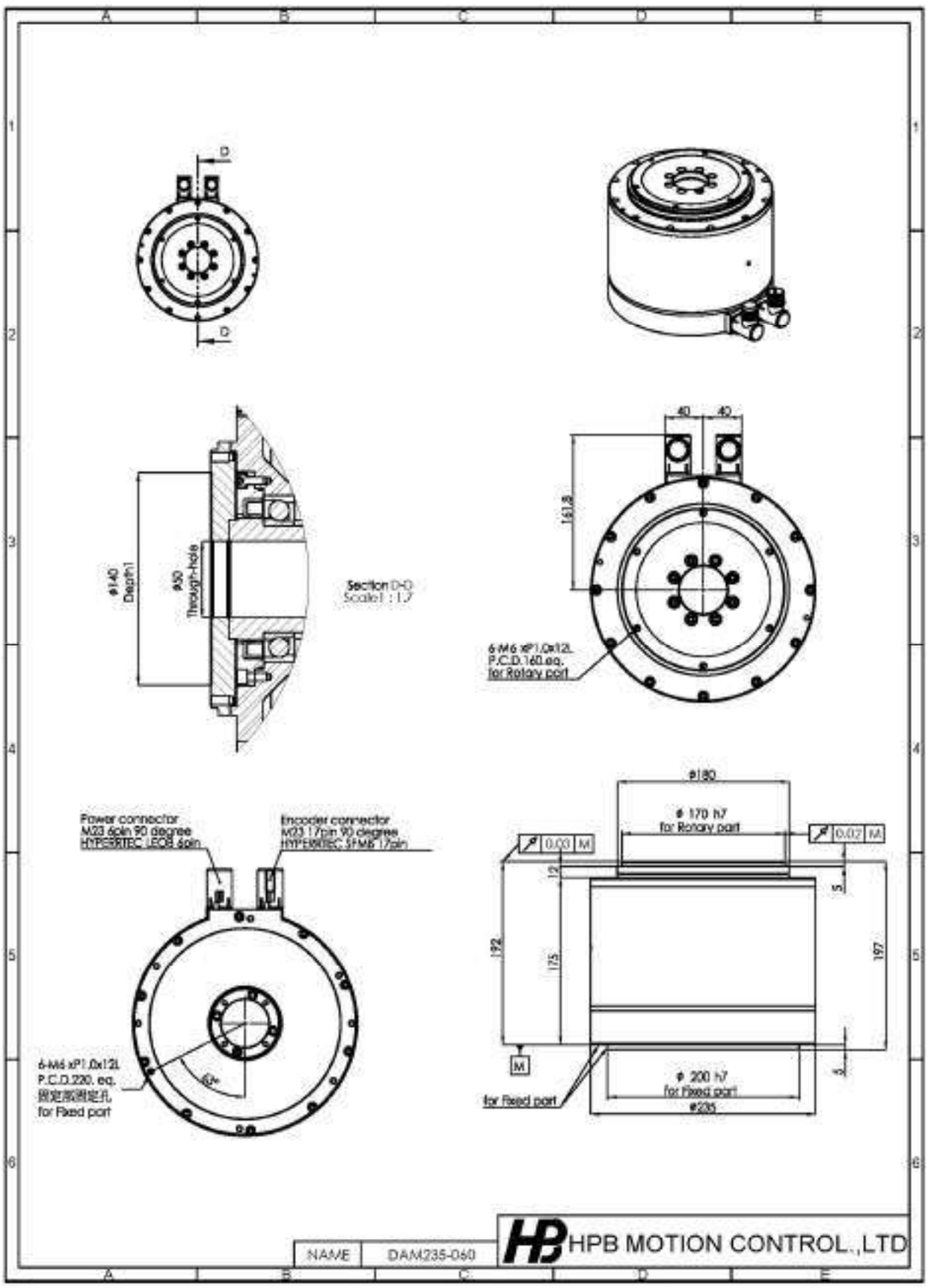
Dimension : DAM235-026



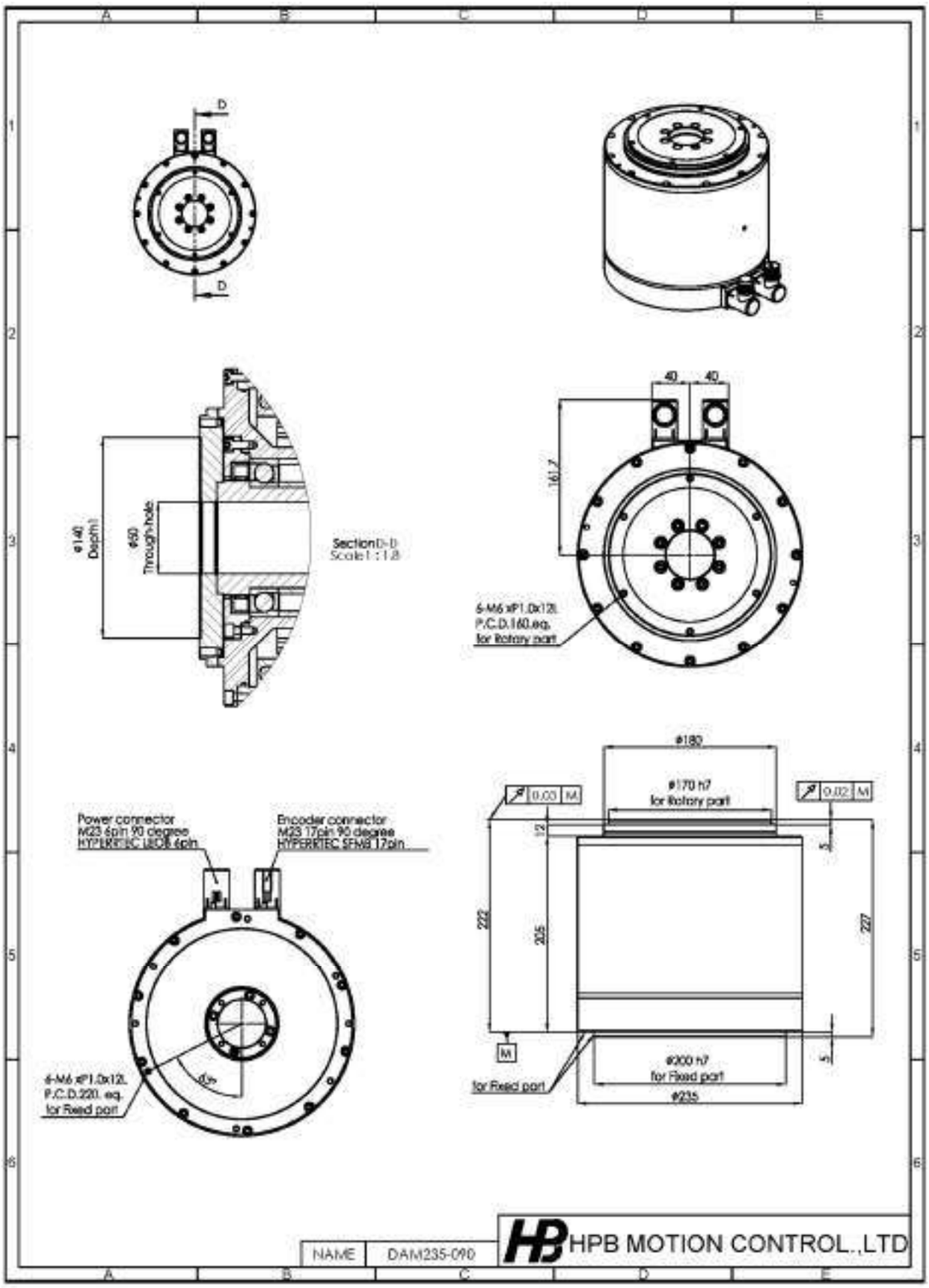
Dimension : DAM235-046



Dimension : DAM235-060



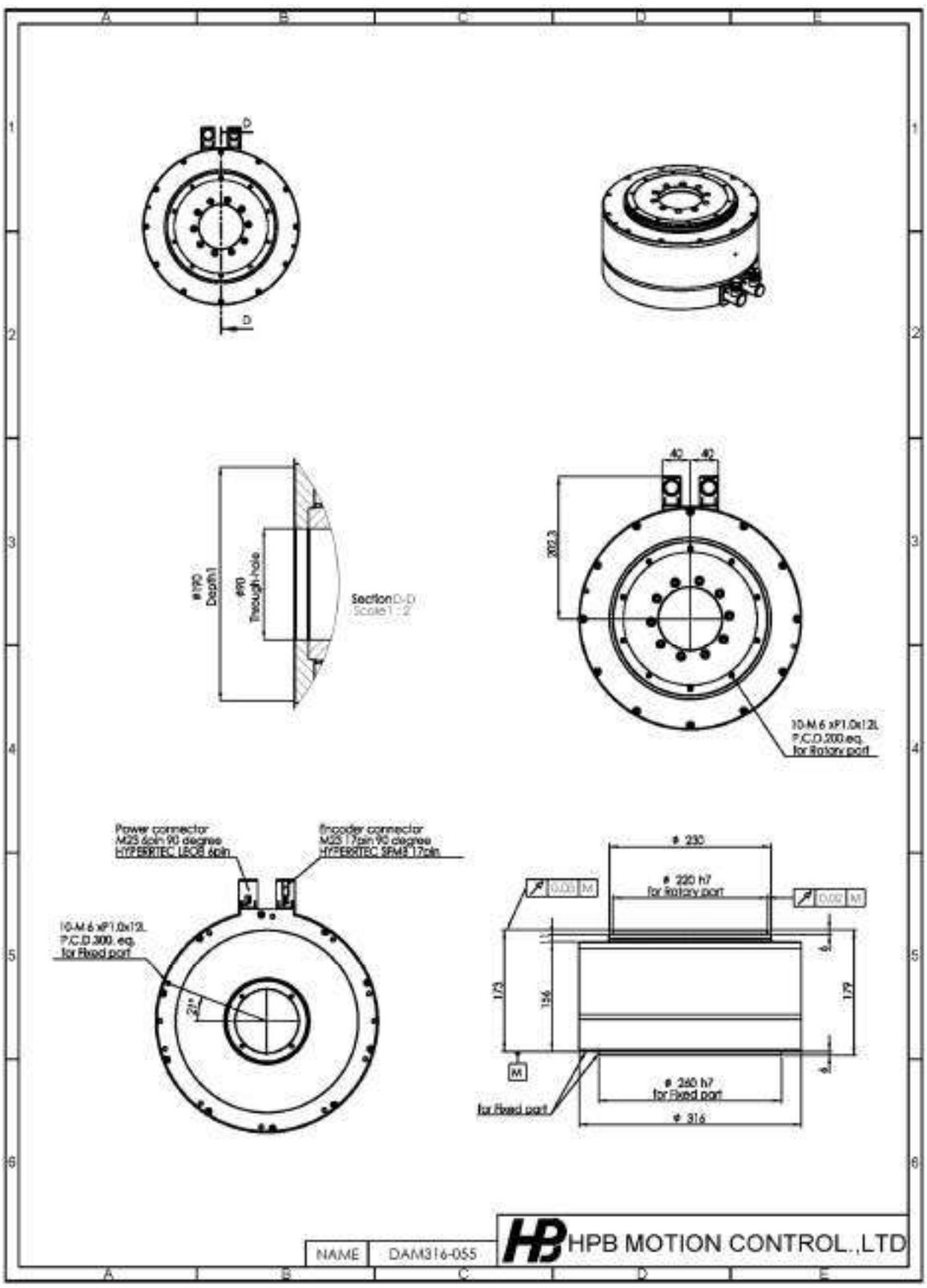
Dimension : DAM235-090



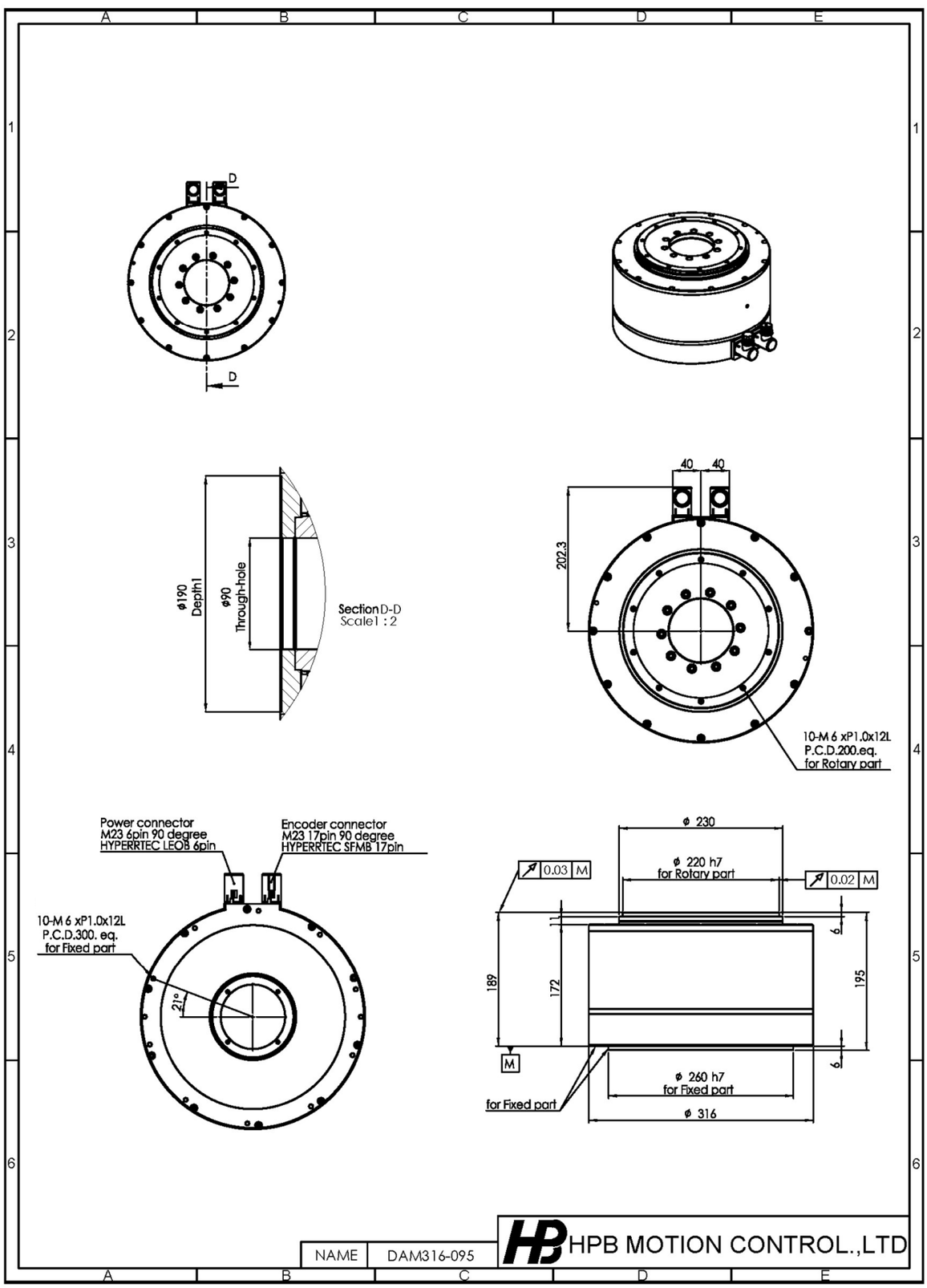
DAM Series Torque Motor

ITEM	UNIT	DAM316-055	DAM316-095	DAM316-120	DAM316-180
Drive Input Voltage	Vrms	220Vac			
Rated Speed	rpm	100	100	50	50
Max. Speed	rpm	150	150	100	100
Rated Power Output	W	576	995	628	942
Rated Torque	Nm	55	95	120	180
Max. Torque	Nm	220	380	480	585
Rated Current	Arms	3	5.2	5.5	7
Max. Current	Arms	15.1	26	27.5	26.9
Torque Constant Kt	Nm/Arms	18.24	18.24	21.82	25.57
Back EMF Ke	vrms/(rad/s)	11.7	11.7	14	16.4
Poles		44	44	44	44
Rotor Inertia J	kgcm2	814	1095	1375	1655
Radial Runout	Um	30	30	30	30
Axial Runout	Um	40	40	40	40
Precision of Absolute	arc-seconds	1) ±10 2) ±30	1) ±10 2) ±30	1) ±10 2) ±30	1) ±10 2) ±30
Precision of Repeatability	arc-seconds	±4	±4	±4	±4
Backlash	arc-seconds	±4	±4	±4	±4
Protection		IP65	IP65	IP65	IP65
Allowable moment load	Ma (Nm)	100	200	200	300
Allowable Load Capacity	Kg	450			
Encoder Type	1) Renishaw RA26BAA100B10A-30100B Absolute single turn encoder Biss 26 bits				
	2) Sick SEK160 (for RAMH) & SRS50-HAAO-K21 (for RAMN) Absolute sin/cos Encoder - Hyperface Interface				

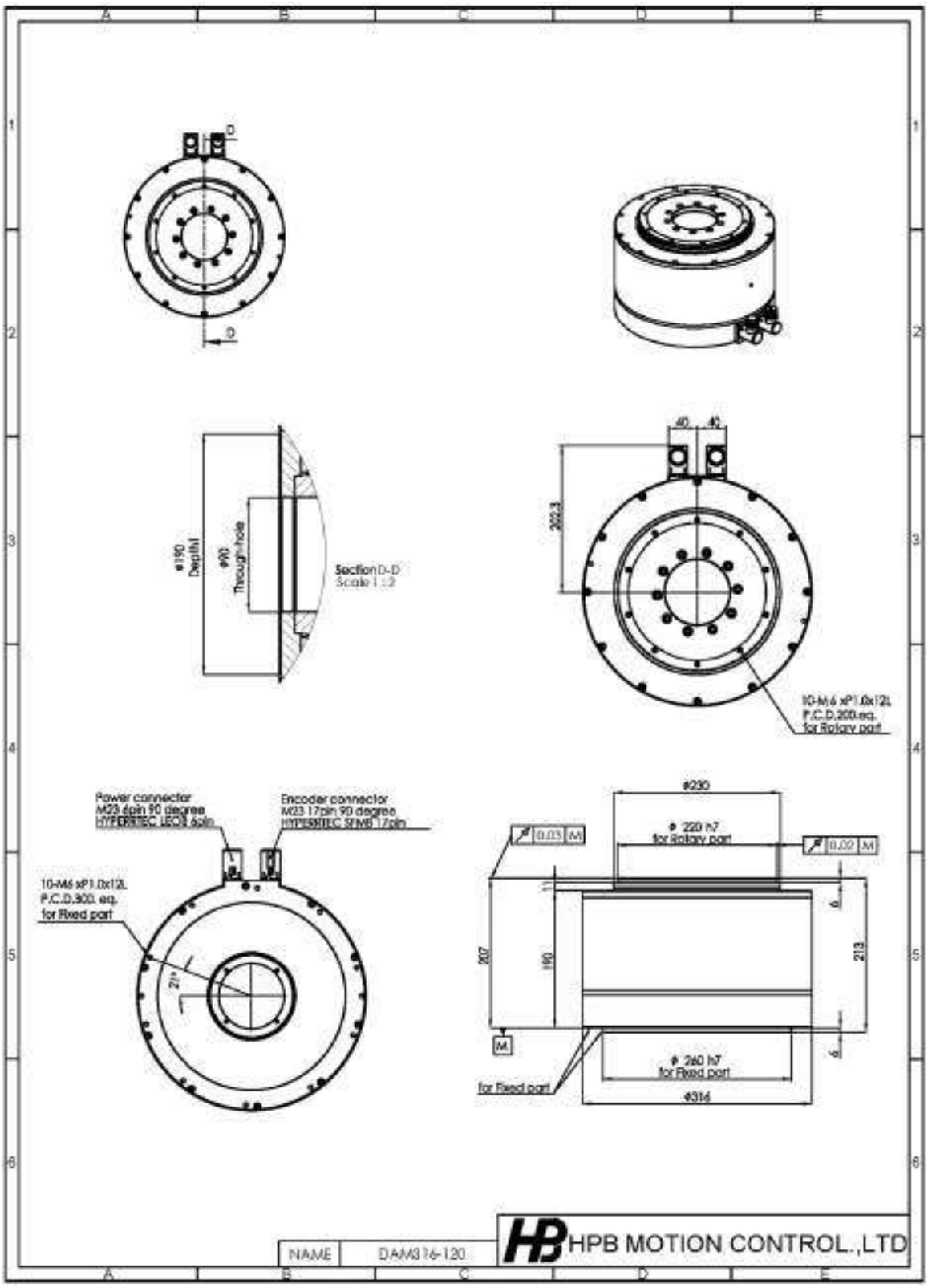
Dimension : DAM316-055



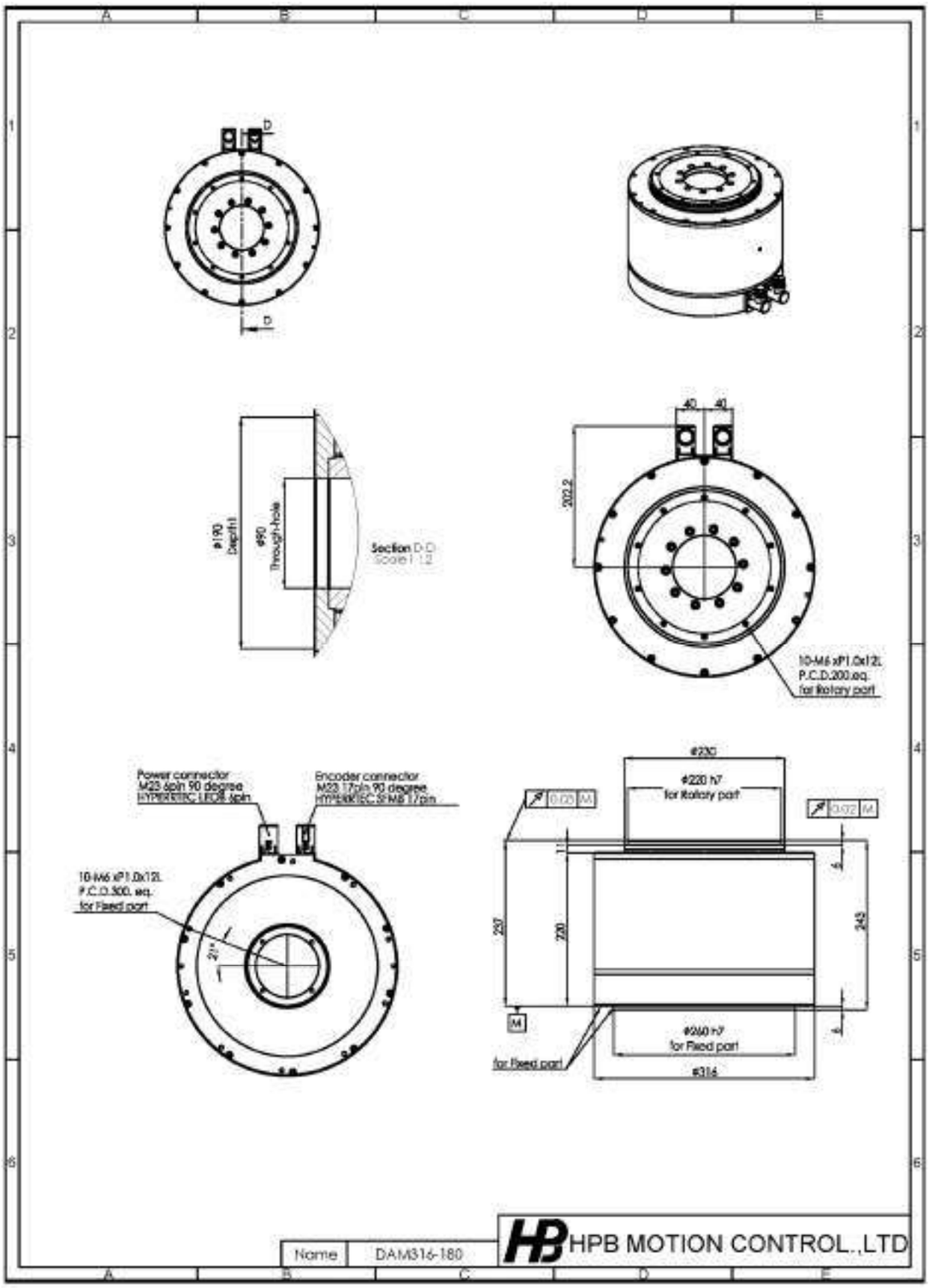
Dimension : DAM316-095



Dimension : DAM316-120



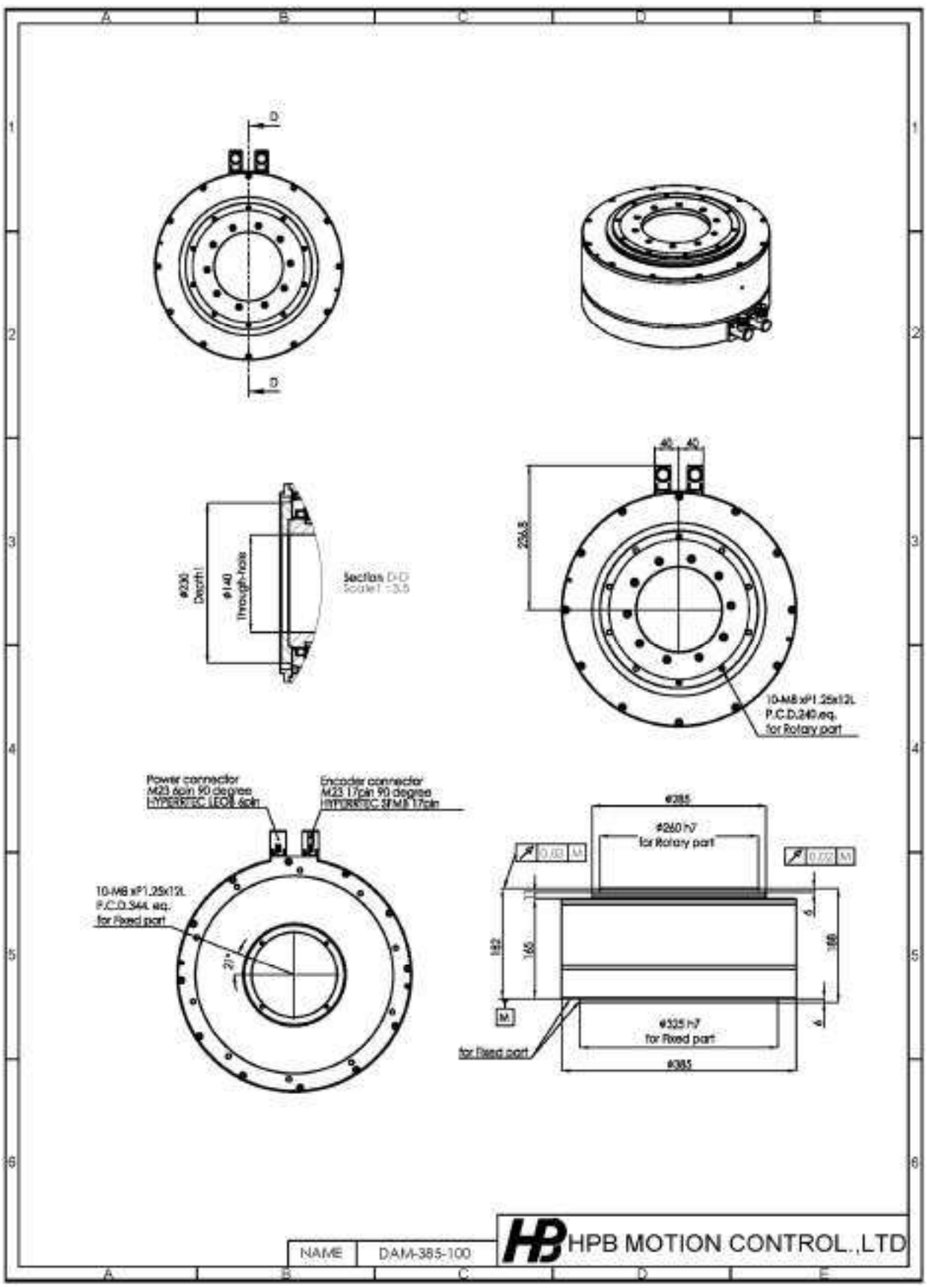
Dimension : DAM316-180



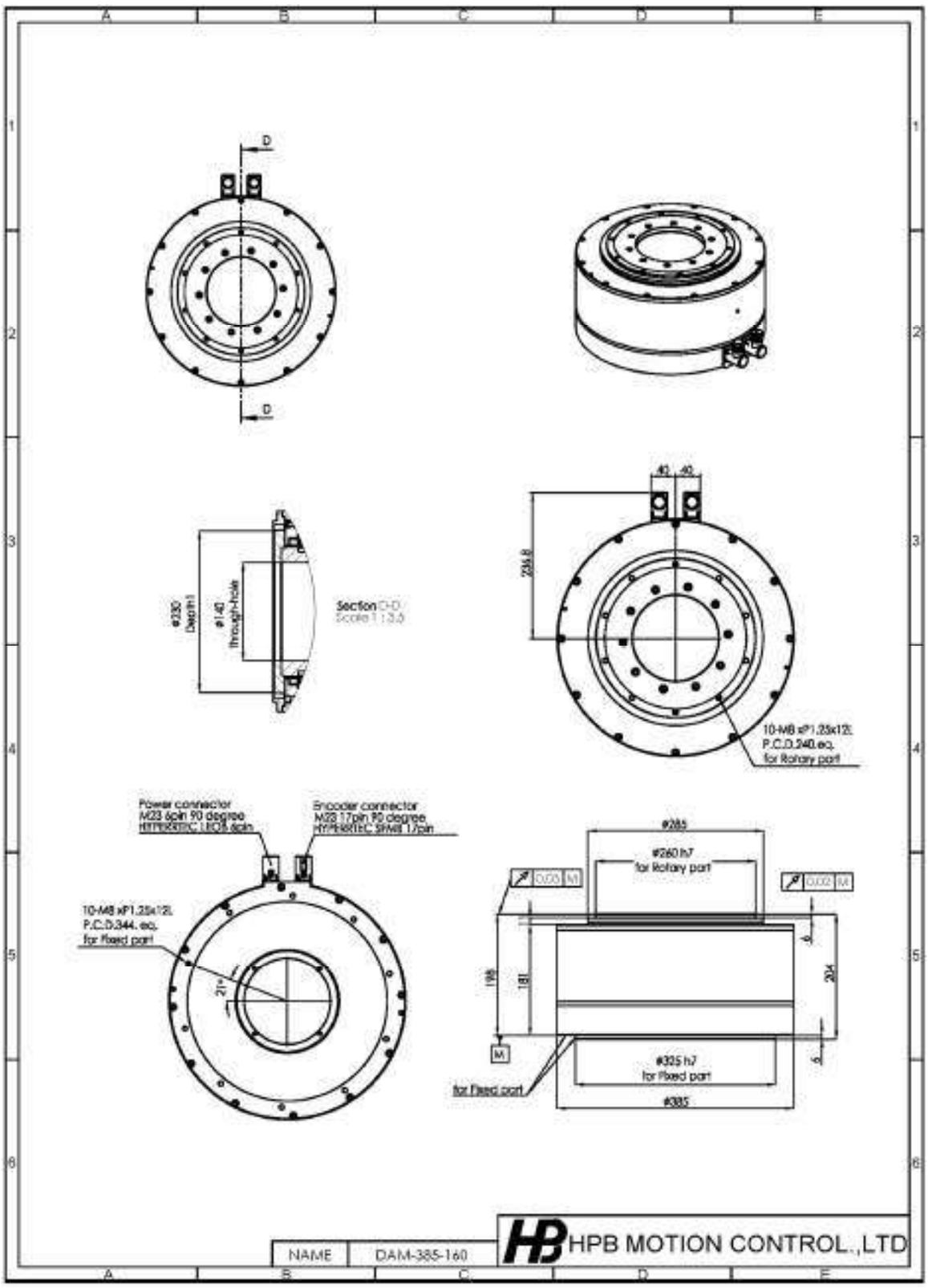
DAM Series Torque Motor

ITEM	UNIT	DAMH385-100	DAMH385-160	DAMH385-230	DAMH385-330
Drive Input Voltage	Vrms	220Vac			
Rated Speed	rpm	100	100	50	50
Max. Speed	rpm	200	200	100	100
Rated Power Output	W	1047	1676	1204	1728
Rated Torque	Nm	100	160	230	330
Max. Torque	Nm	400	560	805	1155
Rated Current	Arms	7.3	11.7	8.7	12.5
Max. Current	Arms	36.5	48.1	35.7	51.3
Torque Constant Kt	Nm/Arms	13.69	13.69	26.5	26.5
Back EMF Ke	vrms/(rad/s)	8.78	8.78	17	17
Poles		66	66	66	66
Rotor Inertia J	kgcm2	2737	3457	4048	4768
Radial Runout	Um	30	30	30	30
Axial Runout	Um	50	50	50	50
Precision of Absolute	arc-seconds	1) ±10 2) ±30	1) ±10 2) ±30	1) ±10 2) ±30	1) ±10 2) ±30
Precision of Repeatability	arc-seconds	±4	±4	±4	±4
Backlash	arc-seconds	±4	±4	±4	±4
Protection		IP65	IP65	IP65	IP65
Allowable moment load	Ma (Nm)	300	300	400	400
Allowable Load Capacity	Kg	800			
Encoder Type	1) Renishaw RA26BAA100B10A-30100B Absolute single turn encoder Biss 26 bits				
	2) Sick SEK160 (for RAMH) & SRS50-HAAO-K21 (for RAMN) Absolute sin/cos Encoder - Hyperface Interface				

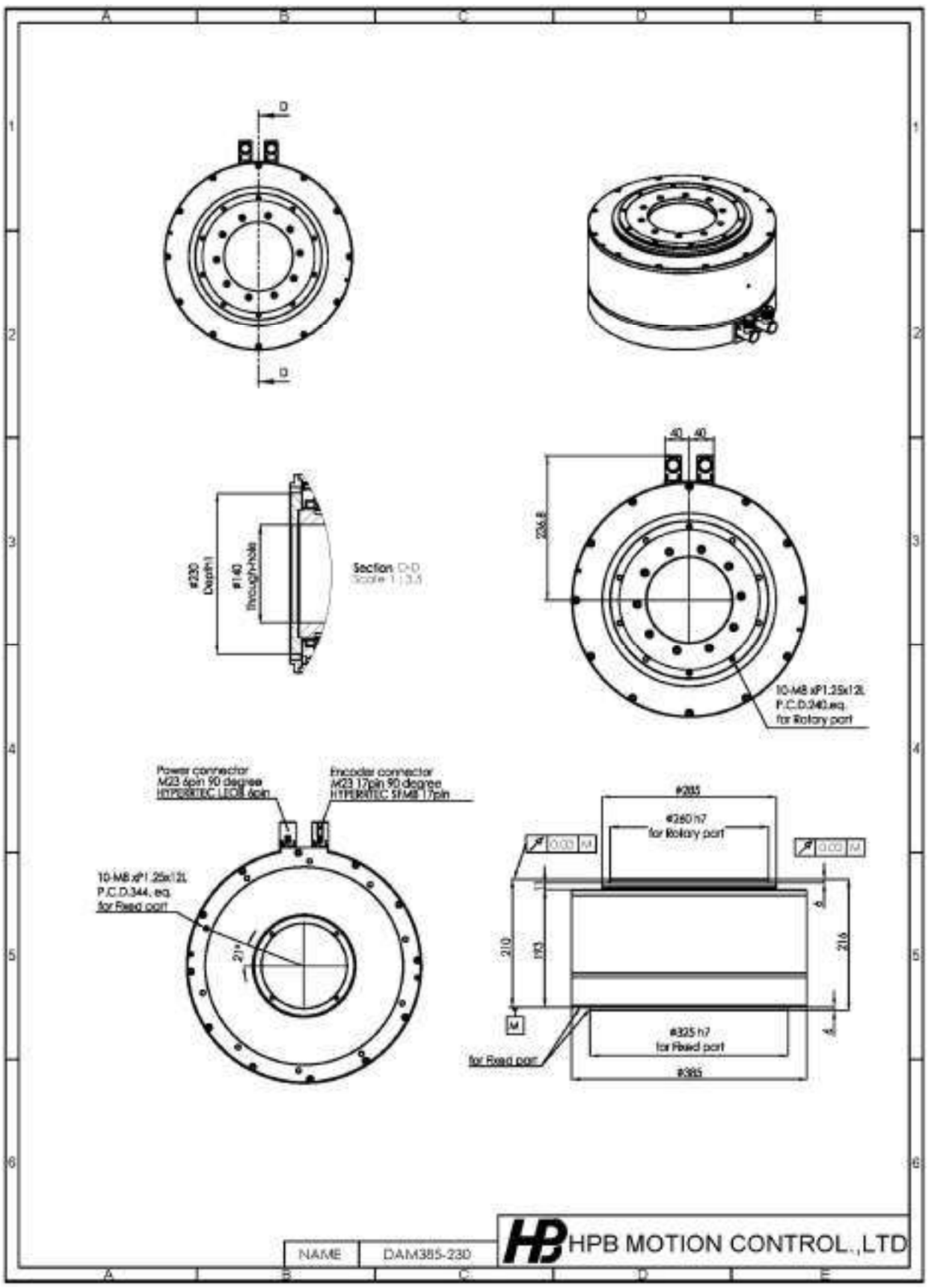
Dimension : DAM385-100



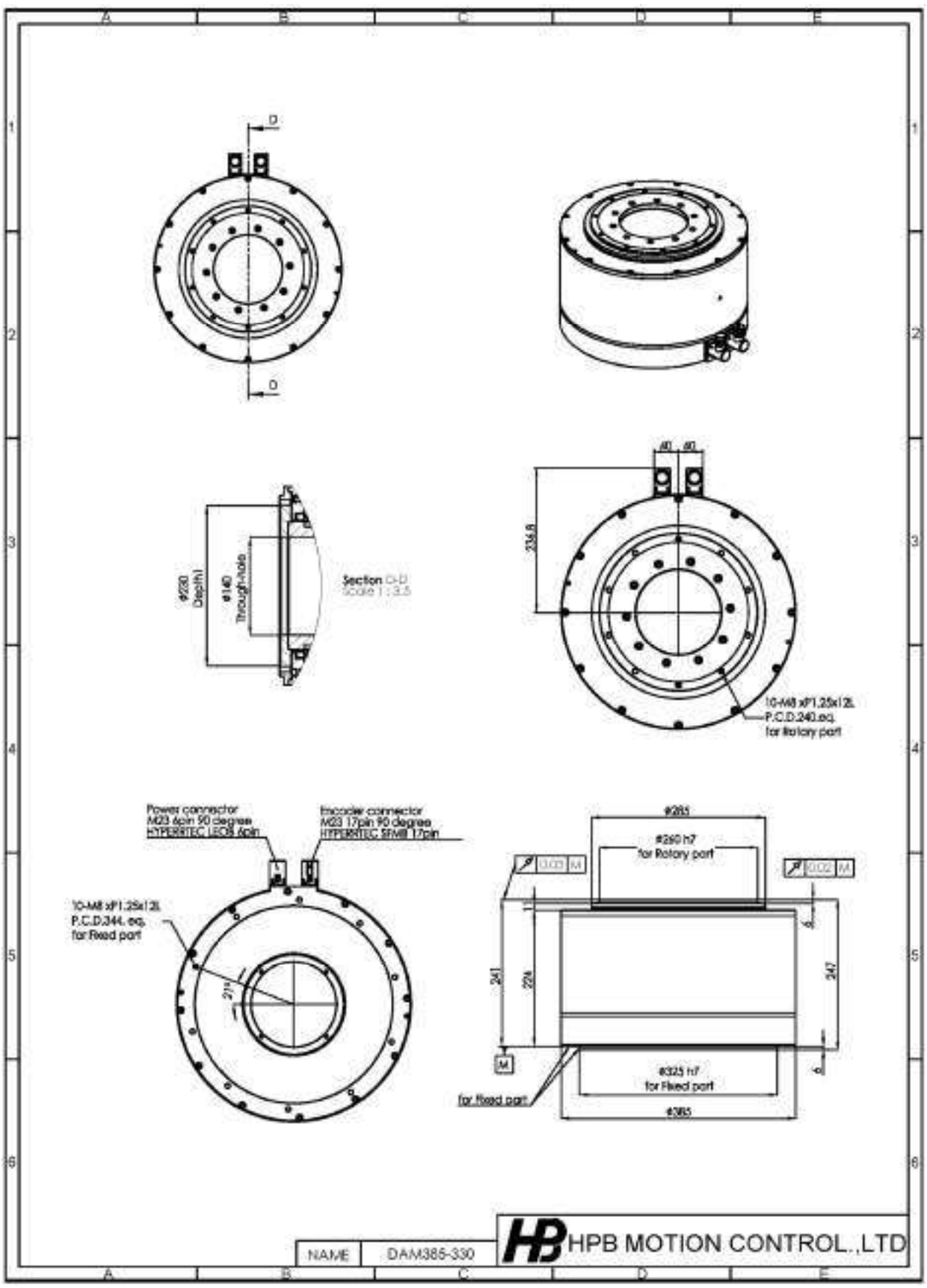
Dimension : DAM385-160



Dimension : DAM385-230



Dimension : DAM385-330



HPB MOTION CONTROL CO., LTD.

4F, No.120, Sec.1,
San Min Rd., Ban Qiao Dist.,
New Taipei City, Taiwan

TEL : + 886 2 8964 5666
FAX: + 886 2 8964 1537
Email:hpb.motion@msa.hinet.net
www.hpb-industry.com

