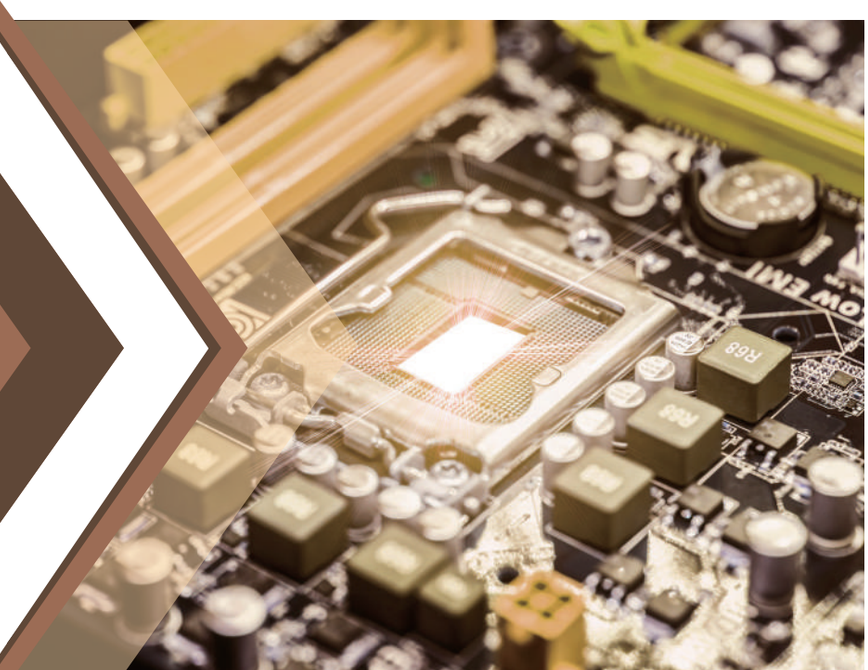
Power Bearing Module

PBM 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.



Power Bearing Module

PBM Series



Compact Size

High Precision

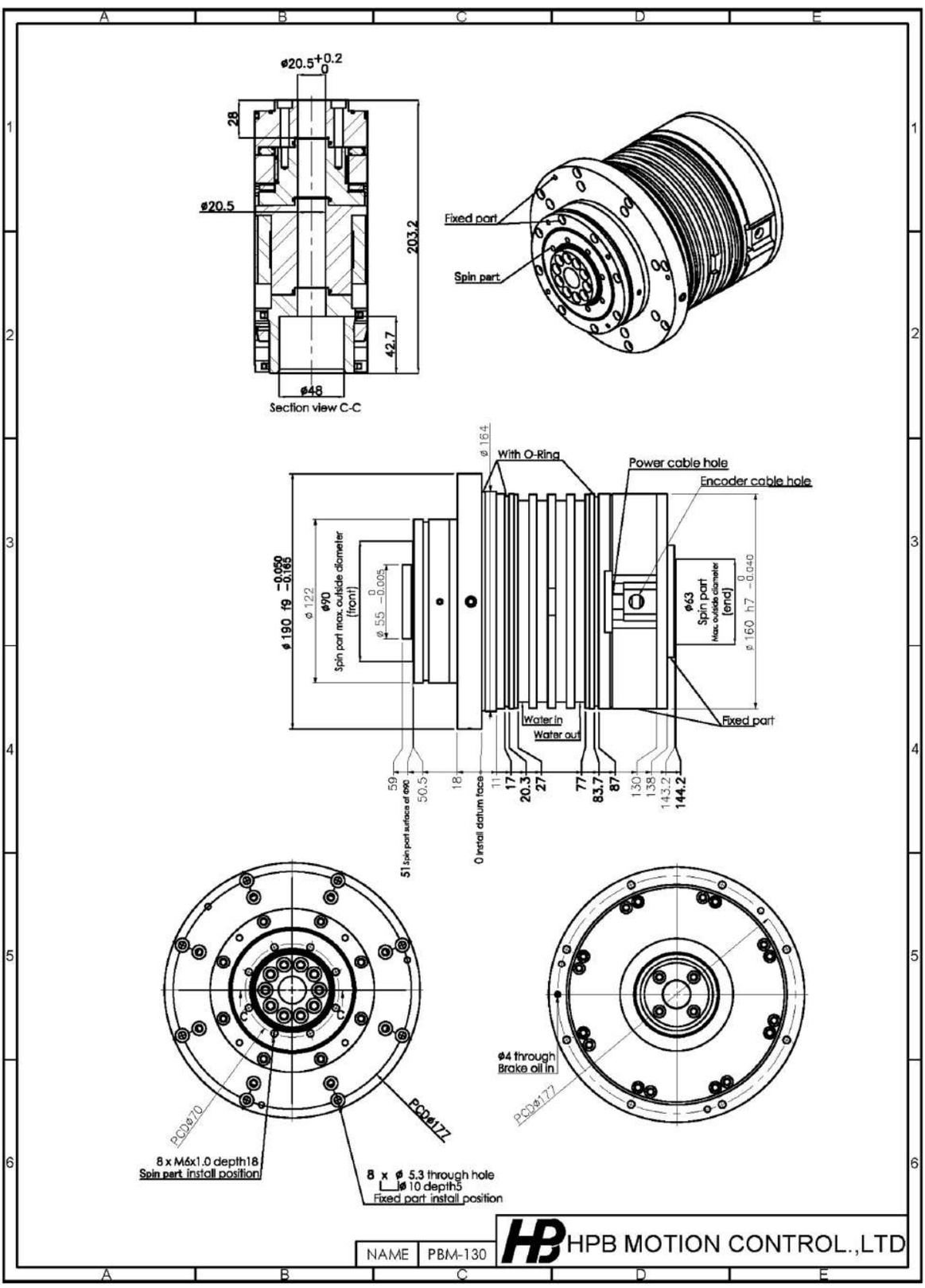
Reliable Quality

Description	Data Position of the order No.									
Power Bearing Module	PBM	-	130	M		-	E01	-	1	
Fix Number										
Compatible End Plate Diameter	130mm	130								
	175mm	175								
	250mm	250								
	320mm	320								
Type	Single Arm	M								
	Double Arm	L								
Rotating speed	Standard	blank								
	High speed	A								
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								
Fix-number										
Design version										1-Z

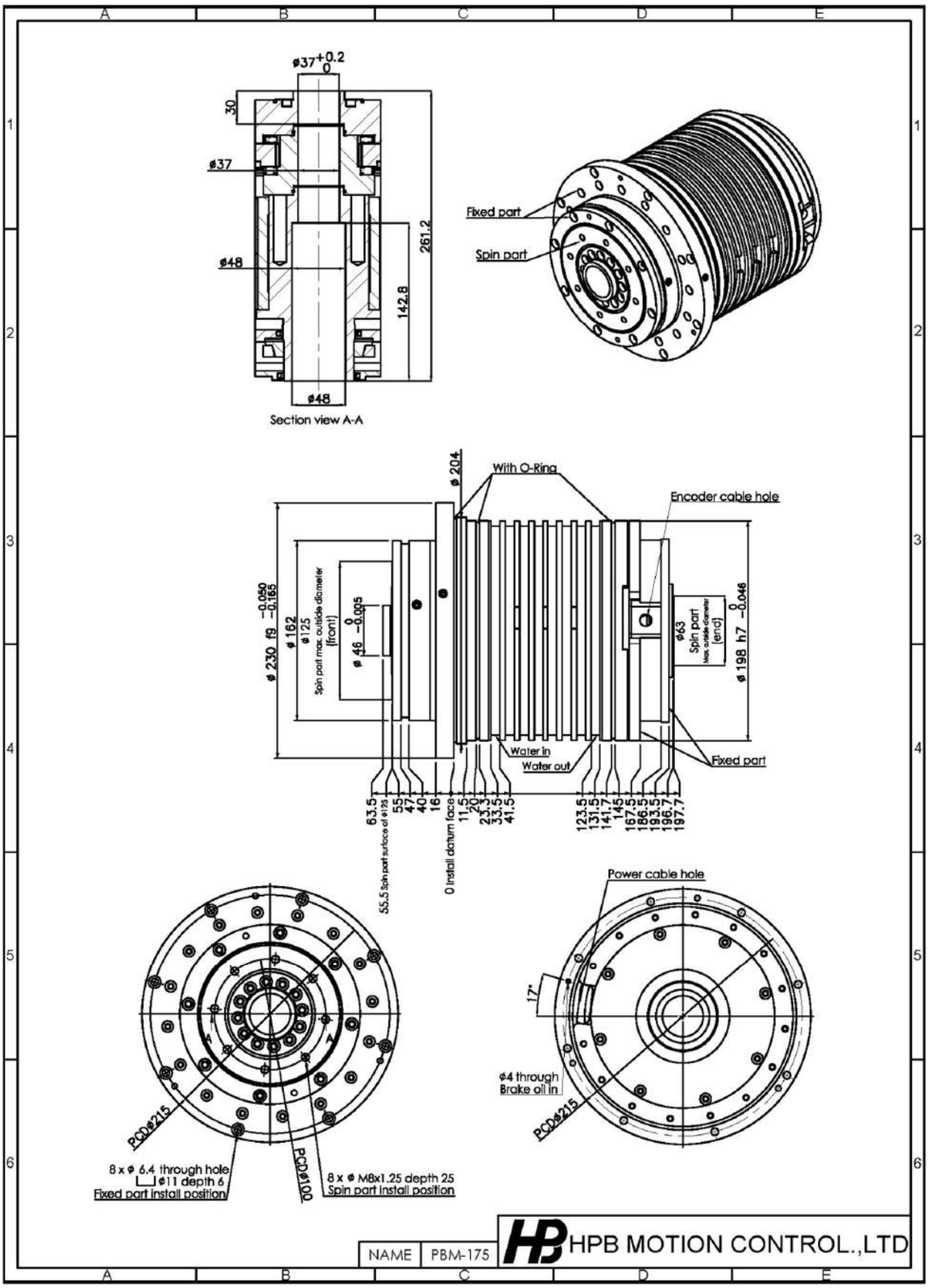
Power Bearing Module PBM Series

ITEM		UNIT	PBM-130	PBM-175	PBM-175A
Torque motor DPM [a)]			DPM160-090	DPM198-150	DPM198-100S-8pole
Mechanical Specification					
Driving System			Diret-Drive		
Overall Dimension	OD	mm	ø190 f9 x 203.2	ø230 f9 x 261.2	ø230 f9 x 273.5
Mounting Dimension	MD	mm	ø164x11, ø160h7	ø204x11.5, ø198h7	ø204x8.5, ø198h7
Shaft Diameter	SD	mm	ø55 (0 ~ -0.005)	ø46 (0 ~ -0.005)	ø80 (0 ~ -0.005)
Through hole diameter	TD	mm	ø20.5	ø37	ø36
Total Weight (including Torque Motor)	W	Kg	21	40	55
Inertia	J	kg.cm2	56	230	200
Allowable load inertia	Ja	kg.cm2	560	2300	2000
Clamping Pressure	Pc	Kg/cm^2	20	20	20
Clamping Torque	Tc	Nm	150	250	150
Capacity of workpiece mass	Vertical	Kg	70	150	60
	Horizontal	Kg	35	75	30
Allowable load when clamped	F	Kgf	600	800	--
	FxL Radial	kg.m	15	25	15
	FxL Axial	kg.m	20	60	25
Cooling method	--	--	self-cooled	self-cooled	self-cooled
Protection	--	--	IP67	IP67	IP67
Electrical Specification					
Drive Input Voltage	V_D	Vrms	220		
Poles	P		22	22	8
Rated Power Output	Pr	W	879	1758	1570
Rated Torque	Tr	Nm	28	84	15
Max. Torque	Tm	Nm	56	168	25
Rated Speed	Vr	rpm	300	200	1000
Max. Speed	Vm	rpm	500	300	1500
Rated Current	Ir	Arms	7.5	14	9
Max. Current	Im	Arms	16.5	30.8	16
Back EMF	Ke	vrms/1000rpm	312	502	1440
Torque Constant	Kt	Nm/Arms	4.7	7.5	1.67
Least input increment	--	degree	0.001	0.001	0.001
Absolute accuracy of orientation	P	arc-seconds	20	20	20
Absolute accuracy of Repeat	Ps	arc-seconds	4	4	4
Backlash	U	arc-seconds	4	4	4

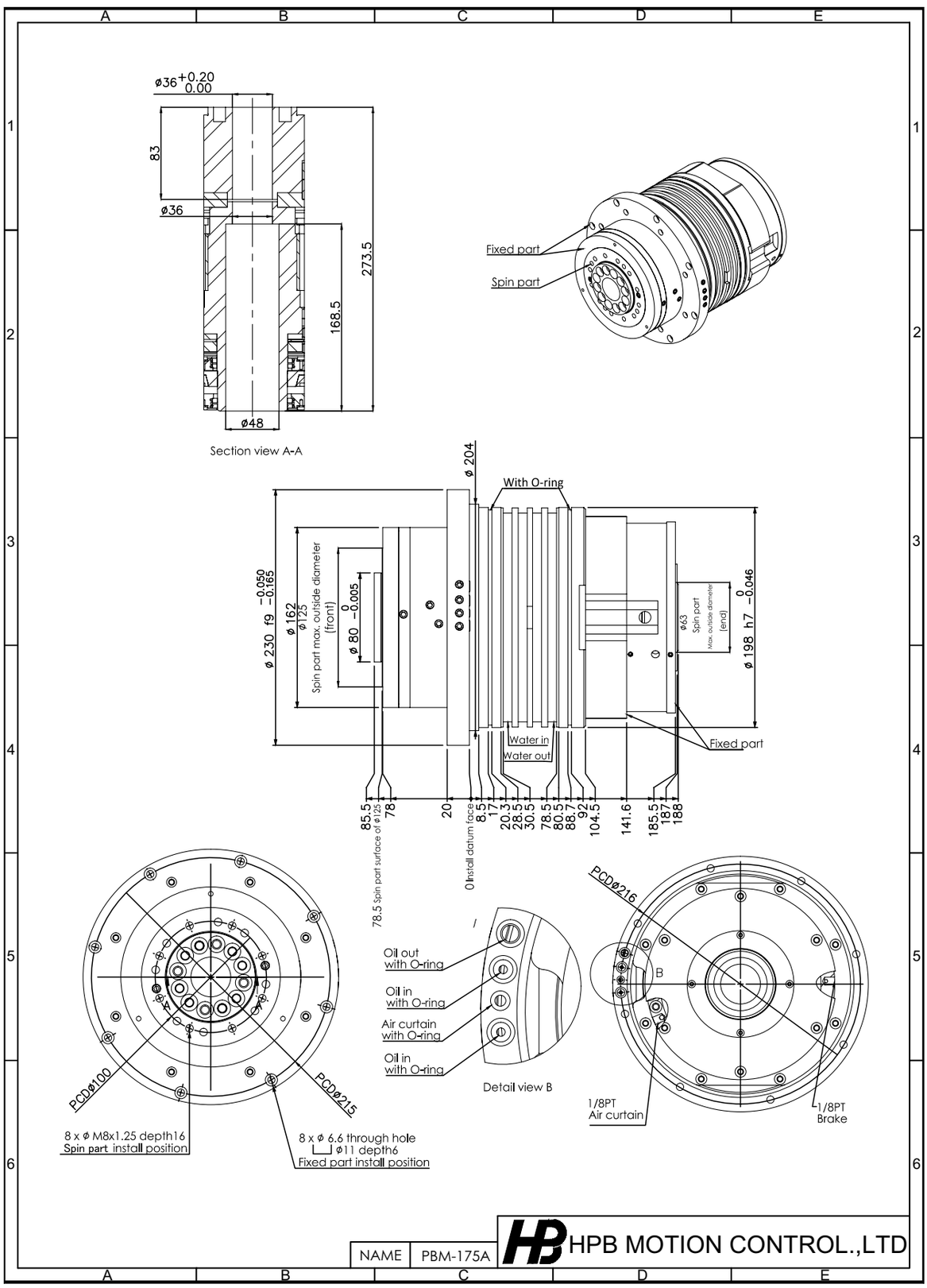
Dimension : PBM-130



Dimension : PBM-175



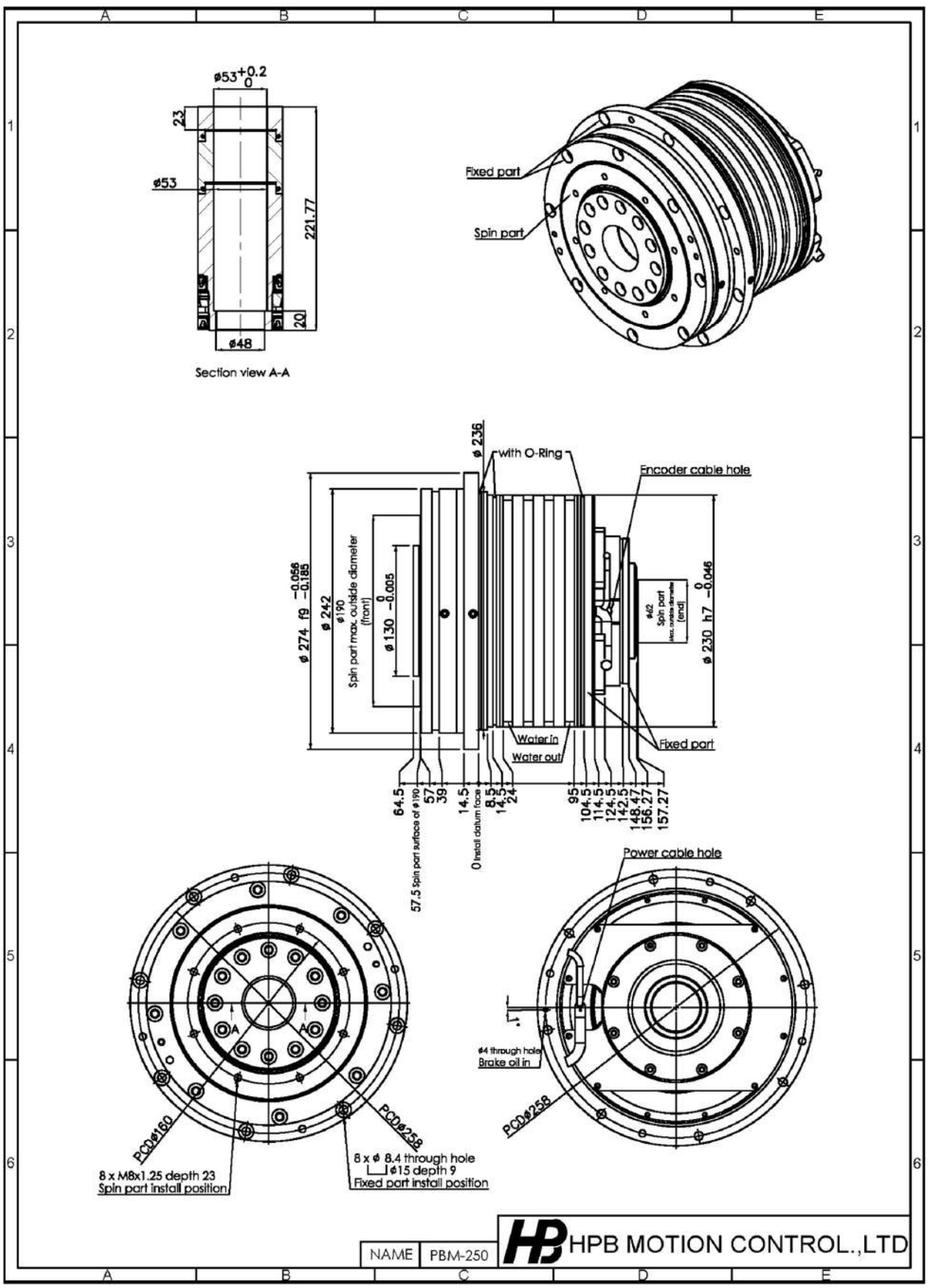
Dimension : PBM-175A



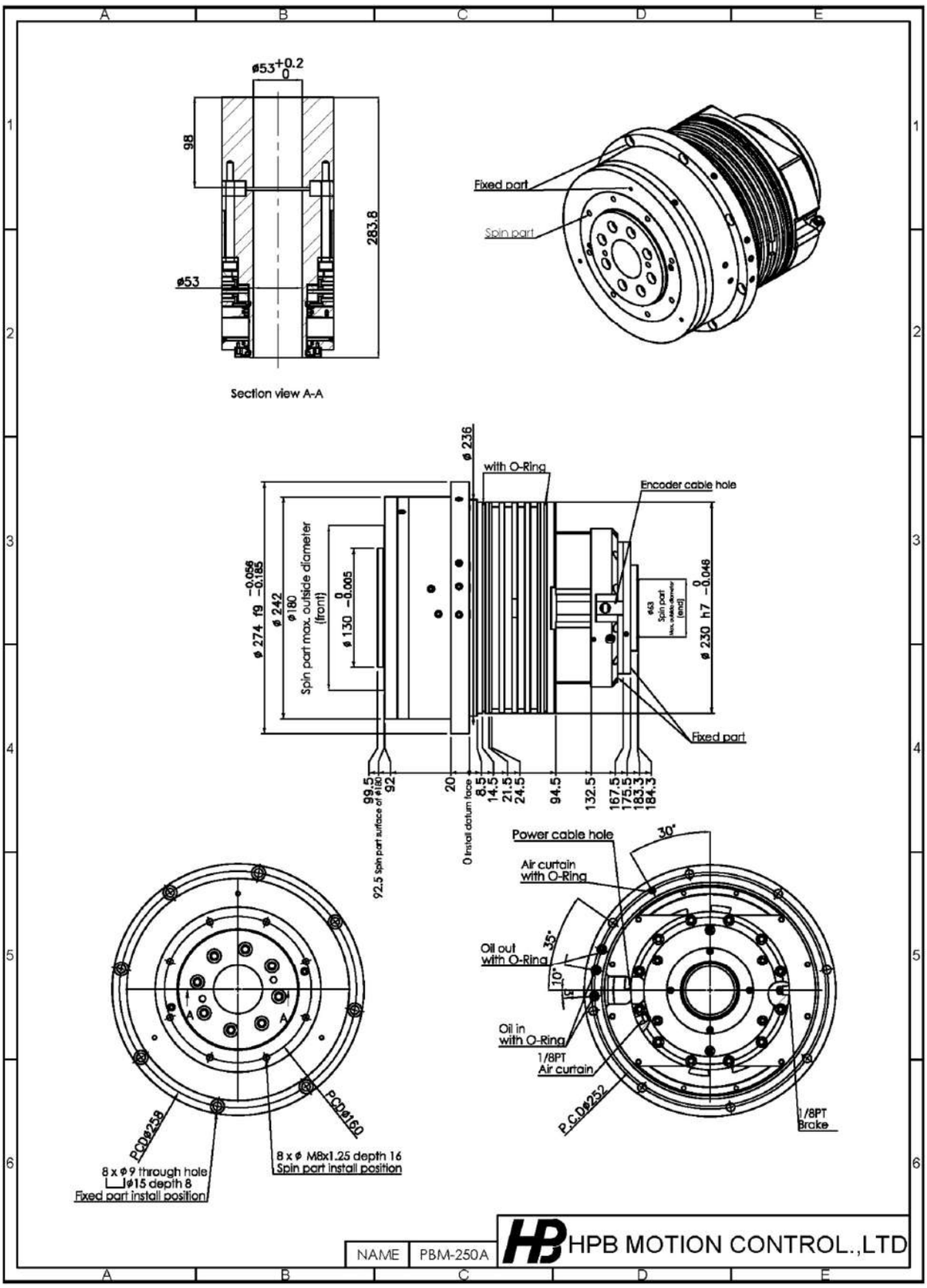
Power Bearing Module PBM Series

ITEM		UNIT	PBM-250	PBM-250A	PBM-320
Torque motor DPM a)			DPM230-110	DPM230-090S-16pole	DPM310-200
Mechanical Specification					
Driving System			Diret-Drive		
Overall Dimension	OD	mm	ø274 f9 x 221.77	ø274 f9 x 283.8	ø360 f9 x 359.5
Mounting Dimension	MD	mm	Ø236x8.5, ø230h7	ø236x8.5, ø230h7	ø316x22, ø310h7
Shaft Diameter	SD	mm	ø130 (0 ~ -0.005)	ø130 (0 ~ -0.005)	ø180 (0 ~ -0.005)
Through hole diameter	TD	mm	ø53, Rear side ø48x20L	ø53	ø121, Rear side ø52x83L
Total Weight (including Torque Motor)	W	Kg	45	65	130
Inertia	J	kg.cm2	860	860	4380
Allowable load inertia	Ja	kg.cm2	8600	8600	43800
Clamping Pressure	Pc	Kg/cm^2	20	20	20
Clamping Torque	Tc	Nm	600	400	1000
Capacity of workpiece mass	Vertical	Kg	320	100	500
	Horizontal	Kg	100	50	150
Allowable load when clamped	F	Kgf	1400	--	2000
	FxL Radial	kg.m	60	40	100
	FxL Axial	kg.m	100	60	160
Cooling method	--	--	self-cooled	self-cooled	self-cooled
Protection	--	--	IP67	IP67	IP67
Electrical Specification					
Drive Input Voltage	V_D	Vrms	220		
Poles	P		44	16	44
Rated Power Output	Pr	W	1884	3140	1256
Rated Torque	Tr	Nm	120	30	480
Max. Torque	Tm	Nm	240	50	600
Rated Speed	Vr	rpm	150	1000	25
Max. Speed	Vm	rpm	200	1500	50
Rated Current	Ir	Arms	11	18	25
Max. Current	Im	Arms	24.2	32	55
Back EMF	Ke	vrms/1000rpm	920	1440	1620
Torque Constant	Kt	Nm/Arms	13.6	1.67	24
Least input increment	--	degree	0.001	0.001	0.001
Absolute accuracy of orientation	P	arc-seconds	20	20	20
Absolute accuracy of Repeat	Ps	arc-seconds	4	4	4
Backlash	U	arc-seconds	4	4	4

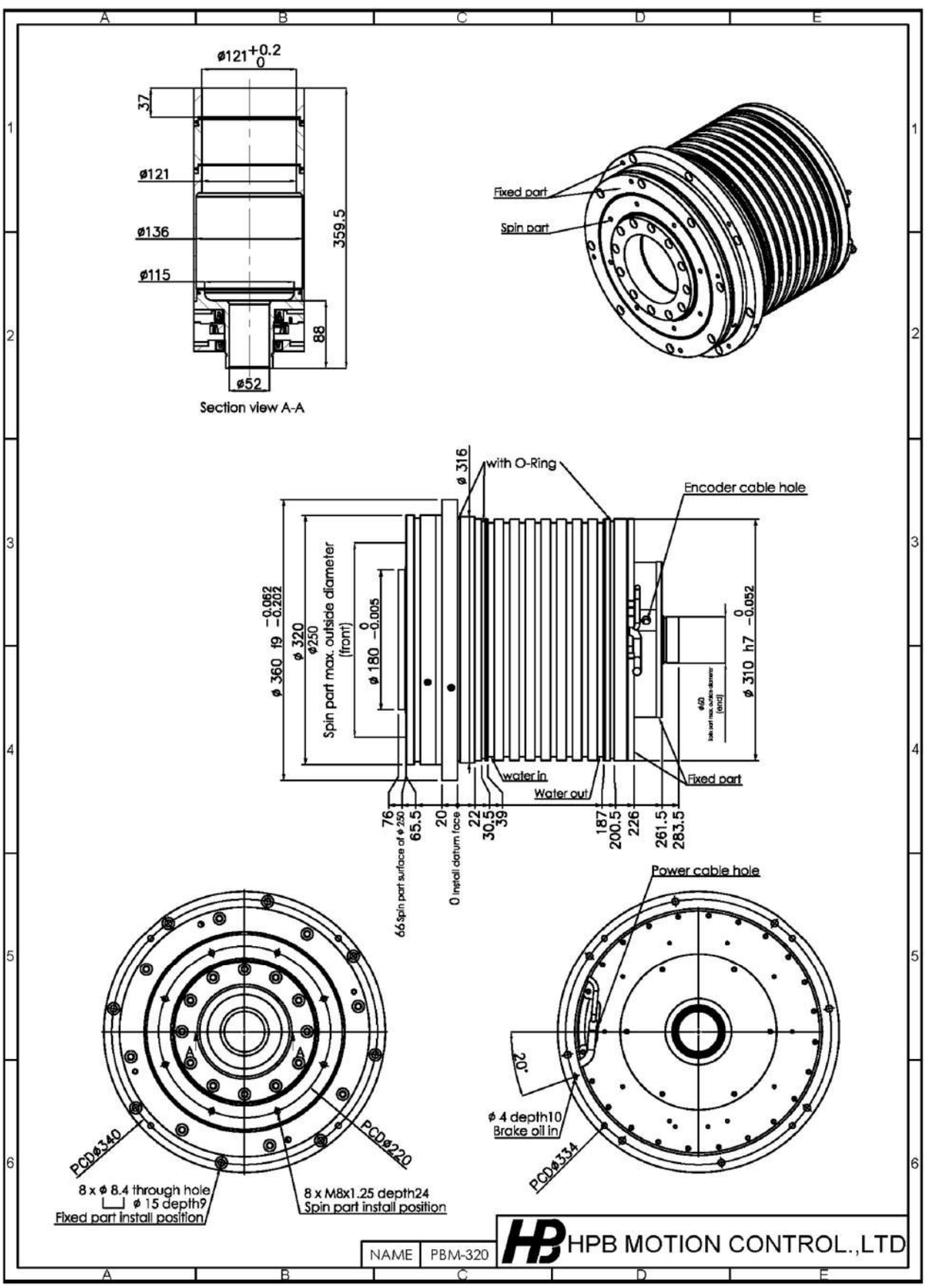
Dimension : PBM-250



Dimension : PBM-250A



Dimension : PBM-320



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