

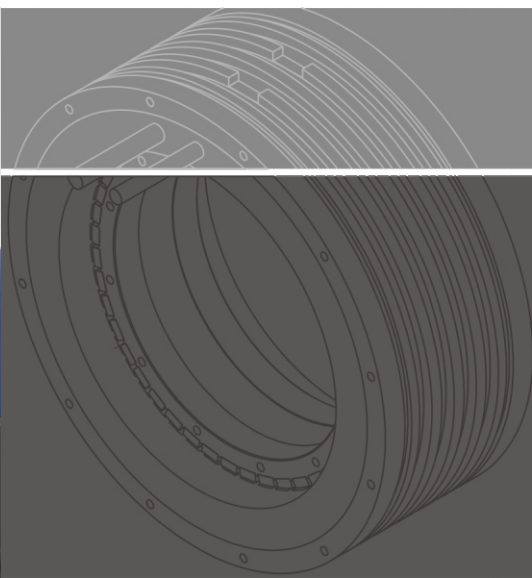
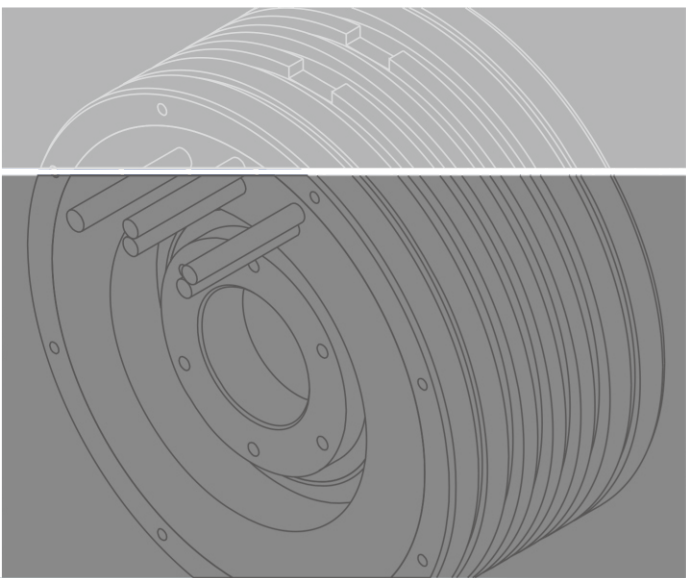
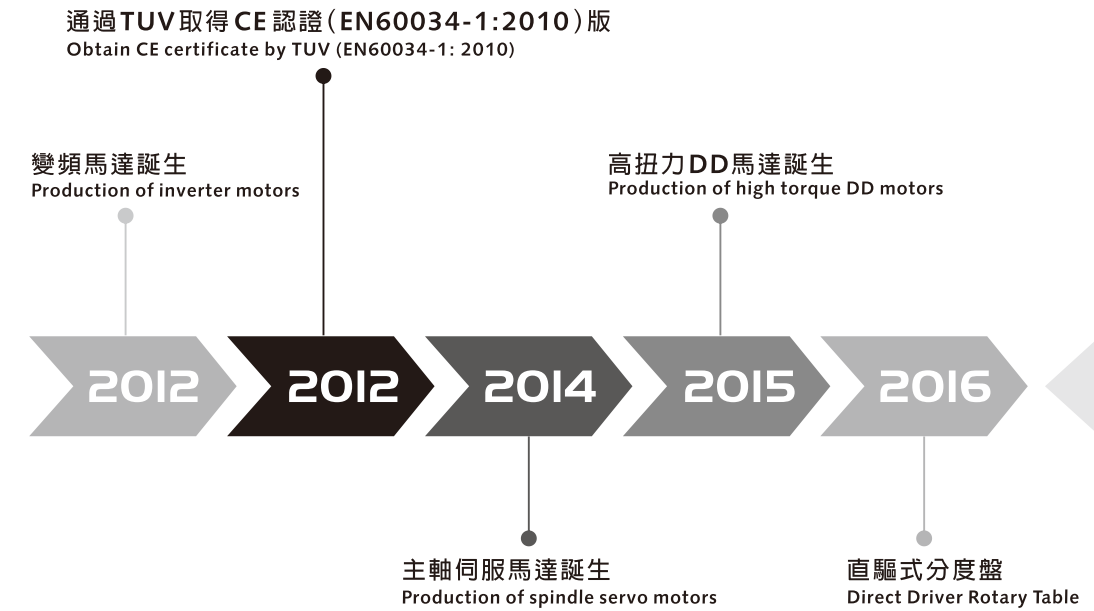
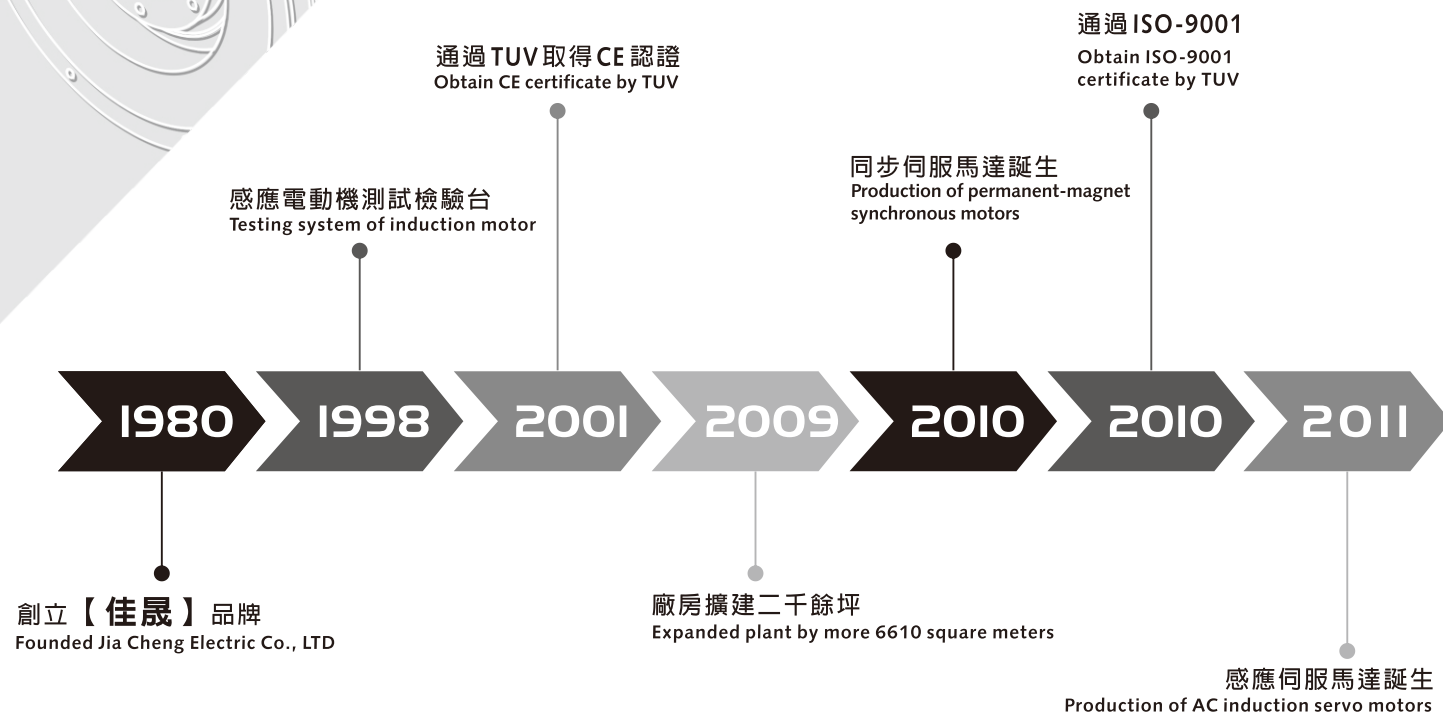
**JIA CHENG**

***ELECTRIC CO., LTD.***

**DDM Direct Driver Torque Motor**

[www.jcmotor.com.tw](http://www.jcmotor.com.tw)

(第二版)





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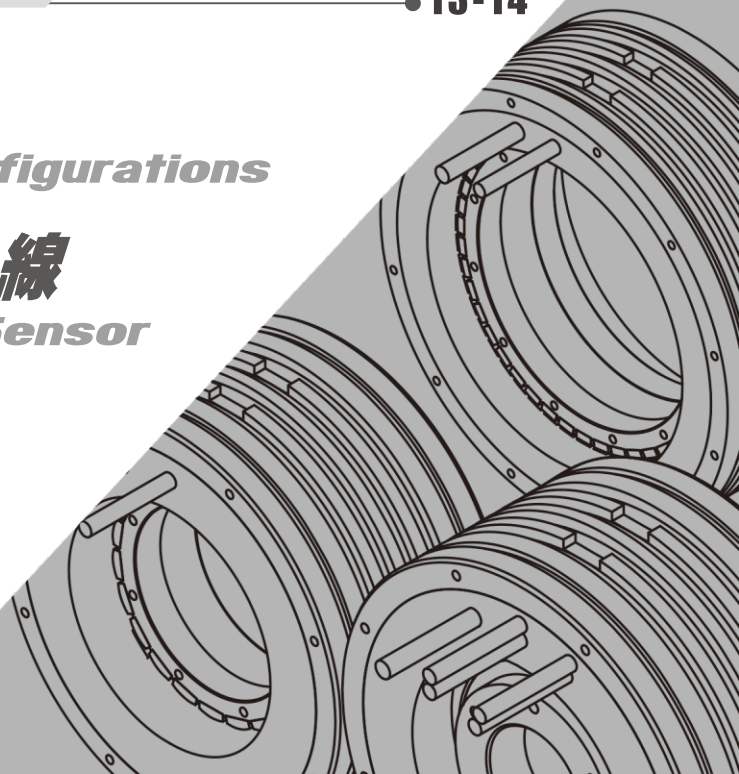
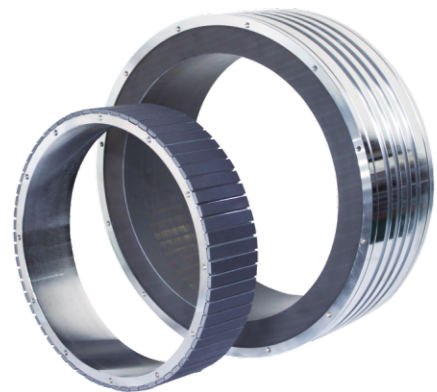
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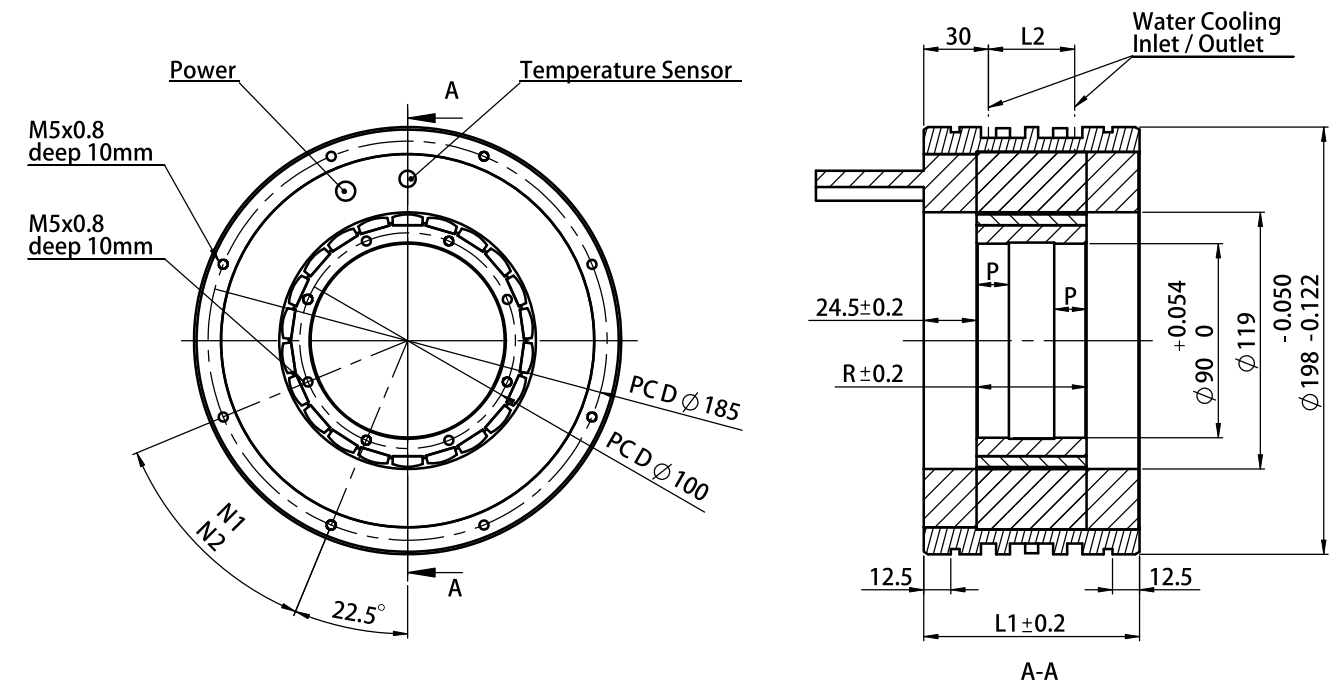
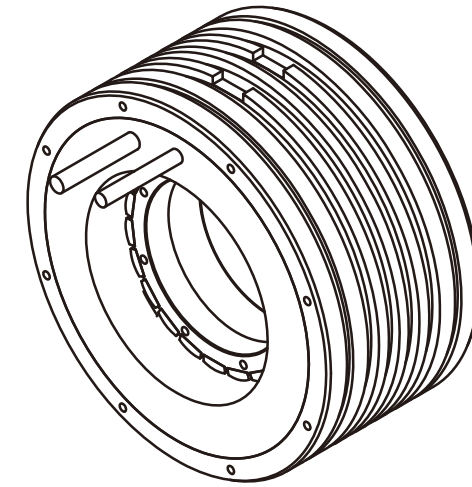
### 動力線與溫度訊號線

Power and Temperature Sensor





規格 Specification			DDM175-030	DDM175-050	DDM175-070	DDM175-100	DDM175-150
Vdc	輸入電壓 Nominal Input Voltage	VDC	300 VDC				
Tr	額定扭力 Rated Torque	Nm	14.9	24.3	33.5	47.3	70.4
Ir	額定電流 Rated Current	Arms	4.4	4.3	4.3	4.2	4.2
Pr	額定功率 Rated Power	kw	0.72	0.75	0.75	0.76	0.75
Vr	額定轉速 Rated Speed	rpm	450	290	210	150	100
Ke	反電動勢常數 Back EMF Constant	Vrms/100rpm	21.6	36.1	50.5	72.1	107.0
Kt	扭力常數 Torque Constant	Nm/Arms	3.58	5.96	8.35	11.9	17
P	極數 Number of Poles	—	22	22	22	22	22
Vm	最高轉速 Max. Speed	rpm	900	600	400	300	200
Nm	最大扭力 Max. Torque	Nm	44.7	72.9	100.5	141.9	211.2
J	轉子慣量 Rotor Inertia	kg-cm <sup>2</sup>	27	45	63	90	130
R20	電阻 20°C Electrical Resistance at 20°C	Ohm	4.25	5.78	7.3	9.58	13.3
L1	電感 Electrical Inductance	mH	22.2	37	51.8	74	111
Mr	轉子重量 Rotor Weight	kg	1.0	1.7	2.3	3.3	5.0
Ms	定子重量 Stator Weight	kg	7.1	9.2	11.7	14.8	21.1
	溫度感測器 Temperature Sensor		KTY84-130(紅色Red、粉色Pink、黑色Black、灰色Gray) PTC 130(白色White、棕色Brown)				
Tr	額定扭力 (水冷) Rated Torque(Water cooling)	Nm	31.8	54.1	76.1	110	166
Ir	額定電流 (水冷) Rated Current(Water cooling)	Arms	9.42	9.61	9.67	9.8	9.87
Pr	額定功率 (水冷) Rated Power(Water cooling)	kw	1.5	1.7	1.7	1.8	1.8
Vdc	輸入電壓 Nominal Input Voltage	VDC	600 VDC				
Vm	最高轉速 Max. Speed	rpm	1260	750	525	360	300



	L1	L2	R	P	N1	N2
<b>DDM175-030</b>	80	20	31	10	8x45°	8x45°
<b>DDM175-050</b>	100	40	51	15	8x45°	8x45°
<b>DDM175-070</b>	120	60	71	15	8x45°	8x45°
<b>DDM175-100</b>	150	90	101	15	16x22.5°	16x22.5°
<b>DDM175-150</b>	200	140	151	15	16x22.5°	16x22.5°

## DDM Direct Driver Torque Motor

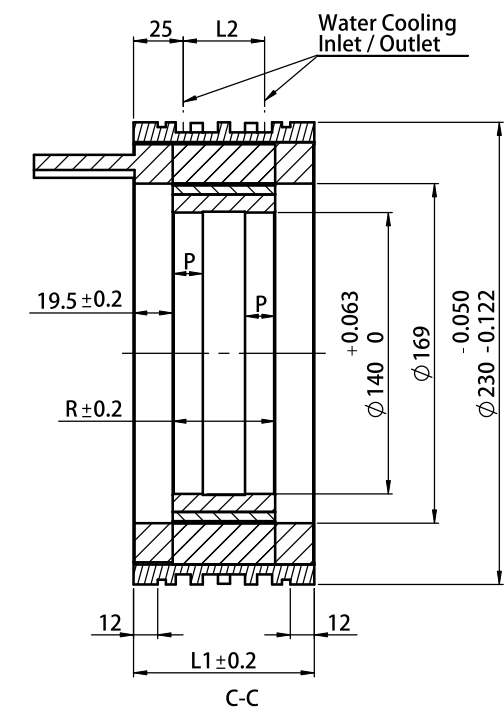
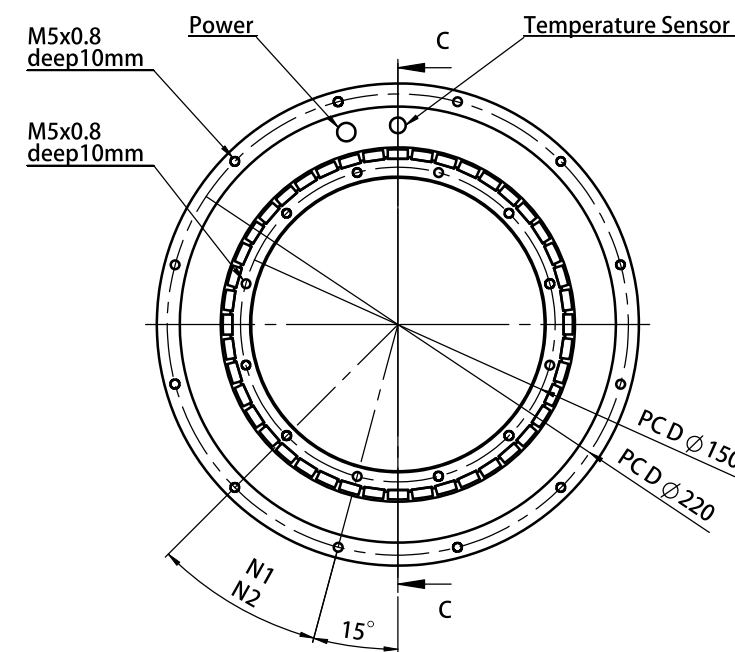
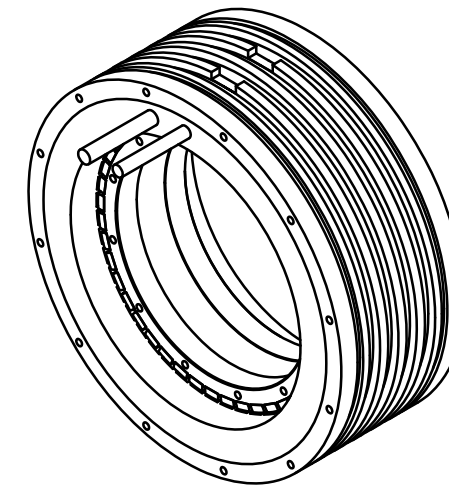
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## DDM 高扭力DD馬達

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規格 Specification			DDM210-030	DDM210-050	DDM210-070	DDM210-100	DDM210-150
Vdc	輸入電壓 Nominal Input Voltage	VDC	300 VDC				
Tr	額定扭力 Rated Torque	Nm	28.9	47.6	64.6	91.9	138
Ir	額定電流 Rated Current	Arms	4.4	4.4	4.3	8.4	8.3
Pr	額定功率 Rated Power	kw	0.77	0.76	0.76	1.47	1.47
Vr	額定轉速 Rated Speed	rpm	250	150	110	150	100
Ke	反電動勢常數 Back EMF Constant	Vrms/100rpm	38.8	67.2	94.2	67.9	102.4
Kt	扭力常數 Torque Constant	Nm/Arms	6.4	10.8	15.6	11.2	16.9
P	極數 Number of Poles	—	44	44	44	44	44
Vm	最高轉速 Max. Speed	rpm	500	300	250	300	250
Nm	最大扭力 Max. Torque	Nm	86.7	142.6	193.8	275.7	414
J	轉子慣量 Rotor Inertia	kg-cm <sup>2</sup>	85	140	200	290	450
R20	電阻 20°C Electrical Resistance at 20°C	Ohm	6.1	7.8	9.32	2.83	3.88
L1	電感 Electrical Inductance	mH	18.8	28.7	38.7	15.1	22.8
Mr	轉子重量 Rotor Weight	kg	1.4	2.4	3.5	5.0	7.6
Ms	定子重量 Stator Weight	kg	7.0	8.0	16.0	13.4	19.8
	溫度感測器 Temperature Sensor		KTY84-130(紅色Red、粉色Pink、黑色Black、灰色Gray) PTC 130(白色White、棕色Brown)				
Tr	額定扭力 (水冷) Rated Torque(Water cooling)	Nm	67.3	118	167	244	368
I	額定電流 (水冷) Rated Current(Water cooling)	Arms	11.2	11.5	11.5	23.3	23.3
Pr	額定功率 (水冷) Rated Power(Water cooling)	kw	1.8	1.9	2.0	3.9	3.9
Vdc	輸入電壓 Nominal Input Voltage	VDC	600 VDC				
Vm	最高轉速 Max. Speed	rpm	790	460	320	460	300



	L1	L2	R	P	N1	N2
<b>DDM210-030</b>	70	20	31	10	12x30°	12x30°
<b>DDM210-050</b>	90	40	51	15	12x30°	12x30°
<b>DDM210-070</b>	110	60	71	15	12x30°	12x30°
<b>DDM210-100</b>	140	90	101	15	24x15°	24x15°
<b>DDM210-150</b>	190	140	151	15	24x15°	24x15°

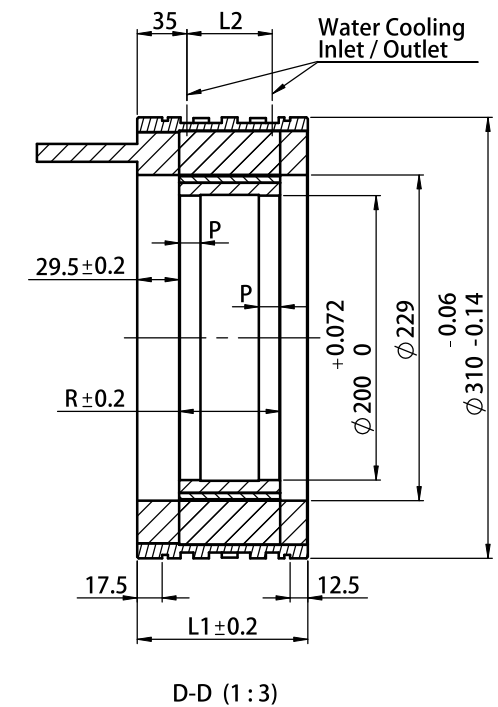
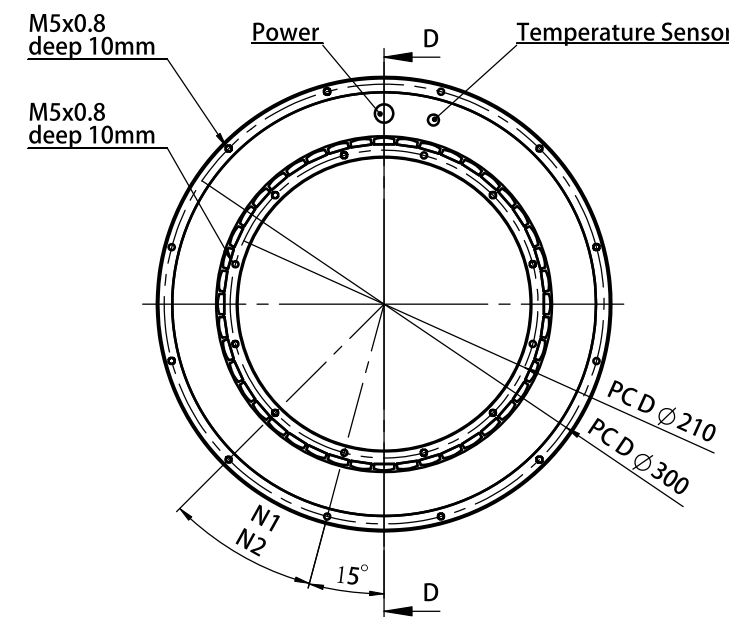
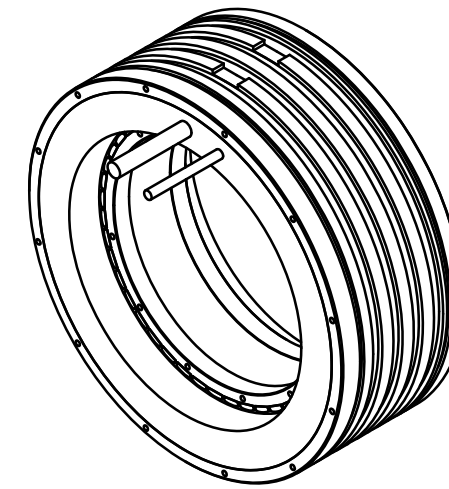
## DDM Direct Driver Torque Motor

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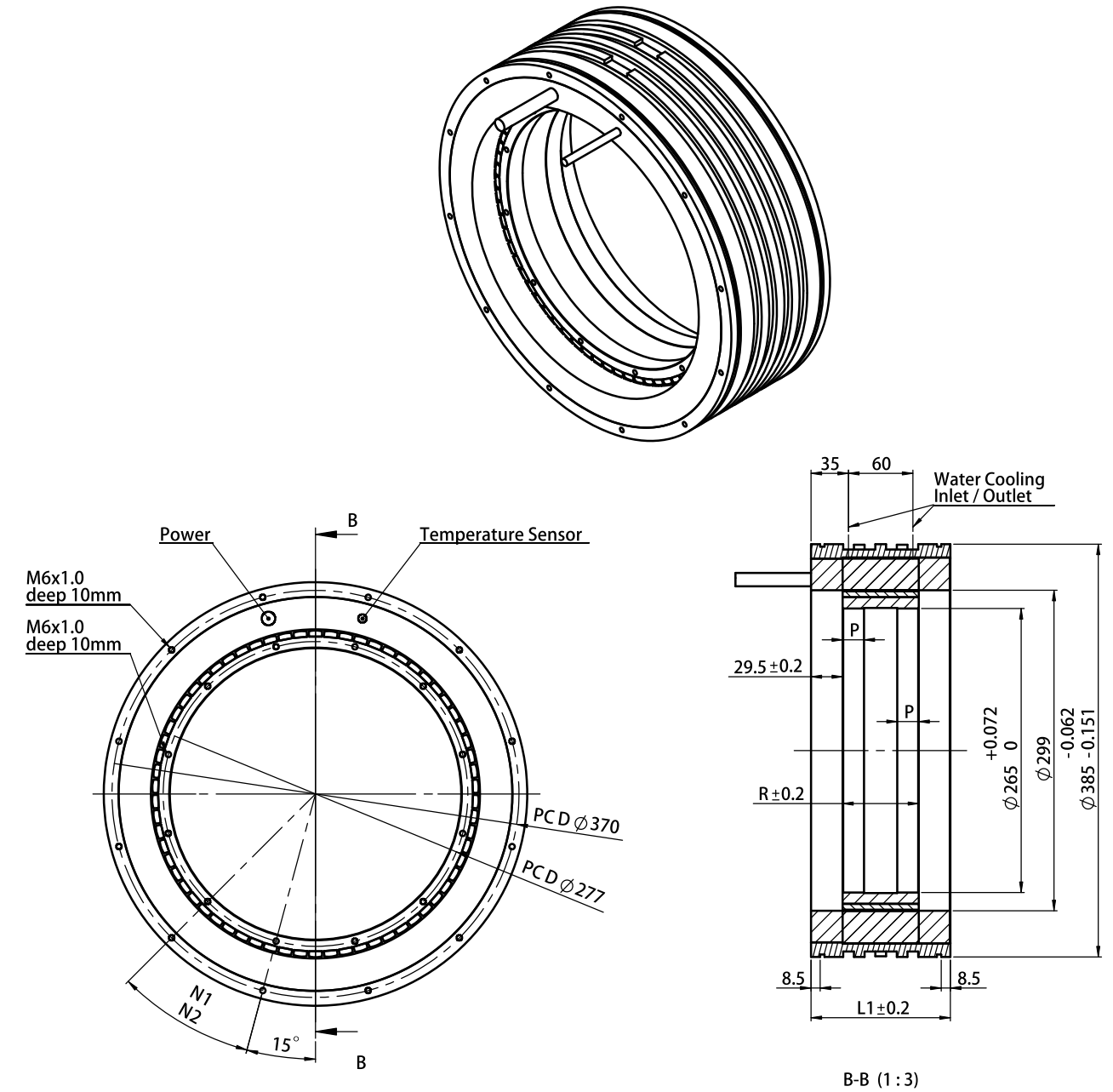
規格 Specification			DDM291-030	DDM291-050	DDM291-070	DDM291-100	DDM291-150
Vdc	輸入電壓 Nominal Input Voltage	VDC	300 VDC				
Tr	額定扭力 Rated Torque	Nm	60	97.6	135	189	281
Ir	額定電流 Rated Current	Arms	7.6	7.4	10	7.1	7.1
Pr	額定功率 Rated Power	kw	1.28	1.2	1.5	1.2	1.50
Vr	額定轉速 Rated Speed	rpm	200	120	110	60	50
Ke	反電動勢常數 Back EMF Constant	Vrms/100rpm	51.5	85.8	95.7	171.6	257.5
Kt	扭力常數 Torque Constant	Nm/Arms	8.5	14.2	15.8	28.3	42.5
P	極數 Number of Poles	—	44	44	44	44	44
Vm	最高轉速 Max. Speed	rpm	400	250	250	150	100
Nm	最大扭力 Max. Torque	Nm	180	292.8	405	567	843
J	轉子慣量 Rotor Inertia	kg-cm <sup>2</sup>	230	390	521	790	1100
R20	電阻 20°C Electrical Resistance at 20°C	Ohm	2.3	3.71	2.5	5.3	7.32
L1	電感 Electrical Inductance	mH	13.5	22.4	19.7	44.7	67
Mr	轉子重量 Rotor Weight	kg	2.1	3.5	4.5	6.9	10.4
Ms	定子重量 Stator Weight	kg	12.6	16.7	23	27.3	38.7
	溫度感測器 Temperature Sensor		KTY84-130(紅色Red、粉色Pink、黑色Black、灰色Gray) PTC 130(白色White、棕色Brown)				
Tr	額定扭力 (水冷) Rated Torque(Water cooling)	Nm	132	225	305	456	689
Ir	額定電流 (水冷) Rated Current(Water cooling)	Arms	17	17.4	23	17.6	17.9
Pr	額定功率 (水冷) Rated Power(Water cooling)	kw	2.8	2.4	4.9	2.4	3.7
Vdc	輸入電壓 Nominal Input Voltage	VDC	600 VDC				
Vm	最高轉速 Max. Speed	rpm	600	350	320	180	120



	L1	L2	R	P	N1	N2
<b>DDM291-030</b>	80	20	31	10	12x30°	12x30°
<b>DDM291-050</b>	100	40	51	15	12x30°	12x30°
<b>DDM291-070</b>	120	60	71	15	12x30°	12x30°
<b>DDM291-100</b>	150	90	101	15	24x15°	24x15°
<b>DDM291-150</b>	200	140	151	15	24x15°	24x15°



規格 Specification			DDM360-030	DDM360-050	DDM360-070	DDM360-100	DDM360-150
Vdc	輸入電壓 Nominal Input Voltage	VDC	300 VDC				
Tr	額定扭力 Rated Torque	Nm	112	180	247	344	508
Ir	額定電流 Rated Current	Arms	6.4	6.2	12.2	11.8	17.9
Pr	額定功率 Rated Power	kw	1.20	0.96	2.11	1.84	2.71
Vr	額定轉速 Rated Speed	rpm	100	50	80	50	50
Ke	反電動勢常數 Back EMF Constant	Vrms/100rpm	107.8	179	121.1	179	174.8
Kt	扭力常數 Torque Constant	Nm/Arms	17.8	29.7	20.8	29.7	28.9
P	極數 Number of Poles	—	66	66	66	66	66
Vm	最高轉速 Max. Speed	rpm	200	150	200	150	150
Nm	最大扭力 Max. Torque	Nm	336	540	741	1032	1524
J	轉子慣量 Rotor Inertia	kg-cm <sup>2</sup>	650	1000	1500	2100	3200
R20	電阻 20°C Electrical Resistance at 20°C	Ohm	4.72	6.42	2.08	2.71	1.6
L1	電感 Electrical Inductance	mH	27.4	45.7	15.3	22.8	14.5
Mr	轉子重量 Rotor Weight	kg	3.3	5.5	7.7	11	16.5
Ms	定子重量 Stator Weight	kg	19.1	24.5	30.7	38.7	54.4
	溫度感測器 Temperature Sensor		KTY84-130(紅色Red、粉色Pink、黑色Black、灰色Gray) PTC 130(白色White、棕色Brown)				
Tr	額定扭力 (水冷) Rated Torque(Water cooling)	Nm	230	393	554	800	1210
Ir	額定電流 (水冷) Rated Current(Water cooling)	Arms	14.3	14.7	29.8	30.2	46.8
Pr	額定功率 (水冷) Rated Power(Water cooling)	kw	2.5	2.1	4.7	4.3	6.5
Vdc	輸入電壓 Nominal Input Voltage	VDC	600 VDC				
Vm	最高轉速 Max. Speed	rpm	250	140	210	140	140



	L1	L2	R	P	N1	N2
<b>DDM360-030</b>	90	20	31	10	12x30°	12x30°
<b>DDM360-050</b>	110	40	51	20	12x30°	12x30°
<b>DDM360-070</b>	130	60	71	20	12x30°	12x30°
<b>DDM360-100</b>	160	90	101	20	24x15°	24x15°
<b>DDM360-150</b>	210	140	151	20	24x15°	24x15°

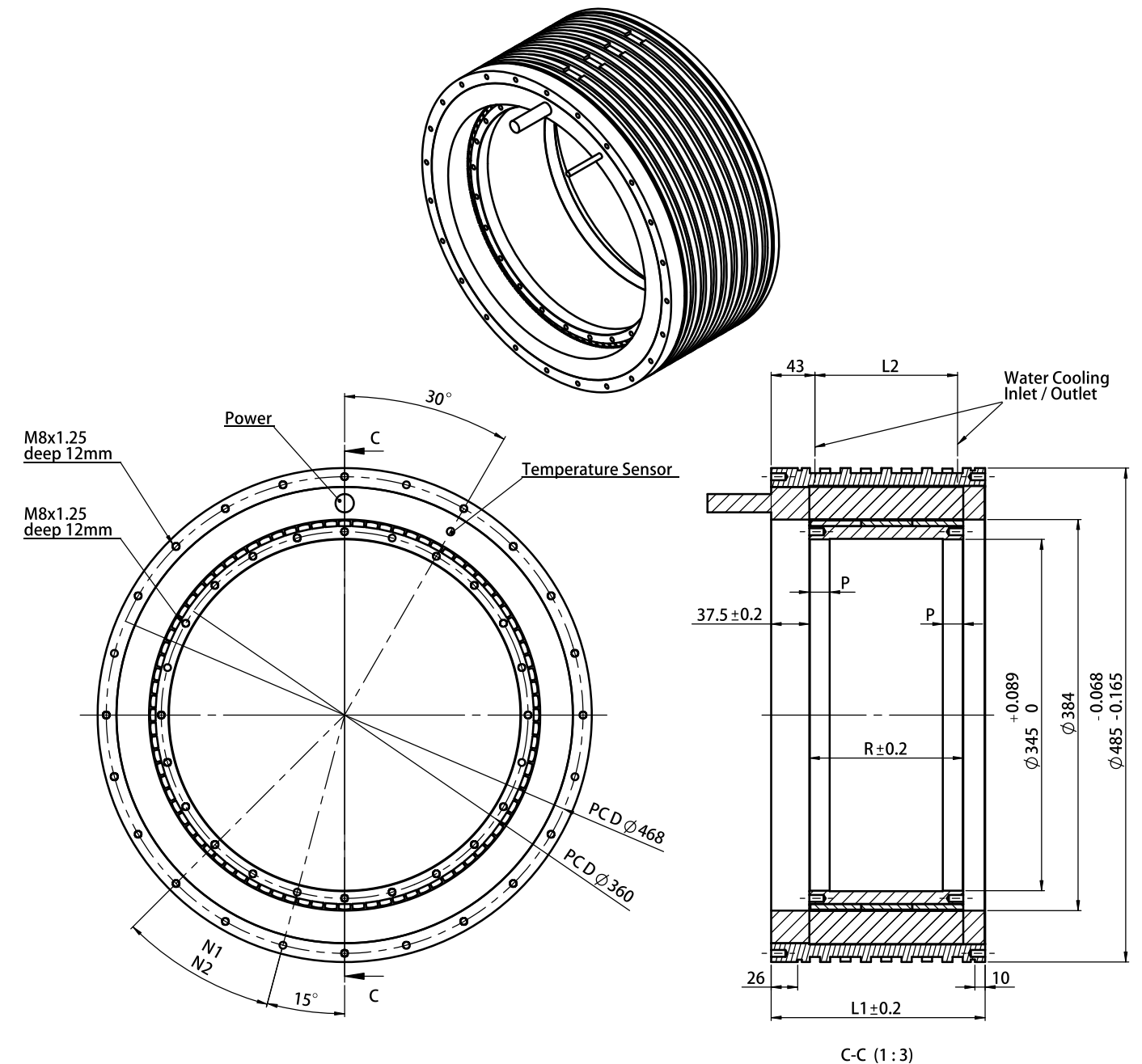
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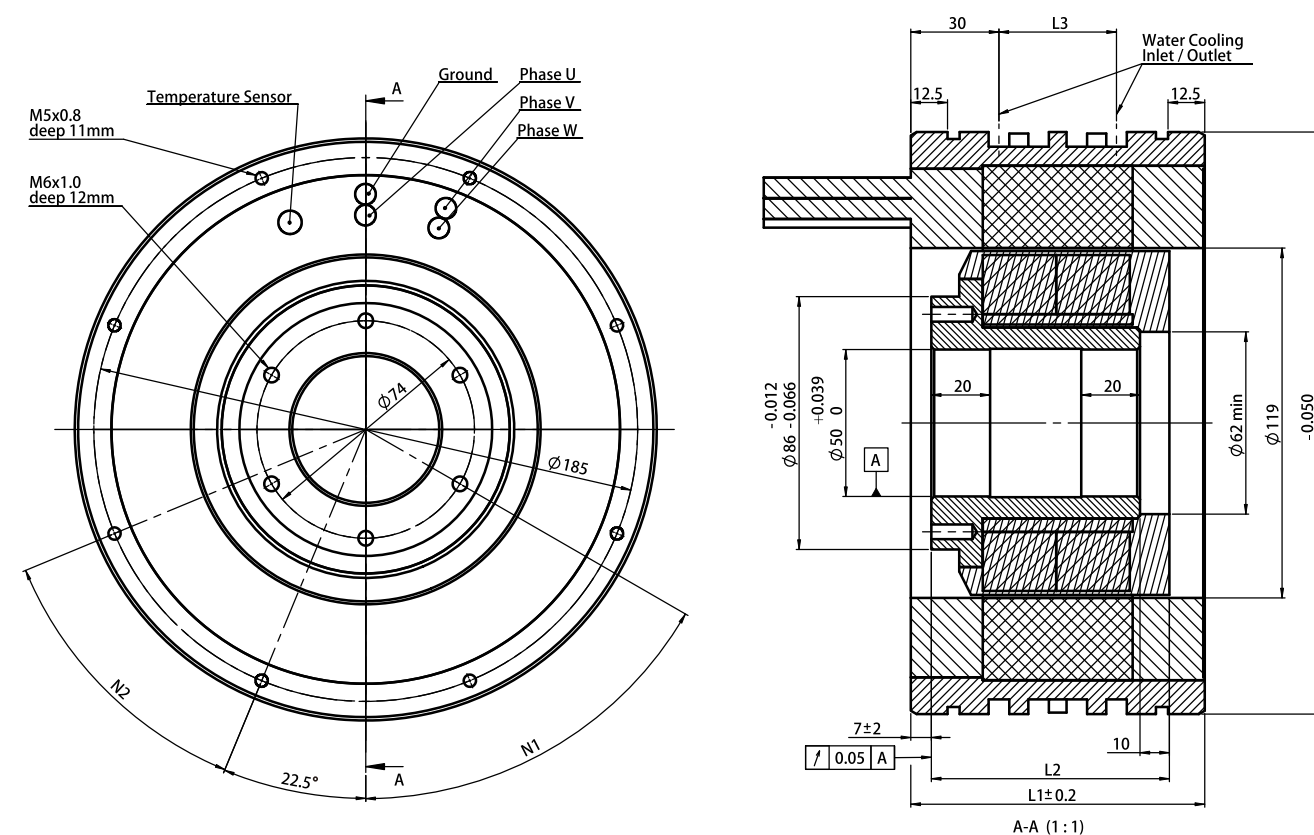
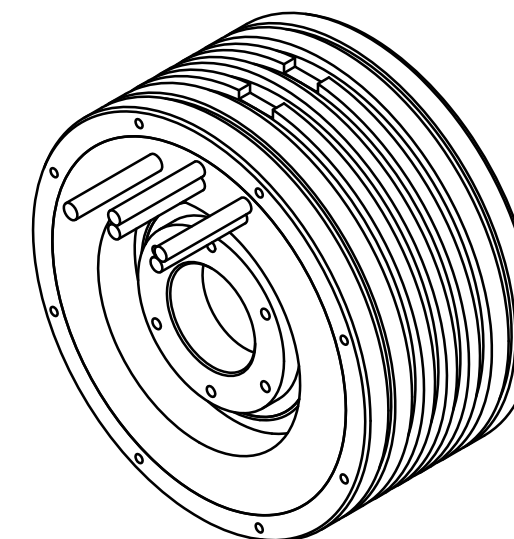
規格 Specification			DDM450-030	DDM450-050	DDM450-070	DDM450-100	DDM450-150
Vdc	輸入電壓 Nominal Input Voltage	VDC	300 VDC				
Tr	額定扭力 Rated Torque	Nm	182	293	402	561	826
Ir	額定電流 Rated Current	Arms	12.2	11.8	11.6	11.3	22.1
Pr	額定功率 Rated Power	kw	1.94	1.88	2.15	1.80	4.41
Vr	額定轉速 Rated Speed	rpm	100	60	50	30	50
Ke	反電動勢常數 Back EMF Constant	Vrms/100rpm	93.9	157	219.8	313.1	249
Kt	扭力常數 Torque Constant	Nm/Arms	15.5	25.9	36.2	51.7	38.8
P	極數 Number of Poles	—	88	88	88	88	88
Vm	最高轉速 Max. Speed	rpm	250	150	100	80	100
Nm	最大扭力 Max. Torque	Nm	546	879	1206	1683	2478
J	轉子慣量 Rotor Inertia	kg-cm <sup>2</sup>	1600	2600	3700	5300	8000
R20	電阻 20°C Electrical Resistance at 20°C	Ohm	1.75	2.38	3.01	3.99	1.49
L1	電感 Electrical Inductance	mH	11.5	19.1	26.7	38.2	11.2
Mr	轉子重量 Rotor Weight	kg	4.9	8.2	11.4	16.3	24.5
Ms	定子重量 Stator Weight	kg	30	38.4	47.6	59.9	83.2
	溫度感測器 Temperature Sensor		KTY84-130(紅色Red、粉色Pink、黑色Black、灰色Gray) PTC 130(白色White、棕色Brown)				
Tr	額定扭力 (水冷) Rated Torque(Water cooling)	Nm	365	620	872	1260	1890
Ir	額定電流 (水冷) Rated Current(Water cooling)	Arms	27	27.7	27.8	28.1	56.3
Pr	額定功率 (水冷) Rated Power(Water cooling)	kw	3.9	4.0	4.7	4.0	10.1
Vdc	輸入電壓 Nominal Input Voltage	VDC	600 VDC				
Vm	最高轉速 Max. Speed	rpm	300	180	130	90	120



	L1	L2	R	P	N1	N2
<b>DDM450-030</b>	90	20	31	10	12x30°	12x30°
<b>DDM450-050</b>	110	40	51	20	12x30°	12x30°
<b>DDM450-070</b>	130	60	71	20	12x30°	12x30°
<b>DDM450-100</b>	160	90	101	20	24x15°	24x15°
<b>DDM450-150</b>	210	140	151	20	24x15°	24x15°

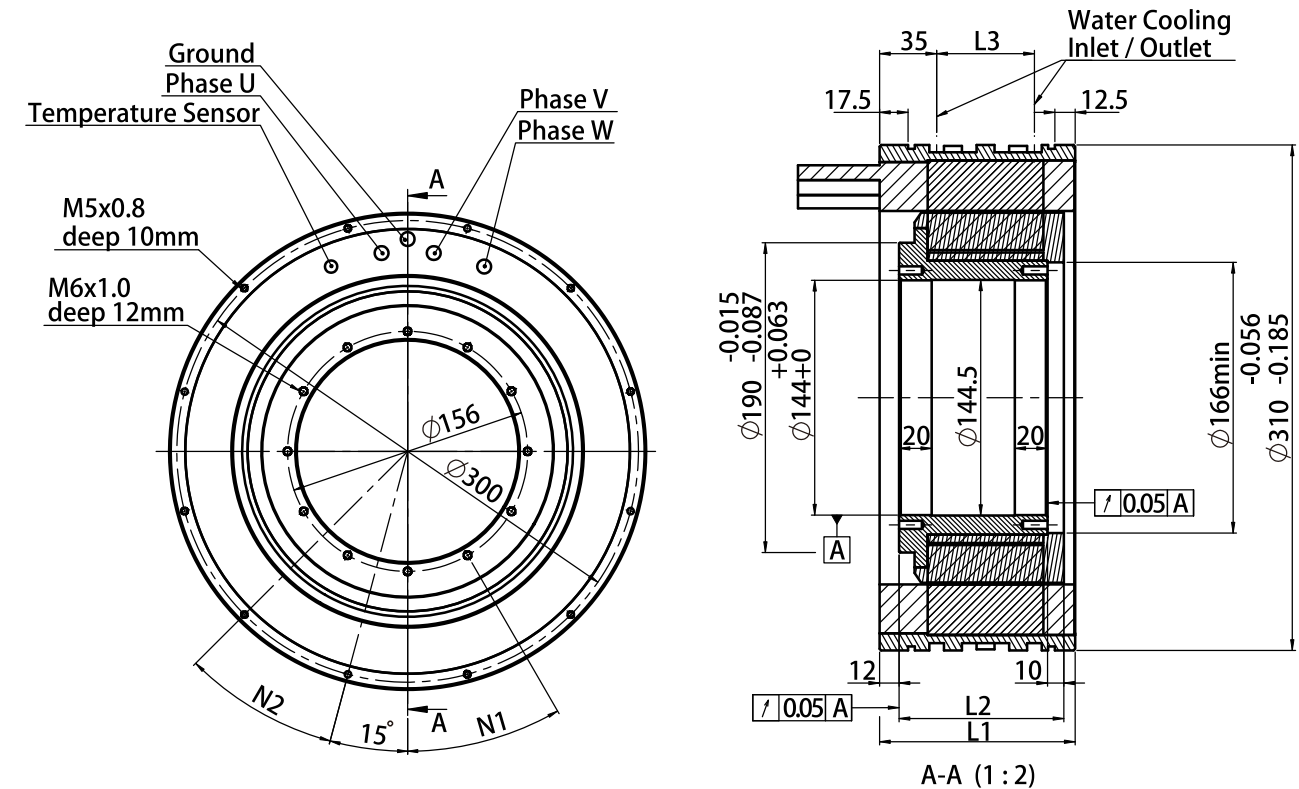
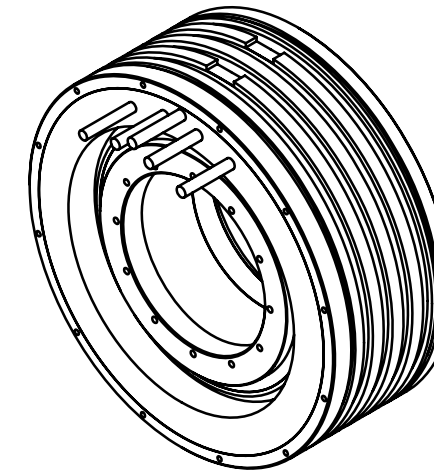


規格 Specification			DDMK175-050	DDMK175-070	DDMK175-100	DDMK175-150
Vdc	輸入電壓 Nominal Input Voltage	VDC	STANDARD MODE 600 VDC			
Tr	額定扭力 (水冷) Rated Torque(Water cooling)	Nm	79.8	113	166	249
Ir	額定電流 (水冷) Rated Current(Water cooling)	Arms	26.2	26.5	27.7	27.7
Pr	額定功率 Rated Power	kw	10.0	9.9	9.7	9.2
Vr	額定轉速 Rated Speed	rpm	1170	818	546	345
Ke	反電動勢常數 Back EMF Constant	Vrms/100rpm	23.66	33.09	47.33	70.89
Kt	扭力常數 Torque Constant	Nm/Arms	3.86	5.4	7.72	11.6
P	極數 Number of Poles	—	22	22	22	22
Vm	最高轉速 Max. Speed	rpm	1770	1270	886	591
R20	電阻 20°C Electrical Resistance at 20°C	Ohm	1.2	1.5	1.99	2.4
Ld/Lq	電感 Electrical Inductance	mH	10.3/7.5	13.7/10.4	18.7/14.2	30.2/24.0
J	轉子慣量 Rotor Inertia	kg-cm <sup>2</sup>	90.8	122	169	247
Mr	轉子重量 Rotor Weight	kg	4.54	5.85	7.81	11.1
Ms	定子重量 Stator Weight	kg	10.8	13.2	16.1	22.4
Vdc	輸入電壓 Nominal Input Voltage	VDC	FIELD WEAKENING 600 VDC			
Vr	額定轉速 Rated Power	rpm	1380	976	665	432
Pr	額定功率 Rated Speed	kw	11.8	11.8	11.8	11.5
Vm	最高轉速 Max. Speed	rpm	5420	4270	2990	1990
	溫度感測器 Temperature Sensor		KTY84-130(紅色Red、粉色Pink、黑色Black、灰色Gray) PTC 130(白色White、棕色Brown)			



	L1	L2	L3	N1	N2
<b>DDMK175-050</b>	100	81	40	6x60°	8x45°
<b>DDMK175-070</b>	120	101	60	6x60°	8x45°
<b>DDMK175-100</b>	150	131	90	12x30°	16x22.5°
<b>DDMK175-150</b>	200	181	140	12x30°	16x22.5°

規格 Specification			DDMK291-050	DDMK291-070	DDMK291-100	DDMK291-150
Vdc	輸入電壓 Nominal Input Voltage	VDC	STANDARD MODE 600 VDC			
Tr	額定扭力 (水冷) Rated Torque(Water cooling)	Nm	288	402	572	854
Ir	額定電流 (水冷) Rated Current(Water cooling)	Arms	66.1	66.9	67.9	135.2
Pr	額定功率 Rated Power	kw	26.3	25.6	24.5	48.3
Vr	額定轉速 Rated Speed	rpm	855	596	402	530
Ke	反電動勢常數 Back EMF Constant	Vrms/100rpm	32.7	45.55	64.7	48.4
Kt	扭力常數 Torque Constant	Nm/Arms	3.44	7.53	8.42	6.3
P	極數 Number of Poles	—	44	44	44	44
Vm	最高轉速 Max. Speed	rpm	1320	950	670	880
R20	電阻 20°C Electrical Resistance at 20°C	Ohm	0.293	0.356	0.489	0.169
Ld/Lq	電感 Electrical Inductance	mH	1.87/1.45	2.6/1.98	3.58/2.79	1.28/0.99
J	轉子慣量 Rotor Inertia	kg-cm <sup>2</sup>	1057	1383	1882	2706
Mr	轉子重量 Rotor Weight	kg	11.8	15.5	21	30.1
Ms	定子重量 Stator Weight	kg	18.2	23	29.6	41.7
Vdc	輸入電壓 Nominal Input Voltage	VDC	FIELD WEAKENING 600 VDC			
Vr	額定轉速 Rated Power	rpm	990	688	464	616
Pr	額定功率 Rated Speed	kw	30.4	29.5	28.3	56.2
Vm	最高轉速 Max. Speed	rpm	2730	2730	2410	2730
	溫度感測器 Temperature Sensor		KTY84-130(紅色Red、粉色Pink、黑色Black、灰色Gray) PTC 130(白色White、棕色Brown)			



	L1	L2	L3	N1	N2
<b>DDMK291-050</b>	100	81	40	12x30°	12x30°
<b>DDMK291-070</b>	120	101	60	12x30°	12x30°
<b>DDMK291-100</b>	150	131	90	24x15°	24x15°
<b>DDMK291-150</b>	200	181	140	24x15°	24x15°

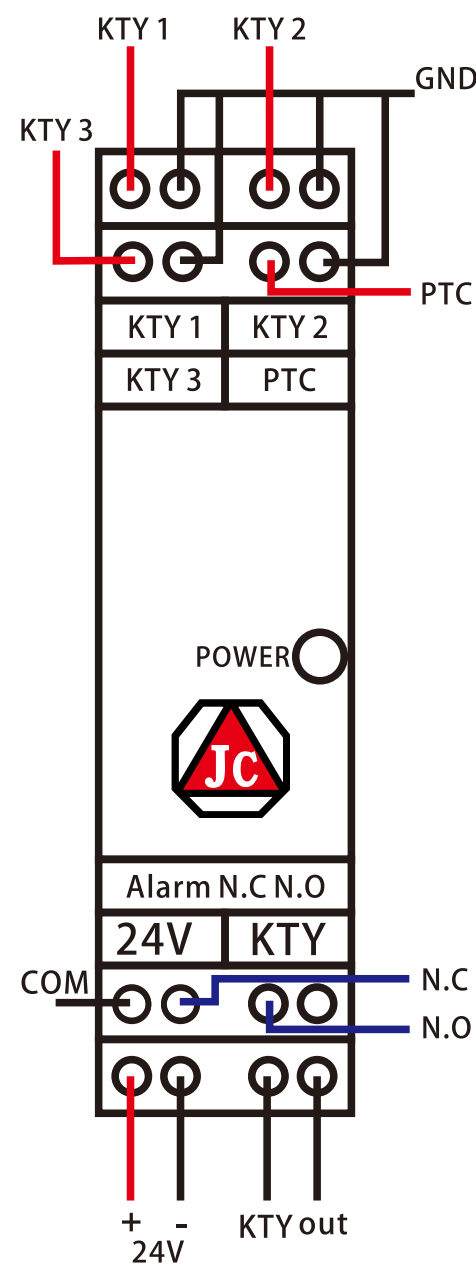
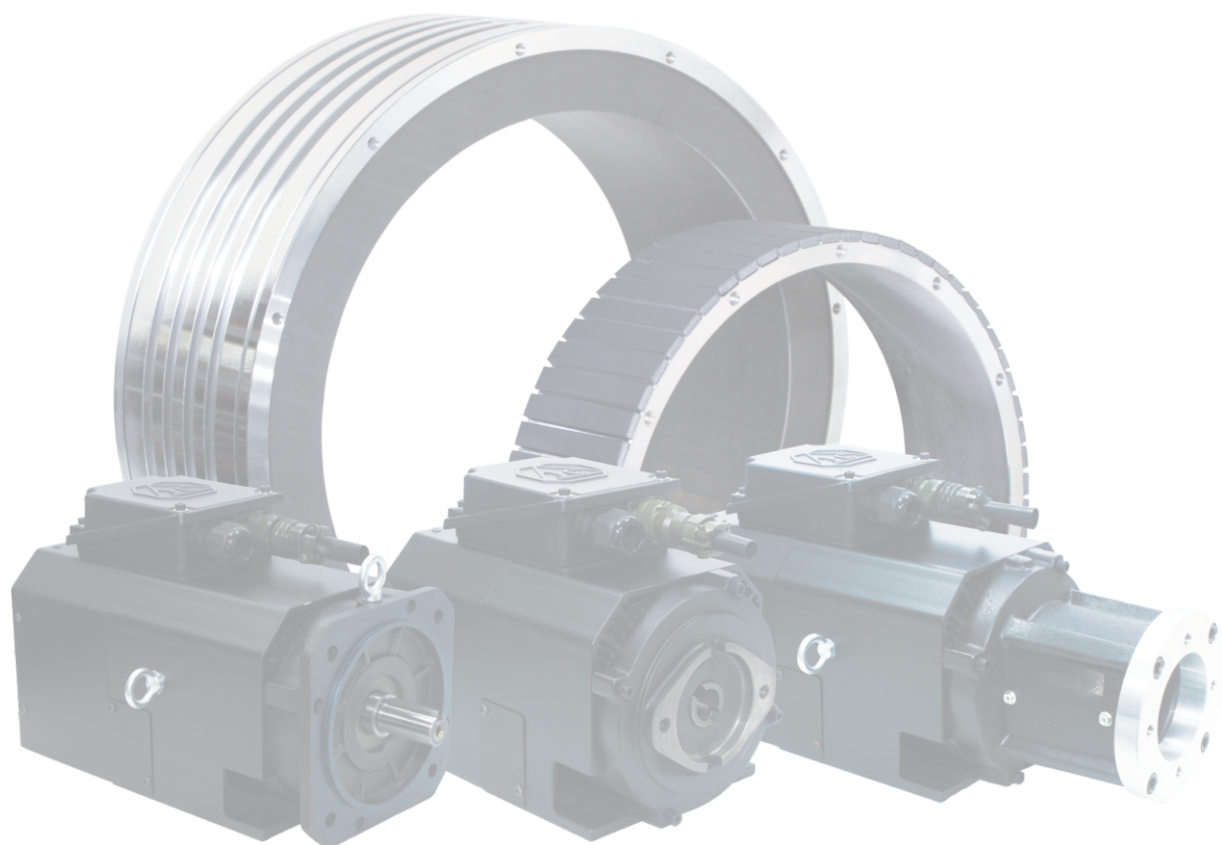
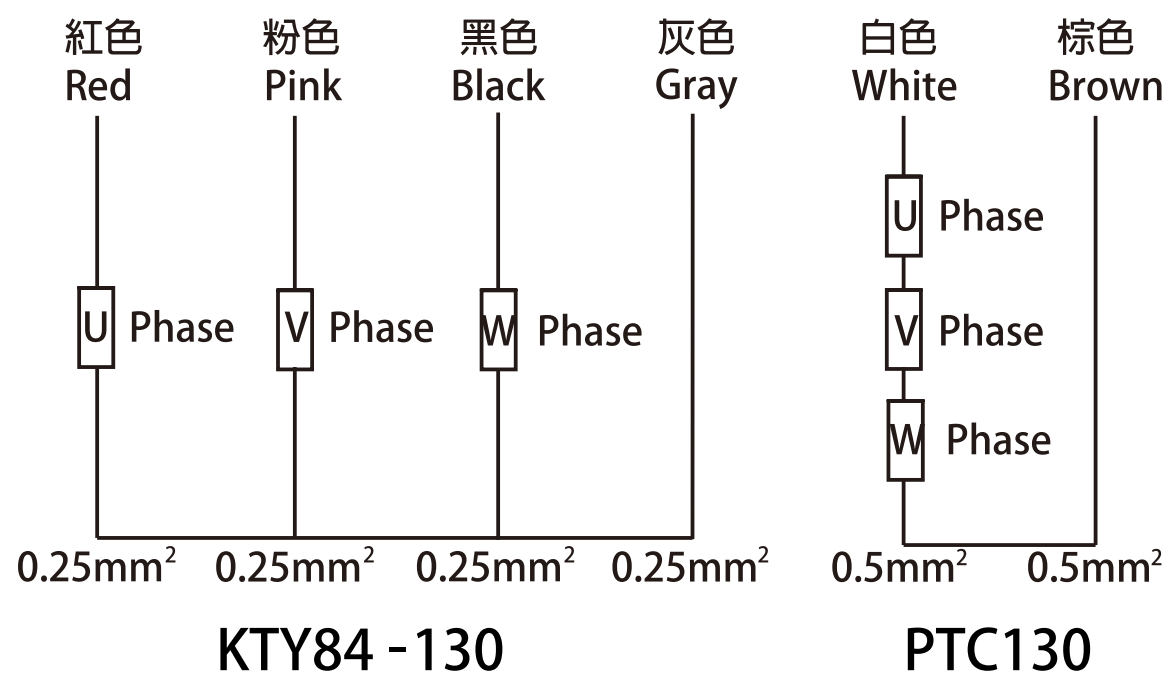
## DDM Direct Driver Torque Motor

由於本產品持續開發中，因此本公司保留隨時修改產品的設計、特性或是規格變更的權利，恕不另行通知。

## DDM 高扭力 DD 馬達

Due to we continue to develop the products, we reserve the right to modify or improve the designs, features or specifications of our product at any time without notice.



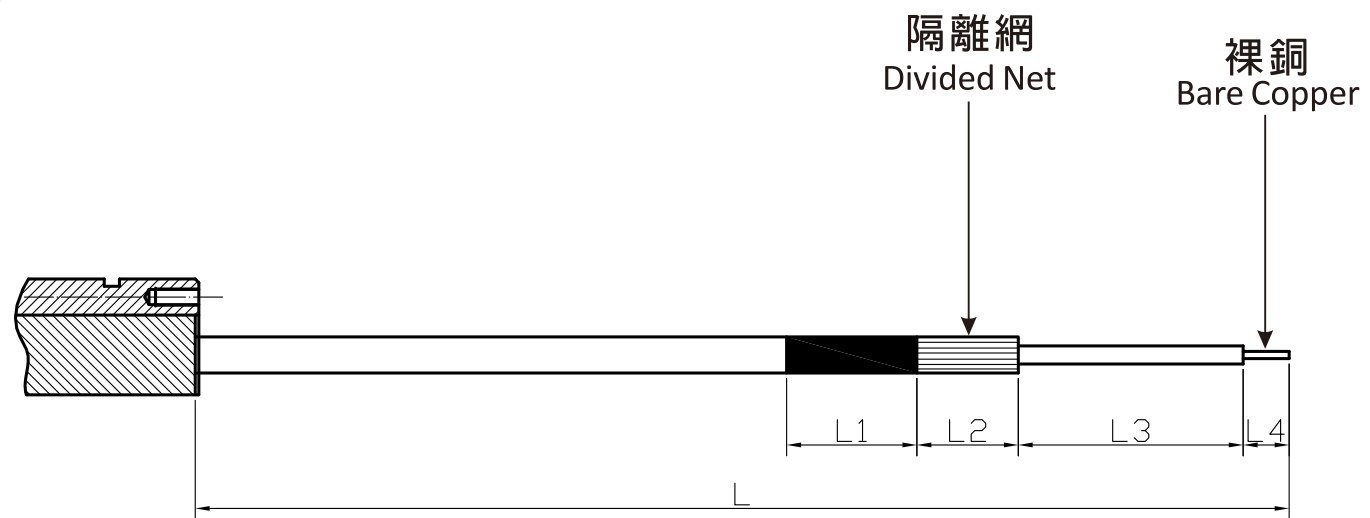


品名	TM-K33
接點	KTY*3、PTC、Alarm *1
規格	PTC 130 KTY 84/130 Alarm 120VAC/24VDC
功能	1.任意一組KTY溫度升至100°C Alarm接點跳脫 溫度低於80°C復歸 2.PTC溫度升至130°C±10°C Alarm接點跳脫 溫度低於130°C復歸
燈號	1.POWER 綠燈 - 正常 紅燈 - 異常 傳感器未接好 溫度大於100°C

Product name	TM-K33
Contact	KTY*3、PTC、Alarm *1
Specification	PTC 130 KTY 84/130 Alarm 120VAC/24VDC
Features	1.Any of KTY temperatures rise over 100°C Alarm contact trip temperature below 80°C Alarm contact reset 2.PTC temperatures rise over 130°C ± 10°C Alarm contact trip temperature below 130°C Alarm contact rest
Light	1.POWER Green - Normal Red - Error The sensor is not connected Temperature > 100°C



# JIA CHENG 動力線與溫度訊號線 Power and Temperature Sensor



(單位 mm)

Type	L	L1	L2	L3	L4
DDM175	500	30	20	40	10
DDM210	500	30	20	40	10
DDM291	1000	30	20	40	10
DDM360	1945	30	20	40	10
DDM450	1945	30	20	40	10
DDMK175	1000	30	20	40	10
DDMK291	1000	30	20	40	10

客戶可指定其它出線的長度，請洽本公司業務！

The length is customizable ; Please contact and offer.

DDM Direct Driver Torque Motor







精緻雕琢 極致呈獻



佳晟電機股份有限公司

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