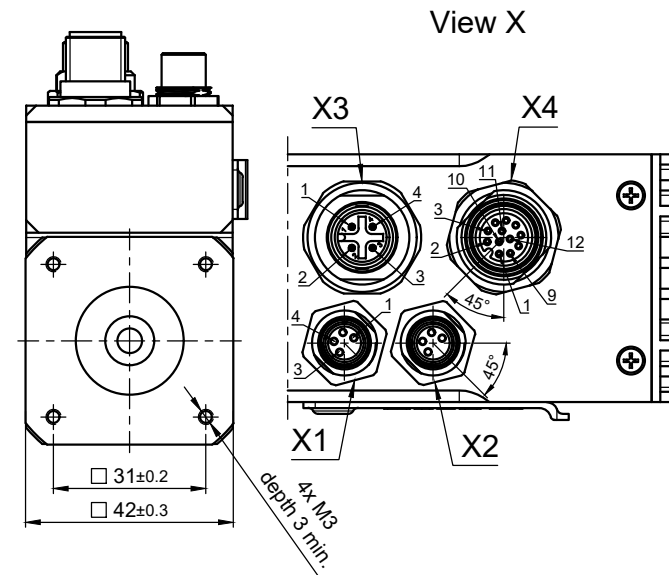
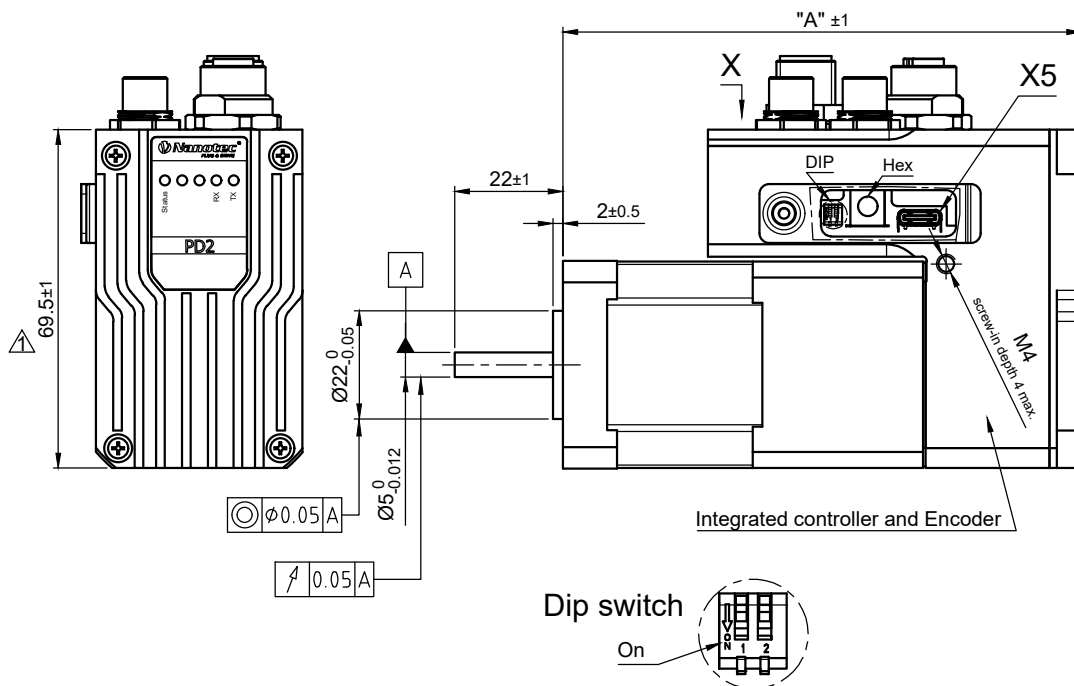




X1 Modbus RTU IN	
M8/ 4-Pole / A-Coding / female	
cable shield on housing	

X2 Modbus RTU OUT	
M8/ 4-Pole / A-Coding / female	
Pin No.	Function
1	n.c. *
2	RS485-
3	GND
4	RS485+
cable shield on housing	

*Pin1 IN connector with Pin1 OUT connector connected to each other

X3 POWER	
M12 / 4-Pole / A-Coding / male	
Pin No.	Function
1	V+
2	V+
3	GND
4	GND
cable shield on housing	

X4 IO	
M12 / 12-Pole / A-Coding / female	
Pin No.	Function
1	GND
2	Input 1
3	Input 2
4	Input 3
5	Input 4
6	Analog Input1
7	Analog Input2
8	Output 1 (push-pull)
9	Output 2 (push-pull)
10	V+Logic
11	Brake +
12	Brake -
cable shield on housing	

X5 USB	
Type C	

MOTOR SPECIFICATION

PD2-EB42xx-x-65-5		MB-E	MB-M	LB-E	LB-M	MD-E	MD-M	LD-E	LD-M	CD-E	CD-M
Motor Length "A"	mm	98.5	105.8	118.5	125.8	98.5	105.8	118.5	125.8	138.5	145.8
No. of Poles		6				6					
Rated Voltage	V DC	24				48					
Operating Voltage -5%/+20%	V DC	12 ... 48									
Resistance Line to Line (20°C) ±15%	Ω	1.05		0.54		4.3		2.2		1.5	
Inductance Line to Line (1kHz) ±20%	mH	0.75		0.45		2.65		1.7		1.25	
Current - Rated / Peak	A	3.1 / 9.3		4.8 / 14.4		1.5 / 4.6		2.4 / 7.2		3.66 / 11	
Torque - Rated / Peak	Nm	0.17/ 0.51		0.3 / 0.9		0.17 / 0.51		0.3 / 0.9		0.44 / 1.32	
Torque Constant	Nm/A	0.055		0.0625		0.11		0.125		0.12	
Power Rated	W	53		94		53		94		138	
Speed - No Load / Rated ±10%	rpm	3900 / 3000		3750 / 3000		3900 / 3000		3750 / 3000		3700 / 3000	
Rotor Inertia	kg m²	6.0 x10 ⁻⁶		8.0 x10 ⁻⁶		6.0 x10 ⁻⁶		8.0 x10 ⁻⁶		16.7x10 ⁻⁶	
Multiturn Encoder Resolution	bit	-	16	-	16	-	16	-	16	-	16
Singleturn Encoder Resolution	bit	16	17	16	17	16	17	16	17	16	17
Weight ±10%	kg	0.63	0.65	0.83	0.85	0.63	0.65	0.83	0.85	1.1	1.1

GENERAL MOTOR SPECIFICATION

Interface		MODBUS RTU (RS485)
Ambient Temperature	°C	-10 ... 40
Storage Temperature	°C	-20 ... 85
Max. Ambient Humidity (non condensing)	%	85
Insulation Class		B
Insulation Resistance (@500VDC)	MΩ	100
Dielectric Strength (for 1 sec - coil to case)	V AC	600
Protection Class (except shaft outlet)		IP65

ISO 8015		ISO 1302		ISO 2768 cK		ISO 13715	
					Date	Name	
				Drawn	08.01.2026	Schneid_A	
				Reviewed	03.03.2026	Reith_S	
				Released	03.03.2026	Reith_S	
01	change dimension	Reith_S	06.07.2026	 Nanotec [®] PLUG & DRIVE			
REV	Rev. Text	Name	Date				