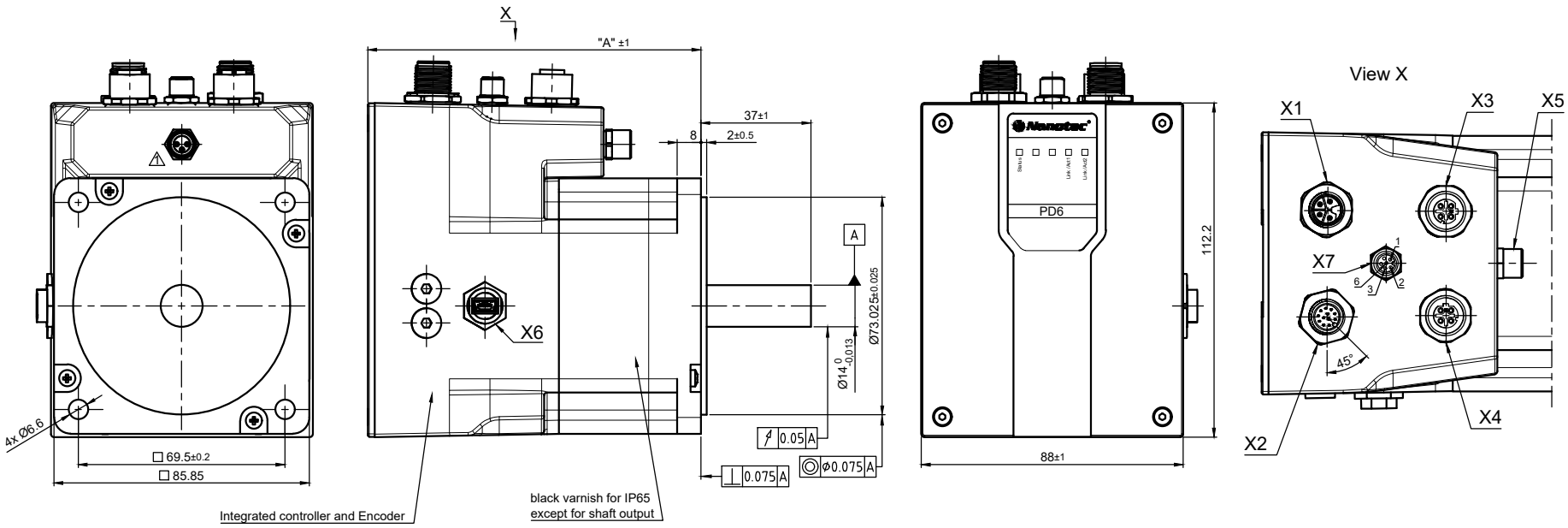
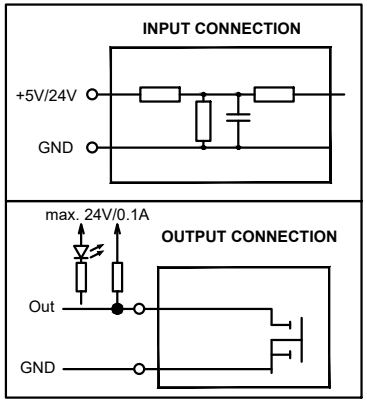


X1	POWER
M12 / 4-Pole / L-Coding / male	
Pin No.	Function
1	+UB
2	+UB
3	GND
4	GND
cable shield on housing	

X2	IO
M12 / 12-Pole / A-Coding / male	
Pin No.	Function
1	GND
2	Input 1 (+5V/+24V)
3	Input 2 (+5V/+24V)
4	Input 3 (+5V/+24V)
5	Input 4 (+5V/+24V)
6	Input 5 (+5V/+24V)
7	Input 6 (+5V/+24V)
8	Analog Input (0-10V/0-20mA)
9	Output 1 (open drain)
10	Output 2 (open drain)
11	+5V Voltage Supply (max. 100mA)
12	+UB Logic (24V)
cable shield on housing	



X5	Brake OUT
M8/ 3-Pole / A-Coding / female	
PIN No.	Function
1	Vcc
3	GND
4	n.c.
cable shield on housing	

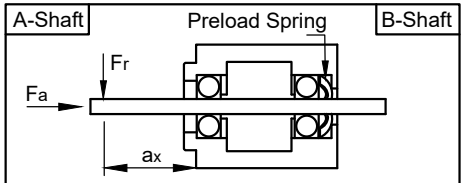
X6	Mini-USB

X7	STO
M8/ 6-Pole / A-Coding / female	
Pin No.	Function
1	STO-A-IN
2	STO-A-RTN
3	STO-FBH
4	STO-FBL
5	STO-B-IN
6	STO-B-RTN
cable shield on housing	

X3	Modbus TCP IN
M12/ 4-Pole / D-Coding / female	
cable shield on housing	

X4	Modbus TCP OUT
M12/ 4-Pole / D-Coding / female	
Pin No.	Function
1	TD+
2	RD+
3	TD-
4	RD-
cable shield on housing	

MOTOR SPECIFICATION							
PD6-E891xxx-xx-65-3		S95-MS	S95-ES	M95-MS	M95-ES	L95-MS	L95-ES
Motor Length "**A**"	mm	112		145		175	
Min. Operating Voltage	V DC	12					
Nominal Operating Voltage	V DC	48					
Max. Operating Voltage	V DC	57.6					
Current per Winding	A	9.5					
Step Angle ±5%	°	1.8					
Holding Torque	Nm	3.2		5.94		9.33	
Rotor Inertia	kg m²	100 x10^{-6}		190 x10^{-6}		300 x10^{-6}	
Multiturn Encoder Resolution	bit	16	-	16	-	16	-
Singleturn Encoder Resolution	bit	17	12	17	12	17	12
Weight	kg	±10% 2.5		±10% 3.7		±10% 5.0	



Max. Axial Force	Fa	N	65
Max. Radial Force	Fr (a = 20 mm)	N	200
Radial Play	Fr = 5 N	mm	0.03

GENERAL MOTOR SPECIFICATION		
Interface		MODBUS TCP
Ambient Temperature	°C	-10 ... 40
Storage Temperature	°C	-10 ... 85
Max. Ambient Humidity (non condensing)	%	85
Protection Class (except shaft outlet)		IP65
Protection Class (shaft outlet)		IP54

ISO 8015	ISO 1302	ISO 2768 c	ISO 13715

					Date	Name
				Drawn	15.05.2025	Schneid_A
				Reviewed	02.10.2025	Reith_S
				Released	02.10.2025	Reith_S
01	Ä.Nr. 2025-0066	Schneid_A	04.11.2025			
REV	Rev. Text	Name	Date			

Nanotec PLUG & DRIVE

PD6-E891x95-xS-65-4

20002985

State: Released | Rev: 01 | CONFIDENTIAL