

>3S 500 D multiturn actuator

x|active



MODBUS RTU



>3S 500 D

> Drive types

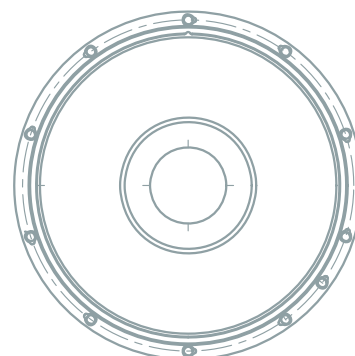
Type	Torque	Torque Max.	Continuous torque at operating mode	Rotation speed	Rotation speed
	min.	max		min.	max.
500D-225	15	225	105	4	34
500D-450	20	450	210	2	17

> Actuator data

Feature	Standard	Optional
Motor	Motor Variable-speed 48 V DC synchronous motor, permanent excitation	
Operating mode	Duty type S2-30 min Duty type S3-50 % 60 min	
Insulation class	B	
Motor protection	Thermosensor Current limiting	
Limit switching	Magnetic absolute encoder Electronic shutdown	
Torque switching	Infinitely adjustable electronically, blocking and breakaway torque individually	
Position feedback	Magnetic absolute encoder via digital interface	
Mechanical position indicator	No	Continuous motion work, OPEN/CLOSED end positions can be set
Manual operation	Via 27/24 standard square-end on top of actuator	
Connection types	F14 B3 according to EN ISO 5210, in ground installation "Berliner Kappe®"	F10 B3 according to EN ISO 5210
Motor compartment heating	20 Watt (with grid connection)	40 Watt (with grid connection)

> Power supply

Feature	Standard	Optional
Power supply	90-250 V AC, 45-63 Hz, nominal current 6-3 A	3S Energy Save with 3S Battery Pack 1400
Protection	D01 16 A	Internal when battery-operated
Power input	< 700 W max	
Electrical connection	Plug connection IP68	
Overvoltage protection	Galvanically separated, test voltage 2500 V AC 1min (grid supply)	



> Control

Feature	Standard	Optional
Digital interface for commands and actuator feedback	Profibus or Modbus (grid-connected)	x-active (mobile radio/GPRS) (3S Energy Save)
Analogue interface, switch/signal contacts		Potential-free switch/signal contacts (6x/4x) (grid-connected)
Actuator configuration/ actuator analysis	Digital PC service interface (RS232)	Digital PC service interface (USB)
Local control unit		connection via external interface, OPEN, STOP, CLOSED keys, 5 signal lamps, authorisation key switch, PC service interface
Sensor data tracking/ transmission	Internal motor and electronics temperature, humidity inside actuator casing	External sensor data (e.g. pressure or temperature)
Speed control	Infinitely adjustable speed profile	
Torque control	Infinitely adjustable stop position and torque breakaway	
Type of seating	Position stop or torque switch OPEN and/or CLOSED	
Data logging	Status data of actuator/valve	External sensor data; sensor data-controlled operation of valve

> Versions/interfaces x-active server

Feature	Standard	Optional
Web interface	Access via secure connection on hosted server	Access via private server
SOAP interface	Access via secure connection on hosted server	Access via private server
OPC server	OPC server on private hardware, x-active server hosted	OPC and x-active server on private hardware

> Operational conditions

Feature	Standard	Optional
Installation type	Indoor/outdoor Earth placement	Electric decoupling
Mounting position	Vertical/upright	
Protection class	IP68 Atex II 3G Ex nR IIC T6 Gc	
Protection from corrosion	Actuator casing of stainless steel (V2A), powder-coated	Actuator casing of stainless steel (V4A), powder-coated
Ambient temperature	-25 bis + 60 °C	-40 bis +60 °C (grid-connected)

Top view
1:2

Top view dimensions:
 - Overall diameter: $\varnothing 300$
 - Mounting hole diameter: $\varnothing 230$
 - Necessary clearance for cable and connectors: indicated by a dashed circle.

Bottom view

Bottom view dimensions:
 - Overall diameter: $\varnothing 230$
 - Mounting hole diameter: $\varnothing 204$
 - Flange diameter: $\varnothing 140$
 - Flange thickness: $4 \times M16 \times 24$
 - Flange type: F14 EN ISO 5210 Type B3

Side view

Side view dimensions:
 - Total height: 436 ± 5
 - Mounting flange height: 55
 - Actuator body height: 66
 - Flange thickness: 4
 - Flange diameter: $\varnothing 100$ f8
 - Actuator body diameter: $\varnothing 175$

Technical Specifications:

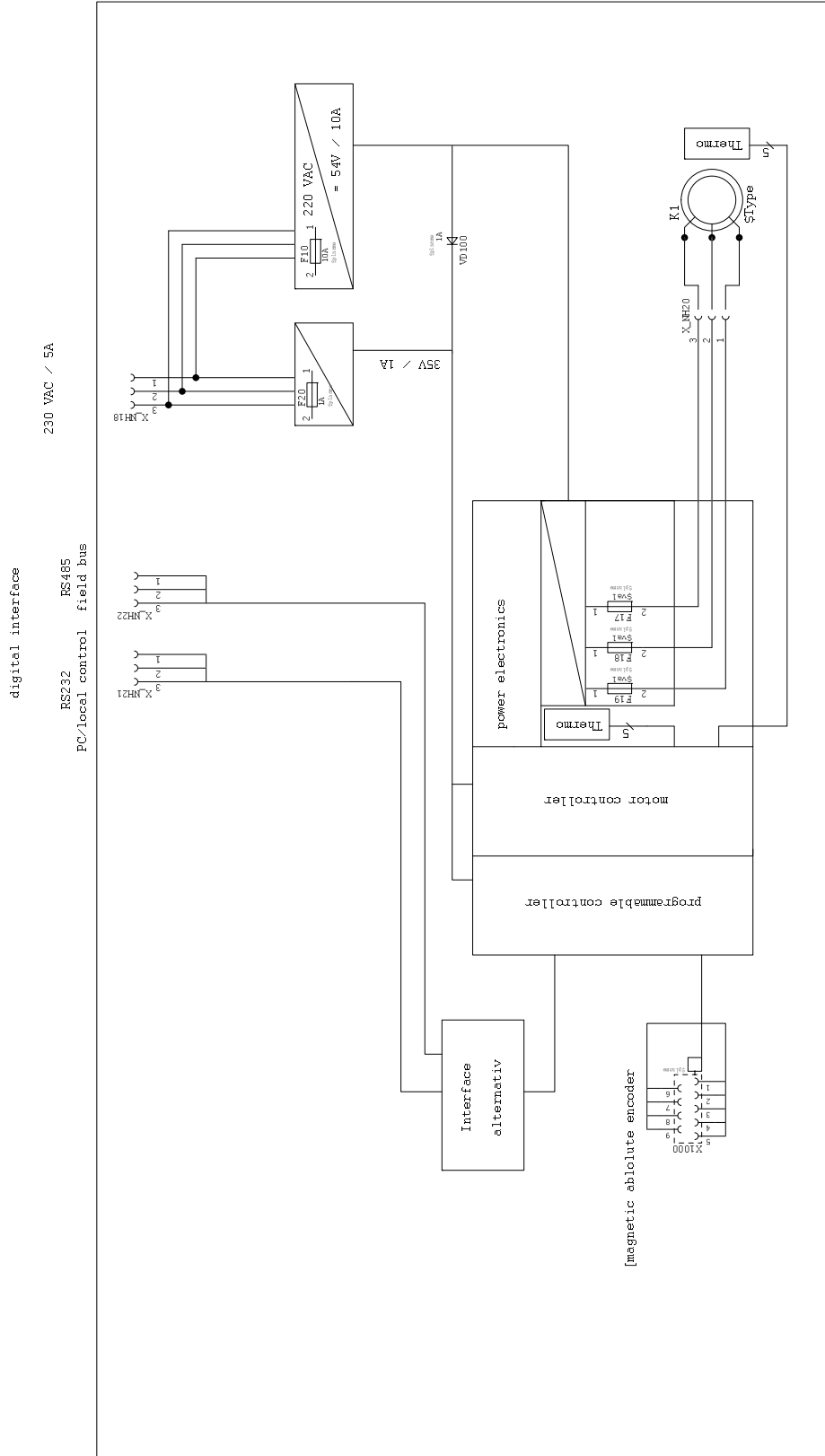
- Protection class according to DIN EN 60529: IP 68 2m
- Mounting position: square-end facing up
- Installation depth: max. 300mm between surface level and top of actuator square-end, preferably 150mm (mind size of manhole cover)
- Servicing clearance: central clearance on top with respect to actuator casing, min D = 250mm

Customer Drawing 3S 500 D 2.0

Title		Status		Revision	
Customer Drawing 3S 500 D 2.0		Design		00.00	
miscellaneous		Checked by		Format	
Weight (kg)		Date		Index	
32800	1:5	06.06.2017	D. Bohle	A3	0
Scale		Drawn by		DWG No.	
1:5		D. Bohle		02.0202	

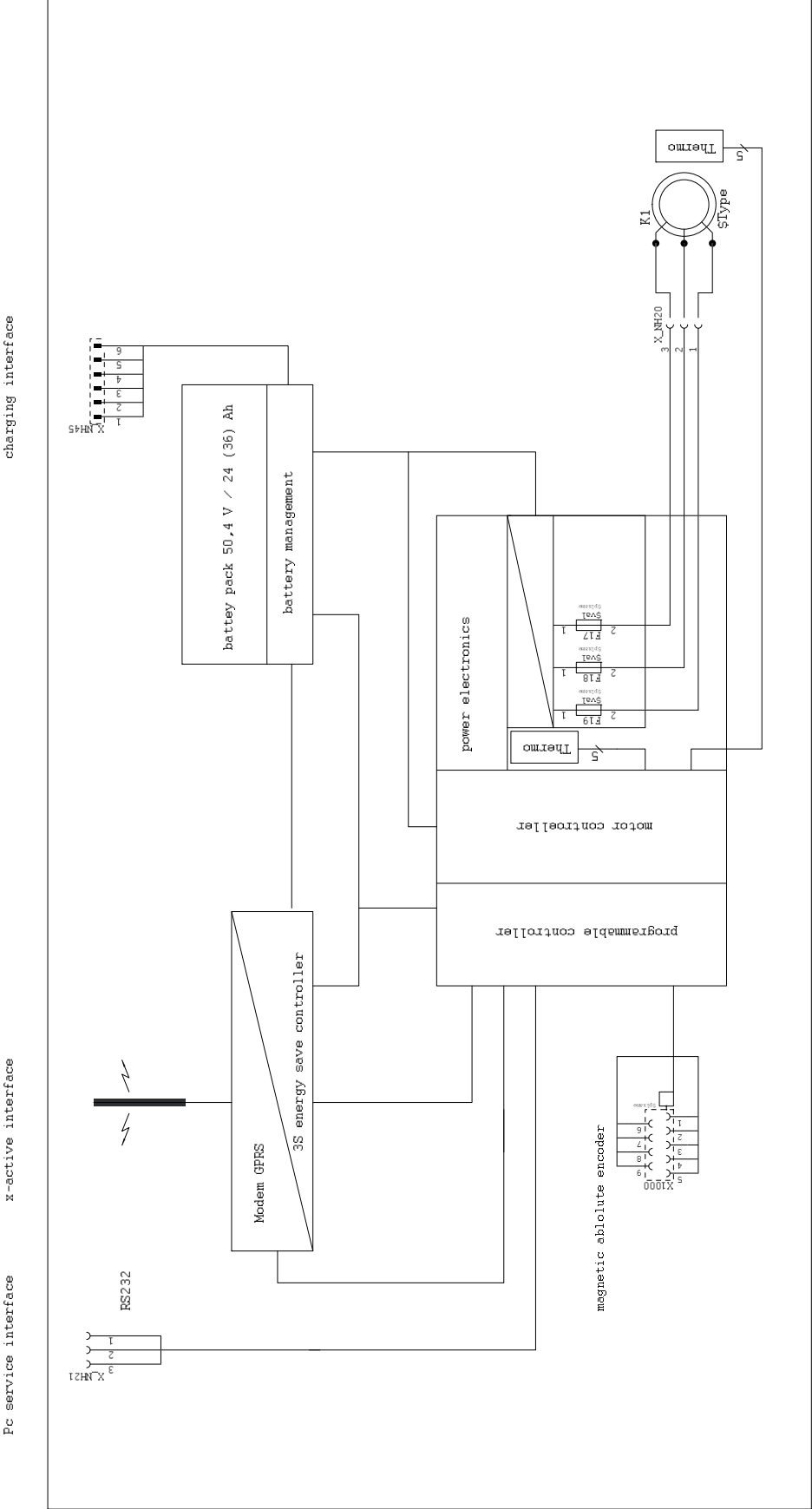
antriebe GmbH
Antriebs- und Automatisierungstechnik für Armaturen

› Schematics



3S - Antriebe GmbH	Projekt: Antrieb 3S 500 u. a.
Bearbeiter: Sachse Datum: 2013-07-19	Connections grid supply Datei: Interface_500_1.ddb Element: Blatt1
	Blatt 1 von 2 10mm
3S-Antriebe GmbH - 12109 Berlin	Ullsteinstr. 108 - Tel. 0 30-7007764-10

› Schematics



3S - Antriebe GmbH		Projekt: Antrieb 3S 500 u. a.	
Bearbeiter: Sacha Datum: 2013-07-19		connections battery supply	
3S-Antriebe GmbH - 12109 Berlin - Ullsteinstr. 108		Date: Interface_500_1.ddb Element: blatt2	
		Blatt 2 von 2	
		- Tel. 0 30-7007764-10	





3S Antriebe GmbH
Schichauweg 52
D-12307 Berlin

Tel +49(30)7007764-0
Fax +49(30)7007764-20
info@3S-Antriebe.de

www.3s-antriebe.de