

10. Spare parts list

Modules and items that are no longer delivered in new equipment but available as spare parts only are marked with Grey shading: **Old part**

Category	Type	Description	Identity	Used where
Circuit boards	DAPC 100	Control board	3ASC25H203	DARA 1000, 1000+AO, 1001, 1010, 1010+AO
	DAPU 100	I/O Control board	3ASC25H204	DARA 1000, 1001, DAPM 100, DAPM 101 (Som reservdel)
	DATX 100	Pulse transformer board	3ASC25H208	DASD 0xx, 1xx
	DATX 110	I/O board, No AO, Control Module	3ASC25H209	DARA 1000, 1001, 1010
	DATX 110+AO+PU	I/O board, with I/O Control board 2 AO, Control Module	3ASC25H209+AO+PU	DARA 1000, 1001, 1010
	DATX 111	I/O board No AO, Supervision system	3ASC25H224	DARA 2000
	DATX 111+AO	I/O board 2 AO, Supervision system	3ASC25H224+AO	DARA 2000
	DATX 120	I/O board Remote I/O DI+DO+AI+AO	3ASC25H210	DAPM 100
	DATX 121	I/O board Remote DI+DO+AI	3ASC25H218	DAPM 101
	DATX 130	Rotor feedback board	3ASC25H214	DARA 1001, 1010
	DATX 132	Torque observer board	3ASC25H216	DARA 1001
	DATX 133	Pulse repeater board	3ASC25H219	DARA 1010
Thyristors ²¹	Thyristor Module		3ASC485811H11	DASD 001 ... 103 (5x)
	Thyristor Module		3ASC485812H11	DASD 104 and 105 (6x)
	Thyristor Module		3ASC485813H11	DASD 151..155 (5x)/(6x)
	Thyristor Module		3ASC485814F1	DASD 145 (5x)
	Thyristor		3ASC485506E19	DASD 146 (10x)
	Thyristor		3ASC485506E23	DASD 156 (10x)
	Thyristor		3ASC485514E19	DASD 147 (10x)
	Thyristor		3ASC485514E23	DASD 157 (10x)
	Thyristor		3ASC485506E17	DASD 106 (10x).
	Thyristor		3ASC485506E13	DASD 126 (10x).
	Thyristor		3ASC485514E17	DASD 107 (10x).
	Thyristor		3ASC485514E13	DASD 108, 127 (10x).
Fans	Ziehl ebm W2S 142-BB 05-01	Compact fan 115 VAC, 330 m ³ /h, 172 mm	3ASC648020H1	DASD 102, 103 (1x) DASD 104 .. 107 (2x)
Replaced with 3ASC648030A1	Ziehl ebm Papst 8314 HLR	Compact fan 24 VDC, 60 m ³ /h, 80 mm	3ASC648030A1	DASD 002 (1x), DASD 003 (2x)
	Ziehl ebm Papst 8124 K	Compact fan 24 VDC, 60 m ³ /h, 80 mm	3ASC648040A1	DASD 002 (1x), DASD 003 (2x)
	Ziehl ebm D4E133-ASTAT	Radial fan 220-230 VAC, 760 m ³ /h	3ASC648050E1	DASD 146, DASD 156 (1x)
	Ziehl ebm D4E160-ASTAT	Radial fan 220-230 VAC, 1310 m ³ /h	3ASC648051E1	DASD 147, DASD 157 (1x)
	DAFU 145	Fan unit for DASD 145 including D4E160-ASTAT	3ASC25H229	DASD 145 (1x)

²¹ The thyristors listed here are always suitable as spare. The installed thyristors are not always the same. Always change both devices that are fixed with a common cooler in DASD 10x and DASD 12x!

13.4.5. I/O of DARU 100

Lower end I/O

24 V DC level to DATX 111

X101:1	+ 24 V DC
X101:2	0 V DC
X101:3	Regulated +24 V DC, system 1
X101:4	Regulated +24 V DC, system 2
X101:5	Control signal #1 for safety trip
X101:6	Control signal #2 for safety trip

Topside I/O

Commands etc. 110 V DC

X102:1	+110 V DC, external supply via DATX 111
X102:2	0 V (110 V DC) external supply, via DATX 111
X102:3	Emergency stop chain, +110 V to run
X102:4	Start pulse, +110 V DC
X102:5	+110 V DC, PTC-protected for distribution
X102:6	Emergency stop chain, +110 V to run (same as terminal 3)
X102:7	A bridge 7-8 will turn DATD 111 and DARU 100 into a basic safety relay.
X102:8	0 V (M1-) Connect Stop and trip circuit between X102:3 and :5. Closed to run. Connect Start pulse and start interlock conditions between X102:4 and :6

Safety Outputs

X103:1	Safe Out channel 1, contact side 1
X103:2	Safe Out channel 1, contact side 2
X103:3	Safe Out channel 2 contact side 1
X103:4	Safe Out channel 2 contact side 2

13.5. Connections DARA 2000(DATX111) - DARU 100

24 V DC level	DARA 2000 (DATX 111)	DARU 100 (DATD 111)
+ 24 V DC	-X101: 1	-X101: 1
0 V DC	2	2
Regulated +24 V DC, system 1 to DATX 111	3	3
Regulated +24 V DC, system 2 to DATX 111	4	4
Control signal 1 for safety trip	5	5
Control signal 2 for safety trip	6	6
110 V DC level	DARA 2000 (DATX 111)	DARU 100 (DATD 111)
+ 110 V DC	-X1: 3	-X102: 1
0 V DC	4	2