

Status and diagnosis informations are described in the following:

Error-Code

Heating current too small	1
Heating current too large	2
kV actual value > 110 % of setpoint	3
mA actual value > 110 % of setpoint	4
Temperature monitoring of inverter	5
High-voltage > 68 kV	6
Voltage at thyodul > 480 V	7
Oil volume in high-voltage tank too small	8
Temperature monitoring of high-voltage generator	9
Shut-off circuit in spectrometer open	10
Water temperature > 50 °C ¹⁾	12
Sensor broken, conductivity < 0,1 µS ¹⁾	13
Water flow < 4 l/min	14
Generator stand-by longer than 15 min	16
Temperature of deionized water > 56 °C ¹⁾	17
Level of deionized water too low ¹⁾	18
Aquastop	19
Generator switched off via "OFF" button	20
Power cut	21
Circuit breaker F1 switched off	22
Mains current too large	23
Supply voltage out of range	24
Additional radiation warning lamp defective	25
Short circuit to ground in shut-off circuit	29
Safety circuit open	30
Short circuit to ground in safety circuit or radiation warning lamp defective	31
Relay K11 open	33
Relay K3 open	34
Relay K5 open	35
Relay K6 open	36
Relay K12 open	37
Relay K13 open	38
Tube surges	40
High-voltage in stand-by mode	41
Vltage at thyodul in stand-by mode	42
Generator not in in stand-by mode	43
Stand-by function not parametrized	50
Generator type not indentified	51
EEPROM type not indentified	52
Parameter memory reset	53
Warning lamp "At least one window shutter open" defective ²⁾	60
Control command not executed ²⁾	61

STATUS

Relay contact or actual-value registration defective	0
All inactive relays OK	1
Check relay K3	3
Check relay K12	4
Generator in the "Heating" position	5
Check power supply	6
Check relay K13	7
Check shut-off circuit	8
Shut-off circuit closed	9
Check safety circuit	10
Safety circuit closed	11
Check relay K5 and K6	12
Check short-circuit monitoring to ground	13
Check supply voltage for relay K52	14
Generator ready	15

Warn

Significance	Meaning	Display
1	Flow of deionized water < 4 l/min	Flow ¹⁾
2	Level of deionized water too low	Level ¹⁾
4	Temperature of deionized water > 40 °C	Temp ¹⁾
16	Tube current controller out of controlling range or generator in stand-by mode	Limit_mA Stand-by
32	External green warning lamp defective	ext. Lamp ²⁾

Several warnings occurring at the same time are displayed cyclically.

DIAG

Significance	Meaning
1	+15 V present
2	- 15 V present
4	- 5 V present
8	+14 V present
16	Contactactor K2 on

Relay

Significance	Meaning
1	Relay K3 closed
2	Relay K12 closed
4	Relay K13 closed
8	Relay K11 closed
16	Relay K10 closed
32	Relay K5 closed
64	Relay K14 closed
128	Relay K6 closed

Make a note of the Error-Code before the X-ray generator is switched on.

- 1) X-ray instruments with internal cooling-water unit C79298-A3179-A1.
- 2) Generators with window control.