

**Target Module Electrical Check with no target attached for Modules 2/3/4**

**Resistance check all values in ohms, all values should be infinite.**

	A (Target)	B (Target)	C (Target)	D (Target)	Q (Coil)	R (Coil)	T(60kV Common)	X (55 Pin con)	I (EE)	Y (Einzel Lens)	Chassis
A (Target)	OL										
B (Target)	OL	OL									
C (Target)	OL	OL	OL								
D (Target)	OL	OL	OL	OL							
Q (Coil)	OL	OL	OL	OL	OL						
R (Coil)	OL	OL	OL	OL	OL	OL					
T(60kV Common)	OL	OL	OL	OL	OL	OL					
X (55 Pin con)	OL	OL	OL	OL	OL	OL	OL				
I (EE)	OL	OL	OL	OL	OL	OL	OL	OL	OL		
Y (Einzel Lens)	OL	OL	OL	OL	OL	OL	OL	OL	OL	OL	
Chassis	OL	OL	OL	OL	OL	OL	OL	OL	OL	OL	

**Meggering check all circuits checked at 500V. All values should be infinite. Any measured values are in ohms.**

	A (Target)	B (Target)	C (Target)	D (Target)	Q (Coil)	R (Coil)	T(60kV Common)	X (55 Pin con)	I (EE)	Y (Einzel Lens)	Chassis
A (Target)	OL										
B (Target)	OL	OL									
C (Target)	OL	OL	OL								
D (Target)	OL	OL	OL	OL							
Q (Coil)	59M	OL	OL	OL	OL						
R (Coil)	OL	OL	OL	OL	OL	OL					
T(60kV Common)	OL	OL	OL	OL	OL	OL					
X (55 Pin con)	OL	OL	OL	OL	OL	OL	OL				
I (EE)	OL	OL	OL	OL	OL	OL	OL	OL	OL		
Y (Einzel Lens)	OL	OL	OL	OL	OL	OL	OL	OL	OL	OL	
Chassis	OL	OL	OL	OL	OL	OL	OL	OL	OL	OL	

Module #	2	3	4	Date:	2021-06-01
Location:	SHC	CS	Other:	Signatures:	<i>W...</i>

Target assembly OFF - shunt between COIL terminals

	A	B	C	D	E	I	HV <sub>com</sub>	P	Q	R	U
A	/	/	/	/	/	/	/	/	/	/	/
B	OL	/	/	/	/	/	/	/	/	/	/
C	OL		/	/	/	/	/	/	/	/	/
D	OL	OL	OL	/	/	/	/	/	/	/	/
<del>E</del>					/	/	/	/	/	/	/
I	OL	OL	OL	OL		/	/	/	/	/	/
HV <sub>com</sub>	OL	OL	OL	OL		OL	/	/	/	/	/
P	OL	OL	OL	OL		OL	OL	/	/	/	/
Q	OL	OL	OL	OL		OL	OL	6.449 <sub>ms</sub>	/	/	/
R	OL	OL	OL	OL		OL	OL	6.468	6.486	/	/
U	OL	OL	OL	OL		OL	OL	6.178	6.180	6.058	/

E is HV<sub>com</sub>

Target Module with Target Check		
Document-75583	Release No. 1	Release Date.: 2013/12/11

#### 4.1 TM3/4 FEBIAD with Target and No External Connections

Shunts installed and tightened E-F-G-H-T-J-RFQ(H)	
FEBIAD coil shunts removed P-Q-R-U	

Ohm Meter Check					
	Target (ABCD)	Einzel Lens (Y)	60kV Com (T)	Chassis	EE (I)
Magnet Coil (U, Q)	Infinite	Infinite	Infinite	Infinite	Infinite
Anode (H)	Infinite	Infinite	Infinite	Infinite	Infinite
60kV Common (T)	Infinite	Infinite			
Chassis	Infinite	Infinite			
EE (I)	Infinite	Infinite			
Einzel Lens (Y)	Infinite				

Megger Check (all @ 500V unless otherwise noted)					
	Target (ABCD)	Einzel Lens (Y)	60kV Com (T)	Chassis	EE (I)
Anode (H)	Infinite	Infinite	Infinite	Infinite	Infinite
60kV Common (T)	Infinite	Infinite			
Chassis	Infinite @ 1000V	Infinite @ 1000V			
EE (I)	Infinite	Infinite			
Einzel Lens (Y)	Infinite				

Conductance Check [mΩ]						
A - B	A - C	A - D	B - C	B - D	C - D	Q - U
4 - 5.7	5 - 6.8	4 - 5.3	5 - 6.8	4 - 5.3	4 - 5.5	4 - 5

Backg. leak rate:		HS leak rate:	
[atm-cc/s]	< 5E-9	[atm-cc/s]	< Backg. leak rate

Target: <u>UCx38 P2N</u>	Date: <u>2021-06-01</u>
Location: <u>SHC CS SHCpost</u>	Signature:

Target assembly OFF - shunt between TGHT terminals

	A	B	C	D	E	I	HV <sub>com</sub>	P	Q	R	U
A	/	/	/	/	/	/	/	/	/	/	/
B	3.536	/	/	/	/	/	/	/	/	/	/
C	/	/	/	/	/	/	/	/	/	/	/
D	/	/	/	/	/	/	/	/	/	/	/
E	/	/	/	/	/	/	/	/	/	/	/
I	/	/	/	/	/	/	/	/	/	/	/
HV <sub>com</sub>	/	/	/	/	/	/	/	/	/	/	/
P	/	/	/	/	/	/	/	/	/	/	/
Q	/	/	/	/	/	/	/	6439	/	/	/
R	/	/	/	/	/	/	/	/	/	/	/
U	/	/	/	/	/	/	/	OL	/	6.061	/

Target Module with Target Check		
Document-75583	Release No. 1	Release Date.: 2013/12/11

### 4.2 TM3/4 SIS with Target and No External Connections

Shunts installed and tightened E-F-G-H-T-J-RFQ(H)	
FEBIAD coil shunts installed and tightened P-Q-R-U	

Ohm Meter Check					
	Target (ABCD)	Einzel Lens (Y)	60kV Com (T)	Chassis	EE (I)
Magnet Coil (U, Q)					
Anode (H)					
60kV Common (T)	OL	OL			
	Infinite	Infinite			
Chassis	OL	OL	OL		
	Infinite	Infinite	Infinite		
EE (I)	OL	OL	OL	OL	
	Infinite	Infinite	Infinite	Infinite	
Einzel Lens (Y)	OL				
	Infinite				

Megger Check (all @ 500V unless otherwise noted)					
	Target (ABCD)	Einzel Lens (Y)	60kV Com (T)	Chassis	EE (I)
Anode (H)					
60kV Common (T)	OL	OL			
	Infinite	Infinite			
Chassis	OL	OL	OL		
	Infinite @ 1000V	Infinite @ 1000V	Infinite		
EE (I)	OL	OL	OL	OL	
	Infinite	Infinite	Infinite	Infinite	
Einzel Lens (Y)	OL				
	Infinite				

Conductance Check [mΩ]						
A - B	A - C	A - D	B - C	B - D	C - D	
4 - 5.7	5 - 6.8	4 - 5.3	5 - 6.8	4 - 5.3	4 - 5.5	

Backg. leak rate:	$0.0 \times 10^{-9}$	HS leak rate:	<i>Window</i> $0.0 \times 10^{-9}$
[atm-cc/s]	< 5E-9	[atm-cc/s]	< Backg. leak rate

Target:	OLx33 P2N	Date:	2021-06-0
Location:	SHC CS SHCpost	Signature:	

Target assembly ON

	A	B	C	D	E	I	HV <sub>com</sub>	P	Q	R	U
A	/	/	/	/	/	/	/	/	/	/	/
B	4.373	/	/	/	/	/	/	/	/	/	/
C	5.583	5.210	/	/	/	/	/	/	/	/	/
D	5.154	4.475	5.731	/	/	/	/	/	/	/	/
E	<hr/>					/	/	/	/	/	/
I	OL	<del>OL</del>	OL	OL		/	/	/	/	/	/
HV <sub>com</sub>	OL	OL	OL	OL		OL	/	/	/	/	/
P	6.147	4.738	6.986	6.551		OL	OL	/	/	/	/
Q	6.164	4.765	7.001	6.564		OL	OL	6.458	/	/	/
R	5.003	5.765	6.980	6.550		OL	OL	7.577	7.550	/	/
U	4.700	5.458	6.684	6.235		OL	OL	7.234	7.255	6.058	/

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