Check Measurement

DUT No.	Range No.	10	10	9	8	7	6	5	4	3		
	Temp. [°C]	-40 °C	-33 °C	-25 °C	-15 °C	0 °C	25 °C	50 °C	70 °C	90 °C		
Muster 3.4		0.468	0.680	0.777	0.856	0.872	0.896	0.901	0.910	0.911		
Muster 3.9		0.491	0.667	0.799	0.840	0.902	0.940	0.961	0.941	0.921		
Average Torque [Nm]		0.4795	0.6735	0.7880	0.8480	0.8870	0.9180	0.9310	0.9255	0.9160		
Block Current [mA]		250	250	250	250	250	250	250	250	250		
Tabw.max.pos [Nm]		0.01	0.01	0.01	0.01	0.02	0.02	0.03	0.02	0.01		
Tabw.max.neg [Nm]		0.01	0.01	0.01	0.01	0.02	0.02	0.03	0.02	0.01		

Basic Data

DUT Type:	Muster Federrotor 3-Blatt-Feder
Drw.-No.:	
Softwareno.:	131699900011_PA2425_Audi_CBEV_102556

Set Values

Voltage [V]:	13.5
$T_{Blockrated}$ [Nm]:	
$T_{Blockmax}$ [Nm]:	
$T_{Blockmin}$ [Nm]:	
Speed [rpm]:	15

Legend: ■ Average Torque [Nm] — TBlockrated [Nm]: — TBlockmax [Nm]: — TBlockmin [Nm]: ◆ Block Current [mA]

Remarks/Comments

Measurements were done at a torque gradient of about 1.8 Nm/90°.

Check Measurement

DUT No.	Range No.	10	10	9	8	7	6	5	4	3		
	Temp. [°C]	-40 °C	-33 °C	-25 °C	-15 °C	0 °C	25 °C	50 °C	70 °C	90 °C		
Muster 3.4		0.703	0.918	0.992	1.046	1.055	1.106	1.081	1.092	1.081		
Muster 3.9		0.779	0.932	0.998	1.047	1.082	1.151	1.132	1.150	1.129		
Average Torque [Nm]		0.7410	0.9250	0.9950	1.0465	1.0685	1.1285	1.1065	1.1210	1.1050		
Block Current [mA]		300	300	300	300	300	300	300	300	300		
Tabw.max.pos [Nm]		0.04	0.01	0.00	0.00	0.01	0.02	0.03	0.03	0.02		
Tabw.max.neg [Nm]		0.04	0.01	0.00	0.00	0.01	0.02	0.03	0.03	0.02		

Basic Data

DUT Type:	Muster Federrotor 3-Blatt-Feder
Drw.-No.:	
Softwareno.:	131699900011_PA2425_Audi_CBEV_102556

Set Values

Voltage [V]:	13.5
$T_{Blockrated}$ [Nm]:	
$T_{Blockmax}$ [Nm]:	
$T_{Blockmin}$ [Nm]:	
Speed [rpm]:	15

Remarks/Comments

Measurements were done at a torque gradient of about 1.8 Nm/90°.

Check Measurement

DUT No.	Range No.	10	10	9	8	7	6	5	4	3		
	Temp. [°C]	-40 °C	-33 °C	-25 °C	-15 °C	0 °C	25 °C	50 °C	70 °C	90 °C		
Muster 3.4		0.902	1.090	1.166	1.199	1.255	1.366	1.320	1.271	1.307		
Muster 3.9		0.941	1.134	1.221	1.245	1.328	1.382	1.282	1.283	1.266		
Average Torque [Nm]		0.9215	1.1120	1.1935	1.2220	1.2915	1.3740	1.3010	1.2770	1.2865		
Block Current [mA]		350	350	350	350	350	350	350	350	350		
Tabw.max.pos [Nm]		0.02	0.02	0.03	0.02	0.04	0.01	0.02	0.01	0.02		
Tabw.max.neg [Nm]		0.02	0.02	0.03	0.02	0.04	0.01	0.02	0.01	0.02		

Basic Data

DUT Type:	Muster Federrotor 3-Blatt-Feder
Drw.-No.:	
Softwareno.:	131699900011_PA2425_Audi_CBEV_102556

Set Values

Voltage [V]:	13.5
$T_{Blockrated}$ [Nm]:	
$T_{Blockmax}$ [Nm]:	
$T_{Blockmin}$ [Nm]:	
Speed [rpm]:	15

Remarks/Comments

Measurements were done at a torque gradient of about 1.8 Nm/90°.

Check Measurement

DUT No.	Range No.	10	10	9	8	7	6	5	4	3		
	Temp. [°C]	-40 °C	-33 °C	-25 °C	-15 °C	0 °C	25 °C	50 °C	70 °C	90 °C		
Muster 3.4		1.143	1.318	1.395	1.419	1.481	1.565	1.504	1.485	1.395		
Muster 3.9		1.221	1.347	1.436	1.461	1.548	1.501	1.492	1.491	1.483		
Average Torque [Nm]		1.1820	1.3325	1.4155	1.4400	1.5145	1.5330	1.4980	1.4880	1.4390		
Block Current [mA]		400	400	400	400	400	400	400	400	400		
Tabw.max.pos [Nm]		0.04	0.01	0.02	0.02	0.03	0.03	0.01	0.00	0.04		
Tabw.max.neg [Nm]		0.04	0.01	0.02	0.02	0.03	0.03	0.01	0.00	0.04		

Basic Data

DUT Type:	Muster Federrotor 3-Blatt-Feder
Drw.-No.:	
Softwareno.:	131699900011_PA2425_Audi_CBEV_102556

Set Values

Voltage [V]:	13.5
$T_{Blockrated}$ [Nm]:	
$T_{Blockmax}$ [Nm]:	
$T_{Blockmin}$ [Nm]:	
Speed [rpm]:	15

Remarks/Comments

Measurements were done at a torque gradient of about 1.8 Nm/90°.

Check Measurement

DUT No.	Range No.	10	10	9	8	7	6	5	4	3		
	Temp. [°C]	-40 °C	-33 °C	-25 °C	-15 °C	0 °C	25 °C	50 °C	70 °C	90 °C		
Muster 3.4		1.354	1.485	1.597	1.620	1.703	1.649	1.631	1.583	1.603		
Muster 3.9		1.443	1.553	1.660	1.685	1.757	1.755	1.725	1.708	1.706		
Average Torque [Nm]		1.3985	1.5190	1.6285	1.6525	1.7300	1.7020	1.6780	1.6455	1.6545		
Block Current [mA]		450	450	450	450	450	450	450	450	450		
Tabw.max.pos [Nm]		0.04	0.03	0.03	0.03	0.03	0.05	0.05	0.06	0.05		
Tabw.max.neg [Nm]		0.04	0.03	0.03	0.03	0.03	0.05	0.05	0.06	0.05		

Basic Data

DUT Type:	Muster Federrotor 3-Blatt-Feder
Drw.-No.:	
Softwareno.:	131699900011_PA2425_Audi_CBEV_102556

Set Values

Voltage [V]:	13.5
$T_{Blockrated}$ [Nm]:	
$T_{Blockmax}$ [Nm]:	
$T_{Blockmin}$ [Nm]:	
Speed [rpm]:	15

Remarks/Comments

Measurements were done at a torque gradient of about 1.8 Nm/90°.

Check Measurement

DUT No.	Range No.	10	10	9	8	7	6	5	4	3		
	Temp. [°C]	-40 °C	-33 °C	-25 °C	-15 °C	0 °C	25 °C	50 °C	70 °C	90 °C		
Muster 3.4		1.503	1.659	1.796	1.836	1.991	1.880	1.857	1.825	1.819		
Muster 3.9		1.621	1.759	1.797	1.882	1.987	1.973	1.956	1.935	1.890		
Average Torque [Nm]		1.5620	1.7090	1.7965	1.8590	1.9890	1.9265	1.9065	1.8800	1.8545		
Block Current [mA]		500	500	500	500	500	500	500	500	500		
Tabw.max.pos [Nm]		0.06	0.05	0.00	0.02	0.00	0.05	0.05	0.06	0.04		
Tabw.max.neg [Nm]		0.06	0.05	0.00	0.02	0.00	0.05	0.05	0.05	0.04		

Basic Data

DUT Type:	Muster Federrotor 3-Blatt-Feder
Drw.-No.:	
Softwareno.:	131699900011_PA2425_Audi_CBEV_102556

Set Values

Voltage [V]:	13.5
$T_{Blockrated}$ [Nm]:	
$T_{Blockmax}$ [Nm]:	
$T_{Blockmin}$ [Nm]:	
Speed [rpm]:	15

Remarks/Comments

Measurements were done at a torque gradient of about 1.8 Nm/90°.

Range No.	10	10	9	8	7	6	5	4	3		
Temp. [°C]	-40 °C	-33 °C	-25 °C	-15 °C	0 °C	25 °C	50 °C	70 °C	90 °C		

Data Set 1

	-40 °C	-33 °C	-25 °C	-15 °C	0 °C	25 °C	50 °C	70 °C	90 °C
Average Torque [Nm]	0.4795	0.6735	0.7880	0.8480	0.8870	0.9180	0.9310	0.9255	0.9160
Block Current [mA]	250	250	250	250	250	250	250	250	250

Data Set 2

	-40 °C	-33 °C	-25 °C	-15 °C	0 °C	25 °C	50 °C	70 °C	90 °C
Average Torque [Nm]	0.7410	0.9250	0.9950	1.0465	1.0685	1.1285	1.1065	1.1210	1.1050
Block Current [mA]	300	300	300	300	300	300	300	300	300

Data Set 3

	-40 °C	-33 °C	-25 °C	-15 °C	0 °C	25 °C	50 °C	70 °C	90 °C
Average Torque [Nm]	0.9215	1.1120	1.1935	1.2220	1.2915	1.3740	1.3010	1.2770	1.2865
Block Current [mA]	350	350	350	350	350	350	350	350	350

Data Set 4

	-40 °C	-33 °C	-25 °C	-15 °C	0 °C	25 °C	50 °C	70 °C	90 °C
Average Torque [Nm]	1.1820	1.3325	1.4155	1.4400	1.5145	1.5330	1.4980	1.4880	1.4390
Block Current [mA]	400	400	400	400	400	400	400	400	400

Data Set 5

	-40 °C	-33 °C	-25 °C	-15 °C	0 °C	25 °C	50 °C	70 °C	90 °C
Average Torque [Nm]	1.3985	1.5190	1.6285	1.6525	1.7300	1.7020	1.6780	1.6455	1.6545
Block Current [mA]	450	450	450	450	450	450	450	450	450

Data Set 6

	-40 °C	-33 °C	-25 °C	-15 °C	0 °C	25 °C	50 °C	70 °C	90 °C
Average Torque [Nm]	1.5620	1.7090	1.7965	1.8590	1.9890	1.9265	1.9065	1.8800	1.8545
Block Current [mA]	500	500	500	500	500	500	500	500	500

Average Torque [Nm]									
Block Current [mA]									

Average Torque [Nm]									
Block Current [mA]									

Average Torque [Nm]									
Block Current [mA]									

Average Torque [Nm]									
Block Current [mA]									

Basic Data

DUT Type:	Muster Federrotor 3-Blatt-Feder
Drw.-No.:	
Softwareno.:	131699900011_PA2425_Audi_CBEV_102556

Set Values

Voltage [V]:	13.5
Speed [rpm]:	15

New Characteristic Diagram

New Torque [Nm]: 1.5

Manual Correction

Range No.	I_{Block} [mA]	T [Nm]	I_{Block} [mA]
3	414		
4	404		
5	400		
6	390		
7	396		
8	414		
9	420		
10	462		

(only if needed)

Remarks/Comments

The measurements were done with only two DUTs, so the results must be seen as rought trend.

For valid results the measurements should be repeated with a larger number of DUTs.

Range No.	10	10	9	8	7	6	5	4	3		
Temp. [°C]	-40 °C	-33 °C	-25 °C	-15 °C	0 °C	25 °C	50 °C	70 °C	90 °C		

Data Set 1

Average Torque [Nm]	0.4795	0.6735	0.7880	0.8480	0.8870	0.9180	0.9310	0.9255	0.9160		
Block Current [mA]	250	250	250	250	250	250	250	250	250		

Data Set 2

Average Torque [Nm]	0.7410	0.9250	0.9950	1.0465	1.0685	1.1285	1.1065	1.1210	1.1050		
Block Current [mA]	300	300	300	300	300	300	300	300	300		

Data Set 3

Average Torque [Nm]	0.9215	1.1120	1.1935	1.2220	1.2915	1.3740	1.3010	1.2770	1.2865		
Block Current [mA]	350	350	350	350	350	350	350	350	350		

Data Set 4

Average Torque [Nm]	1.1820	1.3325	1.4155	1.4400	1.5145	1.5330	1.4980	1.4880	1.4390		
Block Current [mA]	400	400	400	400	400	400	400	400	400		

Data Set 5

Average Torque [Nm]	1.3985	1.5190	1.6285	1.6525	1.7300	1.7020	1.6780	1.6455	1.6545		
Block Current [mA]	450	450	450	450	450	450	450	450	450		

Data Set 6

Average Torque [Nm]	1.5620	1.7090	1.7965	1.8590	1.9890	1.9265	1.9065	1.8800	1.8545		
Block Current [mA]	500	500	500	500	500	500	500	500	500		

Basic Data

DUT Type:	Muster Federrotor 3-Blatt-Feder
Drw.-No.:	
Softwareno.:	131699900011_PA2425_Audi_CBEV_102556

Set Values

Voltage [V]:	13.5
Speed [rpm]:	15

New Characteristic Diagram

New Torque [Nm]: 1.8

Manual Correction

Range No.	I_Block [mA]	T [Nm]	I_Block [mA]
3	486		
4	482		
5	476		
6	472		
7	464		
8	486		
9	502		
10	548		

(only if needed)

Remarks/Comments

The measurements were done with only two DUTs, so the results must be seen as rought trend.

For valid results the measurements should be repeated with a larger number of DUTs.