

## 500 kW ÖRNEK MOTOR RAPORU



## GENEL RAPOR

### GENEL BİLGİLER

İşletme Adı :  
İşletme Adresi :  
İlgili Kişi :  
Telefon :  
E-Posta :  
Yapılan İşlem :  
Takip No :

### MOTOR BİLGİLERİ

Marka	: ZSE	Güç (kVA)	: 500
Tip	: 2N4 600 M-4	Gerilim (V)	: 6000
Seri No	: <b>157525</b>	Akım (A)	: 57,2
Bağlantı	:	Devir (d/d)	: 1487
Verimlilik Sınıfı	:	Frekans (Hz)	: 50
İzolasyon Sınıfı	: F	Cosφ	:



### AÇIKLAMA

Montaj / Demontaj Operatörü	Kontrol ve Test Sorumlusu	Genel Müdür
Hakan ALLAK	Elektrik ve Elektronik Yüksek Mühendisi Coşkun ARSLAN	Numan OMURCA

### DİNAMİK TEST

Gerilim	Akım	Devir
U - V : 6000V	$I_U$ : 13,40A	1490 d/dk
V - W : 6000V	$I_V$ : 13,38A	
W - U : 6000V	$I_W$ : 13,43A	

### AÇIKLAMA

### STATİK TEST

ÖNCE						SONRA					
Resistance / Inductance / Capacitance Results						Resistance / Inductance / Capacitance Results					
SOMA TER\157525\05/02/2019 10:10:53 AM						SOMA TER\157525\05/28/2019 11:08:10 AM					
Temperature 51.80 [°F]						Temperature 86.00 [°F]					
Resistance						Resistance					
	Lead 1-2	Lead 2-3	Lead 3-1	Unbalance [%]	Average		Lead 1-2	Lead 2-3	Lead 3-1	Unbalance [%]	Average
DC Resistance [mΩ]	888.484 2	888.991 2	889.804 8	0.1	889.093 4	DC Resistance [mΩ]	966.477 3	966.209 5	965.453 7	0.1	966.046 8
Temp Corrected R [mΩ]	921.072 3	921.590 6	922.420 0		921.694 3	Temp Corrected R [mΩ]	929.959 4	929.670 7	928.997 2		929.542 4
Inductance						Inductance					
Frequency [Hz]	60.0	60.0	60.0			Frequency [Hz]	60.0	60.0	60.0		
Impedance [mΩ]	29.793	29.794	29.799	0.0	29.795	Impedance [mΩ]	29.790	29.737	29.804	0.1	29.777
Impedance Ang [°]	87.9	87.9	87.9	0.0	87.9	Impedance Ang [°]	87.9	87.8	87.7	0.1	87.8
Inductance [mH]	78.975	78.977	78.992	0.0	78.981	Inductance [mH]	78.967	78.822	78.995	0.1	78.928
Dissipation Factor	0.037	0.036	0.036			Dissipation Factor	0.037	0.038	0.040		
Quality Factor	27.367	27.429	27.913			Quality Factor	27.246	26.306	25.120		



### DC Test Results

SOMA TER\157525\05/06/2019 02:22:53 PM

Temperature [°F] 64.4 Relative Humidity [%] 55.0

#### IR Results

Voltage [V]	I [μA]	IR [MΩ]	IR [MΩ] Corrected 40°C (Thermoplastic)
2050	0.005	410000	89231

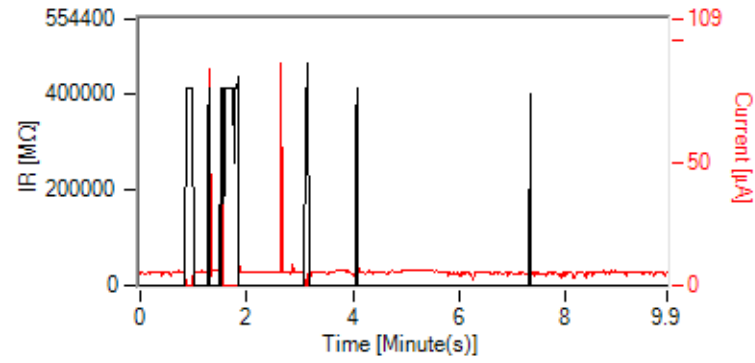
#### DA/PI Results

Voltage [V]	DA Ratio	PI Ratio
2050	1	

#### DA/PI Results

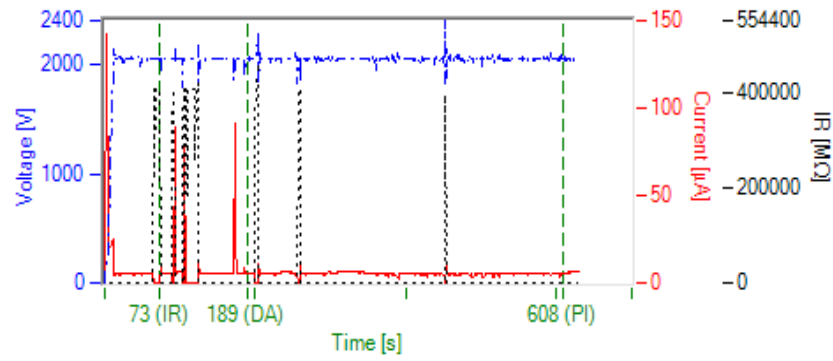
Time [Minute(s)]	Voltage [V]	I [μA]	IR [MΩ]
00:15	2030	5.600	362.50
00:30	2060	5.270	390.89
00:45	2050	5.890	348.05
01:00	2050	0.005	410000.01
01:30	1800	6.170	291.73
02:00	2030	5.560	365.11
02:30	2050	5.340	383.90
03:00	2040	5.480	372.26
04:00	2070	4.910	421.59
05:00	2050	6.390	320.81
06:00	2050	4.110	498.78
07:00	2050	5.370	381.75
08:00	2050	5.770	355.29
09:00	2060	5.250	392.38
10:00	2030	5.440	373.16

DA/PI Graph



IR [MΩ] Current [μA]

DC Test Results



Current [μA] IR [MΩ] Voltage [V]

### DC Test Results

SOMA TER\157525\05/28/2019 11:28:10 AM

Temperature [°F] 86.0 Relative Humidity [%] 50.0

#### IR Results

Voltage [V]	I [μA]	IR [MΩ]	IR [MΩ] Corrected 40°C (Thermoplastic)
3540	0.269	13160	6580

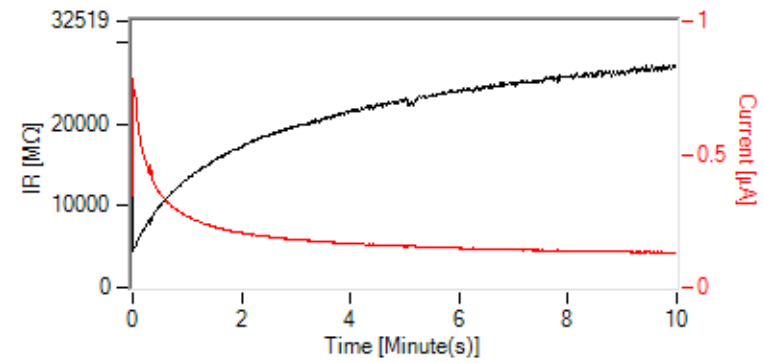
#### DA/PI Results

Voltage [V]	DA Ratio	PI Ratio
3540	2	2.1

#### DA/PI Results

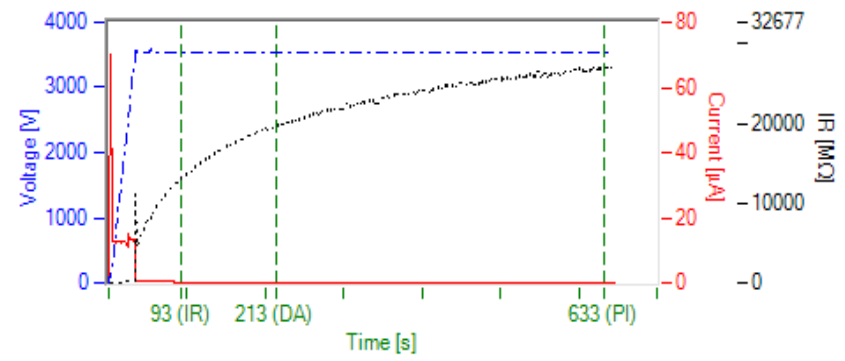
Time [Minute(s)]	Voltage [V]	I [μA]	IR [MΩ]
00:15	3540	0.472	7500.00
00:30	3540	0.357	9915.97
00:45	3540	0.302	11721.85
01:00	3540	0.269	13159.85
01:30	3540	0.230	15391.30
02:00	3540	0.207	17101.45
02:30	3540	0.192	18437.50
03:00	3550	0.181	19613.26
04:00	3540	0.165	21454.54
05:00	3540	0.154	22987.01
06:00	3550	0.148	23986.49
07:00	3540	0.142	24929.58
08:00	3540	0.138	25652.17
09:00	3550	0.134	26492.54
10:00	3540	0.131	27022.90

DA/PI Graph



IR [MΩ] Current [μA]

DC Test Results



Current [μA] IR [MΩ] Voltage [V]

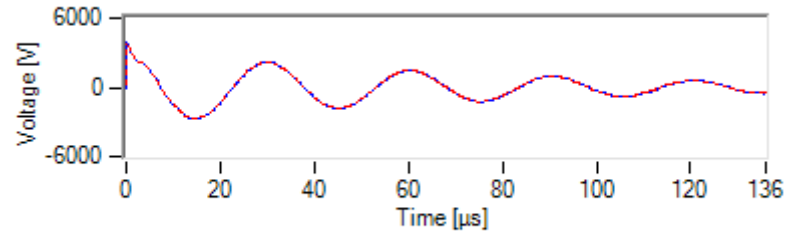
### Surge Lead-to-Lead Comparison

SOMA TER\157525\05/02/2019 10:20:22 AM

L-L  
Limit 5

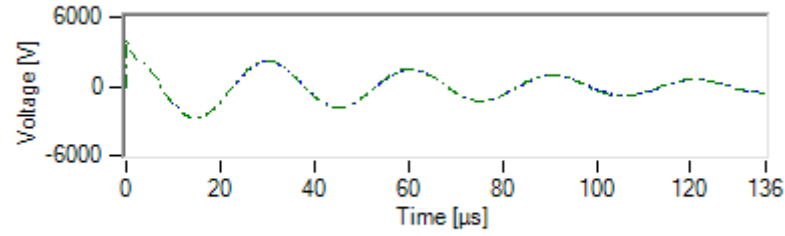
Compare	Peak Voltage [V]	Number of Pulses	LL EAR Status	L-L EAR [%]
1-2	3890	55	FAILED	5
2-3	3940	43	FAILED	6
3-1	3990	51	PASS	2

Lead 1 - 2 EAR: 3%



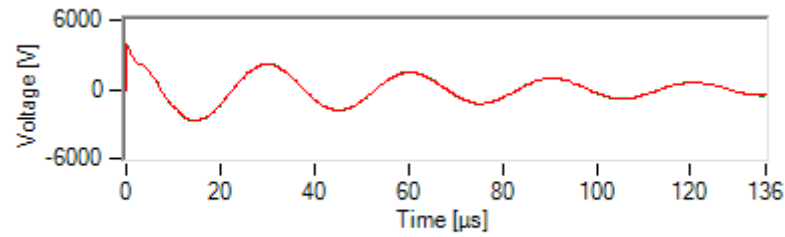
Lead 1 Lead 2

Lead 2 - 3 EAR: 3%



Lead 2 Lead 3

Lead 3 - 1 EAR: 2%



Lead 3 Lead 1

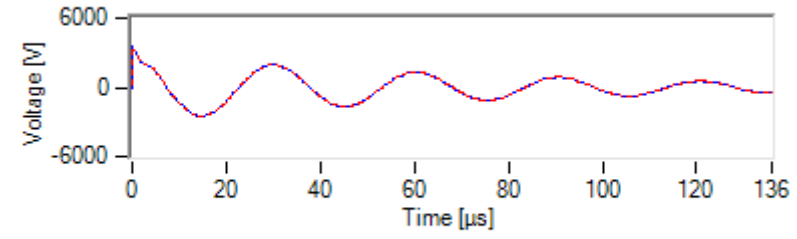
### Surge Lead-to-Lead Comparison

SOMA TER\157525\05/28/2019 11:30:20 AM

L-L  
Limit 5

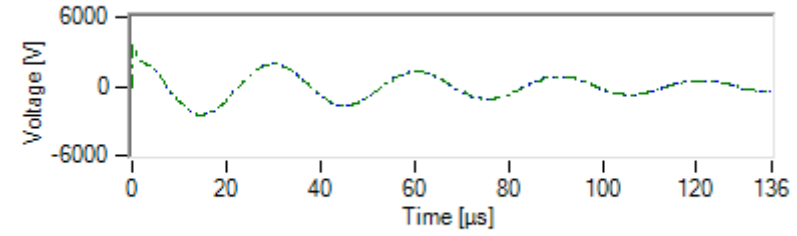
Compare	Peak Voltage [V]	Number of Pulses	LL EAR Status	L-L EAR [%]
1-2	3530	32	PASS	1
2-3	3530	35	PASS	2
3-1	3530	33	PASS	3

Lead 1 - 2 EAR: 1%



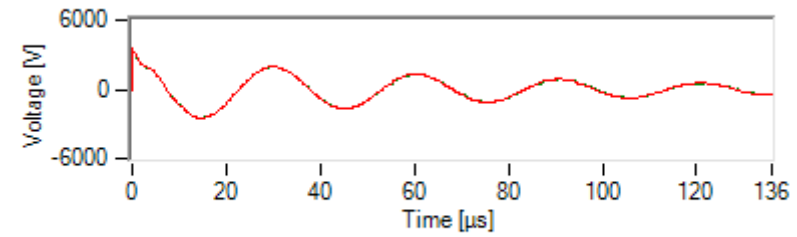
Lead 1 Lead 2

Lead 2 - 3 EAR: 2%



Lead 2 Lead 3

Lead 3 - 1 EAR: 3%



Lead 3 Lead 1

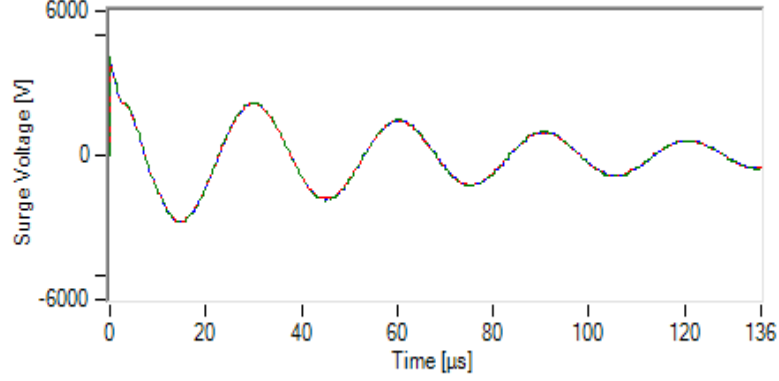
### Surge 3-Phase Summary

SOMA TER\157525\05/02/2019 10:20:22 AM

P-P Limit  
10

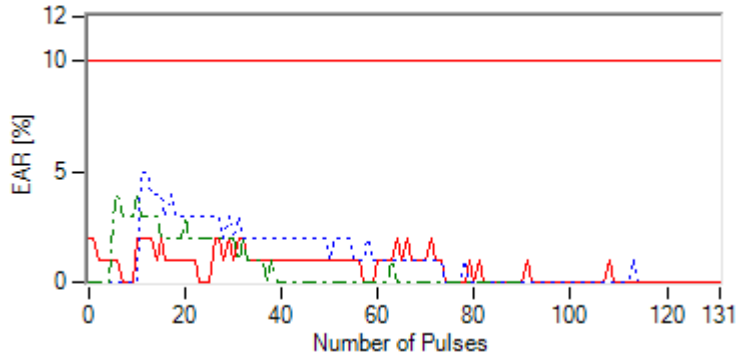
Lead	Peak Voltage [V]	Number of Pulses	PP EAR Status	Max P-P EAR [%]
1	3890	55	PASS	2
2	3940	43	PASS	5
3	3990	51	PASS	4

Surge 3-Phase Summary



Lead 1 Lead 2 Lead 3

Pulse-to-Pulse EAR



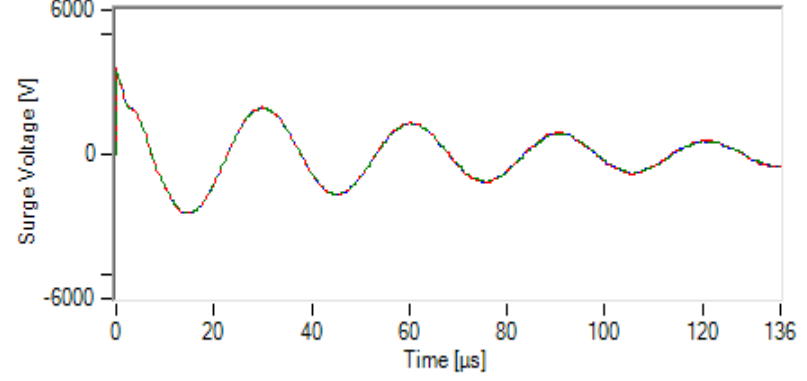
### Surge 3-Phase Summary

SOMA TER\157525\05/28/2019 11:30:20 AM

P-P Limit  
10

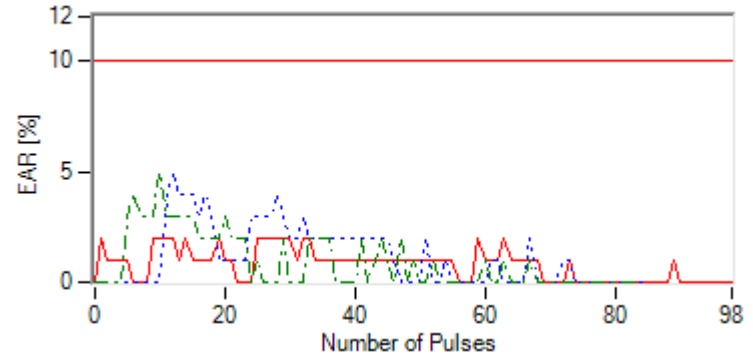
Lead	Peak Voltage [V]	Number of Pulses	PP EAR Status	Max P-P EAR [%]
1	3530	32	PASS	2
2	3530	35	PASS	5
3	3530	33	PASS	5

Surge 3-Phase Summary



Lead 1 Lead 2 Lead 3

Pulse-to-Pulse EAR



### AÇIKLAMA

Montaj / Demontaj Operatörü	Kontrol ve Test Sorumlusu	Genel Müdür
Hakan ALLAK	Elektrik ve Elektronik Yüksek Mühendisi Coşkun ARSLAN	Numan OMURCA