

Lampiran-1

Metode Inspeksi dan Pemeliharaan Pabrik


Description of inspection and maintenance service	due time interval or wear	Applies to	Remarks	
Visual check	after 5 years	<ul style="list-style-type: none"> ● Back portion ● Circuit-breaker ● Switch disconnector 	Switchgear remains in service, the bays must be isolated one after the other. Gas compartments need not be opened.	
Routine inspection	after 10 years	after 3000 mechanical operating cycles of disconnectors and earthing switches	● Back portion	Switchgear remains in service, the bays must be isolated one after the other. Gas compartments need not be opened.
		after 3000 mechanical operating cycles	● Circuit-breaker	
		after 1500 mechanical operating cycles	● Switch disconnector	
Visual check	after 15 years	<ul style="list-style-type: none"> ● Back portion ● Circuit-breaker ● Switch disconnector 	Switchgear remains in service, the bays must be isolated one after the other. Gas compartments need not be opened.	
Major inspection	after 20 years	after 6000 mechanical operating cycles of disconnectors and earthing switches	● Back portion	Switchgear is taken out of service, either completely or in sections, depending on the amount of work involved. Gas compartments are opened.
		after 6000 mechanical operating cycles	● Circuit-breaker	
		after 3000 operating cycles	● Switch disconnector	
Contact system check (circuit-breaker)	-	permissible number of fault current operations equalled	● Circuit-breaker	Circuit-breaker must be isolated. Its gas compartment is opened.
Contact system check (switch disconnector)	-	permissible number of load current operations equalled	● Switch disconnector	The relevant bay must be isolated. The switch disconnector gas compartment is opened.
Visual check	after 25 years			The inspection and maintenance schedule repeated.

Die Verschleißgrenze ist so bemessen, daß in den meisten Fällen die unterschiedlichen Instandhaltungsdienste in festen zeitlichen Abständen durchgeführt werden können. Nur dann, wenn die Schaltgeräte besonders häufig geschaltet werden, kann die zulässige Zahl von Schaltspielen und/oder die zulässige Zahl von Leistungsschaltungen oder Lastschaltungen den entsprechenden Instandhaltungsdienst früher notwendig machen als zeitlich vorgesehen.

The wear reserve is calculated so that in most cases the various inspection and maintenance services can be performed at fixed intervals. Only if switchgear is operated particularly frequently might it be necessary to bring forward the corresponding service, because the permissible number of mechanical operations and/or load or fault switching operations have already been exceeded.

Lampiran-2

Form Pengujian pada PMT GI TANDES

 <p>Unit Induk Transmisi Jawa Bagian Timur Dan Bali Unit Pelaksanaan Transmisi Gresik Unit Layanan Transmisi Dan Gardu Induk Gresik</p>		<p>HASIL PENGUJIAN/PENGUKURAN TAHANAN SOLUSI, TAHANAN PENYAHANAN, KEMIRIHAN SFS, TEGANGAN TEMBUS, TAHANAN KONTAK, WAKTU KEREPAKAN, TAHANAN COIL, TEGANGAN MINIMUM COIL, TEGANGAN KEJALA COIL, PENDEBARAK MOTOR PEMUTUS TANGKAI (PMU) 10 kV</p>		<p>No. Dokumen : F0017/BRELOS Edisi / Revisi : 01 / 00 Garda / Lokasi : GIS Tandes Lokasi / Unit Regu : ULTO Gresik Jenis Pelaksanaan : Rulis / Non Rulis No. SPP : 1788P/PT/PERK/UL/TKRM-HARGA/2019 Tgl. Pelaksanaan : Minggu, 21 Juli 2019</p>																																																																							
<p>DATA PELALUAN</p> <p>Merk : HITACHI Type : CFP1-140-40L Nomor Seri : 510386-1 Tahun Buat : 1991</p>		<p>Berbagai Capacity : 40 kA Aksi Normal : 1600 A Pegangan Kerja : 170 kV Merk Isolasi / Pemadam : SF6 Jenis Merek : PneuMatic</p>		<p>Tahanan SFS : 3,27 kg/cm² Tahanan Termal / Udara : 4,25 kg/cm² Tahanan Termal / Minyak : 38 kg/cm² Kuantitas : 80 % Depository Prati : TL Bay 150 kV Gresik 1</p>																																																																							
<p>DATA SEBELUMNYA</p> <table border="1"> <thead> <tr> <th>R</th> <th>S</th> <th>T</th> <th>R</th> <th>S</th> <th>T</th> <th>R</th> <th>S</th> <th>T</th> </tr> </thead> <tbody> <tr> <td></td> <td></td> <td></td> <td>410.000</td> <td>376.000</td> <td>511.000</td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td>23.000</td> <td>31.000</td> <td>41.000</td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td>225.000</td> <td>214.000</td> <td>195.000</td> <td></td> <td></td> <td></td> </tr> </tbody> </table>		R	S	T	R	S	T	R	S	T				410.000	376.000	511.000							23.000	31.000	41.000							225.000	214.000	195.000				<p>DATA TERAKHIR</p> <table border="1"> <thead> <tr> <th>R</th> <th>S</th> <th>T</th> <th>R</th> <th>S</th> <th>T</th> <th>R</th> <th>S</th> <th>T</th> </tr> </thead> <tbody> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>		R	S	T	R	S	T	R	S	T																											
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<p>A. TAHANAN SOLUSI (MO)</p> <p>Uraian Pengukuran : 1. Terminal Atas - Ground 2. Terminal Bawah - Ground 3. Terminal Atas - Terminal Bawah</p> <p>Alat Uji : Tahanan Isolasi</p>		<p>KETERANGAN : Pegangan Uji 5000 V</p>		<p>ACUAN / STANDARD : IEEE C62.20-2006 1 kV ~ 1 MO</p>		<p>TINDAKAN : KUGRESU 3/25 501759</p>		<p>KESIMPULAN : NORMAL</p>																																																																			
<p>B. TAHANAN PENYAHANAN (D)</p> <p>Uraian Pengukuran : 1. Korosi Startangan Atas - Ground 2. Korosi Startangan Bawah - Ground</p> <p>Alat Uji : Tahanan Pelepasan</p>		<p>KETERANGAN : Pengujian Tanpa Mekanis Korosi Grounding</p>		<p>ACUAN / STANDARD : SK DSR 6209 (R < I)</p>		<p>TINDAKAN : KUGRESU 4/18 A W17263</p>		<p>KESIMPULAN : NORMAL</p>																																																																			
<p>C. KEMIRIHAN SFS</p> <p>Uraian Pengukuran : 1. Dew Point (C) 2. Rataan Corong (ppm) 3. Part (µ) 4. SO2 < 8002 (ppm) 5. Pressure (kg/cm²)</p> <p>Alat Uji : Gas SFS</p>		<p>KETERANGAN : STANDARD CORE < 5°C ≤ 5000 ppm > 97% > 80.7% untuk gas SFS baru < 12 ppm Sesuai Nampak</p>		<p>ACUAN / STANDARD : SFS</p>		<p>TINDAKAN : RHS SYSTEM 4/18 SFS 02-3911</p>		<p>KESIMPULAN : NORMAL</p>																																																																			

Lampiran-4
Dokumentasi GI TANDES





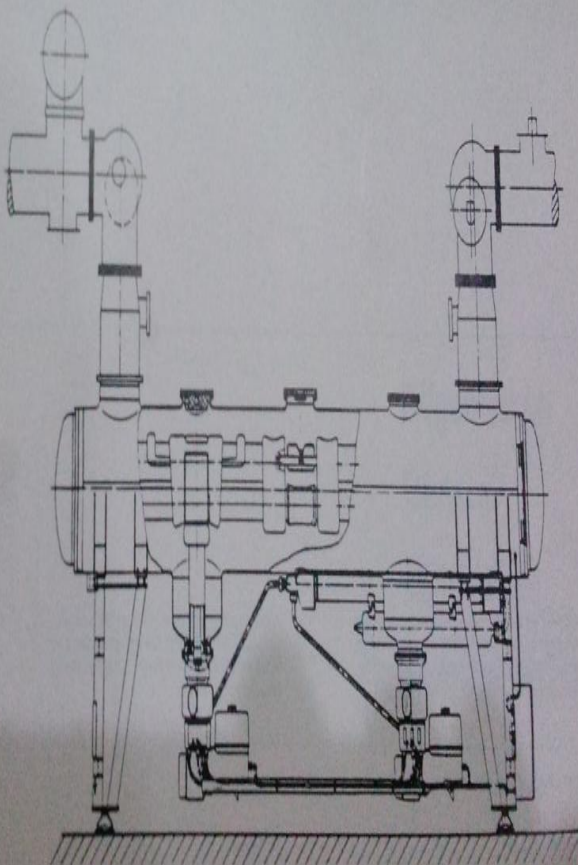


Metallgekapselte gasisierte Schaltanlage 8DQ1
für Nennspannung 525 kV

Metal-Enclosed Gas-Insulated Switchgear 8DQ1
for rated voltage 525 kV

Betriebsanleitung / Operating Instructions

Bestell-Nr./Order-No.: SW 8754 A



Leistungsschalter

Circuit-Breaker

Die Leistungsschalter-Bausteine der Schaltanlage (Fig.1) sind gleich aufgebaut und haben für jeden Pol

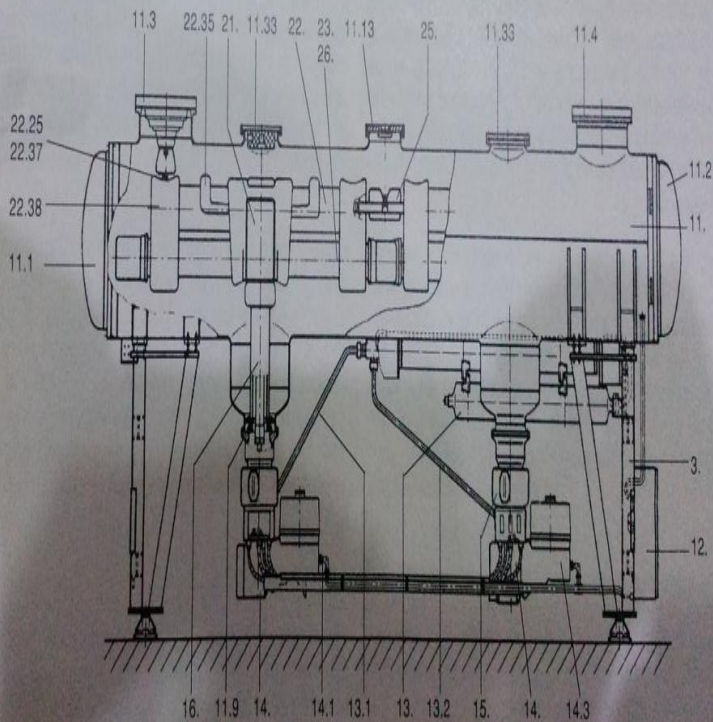
The circuit-breaker elements of the switching unit (Fig.1) are identically built and contain for each pole

- ein höhenverstellbares Gestell, das sowohl als Transportgestell als auch zur endgültigen Feldabstützung am Einsatzort verwendet wird,
- ein Gehäuse, das über gasdichte Durchführungen an die Schaltanlage angeschlossen ist
- einen Hydraulikspeicher,
- zwei Hydraulikantriebe,
- eine Steuereinheit.

- an adjustable frame, used in transportation as well as in the final workplace,
- a housing, connected to the switching unit by gas-tight bushing,
- a hydraulic storage cylinder,
- two hydraulic operating systems,
- a control unit.

05 - Äußerer Aufbau

05 - External design



- 3. Gestell
- 11. Gehäuse
- 11.1 Deckel
- 11.2 Deckel

- 3. Support
- 11. Housing
- 11.1 Cover
- 11.2 Cover

Lampiran 5

Alat Ukur leak Detector Gas



Lampiran 6
Tekanan Gas SF₆


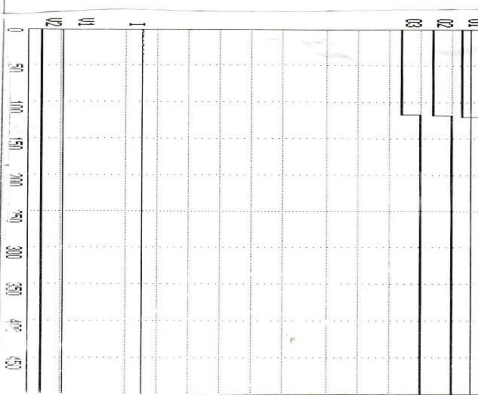



PENCATATAN TEKANAN GAS SF₆ & THERMOWISI KOMPARTMEN
GARDU INDIK : TANDES
BULAN : OKTOBER 2019


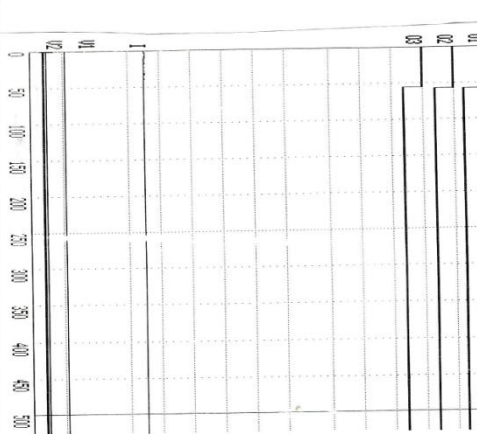
KOMPARTEMEN	BAY																			
	GRESIK 1				GRESIK 2				SBY BARAT 1				SBY BARAT 2				SAWAHAN 1		SAWAHAN 2	
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
BUS A	Minggu	5,5	5,5	5,5	5,4	5,4	5,4	5,4	5,5	5,5	5,5	5,5	5,4	5,4	5,4	5,4	5,4	5,4	5,4	5,4
	Sf6	3,1	3,1	3,1	3,1	3,1	3,1	3,1	3,1	3,1	3,1	3,1	3,1	3,1	3,1	3,1	3,1	3,1	3,1	3,1
BUS B	Minggu	5,4	5,4	5,4	5,4	5,4	5,4	5,4	5,4	5,4	5,4	5,4	5,4	5,4	5,4	5,4	5,4	5,4	5,4	5,4
	Sf6	3,1	3,1	3,1	3,1	3,1	3,1	3,1	3,1	3,1	3,1	3,1	3,1	3,1	3,1	3,1	3,1	3,1	3,1	3,1
PMT	Minggu	5,5	5,5	5,5	5,5	5,5	5,5	5,5	5,5	5,5	5,5	5,5	5,5	5,5	5,5	5,5	5,5	5,5	5,5	5,5
	Sf6	3,4	3,4	3,4	3,4	3,4	3,4	3,4	3,1	3,1	3,1	3,1	3,1	3,1	3,1	3,1	3,1	3,1	3,1	3,1
PMS LINE	Minggu	3,5	3,5	3,5	3,5	3,5	3,5	3,5	3,5	3,5	3,5	3,5	3,5	3,5	3,5	3,5	3,5	3,5	3,5	3,5
	Sf6	3,1	3,1	3,1	3,1	3,1	3,1	3,1	3,1	3,1	3,1	3,1	3,1	3,1	3,1	3,1	3,1	3,1	3,1	3,1

SUPERVISOR GIS TANDES
BAGUS ROISMAN

Lampiran 7

LAIN LAIN

 <p>Unit Induk Transmisi Jawa Bagian Timur Dan Bali Unit Pelaksanaan Transmisi Gresik Unit Layanan Transmisi Dan Gardu Induk Gresik</p>	<p>MAKSI PENGUKURAN PERBUKTIAN TAMBAH PERBUKTIAN PERBUKTIAN KEMBARAN SES. TEGANGAN TANGAN KONTAK WARTU KESERBAMAN 144KVA COIL TEGANGAN MINIMUM COIL, TEGANGAN KERJA COIL, PENGGERAK MOTOR PEMBUSUS TENAGA (PMT) 150 KV</p>	<p>No Dokumen : F013.1483.00 Esti / Revisi : 01 / 00 Cara Insk : GRS Tandis Lokasi / Unit Kerja : ULTG Gresik Nama Pekerjaan : Ratin / Ratu Rulin No. Surat : 7/2019/PT/DIRJAL/UTG/GRK-4483/2019 Tgl. Spm : Minggu, 21 Juli 2019 Tgl. Pelaksanaan : Minggu, 21 Juli 2019</p>	<p>Ukuran SF6 : 5.27 kg/cm² Tekanan Gas / Udara : 14.85 kg/cm² Temperatur : 30 °C Kelembapan : 80 % Dayaang / Pasa : TIL Day 150KV Gresik 1</p>																																																																																																																																																																																																																																																															
<p>DATA PERALATAN</p> <p>Merk : HITACHI Tipe : CPT14040L Name Seri : 01008-1 Tahun Buat : 1991</p>	<p>URAIAN PENGUKURAN Konsempakan Grafik Konsempakan Kontak</p>	<p>DATA PENGUKURAN</p> <p>Energy Capacity : 40 kVA Protection Class : 1000 A Main Inlets / Pemasukan : SES Jenis Mekanik : Pneumatik</p>	<p>LAMPYRAN GRAFIK HASIL UJI KESERBAMAN KONTAK</p> 																																																																																																																																																																																																																																																															
<p>BREAKER TIMING RESULTS - 50 Hz</p> <p>DATE: 07/21/19 SHOT NUMBER: 28 TIME: 13:06:51</p> <p>COMPANY: PT PLN UPT GRESIK STATION: GIS TANDESS CIRCUIT: PMT 150 KV GRESIK 1 MFR: HITACHI MODEL: CPT14040L S/N: 010081 OPERATOR: DENI</p> <p>TEST: CLOSE</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>CH</th> <th>TIME</th> <th>TYPE</th> <th>BOUNCE</th> <th>RISE</th> </tr> </thead> <tbody> <tr> <td>U1</td> <td>14.25</td> <td>0.00</td> <td>0.00</td> <td>0.00</td> </tr> <tr> <td>U2</td> <td>14.04</td> <td>0.00</td> <td>0.00</td> <td>0.00</td> </tr> <tr> <td>U3</td> <td>14.05</td> <td>0.00</td> <td>0.00</td> <td>0.00</td> </tr> <tr> <td>U4</td> <td>14.05</td> <td>0.00</td> <td>0.00</td> <td>0.00</td> </tr> <tr> <td>U5</td> <td>14.05</td> <td>0.00</td> <td>0.00</td> <td>0.00</td> </tr> <tr> <td>U6</td> <td>14.05</td> <td>0.00</td> <td>0.00</td> <td>0.00</td> </tr> <tr> <td>U7</td> <td>14.05</td> <td>0.00</td> <td>0.00</td> <td>0.00</td> </tr> <tr> <td>U8</td> 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INTERNAL</p>				CH	TIME	TYPE	BOUNCE	RISE	U1	14.25	0.00	0.00	0.00	U2	14.04	0.00	0.00	0.00	U3	14.05	0.00	0.00	0.00	U4	14.05	0.00	0.00	0.00	U5	14.05	0.00	0.00	0.00	U6	14.05	0.00	0.00	0.00	U7	14.05	0.00	0.00	0.00	U8	14.05	0.00	0.00	0.00	U9	14.05	0.00	0.00	0.00	U10	14.05	0.00	0.00	0.00	U11	14.05	0.00	0.00	0.00	U12	14.05	0.00	0.00	0.00	U13	14.05	0.00	0.00	0.00	U14	14.05	0.00	0.00	0.00	U15	14.05	0.00	0.00	0.00	U16	14.05	0.00	0.00	0.00	U17	14.05	0.00	0.00	0.00	U18	14.05	0.00	0.00	0.00	U19	14.05	0.00	0.00	0.00	U20	14.05	0.00	0.00	0.00	U21	14.05	0.00	0.00	0.00	U22	14.05	0.00	0.00	0.00	U23	14.05	0.00	0.00	0.00	U24	14.05	0.00	0.00	0.00	U25	14.05	0.00	0.00	0.00	U26	14.05	0.00	0.00	0.00	U27	14.05	0.00	0.00	0.00	U28	14.05	0.00	0.00	0.00	U29	14.05	0.00	0.00	0.00	U30	14.05	0.00	0.00	0.00	U31	14.05	0.00	0.00	0.00	U32	14.05	0.00	0.00	0.00	U33	14.05	0.00	0.00	0.00	U34	14.05	0.00	0.00	0.00	U35	14.05	0.00	0.00	0.00	U36	14.05	0.00	0.00	0.00	U37	14.05	0.00	0.00	0.00	U38	14.05	0.00	0.00	0.00	U39	14.05	0.00	0.00	0.00	U40	14.05	0.00	0.00	0.00	U41	14.05	0.00	0.00	0.00	U42	14.05	0.00	0.00	0.00	U43	14.05	0.00	0.00	0.00	U44	14.05	0.00	0.00	0.00	U45	14.05	0.00	0.00	0.00	U46	14.05	0.00	0.00	0.00	U47	14.05	0.00	0.00	0.00	U48	14.05	0.00	0.00	0.00	U49	14.05	0.00	0.00	0.00	U50	14.05	0.00	0.00	0.00
CH	TIME	TYPE	BOUNCE	RISE																																																																																																																																																																																																																																																														
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<p>PERANGKIP JAWAB PENGUKURAN</p>  <p>AHMAD THOLIAH</p>		<p>PERANGKIP MUTU GARDU INDUK</p>  <p>BAGUS ROHMAN</p>																																																																																																																																																																																																																																																																
<p>PERANGKIP PERBUKTIAN</p>  <p>SULENDRA D.P.</p>		<p>PELAKSANA PERBUKTIAN</p> <p>1. MURTO 2. DUNIA</p>																																																																																																																																																																																																																																																																

 <p>Unit Induk Transmisi Jawa Bagian Timur Dan Bali Unit Pelaksanaan Transmisi Gresik Unit Layanan Transmisi Dan Gardu Induk Gresik</p>	<p>HAKE PRODUKSI / PENGOLAHAN TAMAN KESALA, TAMAN KESALAMAH KEMBARAN SRI, TESANGAN TERBES TAHANAN KONTAK, WATU KESERBAPAN, TAHANAN COIL TESANGAN MINIMUM COIL, TESANGAN KEJALA COIL, PERGERAKAN MOTOR PEMUTUS TEMBAK (PM7) 50 KV</p>	<p>No. Dokumen : FCIU.TARBUS Edisi / Revisi : 01 / 00 Uraian / Lokasi : 05 Tembak Lokasi / Unit Kerja : 05 Tembak Jenis Pekerjaan : Baku New Rate No. SPP : 175SP/PTSK/LT/GSRK-HARUN0219 Tgl. SPP : Minggu, 21 Juli 2019 Tgl. Pelaksanaan : Minggu, 21 Juli 2019</p>	<p>Tekanan SF6 : 5,77 kg/cm² Tekanan Gas / Udara : 14,66 kg/cm² Kelembaban : 80 % Debitang Pasok : TIL Bay 50 KV Gresik 1</p>																
<p>Breaking Capacity : 40 KA Jenis Isolasi : A Tipe Busbar : W Model Isolasi / Pemadam : SF6 Jenis Mekanik : Pneumatik</p>	<p>Waktu : 100 Nomor Seri : 510308-1 Tahun Built : 1991</p>	<p>Breaking Capacity : 40 KA Jenis Isolasi : A Tipe Busbar : W Model Isolasi / Pemadam : SF6 Jenis Mekanik : Pneumatik</p>	<p>Tekanan SF6 : 5,77 kg/cm² Tekanan Gas / Udara : 14,66 kg/cm² Kelembaban : 80 % Debitang Pasok : TIL Bay 50 KV Gresik 1</p>																
<p>LAMPIRAN GRAFIK HASIL UJI KESERBAPAN KONTAK</p>																			
<p>BREAKER TIMING RESULTS - 50 Hz</p>																			
<p>SHOT NUMBER: 28 DATE: 07/21/19 TIME: 13:07:44</p>																			
<p>COMPANY: PT PLN UPT GRESIK STATION: GIS TANDES MFR: HITACHI KU GRESIK1 MODEL: CFRT 4040L SN: S106081 OPERATOR: DEWI</p>																			
<p>TEST: OPEN</p>																			
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CONTACT	TRIP TIME	BOUNCE	WIPE																
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<p>PEMANGUNG JAWAB PENGOLAHAN</p> <p><i>(Signature)</i> AHMAD THOLAH</p>		<p>PEMANGUNG BUTU GARDU INDUK</p> <p><i>(Signature)</i> BAHUS ROSMAN</p>																	
<p>PEMANGUNG PERGERAKAN</p> <p><i>(Signature)</i> SULFIQUR R. D. P.</p>		<p>PELAKSANA PERGERAKAN</p> <p>1. <i>(Signature)</i> MUGILIO 2. <i>(Signature)</i> PRALAI</p>																	

PT. PLN (Persero)	G1/GS	: TANDES
UNIT INDUK TRANSMISI JAWA BAGIAN TIMUR DAN BALI		
UPT GRESIK		
	Tgl Pelaksanaan	04-Nop-19

HASIL PEMERIKSAAN THERMOVISION GARDU INDUK

NO	NAMA PERALATAN T/ L & T/ R BAY	BAGIAN YANG DIPERIKSA		ARUS MAX DICAPAI	HASIL PEMERIKSAAN			SELISIH SUHU SAAT ARUS MAX (°C)	KETERANGAN TINDAKAN SELANJUT NYA DAN SELISIH
		TERMINAL / KONEKTOR / KLEM	PHASA Φ		ARUS	SUHU KLEM	SUHU KONDUKTOR		
					(A)	(°C)	(°C)		
				a	b	c	d	e = (a ² /b ²)x(c-d)	f = c-d
1	T/ L BAY UJUNG	T. KLEM GENTRI ARAH K	R	505	385	35,5	35,2	0,52	0,3
			S	505	385	35,7	35,2	0,86	0,5
			T	505	385	35,8	35,2	1,03	0,6
2		PG. KLEM PEMBAGIAN	R	505	385	38,4	35,2	5,51	3,2
			S	505	385	38,9	35,2	6,37	3,7
			T	505	385	38,7	35,2	6,02	3,5
3		KLEM LA ARAH G	R	505	385	37,9	35,2	4,65	2,7
			S	505	385	38,4	35,2	5,51	3,2
			T	505	385	38,6	35,2	5,85	3,4
4		KLEM CVT ARAH C	R						
			S	505	385	42,4	35,2	12,39	7,2
			T	505	385	38,6	35,2	5,85	3,4
5		KLEM WAVE TRAP	R	505	385	34,5	35,2	-1,20	-0,7
			S						
			T						
6		KLEM WAVE TRAP	R	505	385	38,9	35,2	6,37	3,7
			S						
			T						
7		KLEM CT ARAH C	R	505	385	37,8	35,2	4,47	2,6
			S	505	385	37,5	35,2	3,96	2,3
			T	505	385	37,4	35,2	3,79	2,2
8		KLEM CT ARAH K	R	505	385	35,5	35,2	0,52	0,3
			S	505	385	35,4	35,2	0,34	0,2
			T	505	385	35,3	35,2	0,17	0,1

9		KABEL HEAD ARAH	R	505	385	38,9	35,2	6,37	3,7
			S	505	385	38,7	35,2	6,02	3,5
			T	505	385	38,6	35,2	5,85	3,4
1	T/ L BAY PERAK II	T. KLEM GENTRI AF	R	338	385	37,9	35,2	2,08	2,7
			S	338	385	37,3	35,2	1,62	2,1
			T	338	385	37,2	35,2	1,54	2
2		PG. KLEM PEMBAG	R	338	385	34,5	35,2	-0,54	-0,7
			S	338	385	34,5	35,2	-0,54	-0,7
			T	338	385	34,8	35,2	-0,31	-0,4
4		KLEM LA ARAH G	R	338	385	35,8	35,2	0,46	0,6
			S	338	385	35,9	35,2	0,54	0,7
			T	338	385	35,8	35,2	0,46	0,6
5		KLEM CVT ARAH C	R	338	385	41,7	35,2	5,01	6,5
			S						
			T	338	385	43,7	35,2	6,55	8,5
6		KLEM WAVE TRAP	R						
			S	338	385	37,5	35,2	1,77	2,3
			T						
7		KLEM WAVE TRAP	R						
			S	338	38,9	38,2	35,2	226,49	3
			T						
8		KLEM CT ARAH C	R	338	38,6	39,8	35,2	352,71	4,6
			S	338	38,9	39,8	35,2	347,29	4,6
			T	338	38,4	39,7	35,2	348,65	4,5
9	T/ L BAY PERAK II	KLEM CT ARAH KA	R	338	38,6	39,5	35,2	329,71	4,3
			S	338	38,9	39,8	35,2	347,29	4,6
			T	338	38,8	39,1	35,2	295,96	3,9
10		KABEL HEAD ARAH	R	338	37,6	38,7	35,2	282,83	3,5
			S	338	37,9	38,9	35,2	294,28	3,7
			T	338	37,6	38,3	35,2	250,51	3,1

Standart PLN : Selisih suhu saat arus Max (t)

t = 0 - 10 ° C	: Kondisi baik	t = >40 - 70 ° C	: Perbaikan segera
t = 10 - 25 ° C	: Ukur 1 bulan lagi	t = >70 ° C	: Kondisi Darurat
t = 25 - 40 ° C	: Rencana perbaikan		

PENANGGUNG JAWAB	SUPERVISOR GI	PELAKSANA
A. THOILLAH	BAGUS ROISMAN	WALUYO EKA K. & NUR AZIS F