

## LAMPIRAN

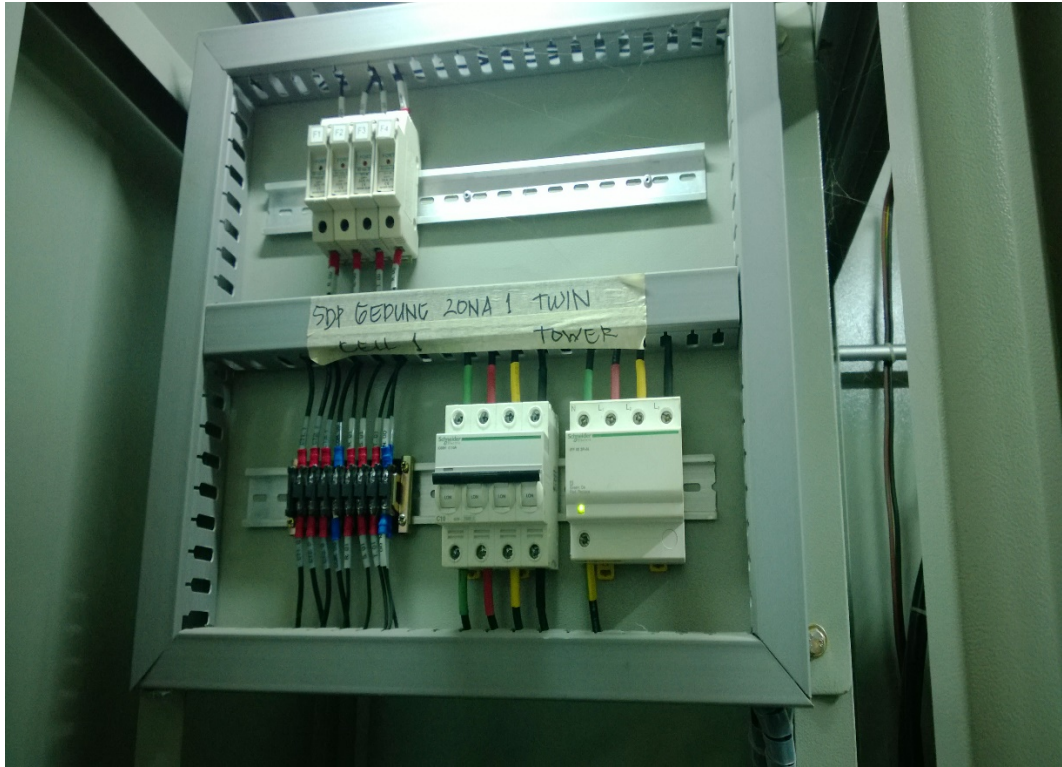
Bukti Pengambilan Data dan Sample Tabel Pengukuran Pada Software Metrel 2892



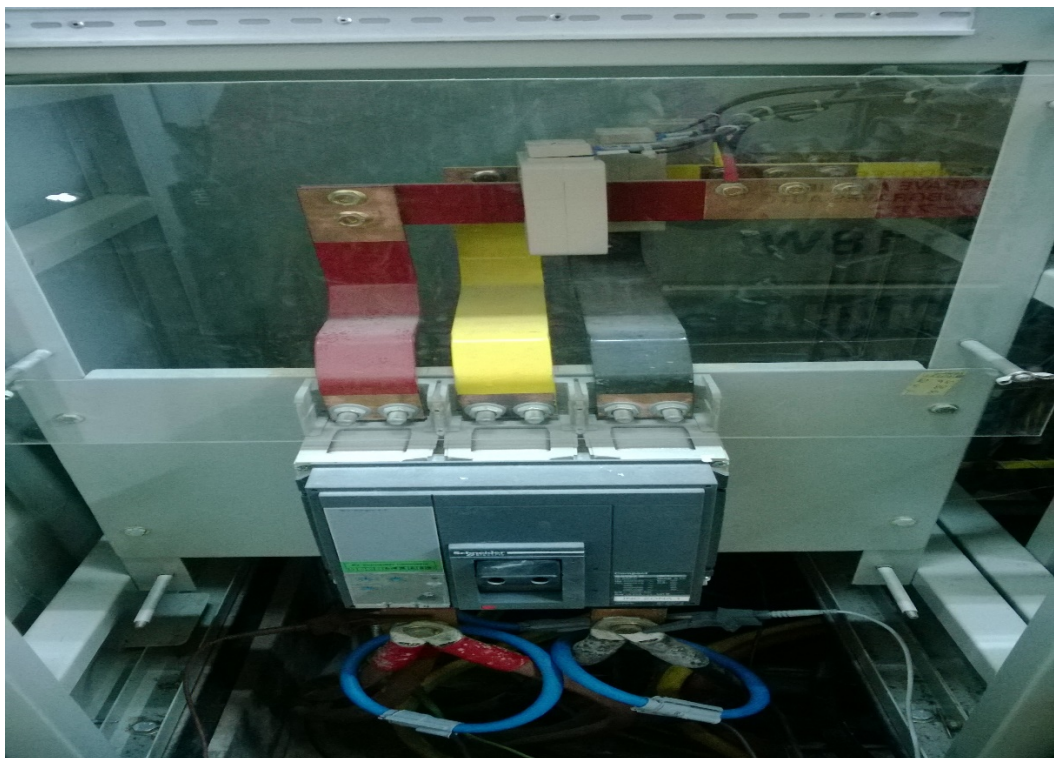
Gambar 7.1 Gedung E7 dan E6 UMY



Gambar 7.2 Perlengkapan Pengukuran



Gambar 7.3 Panel SDP Gedung Zona 1 Twin Tower

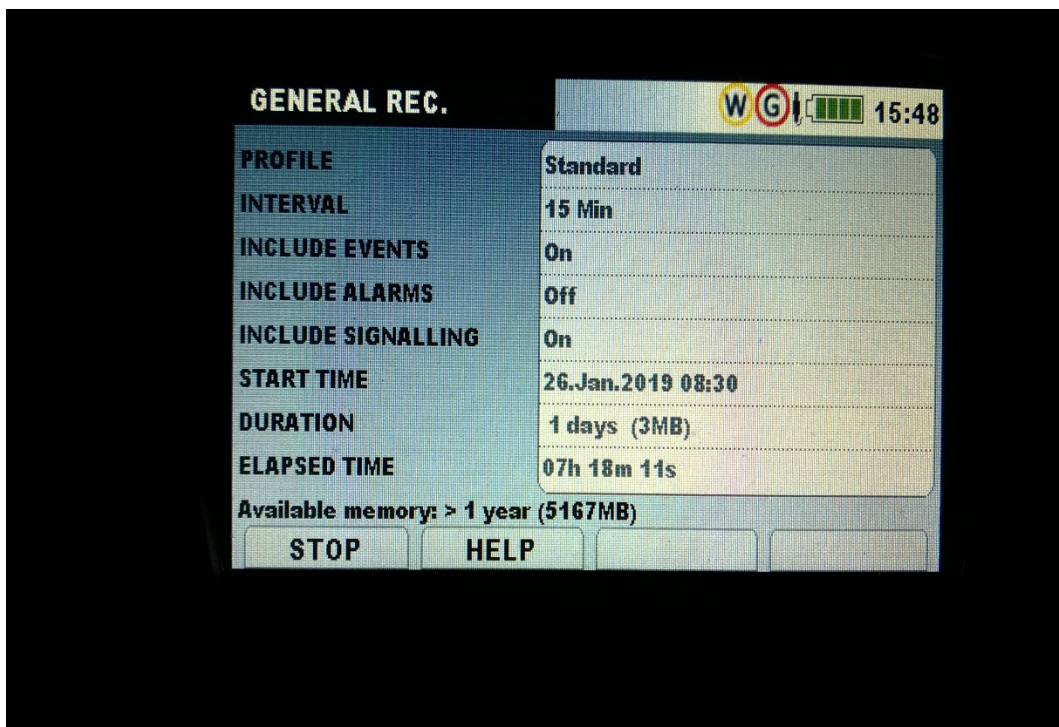


Gambar 7.4 Fasa R, S dan T Panel SDP





Gambar 7.5 Penghubungan Kabel Fasa RST dengan Kabel Metrel 2892



Gambar 7.6 Penyetingan dalam Alat Metrel 2892



Gambar 7.7 Saat Pengambilan Data



Gambar 7.8 Saat Pengambilan Data



General Logging (R0500GE...)											
Voltage											
	U12				U23				U31		
	Min [V]	Avg [V]	AvgOn [V]	Max [V]	Min [V]	Avg [V]	AvgOn [V]	Max [V]	Min [V]	Avg [V]	AvgOn [V]
1/26/2019 8:45:00.000	378.96	380.62	380.62	382.67	382.87	384.45	384.45	386.60	378.06	379.65	379.65
1/26/2019 9:00:00.000	382.00	382.88	382.88	383.57	386.01	386.79	386.79	387.33	381.30	382.06	382.06
1/26/2019 9:15:00.000	381.93	382.90	382.90	383.89	386.03	386.72	386.72	387.92	381.03	381.99	381.99
1/26/2019 9:30:00.000	381.17	381.93	381.93	382.39	385.23	385.82	385.82	386.39	380.35	380.97	380.97
1/26/2019 9:45:00.000	379.84	381.91	381.91	382.41	381.50	385.75	385.75	386.33	378.93	380.89	380.89
1/26/2019 10:00:00.000	380.38	381.49	381.49	382.05	383.94	385.35	385.35	385.95	379.69	380.46	380.46
1/26/2019 10:15:00.000	380.19	381.06	381.06	381.68	383.94	384.83	384.83	385.59	379.20	380.07	380.07
1/26/2019 10:30:00.000	379.60	380.16	380.16	380.62	383.60	384.20	384.20	384.66	378.69	379.30	379.30
1/26/2019 10:45:00.000	379.53	380.03	380.03	380.59	383.39	384.10	384.10	384.61	378.69	379.21	379.21
1/26/2019 11:00:00.000	379.57	381.14	381.14	382.68	383.52	385.39	385.39	386.87	378.68	380.37	380.37
1/26/2019 11:15:00.000	378.73	380.27	380.27	381.79	381.65	384.15	384.15	386.44	375.17	379.40	379.40
1/26/2019 11:30:00.000	379.40	380.11	380.11	380.75	383.44	384.11	384.11	384.80	378.46	379.14	379.14
1/26/2019 11:45:00.000	379.68	380.34	380.34	381.05	383.91	384.57	384.57	385.15	378.96	379.57	379.57
1/26/2019 12:00:00.000	378.14	381.97	381.97	383.69	382.33	386.11	386.11	387.84	377.44	381.19	381.19
1/26/2019 12:15:00.000	378.19	379.50	379.50	380.49	382.46	383.60	383.60	384.54	377.54	378.66	378.66
1/26/2019 12:30:00.000	379.29	380.09	380.09	380.68	382.97	384.14	384.14	384.70	378.54	379.21	379.21
1/26/2019 12:45:00.000	378.67	379.47	379.47	380.70	382.57	383.39	383.39	384.20	377.69	378.45	378.45

Gambar 7.9 Sample Tabel Tegangan Pada Software Pengukuran Metrel 2892

General Logging (R0500GE...)											
Current											
	I1				I2				I3		
	Min [A]	Avg [A]	AvgOn [A]	Max [A]	Min [A]	Avg [A]	AvgOn [A]	Max [A]	Min [A]	Avg [A]	AvgOn [A]
1/26/2019 8:45:00.000	54.89	63.92	63.92	95.13	29.75	38.39	38.39	60.98	51.07	70.36	70.36
1/26/2019 9:00:00.000	68.52	80.53	80.53	107.90	29.50	53.15	53.15	76.53	51.31	76.90	76.90
1/26/2019 9:15:00.000	70.40	83.97	83.97	110.46	44.31	57.16	57.16	78.46	57.95	74.70	74.70
1/26/2019 9:30:00.000	62.20	74.54	74.54	96.20	40.00	53.92	53.92	84.56	45.99	68.75	68.75
1/26/2019 9:45:00.000	51.40	67.70	67.70	100.75	38.61	50.28	50.28	76.78	53.94	71.18	71.18
1/26/2019 10:00:00.000	56.83	71.28	71.28	96.38	30.03	46.10	46.10	70.77	41.66	69.86	69.86
1/26/2019 10:15:00.000	54.05	67.57	67.57	95.72	33.35	52.71	52.71	74.49	58.72	70.10	70.10
1/26/2019 10:30:00.000	69.84	78.11	78.11	102.19	40.08	55.08	55.08	76.92	53.85	73.24	73.24
1/26/2019 10:45:00.000	50.33	73.35	73.35	102.76	41.34	56.08	56.08	78.04	43.41	68.10	68.10
1/26/2019 11:00:00.000	44.37	60.04	60.04	84.11	39.54	57.48	57.48	76.34	48.62	67.52	67.52
1/26/2019 11:15:00.000	47.79	66.40	66.40	86.74	33.21	53.67	53.67	78.81	47.23	64.85	64.85
1/26/2019 11:30:00.000	40.56	51.51	51.51	76.92	21.27	37.12	37.12	55.60	48.22	57.45	57.45
1/26/2019 11:45:00.000	41.05	57.09	57.09	79.51	19.51	37.38	37.38	58.56	48.46	59.70	59.70
1/26/2019 12:00:00.000	37.11	51.36	51.36	70.97	19.93	37.96	37.96	68.40	42.88	55.61	55.61
1/26/2019 12:15:00.000	31.29	47.35	47.35	78.84	20.26	29.98	29.98	54.19	41.21	49.54	49.54
1/26/2019 12:30:00.000	30.18	40.05	40.05	59.44	19.58	28.25	28.25	43.71	40.47	47.60	47.60
1/26/2019 12:45:00.000	32.81	42.04	42.04	64.57	19.57	33.19	33.19	50.92	41.74	54.76	54.76

Gambar 7.10 Sample Tabel Arus Pada Software Pengukuran Metrel 2892

General Logging (R0500GE...			
Record Information   Trend Chart   Table			
Frequency			
f			
	Min [Hz]	AvgOn [Hz]	Max [Hz]
1/26/2019 8:45:00.000	49.889	49.961	50.080
1/26/2019 9:00:00.000	49.857	50.010	50.152
1/26/2019 9:15:00.000	49.882	49.977	50.155
1/26/2019 9:30:00.000	49.868	49.993	50.141
1/26/2019 9:45:00.000	50.007	50.072	50.159
1/26/2019 10:00:00.000	49.939	50.010	50.067
1/26/2019 10:15:00.000	49.920	49.996	50.052
1/26/2019 10:30:00.000	49.896	49.971	50.062
1/26/2019 10:45:00.000	49.969	50.025	50.068
1/26/2019 11:00:00.000	50.001	50.054	50.117
1/26/2019 11:15:00.000	49.875	49.990	50.065
1/26/2019 11:30:00.000	49.899	49.979	50.094
1/26/2019 11:45:00.000	49.936	49.983	50.101
1/26/2019 12:00:00.000	49.965	50.047	50.123
1/26/2019 12:15:00.000	49.917	50.038	50.141
1/26/2019 12:30:00.000	49.887	50.011	50.104
1/26/2019 12:45:00.000	49.861	49.988	50.062

Gambar 7.11 Sample Tabel Frekuensi Pada Software Pengukuran Metrel 2892

General Logging (R0500GE...	
Record Information   Trend Chart   Table	
Active Energy	
Eptot+	
	Avg [kWh]
1/27/2019 4:45:00.000	5.020
1/27/2019 5:00:00.000	4.941
1/27/2019 5:15:00.000	4.704
1/27/2019 5:30:00.000	3.888
1/27/2019 5:45:00.000	4.018
1/27/2019 6:00:00.000	4.290
1/27/2019 6:15:00.000	7.249
1/27/2019 6:30:00.000	7.281
1/27/2019 6:45:00.000	7.130
1/27/2019 7:00:00.000	6.684
1/27/2019 7:15:00.000	4.544
1/27/2019 7:30:00.000	4.679
1/27/2019 7:45:00.000	4.603
1/27/2019 8:00:00.000	4.692
1/27/2019 8:15:00.000	4.983
1/27/2019 8:30:00.000	4.560
Total energy:	611.010

Gambar 7.12 Sample Tabel Total Energi Pada Software Pengukuran Metrel 2892

	Negative sequence voltage ratio				Negative sequence current ratio			
	u-				i-			
	Min [%]	Avg [%]	AvgOn [%]	Max [%]	Min [%]	Avg [%]	AvgOn [%]	Max [%]
1/26/2019 8:45:00.000	0.710	0.772	0.772	0.821	6.06	19.12	19.12	31.81
1/26/2019 9:00:00.000	0.693	0.763	0.763	0.850	1.86	14.05	14.05	32.09
1/26/2019 9:15:00.000	0.698	0.758	0.758	0.827	1.82	11.30	11.30	22.12
1/26/2019 9:30:00.000	0.719	0.779	0.779	0.877	1.48	11.37	11.37	20.08
1/26/2019 9:45:00.000	0.397	0.776	0.776	0.850	2.38	11.38	11.38	19.24
1/26/2019 10:00:00.000	0.639	0.782	0.782	0.838	4.17	13.71	13.71	23.28
1/26/2019 10:15:00.000	0.716	0.763	0.763	0.815	0.80	11.09	11.09	21.76
1/26/2019 10:30:00.000	0.736	0.795	0.795	0.862	0.63	11.29	11.29	20.94
1/26/2019 10:45:00.000	0.711	0.797	0.797	0.875	0.21	10.05	10.05	20.88
1/26/2019 11:00:00.000	0.740	0.818	0.818	0.899	0.26	10.38	10.38	23.95
1/26/2019 11:15:00.000	0.577	0.770	0.770	1.061	0.77	9.20	9.20	18.68
1/26/2019 11:30:00.000	0.745	0.800	0.800	0.852	4.27	15.87	15.87	30.01
1/26/2019 11:45:00.000	0.777	0.819	0.819	0.871	2.30	15.95	15.95	31.99
1/26/2019 12:00:00.000	0.735	0.799	0.799	0.854	0.63	15.84	15.84	31.31
1/26/2019 12:15:00.000	0.759	0.803	0.803	0.845	5.29	18.24	18.24	30.56
1/26/2019 12:30:00.000	0.668	0.800	0.800	0.838	7.90	17.54	17.54	28.75
1/26/2019 12:45:00.000	0.751	0.794	0.794	0.908	4.36	17.82	17.82	30.09

Gambar 7.13 Sample Tabel Ketidakseimbangan Tegangan dan Arus Pada Software Pengukuran Metrel 2892

	Voltage THD					
	THD U12		THD U23		THD U31	
	AvgOn [V]	Max [V]	AvgOn [V]	Max [V]	AvgOn [V]	Max [V]
1/26/2019 8:45:00.000	6.684	6.940	6.153	6.464	6.186	6.481
1/26/2019 9:00:00.000	6.649	6.942	6.211	6.503	6.139	6.555
1/26/2019 9:15:00.000	6.788	7.061	6.324	6.584	6.301	6.512
1/26/2019 9:30:00.000	6.857	7.111	6.412	6.669	6.440	6.695
1/26/2019 9:45:00.000	6.868	7.231	6.389	6.753	6.426	6.822
1/26/2019 10:00:00.000	7.053	7.404	6.581	6.960	6.624	6.973
1/26/2019 10:15:00.000	7.131	7.370	6.713	6.956	6.740	7.020
1/26/2019 10:30:00.000	7.148	7.426	6.772	7.044	6.737	7.001
1/26/2019 10:45:00.000	7.295	7.590	6.926	7.223	6.928	7.565
1/26/2019 11:00:00.000	7.345	7.548	6.938	7.157	7.025	7.289
1/26/2019 11:15:00.000	7.455	9.672	7.097	9.503	7.135	10.846
1/26/2019 11:30:00.000	7.642	7.945	7.292	7.609	7.252	7.513
1/26/2019 11:45:00.000	7.696	8.080	7.308	7.603	7.250	7.617
1/26/2019 12:00:00.000	7.812	8.137	7.440	7.751	7.420	7.717
1/26/2019 12:15:00.000	7.739	8.080	7.340	7.624	7.296	7.591
1/26/2019 12:30:00.000	8.095	8.399	7.660	7.941	7.625	7.938
1/26/2019 12:45:00.000	8.121	8.409	7.688	7.981	7.683	7.998

Gambar 7.14 Sample Tabel Harmonisa Tegangan Pada Software Pengukuran Metrel 2892

General Logging (R0500GE...)									
Record Information   Trend Chart   Table									
	Current THD								
	THD I1			THD I2			THD I3		
	Avg [A]	AvgOn [A]	Max [A]	Avg [A]	AvgOn [A]	Max [A]	Avg [A]	AvgOn [A]	Max [A]
1/26/2019 8:45:00.000	12.401	12.401	15.35	6.512	6.512	9.78	9.846	9.846	15.00
1/26/2019 9:00:00.000	15.297	15.297	17.85	8.255	8.255	13.72	11.085	11.085	16.15
1/26/2019 9:15:00.000	15.572	15.572	18.54	8.990	8.990	13.23	10.812	10.812	16.13
1/26/2019 9:30:00.000	14.144	14.144	16.88	8.562	8.562	16.50	9.938	9.938	17.95
1/26/2019 9:45:00.000	13.252	13.252	16.68	8.141	8.141	14.08	10.303	10.303	15.00
1/26/2019 10:00:00.000	13.581	13.581	17.19	7.444	7.444	12.70	9.905	9.905	17.17
1/26/2019 10:15:00.000	13.261	13.261	16.25	8.031	8.031	11.07	9.579	9.579	13.19
1/26/2019 10:30:00.000	14.213	14.213	18.39	8.470	8.470	13.28	10.085	10.085	15.80
1/26/2019 10:45:00.000	13.461	13.461	16.90	8.615	8.615	13.48	9.580	9.580	15.39
1/26/2019 11:00:00.000	11.932	11.932	14.33	8.738	8.738	11.85	9.478	9.478	13.99
1/26/2019 11:15:00.000	12.247	12.247	15.43	8.364	8.364	14.41	8.996	8.996	14.29
1/26/2019 11:30:00.000	10.670	10.670	12.43	6.464	6.464	9.04	7.667	7.667	11.85
1/26/2019 11:45:00.000	11.102	11.102	13.06	6.056	6.056	9.39	7.845	7.845	12.71
1/26/2019 12:00:00.000	10.680	10.680	13.01	6.166	6.166	9.55	7.253	7.253	10.62
1/26/2019 12:15:00.000	10.005	10.005	12.38	5.161	5.161	10.09	6.569	6.569	13.47
1/26/2019 12:30:00.000	9.531	9.531	11.03	4.954	4.954	7.80	6.104	6.104	10.55
1/26/2019 12:45:00.000	9.459	9.459	10.87	5.483	5.483	9.21	7.015	7.015	12.29

Gambar 7.15 Sample Tabel Harmonisa Arus Pada Software Pengukuran Metrel 2892

General Logging (R0500GE...)				
Record Information   Trend Chart   Table				
	Active Power			
	Ptot+			
	Min [kW]	Avg [kW]	AvgOn [kW]	Max [kW]
1/26/2019 8:45:00.000	35.94	42.92	42.92	52.99
1/26/2019 9:00:00.000	39.34	50.21	50.21	61.38
1/26/2019 9:15:00.000	42.17	50.54	50.54	62.81
1/26/2019 9:30:00.000	38.00	45.75	45.75	61.21
1/26/2019 9:45:00.000	33.74	44.80	44.80	57.98
1/26/2019 10:00:00.000	33.79	45.13	45.13	62.21
1/26/2019 10:15:00.000	38.32	44.34	44.34	57.79
1/26/2019 10:30:00.000	39.83	48.43	48.43	60.72
1/26/2019 10:45:00.000	34.61	44.68	44.68	62.26
1/26/2019 11:00:00.000	34.76	41.03	41.03	53.26
1/26/2019 11:15:00.000	33.01	41.94	41.94	51.05
1/26/2019 11:30:00.000	29.18	35.15	35.15	47.26
1/26/2019 11:45:00.000	30.01	37.61	37.61	53.17
1/26/2019 12:00:00.000	28.21	34.67	34.67	43.82
1/26/2019 12:15:00.000	26.36	31.02	31.02	42.15
1/26/2019 12:30:00.000	23.18	28.49	28.49	37.76
1/26/2019 12:45:00.000	25.45	31.58	31.58	41.13

Gambar 7.16 Sample Tabel Daya Aktif Pada Software Pengukuran Metrel 2892



	Reactive Power			Phase Fundamental Reactive Power / Total Positive seq. Reactive Power				Current
	Ntotind+			Q+totind+				
	[kvar]	AvgOn [kvar]	Max [kvar]	Min [kvar]	Avg [kvar]	AvgOn [kvar]	Max [kvar]	
1/26/2019 8:45:00.000	6.377	6.581	13.735	5.752	7.289	7.293	9.924	5.929
1/26/2019 9:00:00.000	6.172	6.243	12.810	6.552	9.044	9.048	12.560	6.653
1/26/2019 9:15:00.000	6.113	6.115	11.866	7.217	9.420	9.420	12.988	7.005
1/26/2019 9:30:00.000	5.378	5.512	11.914	5.708	7.901	7.905	10.997	6.462
1/26/2019 9:45:00.000	6.474	6.474	12.537	5.496	7.739	7.739	10.813	6.197
1/26/2019 10:00:00.000	5.216	5.738	11.512	5.688	7.313	7.743	11.152	5.923
1/26/2019 10:15:00.000	6.584	6.584	12.236	6.381	7.555	7.555	11.045	6.349
1/26/2019 10:30:00.000	4.849	5.362	11.264	5.459	7.294	7.724	10.274	6.654
1/26/2019 10:45:00.000	5.381	5.684	12.726	5.690	7.429	7.506	10.781	6.101
1/26/2019 11:00:00.000	7.515	7.515	14.156	5.599	7.103	7.103	10.136	6.283
1/26/2019 11:15:00.000	5.125	5.128	12.787	3.788	6.996	6.996	9.933	5.377
1/26/2019 11:30:00.000	3.678	3.687	8.925	3.712	4.503	4.504	6.558	4.937
1/26/2019 11:45:00.000	3.664	3.665	8.154	4.327	5.162	5.162	8.114	4.664
1/26/2019 12:00:00.000	3.909	4.078	10.302	4.070	4.813	4.818	8.553	4.974
1/26/2019 12:15:00.000	2.977	4.305	10.817	3.462	3.411	3.961	6.575	4.661
1/26/2019 12:30:00.000	3.481	3.517	8.134	2.905	3.624	3.624	5.663	4.239
1/26/2019 12:45:00.000	4.717	4.737	8.731	3.186	4.147	4.143	6.669	4.343

Gambar 7.17 Sample Tabel Daya Reaktif Pada Software Pengukuran Metrel 2892

	Effective Apparent Power			Phase Fundamental Apparent Power / Total Positive seq. Apparent Power				Apparent N
	Sefundtot+			Sefundtot+				
	AvgOn [kVA]	Max [kVA]	Min [kVA]	Avg [kVA]	AvgOn [kVA]	Max [kVA]	Min [kVA]	
1/26/2019 8:45:00.000	39.01	48.26	31.07	37.04	37.04	45.36	6.148	7.104
1/26/2019 9:00:00.000	47.19	58.76	33.65	45.44	45.44	57.23	6.893	8.564
1/26/2019 9:15:00.000	48.22	58.70	38.53	46.72	46.72	56.92	7.274	8.719
1/26/2019 9:30:00.000	43.82	59.03	35.71	42.44	42.44	57.83	6.717	7.987
1/26/2019 9:45:00.000	42.08	55.32	32.87	40.76	40.76	53.30	6.419	7.723
1/26/2019 10:00:00.000	41.78	58.00	31.98	40.12	40.12	56.31	6.153	7.604
1/26/2019 10:15:00.000	42.19	51.55	35.15	40.96	40.96	49.96	6.618	7.579
1/26/2019 10:30:00.000	45.80	57.46	38.09	44.40	44.40	55.98	6.941	8.066
1/26/2019 10:45:00.000	43.41	54.94	33.82	42.21	42.21	53.40	6.341	7.728
1/26/2019 11:00:00.000	40.88	49.81	34.86	39.85	39.85	48.10	6.524	7.323
1/26/2019 11:15:00.000	40.69	51.15	28.94	39.63	39.63	50.03	5.588	7.215
1/26/2019 11:30:00.000	32.55	42.49	24.85	31.27	31.27	40.63	5.109	6.056
1/26/2019 11:45:00.000	34.41	46.50	27.29	32.99	32.99	43.80	4.891	6.180
1/26/2019 12:00:00.000	32.33	40.85	25.01	30.99	30.99	39.62	5.157	5.960
1/26/2019 12:15:00.000	28.39	38.97	23.92	26.93	26.93	37.38	4.832	5.368
1/26/2019 12:30:00.000	25.94	34.53	19.42	24.66	24.66	33.27	4.363	5.082
1/26/2019 12:45:00.000	29.01	39.71	20.73	27.73	27.73	37.91	4.488	5.374

Gambar 7.17 Sample Tabel Daya Reaktif Pada Software Pengukuran Metrel 2892

	Power Factor				Displacement Factor			
	PFtotind+				DPF+totind+			
	Min []	Avg []	AvgOn []	Max []	Min []	Avg []	AvgOn []	Max []
1/26/2019 8:45:00.000	1.000	1.000	1.000	1.000	0.969	0.980	0.980	0.985
1/26/2019 9:00:00.000	0.959	0.999	0.999	1.000	0.968	0.980	0.980	0.985
1/26/2019 9:15:00.000	0.961	0.998	0.998	1.000	0.970	0.980	0.980	0.984
1/26/2019 9:30:00.000	0.932	0.992	0.993	1.000	0.974	0.983	0.983	0.988
1/26/2019 9:45:00.000	0.970	1.000	1.000	1.000	0.973	0.982	0.982	0.988
1/26/2019 10:00:00.000	0.958	0.942	0.997	1.000	0.973	0.982	0.982	0.986
1/26/2019 10:15:00.000	0.933	0.998	0.998	1.000	0.973	0.983	0.983	0.987
1/26/2019 10:30:00.000	0.982	0.944	1.000	1.000	0.977	0.985	0.985	0.990
1/26/2019 10:45:00.000	0.880	0.981	0.991	1.000	0.974	0.984	0.984	0.989
1/26/2019 11:00:00.000	0.847	0.978	0.978	1.000	0.976	0.984	0.984	0.988
1/26/2019 11:15:00.000	0.883	0.989	0.989	1.000	0.975	0.984	0.984	0.992
1/26/2019 11:30:00.000	0.954	1.000	1.000	1.000	0.980	0.989	0.989	0.992
1/26/2019 11:45:00.000	1.000	1.000	1.000	1.000	0.980	0.988	0.988	0.989
1/26/2019 12:00:00.000	0.848	0.996	0.997	1.000	0.971	0.988	0.988	0.991
1/26/2019 12:15:00.000	0.971	0.861	1.000	1.000	0.980	0.989	0.989	0.991
1/26/2019 12:30:00.000	0.993	1.000	1.000	1.000	0.980	0.989	0.989	0.990
1/26/2019 12:45:00.000	0.957	1.000	1.000	1.000	0.979	0.989	0.989	0.990

Gambar 7.18 Sample Tabel Power Faktor Pada Software Pengukuran Metrel 2892

	Voltage Harmonic								
	U12 h0			U12 h1			U12 h2		
	Avg [V]	Max [V]	h@THDMax [V]	Avg [V]	Max [V]	h@THDMax [V]	Avg [V]	Max [V]	h@THDMax [V]
1/26/2019 8:45:00.000	0.080	0.097	0.097	380.12	382.15	378.66	0.081	0.231	0.069
1/26/2019 9:00:00.000	0.075	0.097	0.073	382.43	383.12	381.93	0.080	0.243	0.034
1/26/2019 9:15:00.000	0.067	0.097	0.073	382.41	383.40	381.52	0.069	0.231	0.069
1/26/2019 9:30:00.000	0.072	0.097	0.073	381.46	381.97	381.66	0.081	0.290	0.103
1/26/2019 9:45:00.000	0.070	0.122	0.024	381.43	381.97	380.96	0.070	0.231	0.084
1/26/2019 10:00:00.000	0.053	0.073	0.049	380.98	381.51	381.00	0.078	0.248	0.129
1/26/2019 10:15:00.000	0.049	0.073	0.049	380.55	381.21	381.00	0.072	0.233	0.091
1/26/2019 10:30:00.000	0.042	0.073	0.049	379.65	380.14	379.86	0.085	0.267	0.109
1/26/2019 10:45:00.000	0.040	0.049	0.024	379.54	380.16	379.46	0.070	0.231	0.109
1/26/2019 11:00:00.000	0.045	0.073	0.049	380.65	382.17	381.28	0.066	0.248	0.049
1/26/2019 11:15:00.000	0.041	0.146	0.049	379.78	381.32	378.23	0.081	2.228	0.649
1/26/2019 11:30:00.000	0.036	0.049	0.024	379.59	380.23	379.82	0.073	0.192	0.069
1/26/2019 11:45:00.000	0.043	0.073	0.024	379.86	380.51	379.67	0.064	0.201	0.069
1/26/2019 12:00:00.000	0.035	0.073	0.024	381.46	383.20	382.51	0.070	0.220	0.103
1/26/2019 12:15:00.000	0.044	0.073	0.049	379.02	380.01	379.73	0.070	0.189	0.034
1/26/2019 12:30:00.000	0.044	0.073	0.049	379.61	380.20	379.41	0.071	0.212	0.077
1/26/2019 12:45:00.000	0.036	0.049	0.049	378.95	379.70	378.80	0.062	0.179	0.034

Gambar 7.19 Sample Tabel Orde Harmonisa Tegangan Fasa R Pada Software Pengukuran Metrel 2892

Voltage Harmonic									
	U23 h0			U23 h1			U23 h2		
	Avg [V]	Max [V]	h@THDMax [V]	Avg [V]	Max [V]	h@THDMax [V]	Avg [V]	Max [V]	h@THDMax [V]
1/26/2019 8:45:00.000	0.119	0.149	0.099	383.99	386.13	385.78	0.065	0.250	0.035
1/26/2019 9:00:00.000	0.107	0.124	0.099	386.30	386.77	385.73	0.074	0.260	0.149
1/26/2019 9:15:00.000	0.104	0.124	0.099	386.27	387.46	385.76	0.078	0.278	0.070
1/26/2019 9:30:00.000	0.103	0.124	0.099	385.33	385.90	385.34	0.071	0.301	0.086
1/26/2019 9:45:00.000	0.110	0.149	0.124	385.25	385.80	384.36	0.077	0.269	0.136
1/26/2019 10:00:00.000	0.098	0.124	0.099	384.89	385.50	384.68	0.068	0.237	0.111
1/26/2019 10:15:00.000	0.101	0.124	0.099	384.34	385.03	384.02	0.071	0.232	0.078
1/26/2019 10:30:00.000	0.097	0.099	0.099	383.74	384.19	383.81	0.068	0.280	0.035
1/26/2019 10:45:00.000	0.089	0.124	0.099	383.63	384.15	383.97	0.077	0.252	0.035
1/26/2019 11:00:00.000	0.097	0.124	0.099	384.88	386.41	386.13	0.079	0.291	0.070
1/26/2019 11:15:00.000	0.087	0.149	0.074	383.67	385.92	381.60	0.099	3.462	0.707
1/26/2019 11:30:00.000	0.093	0.124	0.099	383.63	384.35	383.65	0.050	0.213	0.061
1/26/2019 11:45:00.000	0.095	0.099	0.074	384.06	384.66	383.96	0.060	0.195	0.111
1/26/2019 12:00:00.000	0.090	0.173	0.099	385.63	387.34	385.45	0.060	0.207	0.035
1/26/2019 12:15:00.000	0.096	0.149	0.099	383.09	384.02	383.72	0.055	0.185	0.050
1/26/2019 12:30:00.000	0.095	0.099	0.099	383.63	384.20	383.33	0.051	0.175	0.050
1/26/2019 12:45:00.000	0.090	0.099	0.074	382.91	383.74	383.12	0.060	0.210	0.035

Gambar 7.20 Sample Tabel Orde Harmonisa Tegangan Fasa S Pada Software Pengukuran Metrel 2892

Voltage Harmonic									
	U31 h0			U31 h1			U31 h2		
	Avg [V]	Max [V]	h@THDMax [V]	Avg [V]	Max [V]	h@THDMax [V]	Avg [V]	Max [V]	h@THDMax [V]
1/26/2019 8:45:00.000	0.051	0.073	0.049	379.20	381.51	378.03	0.077	0.272	0.049
1/26/2019 9:00:00.000	0.054	0.073	0.049	381.57	382.30	381.53	0.079	0.357	0.085
1/26/2019 9:15:00.000	0.049	0.073	0.049	381.50	382.61	380.71	0.087	0.303	0.049
1/26/2019 9:30:00.000	0.051	0.073	0.049	380.48	381.17	380.40	0.073	0.398	0.035
1/26/2019 9:45:00.000	0.048	0.073	0.049	380.44	381.13	380.03	0.086	0.293	0.035
1/26/2019 10:00:00.000	0.042	0.049	0.024	379.98	380.51	379.99	0.080	0.303	0.069
1/26/2019 10:15:00.000	0.036	0.073	0.049	379.61	380.17	379.34	0.084	0.254	0.035
1/26/2019 10:30:00.000	0.033	0.049	0.049	378.82	379.25	379.07	0.075	0.281	0.000
1/26/2019 10:45:00.000	0.033	0.049	0.049	378.71	379.29	378.70	0.090	0.291	0.035
1/26/2019 11:00:00.000	0.029	0.049	0.024	379.90	381.54	380.77	0.088	0.283	0.049
1/26/2019 11:15:00.000	0.039	0.171	0.073	378.89	380.59	374.62	0.118	3.121	0.616
1/26/2019 11:30:00.000	0.031	0.049	0.024	378.66	379.24	378.99	0.057	0.204	0.035
1/26/2019 11:45:00.000	0.036	0.049	0.024	379.09	379.74	378.87	0.059	0.195	0.049
1/26/2019 12:00:00.000	0.029	0.049	0.024	380.69	382.25	380.33	0.061	0.204	0.000
1/26/2019 12:15:00.000	0.039	0.073	0.049	378.17	379.17	378.72	0.062	0.224	0.035
1/26/2019 12:30:00.000	0.038	0.049	0.024	378.70	379.34	378.59	0.065	0.242	0.109
1/26/2019 12:45:00.000	0.028	0.049	0.024	377.95	378.65	378.36	0.063	0.221	0.109

Gambar 7.21 Sample Tabel Orde Harmonisa Tegangan Fasa T Pada Software Pengukuran Metrel 2892



General Logging (R0500GE...)

Record Information Trend Chart Table

Voltage Harmonic

	U31 h0			U31 h1			U31 h2		
	Avg [V]	Max [V]	h@THDMax [V]	Avg [V]	Max [V]	h@THDMax [V]	Avg [V]	Max [V]	h@THDMax [V]
	1/26/2019 8:45:00.000	0.051	0.073	0.049	379.20	381.51	378.03	0.077	0.272
1/26/2019 9:00:00.000	0.054	0.073	0.049	381.57	382.30	381.53	0.079	0.357	0.085
1/26/2019 9:15:00.000	0.049	0.073	0.049	381.50	382.61	380.71	0.087	0.303	0.049
1/26/2019 9:30:00.000	0.051	0.073	0.049	380.48	381.17	380.40	0.073	0.398	0.035
1/26/2019 9:45:00.000	0.048	0.073	0.049	380.44	381.13	380.03	0.086	0.293	0.035
1/26/2019 10:00:00.000	0.042	0.049	0.024	379.98	380.51	379.99	0.080	0.303	0.069
1/26/2019 10:15:00.000	0.036	0.073	0.049	379.61	380.17	379.34	0.084	0.254	0.035
1/26/2019 10:30:00.000	0.033	0.049	0.049	378.82	379.25	379.07	0.075	0.281	0.000
1/26/2019 10:45:00.000	0.033	0.049	0.049	378.71	379.29	378.70	0.090	0.291	0.035
1/26/2019 11:00:00.000	0.029	0.049	0.024	379.90	381.54	380.77	0.088	0.283	0.049
1/26/2019 11:15:00.000	0.039	0.171	0.073	378.89	380.59	374.62	0.118	3.121	0.616
1/26/2019 11:30:00.000	0.031	0.049	0.024	378.66	379.24	378.99	0.057	0.204	0.035
1/26/2019 11:45:00.000	0.036	0.049	0.024	379.09	379.74	378.87	0.059	0.195	0.049
1/26/2019 12:00:00.000	0.029	0.049	0.024	380.69	382.25	380.33	0.061	0.204	0.000
1/26/2019 12:15:00.000	0.039	0.073	0.049	378.17	379.17	378.72	0.062	0.224	0.035
1/26/2019 12:30:00.000	0.038	0.049	0.024	378.70	379.34	378.59	0.065	0.242	0.109
1/26/2019 12:45:00.000	0.028	0.049	0.024	377.95	378.65	378.36	0.063	0.221	0.109

Gambar 7.22 Sample Tabel Orde Harmonisa Arus Fasa R Pada Software Pengukuran Metrel 2892

General Logging (R0500GE...)

Record Information Trend Chart Table

Current Harmonic

	I2 h0				I2 h1				Avg [A]	Max [A]
	Avg [A]	AvgOn [A]	Max [A]	h@THDMax [A]	Avg [A]	AvgOn [A]	Max [A]	h@THDMax [A]		
	1/26/2019 8:45:00.000	0.305	---	1.397	0.849	37.77	37.77	60.34		
1/26/2019 9:00:00.000	0.355	1.9	2.223	0.917	52.42	52.42	75.27	73.89	2.792	
1/26/2019 9:15:00.000	0.358	2.1	2.250	0.797	56.37	56.37	77.55	73.39	2.949	
1/26/2019 9:30:00.000	0.364	1.6	1.623	0.763	53.16	53.16	82.82	82.11	2.759	
1/26/2019 9:45:00.000	0.333	---	1.442	0.672	49.53	49.53	75.46	72.33	2.582	
1/26/2019 10:00:00.000	0.345	---	1.382	0.442	45.43	45.43	69.89	67.58	2.541	
1/26/2019 10:15:00.000	0.316	1.8	2.144	0.298	52.02	52.02	73.59	64.18	2.790	
1/26/2019 10:30:00.000	0.370	1.8	2.061	0.121	54.35	54.35	76.04	71.93	2.680	
1/26/2019 10:45:00.000	0.353	1.8	2.205	0.623	55.33	55.33	76.99	65.30	2.761	
1/26/2019 11:00:00.000	0.334	1.7	1.691	0.627	56.73	56.73	75.49	66.47	2.848	
1/26/2019 11:15:00.000	0.315	2.1	2.276	0.608	52.93	52.93	77.65	75.56	2.791	
1/26/2019 11:30:00.000	0.280	---	1.374	0.385	36.49	36.49	54.53	47.97	1.749	
1/26/2019 11:45:00.000	0.293	1.9	1.865	0.000	36.82	36.82	57.63	48.51	1.836	
1/26/2019 12:00:00.000	0.287	2.3	2.658	0.895	37.40	37.40	67.22	63.17	1.807	
1/26/2019 12:15:00.000	0.248	---	1.234	0.332	29.48	29.48	53.36	45.87	1.495	
1/26/2019 12:30:00.000	0.240	1.6	1.578	0.415	27.76	27.76	42.86	41.14	1.490	
1/26/2019 12:45:00.000	0.261	1.5	1.548	0.691	32.68	32.68	50.74	47.34	1.660	

Gambar 7.23 Sample Tabel Orde Harmonisa Arus Fasa S Pada Software Pengukuran Metrel 2892

General Logging (R0500GE...)										
Record Information   Trend Chart   Table										
	Current Harmonic									
	I2 h0				I2 h1					
	Avg [A]	AvgOn [A]	Max [A]	h@THDMax [A]	Avg [A]	AvgOn [A]	Max [A]	h@THDMax [A]	Avg [A]	A
1/26/2019 8:45:00.000	0.305	---	1.397	0.849	37.77	37.77	60.34	50.72	2.601	
1/26/2019 9:00:00.000	0.355	1.9	2.223	0.917	52.42	52.42	75.27	73.89	2.792	
1/26/2019 9:15:00.000	0.358	2.1	2.250	0.797	56.37	56.37	77.55	73.39	2.949	
1/26/2019 9:30:00.000	0.364	1.6	1.623	0.763	53.16	53.16	82.82	82.11	2.759	
1/26/2019 9:45:00.000	0.333	---	1.442	0.672	49.53	49.53	75.46	72.33	2.582	
1/26/2019 10:00:00.000	0.345	---	1.382	0.442	45.43	45.43	69.89	67.58	2.541	
1/26/2019 10:15:00.000	0.316	1.8	2.144	0.298	52.02	52.02	73.59	64.18	2.790	
1/26/2019 10:30:00.000	0.370	1.8	2.061	0.121	54.35	54.35	76.04	71.93	2.680	
1/26/2019 10:45:00.000	0.353	1.8	2.205	0.623	55.33	55.33	76.99	65.30	2.761	
1/26/2019 11:00:00.000	0.334	1.7	1.691	0.627	56.73	56.73	75.49	66.47	2.848	
1/26/2019 11:15:00.000	0.315	2.1	2.276	0.608	52.93	52.93	77.65	75.56	2.791	
1/26/2019 11:30:00.000	0.280	---	1.374	0.385	36.49	36.49	54.53	47.97	1.749	
1/26/2019 11:45:00.000	0.293	1.9	1.865	0.000	36.82	36.82	57.63	48.51	1.836	
1/26/2019 12:00:00.000	0.287	2.3	2.658	0.895	37.40	37.40	67.22	63.17	1.807	
1/26/2019 12:15:00.000	0.248	---	1.234	0.332	29.48	29.48	53.36	45.87	1.495	
1/26/2019 12:30:00.000	0.240	1.6	1.578	0.415	27.76	27.76	42.86	41.14	1.490	
1/26/2019 12:45:00.000	0.261	1.5	1.548	0.691	32.68	32.68	50.74	47.34	1.660	

Gambar 7.24 Sample Tabel Orde Harmonisa Arus Fasa T Pada Software Pengukuran Metrel 2892