User Login

Sign into your account

Username…

Password…

Login

Tuen Mun Hospital
Overview the LVSB of TMH

H.V. Main Power Supply for H.V. Chiller Units
11kV, 630A VCB with 4 Outgoing Units

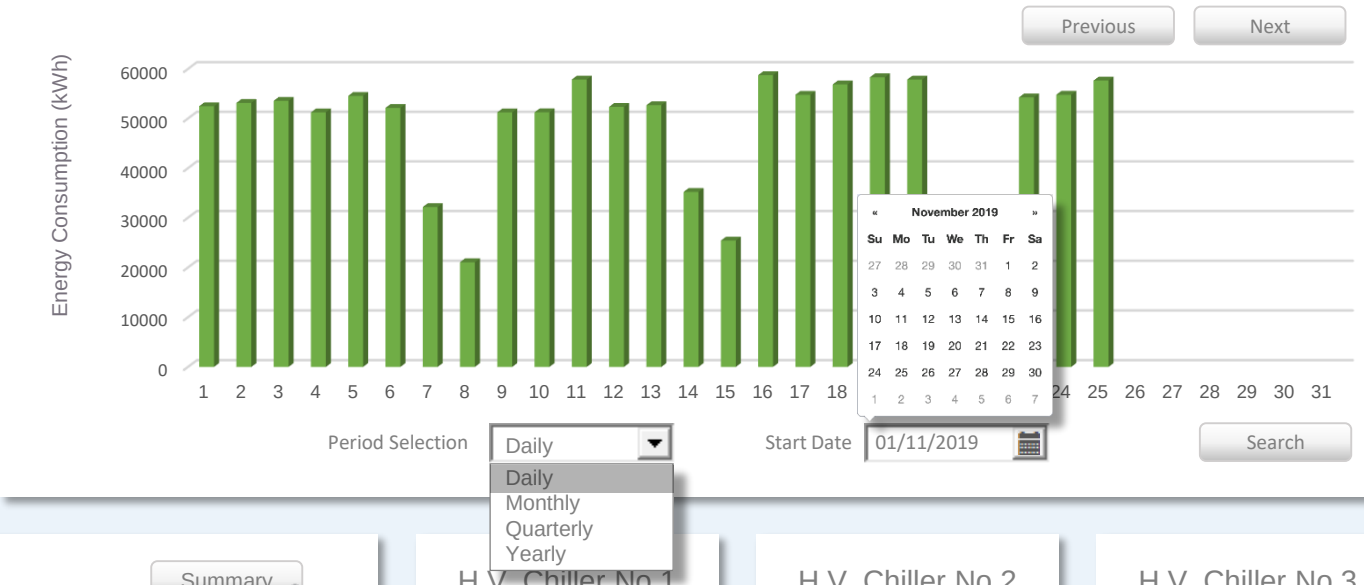
Seawater Pump House
1MV, 11kV/380V Transformer for SWP House

H.V. Chiller No.1
1900 TR McQuay Water-cooled Centrifugal Chiller

H.V. Chiller No.2
1900 TR McQuay Water-cooled Centrifugal Chiller

H.V. Chiller No.3
1900 TR McQuay Water-cooled Centrifugal Chiller

Electricity Consumption of 630A, H.V. Switchboard for Central Chiller Plant



Input Power of 630A, H.V. Switchboard for Central Chiller Plant

Summary

From CLP Supply	H.V. Chiller No.1	H.V. Chiller No.2	H.V. Chiller No.3	Seawater Pump House
397 kW	122 kW	0 kW	213 kW	62 kW

Input Power of 1,600A L.V. Switchboard for Seawater Pump (SWP) House

Summary

From 1 MV Tx. for SWP	SWP No.1	SWP No. 2	SWP No.3	SWP No.4	SWP No.5	Chlorination	Screening	Others Facilities
62.0 kW	16.8 kW	0 kW	16.4 kW	16.9 kW	0 kW	5.6 kW	6.3 kW	16.4 kW

H.V. Chiller No.1 Switchboard

Compressor C1
122 kW

Compressor C2
6.3 kW

Summary

H.V. Chiller No.2 Switchboard

Compressor C1
122 kW

Compressor C2
6.3 kW

Summary

H.V. Chiller No.3 Switchboard

Compressor C1
122 kW

Compressor C2
6.3 kW

Summary

機電工程署
EMSD
屯門醫院
TUEN MUN HOSPITAL
醫院管理局
HOSPITAL AUTHORITY
Home
CB Status
Device
Event
Alarm
System
3
27.3°C 75%
King's Park
H.V. Chiller No.3
Instantaneous Power : 42 kW
Current L1 : 23.56 A
Current L2 : 22.25 A
Current L3 : 22.79 A
Earth Leakage Current : 0.12 A
View Details
Power Supply
Operation Status
Fault
H.V. Chiller No.1
View Details
Power Supply
Operation Status
Fault
H.V. Chiller No.2
View Details
Power Supply
Operation Status
Fault
H.V. Chiller No.3
View Details
Power Supply
Operation Status
Fault
1 MV Transformer for Seawater Pump House
View Details
Electricity Consumption
Today 32,514 kWh
Yesterday 52,214 kWh
Last Week 113,201 kWh
Last Month 516,658 kWh
Last Year 6,205,698 kWh
View Details
Electricity Consumption
Today 32,514 kWh
Yesterday 52,214 kWh
Last Week 113,201 kWh
Last Month 516,658 kWh
Last Year 6,205,698 kWh
View Details
Electricity Consumption
Today 32,514 kWh
Yesterday 52,214 kWh
Last Week 113,201 kWh
Last Month 516,658 kWh
Last Year 6,205,698 kWh
View Details
Electricity Consumption
Today 32,514 kWh
Yesterday 52,214 kWh
Last Week 113,201 kWh
Last Month 516,658 kWh
Last Year 6,205,698 kWh
View Details
Input Power of the H.V. Equipment
H.V. Chiller No.1
122 kW
H.V. Chiller No.2
0 kW
H.V. Chiller No.3
213 kW
Seawater Pump House
62 kW
Instantaneous Chiller Plant Efficiency
H.V. Chiller No.1
1.0 kW/kW
H.V. Chiller No.2
0.0 kW/kW
H.V. Chiller No.3
0.5 kW/kW
Monthly Electricity Consumption of 630A, H.V. Switchboard
Energy Consumption (kWh)
750k
500k
250k
0
Nov Dec Jan Feb Mar Apr May Jun Jul Aug Sep Oct
Nov 2017 to Oct 2018
Nov 2018 to Oct 2019

Instantaneous Power of H.V. Equipment

Update frequency : every 2 minutes

Summary

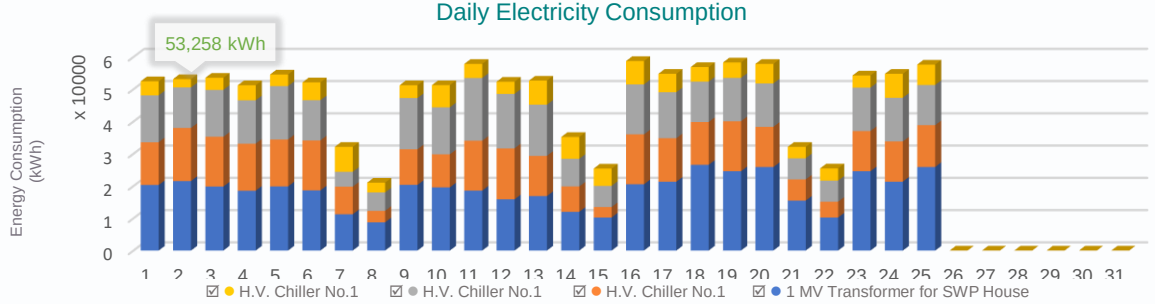
From CLP Supply	H.V. Chiller No.1	H.V. Chiller No.2	H.V. Chiller No.3	Seawater Pump House
397 kW	122 kW	0 kW	213 kW	62 kW

Overall Status of H.V. Chiller Units

Update frequency : every 2 minutes

Total Input Power | Total Capacity (%) | Cooling Capacity

Daily Electricity Consumption

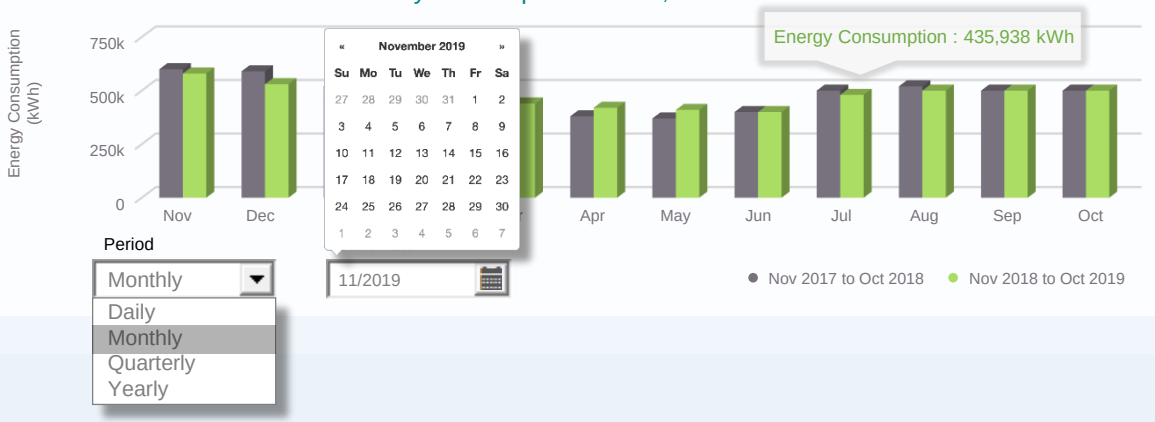


Operation Condition of 630A, H.V. Switchboard

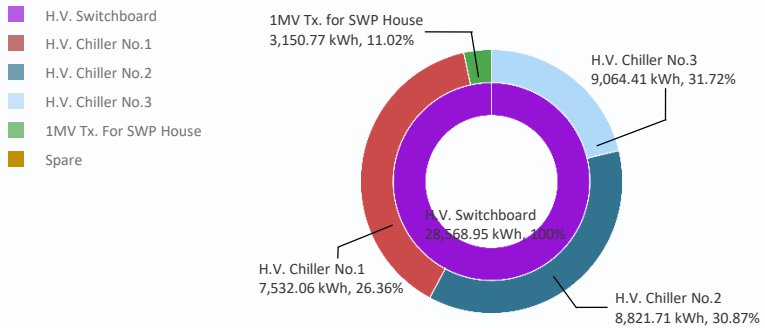
Update frequency : every 2 minutes

Voltage | Current | Frequency | Power Factor

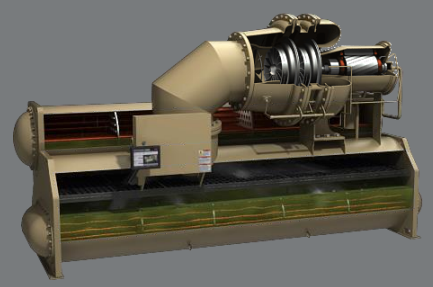
Electricity Consumption of 630A, H.V. Switchboard



Electricity Consumption of H.V. Equipment at Last Month

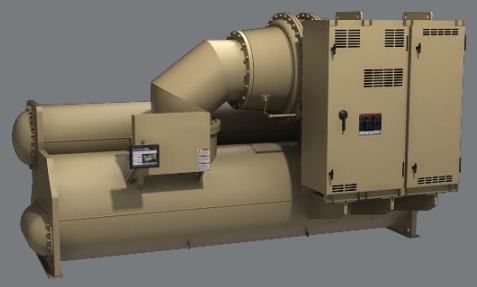


Power Supply
Operation Status
Fault



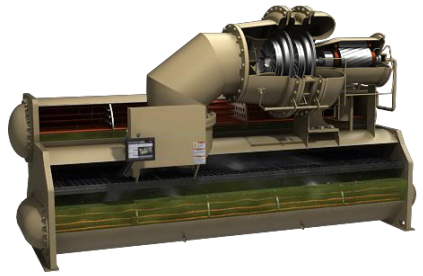
H.V. Chiller No.1

Power Supply
Operation Status
Fault



H.V. Chiller No.2

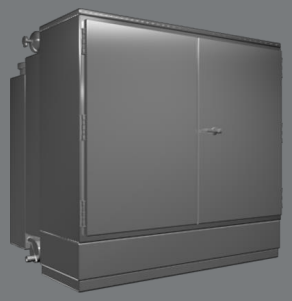
Power Supply
Operation Status
Fault



H.V. Chiller No.3

View Details

Power Supply
Operation Status
Fault

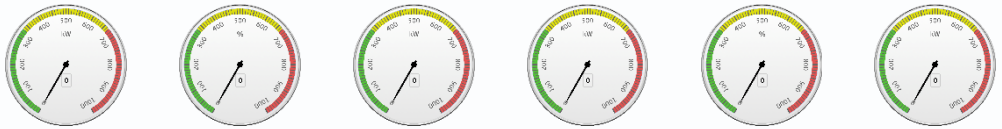


1 MV Transformer for Seawater Pump House

Overall Status of H.V. Chiller No.3

Update frequency : every 2 minutes

Circuit 1 | Circuit 2



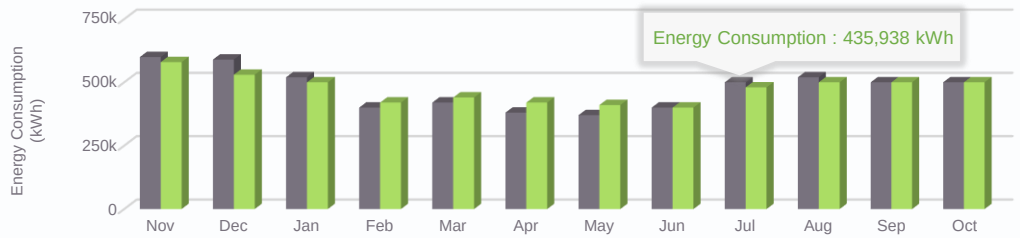
Input Power | Capacity (%) | Cooling Cap. | Input Power | Capacity (%) | Cooling Cap.

Operation Condition of H.V. Chiller No.3

Update frequency : every 2 minutes

Voltage | Current | Frequency | Power Factor

Electricity Consumption of H.V. Chiller No.3



Period: Monthly (Daily / Monthly / Quarterly / Yearly)

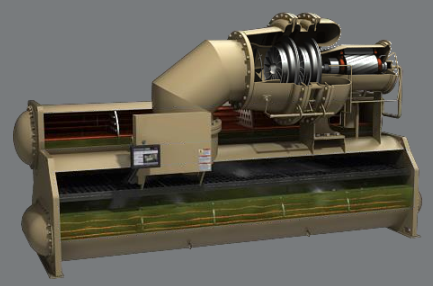
Start Date: 01/11/2018

Nov 2017 to Oct 2018 | Nov 2018 to Oct 2019

Overview

Detailed View

Power Supply
Operation Status
Fault

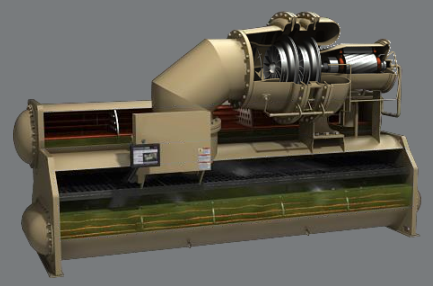


H.V. Chiller No.1

Power Supply
Operation Status
Fault

H.V. Chiller No.2

Power Supply
Operation Status
Fault



H.V. Chiller No.3

Power Supply
Operation Status
Fault

1 MV Transformer for Seawater Pump House

Operation Condition of 1MV Transformer for SWP House

Update frequency : every 2 minutes

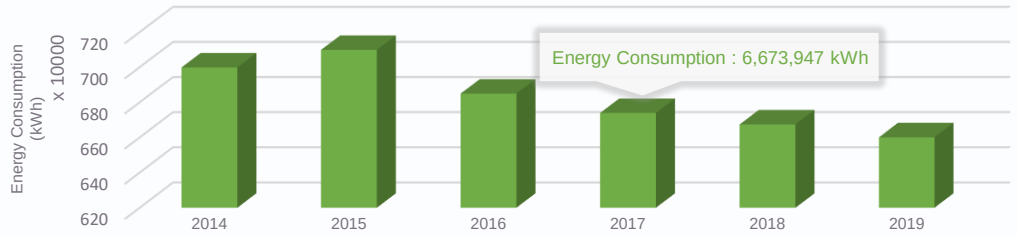
Voltage: L1 – L2, L2 – L3, L3 – L1
Current: L1, L2, L3

Overall Status of 1MV Transformer for SWP House

Update frequency : every 2 minutes

Input Power | Demand | Frequency | Power Factor

Electricity Consumption of 1MV Transformer for SWP House



Period: Yearly (Daily, Monthly, Quarterly, Yearly)
Start Date: 01/11/2018

Nov 2017 to Oct 2018
Nov 2018 to Oct 2019

L.V. Switchboard for LS1/LAG

OPERATION STSTUS

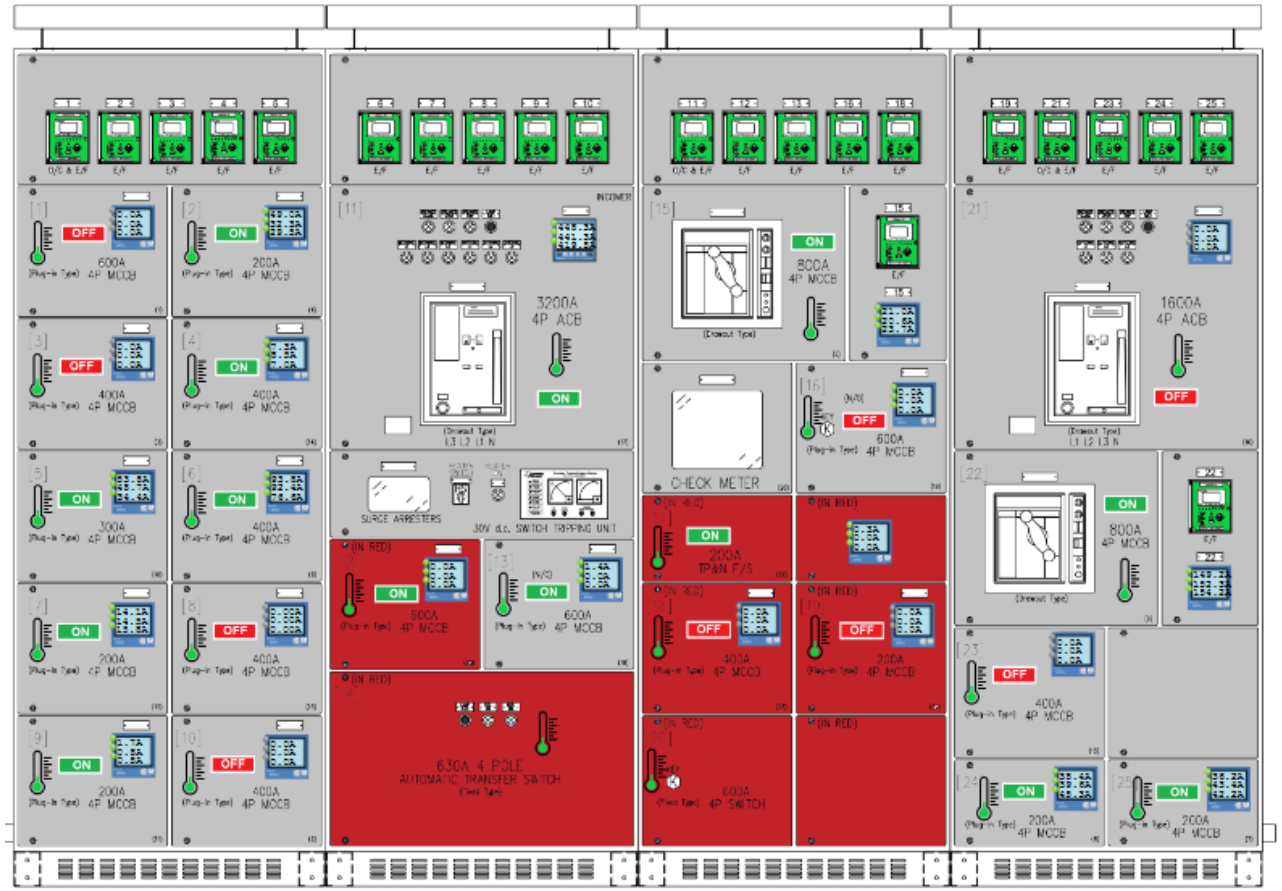
Service Area/ Equipment	Status
Main Incomer	Close
Spare	Close
400A 4P MCCB	Fault

INPUT POWER

Incomer
1MV Tx. For SWP House
Spare
Chiller No.1
Chiller No.2
Chiller No.3

SWITCHBOARD LAYOUT

630A Incomer
Instantaneous Power : 42 kW



LEGEND

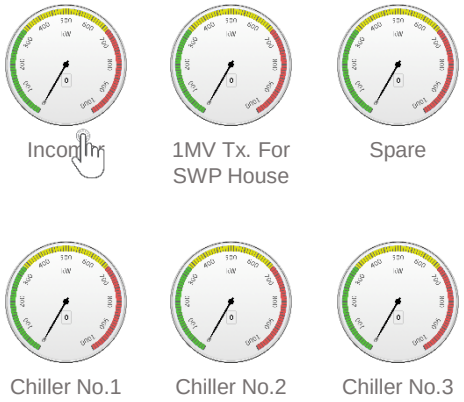
- Digital Power Analyser
- Digital Power Meter
- IDMT Off
- IDMT Normal
- IDMT Tripped
- Common Fault
- Current Differential Protection Relay
- Breaker Close
- Breaker Open
- Breaker Tripped
- Heater On
- Heater Off

H.V. Switchboard for H.V. Chiller Plant and Seawater Pump House

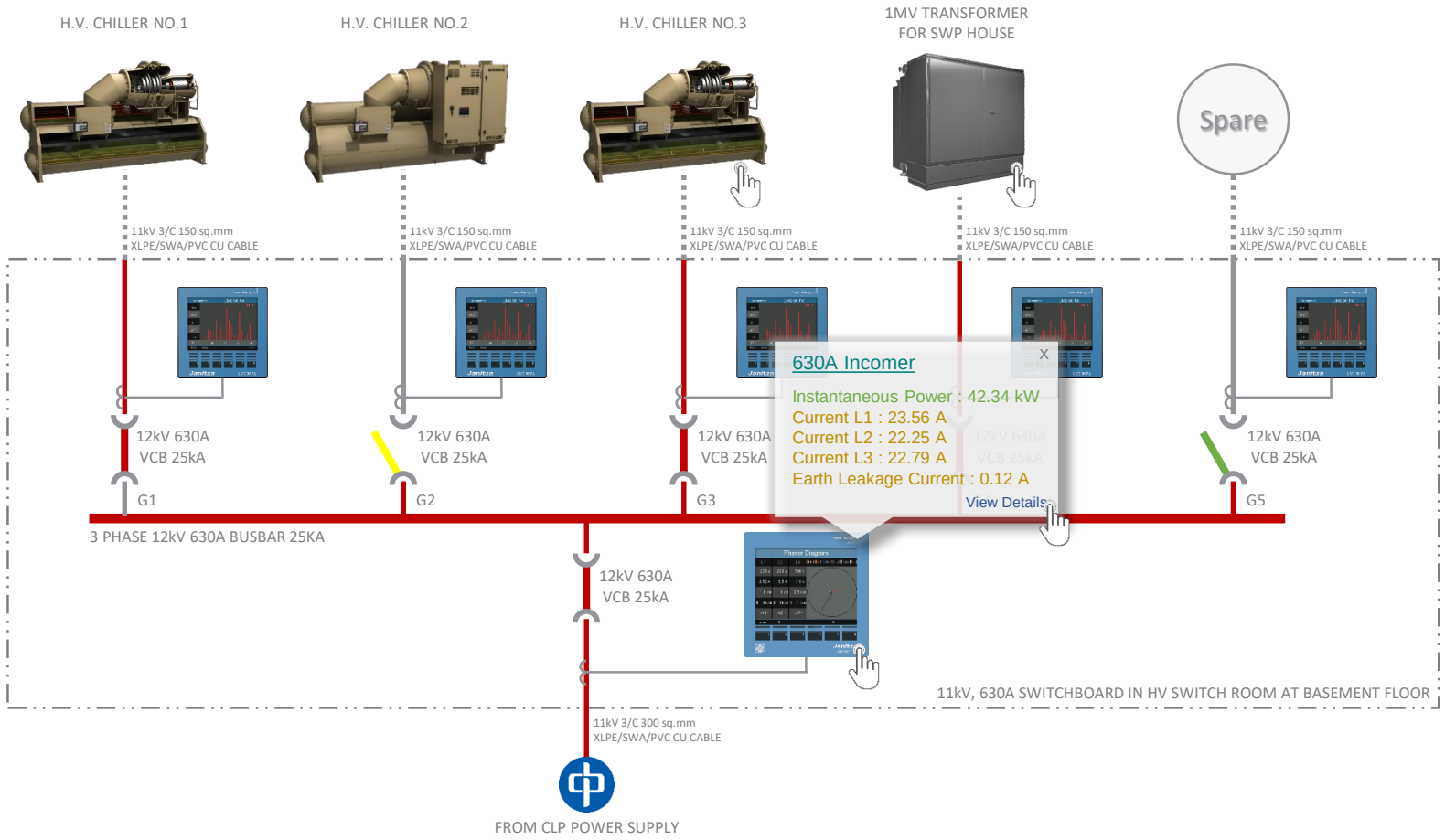
OPERATION STSTUS

Service Area/ Equipment	Status
Main Incomer	Close
H.V. Chiller No.1	Close
H.V. Chiller No.2	Fault
H.V. Chiller No.3	Close
1MV Transformer for SWP House	Close
Spare	Open

INPUT POWER



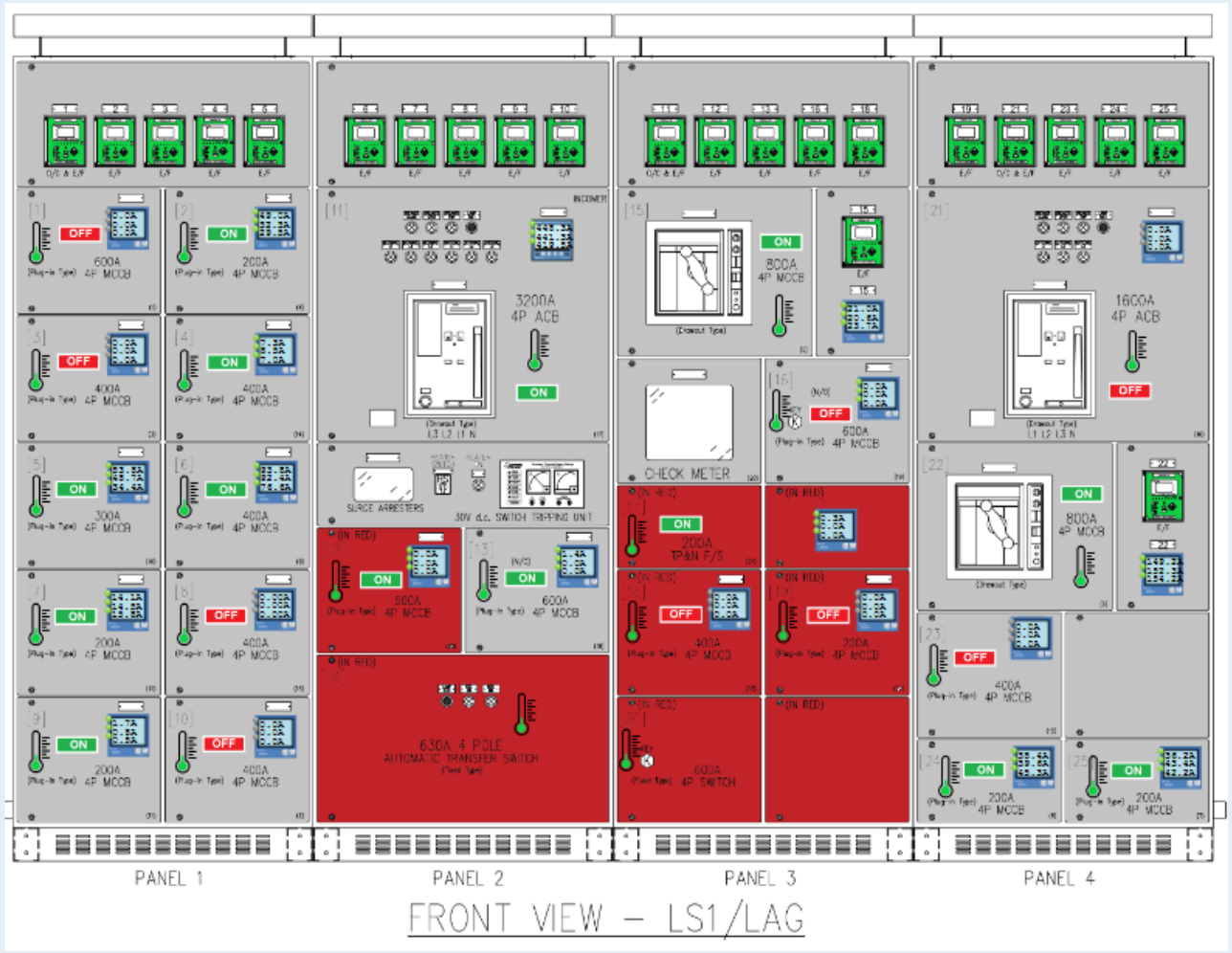
SCHEMATIC WIRING DIAGRAM



Switchboard Status

Legend

- Digital Power Analyzer
- Digital Power Meter
- IDMT Off
- IDMT On
- IDMT Warning
- IDMT Alarm
- Normal Temperature (< 40°C)
- High Temperature (>= 40°C & < 50°C)
- Abnormal Temperature (>= 50°C)
- ON Breaker On
- TRIP Breaker Trip
- OFF Breaker Off



Temp.	Breaker Status	Earth Leakage Current
1. 26.02	1. Off	1. 0.00A
2. 27.18	2. On	2. 6.40A
3. 26.42	3. Off	3. 0.00A
4. 26.75	4. On	4. 0.78A
5. 26.22	5. On	5. 4.40A
6. 26.7	6. On	6. 2.18A
7. 26.24	7. On	7. 0.60A
8. 26.03	8. Off	8. 0.00A
9. 25.23	9. On	9. 0.29A
10. 26.21	10. Off	10. 0.00A
11. 26.55	11. On	11. 7.62A
12. 26.3	12. On	12. 0.00A
13. 26.71	13. On	13. 0.32A
14. 25.47	15. On	15. 1.05A
15. 26.44	16. Off	16. 0.00A
16. 26.41	17. On	17. 0.07A
17. 26.13	18. Off	18. 0.00A
18. 26.39	19. Off	19. 0.00A
19. 26.12	21. Off	21. 0.00A
20. 25.5	22. On	22. 2.02A
21. 25.26	23. Off	23. 0.00A
22. 26.33	24. On	24. 1.93A
23. 26.06	25. On	25. 2.76A
24. 26.56		
25. 25.04		

Department Code
00:COMMUNIAL
17:HOUSEKEEPING
18:PRINTING & DUPLICATING/MAR
20:PLAMT MAINTENANCE CBS:CENTRAL BATTERY SYSTEM

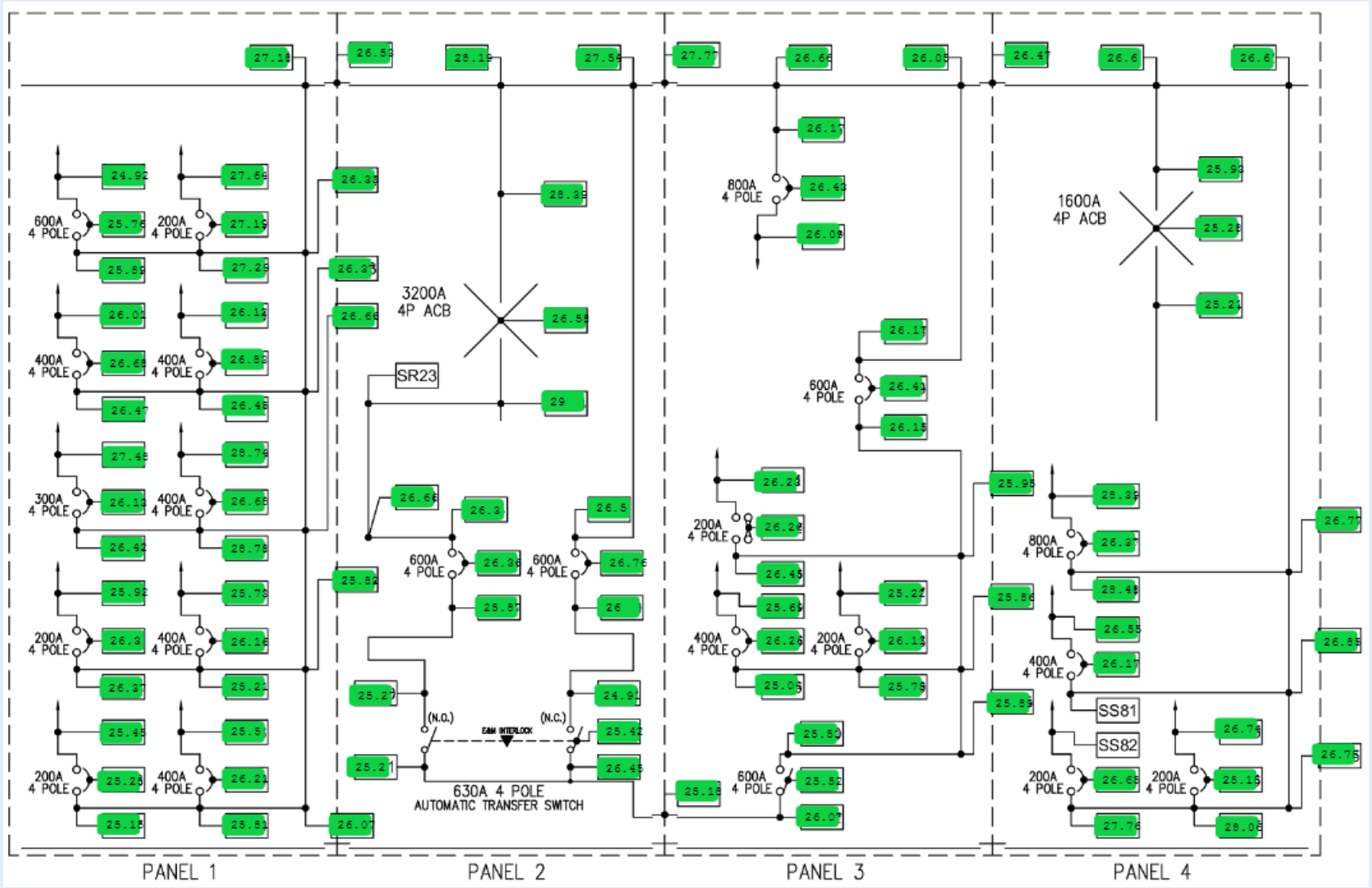
Busbar

Busbar Status

Legend

- -Normal Temperature (< 40 °C)
- -High Temperature (>= 40 °C & < 50 °C)
- -Abnormal Temperature (>= 50 °C)

Switchboard



Circuit Breaker (CB) Status

Show 10 entries

Search ...

Group	Name	IP	Port	Address	Model	Connection	Value	Time	Setting
LS1/LAG	630A 3P VCB FOR H.V. CHILLER NO.1 – ON/OFF	192.168.1.100	502	1	UMG 96-PA	OK	0	2019-12-11 11:50:40	Alert Setting
LS1/LAG	630A 3P VCB FOR H.V. CHILLER NO.1 – TRIP	192.168.1.100	502	1	UMG 96-PA	OK	0	2019-12-11 12:13:35	Alert Setting
LS1/LAG	630A 3P VCB FOR 1MV TX FOR SWP HOUSE – ON/OFF	192.168.1.100	502	2	UMG 96-PA	OK	0	2019-12-15 16:52:14	Alert Setting
LS1/LAG	630A 3P VCB FOR 1MV TX FOR SWP HOUSE – TRIP	192.168.1.100	502	2	UMG 96-PA	OK	0	2019-12-15 18:11:16	Alert Setting
LS1/LAG	630A 3P VCB FOR H.V. CHILLER NO.3 – ON/OFF	192.168.1.100	502	3	UMG 96-PA	OK	0	2019-12-18 09:12:51	Alert Setting
LS1/LAG	630A 3P VCB FOR H.V. CHILLER NO.3 – TRIP	192.168.1.100	502	3	UMG 96-PA	OK	0	2019-12-18 10:28:34	Alert Setting
LS1/LAG	630A 3P VCB FOR CLP INCOMER – ON/OFF	192.168.1.100	502	4	UMG 509-PRO	OK	0	2019-12-20 15:24:16	Alert Setting
LS1/LAG	630A 3P VCB FOR CLP INCOMER – TRIP	192.168.1.100	502	4	UMG 509-PRO	OK	0	2019-12-20 16:42:17	Alert Setting
LS1/LAG	630A 3P VCB FOR H.V. CHILLER NO.2 – ON/OFF	192.168.1.100	502	5	UMG 96-PA	OK	0	2019-12-25 08:05:21	Alert Setting
LS1/LAG	630A 3P VCB FOR H.V. CHILLER NO.2 – TRIP	192.168.1.100	502	5	UMG 96-PA	OK	0	2019-12-25 09:00:42	Alert Setting

Showing 1 to 10 of 24 entries

Previous 1 2 3 Next

Device Status

Device

Batch operation

Inactive Active

New

Show 10 entries

Search ...

#	Group	Name	IP	Port	Address	Model	Details	State	Field List	Connection	Device ID	T&C	Edit	Setting
☐	LS1/LAG	630A 3P VCB FOR H.V. CHILLER NO.1	192.168.1.100	502	1	UMG 98-PA	Details	Active	Field List	Online	1	T&C	Edit	Alert Setting
☐	LS1/LAG	630A 3P VCB FOR 1MV TX FOR SWP HOUSE	192.168.1.100	502	2	UMG 98-PA	Details	Active	Field List	Online	2	T&C	Edit	Alert Setting
☐	LS1/LAG	630A 3P VCB FOR H.V. CHILLER NO.3	192.168.1.100	502	3	UMG 98-PA	Details	Active	Field List	Online	3	T&C	Edit	Alert Setting
☐	LS1/LAG	630A 3P VCB FOR H.V. CHILLER NO.2	192.168.1.100	502	4	UMG 98-PA	Details	Active	Field List	Online	4	T&C	Edit	Alert Setting
☐	LS1/LAG	630A 3P VCB FOR SPARE	192.168.1.100	502	5	UMG 98-PA	Details	Active	Field List	Online	5	T&C	Edit	Alert Setting
☐	LS1/LAG	630A 3P VCB FOR INCOMER	192.168.1.100	502	6	UMG 509-PRO	Details	Active	Field List	Online	6	T&C	Edit	Alert Setting

Showing 1 to 6 of 6 entries

Previous 1 2 Next

- Overview
- Voltage & Current
- Power Quality
  - Phasor Diagram
  - Harmonic
- Trend
- Summary
- Residual Current Monitoring
- Heatmap Analysis
- Sankey Diagram
- Analyser Display
- Energy & Demand
- Prediction Chart
- Alert Setting
- Report

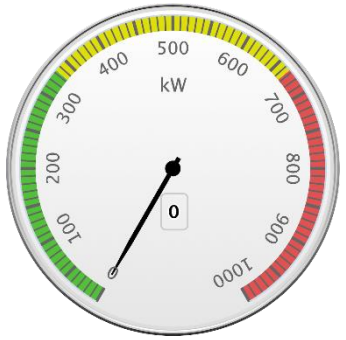
11kV, 630A 3P Incoming VCB

Refresh Time 2 second

Online Value

Active Power	18.60 kW
Apparent Power	20.48 kVA
Power Factor	0.91
Reactive Power	8.32 kVAr
Voltage	L1-L2 : 11430 V L2-L3 : 11345 V L3-L1 : 11264 V
Current	L1: 35.66 A L2: 27.67 A L3: 28.69 A N: 11.06 A Earth Leakage: 3.35 A

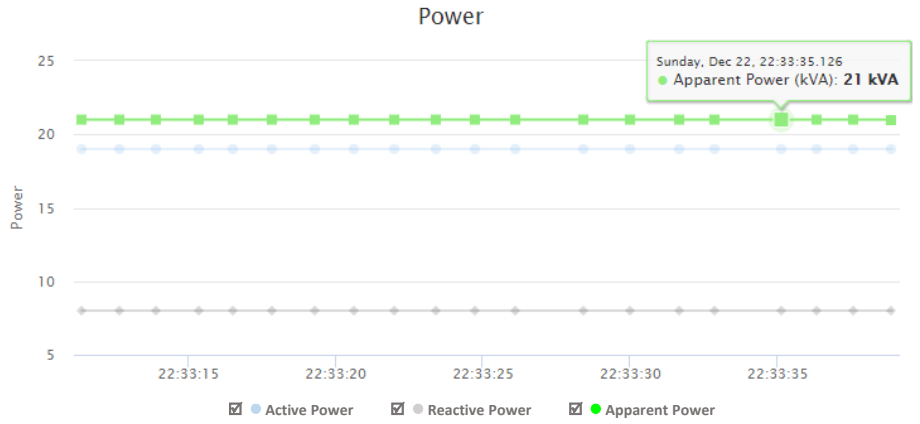
Online Active Power



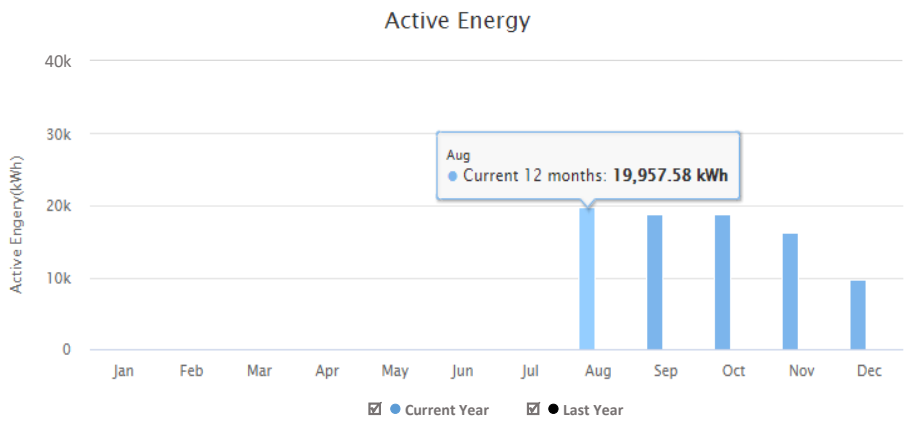
Energy Consumption

Today	342.62 kWh
Yesterday	452.42 kWh
Current Month	9695.97 kWh
Last Month	16382.05 kWh
Current Year	83681.97 kWh
Last Year	0.00 kWh

Online Data



Historical Data



- Overview
- Voltage & Current
- Power Quality
  - Phasor Diagram
  - Harmonic
- Trend
- Summary
- Residual Current Monitoring
- Heatmap Analysis
- Sankey Diagram
- Analyser Display
- Energy & Demand
- Prediction Chart
- Alert Setting
- Report

11kV, 630A 3P Incoming VCB

Refresh Time 2 second

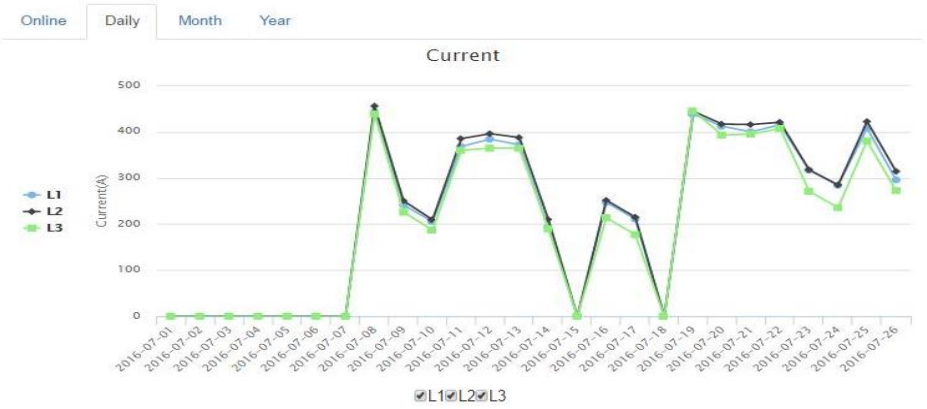
Voltage (V)

	Online	Average	Maximum	Minimum
L1-L2	11257	10997	11052	10968
L2-L3	11124	10997	11124	10831
L3-L1	11321	11032	11467	10597

Current (A)

	Online	Average	Maximum	Minimum
L1	30.43	32.40	33.56	31.27
L2	29.48	28.76	29.58	28.50
L3	30.42	30.22	30.51	29.21

Online Data



- Overview
- Voltage & Current
- Power Quality
  - Phasor Diagram
  - Harmonic
- Trend
- Summary
- Residual Current Monitoring
- Heatmap Analysis
- Sankey Diagram
- Analyser Display
- Energy & Demand
- Prediction Chart
- Alert Setting
- Report

11kV, 630A 3P Incoming VCB

Refresh Time 2 second

Power Factor (Cos θ)

	Online	Average	Maximum	Minimum
L1-L2	0.95	0.95	1.00	-1.00
L2-L3	0.94	0.92	1.00	-1.00
L3-L1	0.91	0.91	1.00	-1.00

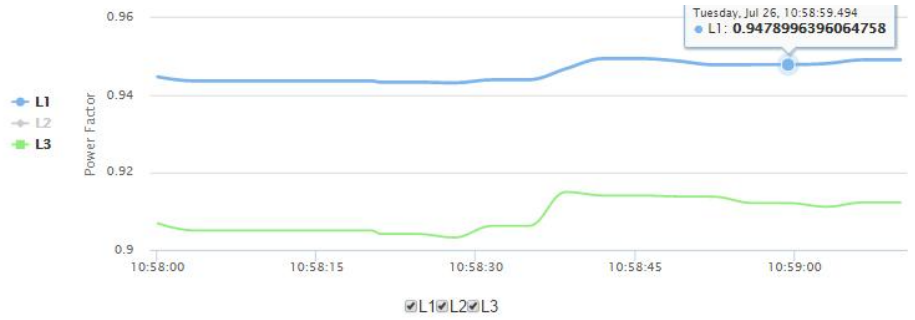
Total Harmonic Distortion (THD_I) (%)

	Online	Average	Maximum	Minimum
L1-L2	10.06	10.00	624.83	
L2-L3	8.28	8.33	622.75	
L3-L1	7.47	7.68	624.5	

Chart

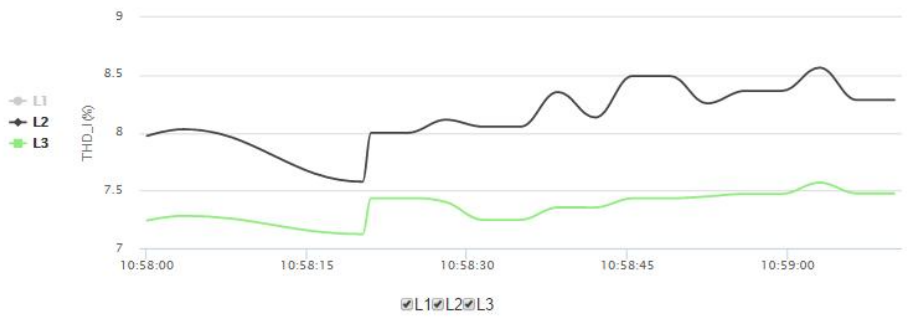
Online | Daily | Month | Year

Power Factor



Online | Daily | Month | Year

Total Harmonic Distortion (THD_I)

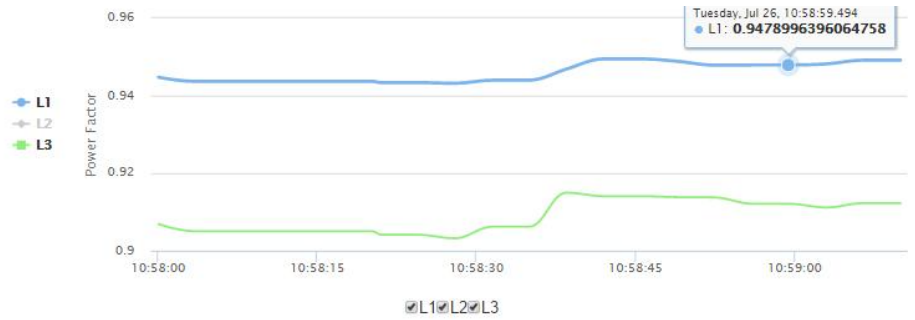


Overview
Voltage & Current
Power Quality
Phasor Diagram
Harmonic
Trend
Summary
Residual Current Monitoring
Heatmap Analysis
Sankey Diagram
Analyser Display
Energy & Demand
Prediction Chart
Alert Setting
Report

Chart

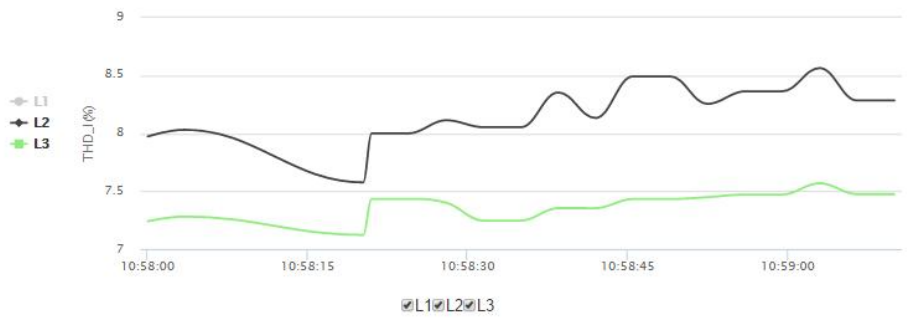
Online | Daily | Month | Year

Power Factor



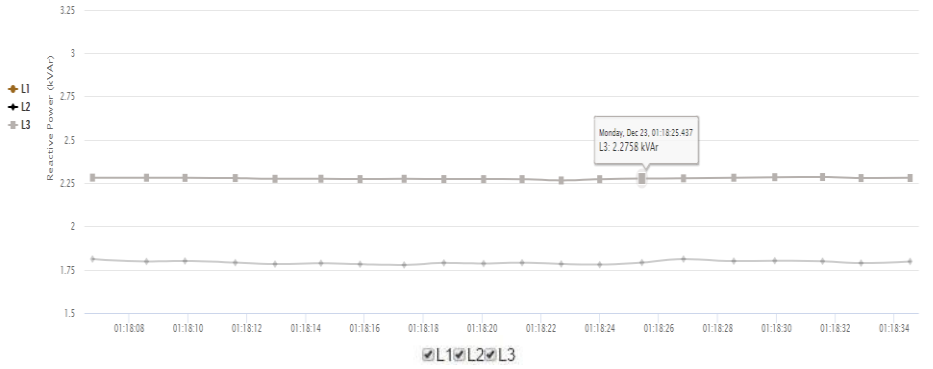
Online | Daily | Month | Year

Total Harmonic Distortion of Current (THD_I)



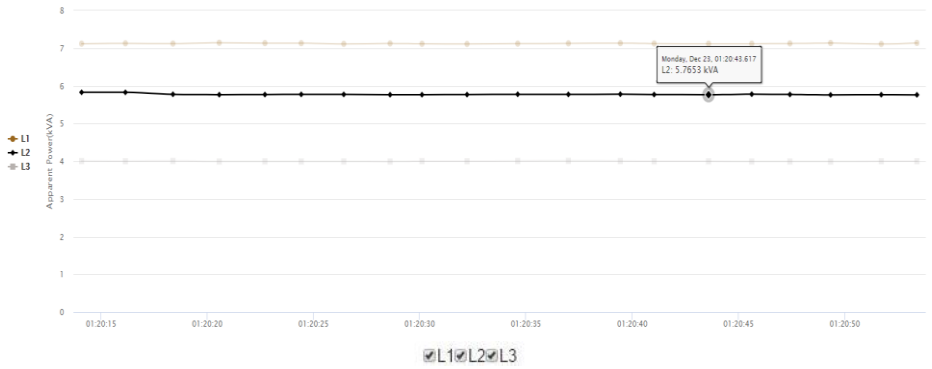
Online | Daily | Month | Year

Reactive Power



Online | Daily | Month | Year

Apparent Power (kVA)

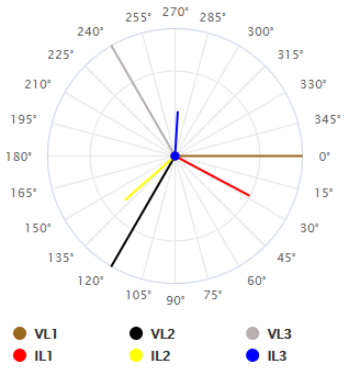


Overview
Voltage & Current
Power Quality
Phasor Diagram
Harmonic
Trend
Summary
Residual Current Monitoring
Heatmap Analysis
Sankey Diagram
Analyser Display
Energy & Demand
Prediction Chart
Alert Setting
Report

11kV, 630A 3P Incoming VCB

Refresh Time 2 second

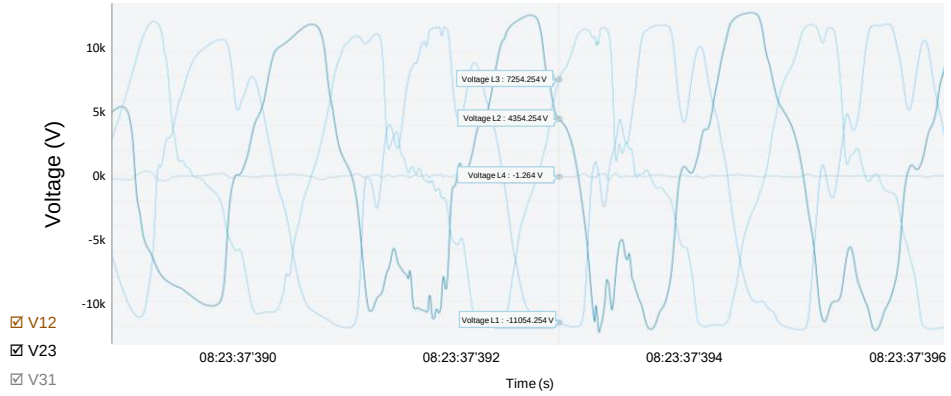
Phasor Diagram



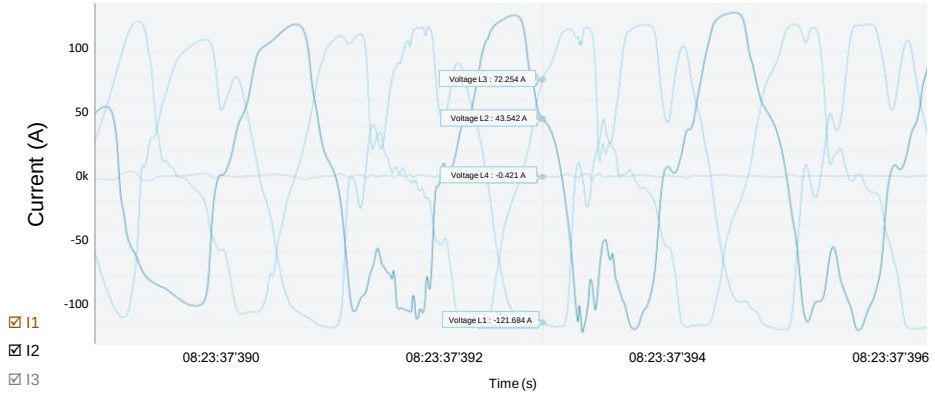
Parameter of Phasor Diagram

	Voltage (V)	Current (A)	Angles (Degree)	Power Factor (ϕ)	Reactive Power (kVAr)
L1-L2	11005	26.5	29.31°	0.87	3.53
L2-L3	11015	28.4	18.29°	0.95	1.94
L3-L1	11045	21.7	22.41°	0.83	2.36
Unbalance	0.5%	1.2%	--	0.89	--

Input Line to Line Voltage (Instantaneous Waveform)



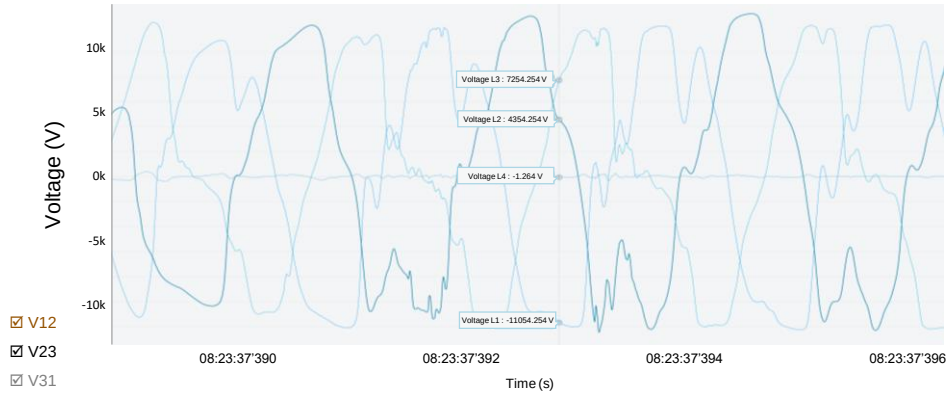
Line Current (Instantaneous Waveform)



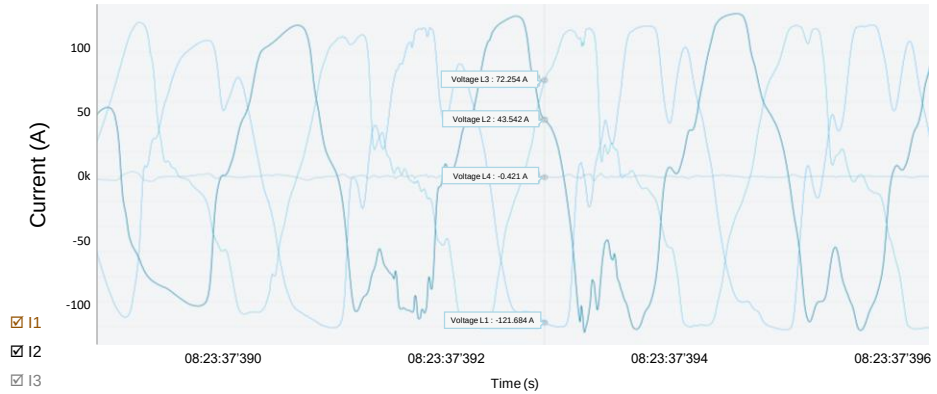
Overview
Voltage & Current
Power Quality
Phasor Diagram
Harmonic
Trend
Summary
Residual Current Monitoring
Heatmap Analysis
Sankey Diagram
Analyser Display
Energy & Demand
Prediction Chart
Alert Setting
Report

VL1 VL2 VL3
IL1 IL2 IL3

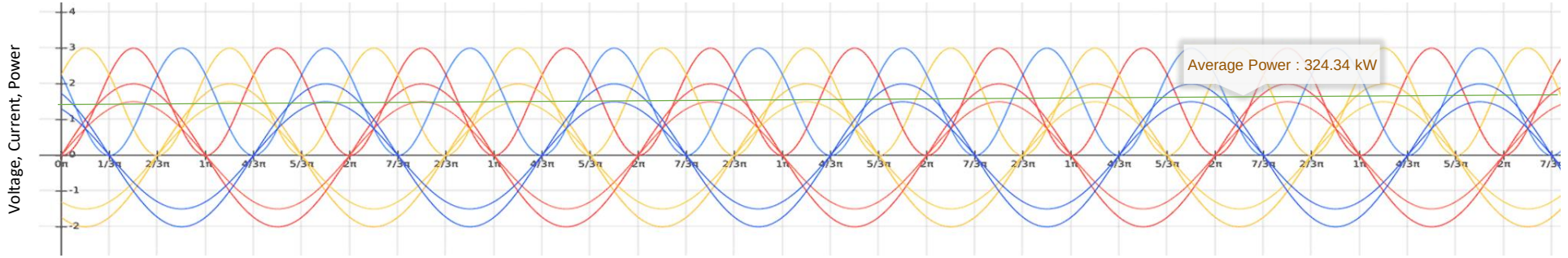
Phase Voltage (Instantaneous Waveform)



Line Current (Instantaneous Waveform)



Phase Voltage, Line Current and Active Power (Instantaneous Waveform)



Phase Voltage ☑ V12 ☑ V23 ☑ V31
Line Current ☑ I1 ☑ I2 ☑ I3
Active Power ☑ P1 ☑ P2 ☑ P3

Overview
Voltage & Current
Power Quality
Phasor Diagram
Harmonic
Trend
Summary
Residual Current Monitoring
Heatmap Analysis
Sankey Diagram
Analyser Display
Energy & Demand
Prediction Chart
Alert Setting
Report

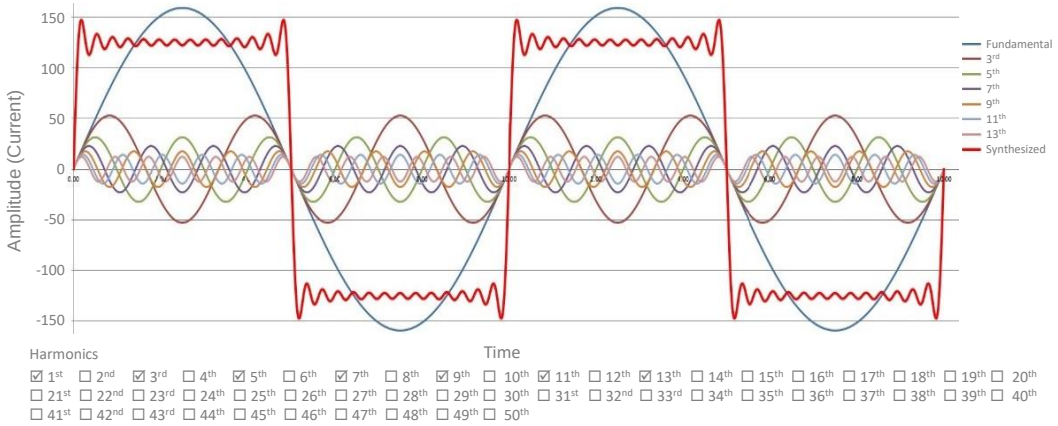
11kV, 630A 3P Incoming VCB

Refresh Time 2 second

Online Value

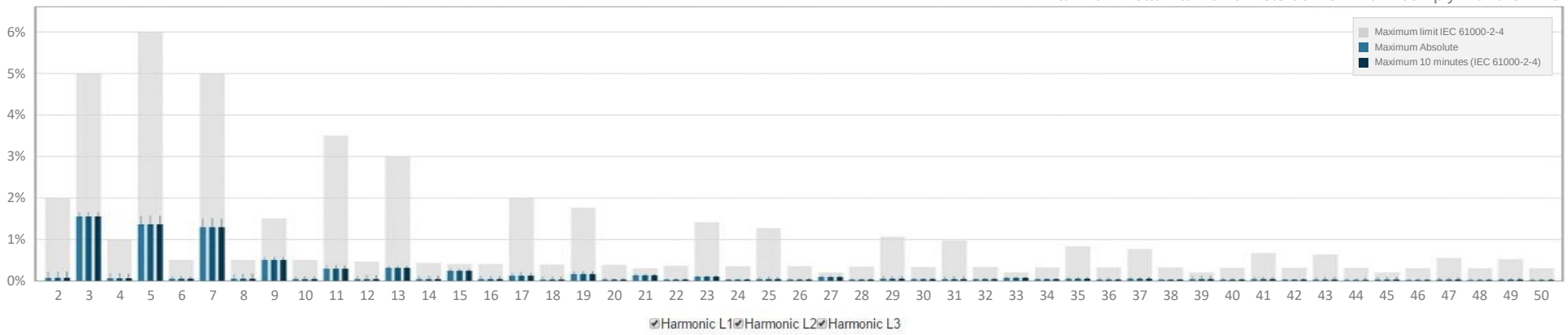
	Voltage (R.M.S.)	Current (R.M.S.)	THD_I (%)	Crest Factor
L1-(L2)	11005	26.5	10.06	1.00
L2-(L3)	11015	28.4	8.28	1.00
L3-(L1)	11045	21.7	7.47	1.00

Fundamental Sinewave plus Harmonics



Individual Harmonic Components

Maximum Total Harmonic Distortion is 12% in comply with the BEC



- Overview
- Voltage & Current
- Power Quality
  - Phasor Diagram
  - Harmonic
- Trend
- Summary
- Residual Current Monitoring
- Heatmap Analysis
- Sankey Diagram
- Analyser Display
- Energy & Demand
- Prediction Chart
- Alert Setting
- Report

11kV, 630A 3P Incoming VCB

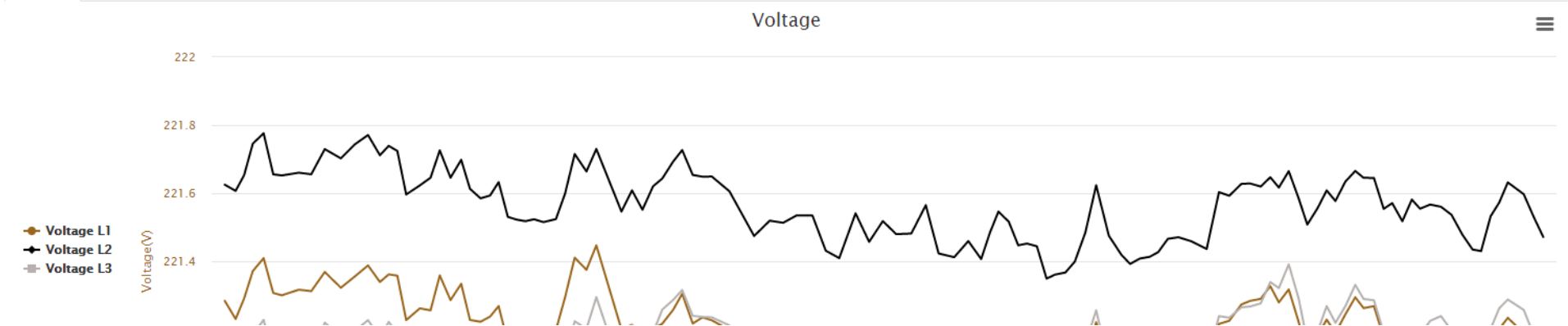
Refresh Time 2 second

Online Value

	Voltage (V)	Current (A)	Active Power (kW)	Reactive Power (kVAr)	Power Factor (ϕ)	Apparent Power (kVA)	Temperature (°C)
L1 (L2)	11005	26.5	431	3.53	0.87	291	27.36
L2 (L3)	11015	28.4	505	1.94	0.95	312	
L3 (L1)	11045	21.7	338	2.36	0.83	240	
Earth Leakage Current	10	0.8	--	--	--	--	
RCM	22	0.3	--	--	--	--	
Unbalance	0.5%	1.2%	--	--	0.89	--	

Chart

Online | Historical

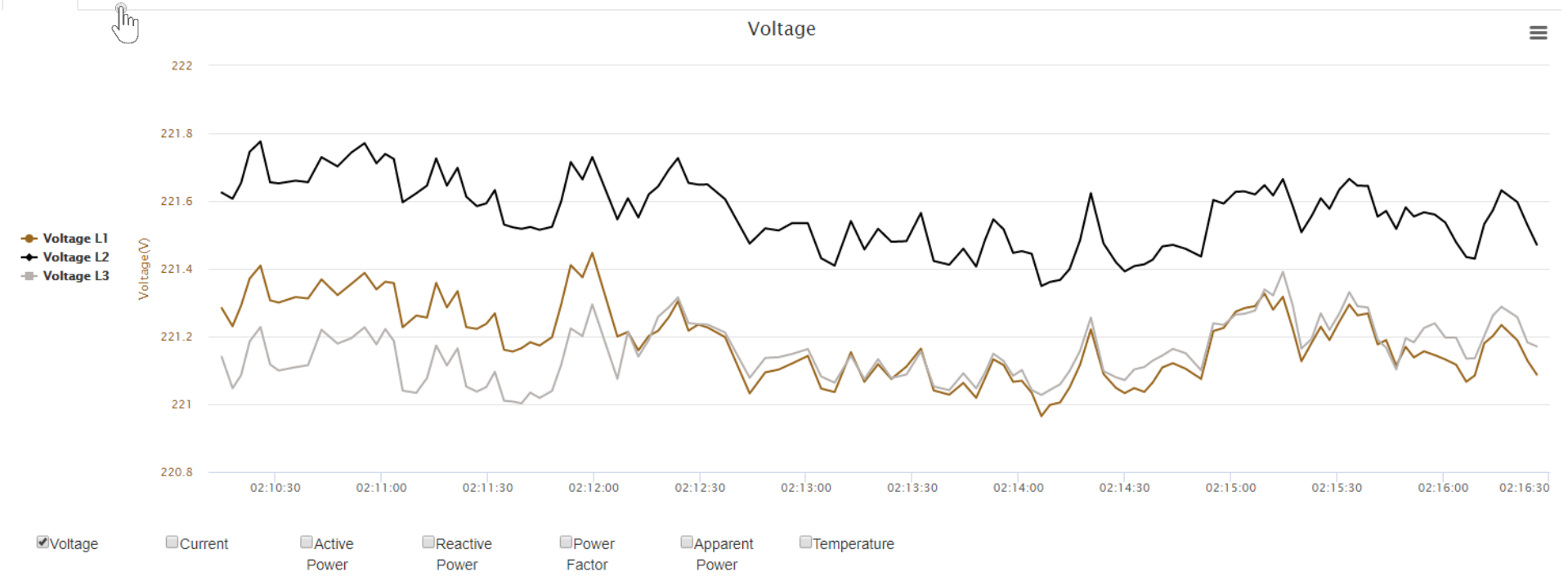


Overview
Voltage & Current
Power Quality
Phasor Diagram
Harmonic
Trend
Summary
Residual Current Monitoring
Heatmap Analysis
Sankey Diagram
Analyser Display
Energy & Demand
Prediction Chart
Alert Setting
Report

L2 (L3)	11015	28.4	505	1.94	0.95	312
L3 (L1)	11045	21.7	338	2.36	0.83	240
Earth Leakage Current	10	0.8	--	--	--	--
RCM	22	0.3	--	--	--	--
Unbalance	0.5%	1.2%	--	--	0.89	--

Chart

Online | Historical



L2 (L3)	11015	28.4	505	1.94	0.95	312
L3 (L1)	11045	21.7	338	2.36	0.83	240
Earth Leakage Current	10	0.8	--	--	--	--
RCM	22	0.3	--	--	--	--
Unbalance	0.5%	1.2%	--	--	0.89	--

- Overview
- Voltage & Current
- Power Quality
  - Phasor Diagram
  - Harmonic
- Trend
- Summary
- Residual Current Monitoring
- Heatmap Analysis
- Sankey Diagram
- Analyser Display
- Energy & Demand
- Prediction Chart
- Alert Setting
- Report

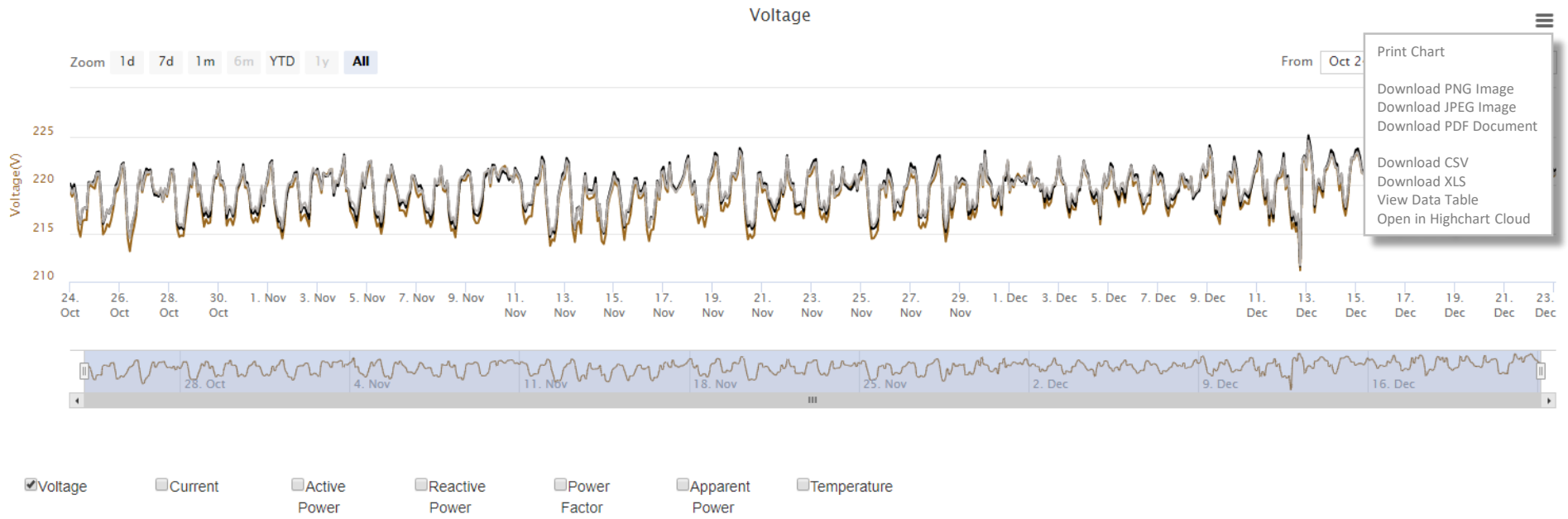
Chart

Online | Historical

Start Date 24/10/2019 End Date 23/12/2019 Search

December 2019

Su	Mo	Tu	We	Th	Fr	Sa
24	25	26	27	28	29	30
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31	1	2	3	4



☑ Voltage ☐ Current ☐ Active Power ☐ Reactive Power ☐ Power Factor ☐ Apparent Power ☐ Temperature

Overview
Voltage & Current
Power Quality
Phasor Diagram
Harmonic
Trend
Summary
Residual Current Monitoring
Heatmap Analysis
Sankey Diagram
Analyser Display
Energy & Demand
Prediction Chart
Alert Setting
Report

11kV, 630A 3P Incoming VCB

Refresh Time 2 second

General Information

Device	: 11KV, 630A 3P Incomer from CLP Power Supply
Model	: Janitza / UMG 509-PRO
IP Address	: 192.168.1.100
Port	: 502
Connection	: Online

Voltage (V)

Line	Voltage (V)	Phase	Voltage (V)
L1 - L2	11005	L1 - N	--
L2 - L3	11015	L2 – N	--
L3 - L1	11045	L3 – N	--

Current, Power Factor & THD

Line	Current (A)	Power Factor	THD_U (%)	THD_I (%)
L1	26.5	0.87	0.86	5.24
L2	28.4	0.96	1.15	9.52
L3	21.7	0.84	0.80	11.93
N / Total	21.8	0.89	--	--
Earth Leakage Current	6.85	--	--	--
RCM	0.00	--	--	--
Unbalance	1.2%	--	--	--

Power

Phase	Active (kW)	Apparent (kVA)	Reactive (kVAr)
L1	6.57	7.61	3.82
L2	6.56	6.86	1.91
L3	3.61	4.30	2.28
Total	16.74	18.77	8.01

Frequency	49.99 Hz

Overview
Voltage & Current
Power Quality
Phasor Diagram
Harmonic
Trend
Summary
Residual Current Monitoring
Heatmap Analysis
Sankey Diagram
Analyser Display
Energy & Demand
Prediction Chart
Alert Setting
Report

Current, Power Factor & THD

Line	Current (A)	Power Factor	THD_U (%)	THD_I (%)
L1	26.5	0.87	0.86	5.24
L2	28.4	0.96	1.15	9.52
L3	21.7	0.84	0.80	11.93
N / Total	21.8	0.89	--	--
Earth Leakage Current	6.85	--	--	--
RCM	0.00	--	--	--
Unbalance	1.2%	--	--	--

Power

Phase	Active (kW)	Apparent (kVA)	Reactive (kVAr)
L1	6.57	7.61	3.82
L2	6.56	6.86	1.91
L3	3.61	4.30	2.28
Total	16.74	18.77	8.01

Frequency	49.99 Hz

Individual Harmonics Current

Order/ Phase	1 (A)	3 (A)	5 (A)	7 (A)	9 (A)	11 (A)	13 (A)	15 (A)	17 (A)	19 (A)	21 (A)	23 (A)	25 (A)	27 (A)	29 (A)	31 (A)	33 (A)	35 (A)	37 (A)	39 (A)	41 (A)	43 (A)	45 (A)	47 (A)	49 (A)	51 (A)	53 (A)	55 (A)	57 (A)	59 (A)	61 (A)	63 (A)
L1	487.47	3.73	14.60	4.13	2.80	1.60	2.06	1.21	1.29	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
L2	488.20	13.74	12.64	6.32	2.74	2.19	1.77	1.34	1.77	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
L3	511.17	5.54	17.57	7.89	2.43	1.16	2.91	1.16	1.46	1.34	0.00	0.00	1.06	0.00	0.00	0.00	1.06	0.00	0.00	0.00	1.06	0.00	0.00	0.00	1.06	0.00	0.00	0.00	0.00	0.00	1.06	0.00

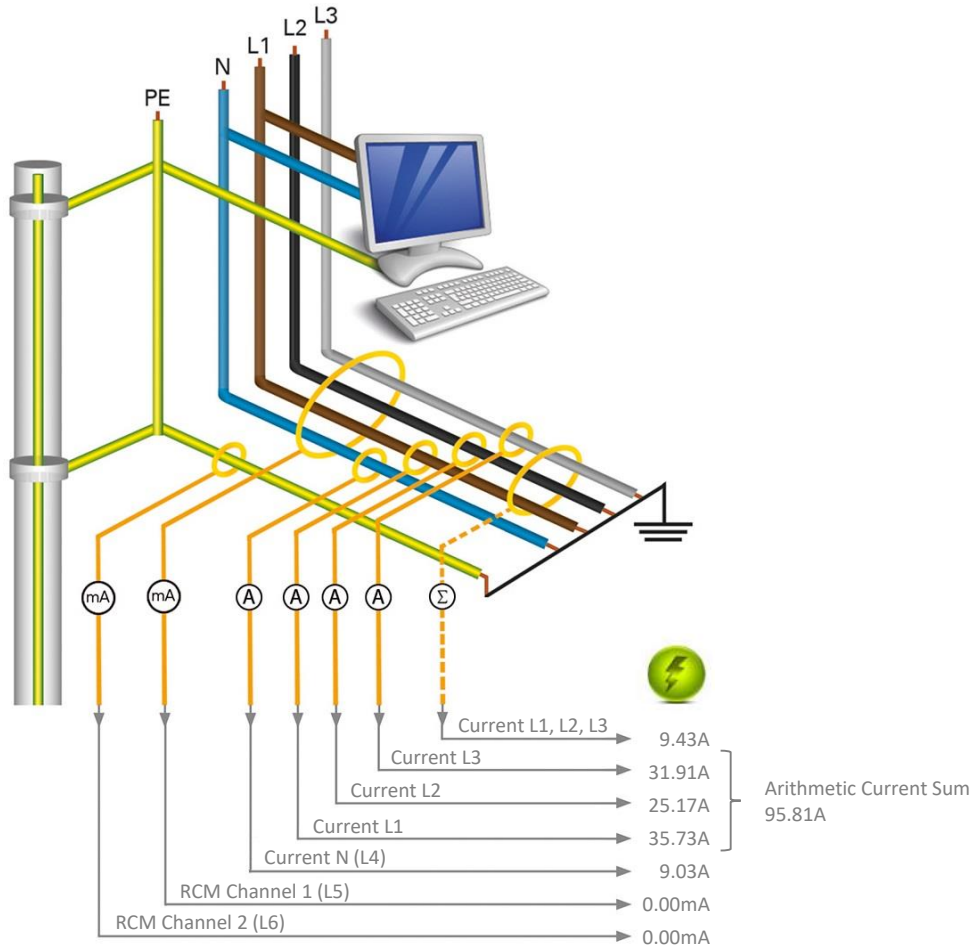
Overview
Voltage & Current
Power Quality
Phasor Diagram
Harmonic
Trend
Summary
Residual Current Monitoring
Heatmap Analysis
Sankey Diagram
Analyser Display
Energy & Demand
Prediction Chart
Alert Setting
Report

11kV, 630A 3P Incoming VCB

Refresh Time 2 second

Live Value

Absolute Value	Actual Value
RCM Channel 1 (L5)	0.00 mA
RCM Channel 2 (L6)	0.00 mA



Overview
Voltage & Current
Power Quality
Phasor Diagram
Harmonic
Trend
Summary
Residual Current Monitoring
Heatmap Analysis
Sankey Diagram
Analyser Display
Energy & Demand
Prediction Chart
Alert Setting
Report

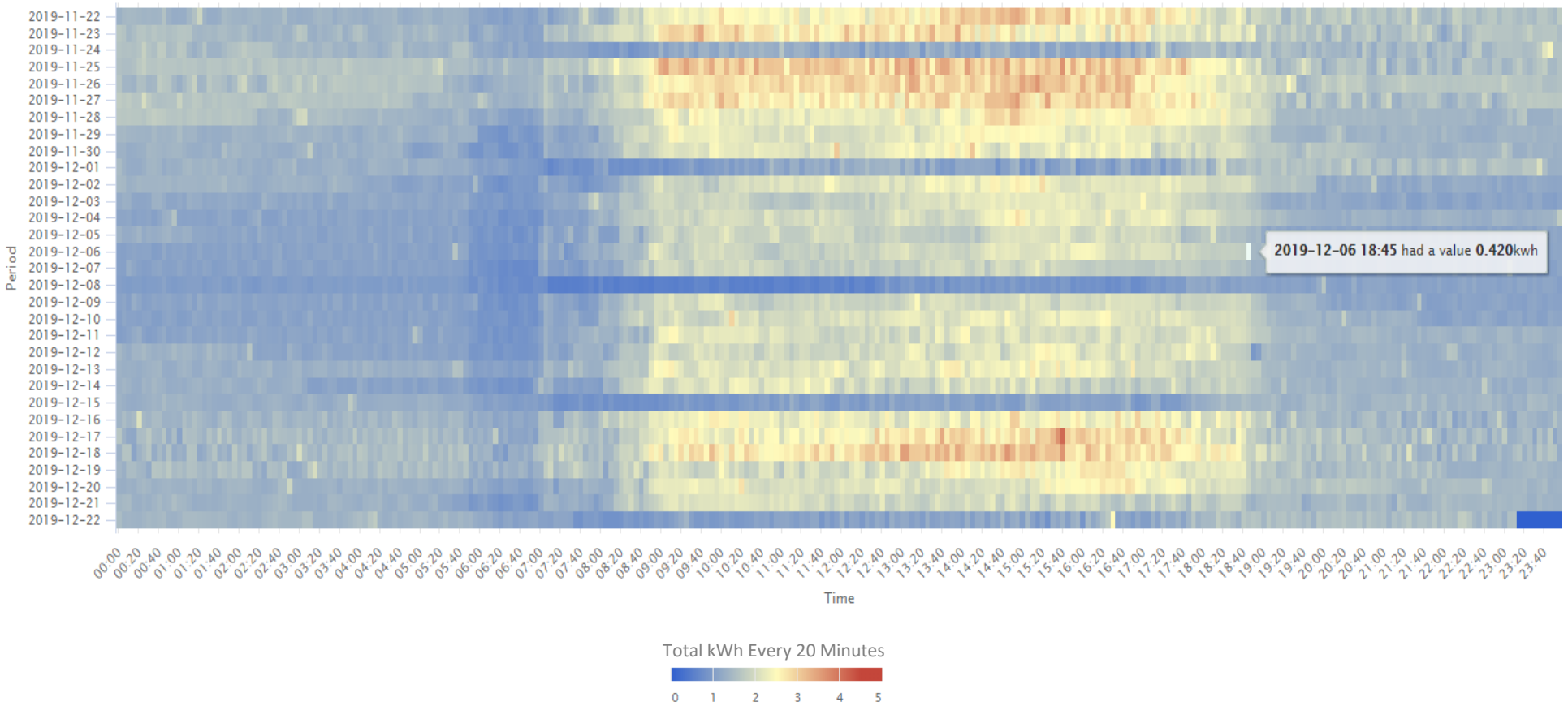
11kV, 63 Incoming VCB

Heatmap Analysis of Energy Consumption

Start Date 22/11/2019 End Date 22/12/2019 Search Previous Next

December 2019

Su	Mo	Tu	We	Th	Fr	Sa
24	25	26	27	28	29	30
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31	1	2	3	4



Overview
Voltage & Current
Power Quality
Phasor Diagram
Harmonic
Trend
Summary
Residual Current Monitoring
Heatmap Analysis
Sankey Diagram
Analyser Display
Energy & Demand
Prediction Chart
Alert Setting
Report

11kV, 63 Incoming VCB

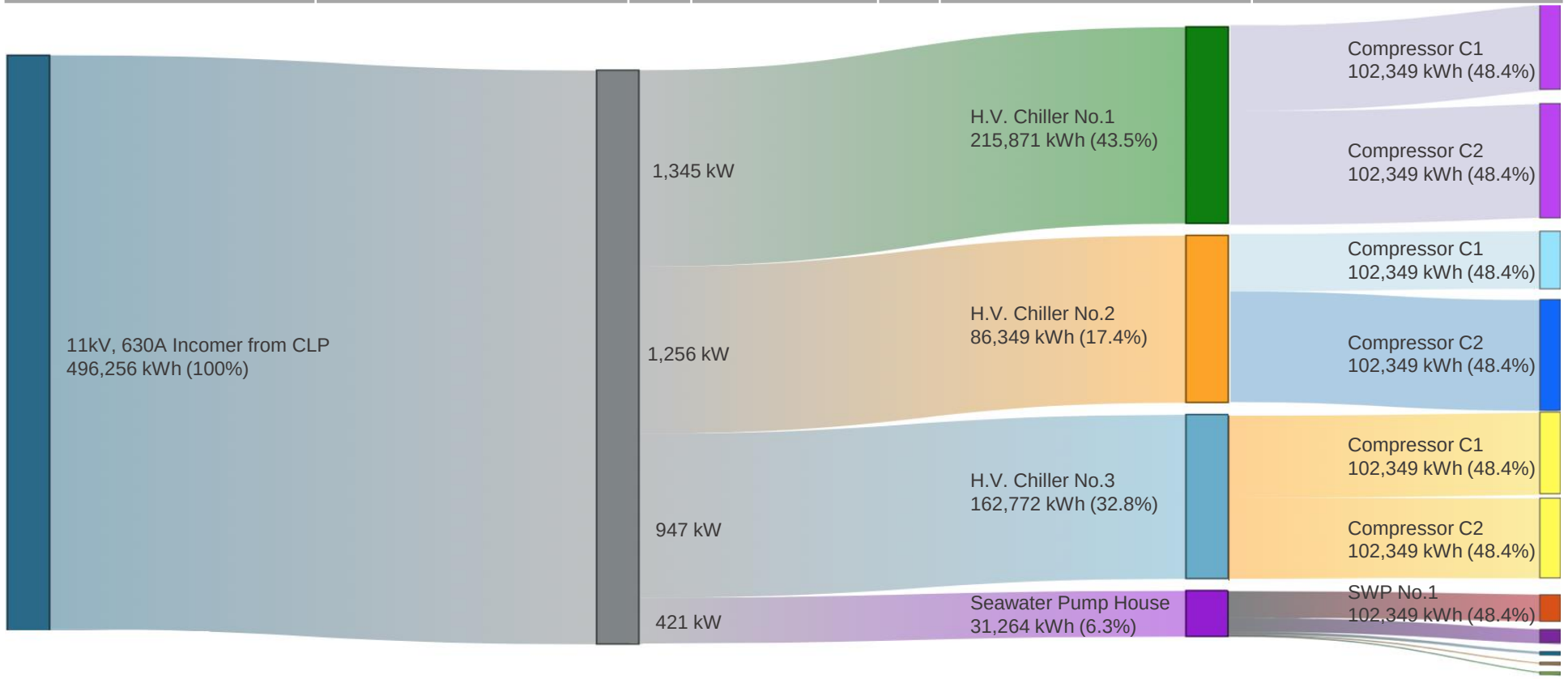
« December 2019 »

Su	Mo	Tu	We	Th	Fr	Sa
24	25	26	27	28	29	30
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31	1	2	3	4

Sankey Diagram of Energy Consumption

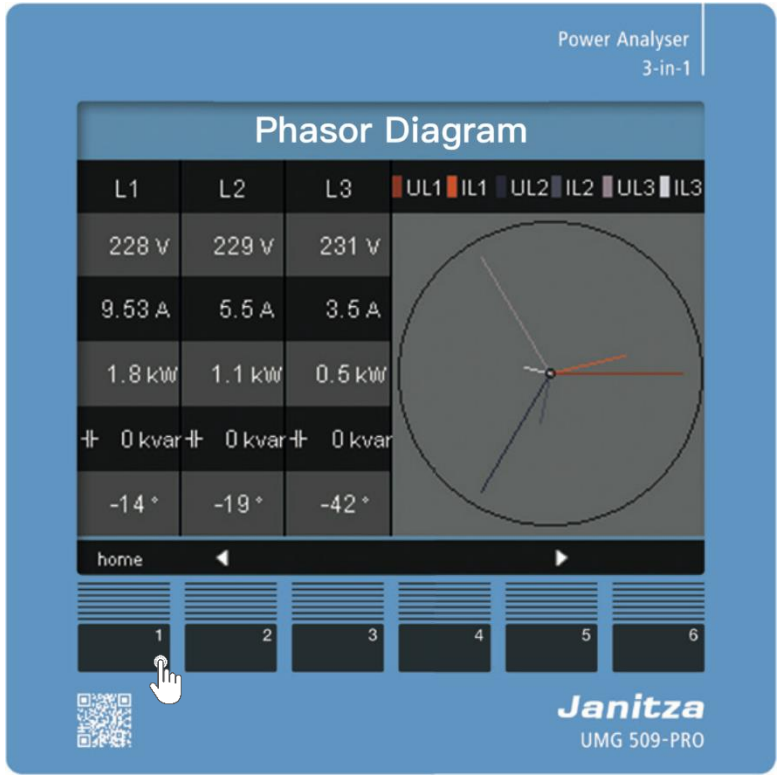
Start Date 24/11/2019 End Date 23/12/2019 Search Previous Next

Live | << | 5 Second | >> | Active Power



Overview
Voltage & Current
Power Quality
Phasor Diagram
Harmonic
Trend
Summary
Residual Current Monitoring
Heatmap Analysis
Sankey Diagram
Analyser Display
Energy & Demand
Prediction Chart
Alert Setting
Report

11kV, 630A 3P Incoming VCB

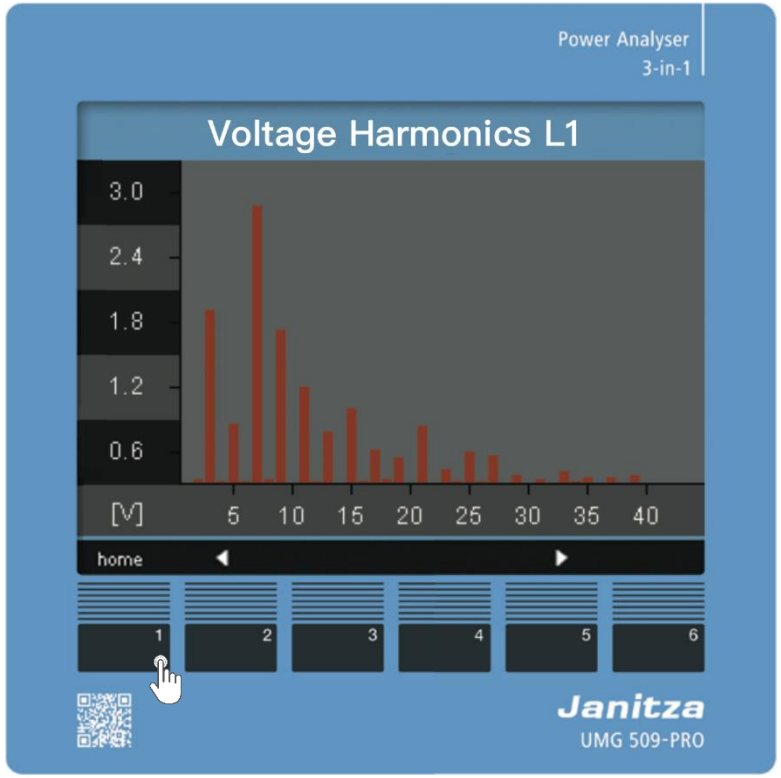


Live Device Overview

Display of power analyser "Janitza UMG 509-PRO" for 11kV, 630A 3P Incoming Vacuum Circuit Breaker (VCB) is shown on the left, this image matches the device display at all times. By pressing the six buttons in the bottom of display with the mouse, you are able to tele-control the device directly.

Overview
Voltage & Current
Power Quality
Phasor Diagram
Harmonic
Trend
Summary
Residual Current Monitoring
Heatmap Analysis
Sankey Diagram
Analyser Display
Energy & Demand
Prediction Chart
Alert Setting
Report

11kV, 630A 3P Incoming VCB



Live Device Overview

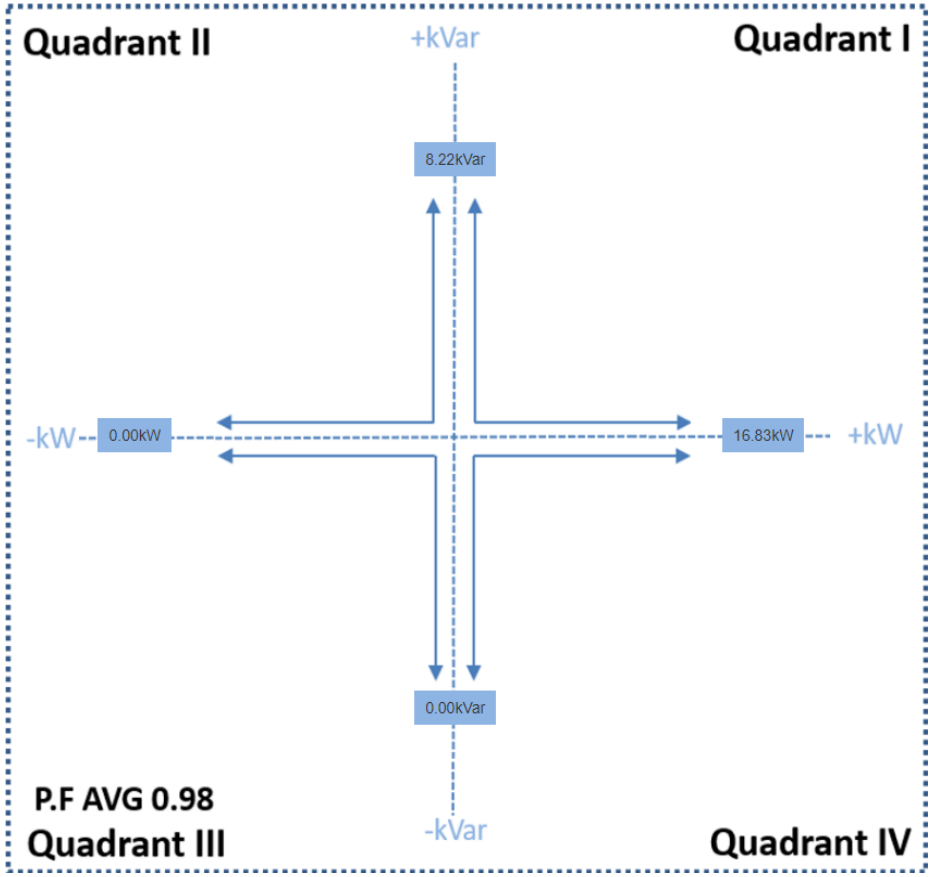
Display of power analyser "Janitza UMG 509-PRO" for 11kV, 630A 3P Incoming Vacuum Circuit Breaker (VCB) is shown on the left, this image matches the device display at all times. By pressing the six buttons in the bottom of display with the mouse, you are able to tele-control the device directly.

Overview
Voltage & Current
Power Quality
Phasor Diagram
Harmonic
Trend
Summary
Residual Current Monitoring
Heatmap Analysis
Sankey Diagram
Analyser Display
Energy & Demand
Prediction Chart
Alert Setting
Report

11kV, 630A 3P Incoming VCB

Refresh Time 2 second

Instantaneous Power



Energy & Demand

Sliding Window Demand

	kW	kVar	KVA
Consumed	16.83	8.22	18.94

Energy

	kWh	kVarh	kVAh
Consumed	148160.77	36762.14	
Supplied		62.63	
Cons. – Sup	148160.77	36699.51	
Cons. + Sup	148160.77	36824.77	

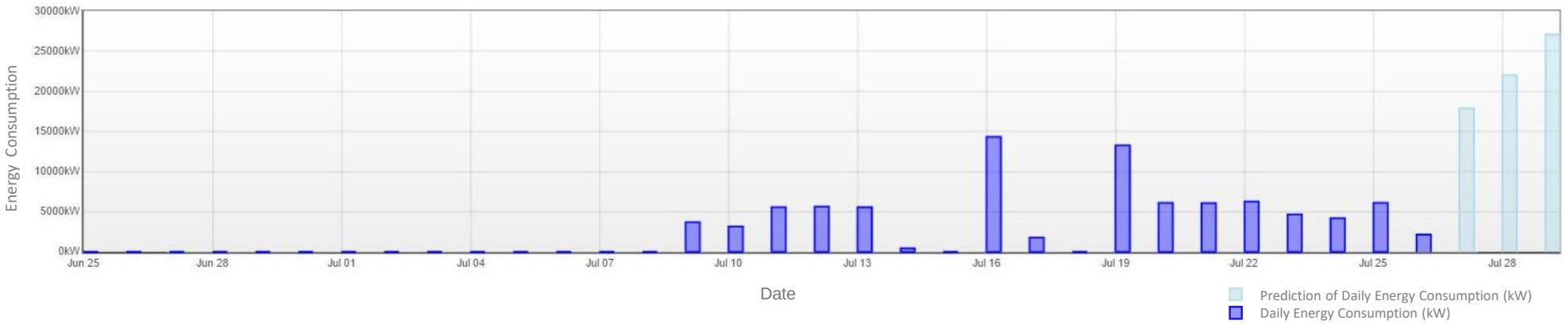
Sequence

	V	A
Positive	0.22	0.03
Negative	0.00	0.00
Zero	0.00	0.01

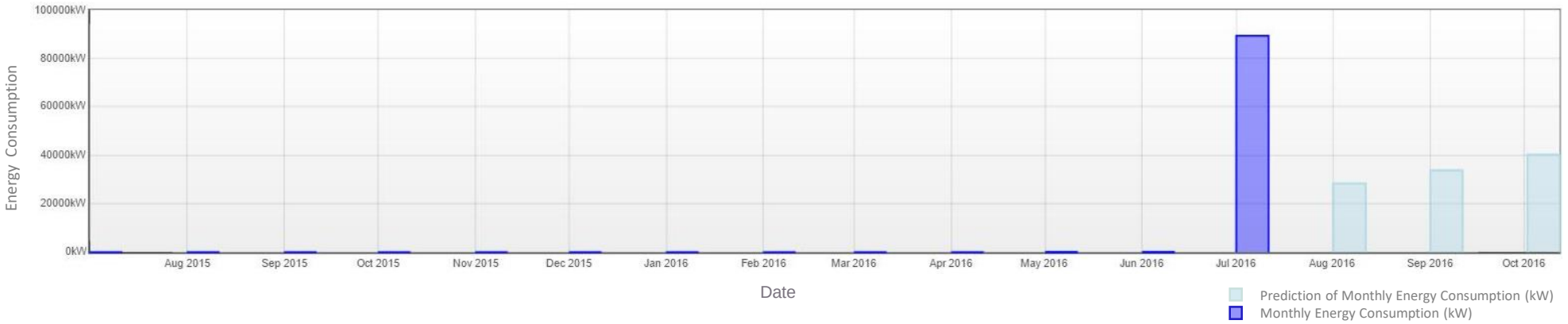
- Overview
- Voltage & Current
- Power Quality
  - Phasor Diagram
  - Harmonic
- Trend
- Summary
- Residual Current Monitoring
- Heatmap Analysis
- Sankey Diagram
- Analyser Display
- Energy & Demand
- Prediction Chart
- Alert Setting
- Report

11kV, 630A 3P Incoming VCB

Daily Energy Consumption Prediction



Monthly Energy Consumed Prediction



Overview
Voltage & Current
Power Quality
Phasor Diagram
Harmonic
Trend
Summary
Residual Current Monitoring
Heatmap Analysis
Sankey Diagram
Analyser Display
Energy & Demand
Prediction Chart
Alert Setting
Report

11kV, 630A 3P Incoming VCB

Setting Details

Alert Group

Line	Under Voltage	Over Voltage	Over Current	Lower Power Factor	Enable
L1-(L2)	Below this value … V	Above this value … V	Above this value … A	Above this value …	☑
L2-(L3)	Below this value … V	Above this value … V	Above this value … A	Above this value …	☐
L3-(L1)	Below this value … V	Above this value … V	Above this value … A	Above this value …	☐

Unbalance	Above this value … % Current Unbalance in three-phase 4-wire installation is given by : $I_u = (I_d \times 100) / I_a$ where I_u = percentage current unbalance I_d = maximum current deviation from the average current I_a = average current among three phases Maximum current unbalance (unbalanced single-phase loads distribution) should not exceed 10% in compliance with BEC 2018.	☑

Save

General Report
Power Consumption Report
Voltage Report
Current Report
Graph Report
Auto Generated Report

General Report

*From Date
2019-1
December 2019
Su Mo Tu We Th Fr Sa
24 25 26 27 28 29 30
1 2 3 4 5 6 7
8 9 10 11 12 13 14
15 16 17 18 19 20 21
22 23 24 25 26 27 28
29 30 31 1 2 3 4
0

*To Date
2019-12-20
23
59

*Field Selection All ☐
Voltage L1-L2 (V)
Voltage L2-L3 (V)
Voltage L3-L1 (V)
Voltage L1-N (V)
Voltage L2-N (V)
Voltage L3-N (V)
Current L1 (A)
Current L2 (A)
Current L3 (A)
Current N (A)
Active Power L1 (kW)

Record Period
All Record

Report Format
CSV

Generate

By Device | By Tag | By Customer

Selectable Items
Search ...
11kV H.V. CHILLER PLANT
400A INCOMING ACB
400A H.V. CHILLER NO.1
400A H.V. CHILLER NO.3
100A 1MV TRANSFORMER FOR SWP
400A H.V. SPARE

Selected Items
Search ...
11kV H.V. CHILLER PLANT
400A H.V. CHILLER NO.2

General Report
Power Consumption Report
Short by Day
Short by Time
Voltage Report
Current Report
Graph Report

Auto Generated Report

Power Consumption Report (Short by Day)

*From Date
2019-1

December 2019

Su	Mo	Tu	We	Th	Fr	Sa
24	25	26	27	28	29	30
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31	1	2	3	4

*To Date
2019-12-23

Period
Whole Period

Generate

By Device | By Tag | By Customer

Selectable Items
Search ...

Meter Devices
- 400A INCOMING ACB
- 400A H.V. CHILLER NO.1
- 400A H.V. CHILLER NO.2
- 400A H.V. CHILLER NO.3
- 100A 1MV TRANSFORMER FOR SWP
- 400A H.V. SPARE

Selected Items
Search ...

General Report
Power Consumption Report
Short by Day
Short by Time
Voltage Report
Current Report
Graph Report
Auto Generated Report

Power Consumption Report (Short by Time)

*From Date
2019-1
December 2019
Su Mo Tu We Th Fr Sa
24 25 26 27 28 29 30
1 2 3 4 5 6 7
8 9 10 11 12 13 14
15 16 17 18 19 20 21
22 23 24 25 26 27 28
29 30 31 1 2 3 4
0
*To Date
2019-12-23
23
59
49
50
51
52
53
54
55
56
57
58
59
Whole Period
Gene

By Device | By Tag | By Customer
Add
Remove

General Report
Power Consumption Report
Short by Day
Short by Time
Voltage Report
Current Report
Graph Report
Auto Generated Report

Power Consumption Report (Short by Time)

*From Date
2019-12-17
0
0

*To Date
2019-12-23
23
59

Whole Period

Generate

Select Device List

X

Name

Please input name

11kV H.V. CHILLER PLANT
400A INCOMING ACB
400A H.V. CHILLER NO.1
400A H.V. CHILLER NO.2
400A H.V. CHILLER NO.3
100A 1MV TRANSFORMER FOR SWP
400A H.V. SPARE

Save
Close

General Report
Power Consumption Report
Voltage Report
Current Report
Graph Report

Auto Generated Report

Voltage Report

*From Date
2019-1

December 2019

Su	Mo	Tu	We	Th	Fr	Sa
24	25	26	27	28	29	30
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31	1	2	3	4

*To Date
2019-12-23

*Range (%)
6

Generate

By Device | By Tag | By Customer

Selectable Items
Search ...

11kV H.V. CHILLER PLANT
400A INCOMING ACB
400A H.V. CHILLER NO.1
400A H.V. CHILLER NO.2
400A H.V. CHILLER NO.3
100A 1MV TRANSFORMER FOR SWP
400A H.V. SPARE

Selected Items
Search ...

General Report
Power Consumption Report
Voltage Report
Current Report
Graph Report

Auto Generated Report

Current Report

*From Date
2019-1

December 2019

Su	Mo	Tu	We	Th	Fr	Sa
24	25	26	27	28	29	30
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31	1	2	3	4

*To Date
2019-12-23

Generate

By Device | By Tag | By Customer

Selectable Items
Search ...

11kV H.V. CHILLER PLANT
400A INCOMING ACB
400A H.V. CHILLER NO.1
400A H.V. CHILLER NO.2
400A H.V. CHILLER NO.3
100A 1MV TRANSFORMER FOR SWP
400A H.V. SPARE

Selected Items
Search ...

General Report
Power Consumption Report
Voltage Report
Current Report
Graph Report

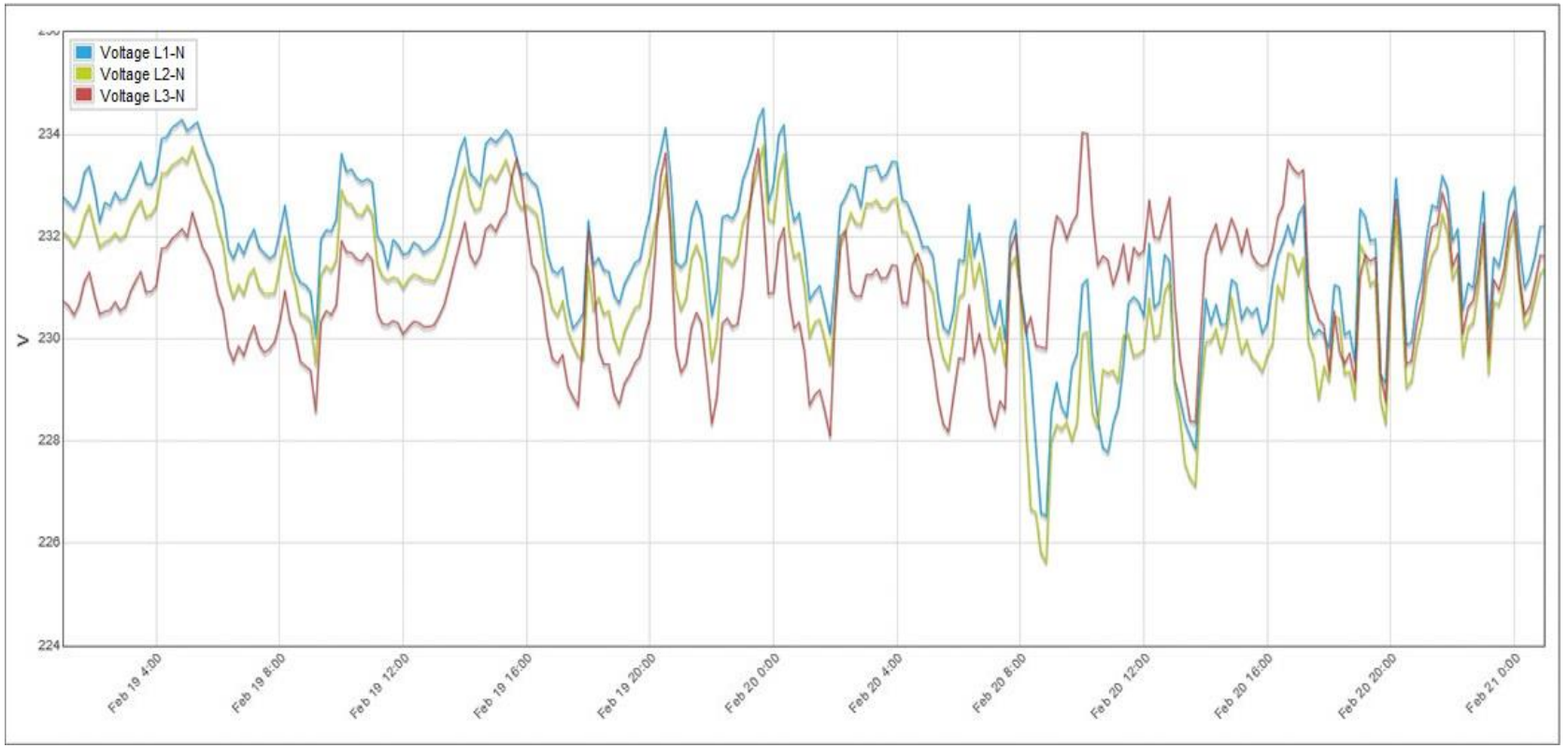
Auto Generated Report

11kV, 630A 3P Incoming VCB

Online | Historical

Voltage
- Voltage L1-N
- Voltage L2-N
- Voltage L3-N
- Voltage L1-L2
- Voltage L2-L3
- Voltage L3-L1

Current
Frequency
Active Power
Reactive Power
Apparent Power
Cos θ
THD



Voltage	Actual Value	Min Value	Max Value	Options
Voltage L1 – N	229.69 V	226.53 V	234.51 V	▶
Voltage L2 – N	229.27 V	225.64 V	233.79 V	▶
Voltage L3 – N	231.38 V	228.11 V	234.04 V	▶

Clear Graph
Print Graph

General Report
Power Consumption Report
Voltage Report
Current Report
Graph Report

Auto Generated Report

11kV, 630A 3P Incoming VCB

Online | Historical

Start

19/11/2019

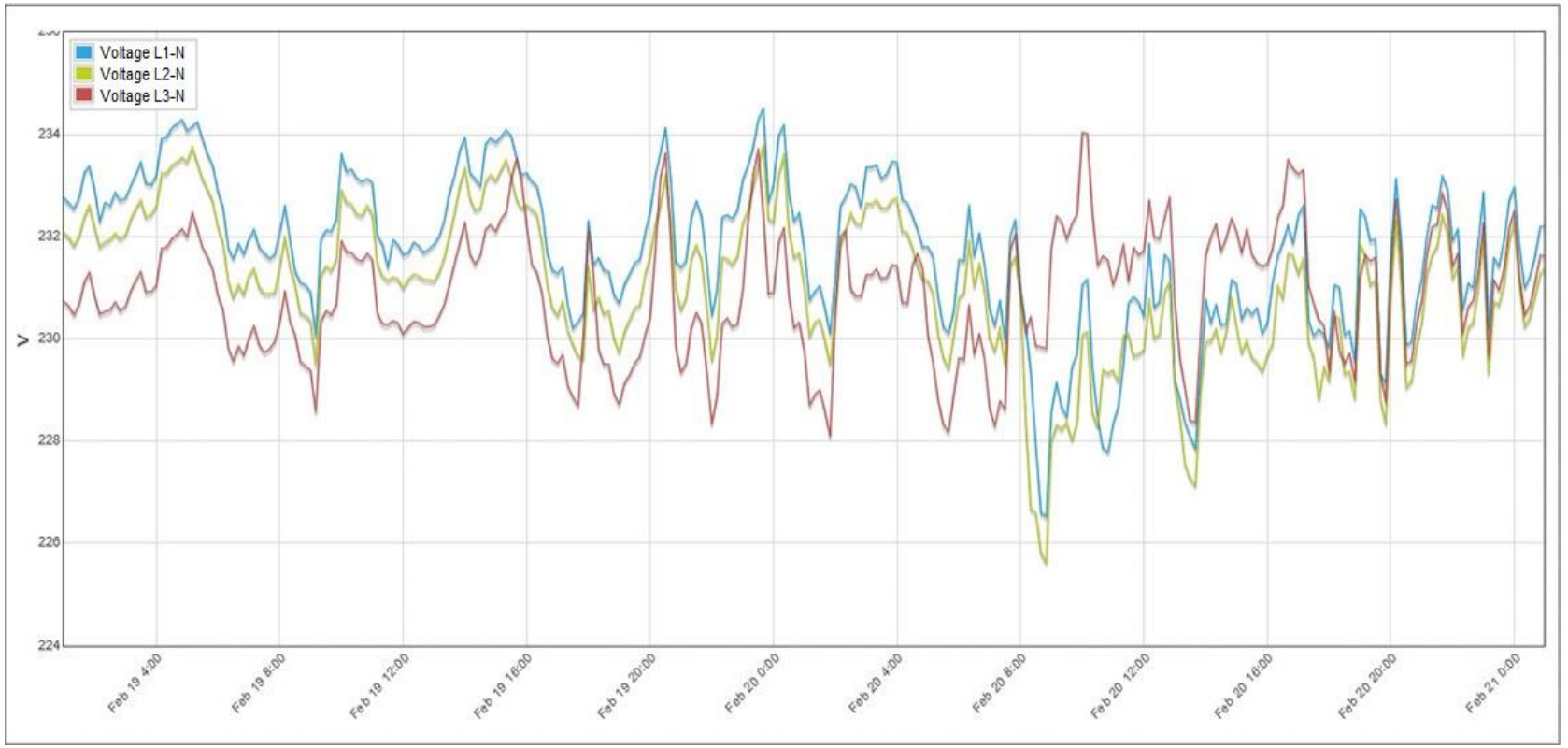
Sto

Prev Next
Nov 2019

Su	Mo	Tu	We	Th	Fr	Sa
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30

Vo
Vo
Voltage L3-N
Voltage L1-L2
Voltage L2-L3
Voltage L3-L1

Current
Frequency
Active Power
Reactive Power
Apparent Power
Cos θ
THD



Voltage	Actual Value	Min Value	Max Value	Options
Voltage L1 – N	229.69 V	226.53 V	234.51 V	▶
Voltage L2 – N	229.27 V	225.64 V	233.79 V	▶
Voltage L3 – N	231.38 V	228.11 V	234.04 V	▶

Clear Graph
Print Graph

General Report
Power Consumption Report
Voltage Report
Current Report
Graph Report

Auto Generated Report

Auto Generated Report

Show 10 entries

Search ...

Report Date	File Name
2019-12-09	general_report(20191209-20101215).xlsx
2019-12-09	voltage_report(20191209-20101215).zip
2019-12-09	current_report(20191209-20101215).zip
2019-12-09	power_consumption_report(20191209-20101215).xlsz
2019-12-02	general_report(20191202-20101208).xlsx
2019-12-02	voltage_report(20191202-20101208).zip
2019-12-02	current_report(20191202-20101208).zip
2019-12-02	power_consumption_report(20191202-20101208).xlsz
2019-11-25	general_report(20191125-20101201).xlsx
2019-11-25	voltage_report(20191125-20101201).zip

Showing 1 to 10 of 95 entries

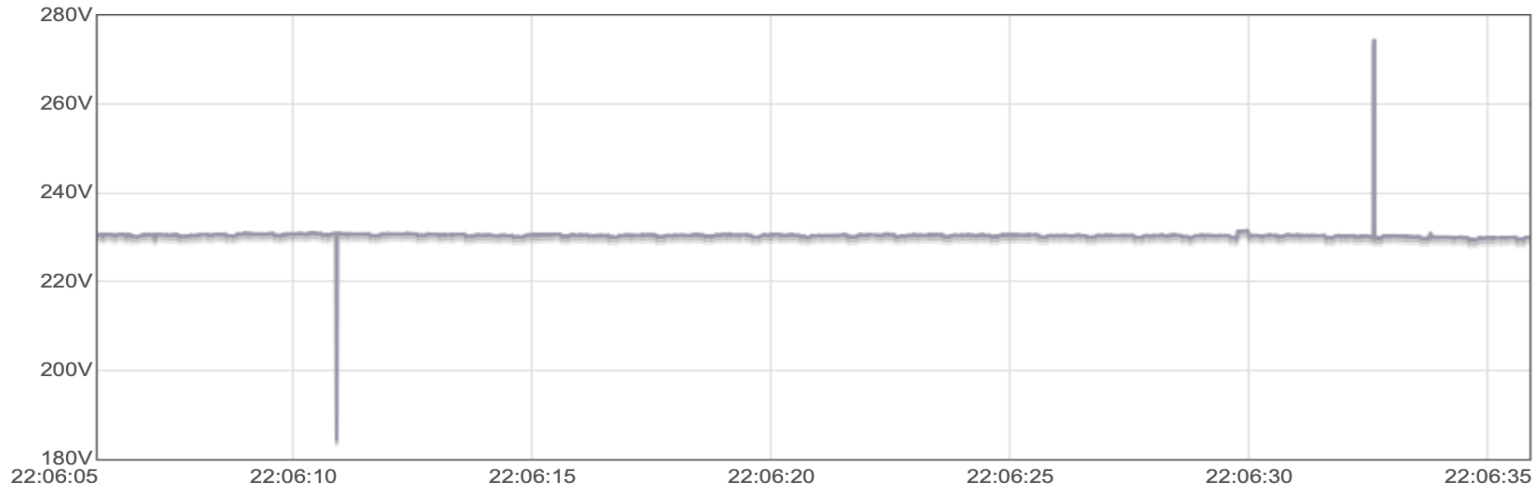
Previous 1 2 3 4 5 ... 10 Next

Event

Events

List of events

Under voltage - L1 2020/3/18 下午3:36:04,632 0.01s	1
Over voltage - L1 2020/3/18 下午3:34:12,255 9.20s	2
Over voltage - L1 2020/3/18 下午3:33:50,852 0.02s	3
Over voltage - L2 2020/3/18 下午3:33:50,848 0.01s	4
Over voltage - L2 2020/3/18 下午3:33:29,447 0.04s	5
Over voltage - L3 2020/3/18 下午3:33:29,444 0.01s	6
Under voltage - L2 2020/3/18 下午3:33:24,092 1.76s	7
Over voltage - L2 2020/3/18 下午3:31:58,472 3.30s	8
Over voltage - L3 2020/3/4 下午10:10:38,476 1.21s	9
Under voltage - L3 2020/3/4 下午10:06:10,910 43.18s	10
Under voltage - L1 2020/3/4 下午10:06:10,907 12.35s	11
Under voltage - L2	



- [ ] Voltage L1-N
- [ ] Voltage L2-N
- [x] Voltage L3-N
- [ ] Voltage L4-N
- [ ] Voltage L1-L2
- [ ] Voltage L2-L3
- [ ] Voltage L3-L1
- [ ] Current L1
- [ ] Current L2
- [ ] Current L3
- [ ] Current L4

Duration	Limit	Maximum value	Minimum value	Average value	Reason
43.18s	207 V	184.5 V	184.5 V	184.5 V	Under voltage
Starttime		2020/3/4 下午10:06:10,910			

Alarm

Current Alarm

Download Report | Minimize

Show 5

Group	Location	Name	IP	Port	Address	Model	Created Time	Updated Time	Description	Muted By	Muted Time	Action
LS1/LAG		630A 3P VCB FOR H.V. CHILLER NO.1 – ON/OFF	192.168.1.100	502	1	UMG 98-PA	2019-10-08 15:05:37	2019-10-12 13:16:37	Off			Mute
LS1/LAG		630A 3P VCB FOR 1MV TX FOR SWP HOUSE – ON/OFF	192.168.1.100	502	3	UMG 98-PA	2019-12-14 10:53:45	2019-12-25 18:27:27	Off	Admin	2019-12-16 10:35:42	
LS1/LAG		630A 3P VCB FOR H.V. CHILLER NO.3 – ON/OFF	192.168.1.100	502	8	UMG 98-PA	2019-10-13 10:53:45	2019-10-16 11:37:54	Off			Mute
LS1/LAG		630A 3P VCB FOR H.V. CHILLER NO.1 – ON/OFF	192.168.1.100	502	10	UMG 98-PA	2019-11-20 10:53:45	2019-11-30 17:42:31	Off			Mute
LS1/LAG		630A 3P VCB FOR SPARE – ON/OFF	192.168.1.100	502	16	UMG 98-PA	2019-11-05 10:53:45	2019-12-12 08:26:43	Off			Mute

Showing 1 to 5 of 9 entries

Previous 1 2 Next

Resume Normal

Download Report | Minimize

Show 5 entries

Group	Location	Name	IP	Port	Address	Model	Created Time	Updated Time	Description	Action
LS1/LAG		630A 3P VCB FOR H.V. CHILLER NO.1 – IDMT	192.168.1.100	502	1	UMG 98-PA	2019-10-08 15:05:37	2019-10-12 13:16:37	Communication Error	Acknowledge
LS1/LAG		630A 3P VCB FOR 1MV TX FOR SWP HOUSE – IDMT	192.168.1.100	502	3	UMG 98-PA	2019-12-14 10:53:45	2019-12-25 18:27:27	Communication Error	Acknowledge
LS1/LAG		630A 3P VCB FOR H.V. CHILLER NO.3 – IDMT	192.168.1.100	502	8	UMG 98-PA	2019-10-13 10:53:45	2019-10-16 11:37:54	Communication Error	Acknowledge
LS1/LAG		630A 3P VCB FOR H.V. CHILLER NO.1 – IDMT	192.168.1.100	502	10	UMG 98-PA	2019-11-20 10:53:45	2019-11-30 17:42:31	Communication Error	Acknowledge
LS1/LAG		630A 3P VCB FOR SPARE – IDMT	192.168.1.100	502	16	UMG 98-PA	2019-11-05 10:53:45	2019-12-12 08:26:43	Communication Error	Acknowledge

Alarm Testing
Setting
User Management
User Group Management
Admin Utils
Logout
Logout and untrust device

Alarm Testing

Trigger Alarm

Alarm Type: Over Current

Device: 630A 3P INCOMING VCB

Mobile Number: 91234567

Submit

Select	Alarm	Sampling	Resolution	Threshold	Alert Method
☑	Transient Voltage	within 50 us from point to point	400 samples/cycle	L1 Rated Voltage - 4%	PQMS
☐	Transient Voltage	within 50 us from point to point	400 samples/cycle	L2 Rated Voltage - 4%	PQMS
☐	Transient Voltage	within 50 us from point to point	400 samples/cycle	L3 Rated Voltage - 4%	PQMS
☐	Transient Voltage	within 50 us from point to point	400 samples/cycle	N-E Rated Voltage - 4%	PQMS
☐	Under Voltage	1 cycle of R.M.S	400 samples/cycle	L1 Rated Voltage - 4%	PQMS, SMS
☐	Under Voltage	1 cycle of R.M.S	400 samples/cycle	L2 Rated Voltage - 4%	PQMS, SMS
☐	Under Voltage	1 cycle of R.M.S	400 samples/cycle	L3 Rated Voltage - 4%	PQMS, SMS
☐	Under Voltage	1 cycle of R.M.S	400 samples/cycle	N-E Rated Voltage - 4%	PQMS, SMS
☐	Over Current	1 cycle of R.M.S	400 samples/cycle	L1 >Rated Current	PQMS, SMS
☐	Over Current	1 cycle of R.M.S	400 samples/cycle	L2 >Rated Current	PQMS, SMS
☐	Over Current	1 cycle of R.M.S	400 samples/cycle	L3 >Rated Current	PQMS, SMS

Alarm Testing
Setting
User Management
User Group Management
Admin Utils
Logout
Logout and untrust device

Setting

Name	Setting
SMTP Setting	Edit

Setting – Edit SMTP

Setting Details

SMTP Server	127.0.0.1
Port	25
SSL Mode	none
Authorizer	Username
Username	Name
Password	Password

Save Cancel

Alarm Testing
Setting
User Management
User Group Management
Admin Utils
Logout
Logout and untrust device

User Management

New

#	Name	Email	Mobile	Login Name	Alert Group	Status	Setting
1	Tai Man, Chan	chantaiman@email.com	91234567	TMChan	11kV H.V. Chiller Plant	Active	Edit
2	Sui Man, Chan	chansuiman@email.com	92345678	SMChan	11kV H.V. Chiller Plant	Active	Edit
3	Chung Man, Chan	chanchungman@email.com	93456789	CMChan	11kV H.V. Chiller Plant	Active	Edit
4	Peter, Chan	peterchan@email.com	94567890	PeterChan	11kV H.V. Chiller Plant	Active	Edit
5	Mary, Chu	marychu@email.com	95678901	MaryChu	11kV H.V. Chiller Plant	Active	Edit
6	Tom, Lee	tomlee@email.com	96789012	TomLee	Seawater Pump Room	Active	Edit
7	Paul, Cheung	paulcheung@email.com	97890123	PaulCheung	Seawater Pump Room	Active	Edit

Total : 7 Record # 10

First | Previous | 1 | Next | Last

User Management - Add

User Details

Name

Contact Name

E-mail

Email

Mobile No.

Mobile

User Name

Username

Password

Password

Confirm Password

Confirm Password

User Group(s)

- ☑ Admin
- ☐ Manager
- ☐ Engineer
- ☐ Operation
- ☐ Viewer
- ☐ Guest

Alert Group(s)

- ☑ 11kV H.V. Chiller Plant
- ☐ Seawater Pump Room

Status

Active

Save Cancel

Alarm Testing
Setting
User Management
User Group Management
Admin Utils
Logout
Logout and untrust device

User Group Management

New

#	Group Name	Status	Setting
1	Admin	Active	Edit
2	Manager	Active	Edit
3	Engineer	Active	Edit
4	Operator	Active	Edit
5	Viewer	Active	Edit
6	Guest	Active	Edit

Total : 6 Record # 10

User Group Management - Add

User Group Details

User Group Name

Group Name

Access Rights

Selectable Items

Search ...

- **Device**
  - Device – Batch Status
  - Device – Field
  - Device – Setting
- **Checking**
  - Checking – List
- **Compare**
  - Compare – Compare Detail
  - Compare – List
- **Device Group**
  - Device Group – Edit
  - Device Group – List
- **Diagram**
  - Diagram – List
- **Image**
  - Image – Edit
  - Image – List
- **Setting**
  - Setting – Edit
  - Setting – Email Setting

Selected Items

Search ...

- **Alarm**
  - Alarm - Acknowledged List
  - Alarm - Batch Status
  - Alarm - Batch Status – Acknowledge All
  - Alarm - Current Active List
  - Alarm - List
  - Alarm - Resume Normal List
- **Alert**
  - Alert – List
- **Alert BMS**
  - Alert BMS – List
- **Alert Group**
  - Alert Group - List
- **Chart**
  - Chart – Chart page
  - Chart – Details
  - Chart – List
- **Chart Device**
  - Chart Device – Chart
  - Chart Device – Chart Details

Status

Active

Save Cancel

Alarm Testing
Setting
User Management
User Group Management
Admin Utils
Logout
Logout and untrust device

Device Management
Diagram Management
Project Management

Device Management

Device List Export

Export

Device List Import

*Import Mode :

Overwrite

*File :

No file chosen

Browse ……

File size limit : 20M

Import

Alarm Testing
Setting
User Management
User Group Management
Admin Utils
Logout
Logout and untrust device

Device Management
Diagram Management
Project Management

Diagram Management

Diagram Export

Export

Diagram Import

*Import Mode :

Overwrite

*File :

No file chosen Browse ……

File size limit : 20M

Import

Alarm Testing
Setting
User Management
User Group Management
Admin Utils
Logout
Logout and untrust device

Device Management
Diagram Management
Project Management

Project Management

Project Setting

*Project Name

Logo

No file chosen Browse ……

Login Layout

login_with_menu

Frontpage

Frontpage Template

index

Index / index_zoom / index_bms

Show Alarm Popup?

Yes

Show Alarm Count At Left Top?

Yes

Play Alarm Sound?

Yes

Project Setting

Footer

Submit

機電工程署 EMSD

屯門醫院 TUEN MUN HOSPITAL

醫院管理局 HOSPITAL AUTHORITY

Home | CB Status | Device | Event | Alarm | System

3

27.3°C 75%
King's Park

63A DB for Lighting System
Instantaneous Power : 2.3 kW
Current L1 : 13.56 A
Current L2 : 12.25 A
Current L3 : 12.79 A
Earth Leakage Current : 0.12 A
View Details

Seawater Pump No.1
- Power Supply
- Operation Status
- Fault

Seawater Pump No.2
- Power Supply
- Operation Status
- Fault

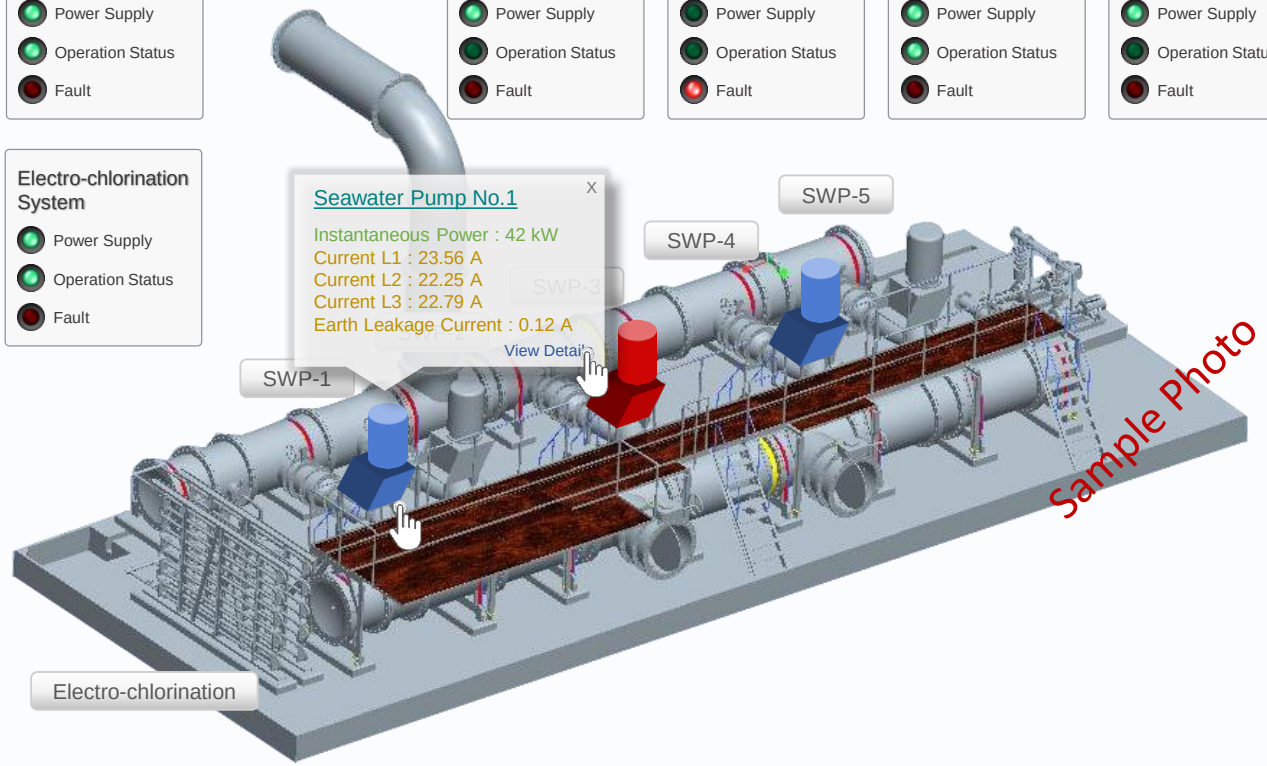
Seawater Pump No.3
- Power Supply
- Operation Status
- Fault

Seawater Pump No.4
- Power Supply
- Operation Status
- Fault

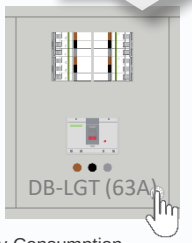
Seawater Pump No.5
- Power Supply
- Operation Status
- Fault

Electro-chlorination System
- Power Supply
- Operation Status
- Fault

Seawater Pump No.1
Instantaneous Power : 42 kW
Current L1 : 23.56 A
Current L2 : 22.25 A
Current L3 : 22.79 A
Earth Leakage Current : 0.12 A
View Details



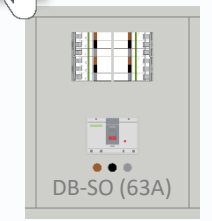
Lighting System



Energy Consumption

Today	32,514 kWh
Yesterday	52,214 kWh
Last Week	113,201 kWh
Last Month	516,658 kWh
Last Year	6,205,698 kWh

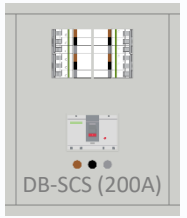
Socket Outlet



Energy Consumption

Today	32,514 kWh
Yesterday	52,214 kWh
Last Week	113,201 kWh
Last Month	516,658 kWh
Last Year	6,205,698 kWh

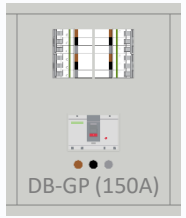
Screening System



Energy Consumption

Today	32,514 kWh
Yesterday	52,214 kWh
Last Week	113,201 kWh
Last Month	516,658 kWh
Last Year	6,205,698 kWh

General Power



Energy Consumption

Today	32,514 kWh
Yesterday	52,214 kWh
Last Week	113,201 kWh
Last Month	516,658 kWh
Last Year	6,205,698 kWh

Air Conditioners

DB-AC (200A)

Energy Consumption

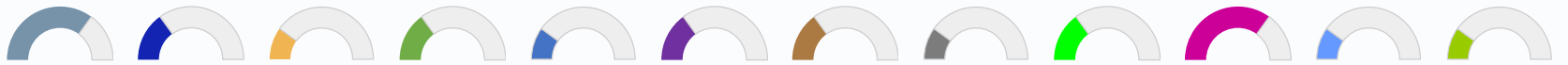
Today	32,514 kWh
Yesterday	52,214 kWh
Last Week	113,201 kWh
Last Month	516,658 kWh
Last Year	6,205,698 kWh

Active Harmonic Filter

Energy Consumption

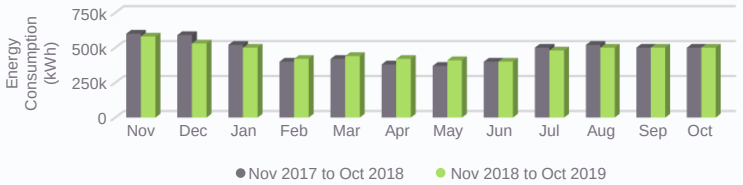
Today	32,514 kWh
Yesterday	52,214 kWh
Last Week	113,201 kWh
Last Month	516,658 kWh
Last Year	6,205,698 kWh

Input Power of the Equipment at Seawater Pump (SWP) House



SWP No.1	SWP No. 2	SWP No.3	SWP No.4	SWP No.5	Screening	Electro-chlorination	Lighting	Socket Outlet	General Power	Air-conditioners	Harmonic Filter
16.8 kW	0 kW	16.4 kW	16.9 kW	0 kW	5.6 kW	6.3 kW	0 kW	6.3 kW	16.8 kW	0 kW	0 kW

Monthly Electricity Consumption of 1,600A L.V. Switchboard



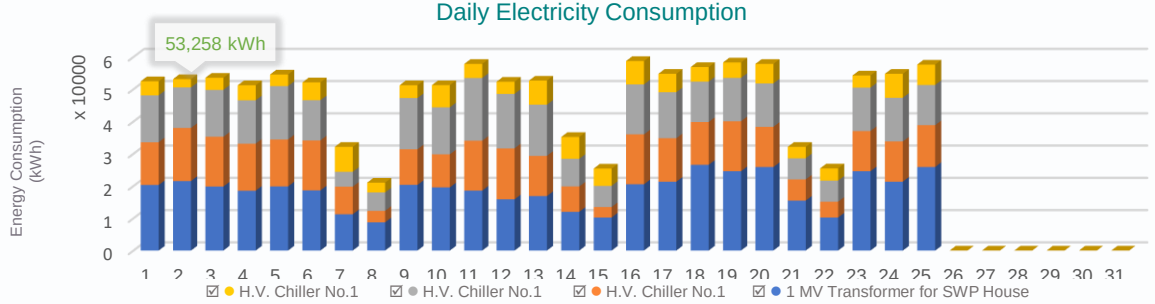
Instantaneous Power of all Equipment at Seawater Pump (SWP) House

Update frequency : every 2 minutes

Summary

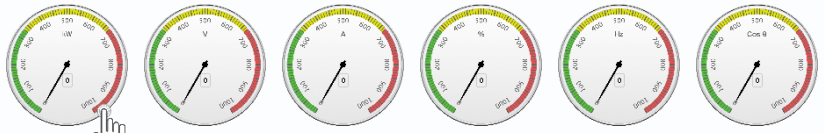
From 1MV Tx. Supply	SWP No.1	SWP No. 2	SWP No.3	SWP No.4	SWP No.5	Electro-chlorination	Screening	Lighting	Socket Outlet	General Power	Air-conditioners	Harmonic Filter
397 kW	16.8 kW	0 kW	16.4 kW	16.9 kW	0 kW	5.6 kW	6.3 kW	0 kW	6.3 kW	16.8 kW	0 kW	0 kW

Daily Electricity Consumption

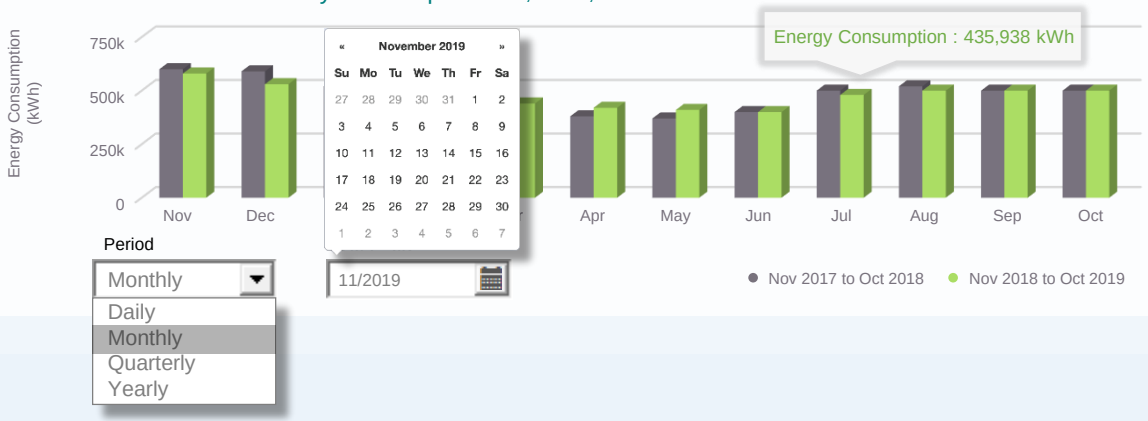


Operation Condition of 1,600A, L.V. Switchboard for SWP House

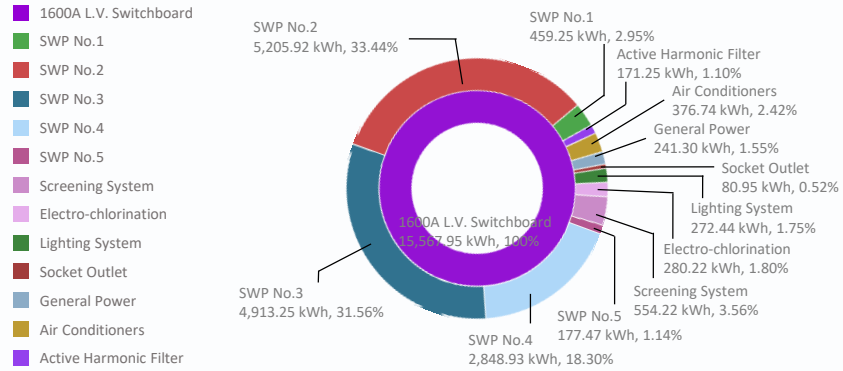
Update frequency : every 2 minutes



Electricity Consumption of 1,600A, L.V. Switchboard for SWP House



Electricity Consumption of SWP House at Last Month

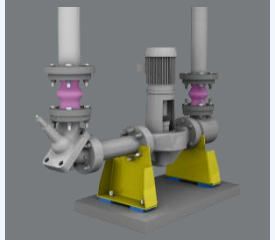


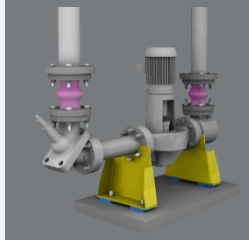
Overview

Detailed View

Power Supply

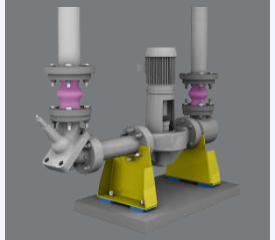
SWP No.1

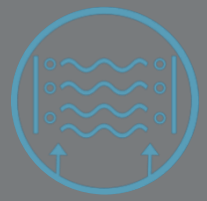
Power Supply

SWP No.2

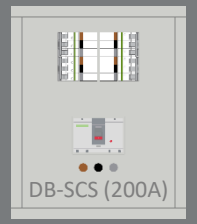
Power Supply

SWP No.3

Power Supply

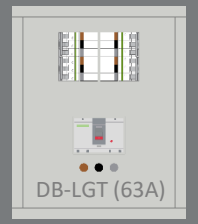
SWP No.4

Power Supply

SWP No.5

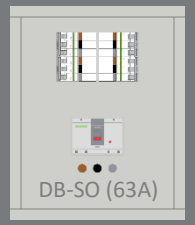
Power Supply

Chlorination

Power Supply


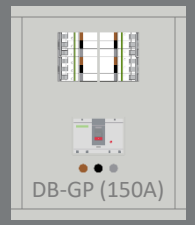
Screening System

Power Supply


Lighting System

Power Supply


Socket Outlet

Power Supply


General Power

Power Supply

DB-AC (200A)
Air Conditioners

Power Supply

Harmonic Filter

Operation Condition of Seawater Pump No.1

Update frequency : every 2 minutes

Operation Status	Running
Start Times	203
Running Hours	7873.4
Reset Running Hours	

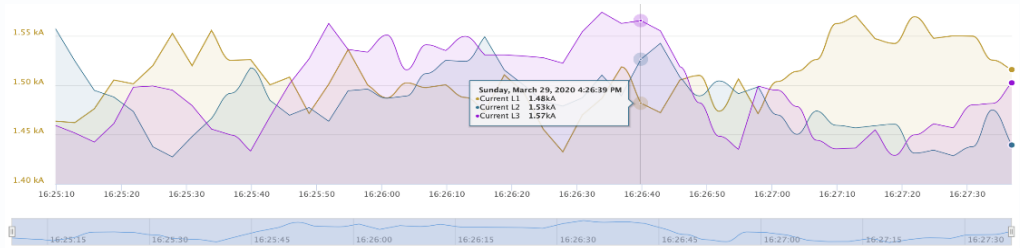

Input Power


Voltage, L1-L2

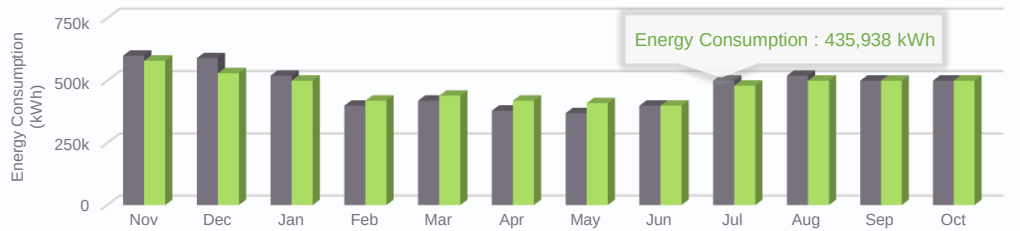

Frequency


Power Factor

Running Current of Seawater Pump No.1



Electricity Consumption of Seawater Pump No.1

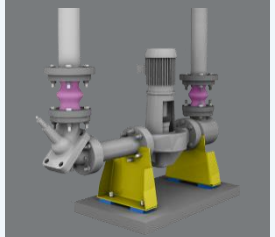


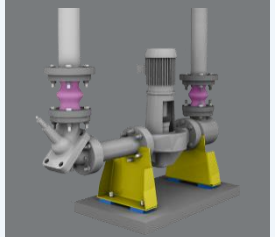
Period: Monthly
Daily
Monthly
Quarterly
Yearly

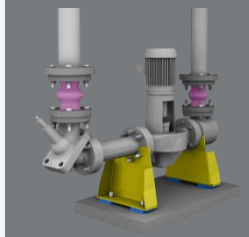
Start Date: 01/11/2018

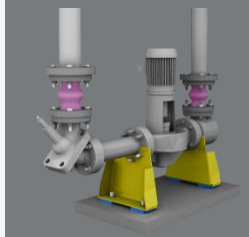
Overview

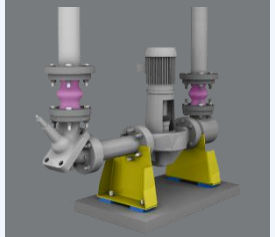
Detailed View

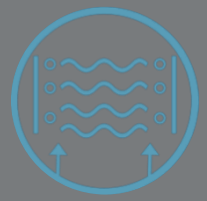
Power Supply

SWP No.1

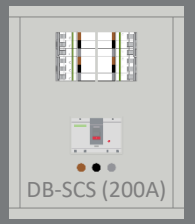
Power Supply

SWP No.2

Power Supply

SWP No.3

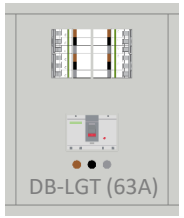
Power Supply

SWP No.4

Power Supply

SWP No.5

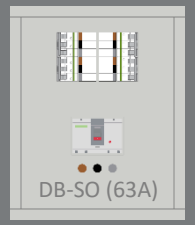
Power Supply

Chlorination

Power Supply


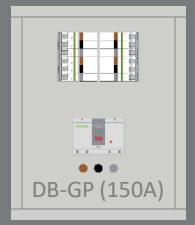
Screening System

Power Supply


Lighting System

Power Supply


Socket Outlet

Power Supply


General Power

Power Supply

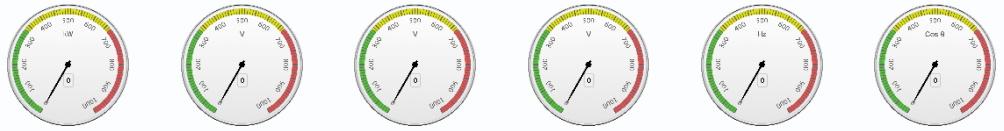
DB-AC (200A)
Air Conditioners

Power Supply

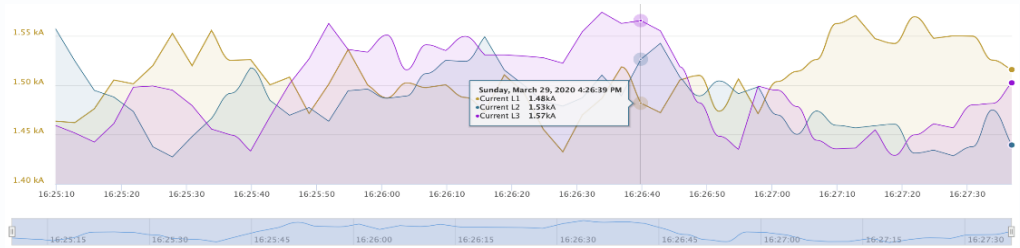
Harmonic Filter

Operation Condition of Lighting System for SWP House

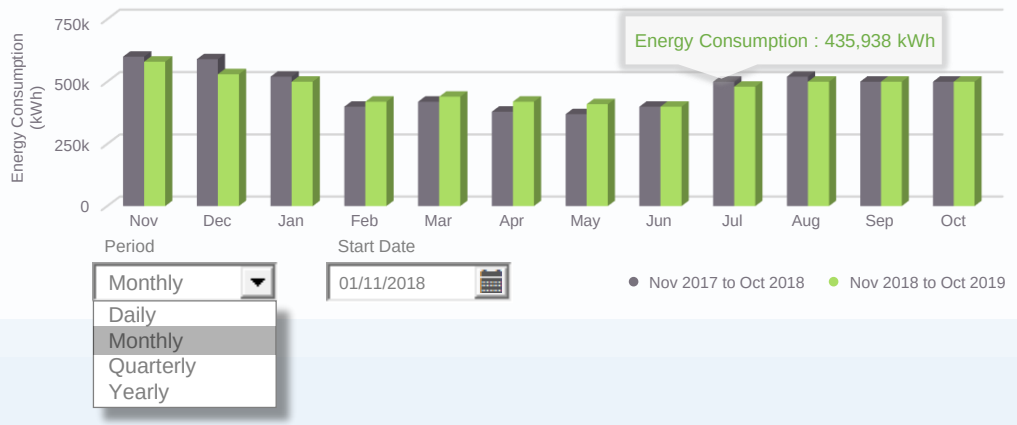
Update frequency : every 2 minutes


Input Power | Voltage, L1-N | Voltage, L2-N | Voltage, L3-N | Frequency | Power Factor

Current of Lighting System for SWP House

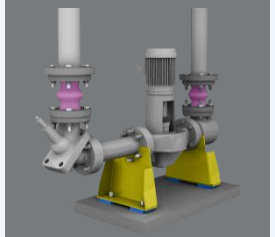


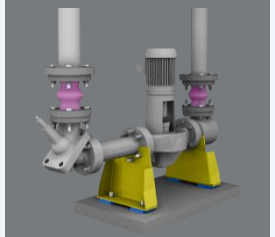
Electricity Consumption of Lighting System for SWP House

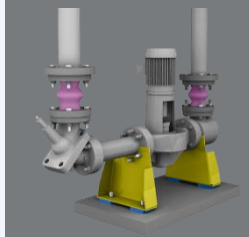


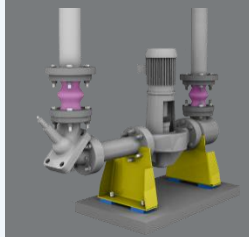
Overview

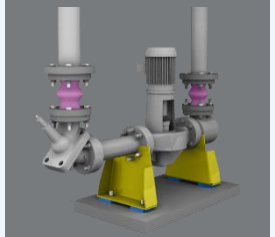
Detailed View

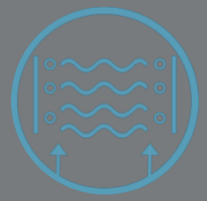
Power Supply

SWP No.1

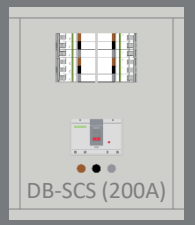
Power Supply

SWP No.2

Power Supply

SWP No.3

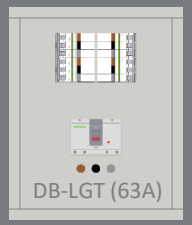
Power Supply

SWP No.4

Power Supply

SWP No.5

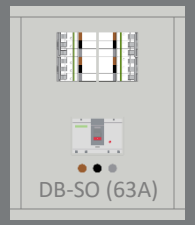
Power Supply

Chlorination

Power Supply


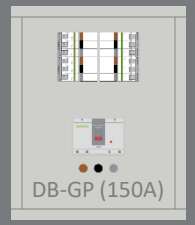
Screening System

Power Supply


Lighting System

Power Supply


Socket Outlet

Power Supply


General Power

Power Supply

DB-AC (200A)
Air Conditioners

Power Supply

Harmonic Filter

Status

Efficiency of the Harmonic Filter of L.V. Switchboard for SWP House

Update frequency : every 2 minutes

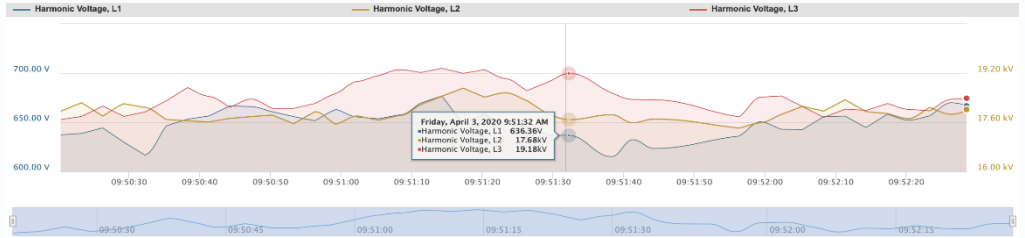

THD_U


THD_I

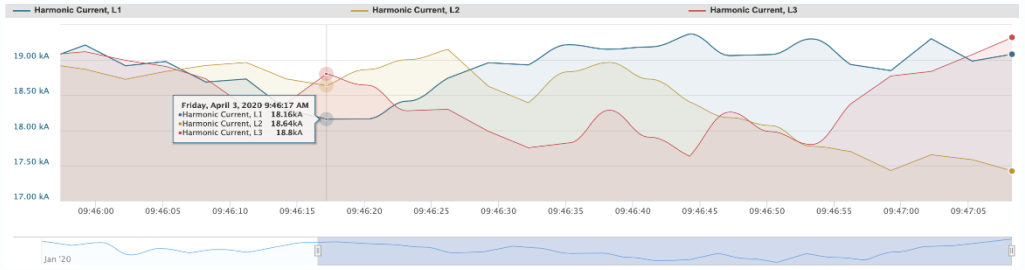

Frequency


Power Factor

Harmonic Voltage of the L.V. Switchboard for SWP house



Harmonic Current of the L.V. Switchboard for SWP House



Overview

Detailed View

- Overview
- Voltage & Current
- Power Quality
  - Phasor Diagram
  - Harmonic
- Trend
- Summary
- Residual Current Monitoring
- Heatmap Analysis
- Sankey Diagram
- Analyser Display
- Energy & Demand
- Prediction Chart
- Alert Setting
- Report

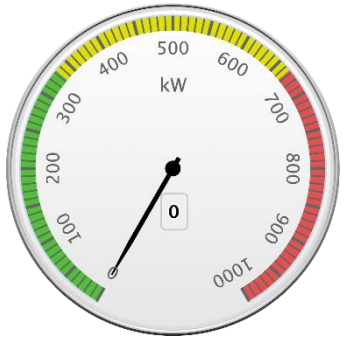
380V, 1600A 3P Incoming ACB

Refresh Time 2 second

Online Value

Active Power	18.60 kW
Apparent Power	20.48 kVA
Power Factor	0.91
Reactive Power	8.32 kVAr
Voltage	L1-L2 : 380 V L2-L3 : 382 V L3-L1 : 381 V
Current	L1: 35.66 A L2: 27.67 A L3: 28.69 A N: 11.06 A Earth Leakage: 3.35 A

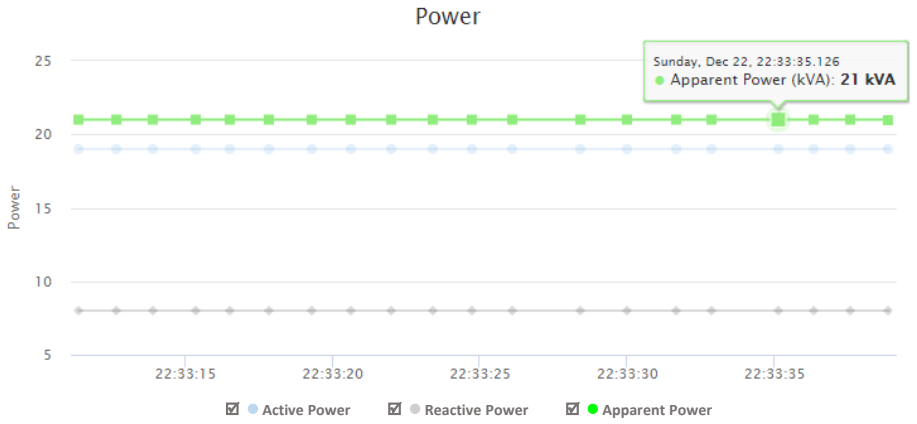
Online Active Power



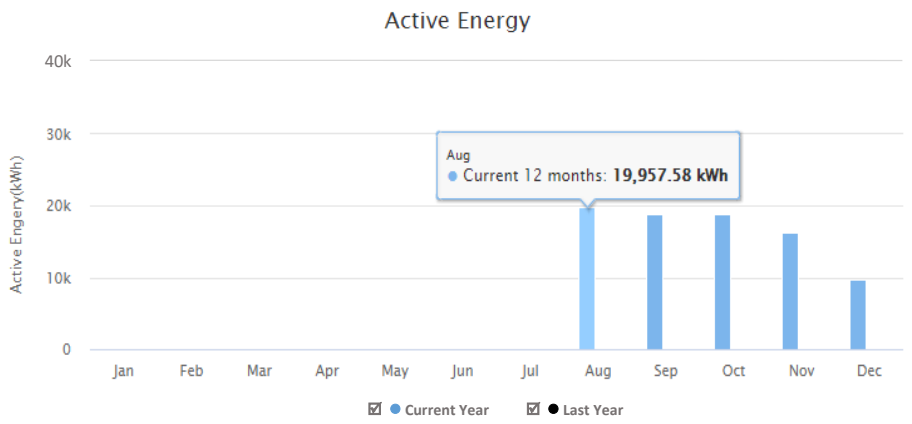
Energy Consumption

Today	342.62 kWh
Yesterday	452.42 kWh
Current Month	9695.97 kWh
Last Month	16382.05 kWh
Current Year	83681.97 kWh
Last Year	0.00 kWh

Online Data



Historical Data



Power Supply
Operation Status
Fault

Total Capacity

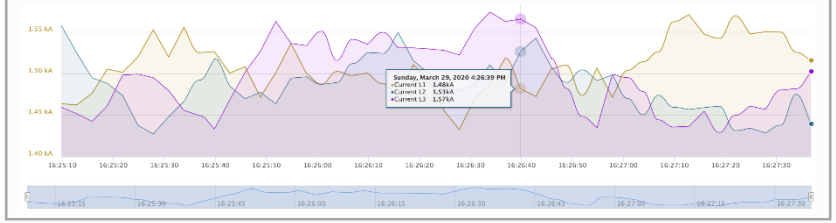
H.V. Chiller No.2

Compressor C1

Operation Status	Standby
Start Times	203
Machine Running Hours	7873.4

Input Power 0 kW
Cooling Capacity 0 kW

Running Current

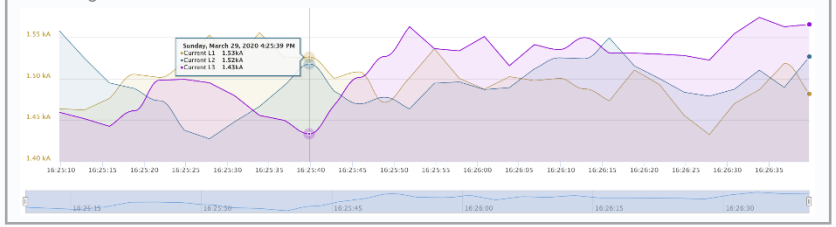


Compressor C2

Operation Status	Fault
Start Times	234
Machine Running Hours	9856.7

Input Power 0 kW
Cooling Capacity 0 kW

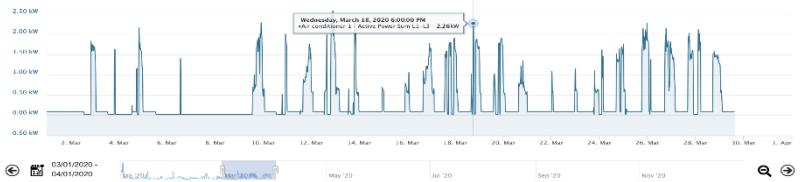
Running Current



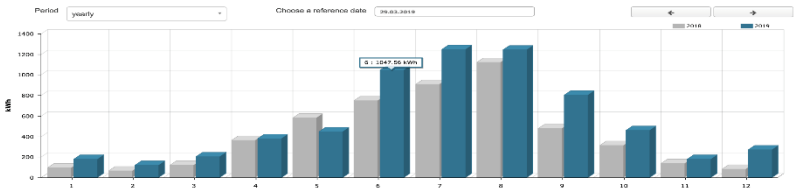
Power Supply Condition for H.V. Chiller No.2

Total Input Power | Voltage, L1-L2 | Frequency | Power Factor

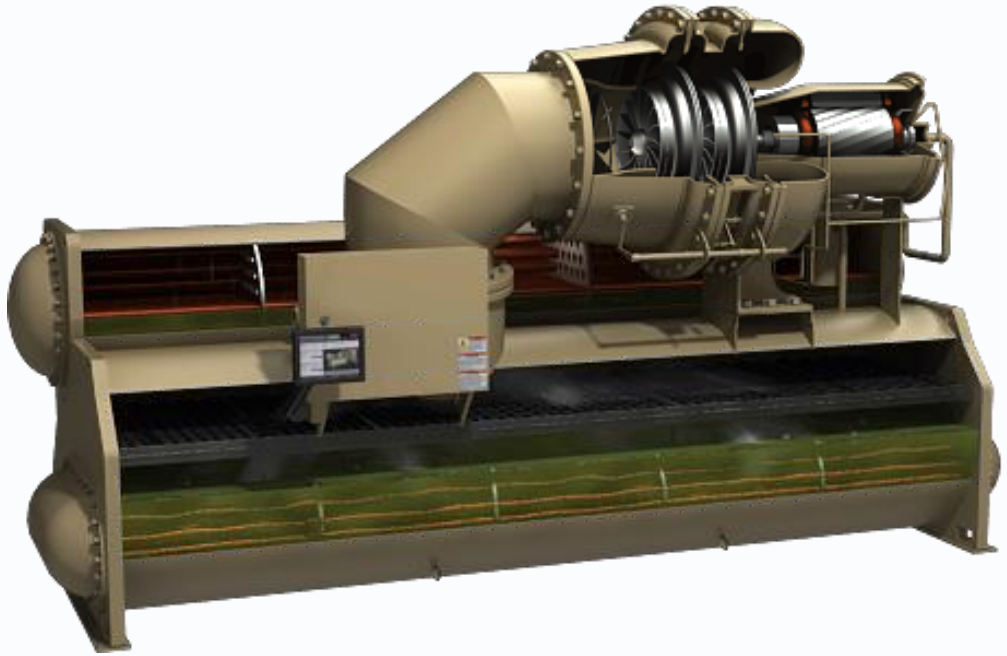
Monthly Instantaneous Active Power



Electricity Consumption



Power Supply
Operation Status
Fault



Total Capacity

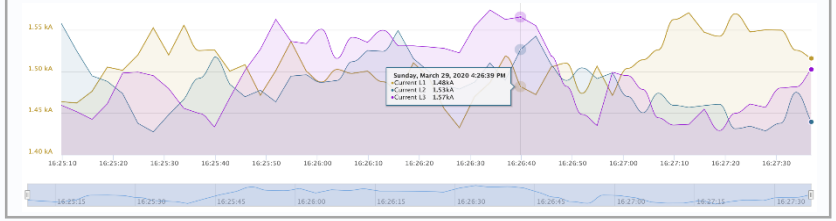
H.V. Chiller No.3

Compressor C1

Operation Status	Running
Start Times	203
Machine Running Hours	7873.4

Input Power 603.7 kW
Cooling Capacity 2535.6 kW

Running Current

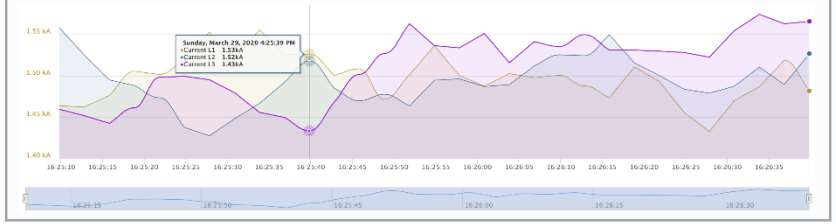


Compressor C2

Operation Status	Standby
Start Times	234
Machine Running Hours	9856.7

Input Power 0 kW
Cooling Capacity 0 kW

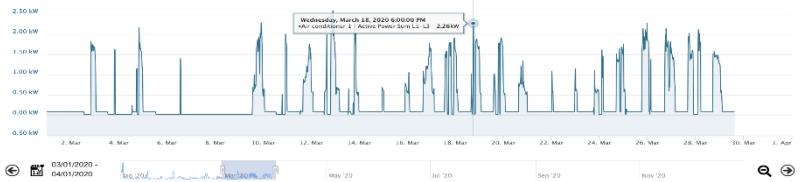
Running Current



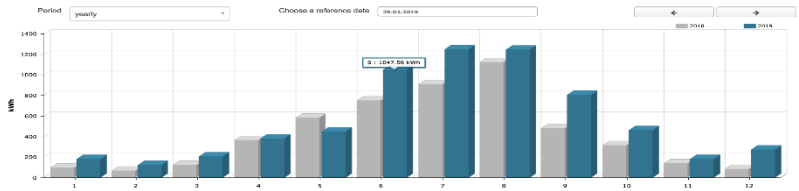
Power Supply Condition for H.V. Chiller No.3

Total Input Power | Voltage, L1-L2 | Frequency | Power Factor

Monthly Instantaneous Active Power



Electricity Consumption



Special News Latest

To cope with the Government's plan to gradually resume public services in an orderly manner, the Resource Centre of the Hong Kong Observatory (HKO) located at 23/F, Mira Place Tower A, Tsim Sha Tsui will provide service from 10 am to 4 pm from Monday to Friday commencing 2 March. The HKO will continue maintaining essential shift arrangements to provide round-the-clock monitoring, forecasting and warning services. Public talks and public visits to the HKO, including HKO guided tours on weekends, will still be suspended temporarily.

Updated at 07:20 on 29 Feb,2020

Current Weather Update at 17:40

HKO

↓20°C ↑23°C

21.0°C

87%

King's Park
UV Index 0.1 (Low)

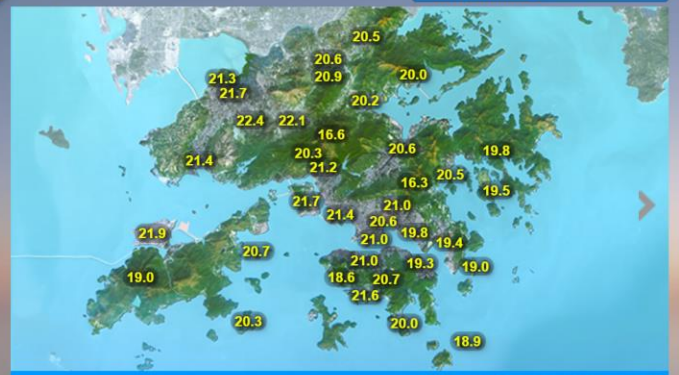
Innovate with Science,
Serve with Heart

Current Weather

- Regional Weather
- My Location Weather
- Earth Weather
- Radar
- Satellite
- World Weather

Regional Weather

Temperature



Air temperature (℃) at 17:40 on 20 Mar

Details | Automatic Regional Weather Forecast

Highlights

New SWIC 2.0

Interactive Map of Storm Damage by Mangkhut

My Little Observatory

The Friends of the Observatory