



CERTIFICATE OF COMPLIANCE

Sertifikat Kesesuaian

THD

Certificate No.: QI-25/07/0395

Nomor Sertifikat

Issued date: 24 July 2025

Diterbitkan tanggal

TESTING OBJECT

objek pengujian

: LED PJU SIM 20

TYPE

Jenis

: SIM 20

SPECIFICATION

Spesifikasi

: 20 Watt ; 200-277V AC ; 50/60Hz ; IP66 ; IK10

BRAND

Merek



TESTED FOR

Diuji untuk

: PT. DUTA CAHAYA MANDIRI

ADDRESS

Alamat

: Jl. Raya Serpong Km.7 No.58, Kel. Pakualam, Kec. Serpong Utara,
Kota Tangerang Selatan, Prov. Banten Indonesia.

Date of Test

Tanggal uji

: 18 July 2025

Test Standard

Metode uji

: IEC 61000-3-2:2014

THD (%)

: 27.63 %

The EUT described above has been tested by laboratory and found in compliance with the standard IEC 61000-3-2:2014. The certificate applies only the object tested.

Objek uji yang diuraikan diatas telah diuji oleh laboratorium dan ditemukan kesesuaian dengan standard IEC 61000-3-2:2014. Sertifikat ini hanya berlaku untuk objek yang diuji.

Harmonic Current Emissions Test

IEC 61000-3-2:2014

THD

Referring to test report no.: QI-25/07/0395

Berdasarkan laporan pengujian nomor : QI-25/07/0395

Tangerang, 24 July 2025

**Approved and digitally signed on behalf of
PT. Qualis Indonesia**



Riki Suferdi

Technical Manager Lab.

Valid until

: 23 July 2028

Berlaku hingga

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LAPORAN HASIL UJI
TEST REPORT

NOMOR LAPORAN PENGUJIAN <i>Test Report No</i>	: QI-25/07/0395	NOMOR ORDER <i>Order No</i>	: WO/2025070567
DITERBITKAN TANGGAL <i>Date of issue</i>	: 18 July 2025		
TOTAL HALAMAN <i>Total number of pages</i>	: 08 Halaman : 08 pages		
LABORATORIUM PENGUJIAN <i>Testing Laboratory</i>	: PT. QUALIS INDONESIA		
ALAMAT <i>Address</i>	: Jl. Pajajaran No. 17 Desa Gandasari Kec. Jatiuwung, Tangerang 15137, Banten, Indonesia Telp. 021 5565 2583 / 86 Fax. 021 5565 2489 Website: www.qualis-indonesia.com		
NAMA PEMOHON <i>Applicant's Name</i>	: PT. DUTA CAHAYA MANDIRI		
ALAMAT PEMOHON <i>Address of Applicant</i>	: Jl. Raya Serpong Km.7 No.58, Kel. Pakualam, Kec. Serpong Utara, Kota Tangerang Selatan, Prov. Banten Indonesia.		
ALAMAT PABRIK <i>Address of Manufacturer</i>	: Jl. Raya Serpong Km.7 No.58, Kel. Pakualam, Kec. Serpong Utara, Kota Tangerang Selatan, Prov. Banten Indonesia.		
SPEKIFIKASI PENGUJIAN <i>Test Specification</i>	: Sesuai dengan permintaan pelanggan <i>in accordance with customer requests</i>		
STANDAR PENGUJIAN/METODE UJI <i>Test Method / Reference Standard</i>	: IEC 61000-3-2:2014		
PARAMETER PENGUJIAN <i>Test Parameter</i>	: Harmonic Current Emissions		
PRODUK UJI <i>Equipment Under Test (EUT)</i>			
DESKRIPSI SAMPEL <i>Sample Description</i>	: LED PJU SIM 20		
MEREK <i>Brand</i>			
TIPE <i>Type</i>	: SIM 20		
NOMOR MODEL <i>Model number</i>	: -		
NOMOR SERI <i>Serial Number</i>	: SIM20-25-06		
KONDISI <i>Condition</i>	: Sampel dikirim oleh pelanggan dan diterima dalam kondisi baik tanpa ada fungsi yang hilang. <i>The sample was submitted by customer and received in good condition without any missing functions.</i>		

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RINGKASAN HASIL PENGUJIAN
Summary Test Result

EMISSION		
Standard	Test Parameter	Test Result
IEC 61000-3-2:2014	Harmonic Current Emissions	P

Possible Test Case Verdicts

:	
❖ Test object does meet the requirement	: P (Pass)
❖ Test object does not meet the requirement	: F (Fail)
❖ Neither assessed nor tested	: N/N
❖ Required by Standard but not applicable to test object	: N/A
❖ Required by Standard but not tested	: N/T
❖ Not required by standard for the test object	: N/R

HASIL PENGUJIAN
Test Result

: Terlampir
Attached

PENGUJIAN
Testing

TANGGAL PENERIMAAN
Date of receipt of test item

: 04 July 2025

TANGGAL PENGUJIAN

Date (s) of performance of tests

: 18 July 2025

Note:

Duplication of test report shall not be carried out without written consent from authorized personnel of PT.Qualis Indonesia. The test results presented in this report relate only to the object tested, the results contained in this report reflect the result for this particular model and serial number, it is responsibility of the manufacturer to ensure that all production models meet the intent of the requirements detailed within this report. This test report does not grant permission to affixing the name of PT.Qualis Indonesia any safety mark on this particular or other similar products. Issuance of this report is governed by terms and conditions as set out on the last page of this document.

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PT. Qualis Indonesia**

Tangerang, 24 July 2025



Riki Suferdi
Laboratory Manager

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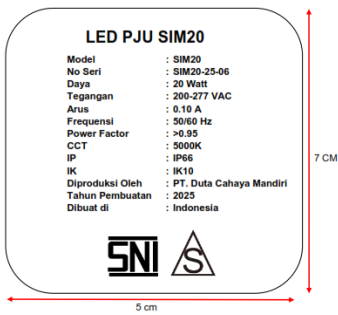
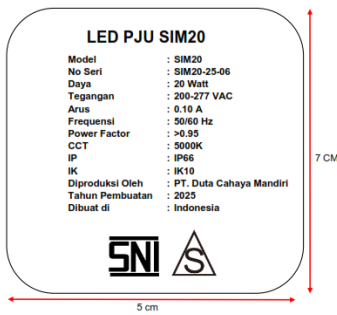
Qualis

1. EUT Description

1.1 EUT Specification

Sample Description	: LED PJU SIM 20
Brand	: 
Type	: SIM 20
Model Number	: -
Serial Number	: SIM20-25-06
Voltage (V) ; Frequency (Hz)	: 200-277V AC; 50/60Hz
Power (W)	: 20Watt

1.2 Photo of EUT

Back side 	Front side 
Internal side 	Driver 
Label 	Label 

1.3 Supporting Equipment Used During Testing

Description	Laboratory
AC Power Source	LED
Digital Power Meter	LED

1.4 EUT Operation Modes

Power	ON
Voltage ; Frequency	220V AC ; 50 Hz

2. Test Results

2.1 Harmonic Current Emissions

2.1.1 Test Specification

Standard	: IEC 61000-3-2:2014
Limit Classification Base on Standard	: Class C with active input power > 25 W
Temperature (°C)	: 25.2°C
Humidity (%)	: 54 %
Voltage (V) ; Frequency (Hz)	: 220V ; 50Hz
Power in LED Label (P)	: 20 watt
Precondition on mode Duration	: 15 Minutes
Aging Duration	: 15 Minutes

2.1.2 Test Setup

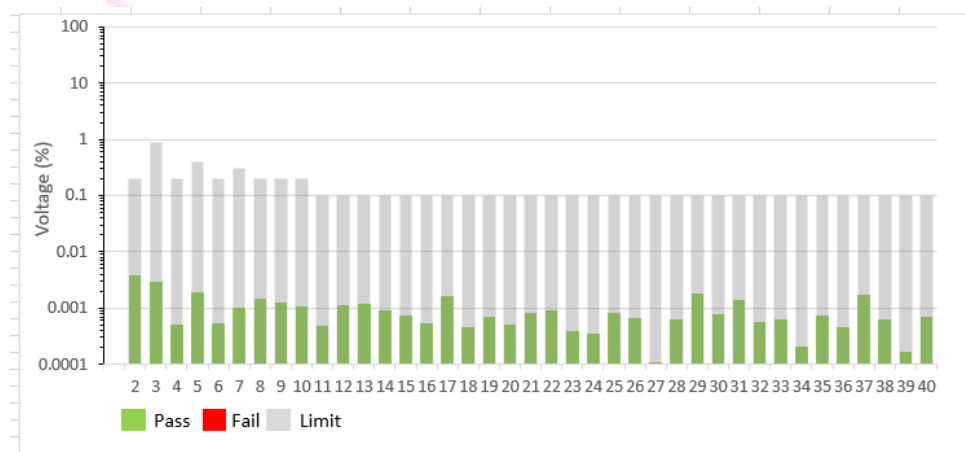
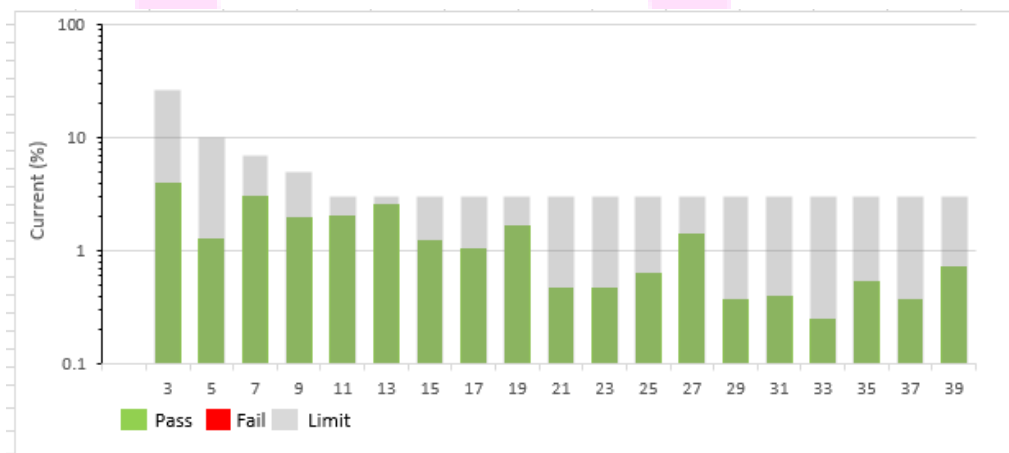
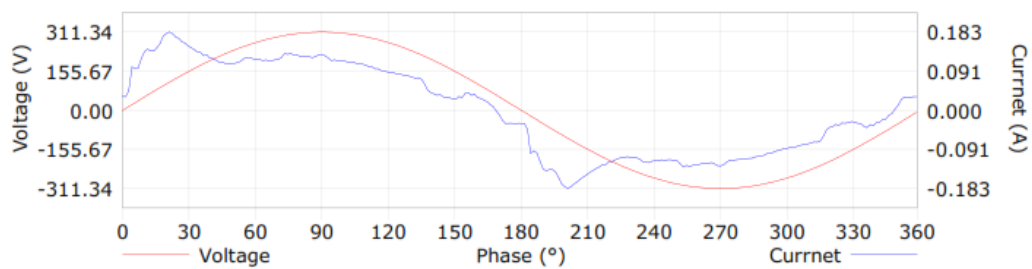
The Harmonic Current Emissions test setup can be seen in Figure 1.



Figure 1 - Test Setup of Harmonic Current Emissions

2.1.3 Measurement Result

Limit Class	: IEC 61000-3-2:2014, Class C with active input power < 25 W			
Test Result	: PASS			
Urms	: 220.12 V	Irms	: 0.1057 A	
UCF	: 1.415	ICF	: 1.729	
Voltage Freq	: 49.985 Hz	Current Freq	: 49.970 Hz	
Reactive Power	: 10.88 var	Apparent Power	: 23.26 VA	
Active Power	: 20.55 W	Power Factor	: 0.8837	
Phase Angle	: 23.57°	Displacement Factor	: 0.9166	
Start Phase	: -11.2°	Peak Phase	: 21.1°	End Phase : 168.8°



Current test Report

Limit Class : IEC 61000-3-2:2014, Class C with active input power < 25 W
Test Result : PASS

THD, THC, POHC

THD (%)	27.63	THC (A)	0.0280	POHC (A)	0.0047
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Basic Electric Parameter

Urms (V)	220.12	Voltage Freq (Hz)	49.985
Irms (A)	0.1057	ICF	1.729
Fundamental Current (A)	0.1018	Active Power (W)	20.55
Power Factor	0.8837	Displacement Factor	0.9166

Order	Current (%)	Limited (%)	Margin (%)	Result
3	0.896	3.400	26.35	PASS
5	0.808	1.900	42.52	PASS
7	0.508	1.000	50.81	PASS
9	0.159	0.500	31.72	PASS
11	0.135	0.350	38.52	PASS
13	0.163	0.296	54.98	PASS
15	0.128	0.257	50.01	PASS
17	0.080	0.226	35.37	PASS
19	0.016	0.203	7.84	PASS
21	0.116	0.183	63.05	PASS
23	0.120	0.167	71.81	PASS
25	0.075	0.154	48.81	PASS
27	0.085	0.143	59.89	PASS
29	0.068	0.133	51.42	PASS
31	0.070	0.124	56.44	PASS
33	0.020	0.117	17.10	PASS
35	0.020	0.110	18.09	PASS
37	0.011	0.104	10.85	PASS
39	0.003	0.099	3.30	PASS

Voltage Test Report

Limit Class : IEC 61000-3-2:2014, Class C with active input power < 25 W
Test Result : PASS

Item		Measured	Limited	Result
Voltage (V)		220.12	[215.60,224.40]	PASS
Frequency (Hz)		49.9854	[49.75,50.25]	PASS
Voltage CF		1.4145	[1.40,1.42]	PASS
Upk (°)		90.00	[87,93]	PASS
Order	Voltage (%)	Limited (%)	Margin (%)	Result
2	0.00	0.20	1.95	PASS
3	0.00	0.90	0.33	PASS
4	0.00	0.20	0.26	PASS
5	0.00	0.40	0.48	PASS
6	0.00	0.20	0.27	PASS
7	0.00	0.30	0.33	PASS
8	0.00	0.20	0.75	PASS
9	0.00	0.20	0.63	PASS
10	0.00	0.20	0.53	PASS
11	0.00	0.10	0.49	PASS
12	0.00	0.10	1.15	PASS
13	0.00	0.10	1.19	PASS
14	0.00	0.10	0.9	PASS
15	0.00	0.10	0.73	PASS
16	0.00	0.10	0.55	PASS
17	0.00	0.10	1.67	PASS
18	0.00	0.10	0.47	PASS
19	0.00	0.10	0.71	PASS
20	0.00	0.10	0.50	PASS
21	0.00	0.10	0.80	PASS
22	0.00	0.10	0.90	PASS
23	0.00	0.10	0.40	PASS
24	0.00	0.10	0.36	PASS
25	0.00	0.10	0.83	PASS
26	0.00	0.10	0.65	PASS
27	0.00	0.10	0.11	PASS
28	0.00	0.10	0.63	PASS
29	0.00	0.10	1.86	PASS
30	0.00	0.10	0.79	PASS
31	0.00	0.10	1.42	PASS
32	0.00	0.10	0.56	PASS
33	0.00	0.10	0.64	PASS
34	0.00	0.10	0.21	PASS
35	0.00	0.10	0.75	PASS
36	0.00	0.10	0.47	PASS
37	0.00	0.10	1.74	PASS
38	0.00	0.10	0.64	PASS
39	0.00	0.10	0.17	PASS
40	0.00	0.10	1.09	PASS

===== End of Report =====

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